

Viewing Time

The program will take up to one hour to complete.

Target Audience

This program is designed for primary care physicians.

Other health care professionals working with patients and their families may also find this program of interest.

Faculty Disclosure

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Faculty Disclosure

Janet Williams, MA has disclosed no actual or potential conflict of interest in relation to this educational activity.

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Health Risks Associated with Secondhand Smoke: Advice for Families: *Physician Counseling on Secondhand Smoke Exposure*

Janet Williams, MA
Director of Tobacco Control Projects
American Medical Association

Health Risks Associated with Secondhand Smoke: Advice for Families: *Physician Counseling on Secondhand Smoke Exposure*

A lecture on the health impact of secondhand smoke exposure, how that exposure can be reduced, and office-based systems for educating patients and their families.

Program Objectives

Upon completion of this program, participants should be able to:

- Educate patients on the health impact of secondhand smoke exposure and how to reduce family exposure
- Increase awareness among medical/specialty societies on the impact of secondhand smoke exposure on the health of children, how that exposure can be reduced, and the role clinical practices can play in supporting exposure reduction
- Assist physicians and their staff to establish office-based systems for educating patients and their families on secondhand smoke issues

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Accreditation

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Receiving CME Credit



To receive CME credit you must view the entire program and complete the evaluation form at the end.



Health Risks Associated with Secondhand Smoke: Advice for Families


Physician Counseling on Secondhand Smoke Exposure


Janet Williams, MA
Director of Tobacco Control Projects




What is Secondhand Smoke?

- Smoke from smoldering tobacco products – side-stream smoke
- Smoke exhaled from smoker – mainstream smoke







- 4,800 compounds
- 69 known/suspected carcinogens
- Nicotine – primary cause of cigarette addiction
- Major irritant gases




* National Cancer Institute, *Monograph No. 10*, (1999)
 * HHS, *Health Consequences of Smoking: Nicotine Addiction* (1988)
 * Chan-Teung & Dimich-Ward, *Respirology* (2003)

Class A Carcinogens


- Arsenic
- Asbestos
- Benzene
- Environmental tobacco smoke
- Radon
- Vinyl chloride






Leading Causes of Preventable Deaths in the U.S

1. Tobacco
 - 430,000 deaths by smokers
2. Alcohol
 - 81,000 deaths by drinkers
3. Secondhand Smoke
 - 53,000 death of innocent bystanders


Children and Secondhand Smoke

- 24,300 to 71,900 low birth weight or pre-term delivery
- 150,000-200,000 respiratory infections annually in US infants and children under 18 months
- 200,000 asthma episodes annually


Biomarkers of SHS Exposure

- Cotinine levels in blood, urine, and saliva correlate with number of cigarettes smoked in area
- Long-lasting tobacco metabolites from SHS smoke reach levels up to 15% of those in smokers

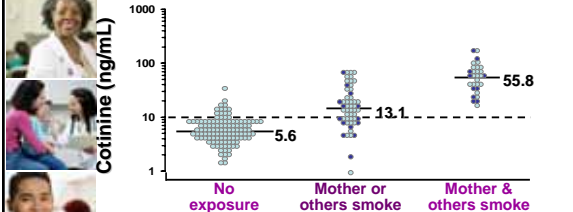


Air Monitoring


- Concentrations of SHS are variable
- Maximum levels often 10x or 100x average level
- With smoking in an area, there are elevated air levels of:
 - VOCs
 - polycyclic aromatics
 - formaldehyde
 - toluene
 - CO



SHS Exposure & Urine Cotinine



Chilmonczyk BA. NEJM 328:1665, 1993



Estimated Annual Morbidity and Mortality in Nonsmokers Associated with SHS Exposure

	U.S.	Minnesota
Children		
Low birth weight	9,700-18,600 cases	190-370 cases
Sudden Infant Death Syndrome (SIDS)	1,900-2,700 cases	30-50 deaths
Middle ear infections	0.7-1.6 million	14,000-32,000 (office visits)
Asthma induction	8,000-26,000 new cases	160-520 new cases

NCI Monograph #10, www.cancercontrol.cancer.gov/tcrb/monographs/10


Estimated Annual Morbidity and Mortality in Nonsmokers Associated with ETS Exposure (cont.)

