# Reducing Smoking Among Teens in Newberry County

Deans' Rural Clerkship--MUSC

Silvia D. Heise

May 2002

# Lovelace Family Medicine Prosperity, SC

A Special Thank You to…

- Lovelace Family Medicine
- Renee' Martin, Tobacco Intervention & Prevention Strategy (TIPS) Project Coordinator
- Julie Ghent and Laurie Patenaude, AHEC
- March of Dimes
- Participating school nurses and Newberry teens

# Facts About Smoking and Teens

- Tobacco is the #1 preventable cause of death in the U.S.
- Nearly 90% of adults who smoke, started while in their teens
- In Newberry County, 36% of teens smoke
- Pregnant Teens
  - Newberry County has the 2nd highest rate of teen pregnancy in the state
  - Teens have the highest rates of smoking among pregnant women
  - Teens are the only age group to show an increase in smoking rates during pregnancy

# Effects of Tobacco

- Smoking during pregnancy doubles the risk for pre-term labor and for low birth weight babies
- Prenatal smoking and Environmental Tobacco Smoke (ETS) appear to increase the chances for all of the following:
  - Baby dying of SIDS (doubles the risk)
  - Pediatric illnesses such as asthma, OM, pneumonia, and bronchitis
    - OM and asthma were among the top ten diagnoses for pediatric ER visits at NCMH
  - Child having mental retardation and/or behavioral problems (quadruples the risk)

# Aims

- Reduce smoking rates among teens in Newberry County
- Short-term Aims:
  - Assess possibility of developing school-based teen smoking cessation program
  - Identify pregnant teens and teen mothers of children <1 year who smoke
  - Enroll identified teens in existing smoking cessation program

# Measures

- Percentage of nurses who indicate willingness to refer students to a smoking cessation program
- Percentage of nurses who expressed willingness to see their school serve as a pilot site for a school-based program
- Number of teens in Lovelace Practice who are pregnant or have given birth to a baby in the past year and who smoke
- Percentage of identified teens who express interest in participating in existing smoking cessation program
  - Percentage who would prefer school-based program

# PDSA Cycle #1

- Plan: Prepare a survey assessing school nurses' current knowledge and perceived need for school-based program
- Do: Distribute the survey to the three high school and two middle school nurses
- Study: Analyze survey responses
- Act: Consider conducting focus group to increase comments/suggestions obtained from nurses; Assess target audience = Newberry County Teens

# School Nurses' Survey Results

(3 out of 5 surveys returned)

- Nearly 100% correct responses to general knowledge questions regarding teen smoking rates and effects of smoking
- Recognized need for program at their respective school: 66% (2/3)
- 100% willingness to:
  - refer students
  - have their school serve as a pilot site for a school-based teen smoking cessation program

