Preventing Chronic Diseases: Investing Wisely in Health

Preventing Smoking During Pregnancy

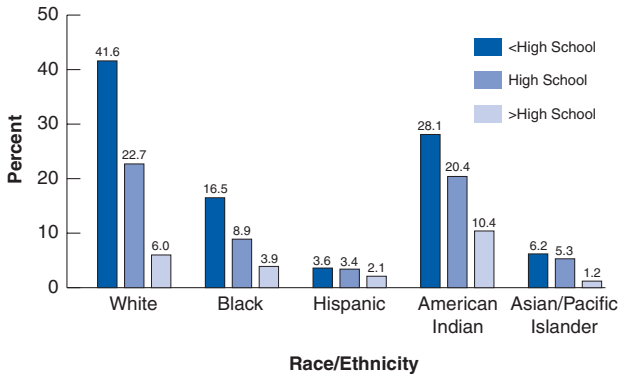
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

The Reality

Smoking during pregnancy is the single most preventable cause of illness and death among mothers and infants.

- Women who smoke during pregnancy are more likely than nonsmokers to have a miscarriage or ectopic pregnancy.
- Up to 8% of all babies who die less than a week after birth die because of problems caused by their mothers' smoking during pregnancy.
- Babies born to smokers are 1.5–3.5 times more likely to have low birthweights than babies born to nonsmoking mothers. Low-birthweight babies are at risk for serious health problems throughout their lives.
- In 1999, more than 12% of women giving birth reported that they smoked during pregnancy.
- Teenagers are more likely than older mothers to smoke during pregnancy, and maternal smoking is not declining among teens, although it is declining among older mothers.
- In a 1999 multistate survey, 14%–38% of women on Medicaid smoked during the last trimester compared with 3%–17% of women not covered by Medicaid.
- The less education a woman has, the more likely she is to smoke during pregnancy.
- White women are far more likely to smoke during pregnancy than black, Hispanic, American Indian, or Asian/Pacific Islander women.*

Pregnant Women Who Smoke, by Education and Race/Ethnicity,* United States, 2001



*The white, black, American Indian, and Asian/Pacific Islander categories exclude Hispanics. Percentages are based on only those births for which the mother's smoking status was reported. Data are excluded for California, which did not report the mother's smoking status on birth certificates.
Source: National Center for Health Statistics, CDC, 2001.

The Financial Costs

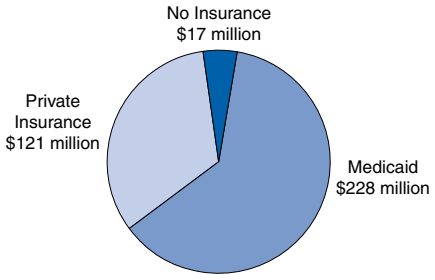
Smoking during pregnancy carries a heavy financial burden. Health care costs at delivery for problems caused by smoking during pregnancy totalled about $366 million in the United States during 1996 alone:

- Nearly two-thirds of this amount—$228 million—was for babies born to mothers on Medicaid.
- About $54 million was for babies born to teenagers.
- Smoking-attributable costs at delivery averaged about $704 per maternal smoker. These costs varied by state, from a low of $519 to a high of $1,334 per maternal smoker.

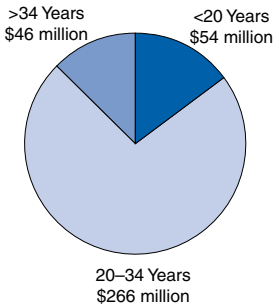
The financial burden of smoking during pregnancy is even greater today than these figures indicate because medical care costs have risen substantially in recent years, by more than 14% between 1996 and 2000.

Smoking-Attributable Health Care Costs at Delivery, United States, 1996

By Insurance Status at Delivery



By Mother's Age



Source: CDC. Annual smoking-attributable mortality, years of potential life lost, and economic costs—United States, 1995–1999. *MMWR* 2002;51(14):300–3 (www.cdc.gov/tobacco/sammec).

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State Programs in Action: Utah

In Utah, over 6% of women smoke during pregnancy, but the rate is much higher for women on Medicaid. Nearly 14% of women on Medicaid smoke during pregnancy. Decreasing smoking rates in this high-risk and underserved population is an important public health objective in Utah.

To help low-income women stop smoking during pregnancy, Utah formed a partnership between Medicaid and the state's Tobacco Prevention and Control Program. Working together, these partners used state funds and matching federal dollars to expand the smoking cessation services offered to Medicaid clients:

- Pregnant Medicaid clients who smoke are identified, contacted, and followed to monitor what smoking cessation services they use and whether they have quit smoking.
- Pregnant women can get targeted, comprehensive smoking cessation services by calling the Utah Tobacco Quit Line.
- Zyban, a nicotine-free pill that curbs the urge to smoke, is available to all adults covered by Medicaid who smoke and are ready to quit.
- Medicaid provides matching funds for a portion of the state's Tobacco Prevention and Control Program media campaign, which targets Medicaid clients who use tobacco.

Since the partnership began, more than 4,500 pregnant women have been screened for smoking, and nearly 200 women have enrolled in the program. About 43% of women reported either quitting or reducing tobacco use after participating in the program. Because underuse of smoking cessation services is a continuing challenge, Utah and its partners have launched an on-going, targeted publicity campaigns to let pregnant women and others know that these services are available and covered by Medicaid.

Lives and Dollars Saved

- When mothers quit smoking during the first trimester, their infants have weight and body measurements similar to infants of nonsmokers.
- Smoking cessation programs for pregnant women protect against health conditions such as intrauterine growth retardation, which causes low birthweight and other serious health problems.
- Just a 1% decline in the proportion of pregnant women who smoke would prevent 1,300 cases of low birthweight each year and would save $21 million in direct medical costs (1995 U.S. dollars).
- Every $1 spent on smoking cessation for pregnant women could save about $3 in reduced neonatal intensive care costs.
- If 25% of pregnant smokers on Medicaid received smoking cessation counseling and 18% of these women quit smoking, almost $10 million in excess Medicaid neonatal health care costs could be averted.

Effective Strategies

- All pregnant women need to be screened for smoking at their first prenatal care visit and throughout their pregnancy.
- When counseling pregnant smokers, doctors should use the modified 5A's intervention: Ask, Advise, Assess, Assist, and Arrange. In just 10–15 minutes, doctors can give pregnant smokers personalized messages about the health risks that smoking poses and self-help materials developed specifically for pregnant smokers. Doctors also can consider prescribing medication to help heavy smokers quit, provided that the benefits outweigh the risks. In practices that have used the 5 A's approach, quit rates among pregnant women have risen by 30% or more.
- Making the modified 5A's intervention part of national, state, and local quit line protocols would help ensure that pregnant smokers get the information they need. This strategy is being used during the American Legacy Foundation's Great Start campaign.
- Insurance coverage for smoking cessation services would help pregnant women stop smoking. To guide purchasers of health insurance, CDC and George Washington University developed model purchasing specifications that identify services proven effective in treating tobacco dependence.

Hope for the Future

Pregnant mothers are far more likely to quit smoking when their doctors use the modified 5 A's approach. Such efforts move the nation closer to meeting the *Healthy People 2010* goal of reducing tobacco use so that no more than 1% of pregnant women smoke. Public health can promote better use of scarce health care resources by focusing smoking cessation efforts on those groups of women who are most likely to smoke during pregnancy.

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