

Licking County Health Department 2011 Behavior Risk Factor Surveillance System Report



Licking County



Health Department



Public Health
Prevent. Promote. Protect.

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EXECUTIVE SUMMARY

In 2011, the Center for Urban and Public Affairs (CUPA) at Wright State University (WSU) conducted the Behavioral Risk Factor Surveillance System (BRFSS) for the Licking County Health Department (LCHD). The BRFSS is a survey instrument developed by the Centers for Disease Control and Prevention (CDC), and is conducted nationwide on an annual basis.

The purpose of conducting the BRFSS in Licking County was to assess the prevalence of disease and behavioral risk factors, assess broad community health issues, evaluate the impact of the county's Community Health Improvement Plan, and to identify new and emerging public health issues. The data collected through the BRFSS provides an excellent overview of the overall health status of Licking County. The data also assists LCHD and its public health system partners with identifying the most prominent public health issues in Licking County.

LCHD is committed to conducting the BRFSS on a 3 year cycle. This will allow adequate time to pass in order to effectively evaluate the interventions implemented by LCHD and its partners to improve the public health and quality of life of the residents of Licking County.

CHAPTER 1 – INTRODUCTION

In 2010, the Licking County Health Department (LCHD) led an effort to form the Licking County Community Health Improvement Committee (CHIC). The process was undertaken to implement a broad, collaborative approach to improving the health status of the citizens of Licking County. Throughout 2010, CHIC members conducted the Mobilizing for Action through Planning and Partnerships process in order to develop a community health improvement plan (CHIP). The CHIP was written and implemented in 2011, and it included 4 health priorities for Licking County. They included Obesity, Tobacco Use, Access to Affordable Healthcare and Collaboration between Public Health System Partners to Address Health Issues.

CHIC members committed to evaluating the plan on a continual basis. The data contained in this report will be reviewed by CHIC members as part of their evaluation. In addition, any new or emerging health issues discovered as part of the review will be assessed by CHIC members, and the group will determine if any changes to the CHIP are necessary in order to address these issues.

For more information regarding the CHIC and its activities please visit www.healthylc.org

For more information regarding LCHD please visit www.lickingcohealth.org

Survey Methodology

Survey Participants

The 2011 Licking County Behavior Risk Factor Surveillance System (BRFSS) report consists of a telephone survey of 583 Licking County adults.

Questionnaire Design

The assessment is based on a telephone survey of residents living in Licking County. As stated previously, the survey was adapted from the BRFSS, which was developed by the CDC, as well as community health assessments conducted by neighboring counties. The BRFSS is conducted annually by each state to assess health behaviors in the nation. Utilizing questions, which are identical in wording to the BRFSS and these other health assessments, allows for comparison of Licking County responses to other counties, the state, and the nation.

Sampling Design

A sample of random-digit-dial telephone numbers was selected from Marketing Systems Group, a national company that generates telephone numbers. The database was supplemented with cell phone numbers when possible to capture responses from residents of the county who do not have a landline telephone.

Survey Implementation

Interviews were conducted from January of 2011 through January 2012. Interviewers utilized a Computer Aided Telephone Interviewing (CATI) software program that displays the questionnaire on a

computer screen and allows the interview to enter the response directly into the computer. Such a system helps to minimize errors in gathering the data. A total of 583 individuals were interviewed to obtain a 95 percent confidence level and a plus or minus 4 percent sampling error for the County as a whole.

Data Analysis

The data were weighted according to age, race, and gender distribution of the county. The data were weighted to provide estimates that are more accurate and to adjust the distribution of the sample data to reflect the demographics of the adult population of the county. By weighting the data, the responses of persons in various subgroups are adjusted to compensate for the over-representation or under-representation of these persons in the survey sample.

In most cases, the chi-square test was used to measure statistically significant differences among groups within the survey. In some cases when the mean was used to describe the variable (as opposed to the proportion) the independent samples t-test was used to measure the statistical difference between data. In the following report, only the statistically significant differences will be reported. If no significant difference exists, differences between subgroups within the survey will not be reported, unless it issued to highlight another point (e.g., there are no differences between sub-groups when researchers might expect that there would be). Often, data that are not statistically significantly different may still have substantive differences.

Limitations

The assessment has several limitations. As with every telephone survey, the primary limitation is that it excludes households that do not have telephones. It is estimated that about ten percent of households nationally do not have telephones, and these households are more likely to be poor. Previous research conducted by CUPA has found that people without telephones are more likely to have multiple barriers to accessing health care.

A second limitation of the study is that it is based on self-reported information and may reflect respondents' likelihood of reporting a particular behavior; however, since the same methodology is utilized for the state and national survey, the same bias applies. For example, Licking County respondents may have been less likely to report that they participated in an activity such as drinking and driving; however, state and national respondents would also be less likely to report that they participated in such an activity. Therefore, the differences between these groups can still be measured.

Survey Demographics

The following presents the demographic profiles of survey respondents. The proportions for age, race, and gender were similar to the actual proportions as indicated in data obtained from the 2010 Census for Licking County. The data were weighted by age, race and gender to better represent the actual proportion.

Figure I.1

Age	Actual Proportion (2010 Census)	Weighted Sample Proportion
18-34	26.7%	26.5%
35-44	18.0%	17.5%
45-54	21.1%	21.6%
55-64	16.7%	16.6%
65 or older	17.6%	17.9%

Sample demographics are presented to provide a snapshot of survey respondents and a context in which to interpret the findings of the survey. The following demographic characteristics were obtained from the survey: city or township of residence, education, age, length of residency, employment status, household composition, income, and gender.

Survey respondents represent a diversity of ages and socioeconomic backgrounds. The paragraphs below will present the demographics of survey participants.

Employment Status

Nearly half of respondents (47.6 percent) were currently employed outside of the home, while 5.4 percent were self-employed, 9.0 percent had been out of work for some period of time, 6.5 percent were homemakers, 2.2 percent were students, and the remaining 21.3 percent were retired.

Military Service

Respondents were asked if they have ever served on active duty in the United States Armed Forces, either in regular military or in a National Guard or military reserve unit. One of every eight respondents (12.2 percent) indicated that they have served on active duty in the Armed Forces.

Race

Respondents were asked to identify their race. The majority of respondents (97.4 percent) identified themselves as white, 2.6 percent identified themselves as a minority.

Age

Just over one-quarter of respondents (26.5 percent) were between the ages of 18 and 34, 17.5 percent were between the ages of 35 to 44, 21.6 percent were between the ages of 45 to 54, 16.6 percent were between the ages of 55 and 64, and 17.9 percent of respondents were 65 years of age or older.

Education

Respondents were asked to indicate the highest grade or year of school that they have completed. Around nine percent of respondents (8.7 percent) indicated that they had not completed high school, 36.2 percent indicated that they were a high school graduate or had received a GED, and the

remaining 53.2 percent indicated that they had completed at least some college education. Responses are profiled in the chart below:

Education	Percentage
Grades 1 through 8 (Elementary)	1.3%
Grades 9 through 11 (Some High School)	7.4%
Grade 12 or GED (High School Graduate)	36.2%
Some College or Technical School	24.0%
College at least 4 years (College Graduate)	31.2%

Gender

Slightly over half of the respondents (51.9) were female, while the remaining (48.1 percent) were male.

Income

Respondents were then asked to identify the broad category of their total household income, including all members of their households and all sources of income. Over twenty-eight percent (28.4 percent) of respondents indicated that their income is above \$75,000, 15.7 percent indicated their income was between \$35,001 and \$50,000, and 15.6 percent indicated that their income was between \$50,001 and \$75,000. Responses are profiled in the figure below.

