Helping Smokers Quit: West Virginia

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From Guideline to Practice: A Nursing Intervention for Helping Smokers Quit
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Developed in collaboration with Rx for Change: Clinician-Assisted Tobacco Cessation
HELPING SMOKERS QUIT: The HSQ Project

GOALS

- Provide nurses the **knowledge and skills** to deliver evidence-based smoking cessation interventions to patients who smoke
- Correct **myths and misperceptions** about tobacco cessation
- Disseminate **resources** via the web:
  - www.tobaccofreenurses.org &
  - www.helpingsmokersquit.org
CHANGING WHAT A "GOOD NURSE" DOES
## SMOKING: The LEADING CAUSE of PREVENTABLE DEATH in THE UNITED STATES

### ANNUAL U.S. DEATHS ATTRIBUTABLE TO SMOKING, 1997–2001

<table>
<thead>
<tr>
<th>Cause</th>
<th>Annual Deaths</th>
<th>Percentage of smoking-attributable deaths*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular diseases</td>
<td>137,979</td>
<td>32%</td>
</tr>
<tr>
<td>Lung cancer</td>
<td>123,836</td>
<td>28%</td>
</tr>
<tr>
<td>Respiratory diseases</td>
<td>101,454</td>
<td>23%</td>
</tr>
<tr>
<td>Second-hand smoke*</td>
<td>38,112</td>
<td>9%</td>
</tr>
<tr>
<td>Cancers other than lung</td>
<td>34,693</td>
<td>8%</td>
</tr>
<tr>
<td>Other</td>
<td>1,828</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

### United States: 437,902 deaths annually

### West Virginia: 3,919 deaths annually

* In 2005, it was estimated that nearly 50,000 persons died due to second-hand smoke exposure.


Trends in cigarette current smoking among persons aged 18 or older

- **Male**: 20.8% of adults are current smokers
- **Female**: 23.9% in 1955, 18.0% in 2003

70% want to quit

Graph provided by the Centers for Disease Control and Prevention. 1955 Current Population Survey; 1965–2005 NHIS. Estimates since 1992 include some-day smoking.
SMOKING PREVALENCE IN WEST VIRGINIA, BY GENDER

Overall smoking rate 26.9%, 2nd highest in U.S.

KEY ISSUES: West Virginia

- **Smoking during pregnancy:**
  - 27.2%, highest incidence in the US

- **Smoking among 18–24 year olds**
  - 34.9%

- **Adolescent Smoking:**
  - 27.6% *(US average 20.0%) in 2007*

- **Smokeless tobacco use:**
  - 8.1% (16.6% male), #2 in the US (US average 3.0%)

- **Tobacco-related health care costs:**
  - $690+ million per year

KEY ISSUES: West Virginia (cont’d)

- **Smoke-free workplace laws**
  - Local legislation exists to protect West Virginians from secondhand smoke in workplaces, public places, restaurants and bars, but no statewide legislation.

- **Cigarette taxes:**
  - 55¢ per pack, (US median of 1.18¢ per pack).
  - Ranked #40 in the U.S.

- **Tobacco industry spending:**
  - $132+ million dollars spent by tobacco companies per year.

COMPOUNDS in TOBACCO SMOKE

An estimated 4,800 compounds in tobacco smoke, including 11 proven human carcinogens.

<table>
<thead>
<tr>
<th>Gases</th>
<th>Particles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon monoxide</td>
<td>Nicotine</td>
</tr>
<tr>
<td>Hydrogen cyanide</td>
<td>Nitrosamines</td>
</tr>
<tr>
<td>Ammonia</td>
<td>Lead</td>
</tr>
<tr>
<td>Benzene</td>
<td>Cadmium</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>Polonium-210</td>
</tr>
</tbody>
</table>

Nicotine does NOT cause the ill health effects of tobacco.
2004 REPORT of the
SURGEON GENERAL:
HEALTH CONSEQUENCES OF SMOKING

FOUR MAJOR CONCLUSIONS:

■ Smoking harms nearly every organ of the body, causing many diseases and reducing the health of smokers in general.

