BRFSS

Behavioral Risk Factor Surveillance System

STATE of OKLAHOMA

2005 Annual Report

& Trend Analysis 1988-2005

Printed November 2007

BRFSS:

Behavioral Risk Factor Surveillance System

STATE of OKLAHOMA

Annual Report 2005

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Introduction

The Behavioral Risk Factor Surveillance System (BRFSS) is the world's largest telephone survey system.

BRFSS monitors modifiable health risk factors and trends among adults aged 18 and above.

Nearly half of all deaths occurring annually in the United States are due to modifiable behavioral risk factors (McGinnis, 1993).[1] This report indicated that if we could control approximately ten risk factors, we could reduce 40 to 70 percent of all premature deaths, a third of all cases of acute disability, and two-thirds of all cases of chronic disability.

The Behavioral Risk Factor Surveillance System (BRFSS) is the world's largest state-based telephone survey system, funded and technically guided by the Center for Disease Control and Prevention (CDC). BRFSS monitors modifiable behavioral health risk factors, selected disease screening and disease incidence and prevalence trends among adults aged 18 and above.

With only 15 participating states in its early inception in 1984, today, BRFSS has expanded to all 50 US states, District of Columbia, and territories such as Puerto Rico and the Virgin Islands. The Oklahoma State Department of Health joined the BRFSS in March 1988.

Oklahoma uses BRFSS to monitor trends in health risk behaviors and selected diseases among our adult population in order to assess the health of Oklahomans disease risk factors, prevalence, screening practices, or evaluate prevention programs or policies. Oklahoma BRFSS data are available at: http://www.health.ok.gov/ok2share/ or CDC site at: http://apps.nccd.cdc.gov/brfss/index.asp.

This report covers results of the 2005 survey questions, some trend analysis that includes data from as far back as 1988, and part of the results from the 2004 survey questions. As BRFSS surveyed optional modules in alternate years, some clinical preventive measures such as mammogram, PAP test, colorectal and prostate cancer screening, and dentist visit were not collected in 2005. These risk factors are included for 2004 in this report. Oklahoma estimates were compared to the national statistics to assess our progress in relation to the nation across years.

Methodology

Oklahoma BRFSS is a telephone survey system conducted within the state with support from CDC. The Oklahoma State Department of Health (OSDH) has an in-house calling center that follows the CDC BRFSS protocol. The methodology for conducting the survey has been provided by CDC and is the same across all states. Further information can be found in the BRFSS User's Guide and related policies at http://www.cdc.gov/brfss.

Survey Sample

Oklahoma and most other participating BRFSS states obtained their survey samples from Marketing Systems Group (MSG) using the Genesys sampling software. This software selects the sample based on a disproportionate stratified sampling (DSS) design. A representative sample of non-institutionalized Oklahoma adults aged 18 and above is randomly selected within a household, which was randomly selected by random digit-dialing (RDD) from all households with at least one working telephone. These telephone numbers do not include cell phone numbers.

Prior to 2001, the sample was stratified among six Oklahoma regions to ensure that rural and metropolitan Oklahoma had an equal chance of selecting any household with a working telephone and any adults in the selected household. Since 2001, Oklahoma BRFSS increased its stratified levels to twenty-six regions in an attempt to capture a more representative sample.

Survey Questionnaire

The BRFSS survey questionnaire consisted of three components: a standardized core component that must be asked by every state, the state-selected / optional modules, and the state added questions which may vary from state to state. Most of the core questions in 2005 were the same as the past many years. The CDC, with recommendation from participating states, developed and selected the core questions. All new items were field tested prior to being added into the questionnaire. Readers can find a copy of the 2005 BRFSS questionnaire at the following link: http://www.cdc.gov/brfss/technical_infodata/surveydata.htm.

The BRFSS survey questionnaire consisted of three components: a standardized core component that must be asked by every state, the state-selected / optional modules, and the state added questions which may vary from state to state.

Each year, CDC compiled and weighted the data prior to re-distributing it to the states for statistical analysis.

The methodology for conducting the survey has been provided by CDC and is the same across all states.

Results in this report have been adjusted (weighted) to reflect the Oklahoma population.

The optional modules were surveyed every alternate year. States may choose from several topics best relevant to their consumer needs and demands. In 2005, the Oklahoma optional modules included seven areas: cardiovascular health, heart attack and stroke, osteoporosis, arthritis management, secondhand smoke policy, sexual violence, and intimate partner violence.

The state added questions will not be included in this report. Further information regarding these questions and results can be obtained from the Oklahoma BRFSS, Health Care Information, Oklahoma State Department of Health @ 405-271-6225 or Chsadmin@health.ok.gov.

Interviewing Protocol

The Oklahoma BRFSS calling center randomly contacts residents six days a week, Monday-Friday, and half a day on Saturday. The center is equipped with computer-assisted telephone interviewing software (CATI) to ask the survey questions in a standardized manner. Continuous monitoring is in place to ensure a high quality data collection process.

The Genesys sample is sent monthly to the calling center and pre-screened for any business or non-working numbers prior to being released for interviews. Each telephone number released from the sample will be contacted a maximum of 15 times on varying days of the week and at different times of the day within a month.

Residents who refuse the interview are contacted for a second attempt by experienced interviewers who are proficient at converting refusals. At the end of the call, a disposition code is assigned to the call, such as 'complete,' 'refusal after respondent selection,' 'no answer,' 'busy.' More information is available in the BRFSS User's Guide.

Survey Population

Adults aged 18 or older were included in the survey population except for adults:

- in any institutions or dormitories;
- contacted in their second home during a stay of less than 30 days;
- who do not speak and understand English well enough;
- without a land line telephone.

Data Analysis

Data collected were uploaded electronically to CDC monthly. Each year, CDC compiled and weighted the data prior to re-distributing it to the states for statistical analysis. The "weight" variable adjusts for the number of adults, households with telephones, number of telephone lines, cluster and stratum sizes, and age / race and sex distribution of the population based on census data. Further information is available at: http://www.cdc.gov/brfss/technical_infodata/weighting.htm.

All percentages presented in this report were weighted to accurately represent the Oklahoma adult population. Responses of "Don't know / Not sure" or "Refused" were excluded from the calculation of the percentages. Results from small sample sizes, group size less than 5 and marginal group size (denominator) less than 50 were not reported. Notations commonly used in this report are shown in the box.

Confidence Intervals

A 95% confidence interval is included in the tables. They appear in the table columns labeled as CI. Confidence intervals inform us that 95% of the time our estimates will reflect the "true" population value. Confidence intervals are directly associated with sample sizes. Larger sample sizes yield smaller confidence intervals, and the estimates become more reliable.

A Cautionary Note

Telephone surveys are currently more challenging to carry out. There have been telephone technological advances in recent years. Various screening devices, such as answering machines, call filtering mechanisms, and the recent cell phone use patterns have become a challenge for our land line phone calls to reach the targeted households and the person selected for the call. This is especially true for the younger population.

