PERINATAL TOBACCO USE

Child Fatality Task Force
Perinatal Health Committee Meeting
November 4, 2015
2014 BRFSS survey found that **16.5%** of women in NC report current tobacco use.

- Proportion is higher among low-income women, women with less than a college education, and rural women.

1 in 10 babies in NC are born to women reporting tobacco use during pregnancy.

In some counties over 30% of babies are born to women who smoked.
Tobacco Use Causes Poor Birth & Infant Outcomes

Maternal/Fetal Harm From Tobacco

- Infertility
- Miscarriage
- Ectopic Pregnancy
- Premature Birth
- Low Birth Weight
- Stillbirth
- SIDS

Infant/Child Harm From Tobacco

- SIDS
- Ear infections
- Respiratory Infections
- Asthma
- Links with childhood obesity, cancer, & attention disorders, and cardiovascular disease & diabetes in adulthood

Tobacco use during pregnancy is directly associated with the top 4 causes of infant mortality in NC
Prenatal Tobacco Use & Neonatal Abstinence Syndrome (NAS)

- NAS increased 511% between 2004-2012 in NC
  - From 104.4 to 637.9 per 100,000 live births
- 70-90% of pregnant women in substance abuse treatment also use tobacco
- Heavier smoking among opioid-maintained women is associated with lower birth weight and smaller birth length
- Dose-response between the daily number of cigarettes smoked and the severity of NAS, including:
  - total amount of morphine needed to treat NAS,
  - number of days medicated for NAS,
  - neonatal length of hospital stay in days, and
  - is negatively associated with 1- and 5-min Apgar scores
Tobacco Use Affects NC Economically

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
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<tbody>
<tr>
<td>Annual health care costs in North Carolina directly caused by smoking</td>
<td>$3.81 billion</td>
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<td>Portion covered by the NC Medicaid program</td>
<td>$931.4 million</td>
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<td>Residents' state &amp; federal tax burden from smoking-caused government expenditures</td>
<td>$889 per household</td>
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<td>Smoking-caused productivity losses in North Carolina</td>
<td>$4.24 billion</td>
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These amounts do not include health costs caused by exposure to secondhand smoke, smoking-caused fires, smokeless tobacco use, or cigar and pipe smoking.

Tobacco use also imposes additional costs, such as damage to property.

Intervention Makes A Difference

- Brief counseling works better than simple advice to quit.
- Pregnancy is a particularly good time to intervene.
- Brief counseling with self-help materials offered by a trained clinician can double a smoker’s chances of quitting for good.
- Brief counseling works best for moderate smokers (<20 cigarettes/day).
  - Heavy smokers may need more intensive assistance and/or pharmacotherapy to quit.
Tobacco Cessation is Cost Effective

- Quitting smoking can lower total health care costs within 2 years
  - Cessation treatment in the outpatient setting lowers health care costs within 18 months of quitting.
  - Within 3 years, a former smoker’s health care costs will be at least 10% less than if they continued smoking.

- Tobacco screening is estimated to result in lifetime savings of $9,800 per person

Compared to other preventive health interventions, tobacco cessation has one of the lowest costs per life-year-saved.

For every $1 invested in tobacco cessation for pregnant women, at least $3 are saved in healthcare costs.

Electronic Nicotine Delivery Systems
- Not currently regulated and have not been shown to be a safe or effective cessation aid

- The health effects of using e-cigarettes & other ENDS before or during pregnancy have not been adequately studied
  - Nicotine is a known reproductive toxicant and has adverse effects on fetal development, including lung and brain development
  - The use of smokeless tobacco products, such as snus, during pregnancy has been associated with preterm delivery, stillbirth, and infant apnea

Youth use of e-cigarettes (13.4%) now surpasses use of traditional cigarettes (9.2%)

http://www.cdc.gov/media/releases/2015/p0416-e-cigarette-use.html

Exposures to e-cigarettes & liquid nicotine reported to Poison Control jumped 156% from 2013 to 2014, and 14-fold since 2011

http://www.aapcc.org/alerts/e-cigarettes/
Cessation Support

- QuitlineNC
  - Telephonic, web-based, and text-based cessation support
  - Specific pregnancy & postpartum protocol

- Care management for Medicaid-insured pregnant women through the Pregnancy Medical Medical Home Initiative includes tobacco screening & cessation treatment as a key component
What is NC Doing to Protect Moms & Babies?

**System Supports**

- Medicaid & private insurers reimburse for cessation counseling
- Provider training and technical assistance through You Quit, Two Quit (currently funded by the Duke Endowment through 6/2016)
- Title V Performance Measure
- Evidence-based cessation counseling part of the administrative agreements between NCDHHS DPH and local health departments
- Women and Tobacco Coalition for Health (WATCH)
  - Nationally-recognized *Guide for Counseling Women Who Smoke*

**E-cigarettes & other ENDS**

- NC one of 16 states requiring child-proof liquid nicotine packaging
- E-cigarettes classified as a tobacco product and not for sale <18 yrs.
Support the perinatal tobacco cessation quality improvement efforts of You Quit, Two Quit

- Nationally-recognized initiative that goes beyond training to support implementation in outpatient settings
- Current funding ends in June
- What is needed? $250,000/year for 3 years
- How would these funds be spent?
  - Support the YQ2Q Program Manager & a cadre of regional professionals to provide state-wide training & technical assistance
  - Continue to produce up-to-date provider tools, such as YQ2Q Clinical Practice Bulletin
  - Convene regional summits
  - Evaluation
What Else Would Help Protect Moms & Babies?

- **Institutions & local ordinances include ENDS in tobacco-free policies**
  - Many of the policies were created before e-cigarettes and other ENDS were widespread

- **Raise minimum legal sales age to 21**
  - Hawaii & 90 localities in 8 states have raised MLSA to 21
    - 4 additional states at 19 yrs
  - Delay initiation
    - Among daily smoking adults – 90% report 1st use before 19, and 100% before 26
    - Reduce initiation among 15-17 yr olds by 25% and <15 & 18-20 yr olds by 15%
      - 21 year olds less likely to be in the social networks of 15-17 year olds

- **Reduce prevalence & decrease disease**
  - If enacted today would result in:
    - 12% decrease in prevalence of tobacco use
    - 223,000 fewer premature deaths

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If the MLSA were raised to 21 today, there would be 438,000 LBW cases, 286,000 preterm birth cases, and 4,000 SIDS deaths averted between 2015-2100.
What Else Would Help Protect Moms & Babies?

- **Fund NC tobacco prevention efforts at least at CDC minimum recommended level**
  - FY2014 NC revenue from MSA & tobacco tax = $409.6 mil
  - FY2014 NC tobacco prevention/cessation spending = $1.2 mil
    - 0.3% of annual tobacco revenue
    - CDC minimum = $69.3 mil (17%); CDC recommended = $99.3 mil (24%)

- **Increase the NC tax on tobacco products**
  - Current NC tax is $0.45/pack – 47th in the US
    - Average state tax is $1.60/pack
    - Federal tax is $1.01/pack
  - Every 10% increase in cigarette prices = 7% less prenatal smoking, 7% less youth smoking, & 4% less total cigarette consumption

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Questions?

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