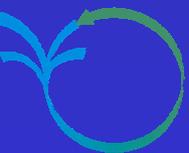


What is the Behavioral Risk Factor Surveillance System (BRFSS)?

LaTonya Bynum

Arkansas Department of Health

Arkansas BRFSS Coordinator



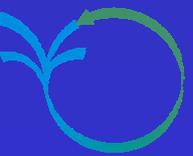
Presentation Outline

- Overview of BRFSS survey
- History and purpose of BRFSS
- Survey methods and process for adding questions
- Review of survey results
- Accessing BRFSS data
- Examples of how data are used



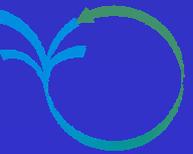
What is BRFSS?

- Behavioral Risk Factor Surveillance System
- Random digit dial state based telephone survey
- Adults ages 18 and older
- Measures personal behaviors that put health at risk
- Collaboration between CDC and States/Territories
- Arkansas BRFSS participation since 1993



BRFSS History

- In the 1980s research showed health behaviors play an important role in unnecessary deaths and diseases.
- In 1984 CDC started the state-based BRFSS to collect health information on risk behaviors and health practices that affect health status.
- By 1997 all states were participating.

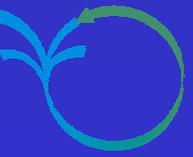


BRFSS Survey Design



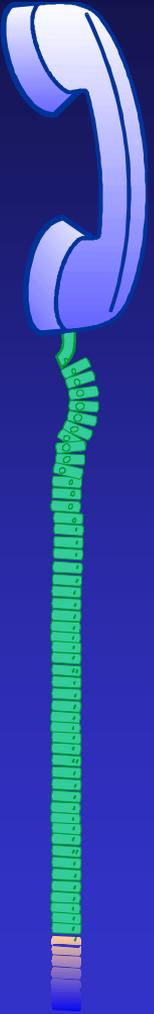
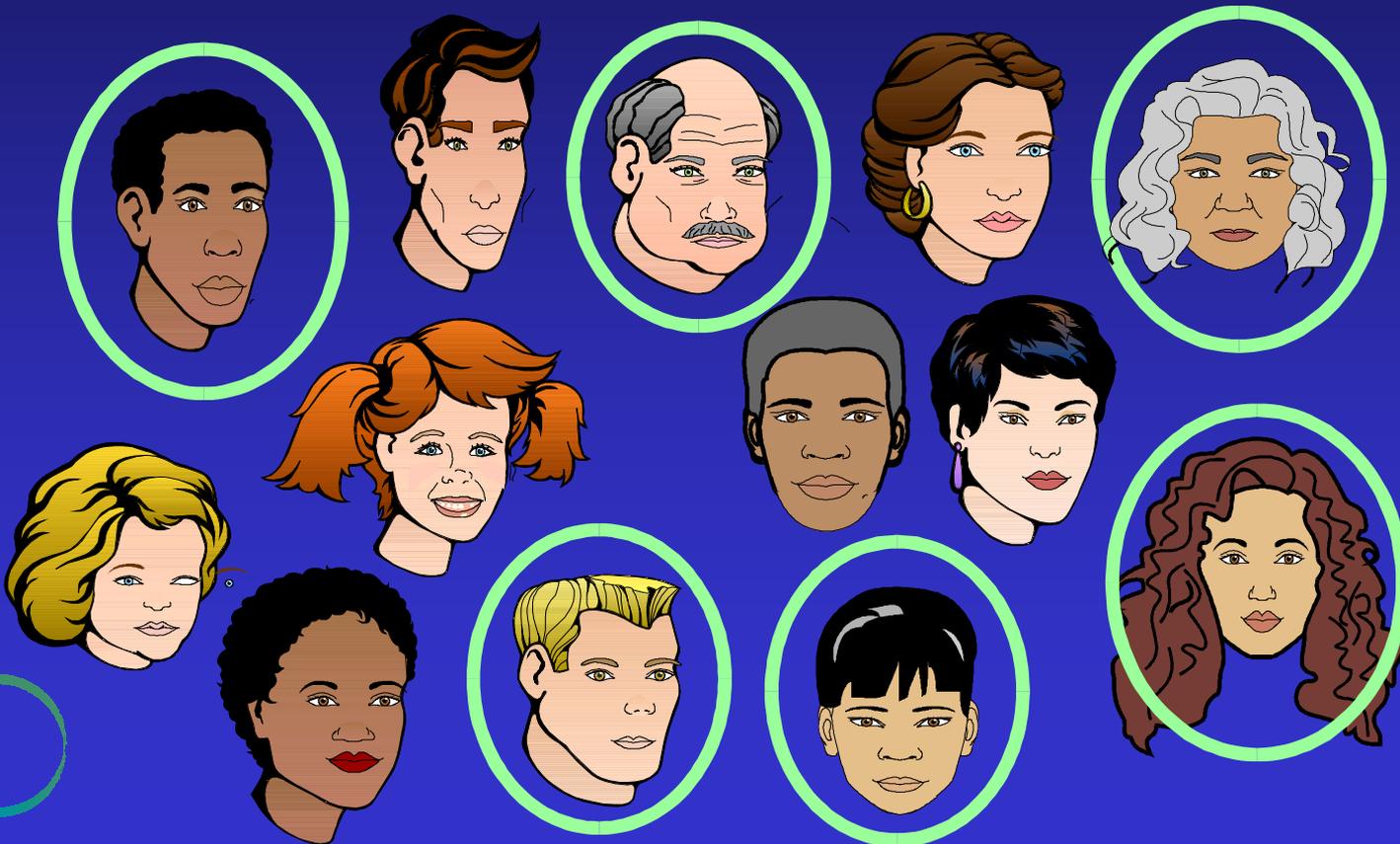
Telephone Surveys

Households with a telephone are selected



Random Sample

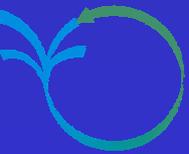
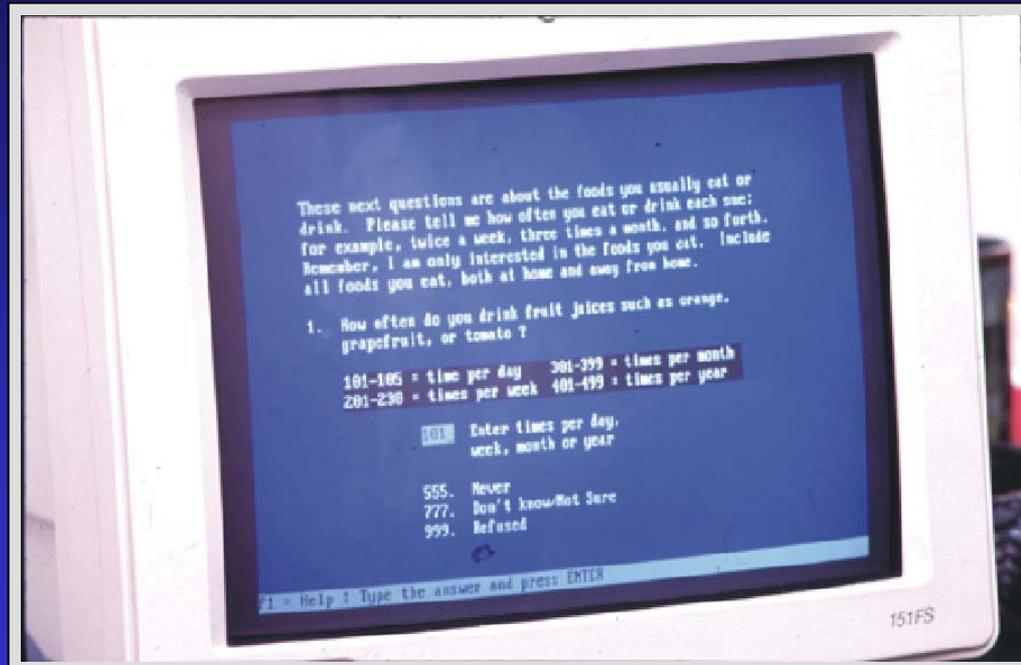
People 18 and older are randomly selected



