

Tobacco Consumption, Problems and Solutions



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Outlines

- **Epidemiology of smoking in Saudi Arabia.**
- **Risks of smoking (Morbidity and Mortality).**
- **Effect of passive smoking on pregnancy, children ...**
- **How are you going to help the smoker to quit and how to overcome withdrawal symptoms.**
- **Update in pharmacological management, smoking cessation medication.**
- **Nicotine preparations, varenicline, bupropion ...**

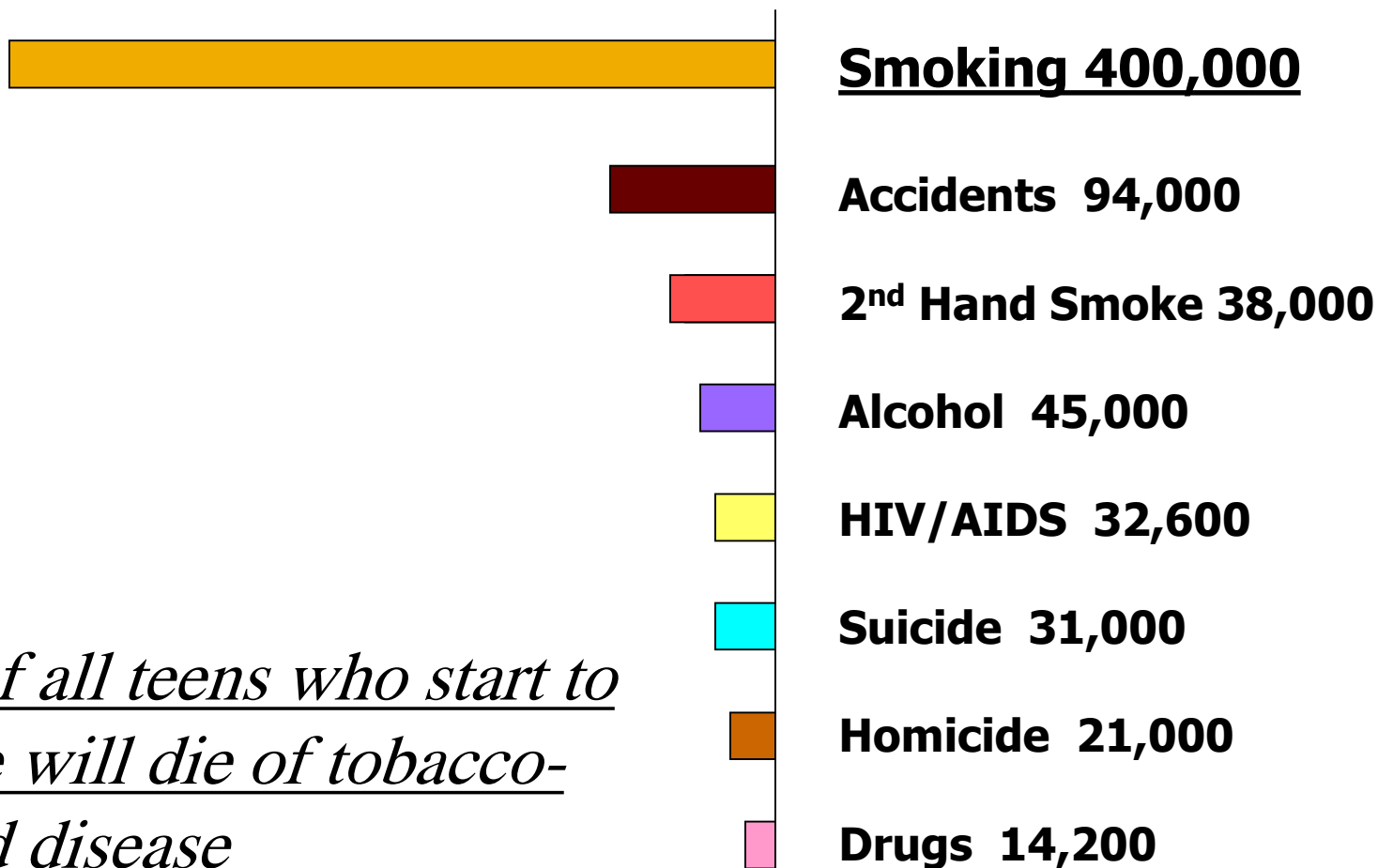
Epidemiology of smoking in Saudi Arabia

Tobacco's Deadly Toll

- 5 million deaths world wide each year
- 10 million deaths estimated by year 2030
- WHO estimates, there are approximately 1.1 billion smokers in the world

Consequences of Tobacco-Use:

Preventable Causes of Death



Half of all teens who start to smoke will die of tobacco-related disease

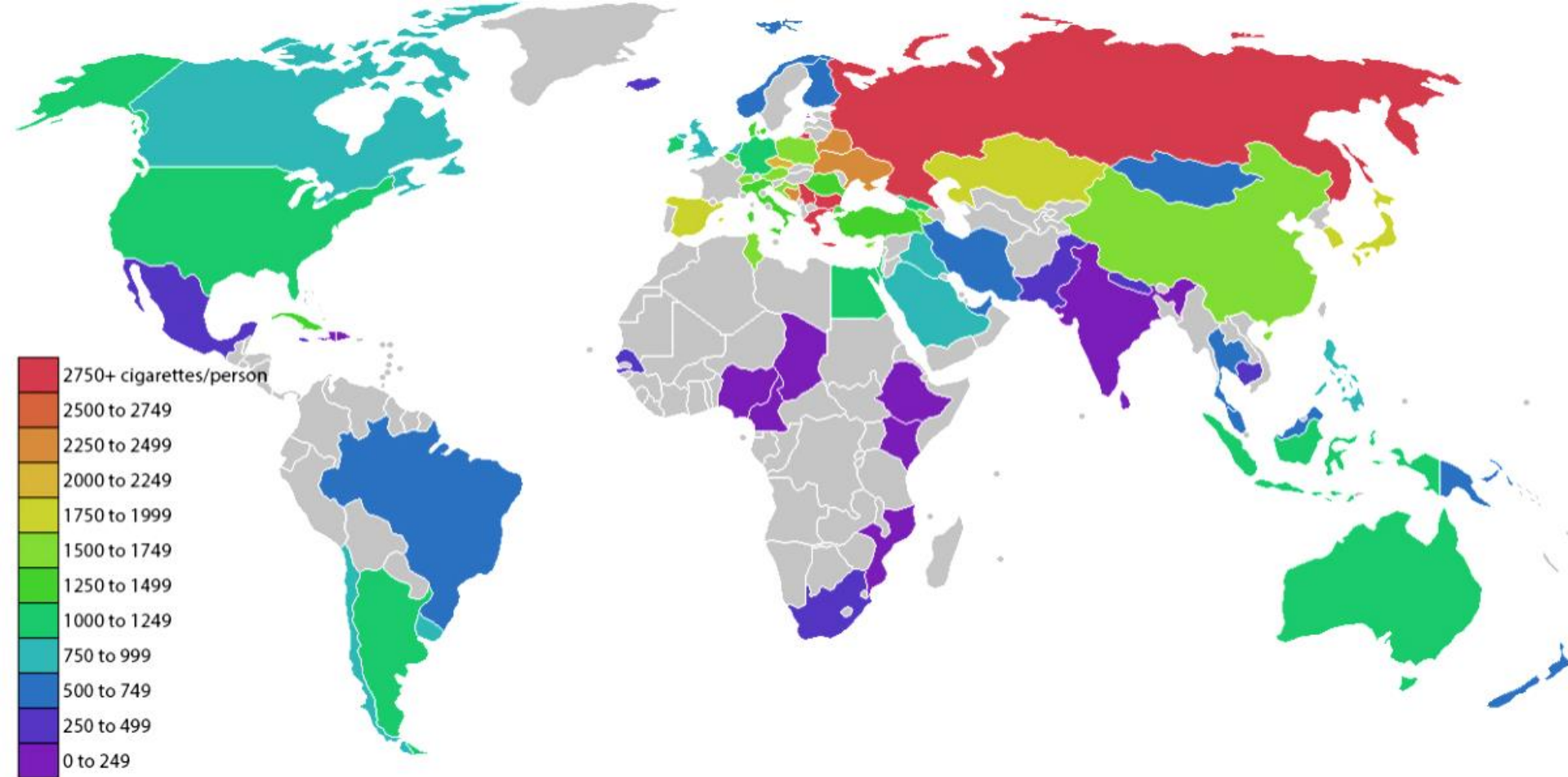
Global Prevalence

- In 2012, 21% of the global population aged 15 and above smoked tobacco.
- Men smoked at **five times the rate** of women. the average rates were 36% and 7% respectively.