■ Quitting smoking has immediate as well as long-term benefits, reducing risks for diseases caused by smoking and improving health in general.

■ Smoking cigarettes with lower machine-measured yields of tar and nicotine provides no clear benefit to health.

■ The list of diseases caused by smoking has been expanded.

HEALTH CONSEQUENCES of SMOKING

- Cancers
  - Acute myeloid leukemia
  - Bladder and kidney
  - Cervical
  - Esophageal
  - Gastric
  - Laryngeal
  - Lung
  - Oral cavity and pharyngeal
  - Pancreatic

- Cardiovascular diseases
  - Abdominal aortic aneurysm
  - Coronary heart disease
  - Cerebrovascular disease
  - Peripheral arterial disease

- Reproductive effects
  - Reduced fertility in women
  - Poor pregnancy outcomes (e.g., low birth weight, preterm delivery)
  - Infant mortality

- Pulmonary diseases
  - Acute (e.g., pneumonia)
  - Chronic (e.g., COPD)

- Other effects: cataract, osteoporosis, periodontitis, poor surgical outcomes

FORMS OF SMOKED AND SMOKELESS TOBACCO PRODUCTS

Cigarettes:
- Most common form in the U.S.; sold in packs of 20 cigarettes
- Average machine yield (per cigarette)
  - Nicotine 0.88 mg (range <0.05 to 2.0 mg)
  - Tar 12 mg (range <0.5 to 27 mg)

Smokeless Tobacco:
- Males (6.2%) more likely than females (0.5%) to be current users
- Prevalence highest among:
  - Young adults aged 18-25 years
  - American Indians and Alaskan Natives
  - Residents of the southern U.S. and rural areas

Marlboro and Marlboro Light are registered trademarks of Philip Morris, Inc.
The Copenhagen and Skoal logos are registered trademarks of U.S. Smokeless Tobacco Company, and
Red Man is a registered trademark of Swedish Match.
HEALTH CONSEQUENCES of SMOKELESS TOBACCO USE

Periodontal effects
- Gingival recession
- Bone attachment loss
- Dental caries

Oral leukoplakia

Cancer
- Oral cancer
- Pharyngeal cancer

Oral Leukoplakia
Image courtesy of Dr. Sol Silverman - University of California San Francisco
2006 SURGEON GENERAL’s REPORT
IN VOLUNTARY EXPOSURE to TOBACCO SMOKE

- Second-hand smoke causes premature death and disease in all nonsmokers
- Children:
  - Increased risk for sudden infant death syndrome (SIDS), acute respiratory infections, ear problems, and more severe asthma
  - Respiratory symptoms and slowed lung growth if parents smoke
- Adults:
  - Immediate adverse effects on cardiovascular system
  - Increased risk for coronary heart disease and lung cancer
- Millions of Americans are exposed to smoke in their homes/workplaces
- Indoor spaces: eliminating smoking fully protects nonsmokers

There is no safe level of exposure to second-hand smoke.

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FINANCIAL IMPACT of SMOKING: COSTS to the INDIVIDUAL

Buying cigarettes every day for 50 years @ $4.12 per pack
Money banked monthly, earning 1.5% interest

- $331,467
- $220,978
- $110,489

Hundreds of thousands of dollars lost
SMOKING CESSATION: REDUCED RISK of DEATH

- Prospective study of 34,439 male British doctors
- Mortality was monitored for 50 years (1951–2001)

On average, cigarette smokers die approximately 10 years younger than do nonsmokers.

Among those who continue smoking, at least half will die due to a tobacco-related disease.