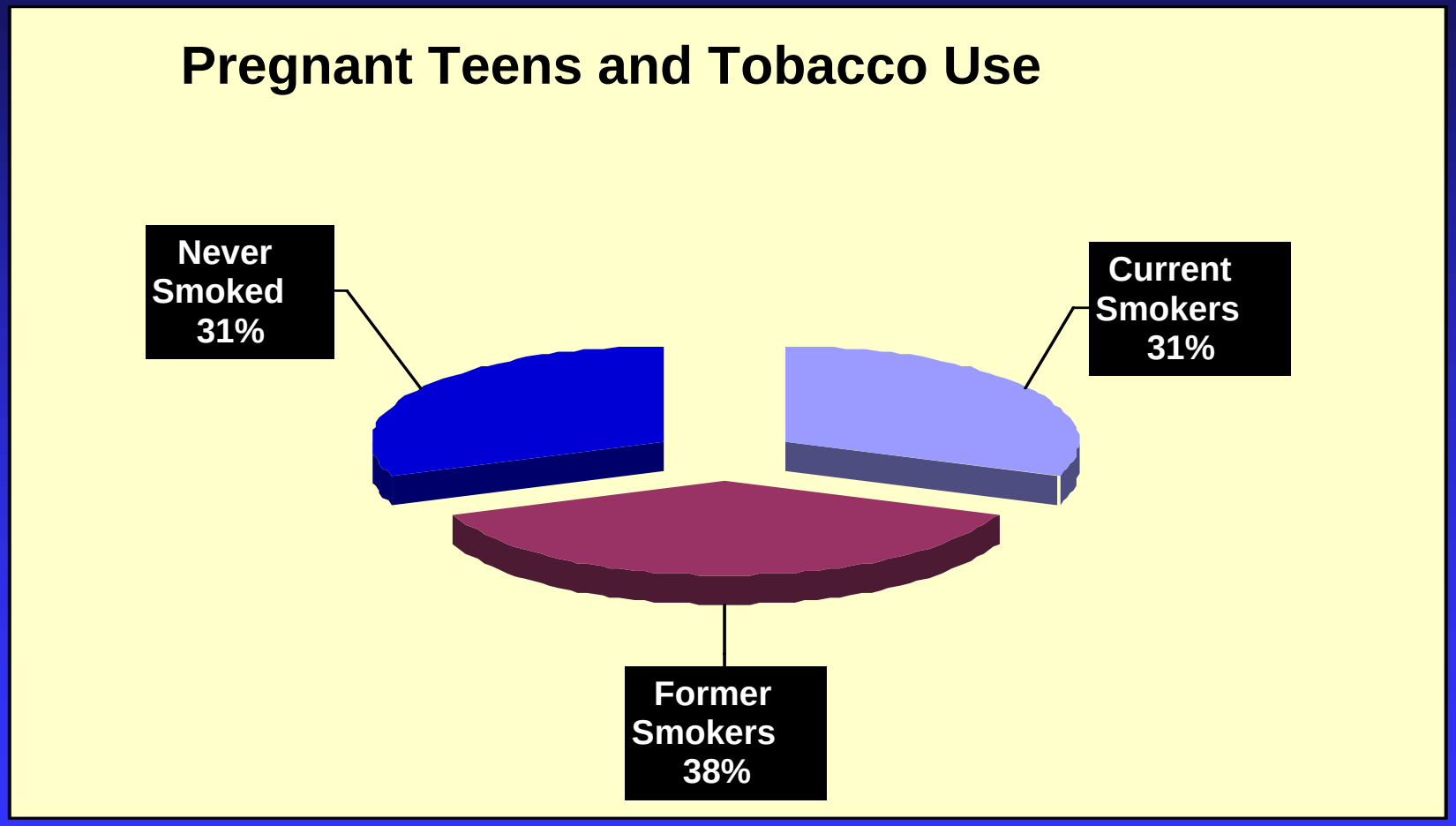
# PDSA Cycle #2

- Plan: Generate list of pregnant teens/ teens delivered in past year at Lovelace Family Practice and prepare survey
- Do: Administer telephone survey to all contacted teens
- Study: Analyze survey responses; Examine reasons why low contact rate
- Act: TIPS Coordinator will follow-up with teens interested in existing smoking cessation program

