Overview

- **DESCRIPTION:** This section will introduce the participant to the global tobacco issues, the epidemiology of tobacco use, and associated diseases. It will review the elements of effective tobacco control programs and HHS guidelines for tobacco control programs (CDC, PHS, NIH).
- **GOAL:** To assist the participant in understanding the tobacco epidemic and introduce them to public health recommendations for tobacco control.
- **LEARNING OBJECTIVES:** At the conclusion of this section, the participant should be able to:
  - Understand the global tobacco epidemic and the status of cancer control
  - Describe the prevalence of tobacco use in the United States and Florida
  - Describe the elements of an effective tobacco control program
  - Be familiar with Best Practices for Comprehensive Tobacco Control

Global Considerations

Tobacco kills up to one in every two users

Of the more than 1 billion smokers alive today, around 500 million will be killed by tobacco
Currently:
- 4.9 million people die per year
- 13,400 people per day
- 560 people every hour

By 2030:
- 10 million people a year will die from tobacco use
- 70% of those deaths will occur in developing countries

Tobacco will kill over 175 million people worldwide between now and the year 2030.
Global Data

- Because there is a lag of several years between when people start using tobacco and when their health suffers, the epidemic of disease and death has just begun.
  - 100 million deaths were caused by tobacco in the 20th century. If current trends continue, there will be up to one billion deaths in the 21st century.
  - Unchecked, tobacco-related deaths will increase to more than eight million a year by 2030, and 80% of those deaths will occur in the developing world.


Why Does Tobacco Kill?

- Burns at 1000° C
- Cig smoke has > 4,000 chemicals, 43 known carcinogens/harmful substances (tar, cadmium, lead, cyanide, nitrogen oxides, benzo(a)pyrene, carbon monoxide, vinyl chloride, acetaldehyde....)
- Damages tissues throughout the body, clogs arteries, causes blood clots/bleeding

World Bank, 2000

Nicotine Is Highly Addictive

- Nicotine --> release of serotonin, dopamine, norepinephrine
- Neuro-adaptation
- Each year, nearly 35 million people make a concerted effort to quit smoking. < 7% stay smoke-free for a year; most start smoking again within days.

World Bank, 2000
SHARE OF THE WORLD POPULATION COVERED BY TOBACCO CONTROL POLICIES

Transnational Dimensions of Tobacco Control
- Taxes and Prices measures
- Smuggling and counterfeiting
- Advertising and sponsorship
- Tobacco package design and labelling
- Tobacco and agricultural policy
- Regulation of toxic and other constituents
- International cooperation and information sharing
- Duty free
- Tobacco products

- The tobacco epidemic is being spread and reinforced through a complex mix of factors that transcend national borders.
- Globalization of the epidemic restricts the capacity of countries to regulate tobacco through domestic legislation alone – making international coordination of policies essential.

WHO Framework Convention on Tobacco Control
- The WHO FCTC is a powerful global public good for health, in that it catalyzing international health cooperation to reduce the burden of disease attributable to tobacco consumption.
**FCTC Background**

- First WHO public health treaty
- International framework — legal and binding on Parties
- Designed to reduce global tobacco related morbidity/mortality & curb the tobacco industry
- A public health tool to combat the tobacco industry
- Closed for signature on 29 June 2004
- Entered into force on 27 February 2005
- 168 countries have signed the FCTC, and 140 have ratified to date (including all Western Pacific Region Nations)

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**Global Distribution of Parties to the WHO FCTC**

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**MPOWER: Six policies to reverse the tobacco epidemic**

The tobacco epidemic is preventable. An estimated two billion people are tobacco smokers. Tobacco use kills more than five million people each year, and the majority of these deaths are in low- and middle-income countries. Tobacco use is a major contributor to the burden of chronic and non-communicable diseases, and it has a significant economic impact.

