Helping Smokers Quit: Indiana

Linda Sarna, RN, DNSc, FAAN
Stella Aguinaga Bialous, RN, DrPH, FAAN
Marjorie Wells, PhD, RN, FNP

From Guideline to Practice: A Nursing Intervention to Help 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

<table>
<thead>
<tr>
<th>Annual U.S. Deaths Attributable to Smoking, 1997–2001</th>
<th>Percentage of all smoking-attributable deaths*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular diseases</td>
<td>137,979</td>
</tr>
<tr>
<td>Lung cancer</td>
<td>123,836</td>
</tr>
<tr>
<td>Respiratory diseases</td>
<td>101,454</td>
</tr>
<tr>
<td>Second-hand smoke*</td>
<td>38,112</td>
</tr>
<tr>
<td>Cancers other than lung</td>
<td>34,693</td>
</tr>
<tr>
<td>Other</td>
<td>1,828</td>
</tr>
</tbody>
</table>

United States: 437,902 deaths annually
Indiana: 9,800 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

20.8% of adults are current smokers

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 INDIANA, BY GENDER

- Men, 25.9%
- Women, 22.5%

Overall smoking rate 24.1%, #6 in U.S.

KEY ISSUES: INDIANA

- Smoking during pregnancy:
  - prevalence 17.3%

- Smoking among 18–24 year olds:
  - 29.8%

- Adolescent smoking:
  - 22.5% of high school students (U.S. average 20.0%) in 2007

- Tobacco-related health-care costs:
  - $2+ billion/year

Slide Title

KEY ISSUES: INDIANA (cont’d)

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

- **Cigarette taxes:**
  - 80% increase in cigarette taxes from 55.5¢ to 99.5¢ per pack in 2007 (U.S. median, $1.18 per pack).
  - Ranked #28 in the United States.

**Tobacco industry spending:**
- $425+ million spent by tobacco companies per year.
- Indiana with over 1.4 million smokers is a “test state” for new tobacco products.

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

**Gases**
- Carbon monoxide
- Hydrogen cyanide
- Ammonia
- Benzene
- Formaldehyde

**Particles**
- Nicotine
- Nitrosamines
- Lead
- Cadmium
- Polonium-210

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

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
- Separating smoking areas, cleaning the air, and ventilation are not effective

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

<table>
<thead>
<tr>
<th>Time Since Quit Date</th>
<th>Benefits</th>
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<tbody>
<tr>
<td>2 weeks to 3 months</td>
<td>Lung cilia regain normal function</td>
</tr>
<tr>
<td>1 to 9 months</td>
<td>Ability to clear lungs of mucus increases</td>
</tr>
<tr>
<td>1 year</td>
<td>Coughing, fatigue, shortness of breath decrease</td>
</tr>
<tr>
<td>5 years</td>
<td>Risk of stroke is reduced to that of people who have never smoked</td>
</tr>
<tr>
<td>10 years</td>
<td>Risk of CHD is similar to that of people who have never smoked</td>
</tr>
<tr>
<td>after 15 years</td>
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- 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
- 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. 

BIOLOGY of NICOTINE

Nicotine addiction is not just a bad habit.

Discontinuation leads to withdrawal symptoms.

Nicotine stimulates dopamine release

Pleasurable feelings

Repeat administration

Tolerance develops
NICOTINE ADDICTION

- 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*

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

Most symptoms subside within 2–4 weeks.

“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.”

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

<table>
<thead>
<tr>
<th>Nicotine polacrilex gum</th>
<th>Nicotine nasal spray</th>
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<tbody>
<tr>
<td>Nicorette (OTC)</td>
<td>Nicotrol NS (Rx)</td>
</tr>
<tr>
<td>Generic nicotine gum (OTC)</td>
<td></td>
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<table>
<thead>
<tr>
<th>Nicotine lozenge</th>
<th>Nicotine inhaler</th>
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<tbody>
<tr>
<td>Commit (OTC)</td>
<td>Nicotrol (Rx)</td>
</tr>
<tr>
<td>Generic nicotine lozenge (OTC)</td>
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<table>
<thead>
<tr>
<th>Nicotine transdermal patch</th>
<th>Bupropion SR</th>
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<tbody>
<tr>
<td>Nicoderm CQ (OTC)</td>
<td>Zyban (Rx)</td>
</tr>
<tr>
<td>Generic nicotine patches (OTC, Rx)</td>
<td>Generic bupropion SR (Rx)</td>
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<table>
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<tr>
<th>Varenicline</th>
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<tbody>
<tr>
<td>Chantix (Rx)</td>
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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**

**Time (minutes)**

- 0
- 10
- 20
- 30
- 40
- 50
- 60
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

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.

Usual Care: Estimated abstinence at 5+ months = 1.0

Nurse Intervention: Estimated abstinence at 5+ months = 1.28 (1.2, 1.4)

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: ASSIST (cont’d)

- **ASSIST** 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 WHEN LIMITED BY TIME or EXPERTISE

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 material
- **Callers to 1-800-QUIT-NOW may receive:**
  - Trained Quit Coach helps work out customized quitting plan including counseling and a quit kit
  - Callers encouraged to contact physician for smoking cessation medications
  - Referral to community smoking cessation support programs
RESOURCES: INDIANA

- **Indiana Tobacco Quitline:**
  - 1-800-QUIT NOW (8am-midnight, 7 days/week)
  - www.indianaquitline.net

- **Indiana Tobacco Prevention & Cessation:**
  - www.itpc.in.gov

- **Tobacco Free Nurses**
  - www.tobaccofreenurses.org
  - www.helpingsmokersquit.org
    - Username/Password: hsq/hsq
WHY SHOULD INDIANA 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 100,000+ nurses in Indiana helped four persons quit smoking per year, we could reach 400,000, over 1/3, of the 1,141,300 smokers in the state!
- You *can* make a big difference in your patients’ lives!
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 the 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 10 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 upon 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 web pages 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 1-877-203-4144.

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 Sano, RN, DNSc, FAAN, Principal Investigator
- Michael Ong, MD, Co-Investigator
- Patricia Parker, MPH, PhD, Co-Investigator
- Marjorie Wells, RN, PhD, FNP, Project Director
- Lisa Wei Chang, MPH, Project Assistant
- Ms. Jenny Kotlerman, MS, Principal Statistician
- Stella Aguinaldo Bialous, RN, MS, DrPH, FAAN, Consultant
Any questions or comments?