Health Promotion Education for Prenatal Providers in Appalachia (HEPPA)

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http://www.etsu.edu/HEPPA
Purpose and Funding

✓ The purpose of this program is to educate and support community providers who work with pregnant women, focusing on pregnancy smoking and substance use reduction, and on promoting breastfeeding

✓ Support for this program provided by the Appalachian Regional Commission (ARC), the Tennessee (TN) Department of Health, West Virginia University (WVU), and East Tennessee State University (ETSU)
Overview

✓ Smoking, substance use, and not breastfeeding negatively impact maternal-infant health

✓ All three are related as they are modifiable and are chosen health behaviors

✓ Changes in behavior in pregnancy can affect infant outcomes
Program Target Counties

- West Virginia:
  - Calhoun
  - Clay
  - Roane
  - Wirt

- Tennessee:
  - Campbell
  - Cocke
  - Hancock
  - Johnson

http://www.arc.gov/research/MapsofAppalachia.asp?MAP_ID=55
Pregnancy Substance Use in TN

- Nationally, 20% of pregnant women consume alcohol; TN rate similar but higher in urban areas
- Estimates of illicit drug use during pregnancy vary widely (5-20%), and TN is comparable to national rates
- In TN, marijuana is the most commonly used illicit drug during pregnancy, followed by abuse of prescription narcotics
Pregnancy Substance Use in WV

- WV has the highest rate of prescription drug overdose deaths in the US
- WV has the highest prenatal smoking rate in the US (higher in specific counties: Clay 36%, Wirt 38%, Calhoun 36%, Roane 32%)
- Nationally 5-20% of pregnant women use illicit drugs, estimated rates in WV at nearly 20%
How Does Substance Use Affect the Fetus?

**Illicit drug** use during pregnancy leads to:
- Increased risk of preterm delivery and low birth weight
- Increased risk of Neonatal Abstinence Syndrome (NAS) increasing need for detox treatment in the NICU
- Research on the long term effects suggests increased likelihood of health problems, delayed growth, behavior problems, learning disabilities, and substance use

**Prescription drug abuse** during pregnancy associated with:
- Use/abuse of both narcotics (Hydrocodone, oxycontin) and benzodiazepines (Xanax) is linked to increased risk of pregnancy complications, low birth weight, preterm delivery, and NAS
- Long term effects on child health are inconclusive, but appear to be growth restriction, language delays, emotional development problems.
How Does Substance Use Affect the Fetus?

- **Smoking** during pregnancy has the following effects:
  - Decreased placental function
  - Decreased gas exchange
  - Nicotine causes vasoconstriction of placental blood vessels, causing decreased nutrient and oxygen transfer
  - Carbon monoxide binds to fetal hemoglobin, reducing oxygen
  - Decreased protein metabolism
  - Negative impact on neurodevelopment, increased risk of low birth weight
Effects of Prenatal Tobacco Use

Effects are seen during:

Gestation
Infancy
Childhood
Adolescence
Adulthood

Smoking negatively affects:

Gestational Development
Infant Morbidity and Mortality
Physical Health
Psychological Health
Growth
Behavior
Attention
Emotional Regulation

Quitting and cutting down lead to a reduction in preterm delivery and in NICU admission, and increased birth weight.
Second Hand Smoke is smoke that smokers breathe out and the smoke that comes from a burning cigarette.

Third Hand Smoke is tobacco smoke contamination that remains in the air and on surfaces after a cigarette is extinguished (clothes, carpet, furniture, etc.).

Both are harmful to the developing fetus and child – causing effects similar to primary prenatal exposure.

Notes on Smoke Exposure

http://www.etsu.edu/tips
Intervention: What You Can Do...