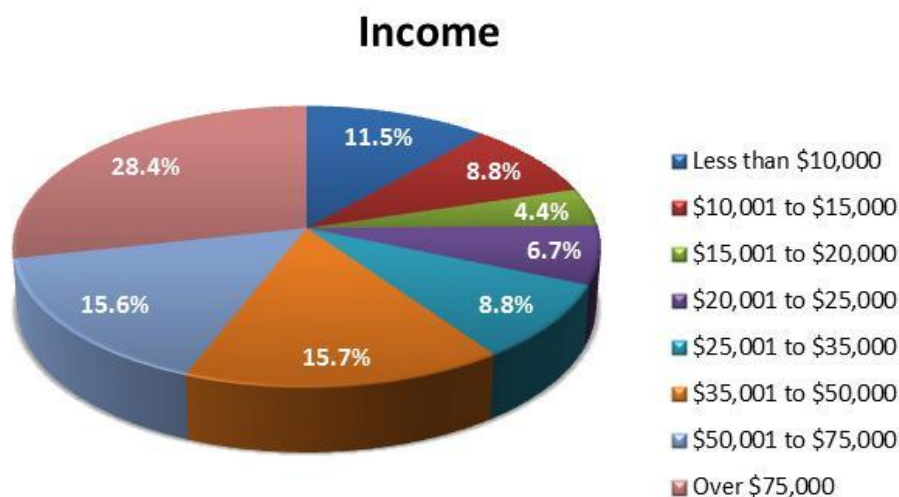


Figure 1: 2011 Licking County BRFSS Participants Income Distribution

Marital Status

Over half of respondents (55.4 percent) are married, while 14.5 percent are divorced, 8.0 percent are widowed, 0.9 percent (or one respondent) is separated, 19.9 percent has never been married, while 1.3 percent is a member of an unmarried couple.

Household Composition

Respondents were then asked how many children under the age of 18 live in the home. Nearly two-thirds of respondents (61.9 percent) do not live with any children under the age of 18, while 12.3 percent live with one child, 15.9 percent live with two children, 5.7 percent live with three children, and the remaining 4.2 percent live with four or more children.

CHAPTER 2 – GENERAL HEALTH STATUS

This chapter will address the general health status of Licking County residents, including days with poor physical and mental health, as well as days with health limitations. The chapter will also address Licking County residents without access to health care.

General Health

The general health status of respondents is a self-reported gauge of an individual’s overall health condition. The first question of the survey asked respondents to rate their overall health to provide a measure of peoples’ initial impression of their health status.

Four of every five respondents (82.0 percent) indicated that in general, their health is excellent (17.9 percent), very good (31.3 percent) or good (32.8 percent). As might be expected, respondents who reported zero days with poor physical or mental health were significantly more likely than those

Would you say that, in general, your health is:

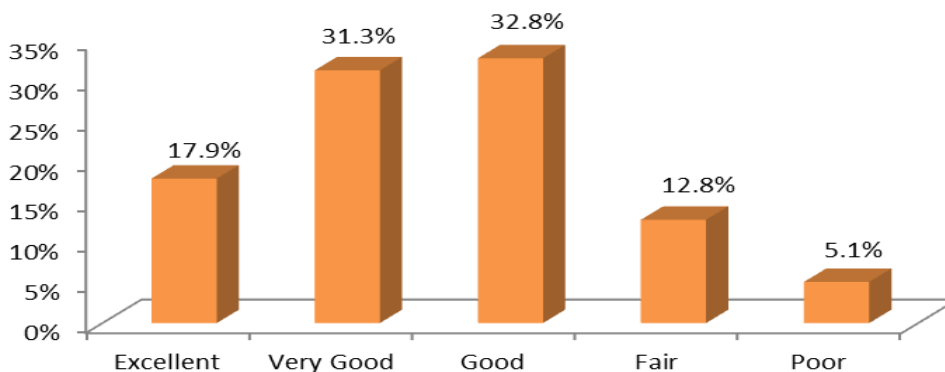


Figure 2: Health Status

respondents who reported one or more days with poor physical or mental health to indicate that their health is “excellent”, “very good” or “good”.

Crosstabs by demographic variables reveal a significant difference between respondents of various ages but not between male and female respondents. Older respondents are more likely to report that their health as “fair” or poor”.

Next, respondents were asked in more detail about their physical and mental health. Despite their assertions of good health overall, 41.0 percent of residents said that, in the past month, they have had days with poor physical health. While one out of five respondents (21.0 percent) indicated that their health was poor on only one to five days of the past 30 days, 8.2 percent indicated that their physical health was not good all 30 days of the past month.

When asked if poor physical or mental health kept them from doing any activities, such as self-care, work or recreation, 54.8 percent of all respondents indicated that they had at least one day in the past month in which they had limitations, with 14.4 percent indicating that they were limited because of physical or mental health all 30 days of the past month.

Mental Health

The next section of the survey addressed topics related to mental health, including depression, anxiety, and suicide.

As with physical health, respondents were asked to indicate how many days during the past 30 days their mental health was not good. Three of ten respondents (28.3 percent) indicated that their mental health was not good on at least one of the past 30 days, with 5.5 percent indicating that their mental health was not good on all 30 days of the past month.

Respondents were then asked a series of questions about the state of their mental and emotional health in the past two weeks. First, respondents were asked how many days of the past two weeks they had had little or no interest or pleasure in doing things. Seventy percent of respondents (70.0 percent) had no days in the past two week when they had little interest or pleasure in doing things, while 13.1 percent had one to two days with little interest, 6.2 percent had three to six days with little interest and the remaining 10.7 percent had seven or more days in which they had little or no interest or pleasure in doing things.

When asked how many days in the past two weeks they felt down, hopeless, or depressed, three-quarters of respondents (73.4 percent) indicated that there were no days when they had these feelings, while 13.7 percent had these feelings on one to two days, 4.0 percent had these feelings on three to five days, and the remaining 8.9 percent had feelings of hopelessness or depression on seven or more days of the past two weeks.

Next, respondents were asked how many days in the last two weeks they had trouble falling or staying asleep or sleeping too much. Just under half of respondents (47.5 percent) indicated that this had not been a problem on any days in the past two weeks, 13.9 percent had trouble sleeping on one to two days of the past two weeks, 9.9 percent had trouble sleeping on three to five days, 10.5 percent had

trouble sleeping six to twelve days, and the remaining 18.2 percent had trouble falling or staying asleep or slept to long on all 14 days of the past two weeks.

Respondents were then asked how many days in the past two weeks they had felt tired or had little energy. Two out of every three respondents (66.2 percent) had at least one day on which they felt this way, with 21.0 percent feeling this way on one to two days, 15.3 percent feeling this way three to five days, 10.0 percent feeling this way on six to thirteen days, and the remaining 19.9 percent feeling tired or lacking energy on all 14 days of the past two weeks.

Respondents were asked how many days in the past two weeks they had poor appetite or had eaten too much. Although 64.0 percent indicated that they did not have poor appetite or ate too much on any days of the past two weeks, 10.5 percent experienced this on one to two days, 14.3 percent experienced this three to seven days, and the remaining 11.2 percent had poor appetite or ate too much on eight to 14 days of the last two weeks.

Respondents were also asked how many days they felt bad about themselves, felt they were a failure, or felt they had let themselves or their family down in the past two weeks. Although 80.5 percent indicated that they had not felt this way on any days in the past two weeks, seven percent (6.9 percent) indicated having these feelings on one to two days, 5.5 percent had these feelings on three to seven days, and the remaining 5.6 percent felt that they had felt bad about themselves, felt that they were a failure, or let down someone on all 14 days of the past two weeks.

Next, respondents were asked how many days in the past two weeks they had had trouble concentrating on things such as reading or watching TV. Three-quarters of respondents (77.4 percent) indicated that they had not had trouble concentrating in the past two weeks; however, 6.9 percent

indicated that they had trouble concentrating on one to two days, and the remaining 7.8 percent had trouble concentrating on things all 14 days of the past two weeks.