- **Monitor**: Track and report on tobacco use and its impact on health and economic development.
- **Powers**: Empower people to make choices about tobacco use, including the right to be protected from the adverse effects of tobacco.
- **Control**: Control and regulate the production, marketing, and sale of tobacco products.
- **Prevent**: Prevent the initiation of tobacco use, especially among young people.
- **Protect**: Protect people from health risks associated with tobacco use, especially in the workplace and public places.

Leader of the global and national tobacco control movement, the World Health Organization (WHO) has developed the MPOWER package of six policies to reverse the tobacco epidemic:

- Work closely with health partners to improve the health of smokers who want to quit.
- Promote clean indoor air in the workplace and at home.
- Control tobacco advertising and promotion.
- Protect people from second-hand smoke.
- Provide treatment for tobacco dependence.
- Work with local communities to reduce the use of tobacco products.

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**WHO FCTC Implementation Workshop, Manila, Philippines**
Health Effects

Health Effects of Smoking

- Cancers
  - Lung
  - Laryngeal, pharyngeal, oral cavity, esophagus
  - Pancreatic
  - Bladder and kidney
  - Cervical and endometrial
  - Gastric
  - Acute myeloid leukemia
- Reduced fertility in women, poor pregnancy outcomes, low birth weight babies, sudden infant death syndrome

- Cardiovascular diseases
  - Coronary heart disease
  - Stroke
  - Abdominal aortic aneurysm

- Respiratory diseases
  - Acute respiratory illnesses, e.g., pneumonia, otitis media, asthma
  - Chronic respiratory diseases (COPD)

- Cataract
- Periodontitis
- Diabetes (2-fold increased incidence)
  - (Diabetes Care 28:10 Oct 2005)


Second Hand Smoke

- Second-hand tobacco smoke is dangerous to health.
- It causes cancer, heart disease and many other serious diseases in adults.
- Almost half of the world's children breathe air polluted by tobacco smoke, which worsens their asthma conditions and cause dangerous diseases, including SIDS and middle ear disease
- At least 200,000 workers die every year due to exposure to second-hand smoke at work.
Smokeless Tobacco Products (STP)

- This includes snuff, moist snuff (called "snus" in Sweden), chewing tobacco
- Marketing of oral tobacco is banned in all EU-countries except Sweden while other STP are allowed in EU.


Smokeless Tobacco Products (STP)

- STP contain nicotine and carcinogenic tobacco-specific nitrosamines.
- STP are carcinogenic and the pancreas is a main target organ.
- All STP cause localized oral lesions and a high risk for development of oral cancer has been shown for various STP but has not been proven for Swedish moist snuff (snus).
- Some evidence for an increased risk of fatal myocardial infarction among STP users.
- Some data indicate reproductive effects of STP in pregnancy.
- STP contain nicotine, a potent addictive substance. They also contain carcinogenic tobacco-specific nitrosamines.
- STP are carcinogenic to humans.
- The pancreas has been identified as a main target organ.
- STP cause localized oral lesions and a high risk for development of oral cancer has been shown for STP, but has not been proven for (snus).
- There is some evidence for an increased risk of fatal myocardial infarction among STP users.

Adult Per Capita Cigarette Consumption and Major Smoking-and-Health Events—United States, 1900-2005

- Light cigarettes are not healthier than regular cigarettes.


Great Depression

1st Surgeon General's Report

First Tobacco and Health TV

Secondhand Smoke Ban

Master Settlement Agreement

- 1st Smoking-Cancer Concern

--Light cigarettes are not healthier than regular cigarettes.
United States Data

Percentage of Adults Who Smoke Cigarettes by Race/Ethnicity - United States, 2004

Source: National Center for Health Statistics, 2004 National Health Interview Survey
Trends In Cigarette Smoking* Among Adults Aged >18 Years, By Sex - U.S., 1955-2004

Before 1992, current smokers were defined as persons who reported having smoked >100 cigarettes and were currently smoking. Since 1992, current smokers were defined as persons with number of lifetime cigarettes during their lifetime and who reported now smoking every day or some days.