World Health Organization



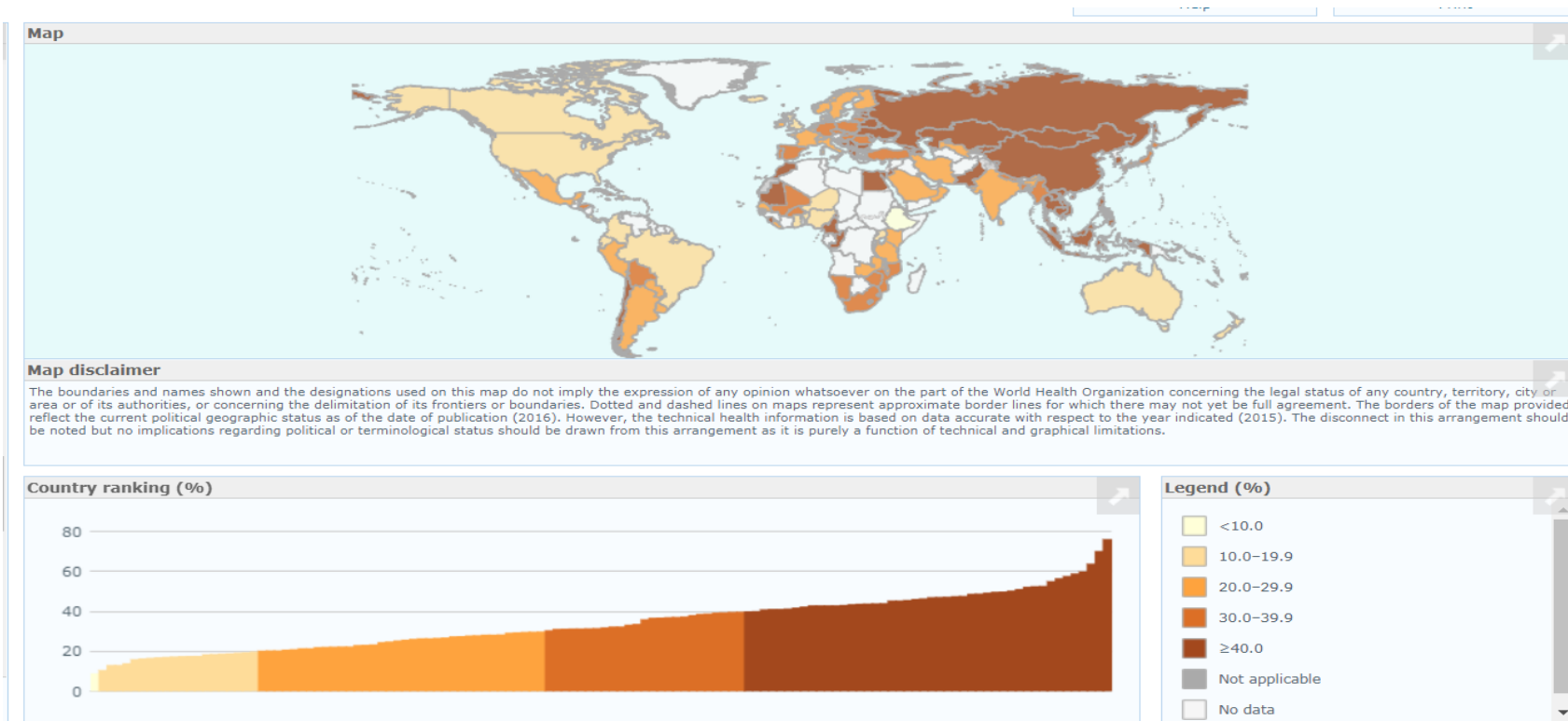
Who Smokes Most! 2012



The highest rates are all in Eastern Europe : average annual consumption can exceed 2,000 cigarettes per person.

The biggest smokers outside of Eastern Europe are South Koreans, Kazakhs, and Japanese

Prevalence of Tobacco smoking among persons aged 15 years and above % (Male) – 2015 WHO “SA 27.9%”



SAUDI ARABIA



Adult Smoking (15+ Y.O.)

% using tobacco daily: 2015



Male

24.9%

Even though fewer men smoke on average in Saudi Arabia than on average in very high-HDI countries, there are still more than 3295400 men who smoke cigarettes each day, making it an ongoing and dire public health threat.

Female

1.7%

Even though fewer women smoke in Saudi Arabia than on average in very high-HDI countries, there are still more than 157900 women who smoke cigarettes each day, making it an ongoing and dire public health threat.

Children Smoking (10-14 Y.O.)

% using tobacco daily: 2015

Boys

1.3%

Even though fewer boys smoke in Saudi Arabia than on average in very high-HDI countries, there are still more than 18200 boys who smoke cigarettes each day, making it an ongoing and dire public health threat.

Girls

0.18%

Even though fewer girls smoke in Saudi Arabia than on average in very high-HDI countries, there are still more than 2400 girls who smoke cigarettes each day, making it sign of an ongoing and dire public health threat.

Deaths

% caused by tobacco: 2016



Male

9.57%

Even though fewer men die from tobacco in Saudi Arabia than on average in very high-HDI countries, tobacco still kills 101 men every week, necessitating action from policymakers.

Female

4.94%

Even though fewer women die from tobacco in Saudi Arabia than on average in very high-HDI countries, tobacco still kills 34 women every week, necessitating action from policymakers.

Prevalence of Tobacco Product Consumption and Exposure among Healthcare Students in King Saud University in Riyadh, Saudi Arabia (2017)

- A total of **1207** healthcare students, (College of Medicine, College of Dentistry, College of Pharmacy, College of Nursing and College of Medical Applied Science)
- The prevalence of tobacco product smoking was **13.5%**.
- The highest in the college of nursery **19.23%**, and lowest in the college of pharmacy **10.11%**.
- The age group of 18-21 years old, the prevalence was only **9.54%**, while the age group of 22-25 was **19.25%**, and for 26 years old students or more was **33.33%**.
- The prevalence of smoking water pipe came to be **12.1%** and of small-pipe (Midwakh) **5.6%**.
- The prevalence of students with direct home exposure was **31.48%** and environment exposure such as hanging out with friends was **40.93%**.
- **Amin HS**, Alomair ANA, Alhammad AHA, Altwijri FAA, Altaweel AAA, et al. (2017) Prevalence of Tobacco Product Consumption and Exposure among Healthcare Students in King Saud University in Riyadh, Saudi Arabia. J Community Med Health Educ 7: 567

Prevalence of smoking among secondary school male students in Jeddah, Saudi Arabia: a survey study among students of age 16–22 years. (2013)

- ❖ The study included **695** students
- ❖ Current smokers came to be **(37%)**.
- ❖ The most common reasons given for smoking were:
 - Personal choice (50.8%)**
 - Peer pressure from smoker friends (32.8%)**.
- ❑ Many students researched the smoking hazards **(68.1%)**, but only **47.6%** knew about the bad effects of passive smoking.
- ❑ Two thirds of the smoking students wanted to quit smoking **(63.2%)**, especially if suitable help was available, and **75.1%** tried to quit.
- ❑ A third of the smoking students **(36.8%)** found it difficult to stop smoking in no-smoking areas.



BMC Public Health 2013, 13:1010

<http://www.biomedcentral.com/1471-2458/13/1010>

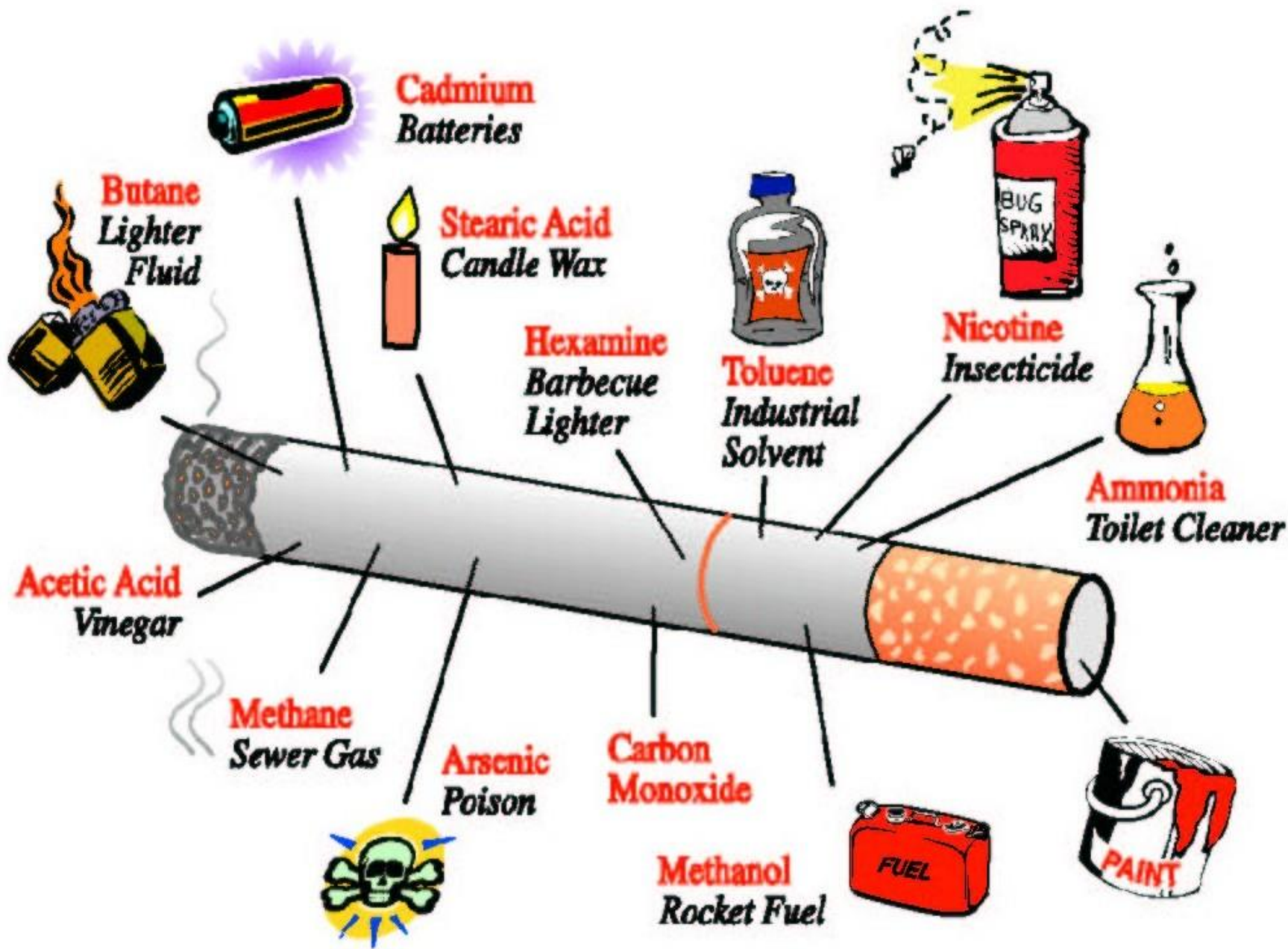
What is in tobacco ?

