# West Carroll Healthy Communities

# 2014 Health Assessment -













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Jack Madden, Paula Riley, and Jerry Waters.

A very special acknowledgment goes to Monica Stewart of the LSU AgCenter. Her dedication, leadership, and passion for making West Carroll a healthier place in which to live is unmatched.

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# TABLE OF CONTENTS

Background & Purpose	4
Methodology	5
Executive Summary	6
West Carroll Parish: Community Characteristics & Comparison to Health Assessment Participants	8
Health Indicators	
General General Health	9
Health Care Access	10
Health Literacy	11
Obesity & Lifestyle	
Overweight and Obesity	12
Diet	13
Physical Activity & Sedentary Behavior	15
Chronic Conditions & Risk Factors	
Chronic Health Conditions	17
Diabetes	18
High Blood Pressure	19
High Blood Cholesterol	20
Other Health-related Behaviors	
Alcohol Consumption	21
Tobacco Use	21
Technical Notes and Other Data Sources	22

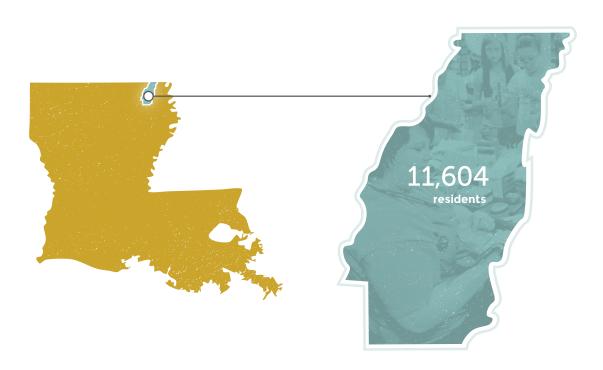
# Background & Purpose

West Carroll Parish is a rural parish in northeast Louisiana. The 2010 United States Census estimates the parish population to be 11,604 residents.¹ The parish lacks any metropolitan areas within commuting distance, and its largest town (Oak Grove, the parish seat) has a population of 1,727 persons. West Carroll Parish is considered one of 386 "persistent poverty" counties in the U.S., meaning that ≥20% of the residents were poor as measured by each of the last four censuses.

In 2012, LSU AgCenter, Southern University Agricultural Research and Extension Center, Louisiana Cooperative Extension Services, LSU's Pennington Biomedical Research Center, and the West Carroll community began a partnership to improve the health of residents in rural West Carroll Parish. Anchored by community input, the initiative evolved into the "Healthy Communities – West Carroll" initiative.

Just as a doctor puts you on a scale and takes your blood pressure at the start of each visit, the Healthy Communities team did something similar with West Carroll Parish. Like in a doctor's visit, this component of the project, called the health assessment, was designed to identify the health areas that needed the most attention and to provide baseline health information against which to measure the parish's health changes over time.

**2010 U.S. CENSUS** 



 $<sup>^{1}\</sup> http://factfinder 2. census.gov/faces/nav/jsf/pages/community\_facts.xhtml$ 

# Methodology

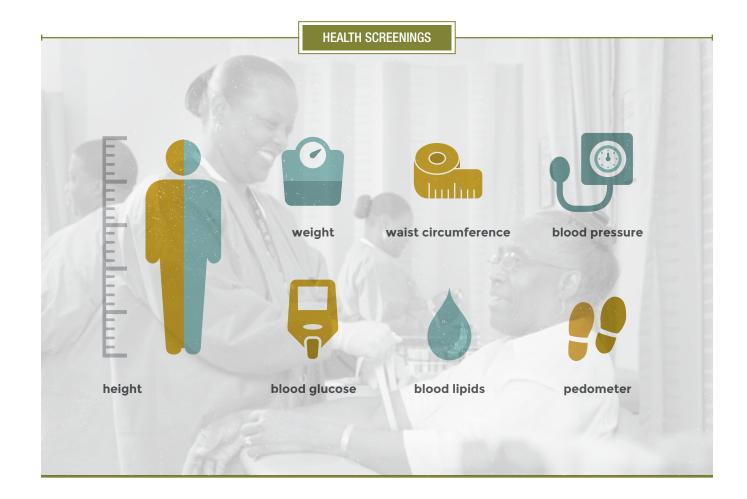
The community health assessment, designed by Pennington Biomedical Research Center, had two parts.

One part consisted of a phone survey. In January 2014, West Carroll residents were called and asked to answer some questions about their health. The LSU Public Policy Research Lab conducted this phone survey, and 522 people participated.

