Tobacco Free Living for People with Diabetes

Advancements in Diabetes Seminar

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Learning Objectives

As a result of completing this training participants will be able to:

• Describe regional and national AI/AN tobacco use data.
• Teach patients about the harmful effects of exposure to second and third hand smoke.
• Describe connections between smoking, diabetes macro and micro-vascular complications, and CVD/PAD.
• Utilize smoking cessation and nicotine addiction information to help smokers identify successful strategies to quit smoking.
• Educate patients about the adverse effects of electronic cigarettes and vaping.
• Identify one clinical or public health practice change you can make to improve local tobacco cessation outcomes using the GPRA tobacco cessation measure.
Outline

• Background
• Tobacco Usage
• Health Impact
• Second & Thirdhand Smoke
• E-cigarettes
• Tobacco Dependence & Treatment
• 5 As Model
• How to Document in EHR
• Strategy to improve clinical or public health practice
Background

- Smoking is the single most preventable cause of death in the United States.
- Each year, approximately 480,000 persons in the United States die from smoking-related illnesses.
- An estimated 41,000 of these smoking-related deaths are a result of secondhand smoke exposure.
- Smoking has been estimated to cost the United States $96 billion in direct medical expenses and $97 billion in lost productivity each year.

Centers for Disease Control and Prevention:
http://www.cdc.gov/tobacco/data_statistics/fact_sheets/health Effects/tobacco_related_mortality/
Traditional vs. Commercial Tobacco

• Traditional tobacco use
  – Sacred or ceremonial use for religious or medicinal purposes

• Commercial tobacco use
  – Recreational use
Tobacco Usage

• An estimated 43.8 million people, or 19.0% of all adults (aged 18 years or older), in the United States smoke cigarettes.

• 31.5% of AI/AN adults in the United States smoked cigarettes.

Centers for Disease Control and Prevention.
http://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking
Cigarette Smoking Prevalence Among Adults by Gender and Ethnicity

Cigarette Smoking Prevalence among AI/AN Adults by Region and Gender

Smoking During Pregnancy Among Women by Ethnicity

Cigar & Pipe Smoking Among Males by Ethnicity

Centers for Disease Control and Prevention (CDC):
Chewing Tobacco or Snuff Use Among Male/Female by Ethnicity

Centers for Disease Control and Prevention (CDC):
Smokeless Tobacco Use Among AI/AN Males by Region

Centers for Disease Control and Prevention (CDC):
MORTALITY RATE DISPARITIES CONTINUE
American Indians and Alaska Natives in the IHS Service Area 2007-2009 and US All Races 2008 (Age-adjusted mortality rates per 100,000 population)

<table>
<thead>
<tr>
<th>Cause</th>
<th>AI/AN Rate 2007-2009</th>
<th>U.S. All Races Rate 2008</th>
<th>Ratio: AI/AN to U.S. All Races</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL CAUSES</td>
<td>943.0</td>
<td>774.9</td>
<td>1.2</td>
</tr>
<tr>
<td>Diseases of the heart</td>
<td>182.4</td>
<td>192.1</td>
<td>0.9</td>
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<tr>
<td>Malignant neoplasm</td>
<td>169.4</td>
<td>178.4</td>
<td>0.9</td>
</tr>
<tr>
<td>Alzheimer's</td>
<td>170.8</td>
<td>176.4</td>
<td>1.0</td>
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<tr>
<td>Unintentional injuries*</td>
<td>94.5</td>
<td>39.2</td>
<td>2.4</td>
</tr>
<tr>
<td>Chronic lower respiratory diseases</td>
<td>43.2</td>
<td>44.7</td>
<td>1.0</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>61.0</td>
<td>22.0</td>
<td>2.8</td>
</tr>
<tr>
<td>Chronic liver disease and cirrhosis</td>
<td>43.1</td>
<td>9.2</td>
<td>4.7</td>
</tr>
<tr>
<td>Cerebrovascular diseases</td>
<td>39.1</td>
<td>42.1</td>
<td>0.9</td>
</tr>
<tr>
<td>Influenza and pneumonia</td>
<td>24.1</td>
<td>17.8</td>
<td>1.4</td>
</tr>
<tr>
<td>Nephritis, nephrotic syndrome</td>
<td>22.1</td>
<td>15.1</td>
<td>1.5</td>
</tr>
<tr>
<td>Intentional self-harm (suicide)</td>
<td>18.5</td>
<td>11.6</td>
<td>1.6</td>
</tr>
</tbody>
</table>
Smoking and Diabetes

• Smokers are 30–40% more likely to develop type 2 diabetes than nonsmokers.

• People with diabetes who smoke are more likely than nonsmokers to have trouble with insulin dosing and with controlling their disease.

