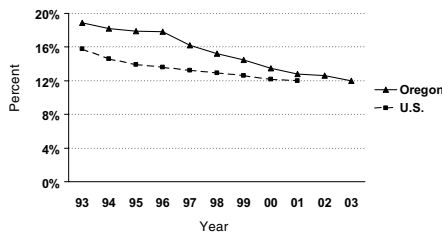


AN EPIDEMIOLOGY PUBLICATION OF THE OREGON DEPARTMENT OF HUMAN SERVICES

HELPING PREGNANT SMOKERS QUIT AND STAY QUIT

**P**REGNANCY provides an important opportunity for providers to encourage and help women quit smoking. Some smokers have already quit by the time they begin prenatal care. Knowing that smoking harms the fetus makes many women willing to stop smoking during pregnancy. (And knowing that smoking harms children makes many women willing to continue to abstain from smoking after the baby is born.) This *CD Summary* is about how you can help pregnant smokers quit smoking and stay quit after the baby is born.

Percentage of Infants Born to Mothers Who Used Tobacco During Pregnancy Oregon vs. US, 1993–2003



During the past decade, the number of women who smoke during pregnancy declined both in Oregon and in the US (figure). In Oregon, the number of pregnant women who smoked declined sharply (from 18% in 1996 to 12% in 2003) after the Tobacco Prevention Education Program started in 1997. Nonetheless, in 2003, 12% of infants in Oregon were born to mothers who smoke. Younger pregnant women were more likely to smoke than older women (24% for pregnant women 18–19 years old compared to 7% for those >30 years old), and pregnant women with less than a high school education were more likely to smoke (20%) than those with some college (9%). In addition, pregnant women in rural counties in Oregon were more likely to smoke than those living in more urban settings.

**RISKS OF SMOKING**

The health consequences of smoking are enumerated in the 2004 Report of the Surgeon General.<sup>1</sup> They include:

- Smoking during pregnancy increases the risk of complications, including ectopic pregnancy, spontaneous abortion, placenta previa, placental abruption, preeclampsia, and preterm premature rupture of membranes.
- Nicotine in cigarettes causes constrictions in the blood vessels of the umbilical cord and uterus, thereby decreasing the oxygen available to the fetus. On average, babies born to women who smoke throughout their pregnancies have infants who weigh about 200 grams less than infants of women who do not smoke during pregnancy. These babies not only weigh less but they also have smaller head circumferences and are shorter.
- Smoking by the mother increases the infant’s risk of Sudden Infant Death Syndrome (SIDS) and decreases the infant’s lung function.
- Exposure to second-hand smoke makes children more vulnerable to slow lung growth, chronic coughing, wheezing, middle ear infections and asthma.

About 25% of women quit smoking spontaneously when they are planning to become pregnant or when they find out that they are pregnant.<sup>2,3</sup> Some quit without assistance, while many may need assistance.

Pregnancy provides a golden opportunity for the mother-to-be to quit smoking and for her doctors to help her to quit. This teachable moment comes because she is more motivated to quit—if she doesn’t do it for herself, she may do it for her child. Health care providers have more opportunity to help because pregnant women have

more frequent contact with the health care system during prenatal care and home nurse visits.

**HOW CAN YOU HELP HER QUIT?**

The US Preventive Services Task Force has given its highest recommendation to clinicians providing augmented counseling to pregnant women who smoke.<sup>4</sup>

The U. Public Health Service’s Clinical Practice Guidelines recommend that pregnant smokers be offered extended or augmented psychosocial interventions that exceed minimal advice to quit. They also recommend that these interventions be offered on a continuous basis, every time the patient is seen during pregnancy. The most effective approach to helping smokers quit is an evidence-based counseling approach known as the “5 A’s.”<sup>5</sup>

**WHAT ARE THE 5 A’S?**

**Ask:** ask patient about her smoking status;

**Advise:** provide clear advice to quit with personalized messages about the impact of smoking on mother and fetus;

**Assess:** assess willingness of patient to make a quit attempt within next 30 days;

**Assist:** suggest and encourage the use of problem-solving methods and skills for cessation; provide pregnancy-specific smoking cessation materials, provide referral to the Oregon Tobacco Quit Line (1-877/270-STOP); and

**Arrange:** arrange follow-up; ask about quit status at every subsequent visit.

This brief intervention increases quit rates among pregnant smokers 30% to 70%.<sup>6</sup>



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### OREGON DATA

Data from Oregon PRAMS provides some information on prenatal counseling for women who smoke:<sup>7</sup>

**Ask:** 91% of women who smoked before pregnancy reported that a health care provider asked them (in a prenatal visit) whether they smoked;

**Advise:** 63% of smoking women reported being advised to quit;

**Assist:** 47% of smoking women were offered help to quit smoking.

### METHODS TO ASSIST

The “assist” step appears to be the most difficult step for prenatal providers. The Oregon Tobacco Quit Line provides the easiest way to assist your patients to quit. Counseling is tailored to specific populations—including pregnant women.

Providers should ask pregnant smokers whether they are ready to set a quit date in the next 30 days. If they are, the woman should be referred to the Quit Line. If the woman is not ready to set a quit date then the provider should continue to encourage the woman to quit at subsequent visits. If a pregnant woman wants additional support, the Quit Line will connect her to the Great Start Quit Line. Great Start (a joint effort of the American Legacy Foundation and the American Cancer Society) provides phone counseling services—up to 8 phone sessions—specially tailored for pregnant women. The number of the Oregon Quit Line is 1-877/270-STOP.

Pregnant patients who smoke—and their providers—are often concerned about the safety of pharmacotherapies for tobacco cessation. The Clinical

Practice Guidelines recommend that “Pharmacotherapy should be considered when a pregnant woman is otherwise unable to quit, and when the likelihood of quitting, with its potential benefits, outweighs the risks of the pharmacotherapy and potential continued smoking.”<sup>5</sup> While smoking during pregnancy clearly leads to substantial risks to both mother and fetus, pharmacotherapies also have potential risks. Nicotine can present risks to the fetus, including neurotoxicity. Bupropion SR has caused seizures which could harm the fetus in 1 out of 1000 patients.<sup>8,9</sup>

Safety and efficacy of nicotine replacement therapy (NRT) for tobacco cessation have not been evaluated for pregnant women in a randomized clinical trial. The Clinical Practice Guidelines recommend that if NRT is used, blood nicotine levels should be monitored to assess level of drug delivery.<sup>5</sup> Delivery systems that are intermittent (i.e., nicotine gum or nasal spray), rather than continuous (nicotine patch or bupropion) are recommended.

The state Smoke-Free Mothers and Babies Program has been training nurses in 8 local health departments, through their Maternity Case Management program, to use the 5A’s to help pregnant and postpartum women quit. An evaluation of the nurses’ use of the 5A’s protocol was recently published.<sup>10</sup>

Pregnant women who smoke are considered high-risk patients. If they have OHP benefits, they are eligible to receive case management and home visiting services from nurses in local health departments. For more information and to

check eligibility for non-OHP clients, contact your local health department.

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*Erratum:* A sharp-eyed reader caught this one in issue 5404: “Between 1999 and 2002 there were an average of 106 suicide deaths per year among Oregonians  $\leq 65$  years of age, for an average annual rate of 24 per 100,000.” Obviously, it should be  $\geq$ , since the issue was elder, not middle-age or youth suicide.