19 percent of the adult population in the United States are smokers, down from 42 percent in 1965
largely because of public health campaigns about the hazards of smoking
Rate of decline has slowed since 1990
Smoking is more prevalent among men than women, among young people than among older people.
Most smokers get hooked in adolescence and think they can stop at any time.
College students are more likely to smoke than the general population.
Smokers in the U.S., 2011

- Whites (non-Hispanic): 20.6%
- Hispanics: 12.9%
- Blacks (non-Hispanic): 19.4%
- Asians (non-Hispanic; excludes Native Hawaiians and Pacific Islanders): 9.9%
- American Indians/Alaska Natives (non-Hispanic): 31.5%
- Adult women: 16.5%
- Adult men: 21.6%
Substances in Tobacco

*Tar* is a thick, sticky residue formed when tobacco leaves burn, containing hundreds of chemical compounds and carcinogenic substances / damaging to the lungs.

*Carbon monoxide* is an odorless gas that interferes with the ability of red blood cells to carry oxygen to vital body organs.

*Nicotine* is the primary addictive ingredient in tobacco; it is a poison and a psychoactive drug/ increases the release of endorphins and adrenaline in the brain.
Tobacco Products

**Cigarettes:** The most popular tobacco product

**Cigars:** Nicotine absorbed in mucus membranes of the mouth/ higher risk for oral cancers

**Pipes:** Pipe smoke has more toxins than cigarette smoke

**Electronic cigarettes**

**Hookahs:** Potentially greater risk than cigarettes because of more puffs
Why Do People Smoke?

Nicotine is a highly addictive psychoactive drug

*Increases in release of the neurotransmitter dopamine produce feelings of pleasure and a desire to repeat the experience*

Behavioral dependence

*Many smokers have a harder time imagining their future life without cigarettes than they do dealing with the physiological symptoms of withdrawal*
Why Do People Smoke?

Weight control

- Nicotine suppresses appetite and slightly increases basal metabolic rate
- People who start smoking often lose weight, and continuing smokers gain weight less rapidly than nonsmokers
- Weight control is one of the major reasons young women give for smoking

Tobacco marketing and advertising

- Because most smokers get hooked in adolescence, children and teenagers are prime targets of tobacco advertising
Short-Term Effects

**Skin** Nicotine causes constriction of blood vessels and decreased blood flow to skin; smoke contains chemicals that damage collagen and elastin, causing excess wrinkling.

**Brain** Nicotine reaches the brain within 7 to 10 seconds, triggering release of chemicals that affect mood; effects are both sedating and stimulating. Effects peak in about 10 minutes and are reduced by half within about 20 minutes.

**Nose** Tar and toxins irritate membranes in nose, dull sense of smell.

**Mouth and throat** Tar and toxins irritate membranes in mouth, dull taste buds, stain teeth, cause raspy voice.

**Lungs** Smoke increases mucus production and damages cilia in airway, preventing them from filtering out particles. Tar collects in lungs, creating conditions conducive to cancer. Tobacco smoke is absorbed into bloodstream and travels throughout body.

**Liver** Liver converts glycogen to glucose, causing an increase in blood sugar.

**Heart and blood** Nicotine causes heart rate to increase, blood pressure to rise, blood vessels to constrict. The heart must work harder to deliver oxygen to cells. Tobacco smoke makes blood stickier and adversely affects cholesterol levels.

**Kidneys** Nicotine inhibits production of urine.

**Adrenal glands** Adrenal glands increase production of adrenaline, causing stimulating effects throughout body.

**Digestive system** Nicotine is secreted from the bloodstream into saliva, swallowed, and reabsorbed in the stomach, increasing risk for cancers of the digestive tract.

**Reproductive system** Toxins in tobacco smoke are secreted into cervical mucus and increase risk of cervical cancer. In pregnant women, nicotine and tobacco chemicals are passed to fetus.
Long-Term Effects of Tobacco Use

- Cardiovascular disease
- Cancer
- Chronic obstructive pulmonary disease
- Emphysema
- Chronic bronchitis
- Asthma
- Premature skin wrinkling
- Increased risk of surgery
Special Health Risks for Women

- Lung cancer
- Heart disease
- Respiratory disease
- Fertility problems
- Menstrual disorders
- Early menopause
Women who smoke during pregnancy are at increased risk for the following:

- Miscarriage
- Stillbirths
- Preterm delivery
- Low birth weight in infants
- Perinatal death
- High risk for SIDS
Special Health Risks for Men

Greater use of other forms of tobacco (cigars, pipes, smokeless tobacco) places men at higher risk for cancers of the mouth, throat, esophagus, and stomach.