The other part of the community health assessment was a health screening that occurred in February and March 2014 at the West Carroll Parish Agricultural Extension Office. Overall, 184 West Carroll residents, some of whom also participated in the phone survey, participated

in the health screenings. Health screening participants completed a survey of the same questions asked by phone; they had their height, weight, waist circumference, blood pressure, blood glucose, and blood lipids measured; and they wore a pedometer (step counter) for a week to measure their physical activity.

The health screening was carried out by Ag Center staff, students and instructors from Delta Community College, and community volunteers, all trained by researchers from Pennington Biomedical Research Center.



# **Executive Summary**

The 2014 West Carroll Healthy Communities Health Assessment represents a collaboration between Pennington Biomedical Research Center, LSU AgCenter, Southern University Ag Center, the Louisiana Cooperative Extension Services, and the West Carroll community. The purpose of the health assessment was to identify priority health areas for the parish in order to best direct health interventions and health promotion activities. This report summarizes the results of the health assessment.

A few health areas appear to be better in West Carroll Parish compared to the rest of Louisiana or other rural areas.

- Health care access. West Carroll residents generally report higher access to health care than elsewhere in Louisiana. Nearly 80% of West Carroll residents report having a routine medical checkup in the past year.
- Alcohol use and smoking. A smaller fraction of West Carroll residents report consuming alcohol or being current smokers, compared to the rest of the state.

However, several health areas appear to be worse in West Carroll Parish compared to the rest of Louisiana.

• Behaviors related to obesity. Although obesity levels are similar to the rest of the state, West Carroll residents report consuming fewer fruits and vegetables and engaging in less physical activity. This means that, if left unaddressed, obesity levels in West Carroll Parish can be expected to outpace the state average at some point.

- Diabetes. About 16% of West Carroll residents have been told by a health professional that they have diabetes, which is almost 40% higher than the rest of the state.
- High blood pressure. Nearly 48% of West Carroll residents have been told by a health professional that they have high blood pressure, which is about 20% higher than the rest of the state.

Low-income West Carroll residents are at particularly high risk of poor health.

- Nearly half (49%) of persons in the lowest income group report poor health, compared to only 9% in the highest income group.
- Nearly one out of every four low-income residents report some trouble understanding health materials (low health literacy). This is about 50% higher than in high-income residents.
- Over half (55%) of low-income residents are sedentary.
- Nearly one out of every three low-income residents (29%) has diabetes. This is almost 500% (five times) higher than among high-income residents.

Many people in West Carroll Parish have serious health conditions but aren't aware of it. And, of those who are aware, many are not controlling their health condition with the help of their medical provider or through lifestyle changes.

 The health assessment identified residents who had not been told they had diabetes, high blood pressure, or high cholesterol. About one-third of people unaware of their health condition have blood sugar levels indicating pre-diabetes or diabetes. About one in ten people who have never been told they have high blood cholesterol have borderline high, or high cholesterol. Also, 14% of residents without a prior diagnosis of high blood pressure have blood pressure levels indicating hypertension, with an additional 47% having levels indicating pre-hypertension.

Overall, 39% of diabetics, 32% of people with high blood pressure, and 13% of people with high blood cholesterol have not been successful at controlling their medical conditions with the help of their medical provider or through lifestyle changes. In conclusion, the Healthy Communities West Carroll Health Assessment has the opportunity to improve the health of the parish through work that promotes healthy lifestyles. The assessment has identified several health areas that need attention. Health programs that target low-income segments of the population and programs that assist persons with diabetes, high blood pressure, or high cholesterol to control their disease will be especially impactful.