Since 1994, significantly more Oklahoma elders aged 65+ were successfully surveyed compared to our younger adults. To enhance the validity of the results of the survey, the sampling scheme for Oklahoma has been changed since 2001 in an attempt to obtain a more representative sample.

A cautionary note for the readers of this report: The sampling scheme for Oklahoma has been changed since 2001 in an attempt to obtain a more representative sample.

Notations used in this report

- NH: Non-Hispanic
- Caucasian: Caucasian NH
- AfricanAm: African American NH
- AmIndian: American Indian NH
- Multicul: Multicultural NH
- Hispc: Hispanic
- DC: District of Columbia

Demographics

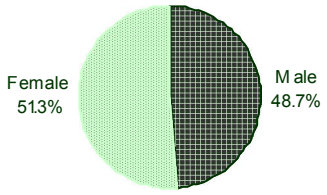
A random sample of 13,707 adult Oklahoma respondents aged 18+ were surveyed in 2005. After the data were collected, a "weight" was statistically applied to the raw sample to reflect the numbers in the entire population. Details of the weighting process were outlined in the methodology section.

Gender

The weighted distribution of adult male and female respondents in 2005 was 48.7% and 51.3%, respectively (Figure 1).

Figure 1

Percent of Adult Males and Females, Oklahoma, 2005



Age

Oklahoma adults were asked *"What is your age?"* in the survey. Nearly one-third of the adult population were between ages 18-34, 31.9%, 50.3% between 35-64, and 17.9% ages 65+. The proportion of women was larger than men among elders aged 65+ as shown in the population pyramid (see Figure 2). The proportion of men was higher than women among adults ages 49 and below.

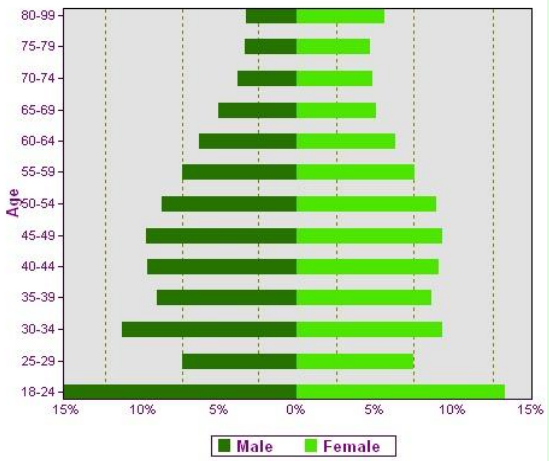
Education

When being asked *"What is the highest grade or year of school you completed?,"* 23.9% of Oklahoma adults had a college degree, 28.2% had some college education, 33.8% had a high school (HS) diploma and 14.1% did not graduate from high school.

Nearly half of respondents between ages 25-60 years old and more than half ages 65+ of the adults in each age group reported high school or less education (Figure 3). Furthermore, adults under 44 years old who reported the lowest education were more likely to be young men than women (Figure 4). On the other hand, young women under 35 years were slightly more likely to report college education compared to men in the same cohort (Figure 5).

Figure 2

BRFSS Respondents Population Pyramid, Oklahoma 2005



Annual Household Income

When the survey item *"(What) Is your annual household income from all sources…"* was asked, 13.6% had incomes below $15,000, 33.3% reported incomes $50,000+. Figure 6 illustrates the proportions of adults by household income levels by age group. At least 10.0% of adults reported household incomes less than $15,000 in each age group across the board, except age groups 30-39 years. Adults 35-49 years old had the highest earnings, with about half reporting household incomes near $50,000. More than half of adults 70 years and older reported that their household incomes were $25,000 or under.

Race and Ethnicity

Race and ethnicity are derived from two items, *"Which one or more of the following*

Figure 3

Proportions of Adults by Education and Age, Oklahoma 2005

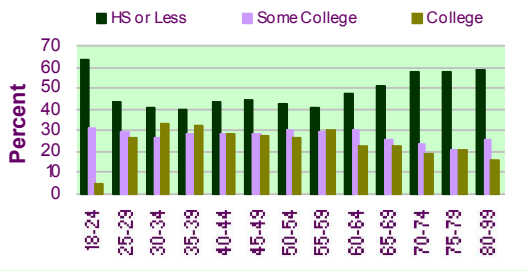


Figure 4

Proportions of Men and Women with High School Education or Less, by Age, Oklahoma 2005

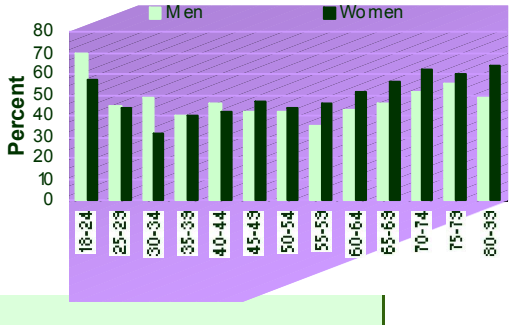


Figure 5

Proportions of Men and Women with College Education by Age, Oklahoma 2005

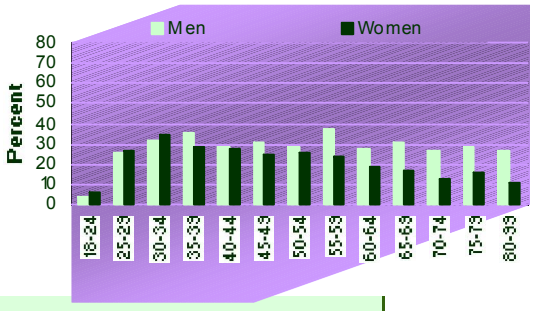


Figure 6

Proportions of BRFSS Adults by Annual Household Income Level and Age, Oklahoma 2005

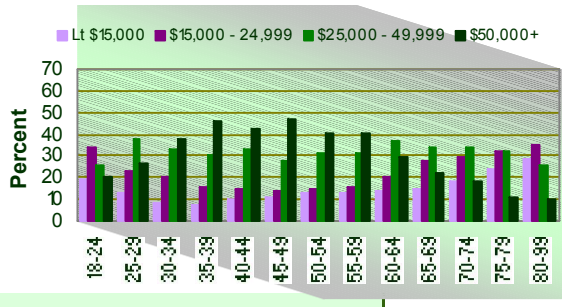
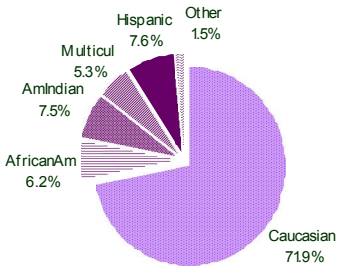


Figure 7

BRFSS Respondents by Race / Ethnicity, Oklahoma, 2005



Caucasian NH accounted for 71.9% of respondents, American Indian NH, 7.5%, Hispanic, 7.6%, and African American NH, 6.2% of the total BRFSS adult population.

would you say is your race? Mark all that apply." and *"Are you Hispanic or Latino?"* All respondents who reported they were of Hispanic or Latino origin are coded as Hispanic.