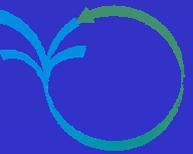
Interviewers are Trained



Computer Assisted Telephone Interview (CATI)

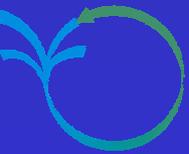


Telephone Interview and Data Entry



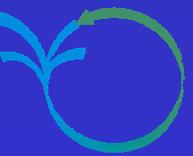
Calls are made 7 days a week

- 2,300 – 2,500 calls per month
- More than 100,000 calls nationwide per year



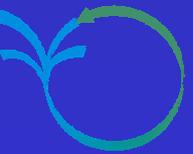
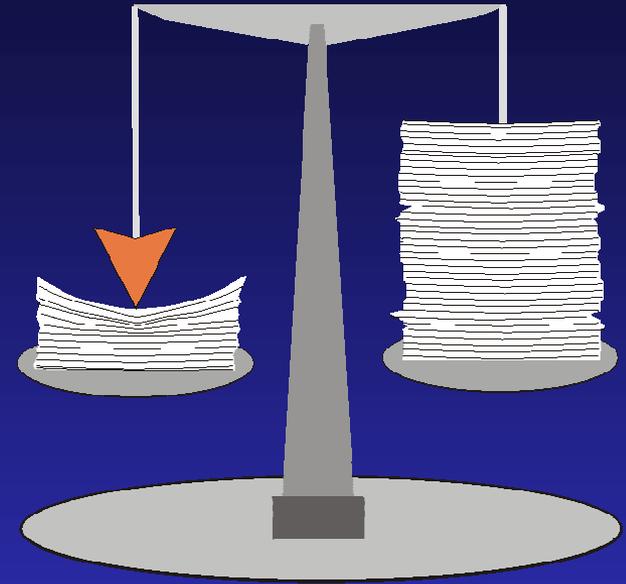
Data Collection

- **Arkansas BRFSS contracts with Clearwater Research**
- **Interviews are monitored to maintain and ensure data quality.**
- **Data are sent to state & CDC**
- **CDC aggregates monthly data for the entire year.**
- **Final data are available by March of the following survey year.**



Data are weighted...

- to compensate for unequal selection probability
- to ensure that data can be used to represent the Arkansas adult population



Design of BRFSS Questionnaire

- **Core**
 - **Asked by all states**
- **Optional Modules**
 - **Specialized topic questions states can choose to include**
- **State-added questions**
 - **state specific questions to address state and local issues**



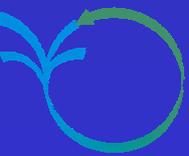
Topics Included in the BRFSS Questionnaire Core: Demographics

- Age
- Sex
- Ethnicity
- Race
- Marital status
- Education level
- Employment status
- Income
- County of residence
- Pregnancy status
- Children <18 years in household



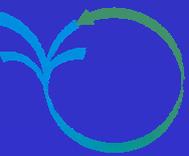
Topics Included in the BRFSS Questionnaire Core: General Health

- Self-reported health status
- Health insurance
- Personal health provider
- Quality of life and care giving
- Height
- Weight
- Disability



Topics Included in the BRFSS Questionnaire Core: Health Conditions

- Diabetes
- Awareness of high blood pressure
- Awareness of high cholesterol
- Oral health
- Asthma history
- Cardiovascular disease
- Arthritis



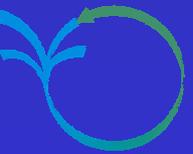
Topics Included in the BRFSS Questionnaire Core: Risk Behaviors

- Smoking [current smoking status and quit smoking attempt in past year]
- Tobacco indicators
- Other tobacco products
- Alcohol use [drinking frequency, avg. drinks/occasion, occasions 5+ drinks]
- No leisure time physical activity
- Physical activity
- Seatbelt Use
- Hypertension
- HIV/AIDS
- Immunization
- Fruit and vegetable consumption
- Weight control
- Folic acid



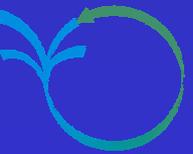
Topics Included in the BRFSS Questionnaire Core: Health Services

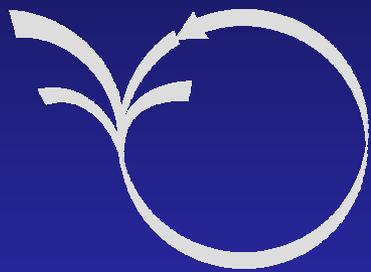
- Health care coverage and utilization
- Breast cancer screening
- Cervical cancer screening
- Prostate cancer screening
- Colorectal cancer screening
- Flu & pneumococcal vaccination



Topics Included in the BRFSS Questionnaire Emerging Core

- Novel H1N1 Adult Immunization
- Gastrointestinal Disease





Optional Modules

Diabetes

Weight Control

Access to Eye Care

Heart Attack and Stroke

Women's Health

Actions to Control HBP

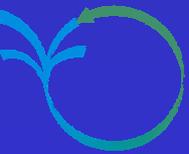
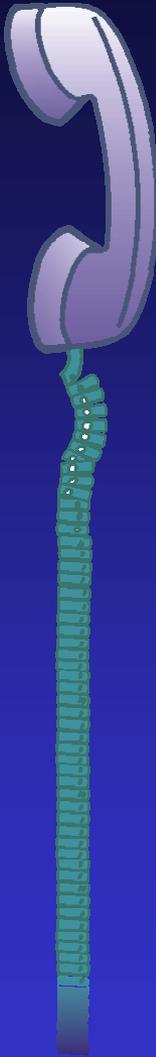
Intimate Partner Violence

Secondhand Smoke



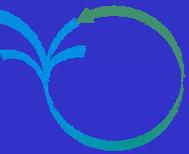
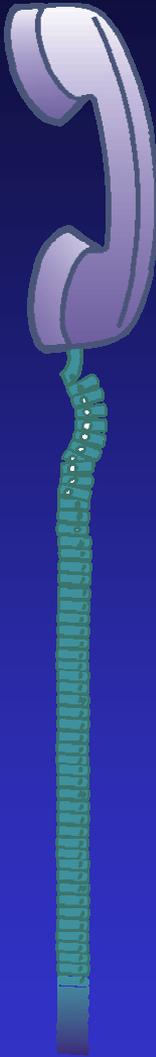
State Added Questions: Tobacco Control

When you can't smoke cigarettes because of clean indoor air restrictions, do you use chewing tobacco or snuff?



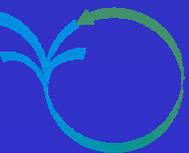
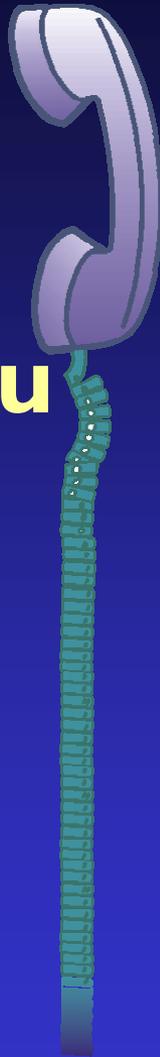
State Added Questions: Women's Health

Are you aware that the health Department offers free to low cost breast exams and mammograms?



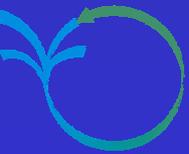
State Added Questions: Disability

What is the farthest distance that you can walk by yourself, without any special equipment or help from others?



