Healthy Childbearing and the Role of Tobacco Control

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...dedicated to eliminating children’s exposure to tobacco and secondhand smoke
Melissa worries about the effect on her unborn child from the sound of jackhammers.
Tobacco Use As an Infectious Disease
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You get it from tobacco companies.
What’s in Cigarette Smoke?

More than 7,000 chemicals and 70 carcinogenic compounds in secondhand cigarette smoke

- > 70 Cancer-causing chemicals
  - Formaldehyde
  - Benzene
  - Polonium
  - Vinyl chloride

- Toxic metals:
  - Chromium
  - Arsenic
  - Lead
  - Cadmium

- Poison Gases:
  - Carbon monoxide
  - Hydrogen cyanide
  - Butane
  - Ammonia
Risks for Women Who Smoke

- Reproductive health problems
  - Infertility
  - Conception delay
  - Pregnancy complications
  - Menstrual irregularity
  - Earlier menopause
- Less likely to breastfeed
- Thrombosis with use of oral contraceptives
Prenatal/Neonatal Outcomes

- Miscarriage
- Cancers
- Fetal death
- Pre-term deliveries
- LBW baby
- Ectopic pregnancy
- SIDS
- Placenta previa and placental abruption
- Birth Defects (cleft lip/palate, heart defects, webbing)
The Life Cycle of Smoking

- SIDs
- Bronchiolitis
- Meningitis
- Childhood
- Asthma
- Otitis Media
- Fire-related Injuries
- Influences to Start Smoking
- Infancy
- Low Birth Weight
- Stillbirth
- Neurologic Problems
- In utero
- Nicotine Addiction
- Cancer
- Cardiovascular Disease
- COPD
A Call to Action

Smoking is the most modifiable risk factor for birth outcomes
“Because of the serious risk of smoking to the pregnant smoker and fetus, whenever possible smokers should be offered person-to-person psychosocial interventions that exceed minimal advice”
Pregnancy: A Unique Time

- Often more open to change
- May have more support to quit while pregnant
- May not be socially acceptable to smoke if pregnant
- Excited, ambivalent, afraid
- May have more stress if unplanned pregnancy
- May have added financial burden even if planned
Postpartum Opportunities

- Prepare for postpartum triggers, cues, depression
- Intervention during hospital stay
- Home visitors
- First pediatric appointment
- WIC
- Follow-up call by quitline or other counselors
- Postpartum checkup
- Smoke free home and car
Tobacco and Youth
Tobacco and Children

- 15% of U.S. adults smoke.
- Over 30% of U.S. children live with one or more smokers.
Children and SHS

- Children have little or no control over their exposure.
  - They have no voice and no choice
- Younger children spend most of their time with a parent;
  - if that parent smokes, SHS exposure can be highly significant
- Children do not generally understand the health risks posed by SHS.
SHS Exposure Causes Death and Disease in Children

- ~6,200 children die each year in the U.S. as a result of SHS exposure
- ~5.4 million childhood illnesses are attributed to SHS exposure
- Annual costs attributable to SHS exposure: ~$4.6 billion
SHS and Children: Short Term Health Effects

- Respiratory tract infections such as pneumonia & bronchitis
- Decreased pulmonary function
- Tooth decay
- House fires
Long Term Effects of SHS Exposure

- Increased risk of cancers
  - Adult leukemia and lymphoma associated with exposure to maternal smoking before age 10
- Increased risk of neurocognitive problems
  - Incidence of learning disabilities, ADD/ADHD, behavioral difficulties
- Increased risk of heart disease
  - Adult cardiovascular disease begins & progresses silently during childhood.
Tobacco-Free Homes are Protective

- Children and adolescents who live in tobacco-free homes are less likely to use tobacco
- Strict smoke free home rules encourage cessation among smoking members of household
- Home smoking bans reduce smoking rates and cigarette consumption among youth
- 78.4% of Mississippi adults report that their home is smoke-free
  - But only 44.9% of smokers do so
Other Sources of Exposure

- Daycare
- Grandparents
- Non-custodial parents
- Friends
- Multiunit housing
- Family car
- Restaurants
SHS exposure as a health disparity

- Who is exposed to SHS?
  - Overall, about 30% of US children
  - At least 50% of African American children
  - More than 1/3 of children in low SES homes
  - Low estimate (self report data only)
100% Smoke-free Communities in Mississippi

*146 Smoke-Free Municipalities*

*106 of which have ordinances that include restrictions on electronic cigarettes*

*34% of Mississippi's Population is Protected*
In 2016, 4,072 Mississippi public middle school students were current smokers.

- The prevalence of current smoking has decreased by 82% since 1998, leading to 18,002 fewer young smokers.
- In the past year, the prevalence of current smoking has not changed significantly.
Current cigarette smoking
MS Public High Schools

- 12th graders and 11th graders are more likely to be current smokers than 9th graders.
- High school Caucasians are more likely to be current smokers than African-Americans.

In 2016, 12,624 Mississippi public high school students were current smokers.

The prevalence of current smoking has decreased by 69% since 1998, leading to 28,069 fewer young smokers.

In the past year, the prevalence of current smoking has not changed significantly.
Electronic Cigarettes

**Current Electronic Cigarette Use**

**Mississippi Public Schools**

**High Schools (2010-2016)**

- 2010: 1.2%
- 2011: 2.3%
- 2012: 2.7%
- 2013: 2.9%
- 2014: 10.1%
- 2015: 12.0%
- 2016: 10.3%

**Middle Schools (2010-2016)**

- 2010: 6.7%
- 2011: 4.6%
- 2012: 5.9%
- 2013: 5.5%
- 2014: 6.7%
- 2015: 4.6%
- 2016: 5.9%

*Significant Demographic Differences*

*High school Caucasians are more likely to currently use e-cigarettes than African-Americans.*
More on E-Cigarettes and Other Emerging Products