Finally, respondents were asked how many days of the past two weeks they had moved or spoken so slowly or been so fidgety or restless that other people could have noticed. While 88.2 percent indicated that this had not occurred on any days, 4 percent indicated this had occurred on one or two days, 2.7 percent indicated that this had occurred on

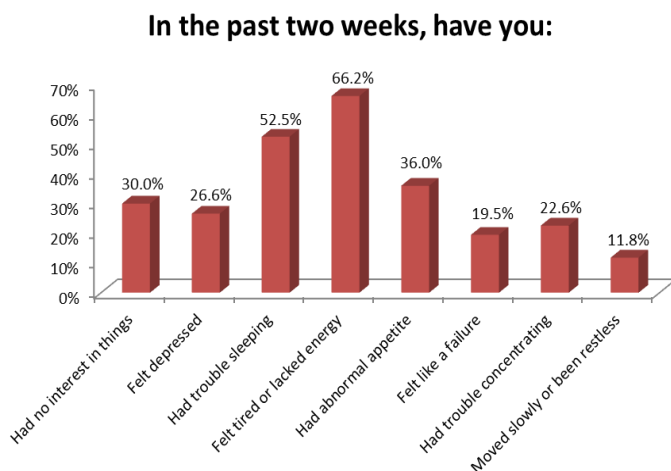


Figure 3: 2011 Licking County BRFSS Participants' Mental Health Rating

three to ten days, and the remaining 5.1 percent had moved or spoken so slowly or been so restless that others may have noticed on all 10 or more days of the past two weeks.

Respondents were then asked if they are taking medicine or receiving treatment from a doctor or other health professional for any type of mental health condition or emotional problem. About 15.0 percent indicated that they were taking medicine or receiving treatment for a mental or emotional health problem.

Respondents were also asked if a doctor or other health care provider ever told them that they have an anxiety disorder. About 16 percent (15.5 percent) of respondents indicated that they had been told by some health care provider that they had an anxiety disorder.

Disability

Respondents were asked two questions regarding physical, emotional, and mental disabilities. First, respondents were asked if they were limited in any way in any activities because of a physical, mental, or emotional problem. Almost one-quarter of respondents (23.7 percent) indicated that they are limited in some way because of one of these problems. As might be expected, older respondents (those 45 and older) were more likely than younger respondents to indicate that they are limited in some way.

Respondents were also asked if they now have any health problems that require them to use special equipment such as a cane, wheelchair, special bed, or special telephone. 11.1 percent reported having a health problem requiring them to use special equipment.

Health Care Access and Utilization

Several questions were asked to gauge peoples' *access to health care*, a primary concern at national, state, and local levels. During tough economic times, the percentage of residents who are uninsured

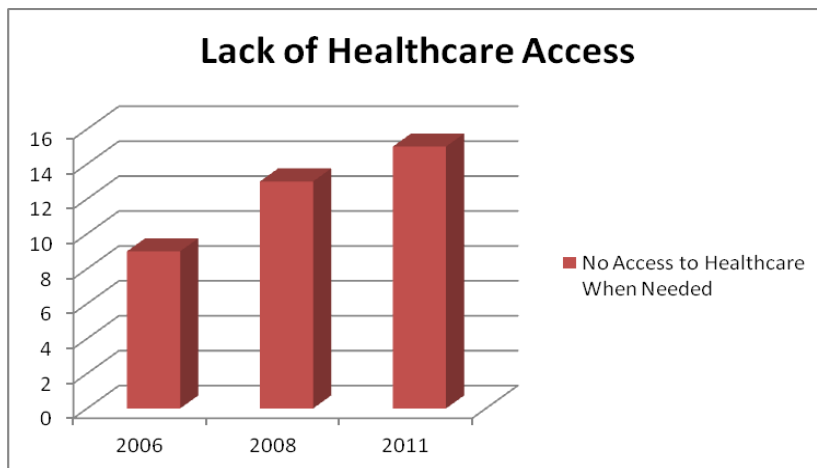


Figure 4: Percentage of Residents without Access to Healthcare 2006-2011

or underinsured can grow, particularly in areas hit hard by unemployment.

First, Licking County residents were asked if they had health care coverage. Almost 90 percent of respondents (87.3 percent) indicated they have some sort of health care coverage.

The next section of the survey asked questions pertaining to

access to health care providers. Questions were designed to assess whether respondents have a health care provider, the frequency of regular check-ups, as well as whether respondents without a health care provider are impacted by lack of health care coverage.

Respondents were then asked if there was a time in the last 12 months when they needed to see a doctor or other health care provider, but couldn't because of the cost. Just over one in seven respondents (15.1 percent) indicated that this had occurred.

87.0 percent of respondents say they have one person who they think of as their personal doctor or health care provider, 2.7 percent say they have more than one person they think of as their doctor or health care provider, and the remaining 10.3 percent say they do not have a regular person or persons they think of as their doctor or health care provider.

Respondents were then asked how long it had been since they last visited a doctor for a routine check-up. Three-quarters of respondents (74.0 percent) indicated that they had had a routine check-up within the past year, 10.3 percent indicated that they'd had a check-up over a year ago, but within the past five years, 7.8 percent indicated that it had been over five years since their last check-up, and 1.7 percent (or three respondents) indicated that they have never received a routine check-up.

CHAPTER 3- PREVALENCE OF DISEASE

This chapter discusses the prevalence of some diseases in Licking County, including asthma cardiovascular diseases, and diabetes. The sections also provide some details on attitudes, behaviors and actions toward these diseases as well as disease prevention and early detection.

Asthma

Asthma is a chronic respiratory disease in which the airways of the lungs become temporarily blocked due to inflammation. Symptoms associated with asthma include labored breathing, chest constriction, and coughing. When respondents were asked if a doctor had ever told them that they had asthma, slightly more than one in ten Licking County adults (14.5 percent) have indicated that they have been diagnosed with asthma. When asked if they still have asthma, 8.6 percent of respondents (79.4 percent of those who indicated that they have been diagnosed with asthma) indicated that they do still have asthma.

Cardiovascular Diseases

High Blood Pressure

Uncontrolled high blood pressure can lead to stroke, heart attack, heart failure or kidney failure. There are no symptoms, and according to the American Heart Association, nearly one-third of people with high blood pressure do not know they have it. This is why high blood pressure is often called the "silent killer."

More than one-third of Licking County adults (35.3 percent) have been diagnosed with high blood pressure, and an additional 2.8 percent have been told that they have borderline high blood pressure or are pre-hypertensive. Crosstabs by demographics revealed that older respondents (those 65 and older) were significantly more likely than younger respondents to indicate that they have high blood pressure. Crosstabs by gender revealed no significant differences. Male respondents were significantly more likely than female respondents to indicate that they have high blood pressure.

Many people with high blood pressure rely on several different methods to help control their blood pressure. Such methods include taking medication, dieting to lose weight, cutting down on salt, and exercising. Almost 80 percent (78.2 percent) of Licking County adults with high blood pressure control their blood pressure with medication.

High Cholesterol

Cholesterol is a fat-like molecule found in all cells of the body that is essential for body functions, including the production of hormones. Too much cholesterol in the blood can be serious, causing plaques to build up in the walls of the arteries leading to narrowing of the arteries over time, or atherosclerosis. Lowering blood cholesterol levels decreases the chance for having a plaque burst and causing a heart attack, and may also prevent plaque from building up. People with high blood cholesterol are at greater risk for heart attacks and heart disease.

All Licking County residents were asked if they have ever had their blood cholesterol checked. Most respondents (82.2 percent) indicated they have had their cholesterol checked at some point in their life. When asked how long it has been since their blood cholesterol was checked, 94.8 percent of all respondents have had their blood cholesterol checked within the last 5 years.

Respondents who had had their blood cholesterol checked at some point were then asked if they had ever been told by a doctor or other health professional that their blood cholesterol was high. Over one-third of respondents (35.0 percent) indicated that they had been told that they have high blood pressure.