How to add BRFSS Questions

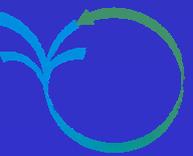
- \$700 - \$800 per question
- July 1 planning for next survey begins
- Proposals are due by September
- Proposals are reviewed by committee in October
- Pre-testing of state added questions begins late October
- December questionnaire is finalized

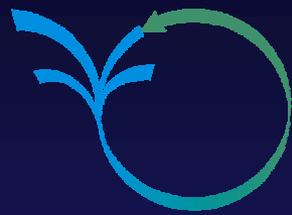




Who uses it?

- **State and Local Health Departments**
- **Students and Researchers**
- **Non-Profit Agencies**
- **Federal Agencies**
- **Research organizations**
- **Insurance companies**
- **Media**

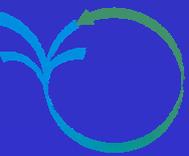




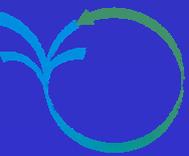
BRFSS

How it is used?

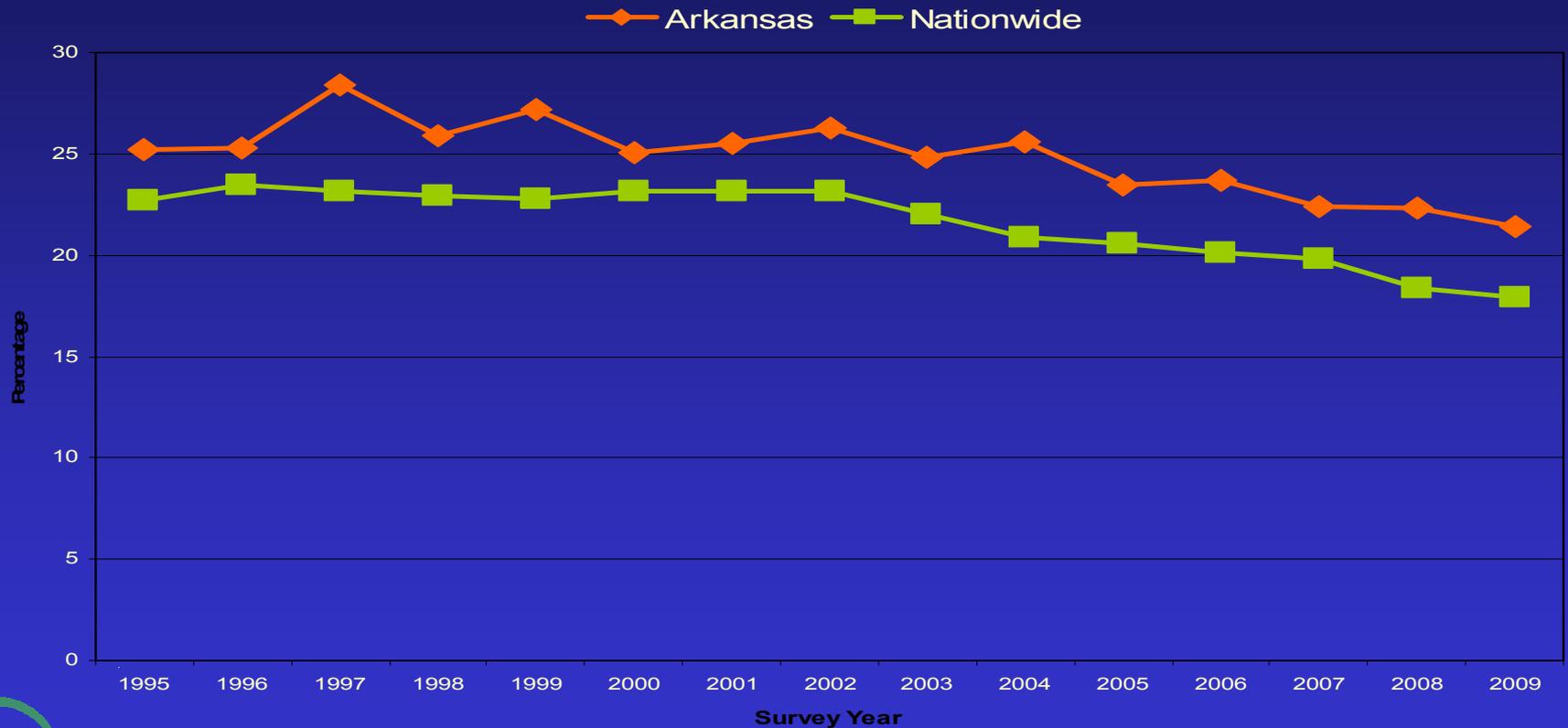
- **Assess health needs and personal behaviors of the population**
- **Plan, implement, and evaluate public health strategies**
- **Identify health disparities**
- **Prepare grant proposals**
- **Publish scientific articles in professional journals**