ACOG 5As
Smoking Cessation & Reduction Program

http://www.ecigadvanced.com
5As Approach to Smoking Cessation*

- A *brief* 5-step smoking cessation behavioral intervention (5-15 minutes)
- Capitalize on pregnancy being a motivating time for positive behavior changes
- Adapted for pregnant women by ACOG

* We present a model for smoking intervention, but the general approach applies to other prenatal substance use. Additionally, evidence has demonstrated that smoking reduction may be more appropriate in specific populations and circumstances.
5As Smoking Cessation Program

1. **Ask** about tobacco use

2. **Advise** to quit/cut

3. **Assess** willingness to quit/cut smoking

4. **Assist** in quit/cut attempt

5. **Arrange** follow-up
ASK

- Do you smoke?
- If you smoke, do you smoke the same or less than before you found out you were pregnant?
Clear, strong, personalized advice to quit [or cut down]:

- **Clear & Strong**: “As your provider, my best advice for you and your baby is for you to quit smoking and reduce your secondhand smoke exposure. “

- “I need you to know that quitting is one of the most important things you can do to protect your baby and improve your own health.”

- **Personalize**: Impact of smoking on the baby, the family, and the patient’s well being
Assess the woman’s willingness to quit:

“How WILLING are you to quit [or cut down] smoking in the next 30 days?”

• YES: move on to the ASSIST step

• NO: increase motivation with education and personalize the issue and risks, repeat at each visit
ASSIST

- Acknowledge that it is difficult to quit or cut down because tobacco addiction has both CHEMICAL & BEHAVIORAL components (address both factors)
- Express your willingness to help her
- Find out why she smokes and what triggers smoking
- Identify barriers to quitting
- Discuss previous attempts
- Discuss health benefits
- Discuss cost savings
ASSIST: Coping Techniques

• Discuss alternative behaviors to smoking
• Discuss stress relief and coping
• Recognize the withdrawal symptoms and management
• Social support identification
• Self-help materials
• Quit date or contract
• Quit-line
ASSIST: Strategies

- Set short-term goals and long-term goals
- Gradually reduce number of cigarettes
- Buddy System
- Physical activity
- Keep Hands Busy
  - Write or draw (doodle, journal)
  - Squeeze a stress ball
  - Decorate the baby’s room
  - Sew, knit, do craft projects
- Keep Mouth Busy
  - Chew on ice chips, straw, or toothpick
  - Chew gum
  - Drink plenty of cold water
- Healthy Nutrition
  - Keep a food and smoking diary
  - Snack on fruits and veggies
  - Avoid high-fat & high-sugar foods
ASSIST: Provide self-help materials

- Health benefits
- Withdrawal symptoms: Cravings and coping skills
- Cost savings & personal rewards
- Alternative ways to cope & manage stress
- How to quit without gaining weight
- Dealing with others smoking around you
- Preparing to quit

http://www.etsu.edu/tips/documents/TIPS_booklet_for_Website2.pdf
ASSIST: Dealing with others’ smoking

- Ask people not to smoke around you
- If people smoke, you can leave the room
- Create “Smoke-free Zones” (home, car)
- Go to places where smoking is not allowed
- Spend time with non-smoking friends

http://www.etsu.edu/tips/documents/TIPS_booklet_for_Website2.pdf
ARRANGE

- Follow-up to monitor progress
- Repeat message at **every** visit
- Praise any quit or cutting attempts
- Ask about concerns or difficulties
- Refer to the Smoking Quit Line, or other local programs
- Continue message postpartum
Scenario

- A pregnant woman reports that she smokes 1 pack per day and has 2 previous quit attempts. In one attempt she was able to remain smoke-free for 32 hours.
- She tells you that she is considering quitting now that she is pregnant, but doesn’t think she can.
- **How do you assist and advise her?**
HEPPA: 5As for Breastfeeding Promotion

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Purpose

✓ To teach health and social service providers of pregnant and postpartum women and their families about the importance of promoting breastfeeding and the techniques in which to support breastfeeding mothers and their infants.
Breastfeeding is associated with healthy outcomes for new mothers and their infants.

Breastfeeding is a behavior that can be changed to improve health.

New mothers in certain regions and backgrounds such as in Appalachia face challenges to health and have higher rates of not breastfeeding.

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CDC 2012 Breastfeeding Report Card
Why promote breastfeeding?