- Problems with sexual function (impotence)
- Fertility (motility and number of sperm)
Benefits of Quitting

- Risks for many health problems are reduced when smokers quit
- Health benefits begin immediately and are more significant over time
- Within a year, the risk for heart attack and coronary artery disease is reduced by half
  
  *Within 5 years, the risk approaches that of nonsmokers*

- Quitting increases quality of life
<table>
<thead>
<tr>
<th>Time</th>
<th>Health Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediately</td>
<td>You stop polluting the air with secondhand smoke; the air around you is no longer dangerous to children and adults.</td>
</tr>
<tr>
<td>20 minutes</td>
<td>Blood pressure decreases; pulse rate decreases; temperature of hands and feet increases.</td>
</tr>
<tr>
<td>12 hours</td>
<td>Carbon monoxide level in blood drops; oxygen level in blood increases to normal.</td>
</tr>
<tr>
<td>24 hours</td>
<td>Chance of heart attack decreases.</td>
</tr>
<tr>
<td>48 hours</td>
<td>Nerve endings start to regrow; exercise gets easier; senses of smell and taste improve.</td>
</tr>
<tr>
<td>72 hours</td>
<td>Bronchial tubes relax, making breathing easier; lung capacity increases.</td>
</tr>
<tr>
<td>2–12 weeks</td>
<td>Circulation improves; lung functioning increases up to 30 percent.</td>
</tr>
<tr>
<td>1–9 months</td>
<td>Fewer coughs, colds, and flu episodes; fatigue and shortness of breath decrease; lung function continues to improve.</td>
</tr>
<tr>
<td>1 year</td>
<td>Risk of smoking-related heart attack is cut by half.</td>
</tr>
<tr>
<td>5 years</td>
<td>Risk of dying from heart disease and stroke approaches that of a nonsmoker; risk of oral and esophageal cancers is cut by half.</td>
</tr>
<tr>
<td>10 years</td>
<td>Risk of dying from lung cancer is cut by half.</td>
</tr>
<tr>
<td>10–15 years</td>
<td>Life expectancy reaches that of a person who never smoked.</td>
</tr>
</tbody>
</table>

**Effects of Environmental Tobacco Smoke**

- *Environmental tobacco smoke (ETS):* smoke from other people’s tobacco products, also known as secondhand smoke or passive smoke.

- Significant evidence indicates that inhaling ETS has serious health consequences.

- In 2006, the U.S. surgeon general stated that there is no safe level of ETS exposure.

- Infants and children are especially vulnerable to the effects of ETS.
Treatment Programs and Medications to Quit Smoking

Treatment programs

Of smokers who enter good treatment programs, 20–40% are able to quit for at least a year

Medications

- Nicotine replacement therapy (NRT)
  - Transdermal patch, nicotine inhaler, nicotine patch, hand gel (Nicogel)
- Prescription drug (Zyban, Wellbutrin, Chantix)
- Experimental vaccine (NicVax)
Develop a behavior change plan

- Record and analyze your smoking patterns
- Establish goals
- Prepare to quit
- Implement your plan
- Prevent relapse
<table>
<thead>
<tr>
<th><strong>Symptom</strong></th>
<th><strong>Reason</strong></th>
<th><strong>Duration</strong></th>
<th><strong>Relief</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Irritability</td>
<td>Body craves nicotine.</td>
<td>2–4 weeks</td>
<td>Take walks, hot baths; use relaxation techniques.</td>
</tr>
<tr>
<td>Fatigue</td>
<td>Nicotine is a stimulant.</td>
<td>2–4 weeks</td>
<td>Take naps; don’t push yourself.</td>
</tr>
<tr>
<td>Insomnia</td>
<td>Nicotine affects brain waves.</td>
<td>2–4 weeks</td>
<td>Avoid caffeine after 6:00 p.m.; use relaxation techniques.</td>
</tr>
<tr>
<td>Coughing, dry throat,</td>
<td>Body is getting rid of excess</td>
<td>A few days</td>
<td>Drink fluids; try cough drops.</td>
</tr>
<tr>
<td>nasal drip</td>
<td>mucus.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor concentration</td>
<td>Nicotine is a stimulant, boosts</td>
<td>1–2 weeks</td>
<td>Get enough sleep; exercise; eat well.</td>
</tr>
<tr>
<td></td>
<td>concentration.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tightness in chest</td>
<td>Muscles are tense from nicotine</td>
<td>A few days</td>
<td>Use relaxation techniques, especially deep breath-</td>
</tr>
<tr>
<td></td>
<td>craving or sore from coughing.</td>
<td></td>
<td>ing; take hot baths.</td>
</tr>
<tr>
<td>Constipation, gas,</td>
<td>Intestinal movement decreases for</td>
<td>1–2 weeks</td>
<td>Drink fluids; add fiber to diet (fruits, vegeta-</td>
</tr>
<tr>
<td>stomach pain</td>
<td>brief time.</td>
<td></td>
<td>ble, whole grains).</td>
</tr>
<tr>
<td>Hunger</td>
<td>Nicotine craving can feel like</td>
<td>Up to several weeks</td>
<td>Drink water or low-calorie drinks; have low-calorie snacks on hand.</td>
</tr>
<tr>
<td></td>
<td>hunger.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headaches</td>
<td>Brain is getting more oxygen.</td>
<td>1–2 weeks</td>
<td>Drink water; use relaxation techniques.</td>
</tr>
<tr>
<td>Craving for a cigarette</td>
<td>Withdrawal from nicotine.</td>
<td>Most acute first few days; can recur for months</td>
<td>Wait it out; distract yourself; exercise; use relaxation techniques.</td>
</tr>
</tbody>
</table>

*Source: www.quitnet.com.*
Confronting the Tobacco Challenge

- Tobacco has been part of the economy of the country since colonial times
- It is a multibillion-dollar industry with tremendous lobbying power and a huge impact on the nation’s economic health
By 2003, thousands of local laws and ordinances were in place across the country, creating smoke-free indoor spaces

Limiting access to tobacco

- *Raising cigarette taxes reduces demand*
- *Laws restricting sales to minors*
- *Restrictions on tobacco advertising*

FDA regulates tobacco