QUITTING: HEALTH BENEFITS

- **Circulation improves, walking becomes easier**
- **Lung function increases up to 30%**
- **Excess risk of CHD decreases to half that of a continuing smoker**
- **Lung cancer death rate drops to half that of a continuing smoker**
- **Risk of cancer of mouth, throat, esophagus, bladder, kidney, pancreas decrease**

- **Lung cilia regain normal function**
- **Ability to clear lungs of mucus increases**
- **Coughing, fatigue, shortness of breath decrease**
- **Risk of stroke is reduced to that of people who have never smoked**
- **Risk of CHD is similar to that of people who have never smoked**
TOBACCO DEPENDENCE: A 2-PART PROBLEM

Tobacco Dependence

**Physiological**

- The addiction to nicotine
  - Treatment
  - Medications for cessation

**Behavioral**

- The habit of using tobacco
  - Treatment
  - Behavior change program

Treatment should address the physiological and the behavioral aspects of dependence.
Nicotine reaches the brain within 11 seconds.

Nicotine adds to dopamine release

Pleasurable feelings

Repeat administration

Tolerance develops

Nicotine addiction is *not* just a bad habit.

Discontinuation leads to withdrawal symptoms.
Tobacco users maintain a minimum serum nicotine concentration in order to:
- Prevent withdrawal symptoms
- Maintain pleasure/arousal
- Modulate mood

Users self-titrate nicotine intake by:
- Smoking/dipping more frequently
- Smoking more intensely
- Obstructing vents on low-nicotine brand cigarettes
NICOTINE WITHDRAWAL EFFECTS

- Depression
- Insomnia
- Irritability/frustration/anger
- Anxiety
- Difficulty concentrating
- Restlessness
- Increased appetite/weight gain
- Decreased heart rate
- Cravings*

Most symptoms subside within 2–4 weeks.

* Not considered a withdrawal symptom by DSM-IV criteria.

“Numerous effective medications are available for tobacco dependence, and clinicians should encourage their use by all patients attempting to quit smoking—except when medically contraindicated or with specific populations* for which there is insufficient evidence of effectiveness.”

MEDICATIONS SIGNIFICANTLY IMPROVE SUCCESS RATES.

* Includes pregnant women, smokeless tobacco users, light smokers, and adolescents.

FDA-APPROVED MEDICATIONS for CESSATION

**Nicotine polacrilex gum**
- Nicorette (OTC)
- Generic nicotine gum (OTC)

**Nicotine lozenge**
- Commit (OTC)
- Generic nicotine lozenge (OTC)

**Nicotine transdermal patch**
- Nicoderm CQ (OTC)
- Generic nicotine patches (OTC, Rx)

**Nicotine nasal spray**
- Nicotrol NS (Rx)

**Nicotine inhaler**
- Nicotrol (Rx)

**Bupropion SR**
- Zyban (Rx)
- Generic bupropion SR (Rx)

**Varenicline**
- Chantix (Rx)

These are the only medications that are FDA-approved for smoking cessation.
NICOTINE REPLACEMENT THERAPY: RATIONALE for USE

- Reduces physical withdrawal from nicotine
- Eliminates the immediate, reinforcing effects of nicotine that is rapidly absorbed via tobacco smoke
- Allows patient to focus on behavioral and psychological aspects of tobacco cessation
Nicotine levels for various nicotine-containing products

- **Cigarette**
- **Moist snuff**
- **Nasal spray**
- **Inhaler**
- **Lozenge (2mg)**
- **Gum (2mg)**
- **Patch**

<table>
<thead>
<tr>
<th>Product</th>
<th>Plasma nicotine (mcg/l)</th>
<th>Time (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigarette</td>
<td>25</td>
<td>0, 10, 20, 30, 40, 50, 60</td>
</tr>
<tr>
<td>Moist snuff</td>
<td>20</td>
<td>0, 10, 20, 30, 40, 50, 60</td>
</tr>
<tr>
<td>Nasal spray</td>
<td>15</td>
<td>0, 10, 20, 30, 40, 50, 60</td>
</tr>
<tr>
<td>Inhaler</td>
<td>10</td>
<td>0, 10, 20, 30, 40, 50, 60</td>
</tr>
<tr>
<td>Lozenge (2mg)</td>
<td>5</td>
<td>0, 10, 20, 30, 40, 50, 60</td>
</tr>
<tr>
<td>Gum (2mg)</td>
<td>0</td>
<td>0, 10, 20, 30, 40, 50, 60</td>
</tr>
<tr>
<td>Patch</td>
<td>0</td>
<td>0, 10, 20, 30, 40, 50, 60</td>
</tr>
</tbody>
</table>
TOBACCO CESSATION REQUIRES BEHAVIOR CHANGE

- Fewer than 5% of people who quit without assistance are successful in quitting for more than a year.