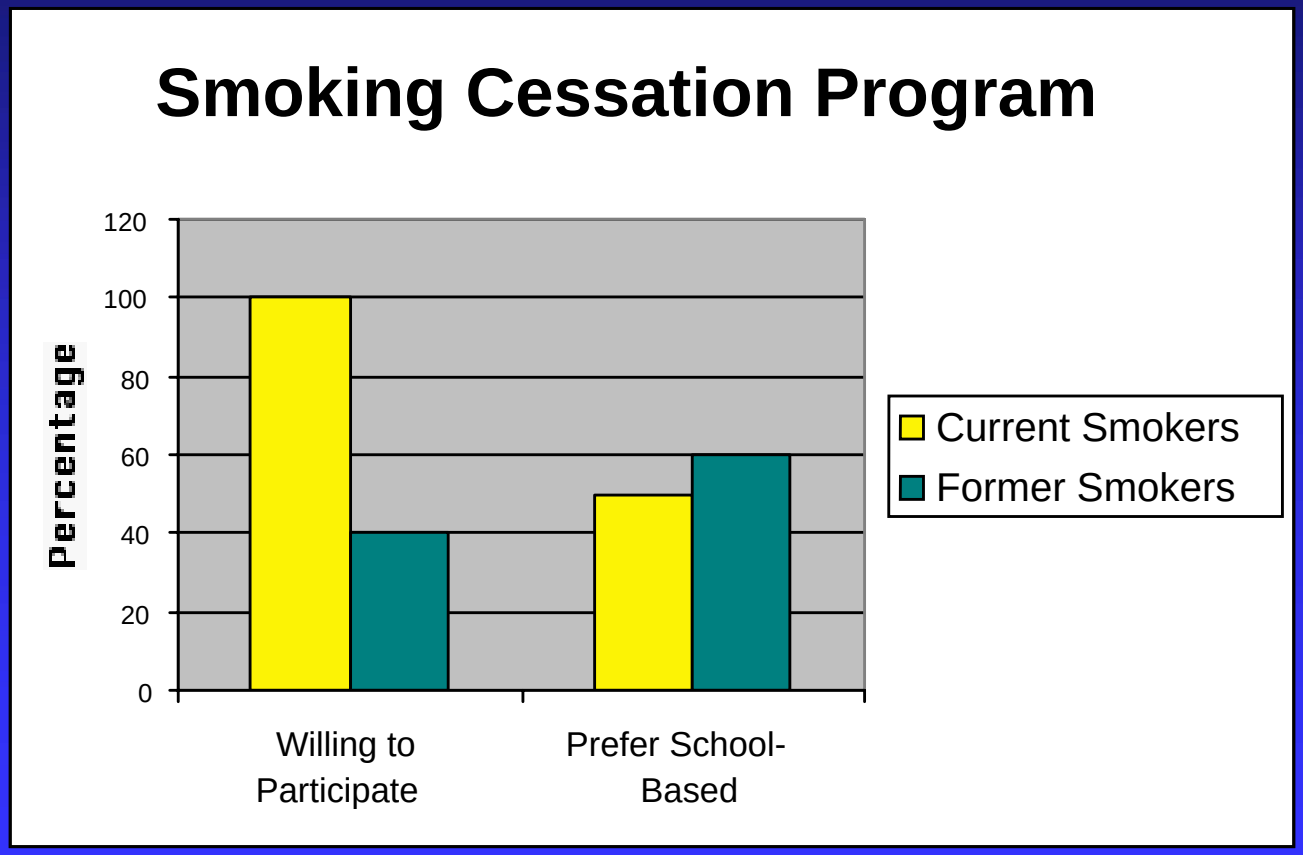
# Teen Survey Results

- 81 Teen Pregnancies Identified
  - 13 Successfully Contacted
    - 100% Participation (7/13 actually met desired criteria)
- Awareness of Existing TIPS Program
  - 23% of surveyed knew about it
    - 1 out of 13 had participated already
- Knowledge of Importance of Remaining Tobacco Free After Delivery
  - 85% of surveyed agreed that remaining tobacco free after delivery is as important as quitting smoking during pregnancy

# Lovelace Practice Survey Results



# Teens' Willingness to Participate and Preference: School-Based vs. Away from School Smoking Cessation Program



# Developing a School-Based Teen Smoking Cessation Program

- Drivers:
  - TIPS program in place with funding from March of Dimes grant
  - Enthusiastic program coordinator--Renee' Martin
  - Willingness of Lovelace Family Practice to assist
  - Literature supporting need for teen specific cessation program
  - Existing program for pregnant smokers
- Barriers:
  - Limited time to conduct project
  - End of school year
  - Difficult to clearly identify inclusion criteria using database
  - Disconnected or wrong phone numbers limiting the number of teens contacted
  - Peer pressure to continue smoking
  - Addictive nature of tobacco

# Lessons Learned

- Women tend to listen to their doctors and quit smoking, at least during pregnancy
- End of the school year is not the best time to assess the possibility of developing a school-based program
- Patients do not update phone numbers with their doctor’s office
- Three and a half weeks is not long enough