What is in tobacco



More than 4,000 substances, including:

- ★ **Tar:** black sticky substance used to pave roads
- ★ **Nicotine:** Insecticide
- ★ **Carbon Monoxide:** Car exhaust
- ★ **210 Polonium:** radio-active substance
- ★ **Acetone:** Finger nail polish remover
- ★ **Ammonia:** Toilet Cleaner
- ★ **Cadmium:** used batteries
- ★ **Ethanol:** Alcohol
- ★ **Arsenic:** Rat poison
- ★ **Butane:** Lighter Fluid

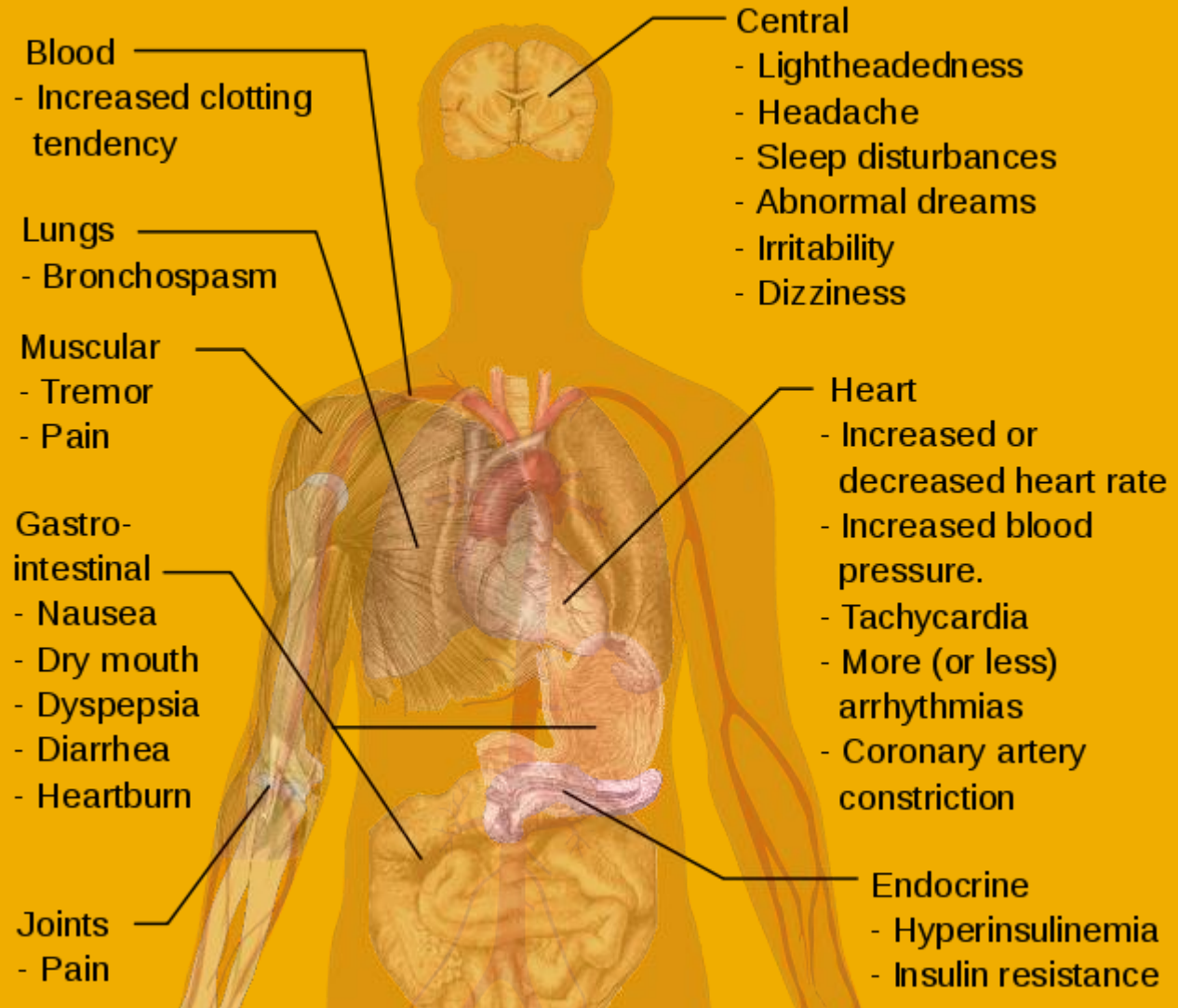


المكون	السيجارة	الشيشة
1- الزفت (Tar)	22mg	802 mg
2- النيكوتين (nicotine)	1.7 mg	3.0 mg
3- اول أكسيد الكربون (co)	17 mg	143mg
4- الزرنيخ (Arsenic)	80 mg	165mg
5- البريليوم (Beryllium)	300 mg	65mg
6- الكروميوم chromium	37mg	1340 mg
7- الكوبالت (Cobalt)	o.17mg	70mg
8- الرصاص (Lead)	60mg	6870mg

Is smoking addictive (I)

- All tobacco products contain nicotine
- Nicotine has been clearly recognized as a drug of addiction
- Tobacco dependence has been classified as a mental and behavioral disorder according to the WHO International Classification of Diseases, ICD-10 (Classification F17.2).

Side effects of **Nicotine**



Is smoking addictive (II)

- Smoking typically begins in adolescence
- if a person remains smoke-free throughout adolescence, it is highly unlikely that he or she will ever begin smoking
- intensive efforts be made to help young people stay smoke-free.



Definition

- Smoking refers to the inhalation and exhalation of fumes from burning tobacco in cigars, cigarettes and pipes



Types of smoking

- **Cigarettes:** Cigarettes are uniform in size and contain less than 1g of tobacco each. They are made from different blends of tobaccos, and wrapped with paper.
- **Cigars**
Most cigars are composed primarily of a single type of tobacco (air-cured and fermented), and they have a tobacco wrapper.
They can vary in size and shape and contain between 1 gram and 20 grams of tobacco.



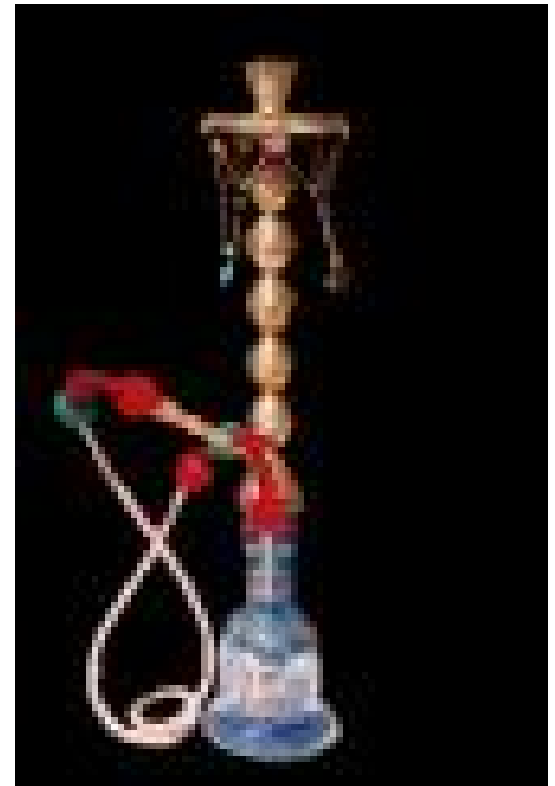
■ Hookah (Shisha) :

- A water pipe with a smoke chamber, a bowl, a pipe and a hose. Specially made tobacco is heated, and the smoke passes through water and is then drawn through a rubber hose to a mouthpiece.
- The average shisha-smoking session lasts an hour and research has shown that in this time you can inhale the same amount of smoke as from more than 100 cigarettes.



Water-Pipe

- Not safer than regular tobacco smoke.
- Causes the same diseases
- Raises the risk of lip cancer, spreading infections like tuberculosis.
- Users ingest about 100 times more lead from hookah smoke than from a cigarette.



E- cigarette



- electronic nicotine delivery systems (ENDS).
According to the FDA, e-cigarettes are devices that allow users to inhale an aerosol (vapor) containing nicotine or other substances.

Electronic Cigarette

- An **electronic cigarette** or **electronic Nicotine delivery system (ENDS)** is a battery-powered vaporizer which has a similar feel to tobacco smoking.
- Electronic cigarettes do not contain tobacco, although they do use nicotine from tobacco plants. They do not produce cigarette smoke but rather an aerosol, which is frequently but inaccurately referred to as vapor.

Electronic Vaping: Is It Harmless or a Snake in the Grass?

The past few weeks witnessed the death of a few people who were smoking electronic cigarettes (ECs) in the United States.^[1-4] Deaths included different age groups, including middle-aged individuals. One of them was a 50-year-old woman who had a history of health problems. She became seriously ill shortly after she started using EC and her symptoms progressed rapidly.^[1] The US Centers for Disease Control and Prevention (CDC), the Food and Drug Administration (FDA), and state health departments are investigating this outbreak; however, no definitive cause could be found.

Smoking ECs is also known as “vaping,” which may include the standard ECs, electronic shisha (hookah), electronic cigar, and electronic pipe.

Unfortunately, ECs have been promoted among conventional cigarette (CC) smokers as a useful tool that helps in stopping CC smoking and have become the most popular smoking-cessation aid in some countries like England.^[5] In addition, ECs have been promoted, particularly, among

formaldehyde, particles, and metals such as cadmium, nickel and chromium, and flavors.^[8] It is possible that the constituents and probably the toxicity of ECs aerosols differ significantly across different models of EC devices and liquids.

Short-term experimental human studies revealed acute cardiovascular changes of nicotine stimulant effects; nevertheless, there is still a lack of studies evaluating the long-term effects of ECs.^[8]

A major notion among ECs users is that ECs help in smoking-cessation of CC. However, is there good evidence to support this notion? Previous studies that reported improvement in smoking-cessation were observational. Such a design has apparent limitations and cannot be used as strong evidence to rule out the effects of self-selection. A new task force report by the European Respiratory Society indicated that the evidence supporting the efficacy of ECs as a quitting tool is limited and further studies are needed, particularly, studies that compare ECs with licensed smoking cessation

Bahammam AS. Electronic vaping: Is it harmless or a snake in the grass? J Nat Sci Med 2019;2:183-5.

من مقالي الافتتاحية في مجلة كلية الطب العلمية بجامعة الملك سعود (يناير 2020): غردت على تويتر بعشرين تغريدة في ثريد، كما يظهر أدناه:

- 1) في المتوسط، تتكون جلسة تدخين الشيشة الواحدة من 171 استنشاق (كل منها حوالي 0.5 لتر) بمدة تعادل 2.6 ثانية مدة بتردد 2.8 استنشاق / دقيقة
- 2) تفيد التقارير أن تدخين الشيشة اخترع في الهند من قبل أحد الأطباء خلال فترة الإمبراطور أكبر (1556 - 1605 م)، حيث أعتقد الطبيب أن تمرير الدخان من خلال الماء سيجعله أقل ضرراً أو حتى غير ضار
- 3) للأسف، تناقل مستخدمو الشيشة هذه المعلومة الخاطئة، وهم يعتقدون خطأً أن ممارسة تدخين الشيشة آمنة نسبياً مقارنة بتدخين السجائر
- 4) أجرت دراسة حديثة تقيماً كمياً لتأثيرات ترشيح المياه لدخان الشيشة على مستويات عدة معادن سامة، وأفادت أن النسبة المئوية لفلتر المعادن كانت 3% من إجمالي المعادن فقط. من غير المرجح أن هذا النقص الصغير سيحمي المدخن من التعرض للمعادن السامة المحتملة
- 5) تظهر الأبحاث الحديثة في المملكة، أن هناك زيادة مقلقة في تدخين الشيشة بين الشباب رغم اللوائح الصارمة الحالية على مبيعات التبغ للشباب
- 6) كشفت دراسة حديثة ستُنشر في عدد يناير 2020، في مجلة كلية طب جامعة الملك سعود على عینتين من مدخني السجائر ومدخني الشيشة، أن المجموعتين كان لديهما نتائج مماثلة في عدد شرايين القلب المريضة، والحاجة للقسطرة أو عمليات القلب، وتكرار الأعراض، والوفيات
- 7) بينت دراسات علمية عدة وجود كميات كبيرة من أول أكسيد الكربون، الألدھيدات، متعدد الحلقات، الهيدروكربونات العطرية (جميعها سامة)، والجزيئات متناهية الصغر، وجسيمات قابلة للتنفس في دخان الشيشة المستعملة حتى في التدخين السلبي
- 8) تبين الأبحاث أنه قد يكون تدخين الشيشة السلبي أكثر خطورة من التدخين السلبي للسجائر لاحتوائه على سموم أكثر
- 9) وعلاوة على ذلك، بينت الأبحاث أن الانبعاثات المباشرة من المواد السامة من الشيشة الخالية من التبغ مماثلة لتلك الموجودة في الشيشة المدخنة مع التبغ
- 10) يروج مصنعو وتجار الشيشة أن هناك بعض الملحقات التي يُزعم أنها تقلل من الآثار الضارة للدخان، مثل أبواق الفم التي تحتوي على الفحم المنشط أو القطن، إضافات كيميائية إلى وعاء الماء، وتجهيزات شبكة بلاستيكية لخلق فقاعات أصغر
- 11) ولكن الحقيقة وضحتها منظمة الصحة العالمية من أنه لم يثبت فعالية أي من الملحقات المذكورة أعلاه في التقليل من المخاطر والمضاعفات المرتبطة بتدخين الشيشة



توفيق الربيعة

@tfrabiah

السجائر الإلكترونية تحدي صحي كبير.
وسوف نبذل جهدنا للحد من استخدامها
وخطورتها.

Translate Tweet



@News_Brk24 · 28/09/2019

السلطات الصحية الأميركية تعلن تسجيل ارتفاع في
الأشخاص المصابين بأمراض في الرئة بسبب تدخين
السيجارة الإلكترونية مع 12 وفاة وأكثر من 800 حالة
إصابة مثبتة أو محتملة.



Types of smoking





- Active smoking





- **Mainstream smoke:**
The smoke exhaled by a smoker.

- **Sidestream smoke:**
Smoke from the lighted end of a cigarette, pipe, or cigar.



- Sidestream smoke has higher concentrations of cancer-causing agents (carcinogens) and is more toxic than mainstream smoke.
- it has smaller particles than mainstream smoke. These smaller particles make their way into the lungs and the body's cells more easily.



Effect of Passive Smoking

- **What is passive smoking?**
- Passive smoking means breathing in other people's tobacco smoke.
- Exhaled smoke is called **exhaled mainstream** smoke.
- The smoke drifting from a lit cigarette is called **sidestream smoke**.
- The combination of mainstream and sidestream smoke is called second-hand smoke (SHS).

Secondhand smoke (Passive Smoking)



Secondhand Smoke Exposure

- I don't smoke. Why should I be concerned about being around someone who does?



- **Secondhand smoke is dangerous.**
 - Secondhand smoke is a mixture of gases and fine particles that includes:
 - Smoke from a burning cigarette, cigar, or pipe tip
 - Smoke that has been exhaled or breathed out by the person or people smoking

■ **Third-hand smoke exposure** — Third hand

- smoke exposure refers to exposure to smoke components and their metabolic by-products from contact with surfaces that have adsorbed smoke. The smoke leaves a residue of nicotine and other toxic substances in household dust and on surfaces. Although not yet well studied, there is concern that contact with third hand smoke will result in absorption of toxins through the skin or ingestion from contamination of the hands.



Consequences of Tobacco Use

Risks of Smoking (Morbidity and Mortality)

- Cigarette smoking causes more than **480,000 deaths each year in the United States.**
- This is about **one in five deaths.**
- **Smoking causes more deaths each year than all of these combined:**
 - Human immunodeficiency virus (HIV)
 - Illegal drug use
 - Alcohol use
 - Motor vehicle injuries
 - Firearm-related incidents

Risks of smoking (Morbidity and Mortality)

- **Smokers are more likely than nonsmokers to develop:**
- **Heart disease, Stroke, and Lung cancer.**
- **Smoking is estimated to increase the risk of:**
 - **Coronary heart disease by 2 to 4 times**
 - **Stroke by 2 to 4 times**
 - **Lung cancer by 25 times**

Risks from Smoking

Smoking can damage every part of the body

Cancers

Head or Neck

Lung

Leukemia

Stomach

Kidney

Pancreas

Colon

Bladder

Cervix

Chronic Diseases

Stroke

Blindness

Gum infection

Aortic rupture

Heart disease

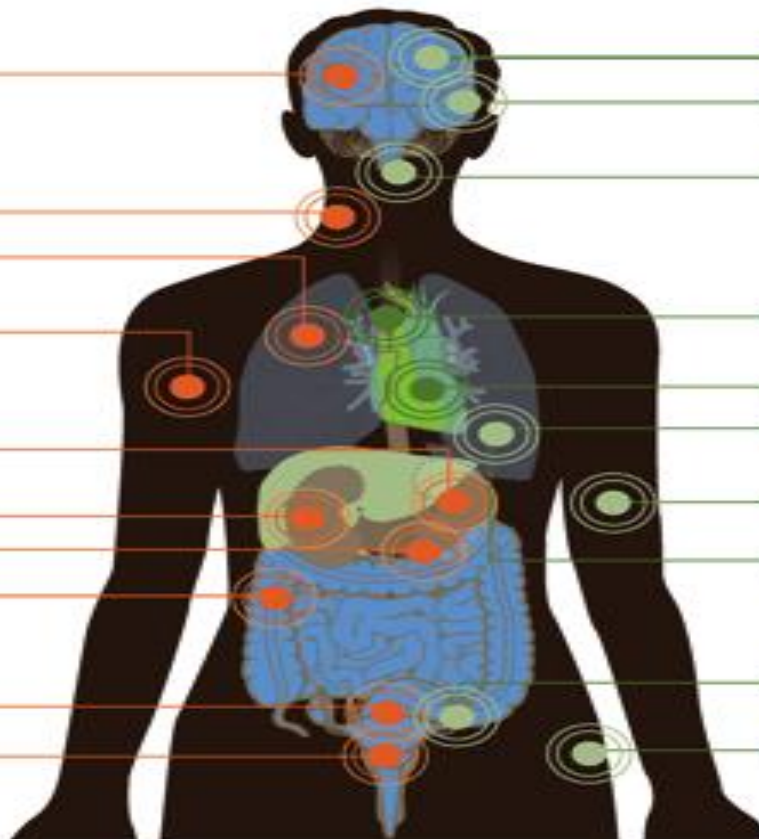
Pneumonia

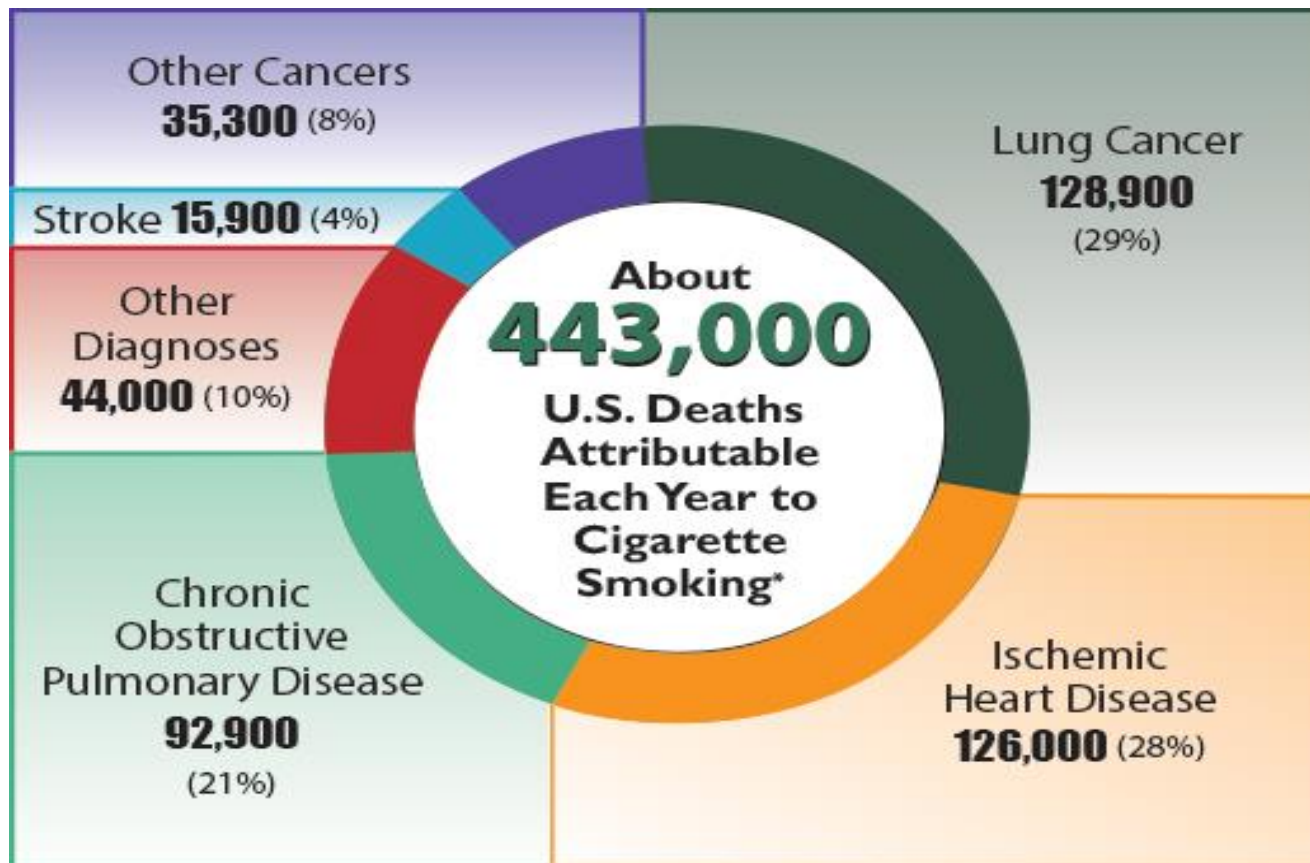
Hardening of the arteries

Chronic lung disease & asthma

Reduced fertility

Hip fracture





Average annual number of deaths USA 2000–2004

Source: CDC SAMMEC, MMWR 2008;57(45):1226–1228. (http://www.cdc.gov/tobacco/data_statistics/mmwr/byyear/2008/mm5745a3/intro.htm).

