

Smoking Cessation as a Means for Cancer Prevention:

A Retrospective Evaluation of the Cooper/Clayton Method to Stop Smoking Program (2009-2010)



Jessica Jones, MSW, Debra Armstrong, MSW, MPA, Angela Brumley-Shelton, M.A., MPH, CTTS, Dennis Peyton, MPH, CCRP, Richard Clayton, PhD, Thomas Cooper, D.D.S., Carol Hurst, RN, Peter Shores, MPH



Background

Lung cancer is the most common cause of cancer mortality for both men and women in Kentucky, making it a major public health issue(1). Tobacco use is the number one behavioral risk factor for lung cancer, and Kentucky has the second highest adult smoking rate in the country(2,3).

The Cooper/Clayton Method to Stop Smoking program is a comprehensive smoking cessation program which combines an educational and behavioral modification program with nicotine replacement therapy. In addition, the supportive group atmosphere created by facilitators and other class members is an integral component to the program. The program consists of an orientation class, followed by a 12-week class series with one class per week focusing on a particular coping skill for tobacco cessation. It is based on the best practices for tobacco control programs and is administered statewide through the Kentucky Cancer Program, the Kentucky Department for Public Health, and local health departments(4).

Conceptualizing smoking cessation as a means of lung cancer prevention and control, a diverse group of tobacco stakeholders convened to examine the program completion rates of the Cooper/Clayton program. This group determined that it was necessary to conduct a retrospective evaluation of completion rates for 2009-2010 in order to inform ongoing evaluation studies and obtain a baseline for the effectiveness of the Cooper/Clayton program.

Objectives

- 1) To obtain and disseminate the baseline completion rate for the Cooper/Clayton program for classes taught in 2009 and 2010
- 2) To obtain and disseminate aggregated, class-level data regarding participants' characteristics who completed the 12-week class series in 2009/2010 and self-reported to be a non-smoker

Methods

- **Type of Study Conducted:** Descriptive evaluation study utilizing a cross-sectional research design to gather data on participants who enrolled in the Cooper/Clayton program in 2009 and 2010, completed the 12-week class series, and self-reported to be a non-smoker.
- **Study Population:** Cooper/Clayton class participants who became non-smokers at the end of the 12-week class series
- **Class Reporting Form:** Data collected in Spring 2011 on classes taught in 2009 and 2010. Class report forms were available online via REDCap (5) and by hardcopy
- **Data Collected on the Class Reporting Form:**
 - Facilitator Name
 - Organization
 - County where class was held
 - Date of the first class AFTER orientation
 - Number of participants in first class AFTER orientation
 - Day of the week the class was held
 - Beginning time of class
 - Date of LAST class
 - Number of participants who completed the class as non-smokers
 - **Characteristics of Participants who completed the class series and self-reported being non-smokers:**
 - Age
 - Gender
 - Smoking History
 - Number of Quit Attempts
 - Type of Medication Used
 - How Nicotine Replacement Therapy (NRT) was offered as part of class participation
 - If so, the methods NRT was offered (Free, At low cost, With a refundable deposit, etc.)
 - Type of follow-up provided to non-smokers after the program/intervention completed
 - **Additional Comments of Tobacco Facilitators**