In 2005, the largest proportion of BRFSS adults was Caucasian Non Hispanic (NH), 71.9%, followed by American Indian NH, 7.5%, and Hispanic, 7.6% (Figure 7).

The Multicultural NH group consisted of respondents who identified themselves with two or more races. Of the 5.3% Multicultural NH group, about 94% identified with American Indians as one of their races. Compared to 2004, adults who identified themselves as Multicultural increased 47.2% from 3.6% to 5.3% in 2005.

The largest proportions of minority men from 18-39 years were Hispanics (Figure 8). Minority men above 45 years and women 65-69 years were more likely be American Indian NH; Hispanic women were highest among 18-34 years (Figure 9).

Figure 8

Proportions of Men in each Age Group by Minority Race / Ethnicity, Oklahoma 2005

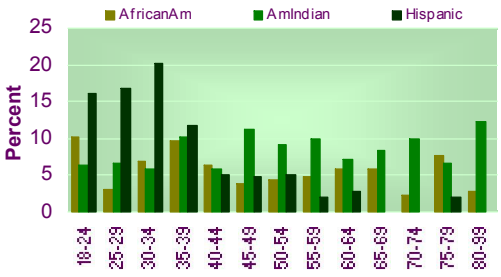


Figure 9

Proportions of Women in each Age Group by Minority Race / Ethnicity, Oklahoma 2005

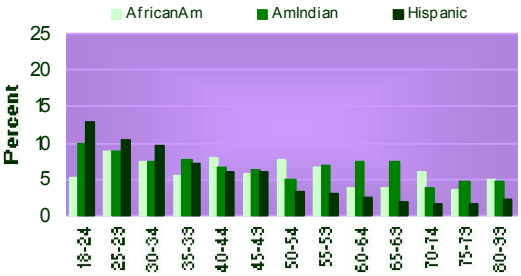
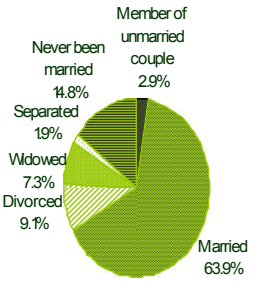


Figure 10

BRFSS Respondents by Marital Status, Oklahoma, 2005



Marital Status

When respondents were asked *"Are you: Married, Divorced, Widowed, Separated, Never married, or a member of an unmarried couple,"* nearly two-thirds of the adult population was "married," and one in 11 Oklahoma adults was currently divorced (Figure 10). The highest proportion of adults who were never married was between ages 18-24 years old, 64.1% (Figure 11). In addition, about 64% of the "never been married" adults were under ages 25, and about 76.0% of the widows were age 65+.

Employment Status

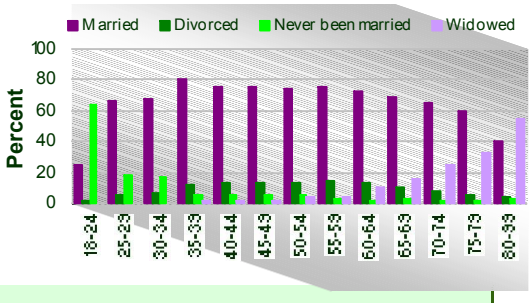
A survey item asked respondents their current employment status, *"Are you currently: Employed for wages, Self-employed, Out of work, A homemaker, A student, Retired, Unable to work?"* Half of the Oklahoma adults were employed for wages, one in six retired, roughly one in 10 were self-employed (Figure 12).

In addition, the majority of self-employed adults were older (ages 45+) than their employed for wages counterparts. The "out of work" and "unable to work" adults constituted about 11.0% of the Oklahoma adult population. Furthermore, Figure 13 illustrates that under each age group between 45-65, at least one in 10 adults reported they were "unable to work," while roughly one in 20 were "out of work" within this age range.

The "out of work" and "unable to work" adults constituted about 11.0% of the Oklahoma adult population.

Figure 11

Proportions of BRFSS Adults by Marital Status and Age, Oklahoma 2005



Job Activity by Type

Another item surveyed respondents' job activity type by asking *"When you are at work, which of the following best describes what you do?"* Sixty percent of adults had jobs that required mostly sitting or standing, 23.0% mostly walking, and 17.0% had heavy labor jobs that required physically demanding work. While all age groups had jobs with mostly sitting or standing, young adults ages 18-34 had the highest proportion of heavy labor jobs (Figure 14) compared to their older counterparts.

Figure 12

Proportions of BRFSS Adults by Employment Status, Oklahoma 2005

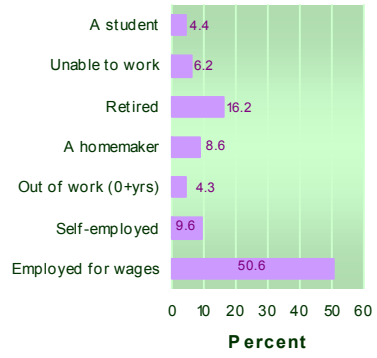


Figure 13

Proportions of BRFSS Adults by Specific Employment Status and Age, Oklahoma 2005

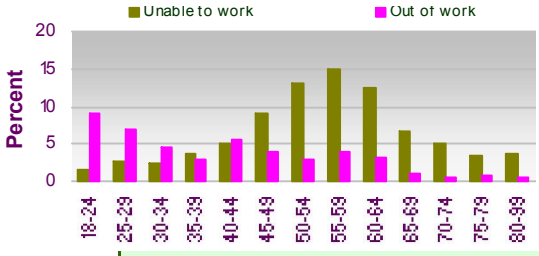
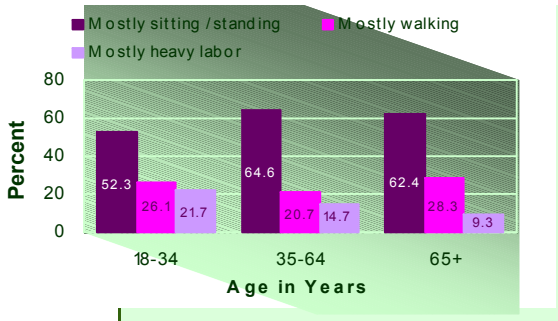


Figure 14

BRFSS Adults by Job Types and Age, Oklahoma 2005



Section I: Health Status

General Health Status

Two main goals of *Healthy People 2010* are to increase quality and years of life, and to reduce race and ethnic health disparities.[2] In Oklahoma BRFSS, general health status is an indicator of Oklahoman's overall health status, quality of life, and general well being.

