Smoking in Pregnancy

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The 1964 Surgeon General's report on the health effects of smoking described "incontrovertible evidence" that smoking was linked to detrimental health outcomes in almost every organ system.[1] Prior to this report, there was controversy about whether smoking caused any medical illnesses. To follow up, a 2001 Surgeon General's report on women and smoking described the vast, negative impact of smoking on a developing fetus.[2]

- "Smoking during pregnancy is associated with increased risk for premature rupture of membranes, abruptio placentae (placenta separation from the uterus), and placenta previa (abnormal location of the placenta), which can cause massive hemorrhaging during delivery; smoking is also associated with a modest increase in risk for preterm delivery."[2]
- "Infants born to women who smoke during pregnancy have a lower average birth weight and are more likely to be small for gestational age than infants born to women who do not smoke. Low birth weight is associated with increased risk for neonatal, perinatal, and infant morbidity and mortality. The longer the mother smokes during pregnancy, the greater the effect on the infant's birth weight."[2]
- "The risk for perinatal mortality, both stillbirths and neonatal deaths, and the risk for sudden infant death syndrome (SIDS) are higher for the offspring of women who smoke during pregnancy."[2]
- "Women who smoke are less likely to breast-feed their infants than are women who do not."[2]

Yet, despite this evidence, in 2016, over 11% of pregnant women in Wisconsin smoked, significantly higher than the national average of 7%.[3] Two papers in this issue of *WMJ* focus on smoking in pregnant women in Wisconsin. The paper by Garg, et al, describes a downward trend in exposure to secondhand smoke of nonsmoking pregnant women.[4] Secondhand smoke does not confer the same level of risk as smoking itself, but can cause negative effects to the mother and fetus. At baseline, pregnant women in Wisconsin are at 40% higher risk of secondhand smoke exposure than the US average. Pregnant women who are teens or African American are at highest risk of exposure. However, there has been a downward trend over the last 5 years. This paper outlines future research priorities focused on ways to further decrease smoking and exposure to secondhand smoke in the pregnant population.

The second paper by Alaniz, et al, describes updates and expansion to the First Breath program.[5] Developed by the Wisconsin Women's Health Foundation in 2000, the First Breath program trains staff at health care facilities throughout Wisconsin to provide evidence-based education about smoking cessation in pregnancy. The program was successful in reaching pregnant women but noticed a high relapse rate. They also noticed that as the years progressed, they were not reaching as many women due to declines in staffing at several of their sites. The paper in this issue of *WMJ* describes updates to the First Breath Program that expand access and continue education into the postpartum period. The newly expanded program will continue to work with women up to 6 months postpartum.

Focusing on smoking cessation of women, even after the baby is born, may affect long-term smoking habits of children going into adolescence.[6] Strong evidence documents that children of smokers or former smokers are at much higher risk of smoking themselves. Telling parents about this risk may be a strong motivation for them to quit themselves.

Even 55 years after the original Surgeon General's report on smoking and health, the medical community and other patient advocacy groups work to improve health by counseling patients to decrease or quit smoking. Especially in the high-risk community of pregnant women and their children, medical professionals should continue to be vigilant about advocating for smoking cessation.

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