Coronary Heart Disease, Heart Attack and Stroke

Coronary heart disease (CHD) is still the number one cause of death in the United States, outweighing cancer, stroke, and chronic lower respiratory disease. CHD is caused by a narrowing of the walls of the arteries, and often results in a heart attack. Each year, about 1.1 million Americans suffer a heart attack and about 460,000 of those heart attacks are fatal (National Heart, Lung and Blood Institute). Twelve percent (7.2 percent) of Licking County respondents indicated they have had a heart attack or myocardial infarction, 5.5 percent have had angina or coronary heart disease and 3.0 percent have had a stroke.

All respondents were then read a series of ailments and were asked to identify which they believed were symptoms of a heart attack.

Symptom	Percent who believe symptom is indicative of heart attack	Percent who do not believe symptom is indicative of heart attack
Pain in the jaw, neck, or back	72.5%	27.5%
Feeling lightheaded or faint	76.5%	23.5%
Chest pain or discomfort	93.5%	6.5%
Trouble seeing	43.3%	56.7%
Pain in arms or shoulders	89.2%	10.8%
Shortness of breath	91.2%	8.8%

In addition, respondents were also read a series of ailments and were asked to identify which they believed were symptoms of a stroke.

Symptom	Percent who believe symptom is indicative of heart stroke	Percent who do not believe symptom is indicative of stroke
Sudden confusion or trouble speaking	96.0%	4.0%
Sudden numbness of face, arm, or leg especially on one side	97.4%	2.6%
Sudden trouble seeing	83.5%	16.5%
Chest pain or discomfort	48.1%	51.9%
Sudden trouble walking, dizziness, loss of balance	93.2%	6.8%
Severe headache with no known cause	77.1%	22.9%

Respondents were then asked what the first thing they would do would be if they thought someone was having a heart attack. Over eighty percent of respondents (83.5 percent) indicated that they would first call 911, while less than one percent (0.8 percent) would take the person to the hospital, 0.3 percent would have the person call their doctor, 0.3 percent would call a family member of the person, and 15.1 percent would do something else first, including giving the person an aspirin.

Diabetes

Diabetes is a disease in which the pancreas is unable to produce insulin or cannot properly use the insulin that it does produce. According to the American Diabetes Association, an estimated 18.2 million people in the United States have diabetes, although probably one-third do not know they have the disease. There are two main

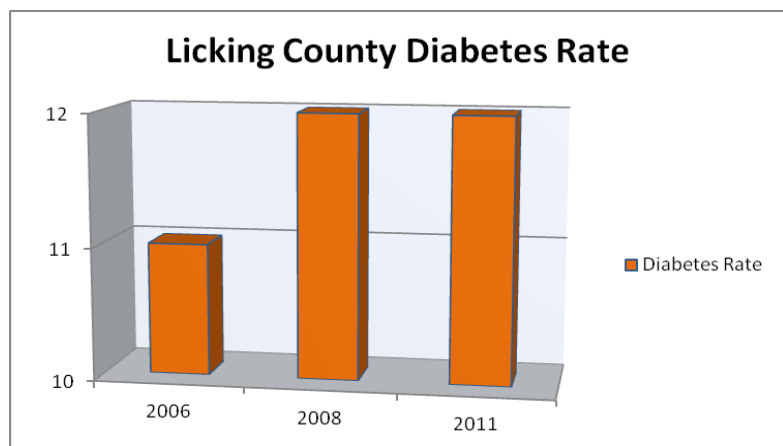


Figure 5: Licking County Diabetes Rate 2006-2011

types of diabetes (although others do exist), Type 1 and Type 2. Only about 5 – 10 percent of people with diabetes have Type 1 diabetes, where the body fails to produce insulin. More common is Type 2 diabetes, where the cells are resistant to insulin and cells may also not produce enough insulin.

Having diabetes dramatically increases the risk of heart attack and stroke, and 65 percent of deaths in diabetes patients are attributed to heart and vascular diseases (American Diabetes Association). One of every eight respondents from Licking County (12.4 percent) has been told by a doctor that they have diabetes, and 2.0 percent of those were told this only during pregnancy.

Other Problems

Respondents were then asked if they had ever been diagnosed with other health problems including:

- Skin cancer- 8.5 percent have been diagnosed
- Other cancer- 6.5 percent have been diagnosed
- Chronic Obstructive Pulmonary Disease (COPD), emphysema, or chronic bronchitis- 9.3 percent
- Rheumatoid arthritis, gout, lupus, or fibromyalgia- 31.5 percent
- Any depressive disorder (including depression or dysthymia)- 18.2 percent
- Kidney disease- 3.8 percent have been diagnosed
- Vision or eye problems- 43.5 percent have been diagnosed

Have you ever been diagnosed with:

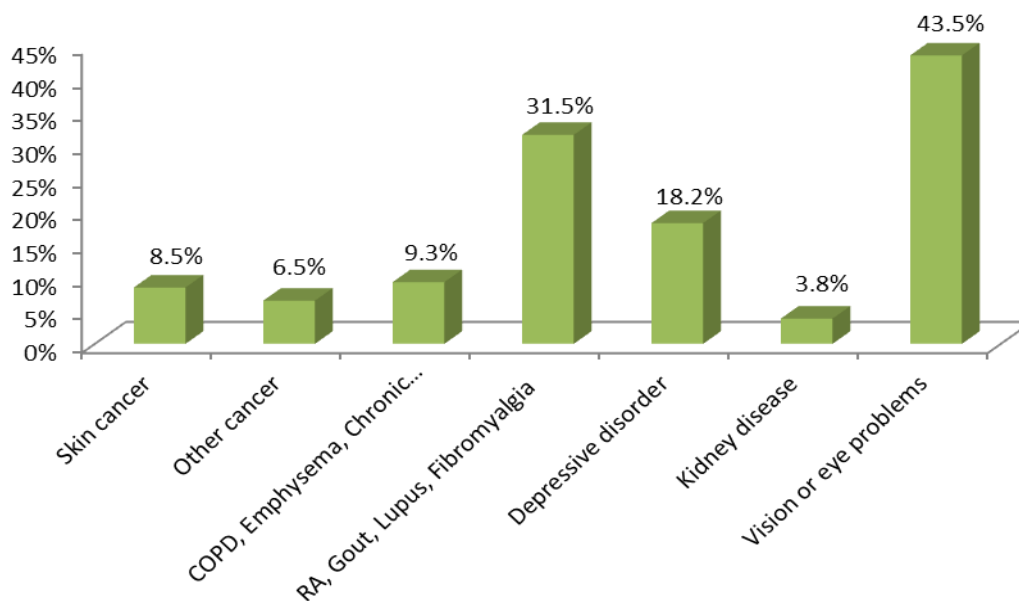


Figure 6: Percentage of Disease Rates 2011

CHAPTER 4- DIET AND EXERCISE

Respondents were then asked a series of questions about their routine diets and physical activity.

Diet

The first tier of questions in the diet and exercise portion of the survey asked about their frequency of eating certain foods in the past month, including fruit, beans, and vegetables.