General health is the most important measure of one's self-reported health status. The BRFSS asked an item, *"Would you say that in general your health is…?"* Excellent, very good, good, fair and poor.

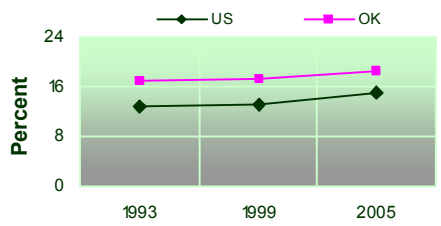
The proportion of adults with fair or poor general health was on the rise both nationwide and in Oklahoma, increasing at 17.3% and 9.4%, respectively, from 1993-2005. Although Oklahoma numbers were increasing at a slower rate, the percentages of fair or poor general health in Oklahoma have always been higher than the national averages for the past 13 years (Figure I-1).

The prevalence data for nationwide and by State 1993-2005, available at: http://apps.nccd.cdc.gov/HRQOL/

In 2005, Oklahoma ranked 9th highest in the nation and District Columbia (DC) for the adult population reporting fair or poor general health. Ten states in the south and southeast regions reported the highest proportions of adults with fair or poor health, while the states at the Great Lakes had one of the lowest fair or poor health percentages (Figure I-2).

Figure I-1

Adult Fair or Poor General Health, US and Oklahoma, 1993-2005



The proportion of adults with fair or poor (FOP) general health was on the rise both nationwide and in Oklahoma, increasing at 17.3% and 9.4%, respectively, from 1993-2005.

One out of every 3 elderly Oklahomans age 70+ reported Fair or Poor health compared to one out of every 10 young adults ages 18-39 years.

Adults who were divorced were nearly 70% more likely to report FOP health than married individuals, 26.6% vs. 15.7%, respectively.

In 2005, eight out of 10 Oklahoma adults reported "Excellent, Very Good, or Good" general health and nearly 500,000 adults, or 19.0%, reported fair or poor general health (Table I-1). The estimated age-adjusted rate for fair or poor health was 19.3% in 2005 as compared to 18.3% in 2003.

General Health, Gender and Age

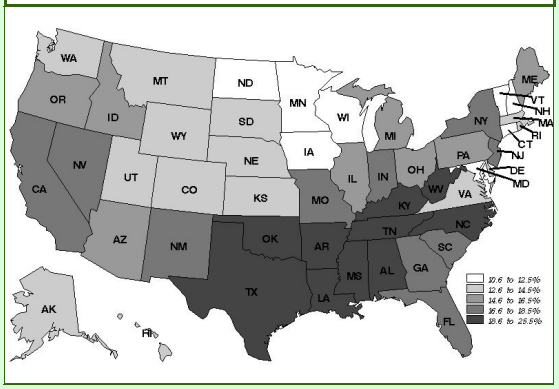
In 2005, one out of every 3 elderly Oklahomans age 70+ reported fair or poor health compared to one out of every 10 young adults ages 18-39 years. Oklahoma women under 50 years were more likely to report fair or poor health than men, but as age increased, men reported fair or poor health more than women (Figure I-3). Consistent with the national trend, older adults were more likely to report fair or poor health than younger adults (Figure I-3).

Table I-1

GENERAL HEALTH Oklahomans Age 18+, 2005	
Excellent	18.3%
Very Good	31.2%
Good	31.7%
Fair	12.7%
Poor	6.0%

Figure I-2

Adults Reporting Fair or Poor General Health, by State, US 2005



General Health, Education and Household Income

According to US Census Bureau, in 2003, Oklahoma was among the nation's ten worst states in poverty. According to the United Nations, education, poverty and health conditions are highly associated.[3] Adults with the lowest education and household incomes were significantly more likely to report fair or poor health across all age groups compared to adults with the highest education and incomes (Figure I-4 and I-5), especially those 40 years and above.

Adults Reporting Fair or Poor Health, Oklahoma 2005

Figure I-3

- **By Gender and Age**

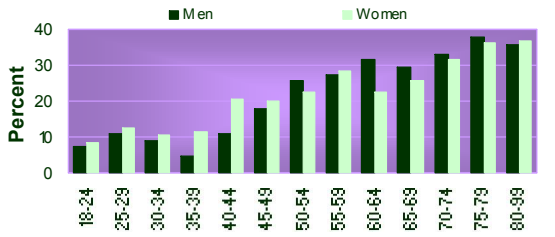


Figure I-4

- **By Education Level**

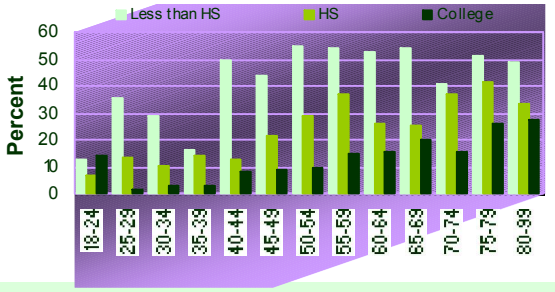
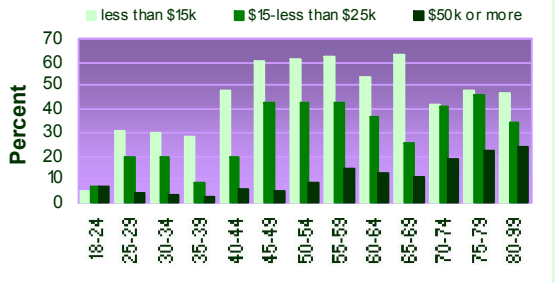


Figure I-5

- **By Annual Household Income Level**



General Health, Race and Ethnicity

General health status differed between race or ethnic groups in 2005 (Figure I-6). The Multicultural NH group represented the highest percentage of reported fair or poor general health, 28.5%, followed by American Indian NH, 23.4%. These two groups were significantly higher than Caucasian NH, which reported the lowest percentage, 17.1%.

In addition, by examining fair or poor health status at each age group, African American NH at ages 25-34 were more likely to report fair or poor than Caucasian NH; American Indians NH 55-79 years were more likely to report fair or poor health than Caucasian NH and African American (Figure I-7).

General Health and Marital Status

The highest prevalence of fair or poor health was among adults who were widowed, 35.4%. Divorced adults were nearly 70% more likely to report fair or poor health than married individuals, 26.6% vs. 15.7%, respectively (Figure I-8). Specifically, their health disparities became larger after age 70.

The Multicultural NH group represented the highest percentage of reported Fair or Poor general health, 28.5%, followed by American Indian NH, 23.4%.

The largest proportion of adults reporting Fair or Poor health was adults who were unable to work, 77.5%, especially those after age 35+.

General Health and Employment Status

Health status of Oklahoma adults was associated with employment status in 2005. The largest proportion of adults reporting fair or poor health was adults who were unable to work, 77.5%, especially those after age 35+, followed by retired individuals, 30.6%, and out of work persons, 26.9% (Figure I-9).