Percentage Of Ever Smokers* Who Have Quit, Adults Aged > 18 Years, By Sex-united States, 1965 - 2004

Ever-smoked >100 cigarettes.

Source: National Health Interview Surveys, 1965-2004; Centers for Disease Control and Prevention: National Center for Health Statistics and Office on Smoking and Health.

Trends In Cigarette Smoking* Among Adults Aged >25 Years, By Education- U.S. 1965-2002

Before 1992, current smokers were defined as persons who reported having smoked >100 cigarettes and who currently smoked. Since 1992, current smokers were defined as persons with number of lifetime cigarettes during their lifetime and who reported now smoking every day or some days.

Source: various National Health Interview Surveys from 1965- 2002, National Center for Health Statistics
The Good News Is...
Most Smokers Want To Quit

- 90% regret ever having started to smoke
- 89% plan to quit; only 3% don’t want to quit
- 89% believe health will improve if quit
- 84% have tried to quit in the past
- 27% try to quit each year...

2004/2005 Assessing Hard Core Smoking Survey of US smokers ages 25+ years (n = 1,000)

Intentions to Quit

- 22% within next 30 days
- 38% within 6 months, but not in next 30 days
- 29% after 6 months
- 6% don’t have plans, but believe should quit
- 6% don’t have plans, happy to remain smoking

2004/2005 Assessing Hard Core Smoking Survey of US smokers ages 25+ years (n = 1,000)

Florida: What Are the Costs?

- Deaths in Florida Caused by Smoking
  - Annual average smoking-attributable deaths 28,750
  - Youth ages 0-17 projected to die from smoking 269,500
- Annual Costs Incurred in Florida from Smoking
  - Total medical $6,320 million
  - Medicaid medical $1,250 million
  - Lost productivity from premature death $6,479 million
- State Revenue from Tobacco Excise Taxes and Settlement
  - FY 2006 tobacco tax revenue $531.8 million
  - FY 2006 tobacco settlement payment $310.2 million
  - Total state revenue from tobacco excise taxes and settlement $842.0 million
- Percent tobacco revenue to fund at CDC recommended level
  - 25%

2004/2005 Assessing Hard Core Smoking Survey of US smokers ages 25+ years (n = 1,000)
CDC Per Capita Recommended Spending For Florida

- State and Community Interventions
  - Multiple societal resources working together have the greatest long-term population impact. $4.35
- Health Communication Interventions
  - Media interventions prevent tobacco use initiation, promote cessation, and shape social norms. $2.00
- Cessation Interventions
  - Tobacco use treatment is highly cost-effective. $3.79
- Surveillance and Evaluation
  - Publicly financed programs should be accountable and demonstrate effectiveness. $1.01
- Administration and Management
  - Complex, integrated programs require experienced staff to provide fiscal management, accountability, and coordination. $0.51
- Total $11.66

Cigarette Smoking in FL

For more information about the Florida Adult Tobacco Survey (FLATS), please contact Lori L. Shumsky, PhD, RTI International, smoker@rti.org or 850-245-4800 and 1180.

Current Cigarette Use in FL, 2000 FLATS
FL Daily Smokers: Very Dependent on Tobacco

Comprehensive TUPE

Evidence Reviews

CDC Best Practices

PHS: Clinical Practice Guidelines

Community Guide

Clinical Guide

Surgeon Gen Report: Reducing Tobacco Use

NCI: Population Based Smoking Cessation
AHEC Tobacco Training and Cessation Program Mandates

- Be consistent with:
  - CDC Best Practices
  - US Public Health Service clinical practice guidelines
- Use the Department of Health Quit for Life toll free telephone line as a resource
- Target:
  - Pregnant and postpartum women;
  - People w/ chronic disease(s);
  - Youth;
  - Populations experiencing tobacco related health disparities.