	U.S.	Minnesota
Asthma exacerbation	400,000-1 million children	8,000-20,000 children
Bronchitis or pneumonia (infants ≤18 months old)	150,000-300,000 cases 7,500-15,000 hospitalizations 136-212 deaths	3,000-6,000 cases 150-300 hospitalizations 3-4 deaths
Adults		
Lung cancer	3,000 deaths	60 deaths
Coronary disease	35,000-62,000 deaths	700-1,240 deaths

NCI Monograph #10, www.cancercontrol.cancer.gov/tcrb/monographs/10

Exposure of Children Under 6

- Race & Ethnicity
 - Asian/PI: 23%
 - African/Am: 28%
 - White: 27%
 - Hispanic: 20%
- Family Income
 - Poor: 38%
 - Near poor: 33%
 - Middle/high: 19%





Does SHS Trigger Asthma?

Smoke exposure and asthma in children

- Urine cotinine levels measured in 199 asthmatic kids
- 145 also had pulmonary function tests (PFT)
- Parental questionnaire used to determine smoke history
- # of asthma episodes determined by blinded chart review

Chilmonczyk, B et al: NEJM 328:1665-1669; June 10, 1993






SHS and Exacerbations of Asthma in Children

- 199 children with asthma
- Parental report of ETS exposure
- Median urine cotinine 5.6, 13.1 and 55.8 with no ETS exposure, mother or other persons, mother and other persons
- ↑ acute asthma exacerbations with ↑ exposure (RR 1.8 parent report & 1.7 by cotinine)
- ↓ FEV₁ with ↑ exposure

Chilmonczyk BA. NEJM 328:1665, 1993





YES....







Secondhand Smoke and Childhood Asthma

- Children ages 0 to 5 who are exposed to maternal smoking are 2.1 times more likely to develop asthma (Weitzman, Pediatrics 1990)
- Risk of asthma 2.5 times higher if child exposed to maternal smoking mother has < 12 years education (Martinez, Pediatrics 1992)
- Risk is greatest in those with the lowest SES



- Prospective cohort study
- Involved 1,932 4th grade children
- SHS associated respiratory-illness-related school absences (RR=1.27)
- Risk is higher if:
 - Child has asthma (RR=2.35)
 - 2+ smokers in household (RR=1.44)
 - Asthma and 2+ smokers (RR=4.45)

Gilliland, Am J Epi, 2002;157:861-9


SHS and Respiratory infections in Children


- Wright and co-workers: infants who mothers smoke 1 pack/day had 2.8 times increased risk of lower respiratory infection
- Children hospitalized for acute lower respiratory infections before age 2 are 1.8 times as likely to live with a smoker
- Infants with bronchiolitis were 2.4 times more likely to have been exposed to maternal smoking

Middle Ear Disease: Background

- Eustachian tube dysfunction is central to development of middle ear disease
- Secondhand smoke may contribute to eustachian tube dysfunction through:
 - decreased mucociliary clearance
 - adenoidal hyperplasia
 - mucosal swelling
 - increased frequency of upper respiratory tract infections






SHS Damages Lungs in Healthy Adolescents

- 29 teen males (non-smokers), from homes with smokers, and 30 controls
- Urinary cotinine levels to document exposure
- Passive smokers had higher residual volume and mid-expiratory flow rates

Sergi et al: Chest 2004; 125(4) ISSN: 0012-3692





Relationship to Behavioral/Cognitive Disorders

Maternal Smoking During Pregnancy:



- Toddler negativity
- Aggressive Behavior
- Poor Achievement in School
- ADD-like Behavior

Brook JS. Arch Ped Adol Med 2000; 154: 381-5

Additional Dangers


- Fires
- Adult Smoking Behavior
- Captive

Healthcare Costs in Children

- Based on estimated annual excess cases
 - LBW – 46K cases, 2800 perinatal deaths
 - SIDS – 2000 deaths
 - RSV – 22K hosp, 1100 deaths
 - AOM – 3.4 MM visits
 - OME – 110K tympanostomies
 - Asthma –1.8 MM visits, 14 deaths
 - Fire-related injuries – 10K visits, 590 hosp, 250 deaths
- Direct costs – \$4.6B (\$6.4B in 2006 dollars)
- Indirect costs – \$8.2B (\$11.4B in 2006 dollars)


Aligne, Arch Ped Adol Med 1997; 151:648-53




Protective U.S. Legislation

- Smoking prohibited
 - Facilities providing kindergarten, elementary & secondary education, library services, or healthcare for children


(US Pro-Children Act, 1994)
- Foster Care or Custody

Clinical opportunities lost

- Among 33,823 child/adolescent visits for ambulatory care, 520 visits reported tobacco counseling (1.5%)
- Only 4.4% of visits of children for asthma included tobacco counseling