General Health and Geographical Regions

Differences in reported general health also existed among adults in different geographical regions of Oklahoma. In 2005, the largest proportion of adults reporting fair or poor health was from Southeast region representing 25.7% as compared to Tulsa region, which reported the lowest proportion of adults with fair or poor health, 13.5% (Figure I-10).

Figure I-6

Adults Reporting Fair or Poor Health, by Race / Ethnicity, Oklahoma 2005

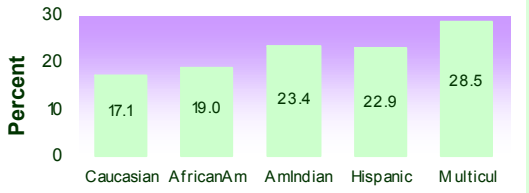
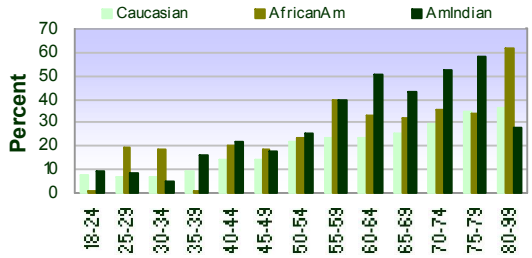


Figure I-7

Caucasians, African Americans and American Indians Reporting Fair or Poor Health, by Age, Oklahoma 2005



Adults Reporting Fair or Poor Health, Oklahoma 2005

Figure I-8

- **By Marital Status**

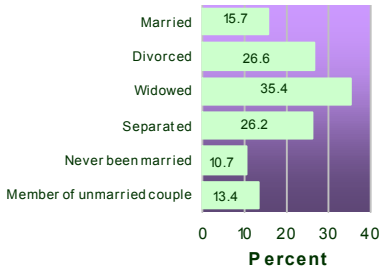


Figure I-9

- **By Employment Status**

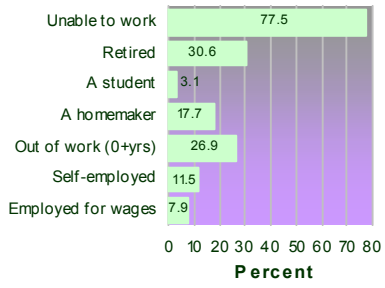
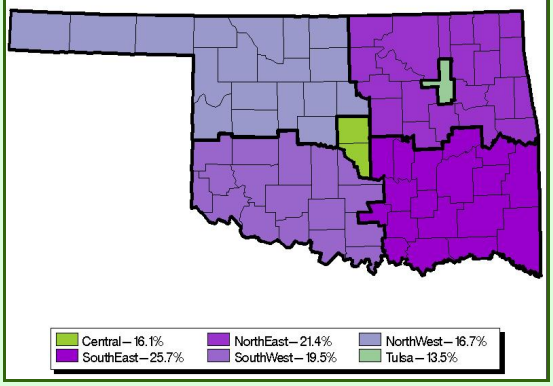


Figure I-10

Adults Reporting Fair or Poor Health, by Region, Oklahoma 2005



One in four residents in the Southeast region reported Fair or Poor general health as compared to one in seven in the Tulsa region.

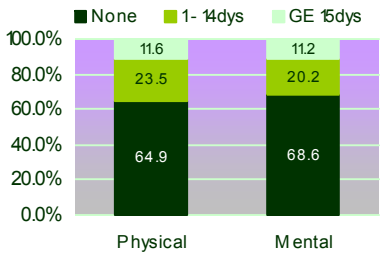
Healthy Days

There were two additional items that explore Oklahoman's physical and mental state of health. In 2005, Oklahoma adults were asked "*How many days your physical health (which includes physical illness and injury) was not good in the past 30 days.*" Sixty-five percent reported no unhealthy days, 35.1% reported at least one unhealthy day (Figure I-11).

When being asked "*how many days your mental health (which includes stress, depression, and problems with emotions) was not good in the past month,*" in 2005, nearly 70% of Oklahoma adults reported no unhealthy days, 31.4% reported at least one unhealthy day (Figure I-11).

Figure I-11

Adult Physical or Mental Unhealthy Days, Oklahoma 2005



Healthy Days and Gender

This section will focus on the profiles of the adults reporting at least one physical or mental unhealthy day. In 2005, no health disparities existed by gender in the "at least one unhealthy day" population, although women under age 50 reported slightly higher average mental unhealthy days than men (Figure I-12).

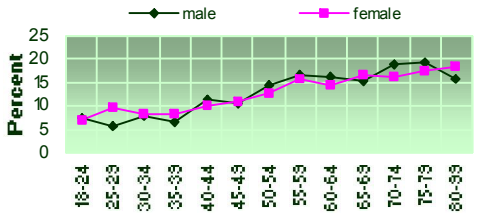
Healthy Days and Age

Adults 35+ were significantly more likely to report higher averages of *physical* unhealthy days than younger adults (Figure 1-13). Only elders ages 65+ were significantly more likely to report higher average *mental* unhealthy days than the youngest adults. It should also be noted that the youngest adults reported higher mental *than* physical unhealthy days. Elders had substantially more physical unhealthy days than mental.

Figure I-12

Men and Women Average Physical and Mental Unhealthy Days (1+ days) in the Past Month, by Age, Oklahoma 2005

- **Physical Unhealthy Days**



- **Mental Unhealthy Days**

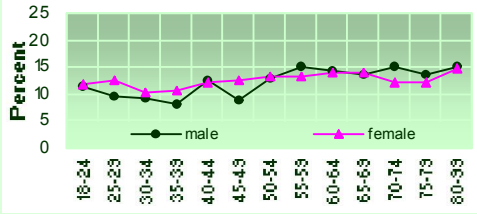
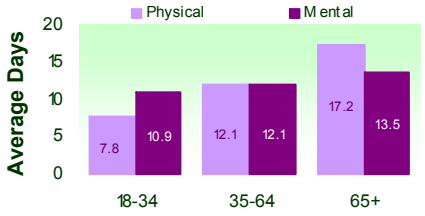


Figure I-13

Adult Average Physical and Mental Unhealthy Days (1+ Days) in the Past Month, by Age, Oklahoma 2005



Healthy Days, Race and Ethnicity

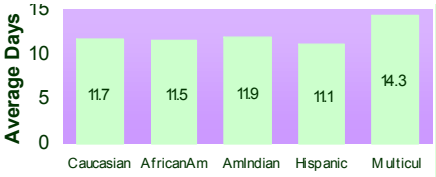
In order to obtain sufficient sample sizes to compare among race and ethnicity, data from the past three years were combined for the following analysis. Among the unhealthy population in 2003-2005, multicultural adults reported nearly half a month in which their physical or mental health was not good while Caucasian NH, African American NH and Hispanic reported only one-third of a month (see Figure I-14).