Best Practices

Why Should Governments Intervene?

- People do not know the risks of tobacco use
- Most smokers start young – protect youth
- Nicotine is VERY addictive
- Tobacco users impose costs on others
  - second hand smoke harms non-smokers
  - children and infants need protection
  - health care costs (families and government)
  - opportunity cost for families
CDC goals for a comprehensive tobacco control program

• To stop the tobacco use epidemic;
• To reduce the personal and societal burden of tobacco-related illness and death:
  – Accelerate declines in cardio-vascular mortality
  – Reduce chronic obstructive lung disease
  – Make lung cancer a rare disease again
  – Reduce asthma attacks, lung infections, and ear infections in children by reducing exposure to second-hand smoke;
• To reduce tobacco prevalence to 10% by 2025.

What does a CDC Comprehensive Tobacco Control Program include?

• State and Community Interventions
• Health Communication Interventions
• Cessation Interventions
• Surveillance and Evaluation
• Administration and Management

From CDC Best Practices, 2007

Preventive Services’ Guide to Community Preventive Services recommends:
• Increasing the unit price of tobacco products
• Conducting mass media education campaigns when combined with other community interventions
• Mobilizing the community to restrict minors’ access to tobacco products when combined with additional interventions (stronger local laws directed at retailers, active enforcement of retailer sales laws, retailer education with reinforcement)
• Implementing school-based interventions in combination with mass media campaigns and additional community efforts
**CDC Health Communication Interventions**

- Create a climate that supports community policy and programmatic efforts
- Target specific audiences
- Prevent smoking initiation
- Promote cessation
- Shape social norms
- Counter tobacco industry presentation of tobacco use as attractive and acceptable

**CDC Guidelines for School Health Programs Prevent Tobacco Use and Addiction**

- Develop and enforce a school on tobacco use that establishes environments that are tobacco-free at all times, including off-site events.
- Provide a sequential tobacco-use prevention curriculum during K–12, with intensive delivery in junior high or middle school, with reinforcement in high school.
- Provide instruction that covers physiologic and social consequences of tobacco use, social influences tobacco use, peer norms regarding tobacco use, and skills that promote tobacco-free lifestyle.
- Provide program-specific training teachers.
- Involve parents, families, and community in support of school based programs to prevent tobacco use.
- Provide support for tobacco-use cessation efforts among students school staff who use tobacco.
- Assess the tobacco-use prevention program at regular intervals.

**Education +/-**

- Comprehensive school-based programs, combined with community and media-based activities, can effectively prevent or postpone smoking onset in 20 to 40 percent of U.S. adolescents.
- However, a major research trial funded by NCI, the Hutchinson Smoking Prevention Project, demonstrated that the implementation of a single-modality program (in this case, the delivery of a classroom curriculum) may be ineffective without attempting to change the social and policy environment in which the program is delivered.
**CDC Cessation Interventions**

- Increase successful cessation
- Promote Quit-line services for entire population of smokers
- Eliminate barriers to treatment for underserved populations
- Make systems changes recommended by the Public Health Service guidelines, especially provider reminder systems

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**CDC Surveillance and Evaluation**

- Monitors and documents intervention outcomes;
- Informs program managers and policy makers about effectiveness;
- Monitors tobacco related attitudes, behaviors, and health outcomes;
- Enables a state to compare itself to other states;
- Captures local and specific population data.

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**US Public Health Service Clinical Guidelines**

- Clinic screening systems such as expanding the vital signs to include tobacco use status, or the use of other reminder systems such as chart stickers or computer prompts are essential for the consistent assessment, documentation and intervention with tobacco use.
- All patients should be screened for tobacco use and assessed for their interest in quitting.
- All physicians and clinicians should strongly advise every patient who smokes to quit.
Clinicians and health care delivery systems (including administrators, insurers, and purchasers) should institutionalize the consistent identification, documentation, and treatment of every tobacco user seen in a health care setting.