- Few patients adequately PREPARE and PLAN for their quit attempt.

- Many patients do not understand the need to change behavior.

- Patients think they can just “make themselves quit.”

Behavioral counseling is a key component of treatment for tobacco use and dependence.
Compared to smokers who receive no assistance from a clinician, smokers who receive such assistance are 1.7–2.2 times as likely to quit successfully for 5 or more months.
NURSES CAN MAKE a DIFFERENCE

Nursing intervention for smoking cessation vs. usual care

$n = 31$ studies; 15,205 participants

Compared to smokers who receive usual care, smokers who receive assistance from a nurse have a 28% greater probability of successfully quitting for 5 or more months.

THE POCKET GUIDE
Helping Smokers Quit:
A Guide for Clinicians

The 5 A’s

• Ask
• Advise
• Assess
• Assist
• Arrange

STEP 1: ASK

- **ASK** about tobacco use

  - “Do you, or does anyone in your household, ever smoke or use any type of tobacco?”

  - “We like to ask our patients about tobacco use, because it has the potential to interact with many medications.”

  - “We like to ask our patients about tobacco use, because it contributes to many medical conditions.”
STEP 2: ADVISE

- ADVISE tobacco users to quit
  
  - “Quitting is important, and I can refer you to people who can help you.”
  
  - “There are several medications that can help you to quit. I’d be happy to ask the [doctor, nurse, pharmacist, etc.] to talk with you about these options.”
  
  - “People who receive assistance with quitting are more likely to be able to quit successfully. If you are interested, we can talk about different options.”
STEP 3: ASSESS

- **ASSESS** readiness to quit
  - Ask every tobacco user if s/he is willing to quit at this time.
  - If willing to quit, provide resources and assistance
    - See STEP 4, **ASSIST**
  - If NOT willing to quit at this time, provide resources and enhance motivation. Ask three questions:
    - “Do you ever plan to quit?” [If yes, continue with…]
    - “How will it benefit you to quit later, as opposed to now?”
    - “What is the worst thing that could happen if you were to quit tomorrow?”
STEP 4: ASSIST

- **ASSIST** tobacco users with a quit plan
  - Set a quit date, ideally within 2 weeks.
  - Get support from family, friends, and coworkers.
  - Review past quit attempts—what helped, what led to relapse.
  - Anticipate challenges, particularly during the critical first few weeks, including nicotine withdrawal.
  - Identify reasons for quitting and benefits of quitting.
  - Give advice on successful quitting:
    - Complete abstinence is essential—*not even a single puff*.
    - Drinking alcohol is strongly associated with relapse.
    - Having other smokers in the household hinders successful quitting.
STEP 4: ASSI ST (cont’d)

- ASSI ST tobacco users with a quit plan
  - Encourage use of pharmacotherapy when not contraindicated
  - Provide resources:
    - Toll-free telephone quitline, 1-800-QUIT NOW
    - Web sites for free materials:
      - Agency for Healthcare Research and Quality: www.ahrq.gov/path/tobacco.htm
      - Tobacco Free Nurses: www.tobaccofreenurses.org
    - Cessation materials appropriate by age, culture, language, education, and pregnancy status
STEP 5: ARRANGE

- ARRANGE follow up visits
  - Provide information for follow up visits with his/her health care provider
  - If a relapse occurs, encourage repeat quit attempt—tell patient that relapse is part of the quitting process.
    - Review circumstances that caused relapse.
    - Use relapse as part of the learning experience.
    - Reassess pharmacotherapy use and plans for termination.
  - Refer to other resources
REFER tobacco users to other resources

Referral options:

- Hospital-based cessation service (if available)
- A local group program
- The support program provided free with each smoking cessation medication
- Web-based program (e.g., www.quitnet.com)
- Toll-free telephone quitline: 1-800-QUIT-NOW
Referring patients to a toll-free quitline is simple and easily integrated into routine patient care.