Results for Tobacco Use Data

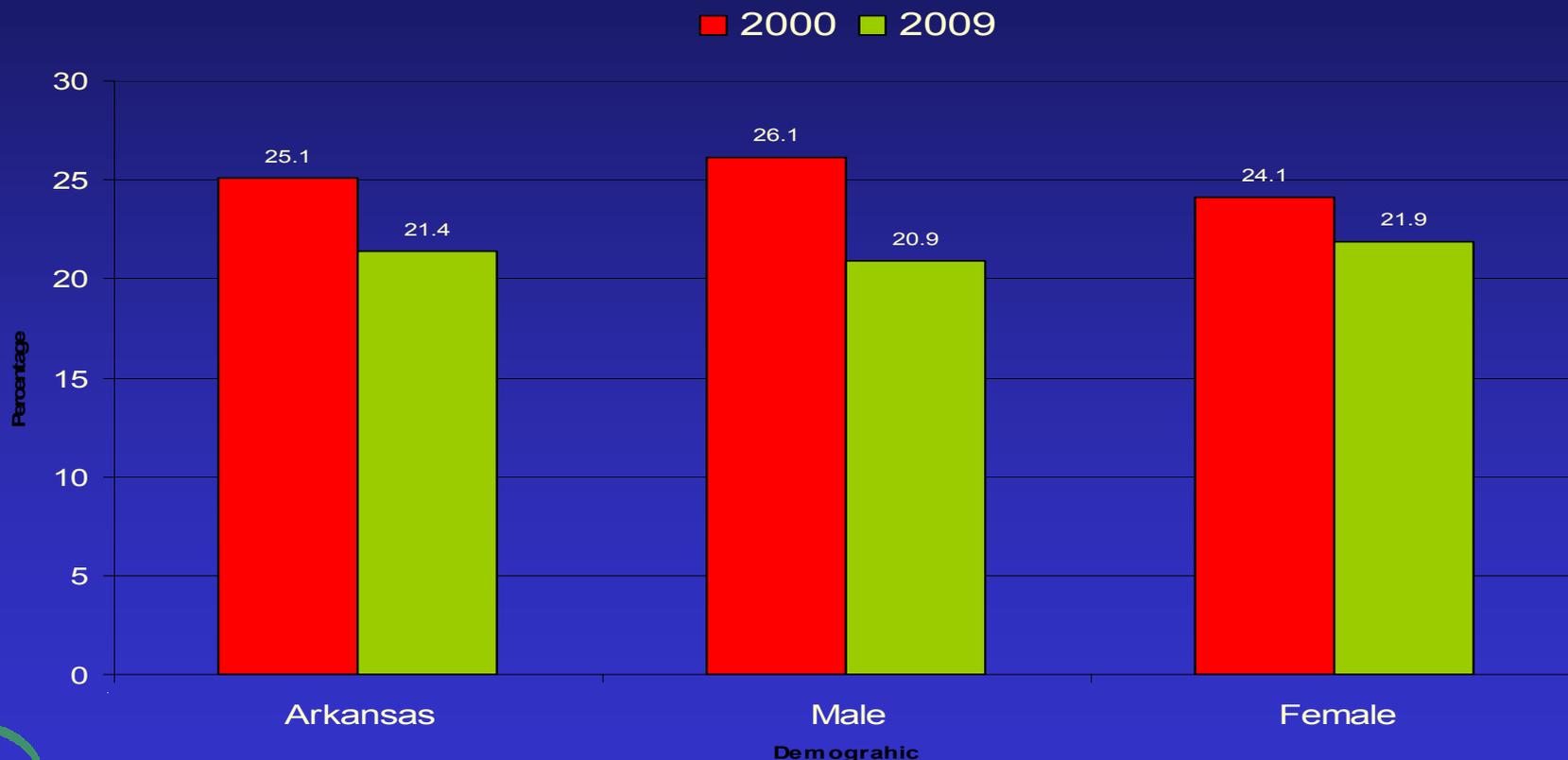


Prevalence of Current Smokers Adults Ages 18 and Older by Year BRFSS, 1995 – 2009



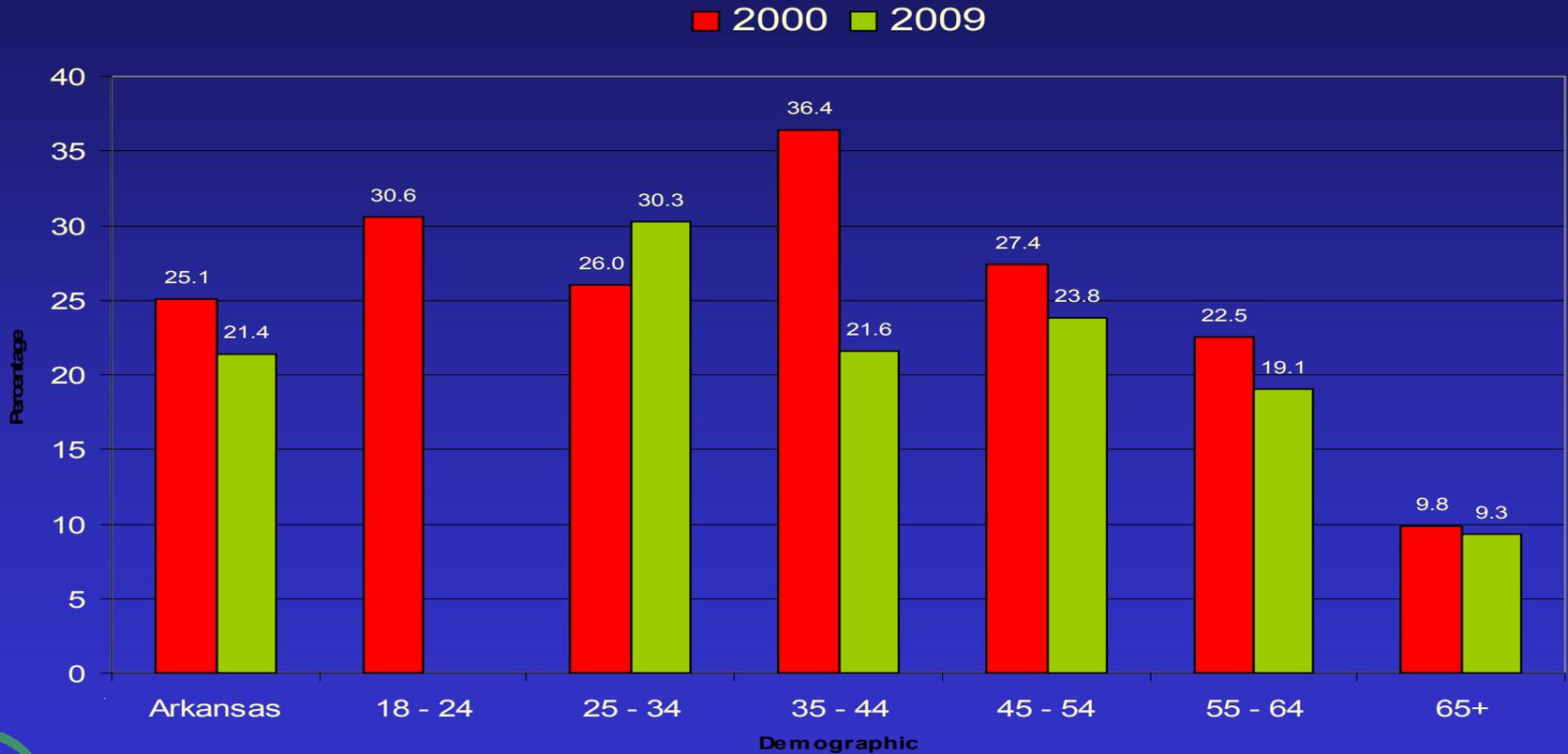
Source: <http://apps.nccd.cdc.gov/brfss/index.asp>

Prevalence of Current Smokers Adults Ages 18 and Older by Gender, BRFSS, 2000 & 2009



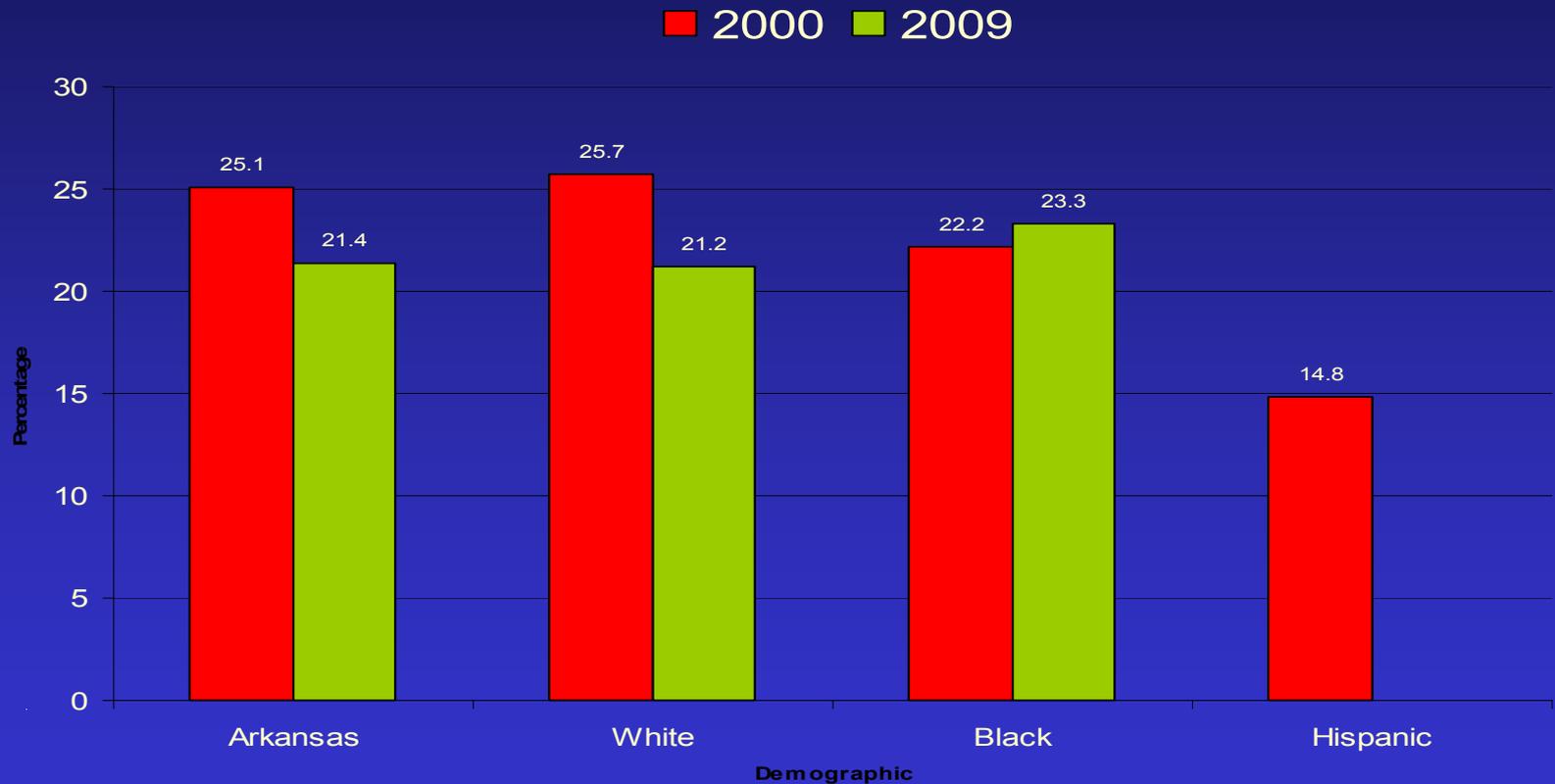
Source: <http://apps.nccd.cdc.gov/brfss/index.asp>