Brief tobacco dependence treatment is effective and every patient who uses tobacco should be offered at least brief treatment.

There is a strong dose-response relation between the intensity of tobacco dependence counseling and its effectiveness. Treatments involving person-to-person contact (via individual, group, or proactive telephone counseling) are consistently effective, and their effectiveness increases with treatment intensity (e.g., minutes of contact).

Three types of counseling and behavioral therapies are effective and should be used with all patients attempting tobacco cessation:

- Provision of practical counseling (problem solving/skills training);
- Provision of social support as part of treatment (intra-treatment social support); and
- Help in securing social support outside of treatment (extra-treatment social support).

Numerous effective pharmacotherapies for smoking cessation exist. Except in the presence of contraindications, these should be used with all patients:

- attempting to quit smoking, including bupropion SR, nicotine gum, nicotine inhaler, nicotine nasal spray, nicotine patch, and the nicotine lozenge.
- Over-the-counter nicotine patches are effective relative to placebo, and their use should be encouraged.

Tobacco dependence treatments are both clinically effective and cost-effective relative to other medical and disease prevention interventions. As such, insurers and purchasers should ensure that:

- All insurance plans include as a reimbursed benefit the counseling and pharmacotherapeutic treatments identified as effective in this guideline; and
- Clinicians are reimbursed for providing tobacco dependence treatment just as they are reimbursed for treating other chronic conditions.

RTIPS: The Only Tested And Approved Programs For Clinical & School Settings

1. Title: It’s Your Life – It’s Our Future
   Purpose: Smoking cessation program designed for American Indians in California

2. Title: Kentucky Adolescent Tobacco Prevention Project
   Purpose: Program to increase awareness of the dangers of tobacco and the influence of tobacco use in high school students

3. Title: LifeSkills Training
   Purpose: Comprehensive program to improve social skills for at-risk youth

4. Title: Not On Tobacco Program (NOT)
   Purpose: Program to prevent and reduce tobacco use among adolescent smokers

5. Title: Project Towards No Tobacco Use (TNT)
   Purpose: School-based prevention project designed to delay the initiation and reduce the use of tobacco by middle-school children

6. Title: Project Fresh Start
   Purpose: Program to prevent and reduce tobacco use among youth

7. Title: Project Fresh Start
   Purpose: Program to prevent and reduce tobacco use among youth

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   Purpose: Program to prevent and reduce tobacco use among youth

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**Taxation Is The Most Effective Measure**

- Higher taxes induce quitting and prevent starting
- A 10% price increase reduces demand by:
  - 4% in high-income countries
  - 8% in low or middle-income countries
- Young people and the poor are the most price responsive

World Bank, 2000

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**Why Do Policy Makers Resist Tax Increases Will Higher Tobacco Taxes?**

- Reduce revenues?
  Tobacco is a good source of revenue. Revenues rise as a result of higher taxes
- Cause job losses?
  Farmers, tobacco industry workers, others
- Increase smuggling?
  Smuggling loses revenues, and is a crime
- Hurt poor smokers?
Health & Economics Facts & Evidence
Policy-relevant global, regional and country-level
evidence-based research

Do strong tobacco control measures:
• Reduce tax revenues? No
  – Revenues rise as a result of higher taxes.
• Increase smuggling? Not exactly
  – Role of organized smuggling, corruption
• Cause net job/income losses? Not necessarily
  – But needs more research
• Hurt poor people? Some
  – But some are benefited

Reputable Resources
• Campaign for Tobacco Free Kids
• CDC/OSH, NCI/TCRB, NIDA
• Office of the Surgeon General
• World Bank
• World Health Organization
• ACS, ALA, AHA
• Florida DOH
• Florida Tobacco Control Clearinghouse
• Society to Reduce Nicotine and Tobacco (SRNT)

Thank you!

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