Results

Figure 1. Causal Pathway of Lung Cancer

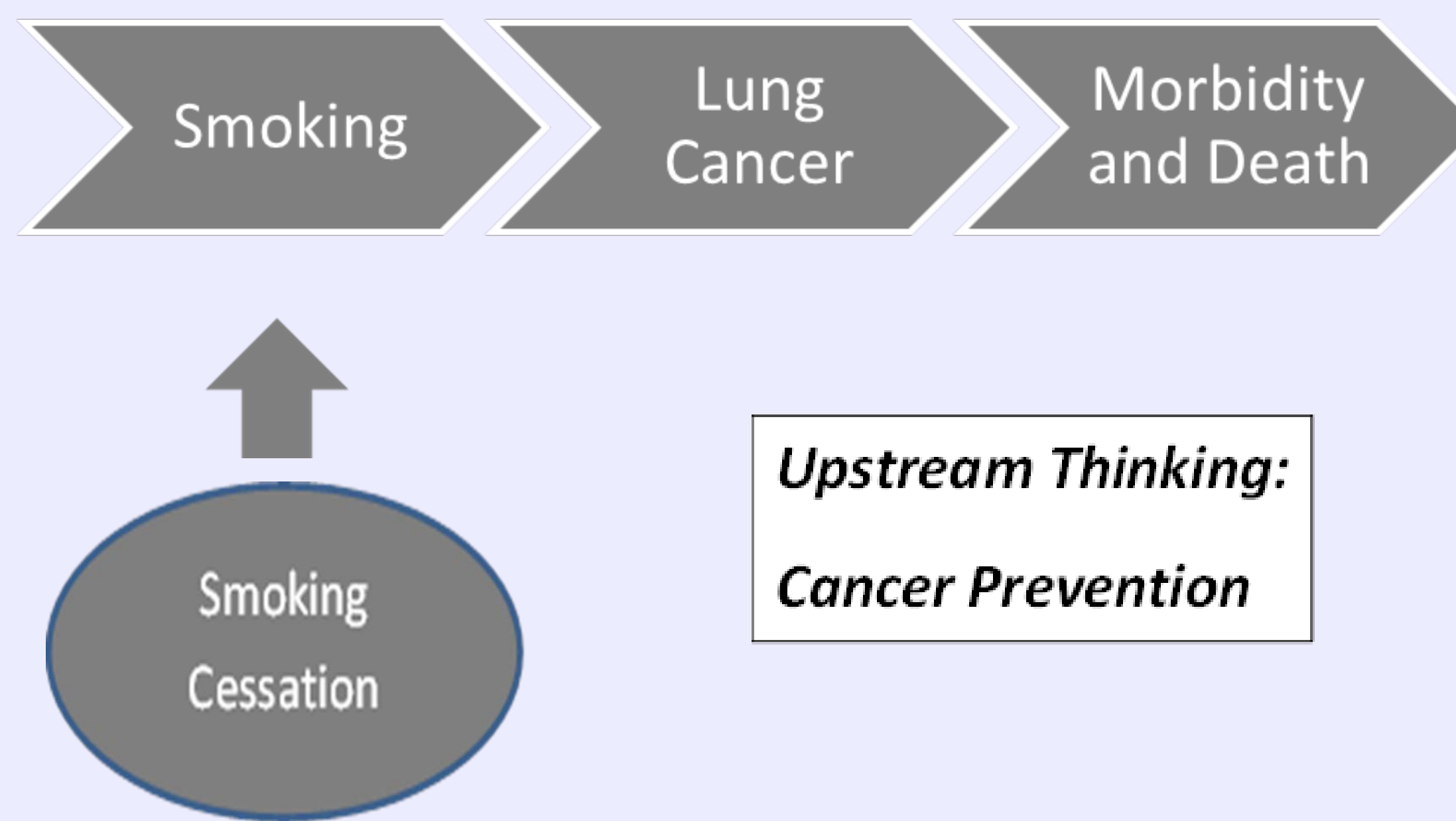
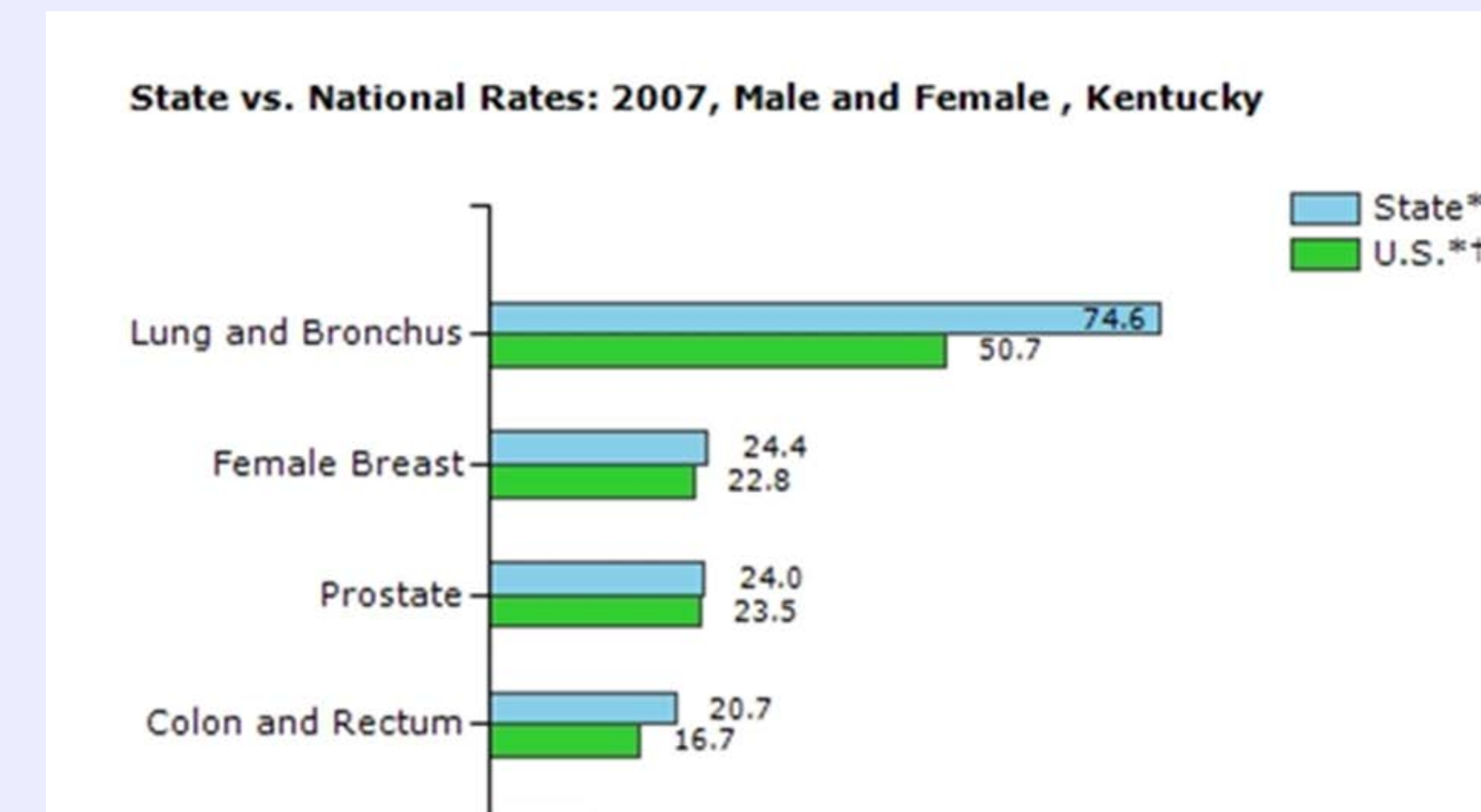