- 100% pure fruit juices- 64.8 percent drank fruit juices in the past month, with 23.1 percent giving their answer in times per day
- Fruit- 96.2 percent ate fruit in the past month, with 43.0 percent giving their answer in times per day
- Beans, including refried, baked, black, garbanzo beans, soybeans, edamame, tofu, or lentils- 79.9 percent ate beans in the past month, with 3.9 percent giving their answer in times per day
- Dark green vegetables, including broccoli, romaine lettuce, collard greens, or spinach- 89.8 percent ate dark green vegetables in the past month, with 16.5 percent giving their answer in times per day
- Dark orange-colored vegetables, including pumpkin, carrots, and sweet potatoes- 80.0 percent ate dark orange vegetables in the past month, with 5.2 percent giving their answer in times per day
- Other vegetables- 97.3 percent ate other vegetables in the past month, with 37.1 percent giving their answer in times per day

In the past month, did you eat or drink:

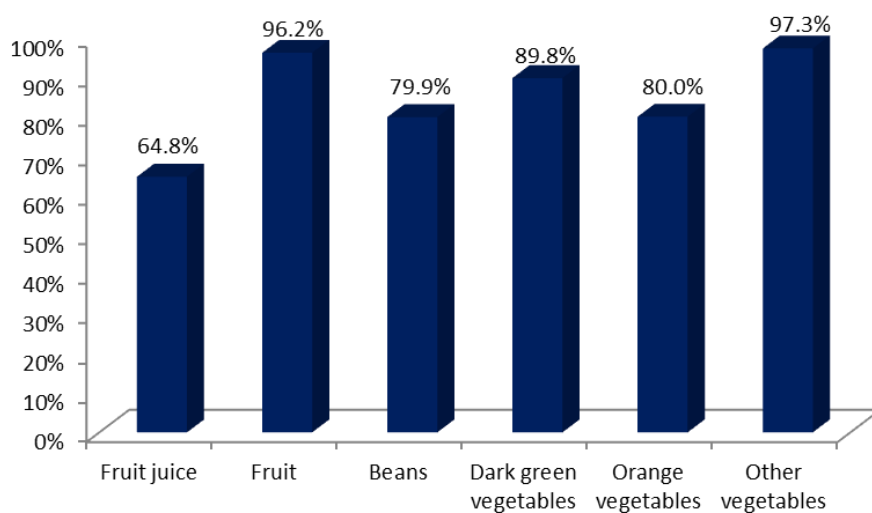


Figure 7: Percentage of Licking County Residents Consuming Fruits and Vegetables in 2011

Exercise

All respondents were then asked if, during the past month, they participated in any physical activities or exercises such as running, calisthenics, gardening, golf, swimming, weight training, biking, or walking for exercise. The two-thirds of respondents (66.7 percent) had participated in some kind of physical activity or exercise in the past month. These respondents were then asked how often they participated in this activity in the past month. Three-quarters of these respondents who exercise (75.7 percent) gave their answer in times per week.

Respondents were then asked how many minutes they participated in this activity or exercise when they participated in it. Just over one-quarter of respondents (27.9 percent) indicated exercising for 30 minutes when they exercise, while 17.3 percent exercise for less than 30 minutes, 15.9 percent exercise between 35 and 50 minutes, 18.5 percent exercise for an hour, and the remaining 20.4 percent exercise over an hour.

Finally, all respondents were asked times per week or per month they did exercises to strengthen their muscles during the past month. About one-third of all respondents (40.3 percent) did exercises to strengthen their muscles at least once in the past month, with 27.8 percent giving their answer in times per week.

CHAPTER 5 LIFESTYLE CHOICES

While heart disease, cancer and stroke make up the three leading causes of death in the United States, the “actual causes of death” are lifestyle choices and behaviors that contribute to these diseases, things like tobacco, poor diet, physical inactivity, and excessive alcohol consumption. This chapter profiles the lifestyle choices of Licking County residents.

Weight

Respondents were also asked to indicate their height and weight so that researchers could calculate BMI (Body Mass Index). Based on the calculated BMI, less than two percent (1.3 percent) of respondents are classified as underweight in Licking County. Nearly one-third of respondents are considered to be of normal standard weight status. Two-thirds of Licking County respondents (66.7 percent) are classified as overweight (33.3 percent) or obese (33.3 percent) based upon their

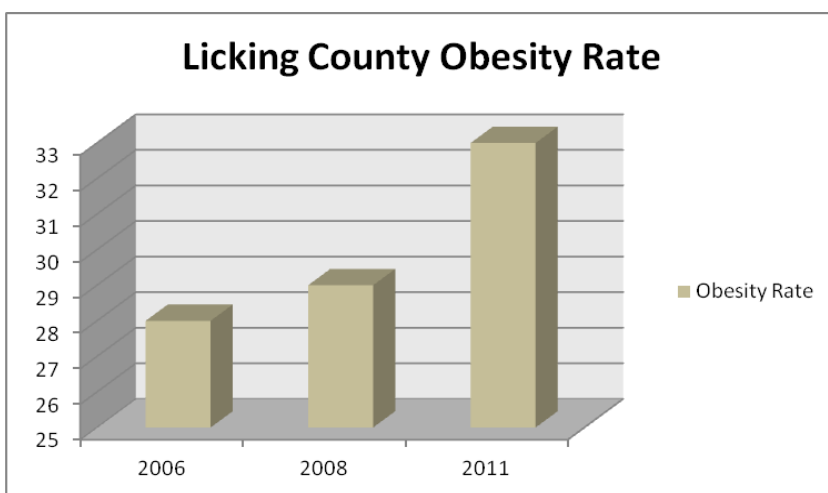


Figure 8: Licking County Obesity Rate 2006-2011

body mass index and may be at a higher likelihood for developing overweight- or obesity-related diseases.

Sexual Activity Pregnancy

Licking County residents were also asked a series of questions pertaining to sexual activity.

Licking County female respondents under the age of 44 were then asked if, to their knowledge, they are now pregnant. One respondent (3.1 percent of women under 44) is now pregnant.

Respondents were further questioned about sexually transmitted diseases and were asked if they ever knowingly been tested for HIV. Over one-third of respondents (36.5 percent) indicated they knowingly been tested for HIV.

Finally, respondents were read a series of statements and were asked to indicate whether any of the situations applied to them. The statements included:

- You have used intravenous drugs in the past year.
- You have been treated for a sexually transmitted or venereal disease in the past year.
- You have given or received money or drugs in exchange for sex in the past year.
- You had anal sex without a condom in the past year.

Only 3.9 percent of respondents indicated at least one of the situations apply to them.

Tobacco Use

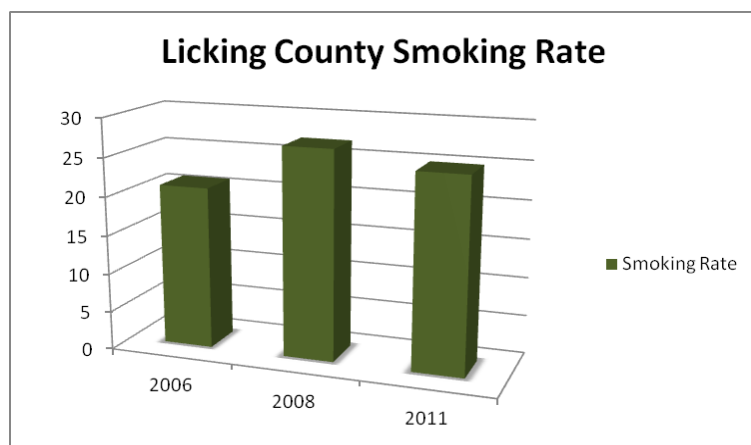


Figure 9: Licking County Smoking Rate 2006-2011

According to the Journal of the American Medical Association, tobacco use is the leading cause of preventable death in the United States.

Nearly one-half of Licking County adults (49.8 percent) have smoked at least 100 cigarettes in their life (which is the CDC's definition of "ever smoked"). Half of these respondents (49.9 percent of those who have ever smoked) do not currently smoke.

19.7% of adults report that they currently smoke every day and 5.3% of residents smoke on some days.

Nearly two-thirds (61.4 percent) of respondents who still smoke have stopped smoking for one day or longer in the past 12 months because they were trying to quit smoking. These respondents who tried to quit smoking were asked a series of questions about the methods they used to help them quit smoking.