Prevalence of Current Smokers Adults Ages 18 and Older by Agegroup, BRFSS, 2000 & 2009



Source: <http://apps.nccd.cdc.gov/brfss/index.asp>

Prevalence of Current Smokers Adults Ages 18 and Older by Race & Ethnicity, BRFSS, 2000 & 2009



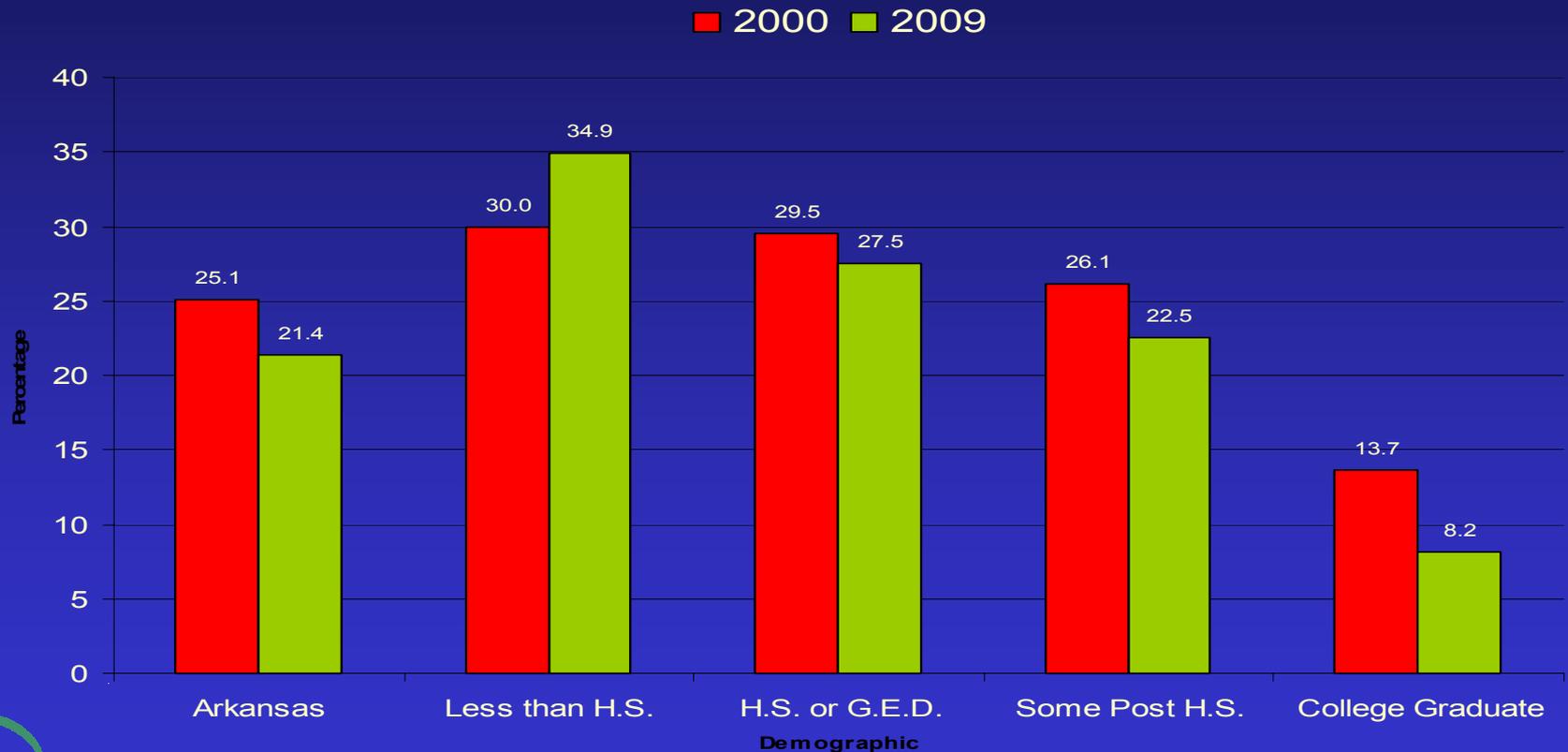
Source: <http://apps.nccd.cdc.gov/brfss/index.asp>

Prevalence of Current Smokers Adults Ages 18 and Older by Income Level, BRFSS, 2000 & 2009



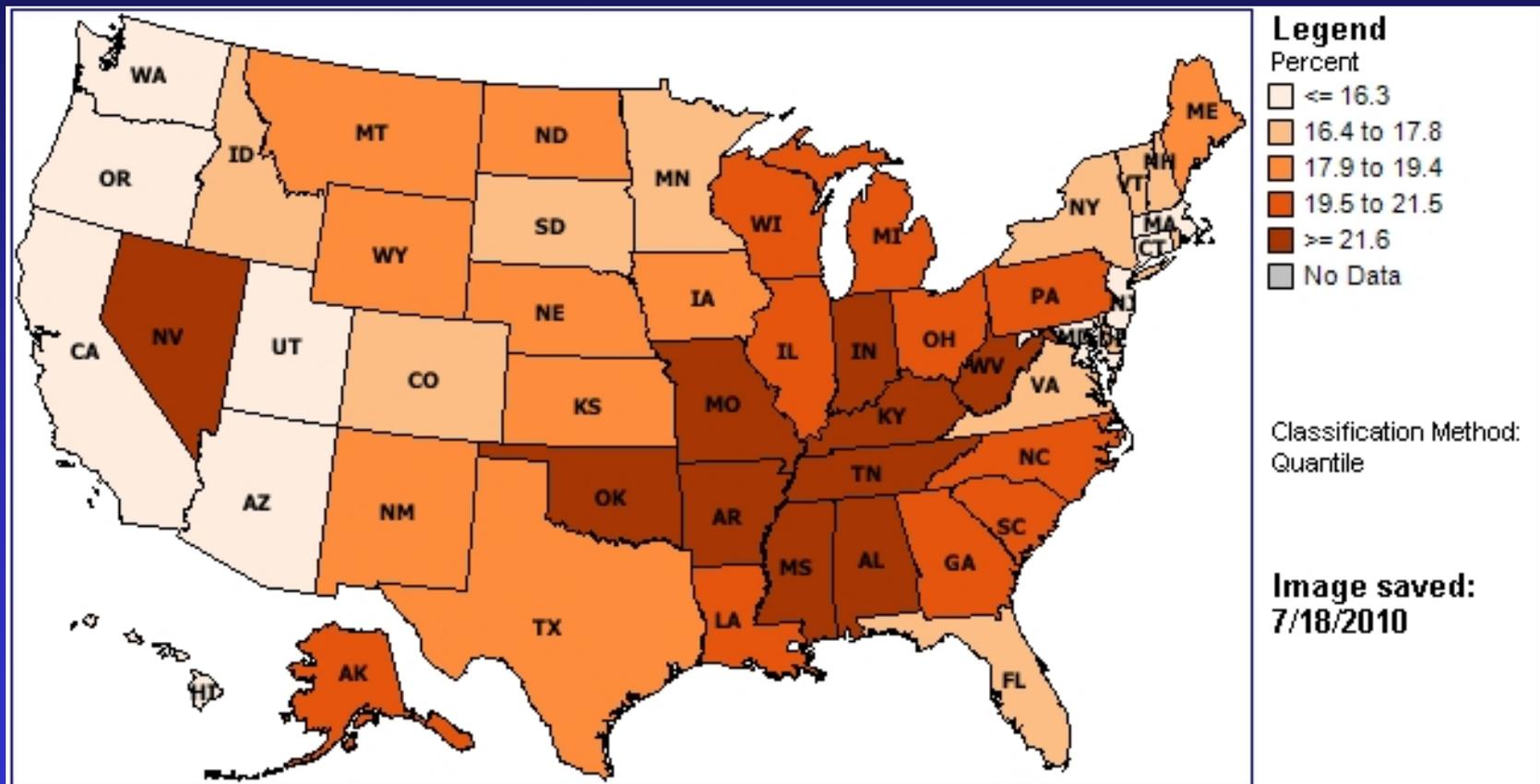
Source: <http://apps.nccd.cdc.gov/brfss/index.asp>