Figure 2: Age-Adjusted Cancer Death Rates for the 10 Primary Sites with Highest Rates within State- and Sex-Specific Categories (For combined data, for years 2003-2007) (1)



*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. Standard Population

Figure 3: Prevalence of Smoking Among Adults, Kentucky vs. Nationwide (States & DC), 1995-2010 (BRFSS) (5,6)

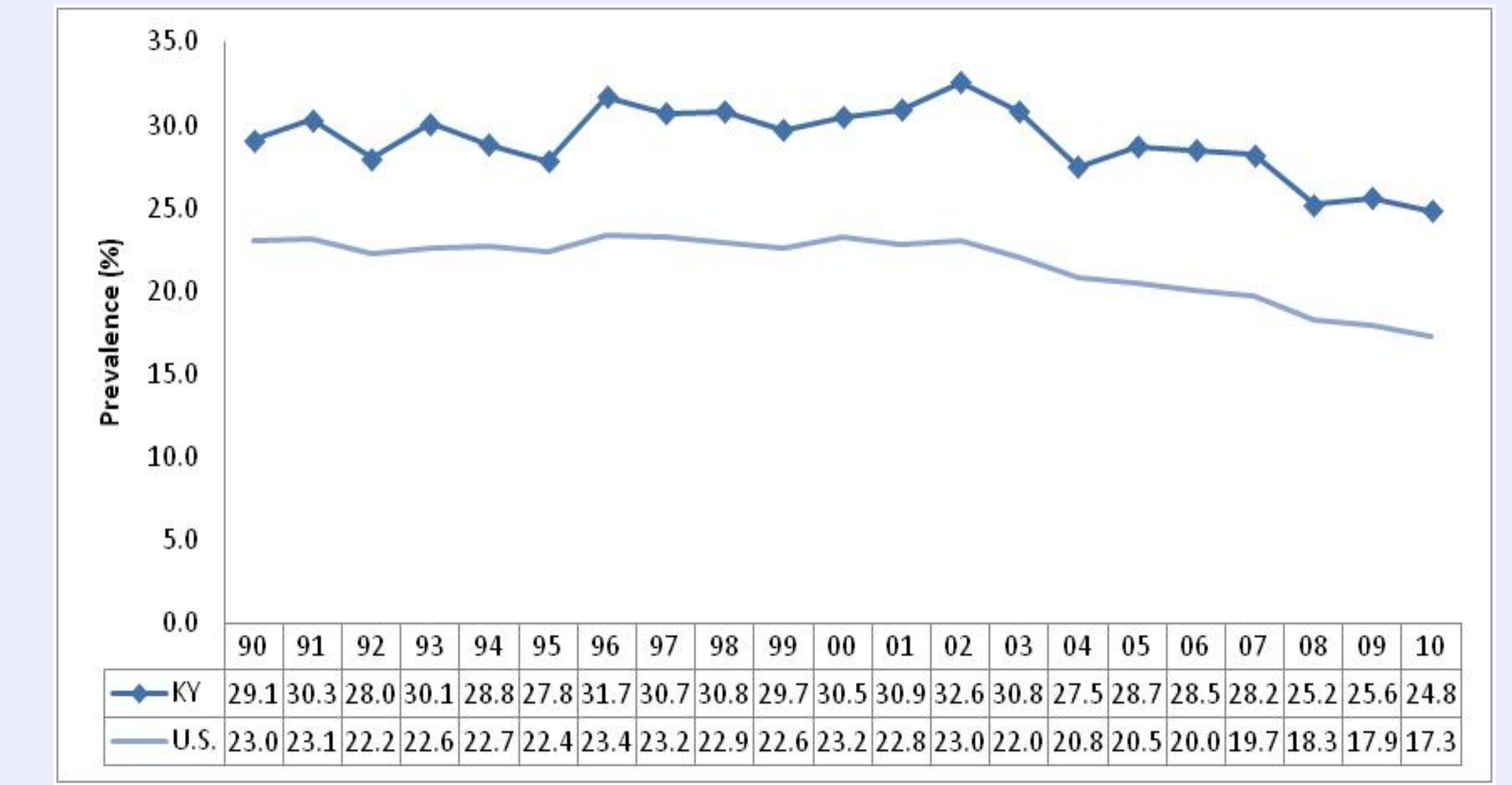


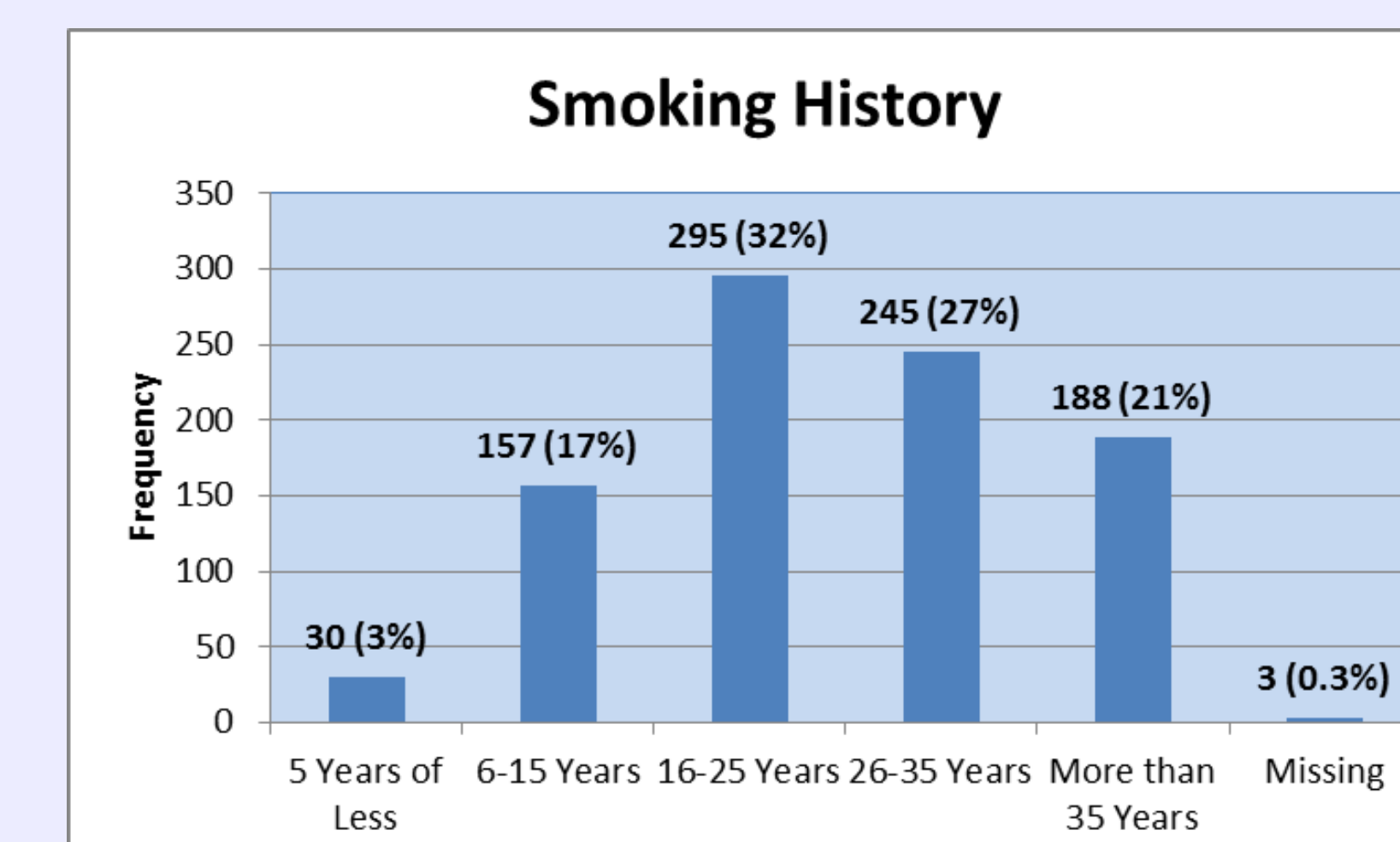