• Smokers with diabetes have higher risks for serious complications, including:
  – Heart and kidney disease
  – Poor blood flow in the legs and feet
  – Retinopathy Peripheral

Tobacco Usage Impacts on Health

• Tobacco use is known to cause health problems and disease
  – Cancers (lung, bladder, kidney, pancreas, nose, and throat)
  – Heart disease
  – Lung disease
  – Emphysema
  – Chronic Obstructive Pulmonary Disease (COPD)
  – Gum disease
Secondhand Smoke Impacts on Health

• It has been linked to health concerns in non-smokers such as
  – Asthma
  – Sudden Infant Death Syndrome (SIDS)
  – Respiratory infections
  – Ear infections
1. There are over 4000 chemicals compounds found in secondhand smoke.

2. 69 of the chemicals cause cancer (USDHHS, 2006).
Secondhand Smoke Impacts on Health

• According to the American Cancer Society, secondhand smoke causes about 3,400 lung cancer deaths
• 60% of U.S children ages 3 to 11 are exposed to environmental tobacco smoke each year (USDHHS, 2006)
• By the age of 5, each of them will have inhaled the equivalent of 102 packs of cigarettes (Hammond et al., 1995).
Secondhand Smoke Impacts on Health

• There is no risk-free level of exposure to secondhand smoke.
• Eliminating smoking in indoor spaces fully protects non-smokers.
• Separating smokers from nonsmokers, cleaning the air, and ventilating buildings CAN NOT eliminate exposure of nonsmokers to secondhand smoke.
Third Hand Smoke

- Third Hand Smoke—residual of tobacco smoke contamination that settles into the environment and stays there even after a cigarette has been extinguished.
Thirdhand Smoke

• The chemical particles resulting in the burning of tobacco, including the tar and nicotine, linger on clothes, upholstery, draperies long after the smoke has cleared the air.

• These particles are formed from more than 200 poisonous gas such as cyanide, ammonia, arsenic, and polonium-210 which is radioactive.
Thirdhand Smoke

• A study in Feb. 2011-(no-smoke.org), found that third hand smoke causes the formation of hazardous carcinogens, which occurs when the nicotine in the tobacco smoke reacts with nitrous acid, a common component of indoor air.
Thirdhand smoke

• Children of caregivers/parents who smoke cigarettes are especially at risk of thirdhand smoke exposure and contamination.
  – Residues

• Young children are vulnerable because they ingest tobacco residue by putting their hands in their mouths after touching contaminated surfaces.
Electronic Cigarettes
E-cigarettes

• Contains propylene glycol or glycerin
• Flavorings (tobacco, menthol, coffee, cinnamon, vanilla, chocolate, etc.)
• Nicotine: varying concentrations
  – 0.24 mg/mL in cartridges, cartomizers
  – Up to 100 mg/mL in refill fluids

Nearly 500 brands and 7,700 flavors of e-cigarettes are on the market
Health Effects of E-cigarettes

• Secondhand emission
  – Formaldehyde, benzene and tobacco-specific nitrosamines (all carcinogens)

• Secondhand aerosol (exhaled by user)
  – Formaldehyde, acetaldehyde and other potential toxins

• No evidence that e-cigarettes emissions (secondhand aerosol) are safe
E-cigarette Users Among Adults

• Current e-cigarette use was higher among non-Hispanic AIAN adults (10.7%) and non-Hispanic white adults (4.6%) than among Hispanic (2.1%), non-Hispanic black (1.8%), and non-Hispanic Asian (1.5%) adults.

Tobacco Dependence

- 70% of people want to quit.
- About 40% will try to quit on their own.
- But only 7% are successful *
- Tobacco dependence usually requires several interventions to break.

*Cromwell, Bartosch, Fiore, Hasselblad, & Baker, 1997
Breaking the Dependency

• Smoking is a chronic condition. Most people that have tried to quit try more than once.
• They will try 9-11 times before actually quitting.
Why is it so hard to quit?

• The addiction to nicotine is biological, psychological, and social cultural.

• Tobacco use causes dependence on nicotine, comparably physically to the dependence of caused by heroin, speed, or cocaine (Fiore et al., 2008).

• Many people use nicotine to self-medicate for pain or psychiatric conditions such as depression, anxiety, and eating disorders (Lasser et al, 2000).
Tobacco Dependence Treatment

• The first step in treating tobacco use and dependence is to identify tobacco users’ willingness to quit

• The 5 “A” Model
  – Research evidence concludes current best practice
The Five “A” Model

• **Ask**: Ask about present/past use of tobacco and exposure to environmental tobacco use (vital signs)

• **Advise**: Offer clear, strong, personal advice to quit

• **Assess**: Assess willingness to quit, using the Stages of Change Model

• **Assist**: Provide assistance in quitting through stage-based interventions and motivational interviewing

• **Arrange**: Arrange for follow-up and offer local and national resources
Ask

• Ask about tobacco use at every encounter
• Keep it simple:
  – Do you smoke cigarettes?
  – Do you chew tobacco?
  – Have you ever smoked or used commercial tobacco products?
  – What type of tobacco do you use?
  – Does anybody in your house smoke or chew commercial tobacco?
  – Are you exposed to environmental tobacco smoke elsewhere during your day?
Ask

• Add Health Factor
Advise

• In a *clear, strong, and personalized* manner, urge every patient who uses commercial tobacco to quit
  
  – **Clear**: Advise individual to quit smoking/chewing completely
  
  – **Strong**: Explain that quitting tobacco use is the single most important way to protect themselves and their family
  
  – **Personalized**: Make advice relevant to the individual when explaining the benefits of quitting and the consequences of continues tobacco use
Advise

• Under the Education Topic Selection
Assess

• Determine the patient’s willingness to make a quit attempt within the next 30 days using the “Stages of Change Model.”