- Best nutrition for infant
- Promotes infant’s health and development
- Promotes mother’s health (reduces diabetes risk)
- Mother’s milk is especially important for preterm and sick infants
- Promotes bonding between mother and her infant
- Affords infant **immunoprotection!!**
  - Reduces risk of certain chronic diseases (diabetes)
  - Reduces risk of infectious diseases (ear infections, diarrhea, etc.)
5As Approach to Health Behavior

1. **Ask** about health behavior
2. **Advise** health behavior
3. **Assess** willingness to try health behavior
4. **Assist** in health behavior
5. **Arrange** follow-up
ASK

Ask early and throughout pregnancy:

Are you planning to breastfeed your baby?
ADVISE

Clear personalized advice:

- I recommend that you breastfeed your baby. It is one of the most important things you can do to protect and promote your baby’s health and development.

Add:

- Evidence of benefits for mother and infant
- Personalize for mother and her family (health, infections, cost, etc.)
- Inform that breastfeeding requires patience and support
ASSESS

- How **WILLING** are you to try breastfeeding while you are in the hospital (or for the first $n$ weeks/months)?

- How **WILLING** are you to pump breast milk for your baby, at least while your baby is in the hospital? (especially important for infants in the NICU)
ASSIST

- Identify breastfeeding resources, classes, reading, and educational materials
- Find supportive people, providers, and mentors
- Recommend asking health provider about medications (i.e. antibiotics)
- Discuss breastfeeding intentions and questions
- Offer a plan to get help when needed
- Arrange comfortable and supportive breastfeeding places
- Set goals for breastfeeding /pumping
- Suggest to plan for personal time (i.e. walk, exercise, read)

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ARRANGE

- Teach early and frequent breastfeeding (exclusive is best)
- Teach breastfeeding techniques and management
- Facilitate pumping if mother and infant are separated
- Recommend asking for help from nurses in the hospital
- Give Dad and Grandma a role (not a bottle of formula)
- Provide contact information for breastfeeding resources
- Suggest pumping in preparation for return to work
- Promote “safer” breastfeeding for women who smoke:
  - After breastfeeding, smoke outside wearing a smoking jacket that is removed after smoking, wash hands, wash out mouth
  - AAP statement: smoking is “not contraindicated” with breastfeeding

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## Medication Examples & Human Milk

<table>
<thead>
<tr>
<th>L1 Safest</th>
<th>L2 Safer</th>
<th>L3 Moderate</th>
<th>L4 Hazard</th>
<th>L5 Contra</th>
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<td>Lotensin</td>
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<td>Accutane</td>
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**HALE (2008) Medications and Mothers’ Milk**

**L1: SAFEST:** Taken by many breastfeeding mothers without increased adverse effects in infant  
**L2: SAFER:** Taken by limited number s of breastfeeding mothers without increased adverse effects in infant  
**L3: MODERATELY SAFE:** No controlled studies in breastfeeding women, show only minimal non-threatening adverse effects  
**L4: POSSIBLY HAZARDOUS:** Risk to breastfed infant or breast milk production  
**L5: CONTRAINDIATED:** Documented risk to infant
Talking Points: Specific Questions

1. Nutritionally, do infants need anything other than breast milk in the first 6 months (vitamins and medication excluded)? What about overfeeding?
2. Should formula be used if the baby doesn’t seem to be gaining enough weight? What about topping off?
3. Can using formula reduce milk supply? How do you advise a woman with a low milk supply?
4. Can a woman who smokes breastfeed?
5. Can a woman taking antibiotics breastfeed?
6. With mastitis, should a woman not breastfeed?
8. What should you advise a woman with sore nipples?
Scenario

- Ms. Smith, 22 years old, arrives for her appointment. She is pregnant with her second baby and smells of cigarette smoke.
- You want to talk to her about breastfeeding. When reading her chart, you note that she did not breastfeed her first baby.
- How do you discuss breastfeeding with her?
THANKS!

- Collaborative partnerships are crucial in program success and in health promotion throughout our communities.
- Thanks for the financial support provided by:

http://www.etsu.edu/HEPPA