Tanski, S, Pediatrics, 2003; V111N2:162-167



Pediatrician Self-Efficacy

	Not at All Confident n (%)	Somewhat Confident n (%)	Moderately Confident n (%)	Very Confident n (%)	Extremely Confident n (%)
Inquire about the smoking status of a parent of an asthmatic patient (n = 457)	2 (0%)	13 (3%)	46 (10%)	201 (44%)	195 (43%)
Inquire about smoking status of an asthmatic patient (n = 456)	1 (0%)	14 (3%)	56 (12%)	202 (44%)	183 (40%)
Counsel smoking cessation to the parent of an asthmatic patient (n = 457)	16 (4%)	53 (12%)	120 (26%)	160 (35%)	108 (24%)
Counsel smoking cessation to an asthmatic patient (n = 454)	14 (3%)	46 (10%)	127 (28%)	162 (36%)	105 (23%)

Cabana, Pediatrics, Vol. 113, N.1, January 2004



Challenges

- 41% of smoking parents of hospitalized children did not believe their smoking had a negative effect on their child's health (Winickoff et al AJPM 2001)
- Some mothers smoke for postpartum weight loss
- Stress of caring for infant
- Others smoking & mother reluctant to speak up



Barriers

- Weather conditions not conducive to going outside
- Temptation to smoke inside after children have gone to bed
- Reluctance by some members of the household to make their home/car smoke-free



Support of Counseling Parents

- American Academy of Pediatrics
- American Academy of Family Physicians
- American Medical Association
- United States Preventive Services Task Force
- Maternal and Child Health Bureau (*Bright Futures Guidelines*)
- Healthy People 2010



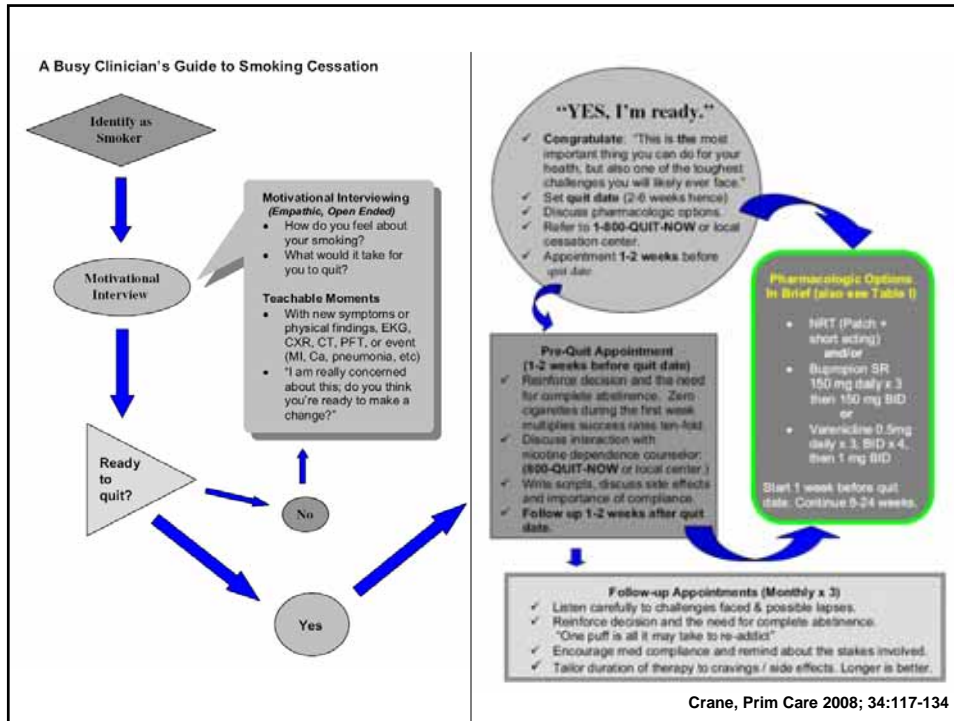
AMA Policies

H-490.917 Physician Responsibilities for Tobacco Cessation –
Any appropriately licensed health care professional is supported by the AMA in treating tobacco dependence.