- Methods asked about include:
- Telephone quit-line- 17.9 percent used
- Program- 31.1 percent used
- One-on-one counseling from a health professional- 13.4 percent used
- Medications including nicotine patches, gum, lozenges, nicotine nasal spray, a nicotine inhaler, or pills such as Wellbutrin, Zyban, Bupropion, Chantix or Varenicline- 43.9 percent used

Respondents who tried to quit smoking at least one day in the past year were then asked if they have a time frame in mind for quitting smoking for good. Over forty percent of these respondents (44.7 percent) indicated that they do have a time frame in mind. These respondents who have a time frame in mind for quitting for good were then asked what they anticipate that time frame to be. Over one-fifth (21.2 percent) plan to quit smoking in the next seven days, 19.4 percent plan to quit within the next 30 days, 28.7 percent plan to quit within the next six months, 21.8 percent plans to quit within the next year, and 9.0 percent plans to quit smoking for good over one year from now.

Respondents who indicated having smoked at least 100 cigarettes in their entire life, but currently do not smoke were asked how long it has been since they last smoked on a regular basis. Three-fourths of respondents (72.9 percent or these respondents) indicated they have not smoked for over 5 years, with 56.5 percent indicating that they have not smoked in over 10 years.

All respondents were then asked how often they currently use chewing tobacco, snuff, or snus. The majority of respondents (91.9 percent) indicated that they do not use chewing tobacco, snuff, or snus, while 8.1 percent indicated that they currently use one or more of these products every day or on some days.

All respondents were asked if they were aware of any telephone quit-line services available to help people quit smoking cigarettes. Nearly half of respondents (45.5 percent) indicated that they were aware of these services to help people quit smoking.

Vehicle Safety

Respondents were then asked how often they use a seatbelt when they drive or ride in a car. The majority of respondents (87.9 percent) always wear a seatbelt, while 4.2 percent “nearly always” wear a seatbelt and 5.1 percent seldom or never wear a seatbelt.

How often do you wear a seatbelt when driving or riding in a car?

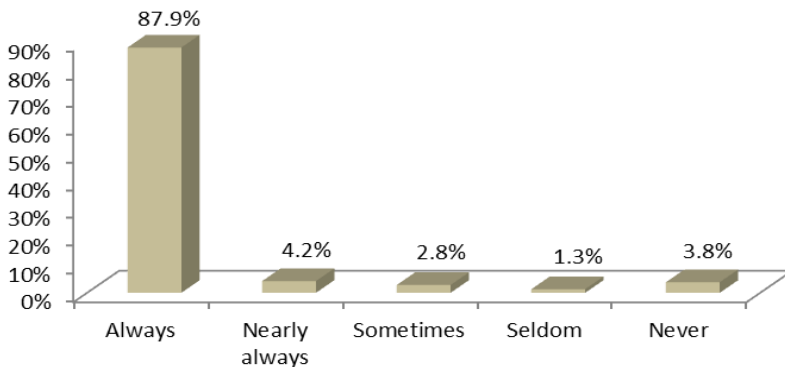


Figure 10: Percentage of Licking County Residents who wear Seatbelts 2011

Alcohol Consumption

While recent research has shown moderate alcohol consumption to be beneficial to health, excessive alcohol consumption has the opposite effect. The next section of the survey addressed alcohol consumption, including issues such as binge drinking.

Respondents were asked to indicate if they have had at least one drink of alcohol, including beer, wine, a malt beverage, or liquor in the past month. Respondents who indicated that they have consumed one or more drinks of alcohol in the past month were then asked how many days per week or per month they drink, as well as how many drinks they have on average. Nearly half of respondents (45.30 percent) indicated that they had had at least one drink of alcohol in the past 30 days.

Over one-third of respondents who had had alcohol in the past month (35.5 percent of these respondents) indicated that, on the days that they drank, they consumed only one drink on average, while 36.0 percent indicated consuming two drinks on average, 14.4 percent indicated three drinks, 5.6 percent indicated four drinks, and the remaining 8.6 percent indicated consuming an average of five or more drinks on the days that they drank alcohol in the past month.

Binge drinking is defined as consuming five or more drinks on one occasion for men, and four or more drinks on one occasion for women. Male respondents who indicated drinking alcohol in the past month were asked how many times during the past 30 days they had five or more drinks on one occasion, and female respondents who had drunk in the past month were asked how many times in

the past 30 days they had four or more drinks on one occasion. While the majority of these respondents (67.2 percent of all respondents who had had a drink in the past month) indicated that they not consumed the specified number of drinks at any time in the past month, 12.4 percent indicated that they had consumed this many drinks on one occasion, 10.5 percent indicated two to three occasions, 8.0 percent indicated four to eight occasions, and the remaining 1.9 percent indicated consuming the specified number of drinks on 10 or more occasion in the past month.

Respondent who had had a drink of alcohol in the past month were then asked what the largest number of drinks was that they consumed on any occasion in the past month. Half of respondents who had had a drink of alcohol (49.4 percent) indicated that the largest number of drinks they consumed on any one occasion was one to two, 14.7 percent indicate that the largest number of drinks was three, 15.9 percent indicated four to five, 11.0 percent indicated six to eight, and the remaining 9.0 percent indicated that the largest number of drinks they consumed on any one occasion was 10 or more.

CHAPTER 6- EARLY DETECTION

Diseases can be prevented largely through healthy lifestyle choices like refraining from smoking, engaging in regular physical activity, making healthy food choices, and maintaining a healthy weight. However, not all diseases are preventable, making early detection through screenings and regular check-ups vital to health and longevity. The following section delves into the preventive actions Licking County residents have undertaken in order to remain healthy and cancer free.

Early Detection for Breast Cancer

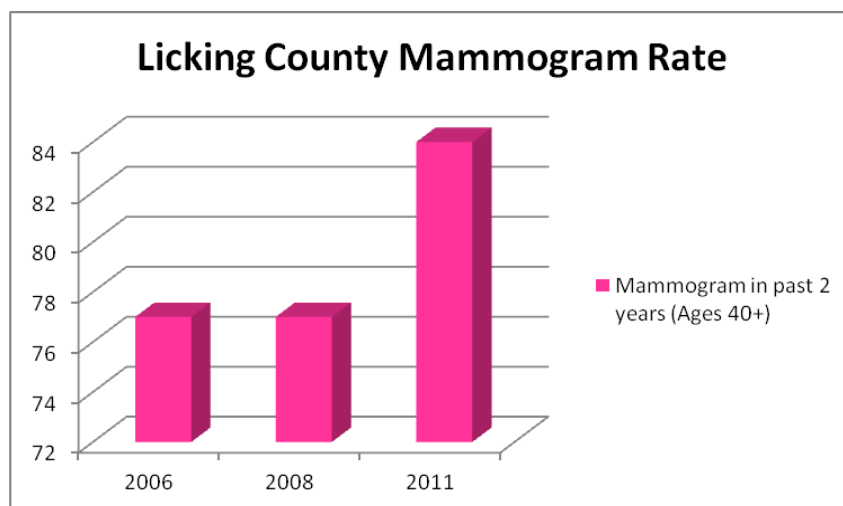


Figure 11: Percentage of Licking County Mammogram Rate 2006-2011

The biggest risk for breast cancer is simply being female, and many women diagnosed with breast cancer do not have any of the identified risk factors. However, there are some risk factors that may increase a woman’s risk for breast cancer, including a personal history of a prior breast cancer; evidence of a specific genetic change that increases susceptibility to breast cancer (BRCA1/BRCA2 mutations); a mother, sister,

daughter, or two or more close relatives, such as cousins, with a history of breast cancer (especially if

diagnosed at a young age); a diagnosis of a breast condition (i.e., atypical hyperplasia) that may predispose a woman to breast cancer; or a history of two or more breast biopsies for benign breast disease.

The American Cancer Society (ACS) recommends that women 20 to 39 years old receive a clinical breast examination at least once every three years, and women 40 years or older receive a clinical breast examination every year. The majority of Licking County women of all ages (86.4 percent) have had a clinical breast exam at some point in their life, and 69.9 percent who have had the exam have had one within the past year.