Multicultural adults reported nearly half a month in which their physical or mental health was not good while Caucasian NH, African American NH and Hispanics reported only one-third of a month.

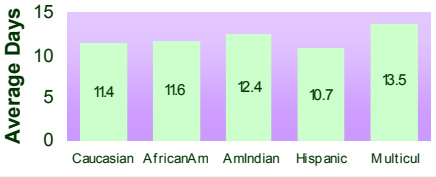
Figure I-14

Adult Average Physical and Mental Unhealthy Days (1+ Days) In the Past Month by Race / Ethnicity, Oklahoma 2003-2005

- **Physical Health Not Good**



- **Mental Health Not Good**

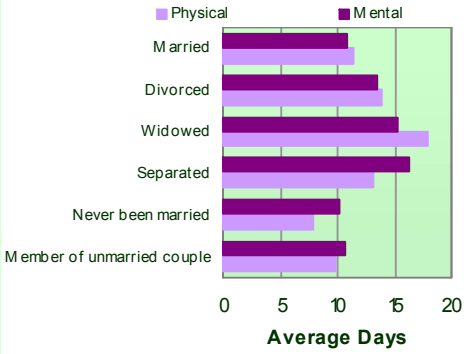


Healthy Days and Marital Status

Examining the unhealthy population by marital status, the highest average physical and mental unhealthy days were reported by widows, 15+ days, followed by divorced individuals, 14 days (Figure I-15). Separated, members of unmarried couple and never been married adults had higher average mental unhealthy days than physical.

Figure I-15

Adult Physical and Mental Unhealthy Days (1+ Days) In Past Month, by Marital Status, Oklahoma 2003-2005

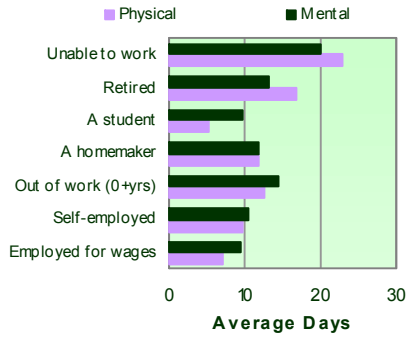


Healthy Days and Employment Status

Adults who were unable to work or retired reported more *physical* than *mental* unhealthy days. Students, unemployed individuals, self-employed and employed for wages adults

Figure I-16

Adult Physical and Mental Health Unhealthy Days by Employment Status, Oklahoma 2003-2005



reported higher average *mental* than physical unhealthy days (Figure I-16).

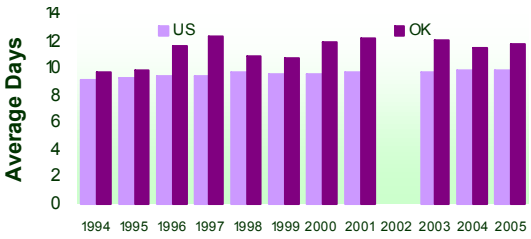
Healthy Days, OK vs. US

Over the past 12 years, Oklahoma adults who reported at least one unhealthy day had consistently higher average physical or mental unhealthy days than the national averages from 1994 - 2005, 11.2 vs. 9.6 days, respectively, for physical unhealthy days and 10.9 vs. 9.4 days, respectively, for average mental unhealthy days (Figure I-17).

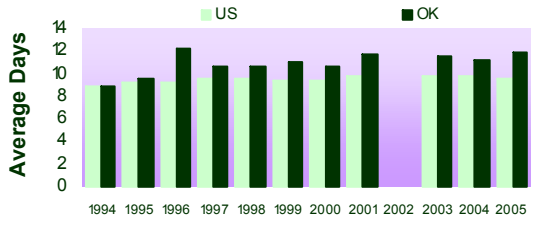
Figure I-17

Adult Physical or Mental Health Unhealthy Days (1+ Days) In Past 30 Days by Year, US and Oklahoma, 1994-2005

- **Physical Health Not Good**



- **Mental Health Not Good**



* No data was collected in 2002

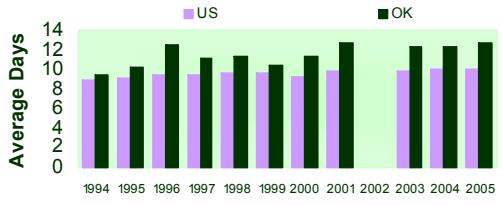
Activity Limitations

Poor physical and mental health also may prevent one from the usual activities. Oklahoma adults were asked *"During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?"* Oklahoma adults who reported at least one unhealthy day had an average of 13 days in which they were limited in their usual activities due to poor physical or mental health compared to the nation's 12 days in 2005 (Figure I-18).

No activity disparities were found among gender, race or ethnic groups in 2005. However, older groups were about 27% more likely to report activity limitations due to poor health than persons 35-64.

Figure I-18

Average Days Adult Poor Physical or Mental Health Prevent Usual Activities In Past Month, US and Oklahoma, 1994-2005



* No data was collected in 2002

Section II: Health Care Access

Health Insurance Coverage

Regular access to quality health care is crucial to ensure an overall good health and early detection and control of potentially serious health problems. Regular ongoing health care access requires adequate health insurance coverage. Residents without sufficient health insurance coverage face increased risks of morbidity and mortality from chronic diseases.

The BRFSS explores health care access issues by surveying one of the key indicators - health insurance coverage. Oklahoma respondents were asked, *"Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?"* Overall, we have made little progress in promoting health insurance coverage to the public in the past 15 years. Approximately 15%-20% of Oklahoma adults reported no health insurance coverage each year from 1991-2005, a rate about 30%-40% higher than the national median (Figure II-1).

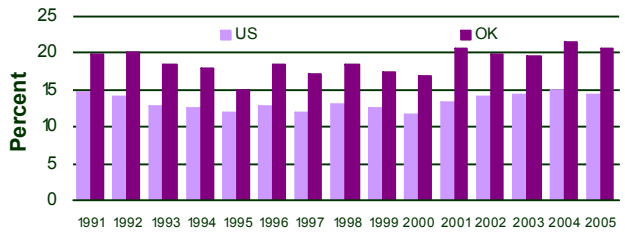
Oklahoma ranked 7th highest in the nation and DC for the population reporting no health insurance coverage. An estimated 545,000 Oklahoma adults (or one in every five) reported no health insurance coverage in 2005, as compared to nearly one in seven for the nation.

Health Insurance and Gender

In 2005, 21.6% of men aged 18+ reported no health insurance plan, compared to 19.8% of women. The rate of health insurance among men and women during the past 15 years were similar.