- H-60.942 Childhood Asthma: Emerging Patterns and Prospects for Novel Therapies
- H-490.993 Recognizing Effective Use of State Tobacco Settlement Monies
- H-490.999 Coding for Health Problems Related to Tobacco Use







Reimbursement Overview

Options Available to Care for the Patient by Eliminating Cause of Secondhand Smoke



Assessment



- Child's Exposure to Secondhand Smoke
- Who is Smoking
- Education
- Referral

Coding Options

- Adverse Health Effect
989.84
- Worsens Condition
V15.89



Up-Coding

Time-Based Coding

- Considered when counseling takes up more than 50% of the session
- Document total duration of counseling, total duration of visit, and topics covered for counseling or coordination
- Can make a difference in reimbursement


Coding Based on Time					
Total Time Spent With Patient (Minutes)					
	Level 1	Level 2	Level 3	Level 4	Level 5
Established Patient	5	10	15	25	40
New Patient	10	20	30	40	60

Physician Checklist



New South Wales Car & Home: Smoke Free Zone Campaign

- Identification Stage:
 - **Step 1**
 - Does anyone in your household smoke?
 - If no, then ask:
 - Does anyone who looks after your child smoke?
 - Do any visitors smoke inside your home or car?
 - Are you aware of the ways that being around smokers can affect your child's health?






Information Stage

- **Step 2:** Explain what secondhand smoke is.
- **Step 3:** Explain how children can be affected by secondhand smoke
 - Proximity of babies and children to people smoking
 - Children's exposure predominantly occurs in the home & car
 - Exposure can also occur in homes of friends, caregivers and social settings


- **Step 4:** Explain Secondhand Smoke Effects on Children
- Infants and children can develop health problems due to inhaling other people's smoke.
- **Step 5:** Outline the Health Risks of Exposure






Step 6 - Intervention Stage
Give suggestions on how to achieve smoke-free car & home

- Do not allow smoking in enclosed spaces
- Designate smoking areas outside
- Remove ashtrays & lighters inside the home
- Place non-smoking stickers in home & car
- Ask visitors to smoke outside




Step 7: Advise parents of additional benefits of smoke-free home & car



- Smoking bans may encourage smokers to change their smoking behaviors (more attempts to quit, longer time to relapse, reduced consumption of tobacco)
- Smoking bans discourage adolescents from taking up the habit themselves


Summary of Health Effects

Maternal smoking during and after pregnancy has effects that include:

- Low birth weight/slower growth in early childhood
- Increased frequency & severity of asthma
- Increased lower respiratory tract infections
- Otitis media and sinusitis
- Behavioral and cognitive disorders
- Lower PFT results in teens

State Cessation Resources




QUITPLAN® Services for Minnesotans

Call 1-888-354-PLAN or visit quitplan.com




QUITPLAN® Helpline


- Access to experienced, professional phone counselors
- Multi-session telephone counseling
- Up to 8 weeks of nicotine replacement therapy
- English and Spanish (other languages supported through AT&T interpretive services)
- TTY line available for hearing impaired†







quitplan.com

- Internet-based counseling, self-help materials, Internet social support, other program information
- NRT purchasing at client expense
- GUIDELINES: Patients with Internet access—regardless of health plan coverage


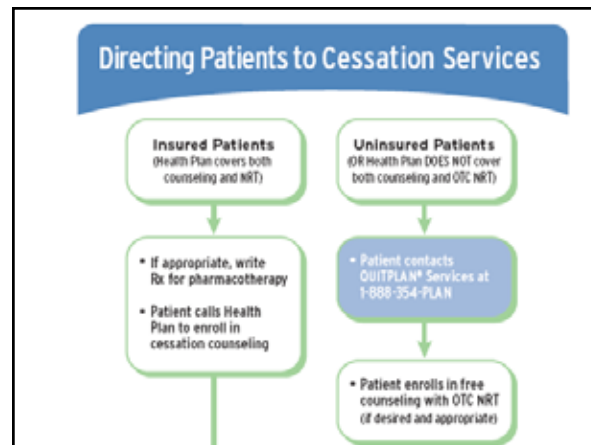
QUITPLAN Centers

- Individual and group counseling
- Up to 8 weeks NRT through health plan or provided by ClearWay Minnesota if no NRT benefit through health plan
- Health plans are billed for services to their members

Online CME Course

- Based on the Clinical Practice Guideline: *Treating Tobacco Use and Dependence*
- Additional Information at www.clearwaymn.org