- **Quitlines** are effective and provided at no cost to the caller
- **Quitline** callers receive one-on-one coaching and follow-up from trained counselors
- **Smokers receiving telephone counseling** are more likely to quit than those who only use self-help materials

- **Callers to 1-877-966-8784 also receive:**
  - Specially tailored educational materials matched to their needs
  - Free medications to support quit attempts

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**REFERRAL to the West Virginia TOBACCO QUITLINE**

Helping Smokers Quit
A Guide for Nurses
RESOURCES: West Virginia

- **West Virginia Tobacco Quitline:**
  - 1-877-966-8784 (M-Fri, 8am-9pm, Sat-Sun, 8am-5pm)
  - www.wvquitline.com

- **West Virginia Division of Tobacco Prevention:**
  - www.wvdtp.com

- **Tobacco Free Nurses**
  - www.tobaccofreenurses.org
  - www.helpingsmokersquit.org
    - Username/Password: hsq/hsq
WHY SHOULD WEST VIRGINIA NURSES ADDRESS TOBACCO?

- Helping your patients to quit is the most important thing you can do to protect their health now and in the future.

- If each of the 30,000 nurses in West Virginia helped four smokers per year to quit, we could reach 120,000, 31%, of the 384,500 smokers in the state!

- You can make a big difference in your patients’ lives!
TOBACCO FREE NURSES
www.tobaccofreenurses.org

HSQ tab
Username: hsq
Password: hsq
Welcome to Helping Smokers Quit!

Thanks for participating in this important initiative! Nurses can play a pivotal role in addressing the primary cause of death and disease in the United States: tobacco use. Tobacco use is the leading cause of preventable death and illness in the U.S., causing over 400,000 deaths every year and costing trillions of dollars in healthcare costs and loss of life. You are part of a national effort to improve quality of care and the health of your patients by learning more about how to help smokers quit.

We are inviting nurses from 10 hospitals in California, Indiana, and West Virginia, to participate in this project and to receive free training and resources in tobacco cessation. Choose your state below and get started!

- California
- West Virginia
- Indiana

The Helping Smokers Quit (HSQ) project is funded by the Centers for Disease Control and Prevention. Your hospital is one of 30 hospitals in the country participating in this project.

The HSQ is an innovative distance-learning program to assist nurses to help their patients stop smoking based on the U.S. Public Health Service’s Treating Tobacco Use and Dependence, Clinical Practice Guideline (Guideline). Despite its availability, the Guideline is underutilized by healthcare professionals. As the largest group of healthcare providers, effectively trained nurses can be invaluable in helping patients stop smoking. Additionally, the Joint Commission on Accreditation of Healthcare Organizations rates hospitals based upon their performance in smoking cessation interventions for patients with heart attack, heart failure, and pneumonia.

An important component of the HSQ project is to provide resources and information through the Web. A detailed description of what you can find on the HSQ website can be found by here. If you have any questions, please refer to our Frequently Asked Questions section, or contact us directly via email or by phone at 1-877-260-1414.

The project is based at the University of California, Los Angeles School of Nursing.

Please meet the team who is coordinating the HSQ Project:

- Linda Sarna, RN, DNSc, FAAN, Principal Investigator
- Michael Oku, MD, Co-Investigator
- Patricia Parkerson, MPH, PhD, Co-Investigator
- Marjorie Wells, RN, PhD, FNP, Project Director
- Lisa Wei Chang, MPH, Project Assistant
- Ms. Jenny Kellerman, MS, Principal Statistician
- Stella Agiunoga-Boulos, RN, MSN, DrPH, FAAN, Consultant
Q & A

Linda Sarna, RN, DNSc, FAAN  Stella Bialous, RN, DrPH, FAAN

Any questions or comments?