Figure II-1

Adults Reporting No Health Insurance Coverage, US and Oklahoma, 1991-2005



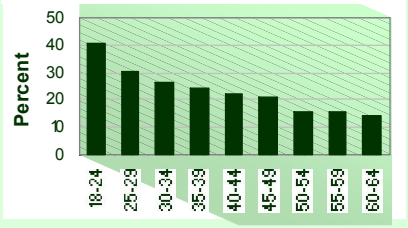
Approximately 15%-20% of Oklahoma adults reported no health insurance coverage each year, a rate about 30%-40% higher than the national median.

Oklahoma adults with the lowest level of education were four times more likely than college adults to report no health insurance.

More than half of the Hispanics, one out of four African Americans NH, one out of five American Indian NH reported having no health insurance.

Figure II-2

Adults Aged 18-64 Reporting No Health Insurance Coverage by Age, Oklahoma 2005



Health Insurance and Age

Consistent with the national trend, the highest prevalence of no health insurance coverage was among adults aged 18-34, 33.5%. As age increases, health insurance coverage increases (Figure II-2). This figure did not include elders aged 65+ because of Medicare and Medicaid coverage; only 2%-3% elders aged 65+ reported no health insurance coverage in 2005.

Health Insurance, Education and Income

Education and annual household incomes were inversely associated with no health insurance. Figure II-3 shows that Oklahoma adults with the lowest level of education were four times more likely than college adults to report no health insurance; and adults in the lowest household income level were eight times more likely to be uninsured than their wealthiest peers.

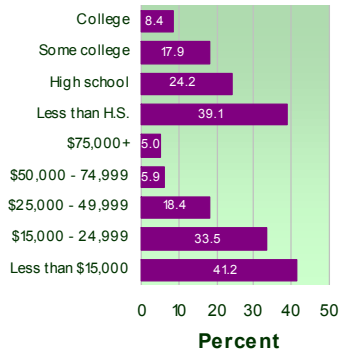
Health Insurance, Race and Ethnicity

Minority groups reported higher rates of no health care insurance than Caucasians NH in 2005. More than half of the Hispanics, one out of four African Americans NH, and one out of five American Indians NH reported having no health insurance.

In addition, among those with the lowest education, Hispanics were nearly three times more likely to report no health insurance compared to Caucasian NH

Figure II-3

Adults with No Insurance Coverage by Education and Annual Household income Level, Oklahoma 2005



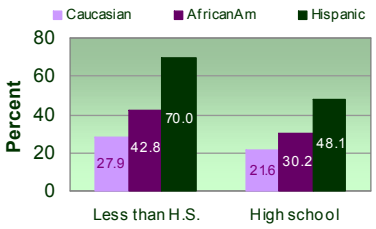
(Figure II-4). However, Hispanics had the largest proportion of young adults, 61.5% at ages 18-34, compared to other minority groups. In addition, nearly half of the Hispanics had less than eight years of education. This may pose potential health concerns in the near future as this group enters middle age and their health begins to fail.

Health Insurance and Marital Status

Insurance coverage disparities also existed by marital status. The largest proportions of adults reported as uninsured were among unmarried couples, 41.9%, and adults who were never married, 36.5%. Divorced Oklahoma adults were 64.6% more likely to report being uninsured than married adults. In addition,

Figure II-4

Caucasians, African Americans and Hispanics with High School or Less Education Levels Reporting No Health Insurance, Oklahoma 2005



Adults Reporting No Health Insurance Coverage by Race / Ethnicity, Oklahoma 2005

Figure II-5

- **By Married, Divorced and Never Been Married Groups**

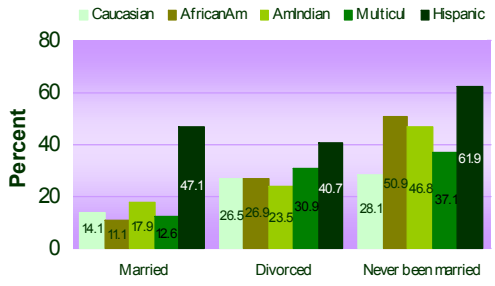
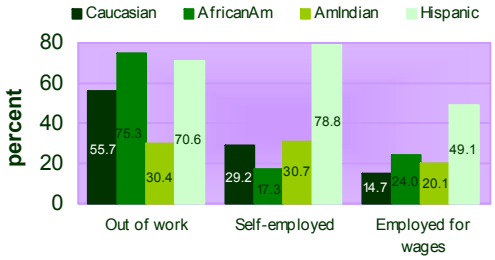


Figure II-6

- **By Selected Employment Categories**



A larger proportion of African American NH, Hispanic and Caucasian NH who were "out of work" reported being uninsured than American Indians NH.

Hispanics had the highest uninsured rate, while "never been married" groups for all minorities had higher uninsured rates than Caucasian NH (Figure II-5).

Health Insurance and Employment Status

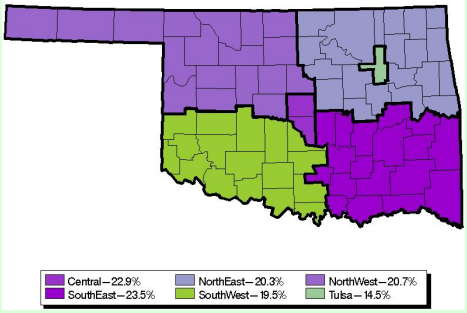
The largest proportion of adults reporting no health insurance by employment status was "out of work" adults, 56.9%, as compared to "self employed" adults, 31.6%. In addition, a larger proportion of African American NH, Hispanic and Caucasian NH who were "out of work" reported being uninsured than American Indians NH (Figure II-6). Adults who were "employed for wages" or "unable to work" had a 19.4% uninsured rate each.

Health Insurance and Geographical Regions

Health insurance coverage disparities also existed among adults by Oklahoma regions. The uninsured rates in the Southeast, 23.5%, Northeast, 20.3%, and Central, 22.9% regions were higher than the Tulsa region in 2005 (Figure II-7) .

Figure II-7

Adults Reporting No Health Insurance Coverage by Region, Oklahoma 2005



Health Care Barrier Due to Cost

The BRFSS respondents were asked *"Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?"* Oklahoma ranked 5th highest in the nation and DC in 2005 for the population reportedly needing a doctor but the cost was too high. Nearly 18% of Oklahoma adults who needed a doctor reported the cost was too high for them to visit one.

For the past 15 years on average, Oklahoma had a higher proportion of adults reporting health care barriers due to cost than the nation, and the rate was higher in 2005 vs. 1998 (Figure II-8). However, the rate of increase in Oklahoma was much slower than the nation from 1991-2005, 7.3% vs. 22.0%, respectively.