Different Consequences of Smoking

- Health (short term, long term)
- Economic (individual, family, community)
- Social (family, community)
- Development (community)
- Religious (individual, community)
- Premature death

Health Effects (I)

- Causes more than 25 different diseases
- Affects different body-systems, especially:
 - Gastro-intestinal system
 - Respiratory tract
 - Cardio-vascular system
 - Urinary system
 - Others

Skin

Wrinkles, capillaries and premature ageing and scarring are few smoking effects on skin



Oro-dental Problems:



Above: Cavities

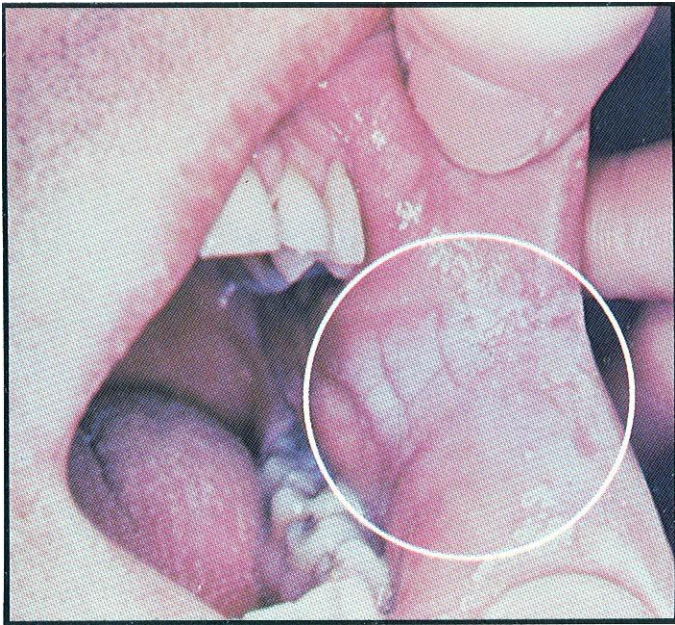
Below: Gingivitis



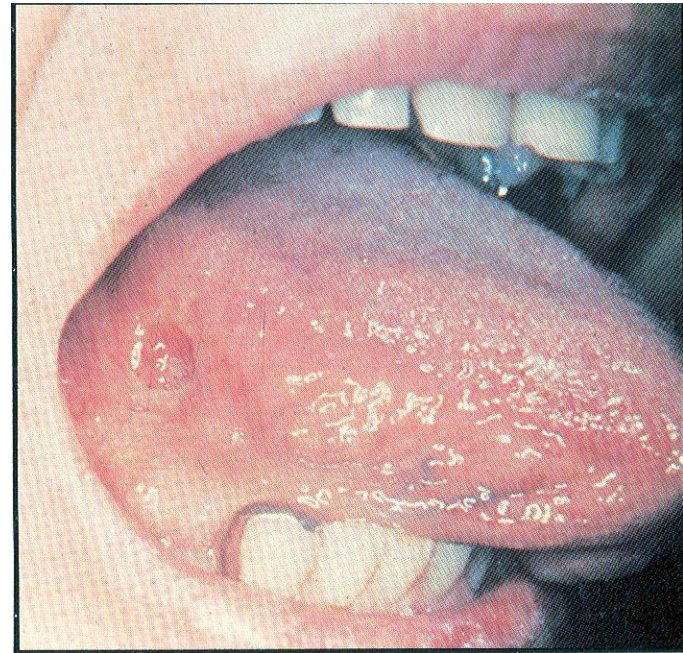
Overall poor oral health

- Stained teeth
- Gum inflammation
- Black hairy tongue
- Oral cancer
- Delayed healing of the gums

Consequences of chewing tobacco:

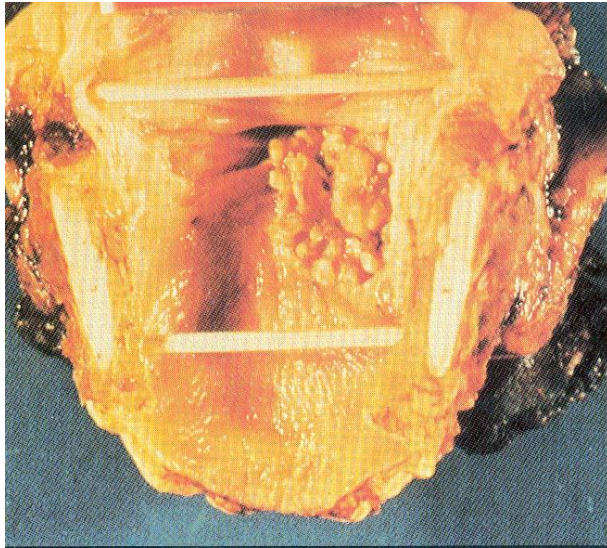


Leukoplakia



Oral cancer

Laryngeal Cancer



Symptoms:

- Persistent hoarseness
- Chronic sore throat
- Painful swallowing
 - Pain in the ear
- Lump in the neck



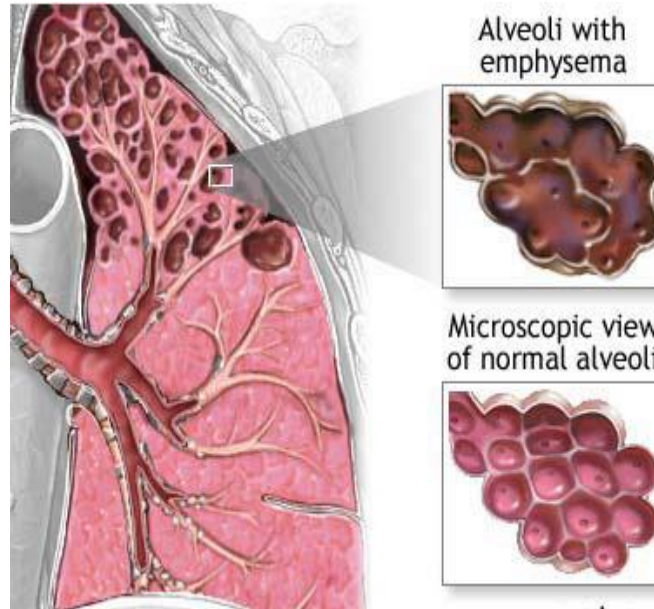
Over 80% of deaths from laryngeal cancer are linked to smoking

Smoking and Respiratory System

- Lung diseases caused by smoking include:
- **COPD**, which includes **emphysema** and **chronic bronchitis**.
- Smoking can cause lung disease by damaging the airways and the alveoli.
- In presence of **asthma**, tobacco smoke can trigger an attack or make an attack worse.
- Smokers are **12 to 13 times** more likely to die from **COPD** than nonsmokers.
- Cigarette smoking causes most cases of **lung cancer**.

Emphysema:

Healthy lung



Emphysema lung

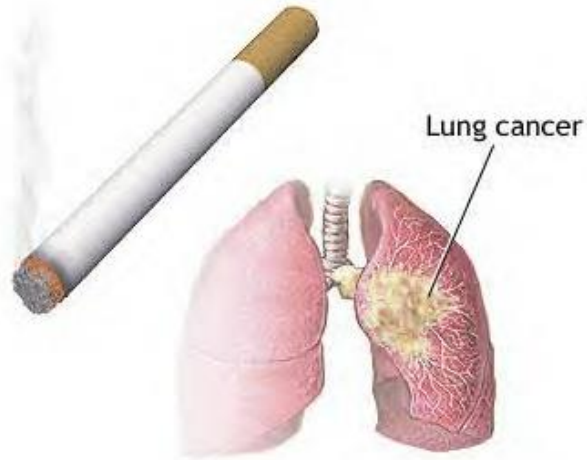
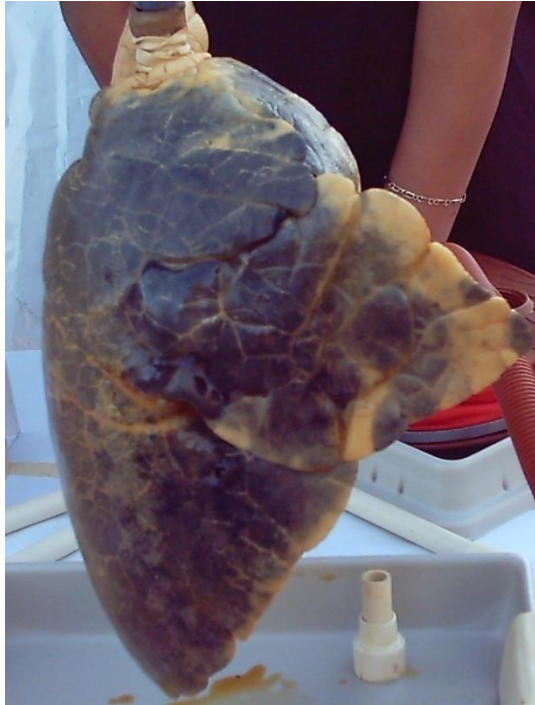


Symptoms Include

Shortness of breath; chronic cough;
wheezing; anxiety; weight loss; ankle,
feet and leg swelling; fatigue, etc

Lung Cancer:

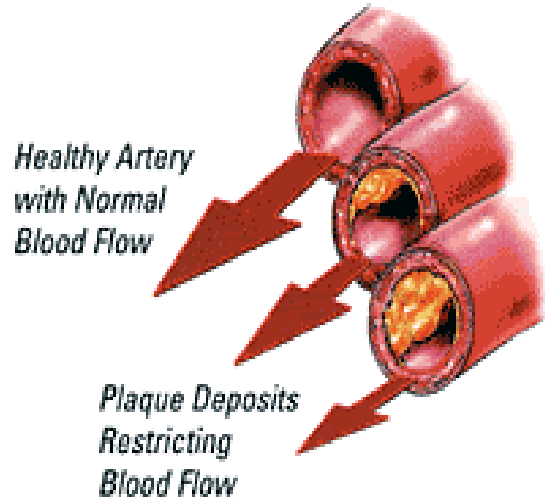
The uncontrolled growth of abnormal cells in one or both lungs