Like breast exams, the ACS makes specific recommendations about how often and at what age women should have a mammogram screening. The ACS recommends that women 40 or older have a mammogram annually; however, women who have a family history of breast cancer should consult their doctor as to how often they should receive a mammogram. Looking at women of all ages, nearly nine in ten Licking County women (67.8 percent) surveyed have had a mammogram. These women were then asked how long it had been since they had their last mammogram. The majority of these women (69.1 percent of women who had ever had a mammogram) had their last mammogram within the past year, while 16.5 percent had their last mammogram within the past two years, 8.4 percent had their last mammogram two to five years ago, and 5.9 percent received their last mammogram five or more years ago.

Nearly ninety percent (88.3 percent) of women ages 40 and older have had a mammogram performed within the past two years. As was the case with the clinical breast exam, the majority of women in Licking County (92.2 percent) indicated their last mammogram was part of a routine check-up.

Early Detection for Cervical Cancer

Cervical cancer is often times preventable and curable if it is detected early. More women aged 40 years and older are diagnosed with cervical cancer, but younger women are at risk for the precursor to cervical cancer. The most effective tool for early detection is the Pap test, which can detect lesions before they become cancer. Most physicians recommend an annual Pap test. Over ninety percent of all Licking County female respondents (92.6 percent) have had a Pap test, and half (51.1 percent) have had the exam had one within the past year.

One indicator used by the Centers for Disease Control to measure the frequency of Pap screenings is whether women have had this test within the past three years. In Licking County, 77.5 percent of women over the age of 18 report having a Pap test within the past three years.

All female respondents were then asked if they had ever had a hysterectomy. Almost one-quarter of female respondents (23.8 percent) have had a hysterectomy.

Early Detection for Prostate Cancer

Men over age 55 are most at risk for prostate cancer, and the risk for developing prostate cancer is higher if a father or brother has had the disease. Prostate cancer is also more common in African American men than in white men. Another risk factor may be a diet high in animal fat.

There are two detection tests for prostate cancer: the digital rectal exam, and a blood test for prostate-specific antigen (PSA). In general, experts suggest men should have annual screenings for prostate cancer, beginning at age 40.

Over half of Licking County males (53.5 percent) indicated that a doctor had recommended that they have a PSA test at some point. Similarly, 55.9 percent of Licking County males have actually had the PSA test. When asked how long it had been since their last PSA test, over half of those who indicated having ever received the test (63.2 percent) had the test within the past year, 81.3 percent indicated having the test within the past two years, 11.4 percent indicated having the test within the past two to five years, and the remaining 7.3 percent indicated having their last PSA test five or more years ago. The majority of these respondents (80.0 percent) had the PSA test as part of a routine exam, while 12.8 percent had the exam because of a problem, and the remaining 7.2 percent indicated receiving the exam for some other reason, including checking for cancer.

Licking County males who indicated having the PSA test were then asked if a doctor had ever talked to them about the advantages and disadvantages of the PSA test. The majority of these respondents (69.3 percent) indicated that a doctor had told them about the advantages of a PSA test and 48.9 percent indicated that a doctor had told them about the disadvantages of the PSA test.

Respondents who had had a PSA test were then read a list of possible reasons for receiving a PSA test and were asked to indicate which one best describes their personal decision to have the PSA test done. The largest number of these respondents (49.8 percent) indicated that they and their doctor, nurse, or other, health care provider made the decision together, while 26.4 percent indicated that only their doctor, nurse, or health care provider made the decision, 20.2 percent indicated that they themselves made the decision alone, and 3.7 percent indicated that a family member made the decision for them.

The majority of men in Licking County are following this advice— 53.5 percent of men ages 40 or older have had a PSA test, and 81.3 percent have had one within the past two years.

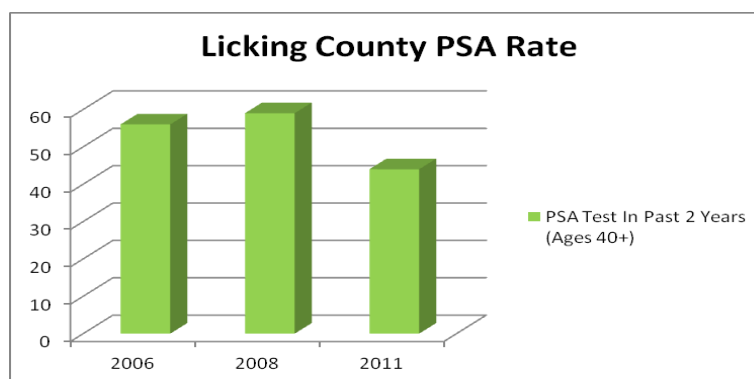


Figure 12: Licking County PSA Rate 200- 2011

A final question asked men if they have ever been told by a doctor, nurse or other health professional that they have prostate cancer. Three respondents (2.6 percent of male respondents) indicated that they have had this diagnosis.

Early Detection for Colorectal Cancer

Colorectal cancer is the fourth most common cancer in both men and women, and is most common in people over age 50. More than 90 percent of people with this disease are diagnosed after age 50. Other risk factors include having colorectal polyps; having a family history of colorectal cancer; having a personal history of colon cancer; having colitis or Crohn's disease; having a diet high in fat and low in calcium, folate, and fiber; or being a cigarette smoker.

There are several methods used to screen for colon cancer, and early detection is the very best form of defense against the disease. One method of screening for colorectal cancer is the digital rectal exam used to screen for prostate cancer (women were not asked about digital rectal exams in this survey). Other screenings include the fecal occult blood test (FOBT), a sigmoidoscopy, and a colonoscopy.

About two in five Licking County residents (43.0 percent) have used a blood stool test home kit. When asked how long it had been since they last had their blood stool test using a home kit, 41.9 percent of those who have had the test using a home kit indicated that it had been within the past year, 15.9

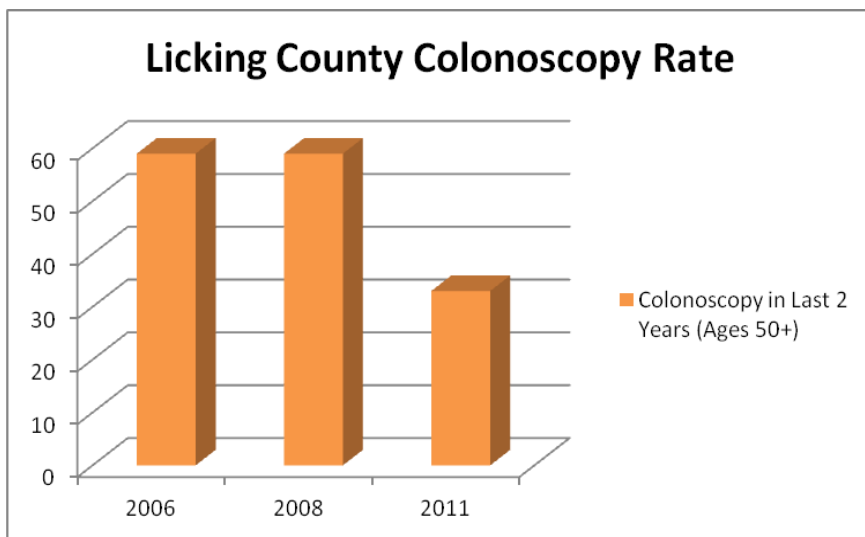


Figure 14: Licking County Colonoscopy Rate 2006-2011

percent indicated it had been in the past two years, 9.8 percent indicated it had been two to five years ago, and the remaining 32.5 percent indicated that they had last had a blood stool test using a home kit five or more years ago.

Looking only at Licking County residents aged 50 and older, 43.0 percent have had a blood stool test. Two-third of respondents (67.5 percent) indicated

using a blood stool test within the past 5 years, while just 15.9 percent have received this test in the past two years.