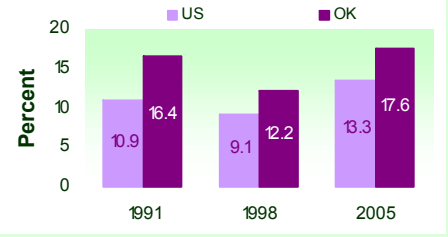
Cost Barrier, Gender and Age

As the sample size for a single year was too small to yield any meaningful results, data were combined in three years for analysis. In 2003-2005, female adults were significantly more likely to report medical cost barriers than male adults, 20.7% vs. 14.3%, respectively. Younger adults aged 18-34

Adults Needing a Doctor Last Year but Cost was too High

Figure II-8

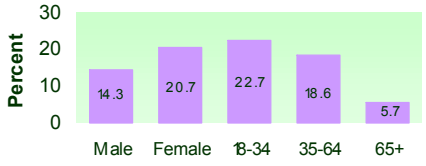
- **US and Oklahoma, 1991 - 2005**



Nearly 18% of Oklahoma adults who needed a doctor reported the cost was too high for them to visit one.

Figure II-9

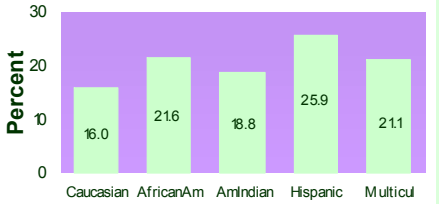
- **By Gender and Age, Oklahoma 2003 - 2005**



In 2003-2005, female adults were more likely to report medical cost barriers than male adults.

Figure II-10

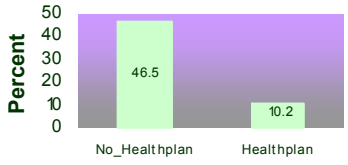
- **By Race / Ethnicity, Oklahoma 2003 - 2005**



One in four Hispanics, one in five African Americans NH and Multicultural NH groups reported a time last year when they needed a doctor but could not see one because the cost was too high.

Figure II-11

Adults Needing a Doctor Last Year but Cost was too High, by Health Plan, Oklahoma 2005



were more likely to report higher health care barriers due to cost than their counterparts aged 35-64, 22.7% vs. 18.6%, respectively (Figure II-9).

Cost Barrier, Race and Ethnicity

Disparities for medical cost barriers also existed among minority groups. One in four Hispanics, one in five African Americans NH and Multicultural NH groups reported a time last year when they needed a doctor but could not see one because the cost was too high. These three groups were higher than Caucasian NH in 2003-2005 (Figure II-10).

Cost Barrier and Health Insurance

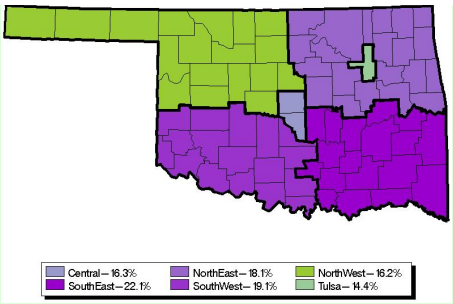
Health insurance coverage is one important factor that determines whether cost is a barrier to health care access. In 2005, adults who did not have a health plan coverage were nearly five times more likely to report cost barriers to health care than adults who carried a health plan (Figure II-11).

Cost Barrier and Geographical Regions

Adults in the Southeast region were significantly more likely than the Tulsa region to report that they needed a doctor but the cost was too high in 2005, 22.1% vs. 14.4%, respectively (Figure II-12).

Figure II-12

Adults Needing a Doctor but Cost was too High, by Region, Oklahoma 2005



Personal Doctor or Primary Care Provider

In 2005, when Oklahoma adults were asked if they had one person whom they considered as their personal doctor or health care provider, 22.2% of Oklahoma adults reported no personal health care provider, 8.4% had more than one, and 69.4% had one.

Personal doctor / Primary care provider, Gender and Age

Men were nearly 60% higher than women to have no primary care provider (Figure II-13). One in three young adults aged 18-34 did not have a personal doctor or health care provider, compared to one in 15 elders aged 65+ years.

Personal doctor / Primary care provider, Race and Ethnicity

More than half of Hispanics and one in four Multicultural NH adults did not have a personal doctor (Figure II-14). These rates were significantly higher than Caucasian NH. African American NH was nearly significantly higher than Caucasian NH.

Adults with No Personal Doctor, Oklahoma 2005

Figure II-13

- **By Gender and Age**

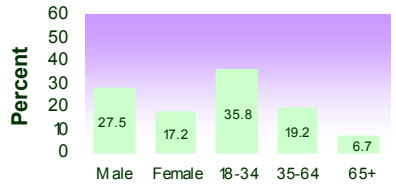
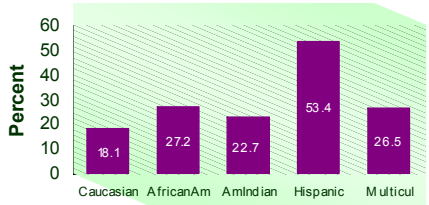


Figure II-14

- **By Race / Ethnicity**



More than half of Hispanics and one in four Multicultural NH adults did not have a personal doctor. These rates were significantly higher than Caucasian NH.

Personal doctor / Primary care provider, Health Insurance Coverage

In 2005, 53.2% of the estimated 545,000 adults who were uninsured reported no personal doctor (Figure II-15). In addition, the highest proportion of adults with no personal doctor among the uninsured was from Central Oklahoma, 65.4% (Table II-1).

In 2005, 53.2% of the estimated 545,000 adults who were uninsured reported no personal doctor.

Personal doctor / Primary care provider, Geographical Regions

The highest percentage of no personal doctor was found in the Southeast region, 25.0%. Adults in Tulsa region, 15.1%, were significantly less likely to report no personal doctor than adults in the other five regions of Oklahoma (Figure II-16).

Adults with No Personal Doctor, Oklahoma 2005

Figure II-15

- **By Health Insurance**

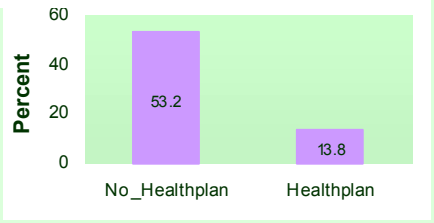


Figure II-16

- **By Oklahoma Region**

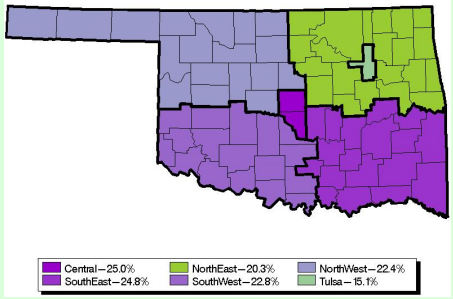


Table II-1

No Personal Doctor among Adults with No Health Plan by Oklahoma Region 2005	
SouthWest	47.5%
SouthEast	45.9%
NorthWest	48.6%
NorthEast	46.0%
Central	65.4%
Tulsa	51.3%