• Ask: Are you willing to set a quit date within the next 30 days?
  – If unwilling to make an attempt to quit in 30 days, offer information to move to “Assist/Unwilling to Quit.”
  – If willing, move to “Assist/Willing to Quit.”
Assess

• Add Patient Under Education Event
# Stages of Change Model

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precontemplation</td>
<td>(Unwilling to Quit)</td>
<td>Has no intention to quit within the next 6 months</td>
</tr>
<tr>
<td>Contemplation</td>
<td>(Thinking About Quitting)</td>
<td>Intends to quit within the next 6 months</td>
</tr>
<tr>
<td>Preparation</td>
<td>(Willing to Quit)</td>
<td>Willing to set a quit date within the next 30 days</td>
</tr>
<tr>
<td>Action</td>
<td>(Quit)</td>
<td>Has quit using tobacco for less than 6 months</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Staying Quit)</td>
<td>Has remained tobacco free for more than 6 months</td>
</tr>
<tr>
<td>Termination</td>
<td>(Living Quit)</td>
<td>No longer giving into urges and has total self-efficacy</td>
</tr>
<tr>
<td>Relapse</td>
<td>(Relapse)</td>
<td>A return to regular tobacco use; may be less, than, equal to, or greater than the beginning level of tobacco use</td>
</tr>
</tbody>
</table>
Assist

• If unwilling to quit;
  – **Express empathy**: Be non-judgmental, listen reflectively, accept ambivalence
  – **Develop discrepancy**: Help patient perceive the difference between present behavior and desired lifestyle change
  – **Avoid Argumentation**: When a patient demonstrates resistance to change, switch your strategies
  – **Roll with Resistance**: Reframe patient’s thinking/statements. Invite patient to examine new perspectives
  – **Support Self-Efficacy**: Provide hope; increase patient’s self confidence in ability to change behavior
• Offer educational literature on detrimental effects of commercial tobacco use on health.
• Remind client that you will ask about commercial tobacco use at every visit.
Assist

• If willing to quit:
  – STAR:
    • Set a quit date (ideally within 2 weeks)
    • Tell family, friends, and coworkers and ask for support
    • Anticipate challenges, including nicotine withdrawal symptoms
    • Remove tobacco products from home and work environments
  – Arrange
    • Arrange for follow-up whenever possible
      – First follow up should be soon after quit date
Arrange

• Order a consult to in-house cessation program, or document referral to external cessation program (ex. State quit line) in primary provider note.
• Order appropriate pharmacotherapy and document follow-up plans on note.
• Follow up within 2 weeks of quitting.
Tobacco Screening, Education, & Referral

• GPRA Indicator
• Screen for tobacco use
• Develop tobacco cessation protocol
• If there is no local tobacco cessation available, refer to 1-800-QUIT-NOW
HPDP Program

• Quarterly Tobacco Prevention Webinars
  – Wednesday, May 18, 2016 at 3:00 p.m. ET
  – Archived webinars for later viewing

• Provide Basic Tobacco Intervention Skills Certification training (evidence-based).

• Tobacco materials (posters, information cards, and public service announcement).
HP/DP Website
Resources

• Online Tobacco Cessation Training (free)  
  http://rxforchange.ucsf.edu/registration.php

• Tips from Former Smokers  
  http://www.cdc.gov/tobacco/campaign/tips/index.html
Questions?

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References

Sources of Additional Information

• Culturally appropriate intervention research - http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3117716/

• I’m Ready to Quit! http://www.cdc.gov/tobacco/campaign/tips/quit-smoking/

• American Cancer Society http://www.cancer.org/healthy/stayawayfromtobacco/guidetoquittingsmoking/index
Sources of Additional Information

• Smokefree.gov  http://smokefree.gov/
• American Lung Association  
  http://www.lung.org/stop-smoking/how-to-quit/freedom-from-smoking/
• Indian Health Service  
  http://www.ihs.gov/epi/index.cfm?module=epi_tobacco_resources
Sources of Additional Information

• Keepitsacred.org
• Great Start: http://www.legacyforhealth.org/our-issues
• ASH-Action on Smoking and Health
  http://www.ash.org.uk/stopping-smoking/quit-smoking
• La Leche League http://www.lalecheleague.org/faq/smoking.html
• Surgeon Generals’ Video Contest Winners on Smoking Prevention
  http://www.youtube.com/playlist?list=PLE2B599FB3EEA72B9
• Surgeon General’s Page
  http://www.surgeongeneral.gov/library/reports/preventing-youth-
  tobacco-use/index.html
• Help Pregnant Smokers Quit http://www.helppregnantsmokersquit.org/
• American Lung Association http://www.lung.org/
• Nicotine-Anonymous http://www.nicotine-anonymous.org/