Prevalence of Current Smokers Adults Ages 18 and Older by Education Level, BRFSS, 2000 & 2009



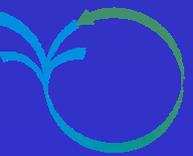
Source: <http://apps.nccd.cdc.gov/brfss/index.asp>

State to State BRFSS Prevalence for Adults Who Are Current Smokers, 2008

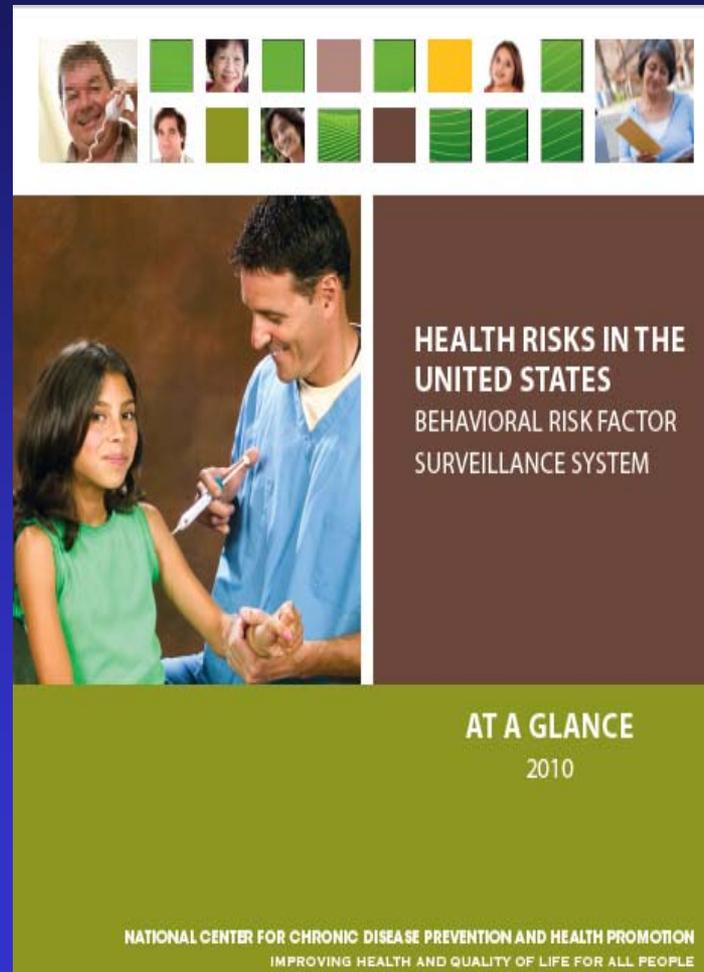


Source: <http://www.cdc.gov/brfss>

Other Examples



CDC Behavioral Surveillance Division Publications



Scientific Publications

J Rural Health. 2010 Winter;26(1):30-5.

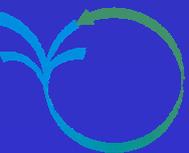
Access to and use of eye care services in rural arkansas.

Kilmer G, Bynum L, Balamurugan A.

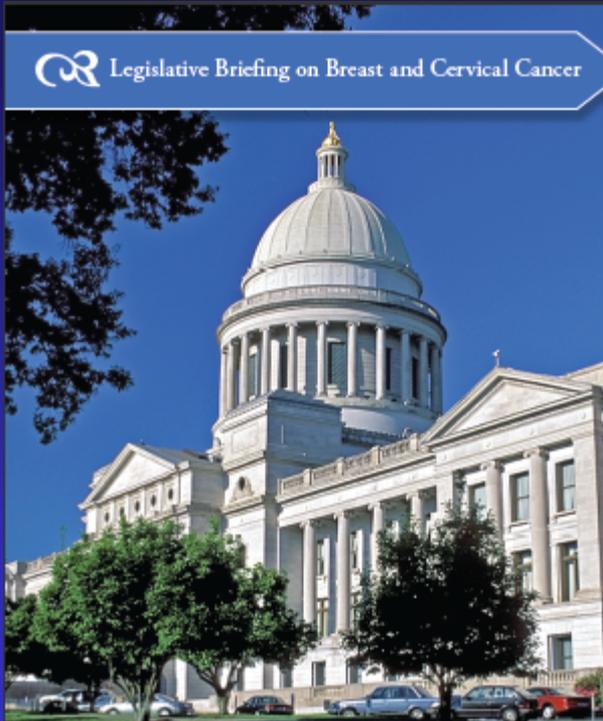
National Center for Chronic Disease Prevention & Health Promotion, Centers for Disease Control and Prevention, 2990 Brandywine Road, Atlanta, GA 30341, USA. gfg8@cdc.gov

Abstract

CONTEXT: Rural residents are more likely to be uninsured and have low income. PURPOSE: To determine if rural residents in Arkansas have decreased access to eye care services and use them less frequently than urban residents. METHODS: Data from the 2006 Visual Impairment and Access to Eye Care Module from the Arkansas Behavioral Risk Factor Surveillance System (BRFSS) were used in the analysis. Adults age 40 years and older were included (n = 4,289). Results were weighted to reflect the age, race, and gender distribution of the population of Arkansas. Multiple logistic regression was used to adjust for demographic differences between rural and urban populations. FINDINGS: Significantly fewer rural residents (45%) reported having insurance coverage for eye care services compared with residents living in urban areas (55%). Rural residents were less likely (45%) than urban residents (49%) to have had a dilated eye exam within the past year. Among residents aged 40-64, those from rural areas were more likely than their urban counterparts to report cost/lack of insurance as the main reason for not having a recent eye care visit. CONCLUSIONS: In 2006, rates of eye care insurance coverage were significantly lower for rural residents while use of eye care services differed slightly between rural and urban residents. Rural residents in Arkansas age 40-64 would benefit from having increased access to eye care insurance and/or low cost eye care services.