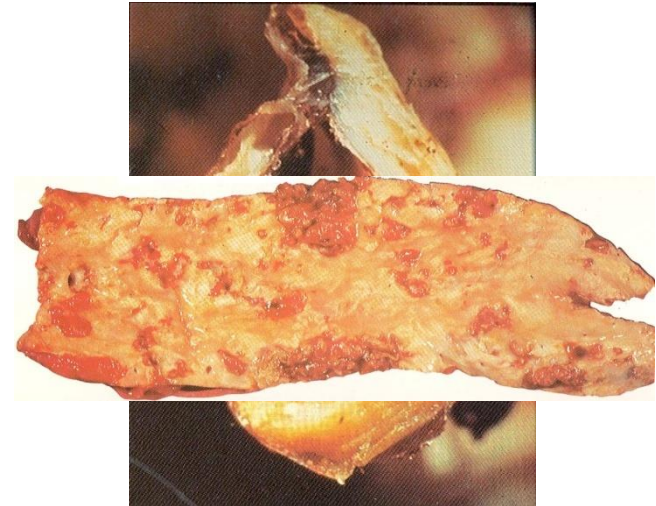
Lung cancer kills more people than any other type of cancer



Arteriosclerosis & Atherosclerosis:



Healthy artery



Damaged
artery

Smoking and Cardiovascular System

- Smoking causes **stroke** and **coronary heart disease** — the leading causes of death in the United States.
- Smoking damages **blood vessels**.
- **Walls of Arteries are thicken and lumen grow narrower (Atherosclerosis)**
- **The heart beat faster and blood pressure goes up.**
- **Thrombosis can also form and lead to; IHD, PVD and Stroke.**

- **Even people who smoke fewer than five cigarettes a day can have early signs of cardiovascular disease.**

Peripheral Vascular Disease



A TIP FROM A
**FORMER
SMOKER**

ALLOW EXTRA TIME TO PUT ON YOUR LEGS.

Brandon, Age 31, Diagnosed at 18
North Dakota

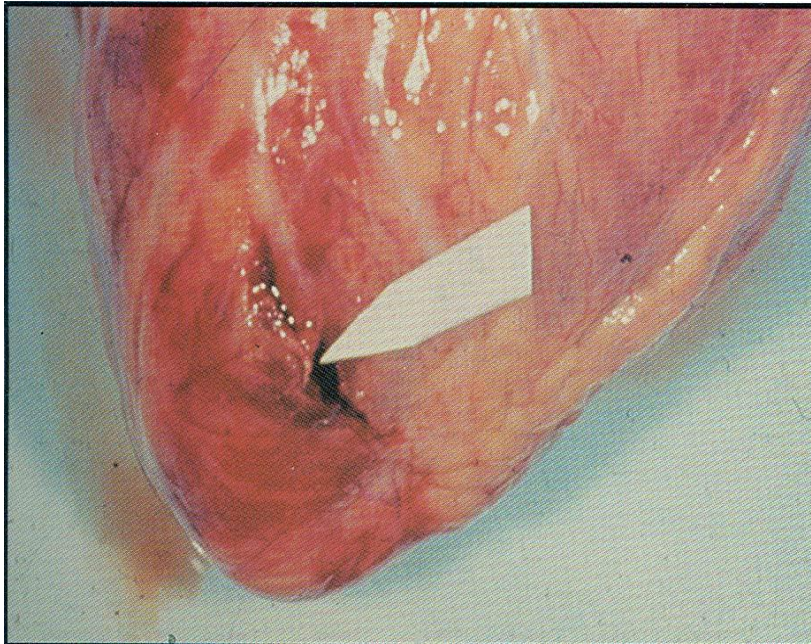


Smoking causes immediate damage to your body. For Brandon, it caused Buerger's disease, which cut off blood flow and led to amputation. You can quit. For free help, call **1-800-QUIT-NOW**.



**U.S. Department of
Health and Human Services**
Centers for Disease
Control and Prevention
www.smokefree.gov

Heart Attack:

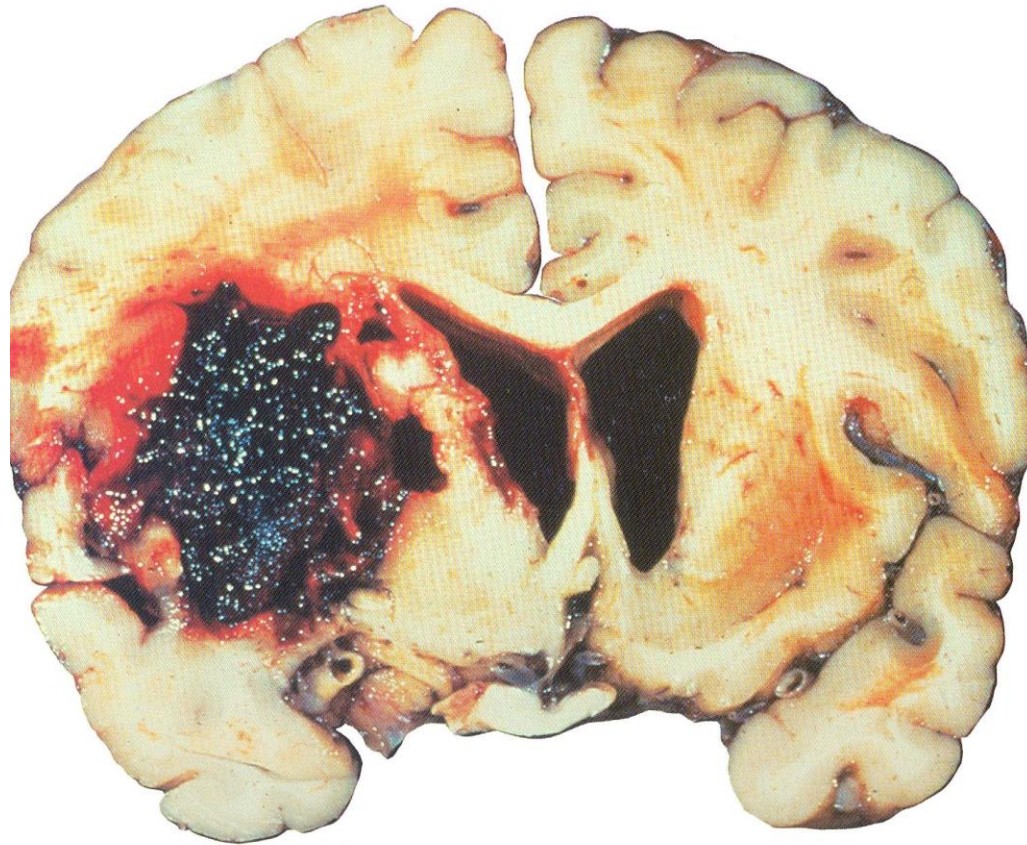


Torn heart wall: Result of over-worked heart muscle

Smokers are twice as likely as Nonsmokers to have a heart attack

Quitting smoking rapidly reduces the risk of coronary heart disease

Stroke:



This brain shows stroke damage, which can cause death or severe mental or physical disability

Smoking and Cancer

- Smoking can cause cancer almost anywhere in your body:
 - ❑ Trachea, bronchus, and lung
 - ❑ Bladder
 - ❑ Esophagus
 - ❑ Larynx
 - ❑ Oropharynx (includes parts of the throat, tongue, soft palate, and the tonsils)
- *If nobody smoked, one of every three cancer deaths in the United States would not happen.*

Effect of passive smoking on pregnancy and children



Effect of Passive Smoking on Pregnancy and Children

- Kids are particularly at risk for the effects of secondhand smoke because their bodies are still growing and they breathe at a faster rate than adults.
- Conditions have been linked to secondhand smoke exposure in children:
 - Sudden infant death syndrome (SIDS)
 - More respiratory infections (such as bronchitis and pneumonia)
 - More severe and frequent Asthma attacks
 - Ear infections
 - Chronic cough

Children & Secondhand Smoke

- *38% of children aged 2 months to 5 years are exposed to **SHS** in the home.*
- *Up to 2,000,000 **ear infections** each year*
- *Nearly 530,000 doctor visits for **asthma***
- *Up to 436,000 episodes of **bronchitis** in children under five*
- *Up to 190,000 cases of **pneumonia** in children under five*

Effect of Passive Smoking on Pregnancy and Children

- Smoking during pregnancy can lead to:
 - ❑ Premature delivery,
 - ❑ Low birth weight,
 - ❑ Sudden Infant Death Syndrome (SIDS),
 - ❑ Limited mental ability, trouble with learning.

The more cigarettes a mother-to-be smokes, the greater the danger to her baby causing **5 %** of infant deaths and **10 %** of preterm births.



**If smoking is so bad for us,
why do we start ?**





WHY?

- There's **no single reason** why people begin to smoke.
- It Has been estimated that **80%** of Adult smokers **start smoking as children**, and **30%** of children have tried smoking by the age of 11.

Social Factors

- Parental influences
- Friendship groups
- Influence of peer
- Low socioeconomic status
- The need to fit in.
- It looks cool.

Individual influence

- Wrong personal beliefs and values about smoking
- Self esteem
- Curiosity

Environmental influence

- Availability
- Accessibility
- Price
- Media
- Tobacco industry intensive advertising

Why targeting youth ?



- Philip Morris executive: "hitting the youth can be more efficient even though the cost to reach them is higher, because they are willing to experiment."
- They have more influence over others in their age group than they will later in life, and they are far more loyal to their starting brand."

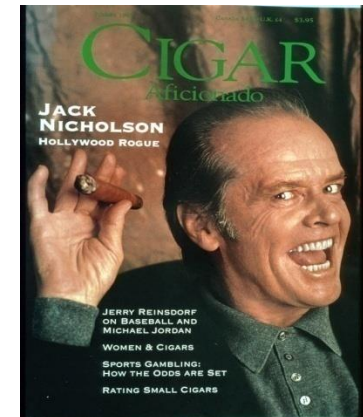
Why targeting youth ?