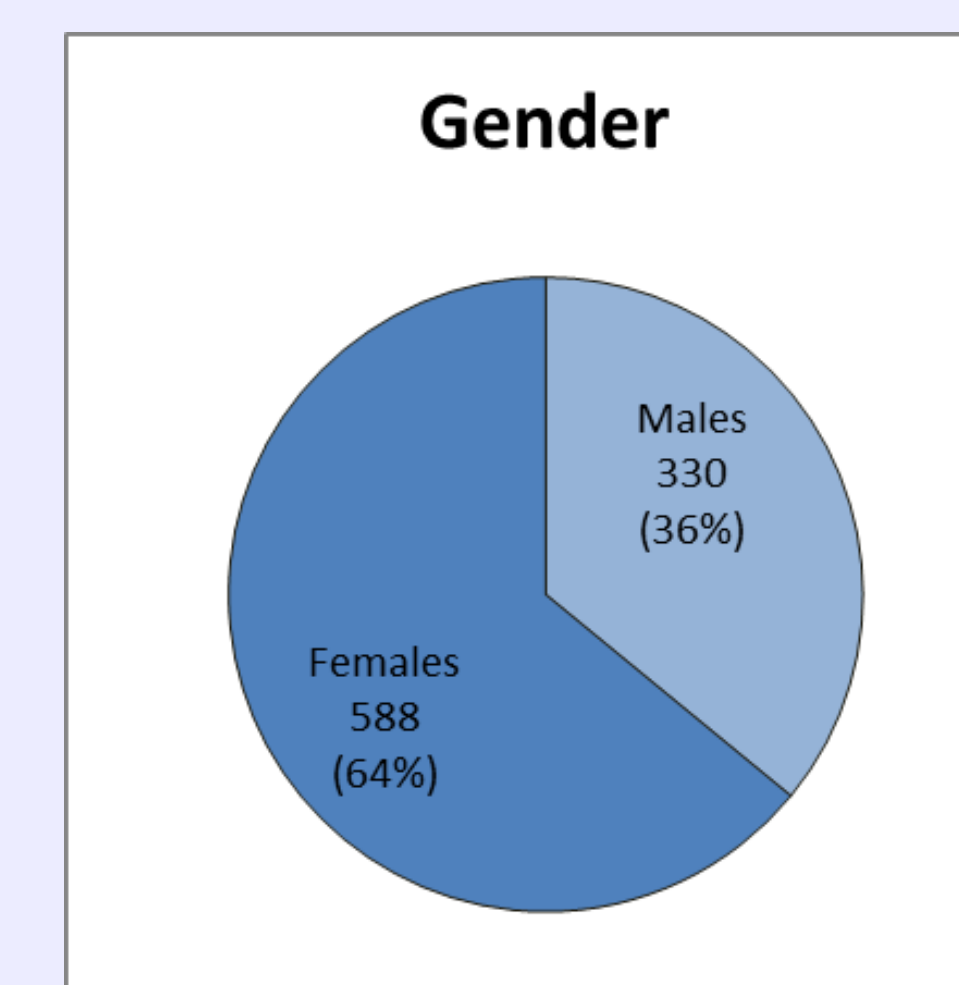
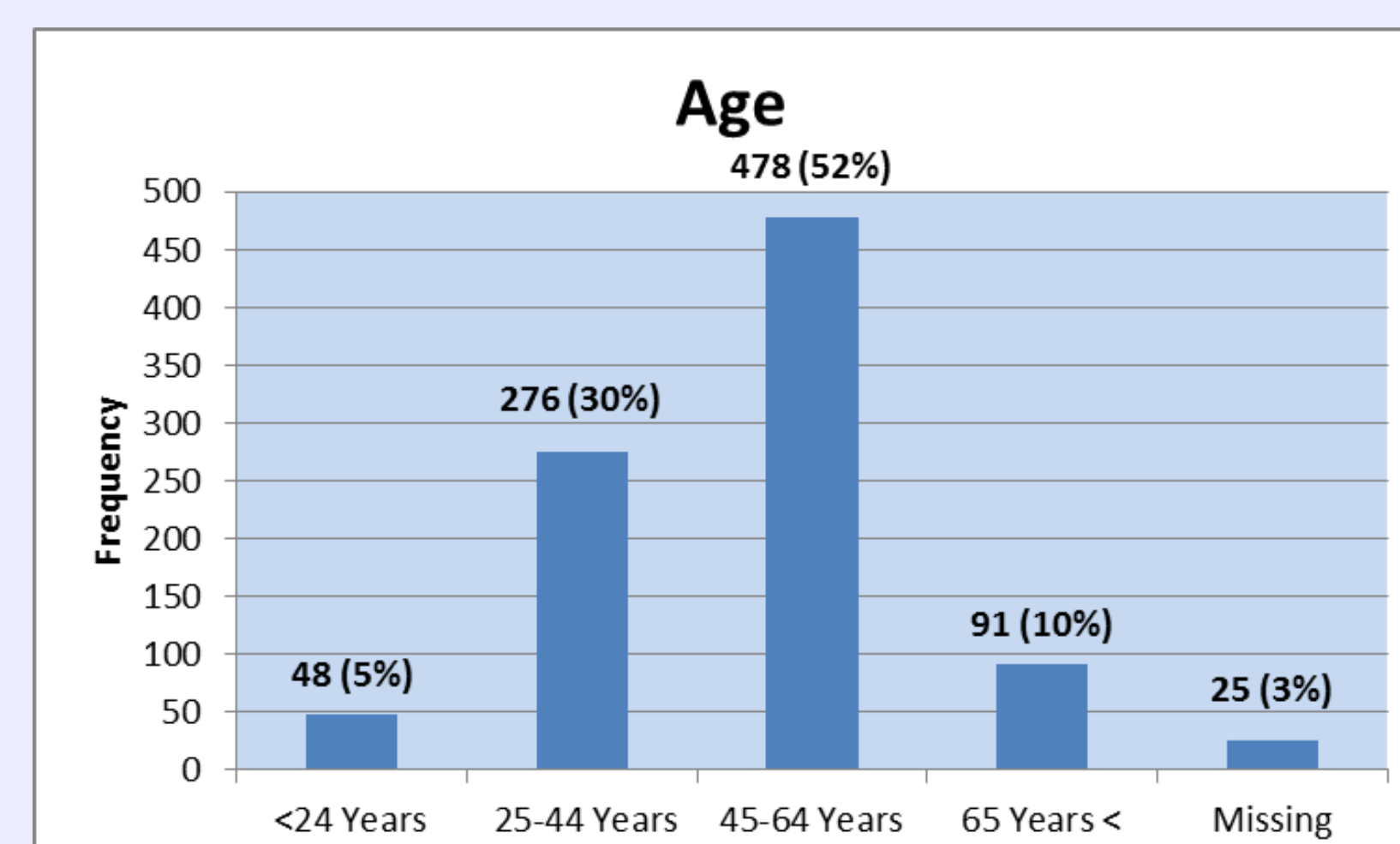
Table 1. Determining the Baseline Completion Rate for Cooper/Clayton Program Participants, for Classes taught in 2009 and 2010