State Reports



 Legislative Briefing on Breast and Cervical Cancer






Diabetes Surveillance in Arkansas

The Natural State

2007

MEMBERS OF THE TOBACCO PREVENTION AND CESSATION ADVISORY COMMITTEE AND THE ORGANIZATIONS THEY REPRESENT

Connie Ash
 Arkansas Nurses Association
 Mary Benjamin, Ph.D.
 University of Arkansas at Pine Bluff
 David Covey, M.D.
 Senate Appointment
 Craig Stotts, Ph.D.
 Arkansas Center for Health Improvement
 Clifton Johnson, M.D.
 Arkansas Medical, Dental & Pharmaceutical Association
 Genine Perez
 Family Service Agency
 Jeffrey Blackwell
 Arkansas Medical Society
 Barbara Kumppe
 American Heart Association
 Jimmy Leopard
 Arkansas Hospital Association
 Lynn Russell, Ph.D.
 U of A Cooperative Extension Service
 Jim Shenep
 American Lung Association
 Cynthia Gregory
 Minority Health Commission
 Wilma Houston
 Coalition for a Tobacco-Free Arkansas
 Jill Cox
 American Cancer Association
 David Busby, M.D.
 Arkansas Association of Area Agencies on Aging
 Gary Wheeler, M.D.
 House of Representatives Appointment



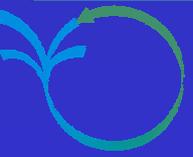

STAMP OUT SMOKING
 ARKANSAS DEPARTMENT OF HEALTH AND HUMAN SERVICES

TOBACCO PREVENTION IN ARKANSAS



PROGRESS REPORT
2006

Tobacco Prevention and
 Cessation Program
 Division of Health
 501-661-2953



State Reports

The Burden of Overweight and Obesity in Arkansas 2007-2008



Arkansas Department of Health

4815 West Markham Street - Little Rock, Arkansas 72205-3987-Telephone (501) 961-2000
Paul Halverson, DrPH, Director
Mike Beebe, Governor

January 2010

Version: February 24, 2010 11:58 AM PDF

Oral Health in Arkansas



Office of Oral Health

Smiles

"Keeping Your Hometown a Healthy"

Prepared by:

Lynn Douglas Mouden, DDS, MPH
Appathural Balamurugan, MD, MPH

April 2009

SMALL STEPS,
GREAT STRIDES
TOWARD
A HEALTHIER
ARKANSAS

A comprehensive plan
for cardiovascular health
(heart disease and stroke)
in Arkansas

SUMMER 2004



Arkansas Department of Health
Keeping Your Hometown Healthy



Healthy Arkansas
For a Better State of Health

State Factsheets

October 2008

An Arkansas EPI-gram
 THE STATE'S EPIDEMIOLOGICAL WORKSHOP BRINGS YOU THE FACTS ABOUT THE BURDEN OF DISEASE IN ARKANSAS
 #1 RATED BY THE CENTER FOR DISEASE CONTROL AND PREVENTION FOR EXCELLENCE

Drinking and Pre-pregnancy Risks

In 1981 the Office of the Surgeon General advised pregnant women to limit alcohol consumption. Additional research led the Surgeon General to update this advisory. Today, pregnant women or women who may become pregnant are advised to abstain from all alcohol consumption. New studies show that:

- There is no known safe level of alcohol consumption.
- Alcohol can impact fetal development in early weeks of pregnancy.
- Fetal impacts are irreversible and life-long.¹

Analysis of national 2004 Behavioral Risk Factor Surveillance System (BRFSS) data concluded that 53.9% of women with the highest potential for becoming pregnant in the immediate future reported consuming alcohol in the previous month. Of these women, 10.7% reported binge drinking (any occasion of 5+ drinks) and 12.9% reported binge drinking or consuming one or more drinks per day. These high potential pregnancy respondents were those women between the ages of 18 and 44 who were considering becoming pregnant within 12 months, were not using contraception, were not sterile, or were not currently pregnant.²

In Arkansas, the Department of Health administers the BRFSS. The state BRFSS does not currently include questions about the intent to become pregnant, sterility or contraceptive use. However, the drinking patterns of all Arkansas women of childbearing age (see figure at right) indicate that a majority of women ages 18 to 44 consume alcohol, most only occasionally. Nonetheless, a significant number of these women report heavy consumption of alcohol and binge drinking.³ These data, taken together with the high rate of unintended pregnancies (as many as half

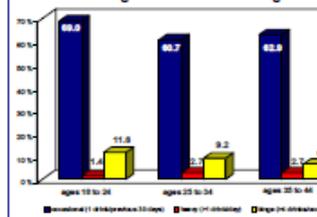
according to the Centers for Disease Control and Prevention), and the initial detection of most pregnancies occurring several weeks after conception, could indicate that many Arkansas women may be unknowingly consuming high levels of alcohol in the earliest weeks of pregnancy.

Prevention messages addressing abstinence from alcohol during pregnancy have been effective. Data indicate that once pregnancy is confirmed, the overwhelming majority of women abstain from alcohol consumption or greatly decrease consumption. However, new strategies may need to be developed to address alcohol consumption in the earliest weeks of pregnancy before pregnancy is known.

Prenatal Exposure

Prenatal exposure to alcohol can cause a range of disorders in offspring known as fetal alcohol spectrum disorders (FASDs), an umbrella term describing such lifelong effects as physical, mental, behavioral and/or learning disability. One of the most severe of drinking during pregnancy is fetal alcohol syndrome (FAS), a leading preventable cause of mental retardation and birth defects.⁴ All FAS is 100% preventable if pregnant women or women who become pregnant avoid alcohol consumption.

2007 Drinking Patterns of Women Ages 18



Information from the Office of the Surgeon General, U.S. Department of Health and Human Services, <http://www.surgeongeneral.gov>.
 Anderson, J.E., Eberhart, S., Floyd, L., Abrah, H. (2006). "Prevalence of Risk Factors for Pregnancy Outcome During Pregnancy and the Postconception Period—United States, 20 Behavioral and Child Health Journal 10, 500-510.
 3. Information from the Arkansas Behavioral Risk Factor Surveillance System, <http://brfss.ar.gov>.
 4. Information from the Centers for Disease Control and Prevention, U.S. Department of Health and Human Services, <http://www.cdc.gov/ncbddd/fas>.

Coming next month:
Task Force on Substance Abuse Annual Report



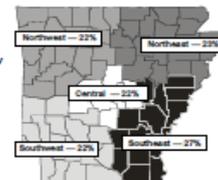
In Arkansas, 1 in 4 men smoke cigarettes.

CIGARETTE SMOKING AMONG ADULTS IN ARKANSAS, 2007

THE BURDEN OF CIGARETTE SMOKING

- Adults who report currently smoking every day or some days are considered current smokers.
- According to the U.S. Surgeon General, cigarette smoking causes numerous types of cancer, as well as lung and heart diseases.
- The Centers for Disease Control and Prevention estimate that one in five deaths in the U.S. is smoking related.
- About 477,000 (22%) Arkansas adults currently smoke cigarettes.
- Adults in Arkansas are more likely (22%) to smoke cigarettes compared to U.S. adults (19%).

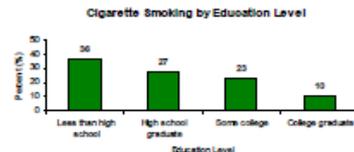
PUBLIC HEALTH REGION
 The map to the right shows how smoking rates vary by public health region in Arkansas.



GENDER
 Men are more likely to smoke (25%) compared with women (20%).

EDUCATION

Adults with less education are more likely to smoke, as shown in the graph below.