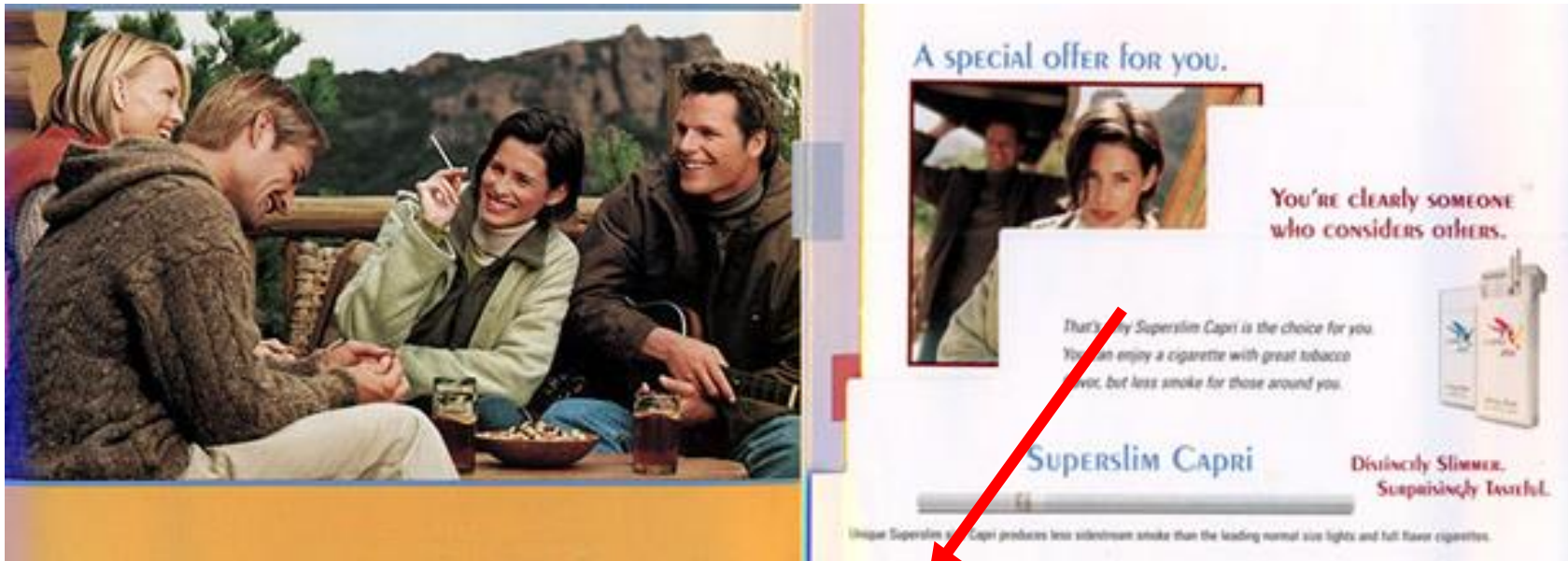
- The younger the age when smoking begins, the longer the smoking cycle.
- Young persons are also more vulnerable because they are likely to be less aware of the addictive nature of nicotine and the harmful effects of tobacco consumption.

Targeting youth through activities and media

- These principles also work for:
 - Sports
 - Concerts
 - Parties
 - Movies
 - Other media



Industry attempts to make more socially acceptable cigarettes



The image is a composite. On the left, a photograph shows four people (three men and one woman) sitting around a table outdoors, smiling and socializing. One woman is holding a cigarette. On the right, a cigarette advertisement for 'Superslim Capri' is displayed. The ad features the headline 'A special offer for you.' and the main text: 'You're clearly someone who considers others.' Below this, it says: 'That's why Superslim Capri is the choice for you. You can enjoy a cigarette with great tobacco flavor, but less smoke for those around you.' The brand name 'Superslim Capri' is prominently displayed. To the right of the text is an image of a pack of cigarettes. At the bottom of the ad, it says 'Distinctly Slimmer. Surprisingly Tasty!' and a small line of text at the very bottom states: 'Unique Superslim Capri produces less sidestream smoke than the leading normal size lights and full flavor cigarettes.' A red arrow points from the main text of the advertisement down towards the quote below.

“You’re clearly someone who considers others. That’s why Superslim Capri is the choice for you...great tobacco flavor, but less smoke for those around you.”



Every doctor in private practice was asked:

*—family physicians, surgeons, specialists...
doctors in every branch of medicine—*

“What cigarette do you smoke?”



According to a recent Nationwide survey:

More Doctors Smoke Camels

than any other cigarette!

THE
“T-ZONE” TEST
WILL
TELL YOU



The “T-Zone”—T for taste and T for throat—is your own laboratory, your proving ground, for any cigarette. For only your taste and your throat can decide which cigarette tastes best to you... and how it affects your throat. On the basis of the experience of many, many millions of smokers, we believe Camels will test your “T-Zone” to a “T.”



Not a guess, not just a trend...but an actual fact based on the statements of doctors themselves to 3 nationally known independent research organizations.

Yes, your doctor was asked...along with thousands and thousands of other doctors from Maine to California. And they've named their choice—the brand that more doctors named as their smoke is Camel! Three nationally known independent research organizations found this to be a fact. Nothing unusual about it. Doctors smoke for pleasure just like the rest of us. They appreciate, just as you, a mildness that's cool and easy on the throat. They too enjoy the full, rich flavor of expertly blended cognizer tobaccos. And they named Camels...more of them named Camels than any other brand. Next time you buy cigarettes, try Camels.

A hand with red nail polish is shown from the wrist up, standing firmly on a large pile of discarded, lit cigarettes. The background is a soft, out-of-focus white. The text "Solutions: Prevention & Control" is overlaid in a bold, yellow font with a slight shadow effect.

Solutions: Prevention & Control

Prevention & Control

- **Globally:** governed / advised by the Framework Convention on Tobacco Control **FCTC** (ratified by KSA in 2005); **WHO-MPOWER** (first launched in 2008)
- **Nationally:** coordinated by Ministry of Health - Tobacco Control Program in KSA (TCP); other agencies' efforts
- **Conceptually:**
 - Primary prevention = tobacco use [smoking] **prevention**
 - Secondary prevention = tobacco use [smoking] **cessation (quitting smoking)**
 - Tertiary prevention = dealing with its consequences

WHO-MPOWER

- Monitoring tobacco use and prevention policies
- Protecting people from tobacco smoke
- Offering help to quit
- Warning of dangers of tobacco
- Banning tobacco advertising, promotion and sponsorship
- Increasing taxing on tobacco

Primary Prevention

- Strengthening religious beliefs / “fatwas”
- Legislations for banning smoking in public places
- Banning advertising, especially to youngsters
- Increasing taxation on tobacco products
- Public health education through:
 - Health warning labeling on tobacco products
 - Using mini and mass media
 - Banning smoking in drama

Solutions

Saudi Arabia

Current Policy in Saudi Arabia

Protect from Smoke

All public places completely smoke-free is the best practice

Smokefree

✓	✓
HealthCare Facilities	Educational Facilities
✓	✓
Universities	Government Facilities
✓	✗
Indoor Offices	Restaurants
✗	✓
Pubs and Bars	Public Transport
✗	✓
All Other Indoor Public Places	Funds for Smokefree Enforcement

Raise Taxes

WHO Benchmark

Minimum

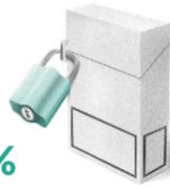
70%

of Retail Price is Excise Tax

Saudi Arabia

48.78%

of Retail Price is Excise Tax



Offer Help

National quit line and both NRT and cessation-services cost-covered is the best practice

Quitting Resources National quit line, and both NRT and some cessation services cost-covered

National Quitline Yes

Warn About the Dangers to Tobacco Users on Product Packaging

A plain, standardized pack with a large health warning is the best practice

Type of Warning Label	Graphic
Percent of Pack Covered	65%
Plain Packaging	No



Warn About the Dangers to the Whole Population in a Media Campaign

Ran a National Anti-Tobacco Campaign in 2014 or 2016 Yes

Appropriate Characteristics

Part Of A Comprehensive Tobacco Control Program	Yes
Pre-Tested With The Target Audience	Yes
Target Audience Research Was Conducted	Yes
Aired On Television And/Or Radio	No
Utilized Media Planning	Yes
Earned Media/Public Relations Were Used To Promote The Campaign	Yes
Process Evaluation Was Used To Assess Implementation	Yes
Outcome Evaluation Was Used To Assess Effectiveness	Yes



Enforce Bans on Advertising

Ban on all forms of direct and indirect advertising is the best practice

Number of Direct Ad Bans	Number of Indirect Ad Bans	Ad Ban Compliance Percent
7/7	7/10	Moderate
possible bans	possible bans	



Direct bans

- National TV and radio
- International TV and radio
- Local magazines and newspapers
- International magazines and newspapers
- Billboard and outdoor advertising
- Advertising at point of sale
- Advertising on internet

Indirect bans

- Free distribution in mail or through other means
- Promotional discounts
- Non-tobacco products identified with tobacco brand names
- Brand name of non-tobacco products used for tobacco product
- Appearance in TV and/or films: tobacco brands (product placement)
- Appearance in TV and/or films: tobacco products
- Ban on the publicity of financial or other sponsorship or support by the tobacco industry of events, activities, individuals

*How are you going to help the smoker to **Quit***
and how to overcome withdrawal
symptoms?

Management of smoking cessation

NO  **SMOKING**

Control Measures

Assess the **Dependence first:**

- ❑ The time of the first cigarette at morning.
- ❑ The number of cigarettes per day.

Why is it so hard to quit smoking?

Nicotine

- Found naturally in tobacco, which is as **addictive** as heroin or cocaine.
- Over time, a person becomes **physically dependent** on and **emotionally addicted** to nicotine.
 - ▣ The **physical dependence** causes unpleasant withdrawal symptoms when you try to quit.
 - ▣ The mental dependence (addiction) make it hard to stay away from nicotine after quit.

Why quit smoking now?

- No matter how old or how long a person's smoked, quitting can help live longer and be healthier.
- People who stop smoking before **age 50** cut their risk of dying in the **next 15 years** in **half** compared with those who keep smoking.
- **Ex-smokers** enjoy a higher quality of life – they have fewer illnesses.

Why quit smoking now?

Immediate rewards of quitting smoking:

- ❖ Breath smells better
- ❖ Stained teeth get whiter
- ❖ Bad smell in clothes and hair go away
- ❖ Yellow fingers and fingernails disappear
- ❖ Food tastes better
- ❖ Sense of smell returns to normal
- ❖ Everyday activities (such as climbing stairs or light housework) no longer leave them out of breath
- ❖ They can be in smoke-free buildings without having to go outside to smoke.
- ❖ Reduce the Cost
- ❖ Social acceptance

Getting help with the Mental and Physical Addiction

Some people are able to quit on their own, without the help of others or the use of medicines. But for many smokers, it can be hard to break the social and emotional ties to smoking while getting over nicotine withdrawal symptoms at the same time.