Minnesota Health Plans Tobacco Counseling Programs

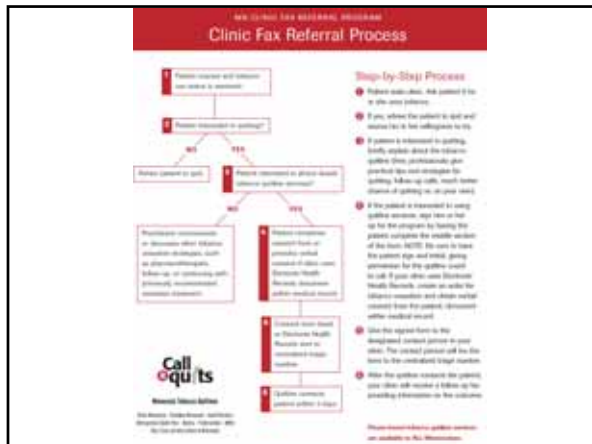
BCBS of MN Blue Plus First Plan of MN	1-888-662-BLUE
CCStpa	1-888-662-QUIT
HealthPartners	1-800-311-1052
Medica MCHA members	1-866-QUIT-4-LIFE
Metropolitan Health Plan	1-800-292-2336
and PreferredOne Community Health Plan	
UCare Minnesota	1-888-642-5566
If Health Plan not listed above: Call QUITPLAN® Services	1-888-354-PLAN
quitplan.com is available to all Minnesotans	



Clinic Tools

www.preventionminnesota.org



Clinic ID #: _____ Minnesota Fax Number: 1-800-488-4334

MN CLINIC FAX REFERRAL PROGRAM
MINNESOTA TOBACCO QUITLINES FAX FORM

Clinic Information: Date: _____
 Clinic Name: _____
 Address: _____ City: _____ Zip: _____ County: _____
 Health Care Provider: _____
 Contact Name: _____
 Fax: (_____) _____ Phone: (_____) _____
 Email Address: _____ Type: _____

Patient Information:
 Patient Name: _____ DOB: _____
 Address: _____ City: _____ Zip: _____
 Phone Number: (_____) _____ Alternate Phone Number: (_____) _____
 Email Address: _____

Some health plans offer telephone counseling, please indicate which medical insurance you have so we can connect you with the correct service:
 I do not have medical insurance (you will still receive a call)
 Blue Cross and Blue Shield of MN HealthPartners MHSI Health
 Metropolitan Health Plan (MHP) PreferredOne UCare Other _____

One of Minnesota's tobacco quitlines will call you. Please check the BEST 3-hour call window for them to reach you:
 7am - 11am 11am - 2pm 2pm - 5pm 5pm - 9pm 9pm - 11pm

May we leave a message? Yes No

Language Preference (check one): English Spanish Other _____

I am ready to quit tobacco and request my contact information be given to my health plan telephone quitline so they can contact me OR for uninsured patients or those with health plans other than those listed above, I am ready to quit tobacco and request the QUITLINE telephone contact me to help me quit tobacco.

I agree to have one of Minnesota's Quitlines call my health care provider(s) that I enrolled in quitline services and provide them with the results of my participation.

Patient Signature: _____ Date: _____

Available Patient Materials

AMA
TOGETHER WE GET STRONGER

Welcome to my Smoke-free Home

AMA
AMERICAN MEDICAL ASSOCIATION

This is a Smoke-free Car


AMA
AMERICAN MEDICAL ASSOCIATION

Secondhand smoker? Know the dangers

- Non-combustible cigarette components (tar, nicotine, carbon monoxide, and other toxic chemicals) are found in the air around the smoker.
- Tobacco smoke causes the most serious health problems in children, including asthma, bronchitis, and ear infections.
- Children who live in homes where parents smoke are more likely to become smokers, and have higher rates of asthma, bronchitis, and ear infections.



Change your second smoke habits. Make your car and home smoke-free.
 If you smoke, make sure you quit, and if you smoke, make sure you quit, and if you smoke, make sure you quit.

AMA
AMERICAN MEDICAL ASSOCIATION



Acknowledgements


- Tao Le, MD
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A Comprehensive Approach

Reducing the prevalence of smoking in the total population likely to be the most effective and sustainable option for increasing the prevalence of smoke-free homes.

J Epidemiol Community Health 2006;60:298-304.



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What about secondhand smoke in daycare centers?

What is the impact of secondhand smoke on the immune system?

What about tobacco growers?

**What about the use of
chewing tobacco?**

**What about insurance
reimbursement of
pharmacological aids and
counseling services for
smoking cessation?**

**Comment on Children's
program for counseling
parents on reducing
secondhand smoke and
smoking cessation?**

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