Numerator	Participants who completed the 12 weekly sessions and self-reported to facilitators that they were non-smokers	918 participants at 12 weeks reported being non-smokers to tobacco facilitators	44.31%
Denominator	Participants who attended at least one class after the orientation class	2,072 participants enrolled in 231 class series	

of participants enrolled in the Cooper/Clayton classes, completed the 12-week class series and self-reported that they were non-smokers

Data collected from: 71 Tobacco Facilitators
231 Completed Class Report forms (on classes taught in 2009 & 2010)- One form per 12-week class series
14 Area Development Districts

Figures 3-5: Characteristics of Cooper/Clayton Program Participants who Self-Reported being Smoke-free at the End of the 12-Week Class Series by Age, Gender and Smoking History



Limitations

- Data was gathered from a cross-sectional class report form. It is not possible to measure other factors which affected participants becoming non-smokers.
- No comparison group- Participants who resigned from the program were not monitored to determine their smoking status.
- Participation bias- Tobacco facilitators who responded to the voluntary request for retrospective information might not have been representative of all classes.

Conclusions

- Based upon class report forms completed by tobacco facilitators for class series taught in 2009 and 2010, the program participants who became non-smokers during the Cooper/Clayton smoking cessation program were:
 - Between the ages of 45-64
 - Female
 - Had a 16-25 year smoking history
- This preliminary data will provide information in planning further evaluation studies on the Cooper/Clayton program. This includes adding a six month follow-up with both participants who resign or complete the program in order to monitor their smoking status.

References

- 1) U.S. Cancer Statistics Working Group. United States Cancer Statistics : 1999-2007 Incidence and Mortality Web-based Report. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2010.
- 2) Centers for Disease Control and Prevention (CDC). Lung Cancer Risk Factors. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Cancer Prevention and Control; 2011.
- 3) Centers for Disease Control and Prevention (CDC). Smoking and Tobacco Use: State Tobacco Activities Tracking and Evaluation (STATE) System. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2010.
- 4) Centers for Disease Control and Prevention. Best Practices for Comprehensive Tobacco Control Programs- 2007. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; October 2007.
- 5) Paul A. Harris, Robert Taylor, Robert Thielke, Jonathon Payne, Nathaniel Gonzalez, Jose G. Conde, Research electronic data capture (REDCap) - A metadata-driven methodology and workflow process for providing translational research informatics support, J Biomed Inform. 2009 Apr;42(2):377-81.
- 6) Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 1995-2009.
- 7) Kentucky Department for Public Health (KDPH) and Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Frankfort, KY: Cabinet for Health and Family Services, Kentucky Department for Public Health, 1995 - 2009.