Quit-smoking programs:

- Tobacco Control Program; Ministry of Health (<http://www.sa-tcp.com>)
- Purity Organization; Ministry of Social Affairs (<http://naqa.org.sa/>)
- **Support of family and friends:**
- Increase rate of quitting

KSA Tobacco Control Program 937



<http://www.tcpmoh.gov.sa/>

منتدى برنامج مكافحة التدخين

اتصل بنا :  

#هدفنا_تقول_بطلت



التدخين و المرأة



التدخين و الصحة



البرنامج الإلكتروني



حجز المواعيد في
عيادات الإقلاع عن
التدخين



اللجان الخليجية
والاتفاقيات
العالمية



اللجنة الوطنية



المسابقات



مشاركتي



الإهداءات



الأخبار



مكتبة الفيديو



مكتبة البرنامج



خدمات عيادة الإقلاع عن التدخين

توفر "العيادة" مجموعة متكاملة من الخدمات تشمل

الخدمات العلاجية



الخدمات التوعوية



المتابعة ما بعد العلاج



الاستشارات الطبية



• حيث يدعم "العيادة" أيضاً مركز اتصال يقوم بالاتصال الدوري بالمراجعين، ومتابعة تطور حالاتهم، وتوجيههم لخيفية استكمال البرنامج العلاجي والحصول عليه والرد على أي استفسار يرد من قبل المستفيدين من الخدمة.

• جميع الخدمات تقدمها وزارة الصحة مجاناً للمدخنين من الجنسين لمساعدتهم على الإقلاع.

كيف أقلع سالم عن التدخين؟





حي العقيق - مخرج ٤ - شارع السليمانية
(غرب)

مركز الاتصال

حيث يتم التواصل مع المستفيد من الخدمة دورياً من قبل المختصين للتأكد من استفادته من الخدمة والرد على أي استفسارات قد يحتاجها.

بالإضافة إلى أنه يتواجد بالعيادة عدد من الإخصائيين النفسيين من الجنسين لمساعدة المراجعين عن الإقلاع عن التدخين وتقديم الجلسات التي تهدف إلى تقوية الحافز لدى المراجع وتعزيز الثقة لديه على إتخاذ القرار الجريء بالتوقف عن التدخين والإقلاع عنه نهائياً.

متابعة الحالات



علاج مجاني



استشارات طبية



تثقيف صحي



للحجز بالعيادات التوعوية و العلاجية
لمكافحة التدخين بكافة مناطق المملكة

WWW.TCPMOH.GOV.SA

وزارة الصحة
Ministry of Health
الوكالة للصحة العامة



#هدفنا_تقول_بطلت

TcpMoh

العيادات المرشحة لحملة برنامج مكافحة التدخين

#ساعدنا_نساعدك
36,970 views

الرياض - القصيم

- الرياض (شرق) مركز 2 (رجال - نساء)
- الرياض (غرب) مركز صحي العريجات الا
- الرياض (شمال) مركز صحي الامير سلط
- الرياض (شمال) مركز صحي الازدهار
- ... 19 more

مكة - المدينة - جدة - الطائف - القنفذة

- مكة (وسط) عيادة مكافحة التدخين بمكة
- مكة (غرب) مركز الرعاية الاولية بالإسكا
- مكة (شمال) عيادة مركز صحي الجموم
- مكة (وسط) عيادة مركز صحي الضيافة
- ... 14 more

المنطقة الشرقية - الأحساء



Withdrawal symptoms can include any of the following:

Peak: first to second week where the relapse rate is high)

- Dizziness (which may last 1 to 2 days after quitting)
- Feelings of frustration, impatience, and anger
- Depression, Anxiety, Tiredness and Irritability
- Sleep disturbances
- Trouble concentrating
- Restlessness or boredom
- Headaches
- Increased appetite and Weight gain
- Constipation and gas
- Cough, dry mouth, sore throat, and nasal drip
- Chest tightness

Dealing with smoking withdrawal

- If someone's been smoking for any length of time, smoking has become linked with a lot of the things in daily life – waking up in the morning, eating, reading, watching TV, and drinking coffee, for example.

Tips to overcome withdrawal symptoms

- **Avoid temptation.** Stay away from people and places that tempt you to smoke.
- **Change your habits.** Switch to juices or water instead of coffee. Take a brisk walk instead of a smoke break.
- **Choose other things for your mouth:** Use substitutes you can put in your mouth such as sugarless gum or hard candy, raw vegetables such as carrot sticks.
- **Get active with your hands:** Do something to reduce your stress. Exercise or do something that keeps your hands busy, such as needlework or woodworking.

Tips to overcome withdrawal symptoms

- **Breathe deeply:** When you were smoking, you breathed deeply as you inhaled the smoke.
- **Delay:** If you feel that you're about to light up, hold off. Tell yourself you must wait at least 10 minutes.
- **Reward yourself.** What you're doing isn't easy, and you deserve a reward. Put the money you would have spent on tobacco in a jar every day and then buy yourself a weekly treat.

If patient is not ready to quit “The model of 5 Rs”

- **Relevance** – Motivational information has the greatest impact if it is personally relevant to the patient’s circumstances.
- **Risks** – Ask the patient to identify potential negative consequences associated with tobacco use, including:
 - **Acute health Risks** – shortness of breath, harm to pregnancy
 - **Long-term Risks** – heart attacks and stroke, lung, and other cancers
 - **Environmental Risks** – Increased risk of lung cancer in partners, respiratory infections in children of smokers

If patient is not ready to quit “The model of 5 Rs”

- **Rewards** — Encourage the patient to identify potential benefits of quitting smoking and highlight those most relevant to the patient.
- **Roadblocks** — Invite the patient to identify barriers or impediments to quitting and suggest treatments
- **Repetition** — Repeat the motivational intervention every time an unmotivated patient visits the clinic setting.

The Healing Time Line

A realistic look at how long it takes for your body to recover after your last puff



● Twenty minutes after quitting, your blood pressure decreases.

● Eight hours: The amount of carbon monoxide in your blood drops back to normal while oxygen increases to normal.

● Forty-eight hours: Your nerve endings start to regenerate, and you can smell and taste things better.

● One to nine months: Coughing, sinus congestion, fatigue, and shortness of breath decrease.

● One year: The added risk of heart disease declines to half of that of a smoker.

● Five years: Your stroke risk may be reduced to that of someone who never smoked.

● Ten years: Your risk of all smoking-related cancers such as lung, mouth, and throat decreases by up to 50 percent.

● Fifteen years: Your risk of heart disease and smoking-related death is now similar to that of someone who never smoked.

SOURCE: AMERICAN LUNG ASSOCIATION

E-cig in Smoking Cessation

- Two 2014 reviews found **no evidence** that e-cigarettes are more effective than existing nicotine replacement treatments for smoking cessation.



Nicotine Replacement

Therapy (NRT)

- ❑ Nicotine Patch
- ❑ Nicotine Gum
- ❑ Nicotine Inhaler
(Deliver Nicotine Fast)
- ❑ Nicotine Nasal Spray



Nicotine Replacement Therapy

(NRT)

- The goal of nicotine replacement therapy (NRT) is to provide nicotine to a smoker without using tobacco, thereby **relieving nicotine withdrawal symptoms** as the smoker breaks the behavior of cigarette smoking.
- The initial dosing of most NRT products is based on the number of cigarettes smoked daily.

Nicotine Replacement Therapy

(NRT)

- **Transdermal nicotine patch:**
- The nicotine patch is the simplest NRT product for a smoker to use and provides the most continuous nicotine delivery of all NRT products.
- The patch has a long-acting, slow-onset pattern of nicotine delivery, producing relatively constant withdrawal relief over **24 hours**.
- Compliance with the patch is high.
- The patch is available over the counter.

Nicotine Replacement Therapy (NRT)

- ❑ Starting on the quit day, patients who smoke **>10 cigarettes/day** (one-half pack) use the highest dose of the nicotine patch (**21 mg/day**) for **four to six weeks**,
- ❑ followed by **14 mg/day** for **two weeks**,
- ❑ and finish with **7 mg/day** for **two weeks**.
- ❑ Smokers who weigh **less than 45 kg or smoke ≤ 10 cigarettes** per day are advised to begin with the 14 mg/day strength for six weeks, followed by 7 mg/day for two weeks.
- ❑ To use the nicotine patch, the smoker applies one patch each morning to any non-hairy skin site. It is removed and replaced with a new patch the next morning.

Nicotine replacement therapy

(NRT)

- **Nicotine gum:**
 - Nicotine gum is one of the most commonly used **short-acting NRT**.
 - Chewing the gum releases nicotine that is absorbed through the oral mucosa, resulting in a peak of blood nicotine levels 20 minutes after starting to chew.
 - The **4 mg** dose of **gum is recommended for smokers who smoke ≥ 20 cigarettes per day, whereas the 2 mg** dose is recommended for lighter smokers.
 - They can chew one piece of gum every **1 to 2** hours for six weeks, with a gradual reduction over a second six weeks, for a total duration of three months.
 - Acidic beverages (eg, coffee, carbonated drinks) should be avoided before and during gum use, as acidic beverages **lowers oral pH**, causing nicotine to ionize and reducing nicotine absorption.

Bupropion

- **Bupropion** inhibits the uptake of norepinephrine, serotonin, and dopamine → reduce the urge of smoking and improve the mood so good in cases of depression.
- The quit date should be set for one to two weeks after bupropion therapy is initiated.
- Bupropion therapy is usually continued for **eight to 12 weeks** after the patient has quit smoking.
- **Contraindications:**
 - ❑ A history of seizure disorder
 - ❑ The presence of eating disorders.
 - ❑ Uncontrolled hypertension

Varenicline

- **Varenicline:**
- It blocks the nicotine in tobacco smoke from binding to the receptor, thereby reducing the rewarding aspects of cigarette smoking.
- It results in moderate levels of dopamine in the terminal synapse.
- It reduces the withdrawal symptoms.
- ❑ It increases the chances of a successful quit attempt **two- to three fold** compared with non pharmacologic assistance.
- ❑ Varenicline is **superior** to bupropion in promoting abstinence.
- ❑ There is increased risk of **coronary events** with varenicline

References

- World Health Organization (WHO): www.who.int/tfi
- Global Health Observatory (GHO) data: <http://www.who.int/gho/tobacco/use/en/>
- WHO 2015 global report on trends in prevalence of tobacco smoking: http://apps.who.int/iris/bitstream/10665/156262/1/9789241564922_eng.pdf
- Centers for Disease Control and Prevention: www.cdc.gov/
- Tobacco Control Journal. www.tobaccocontrol.com
- WHO-MPOWER: <http://www.who.int/tobacco/mpower/2008/en/index.html>
- Machen MB. Tobacco. City of Berkeley Tobacco Prevention Program , USA
- Ling P, Glantz SA. Why and how the tobacco industry sells cigarettes to young adults. University of California San Francisco, USA
- Bahammam AS. Electronic vaping: Is it harmless or a snake in the grass? J Nat Sci Med 2019;2:183-5