Respondents were then asked if they had ever had a sigmoidoscopy or colonoscopy in which a tube is inserted in the rectum to view the bowel for signs of cancer and other health problems. Two-thirds of

male respondents (62 percent) indicated that they have had a sigmoidoscopy or colonoscopy at some point. These respondents were then asked if their most recent exam was a sigmoidoscopy or colonoscopy. Nineteen out of every twenty respondents (96.1 percent) received a colonoscopy most recently. When respondents were asked how long it had been since their last sigmoidoscopy or colonoscopy, 26.8 percent indicated they had received their last exam within the past year, 21.9 percent indicated having the exam within the past two years, 36.5 percent indicated having the test within the past two to five years, 14.8 percent indicated that they received their last sigmoidoscopy or colonoscopy had been five or more years ago.

Similarly, 62.0 percent of Licking County residents 50 and older have had a sigmoidoscopy or colonoscopy. Of those who indicated having a sigmoidoscopy or colonoscopy, 85.2 percent have done so in the last 5 years.

Oral Health

Dental care is an important prevention measure for healthy teeth and gums. It is recommended that an individual visit the dentist every six months, if possible, for a preventative check and cleaning.

Almost three-quarters (72.6 percent) of adults in Licking County have visited the dentist or dental clinic in the past year. Another 7.7 percent of respondents have visited the dentist in the past two years. However, 14.0 percent of respondents indicated that their last dental visit was five or more years ago, while another 0.2 percent of respondents have never visited the dentist.

Respondents were then asked how many of their permanent teeth have been removed because of tooth decay, infection, or gum disease. Less than half of respondents (43.8 percent) have lost at least one tooth to decay or disease, with 10.6 percent having lost six or more and 7.1 percent having lost all their teeth.

Respondents were finally asked how long it had been since a dentist or dental hygienist had last cleaned their teeth. Three-quarters of respondents (75.9 percent) indicated that their teeth had been cleaned by a dentist or hygienist in the past year, 8.1 percent indicated that they'd had their teeth cleaned within the past two years, and the remaining 16.0 percent indicated that they had last had their teeth cleaned by a dentist or hygienist over two years ago.

CHAPTER 7-IMMUNIZATIONS

Influenza (flu) and pneumonia immunizations are important prevention measures, particularly for older adults. Specifically, national guidelines recommend that adults over the age of 65 receive an annual influenza and a one-time pneumonia vaccination. Much publicity was given to the recent H1N1 (swine flu) outbreak, with residents being encouraged to receive an H1N1 vaccination.

Over half of adults in Licking County (48.0 percent) indicated that they received a flu shot or nasal mist in the past 12 months. Analysis by age revealed that 68.8 percent of adults aged 65 or older in Licking County have received the vaccination.

Respondents were then asked at what kind of place they received their last flu shot or vaccine. Almost two in five respondents who had had a flu shot in the past year (38.1 percent of these respondents) indicated that they had received their shot or vaccine at a doctor's office or Health Maintenance Organization or HMO. One-fourth of these respondents (24.0 percent) indicated receiving the shot at a store like a supermarket or drug store, 18.1 percent indicated the workplace, 6.1 percent indicated another health center, and the remaining 3.3 percent indicated some other place.

Two out of every three Licking County adults (36.0 percent) have received the pneumonia vaccine at some time in their life. Analysis by age revealed that 77.4 percent of Licking County adults who are 65 or older have had a pneumonia vaccination.

CHAPTER 8-CHILDREN'S HEALTH

Licking County residents were also asked a series of questions pertaining to the health of their children. Responses to questions in this chapter will relate one-third of respondents (38.1 percent) who indicated that they have children under the age of 18 living in their home.

Demographics

As with the adults, respondents were asked to identify some demographic information about the child in their home.

Gender

A slight majority of the children asked about in Licking County (55.3 percent) was male.

Relation

Respondents were asked what their relationship was to the child. The majority of these respondents (81.3 percent) were the parent of the child, while 3.4 percent were the grandparent of the child, 1.0 percent were the foster parent or guardian of the child, 8.9 percent were the sibling of the child, 4.3 percent were related in some other way, and 1.1 percent were related to the child in no way.

Race

As with adults, the race of the child was also asked. Responses are profiled in the table below.

Race	Percent
Hispanic or Latino	4.5%
White	93.8%
Black or African American	2.6%
Asian	1.4%
Native Hawaiian or Pacific Islander	2.7%
American Indian or Alaskan Native	0.7%
Other	0.8%

Child Asthma Prevalence

Respondents were first asked if a doctor, nurse, or other health professional said that the child has asthma. About twelve percent (11.6 percent) of these respondents indicated that some health professional had at some point said that the child has asthma. When asked if the child still has asthma, 83.3 percent of respondents said that the child does still have the condition.

Immunization

Respondents were then asked if the child had had a seasonal flu vaccination either by shot or by nasal spray in the past 12 months. Half of these respondents (50.0 percent) indicated that their child has had this flu vaccination within the past year.

When asked to identify the month and year the child received their most recent flu vaccination, the largest percentage of respondents (24.1 percent) identified October of 2010 as the month and year when their child last received their flu vaccination, while one identified May of 2011.

Human Papilloma Virus

Respondents with children between the ages of 9 and 17 in the household were then asked if the child had ever had the HPV vaccination to prevent human papilloma virus or HPV infection. About one-third of these respondents (31.4 percent) indicated that the child had received this vaccination. When asked how many HPV shots the child received, 72.6 percent of respondents indicated that the child received three shots.

Appendix A: Licking County Trend Data (2006-2011)

This page provides in a quick glance the estimated prevalence of various risk factors and critical health issues reported by Licking County residents over three survey reporting periods – 2011, 2008, and 2006. For each risk factor, the 2011 weighted percentage is compared to the 2008 weighted percentage, the 2006 Licking County data, and to 2007 Ohio data and are presented as being similar (within a \pm 5% difference), higher (greater than 5%), or lower (less than 5%).

Risk Factors and Critical Health Issues	2011 BRFSS (Weighted Percentage)	Compared to Licking County		Ohio BRFSS 2007
		2008 BRFSS	2006 BRFSS	
General health status is fair or poor	18%	Similar (18%)	Similar (18%)	Similar (16%)
No health care coverage (Ages 18-64)	15%	Similar (14%)	Higher (8%)	Similar (14%)
No access to health care when needed	15%	Similar (13%)	Higher (9%)	Higher (9%)
Medical visit in past 12 months	74%	Similar (76%)	Higher (63%)	Similar (74%*)
Dental visit in past 12 months	73%	Similar (70%)	Similar (70%)	Similar (73%*)
Flu shot during the past year (Ages 65+)	69%	Lower (80%)	n/a	Similar (73%)
Pneumonia vaccine ever (Ages 65+)	77%	Similar (81%)	n/a	Higher (70%)
Colonoscopy in past 2 years (Ages 50+)	33%	Lower (59%)	Lower (59%)	Lower (57% [§])
PSA test in past 2 years (Ages 40+)	44%	Lower (59%)	Lower (56%)	Lower (56% [§])
Pap test in past 3 years (Ages 18+)	71%	Lower (76%)	Lower (80%)	Lower (83% [§])
Mammogram in past 2 years (Ages 40+)	84%	Higher (77%)	n/a	Higher (77% [§])
Diagnosed asthma	15%	Similar (17%)	Similar (15%)	Similar (13%)
Diagnosed diabetes	12%	Similar (12%)	Similar (11%)	Similar (10%)
Current smoking	25%	Similar (27%)	Similar (21%)	Similar (23%)
Binge drinking	15%	Similar (13%)	Similar (11%)	Similar (17%)
Overweight (BMI between 25.0 and 29.9)	33%	Lower (40%)	n/a	Similar (35%)
Obese (BMI greater than 30.0)	33%	Similar (29%)	n/a	Higher (28%)
Adult "always" wears seatbelts	88%	Higher (82%)	Higher (77%)	Higher (82% ⁺)

[§] = 2006 OH BRFSS data, * = 1997 OH BRFSS data; + = 2007 NHTSA data