Arkansas Behavioral Risk Factor Surveillance System

Fact Sheet: Recognition of Major Symptoms of Heart Attack and Stroke Among Arkansans

Introduction:

Coronary heart disease is the leading cause of death in Arkansas. Stroke is the third leading cause of death and serious disability in Arkansas. In 2003, 27.5 percent of all deaths in Arkansas were due to heart disease and 7.6 percent were due to stroke. Reducing deaths due to heart disease and stroke requires knowing the warning signs and knowing how to respond quickly and properly if warning signs occur.¹

Methods:

The Behavioral Risk Factor Surveillance System (BRFSS) is a state-based telephone survey of adults aged 18 years and over. It was developed to collect and monitor information on personal risk behaviors that affect health. In 2001, 2,928 adults participated in the Arkansas BRFSS survey. Respondents were asked about their knowledge of the signs and symptoms of a heart attack and stroke. For each question, the answer choices were 'yes', 'no', 'not sure', or 'don't know'.

Symptoms included for heart attack:

- Pain or discomfort in the jaw, neck or back
- Feeling weak, lightheaded, or faint
- Chest pain or discomfort
- Sudden trouble seeing in one or both eyes*
- Pain or discomfort in the arms or shoulder
- Shortness of breath

Symptoms included for stroke:

- Sudden confusion or trouble speaking
- Sudden numbness or weakness of face, arm, or leg, especially on one side
- Sudden trouble seeing in one or both eyes
- Sudden chest pain or discomfort*
- Sudden trouble walking, dizziness, or loss of balance
- Severe headache with no known cause

Additionally, respondents were also asked, "If you thought someone was having a heart attack or a stroke, what is the first thing you would do?" Respondents chose from a list of choices that included the following:

- Take them to the hospital
- Tell them to call their doctor
- Call 911
- Call their spouse or a family member
- Do something else
- Don't know/not sure
- Refused

* Does not include "yes" answer if incorrect.

Highlights of this Issue

- Eighty percent of adults surveyed correctly recognized at least three heart attack symptoms.
- Seventy-three percent of adults surveyed correctly recognized at least three stroke symptoms.
- Ten percent of the respondents correctly identified all heart attack symptoms and indicated that they would call 911 if they thought someone was having heart attack.
- Thirteen percent recognized all stroke symptoms and indicated that they would call 911 if they thought someone was having stroke.
- Eighty-three percent of survey respondents indicated that they would call 911 if they thought someone was having heart attack or stroke.

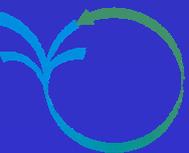


Jill Prelesky Cox, Project Coordinator
 Strategic Prevention Framework (SPF)
 State Incentive Grant (SIG)
 (501) 998-1660
jil.cox@arkansas.gov

Brenda M. Booth, F
 State Epidemiologist
 SPF SIG
 (501) 683-11
boothbrenda@

Accessing BRFSS data

- **Submit requests to latonya.bynum@arkansas.gov**
Tables, charts, fact sheets, maps, or data files
- **AR BRFSS County Estimates: www.healthy.ar.gov**
 - 1) **Click on B in A – Z Index**
 - 2) **Click Behavioral Risk Factor Surveillance System**
 - 3) **Click on County Data**
 - 4) **Click on report of choice (years: 2004 – 2008)**
- **CDC BRFSS: www.cdc.gov/brfss**
 - Click on Prevalence Data and Trends Data**
 - Click on BRFSS Maps**



Success Story



New Program Created by the University of Arkansas Medical Sciences (UAMS) Partners for Inclusive (PIC) Communities Office: Arkansas Disability and Health Program

The UAMS Partners for Inclusive Communities (PIC) used the BRFSS information to target their health promotion efforts. After finding disparities in rates of obesity, the PIC implemented a new health intervention (Living Well with a Disability) at local independent living centers.



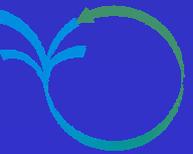
Success Story

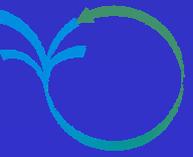
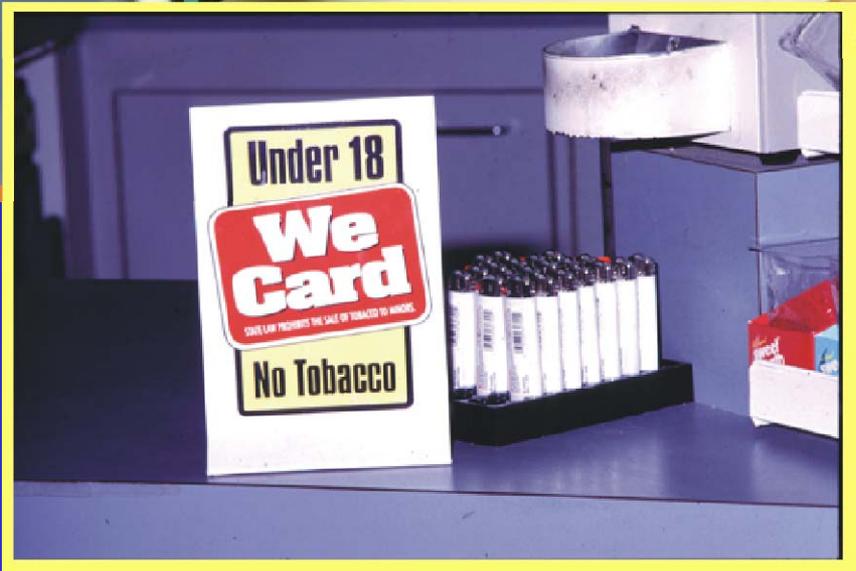
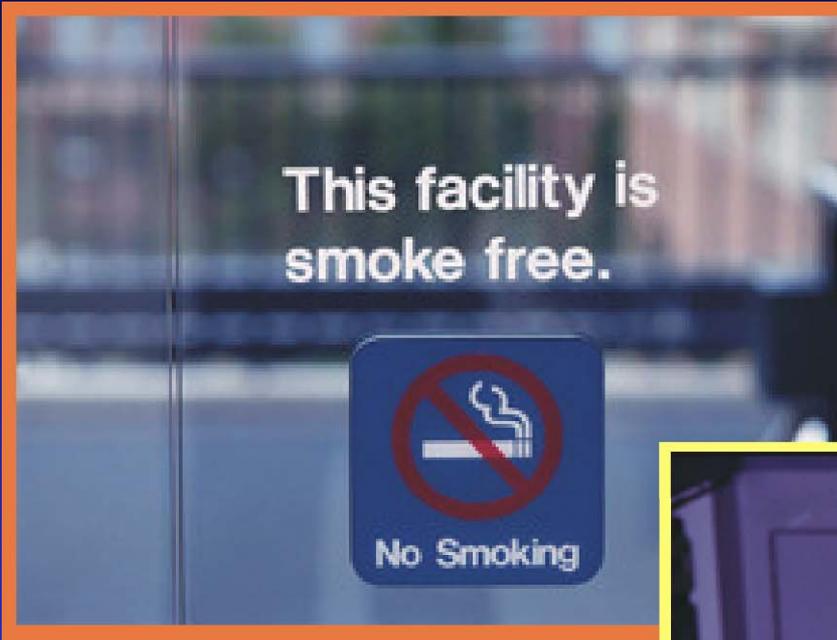


Clean Indoor Air Act Protects the Public from Secondhand Smoke

According to the U.S. Surgeon General, nonsmokers who are exposed to secondhand smoke at home or at work have a 25%–30% higher risk for heart disease and a 20%–30% higher risk for lung cancer. No level of secondhand smoke exposure is safe.

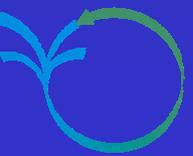
According to the BRFSS, current smoking prevalence among adults in Arkansas was 23.5% in 2005, compared with 20.5% nationwide. In April 2006, state lawmakers used the BRFSS data to support their decision to pass the Arkansas Clean Indoor Act, which prohibits smoking in work and public places, including bars and restaurants.







**A powerful tool for
health professionals.**



Contact Information

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