# Community Characteristics & Comparison to Community Health Assessment Participants

Sample Size²         %           TOTAL         685           AGE           18-29         18         2.6         18.0           30-44         67         9.7         24.3           45-64         243         35.6         35.4           65 and over         352         51.8         22.3           GENDER           Male         168         24.6         49.6           Female         515         75.4         50.4           RACE/ETHNICITY           White         545         80.3         81.8           Non-white         134         19.7         18.2           EDUCATION           High school or less         349         51.2         70.4           At least some college         333         48.8         29.6           INCOME           < \$20,000         189         34.4         32.6           \$20,000-\$49,000         184         33.5         31.8           \$50,000+         177         32.2         35.6           HOME OWNERSHIP         6         20         80         27.2         N/A	Demographic Characteristic	Community Assessme	Parish Population	
Name		Sample Size <sup>2</sup>	%	%
18-29	TOTAL	685		
30-44       67       9.7       24.3         45-64       243       35.6       35.4         65 and over       352       51.8       22.3         GENDER         Male       168       24.6       49.6         Female       515       75.4       50.4         RACE/ETHNICITY         White       545       80.3       81.8         Non-white       134       19.7       18.2         EDUCATION         High school or less       349       51.2       70.4         At least some college       333       48.8       29.6         INCOME         < \$20,000	AGE			
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MARITAL STATUS           Married         421         61.7         50.1           Widowed         132         19.4         7.4	Retired	288	42.4	N/A
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	Married	421	61.7	50.1
Something else <sup>4</sup> 129 18.9 42.5	Widowed	132	19.4	7.4
	Something else <sup>4</sup>	129	18.9	42.5

A total of 685 West Carroll residents (about 7-8% of adults) participated in either the phone survey or health screening.

Compared to the adult parish population, people who participated in the community health assessment tended to be older and female. Throughout the report, health indicators are adjusted to better represent the entire parish, not just the people who participated in the sample. The technical notes section at the end of the report describes this process.

The community health assessment sample includes adults who participated in either the phone survey or health screening. Persons who may have participated in both were counted

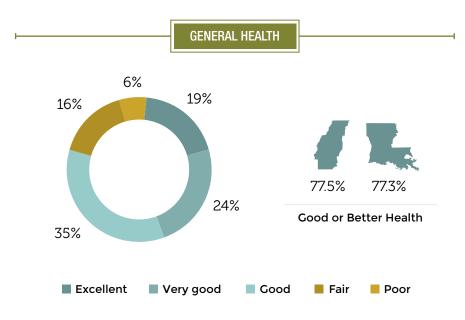
only once. See Technical Notes for how this was done. Counts of participants across subcategories may not add up to 685 due to missing responses.

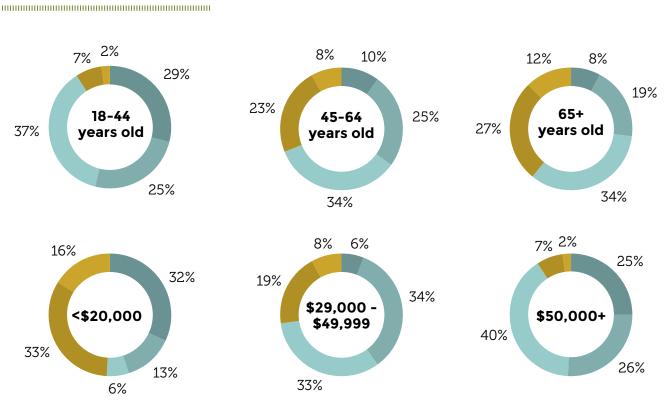
Employment Status, something else represents a combination of employed part-time; unemployed and looking for work; not employed and not looking for work; and on disability. Marital Status, "something else" represents a combination of single; living with partner; and/or divorced.

## General Health

Most West Carroll residents (78%) consider their health to be excellent, very good, or good. This is similar to the rest of Louisiana.<sup>1</sup>

The most striking differences in reported health are found across age and income groups. Not surprisingly, older persons report poorer health. But nearly half (49%) of persons in the lowest income group report poor or fair health, compared to only 9% in the highest income group. This is more than a five-fold difference.





<sup>1</sup> http://www.cdc.gov/brfss/annual\_data/annual\_2013.html

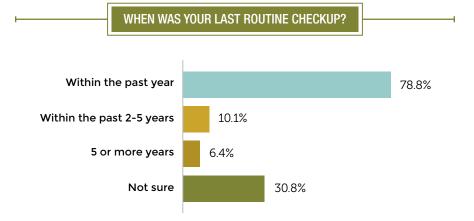
## **Health Care Access**

Regular access to health services is important to prevent disease and improve overall well-being.<sup>1</sup>

Nearly 80% of West Carroll residents report having a routine medical checkup in the past year. This is better than the rest of Louisiana, both rural and urban.

About one in four West Carroll residents (27%) report they do not have health care coverage. This is worse than urban areas in Louisiana, but similar to other rural areas (26%).<sup>2</sup> It is also below the Healthy People 2020 target of 100% of individuals with medical insurance.<sup>3</sup>

Looking at other measures of access to health care, West Carroll residents appear to have higher access compared to both rural and urban areas of the state. This is true even considering the higher percentage of residents without healthcare coverage.



Measures of Health Care Access	West Carroll	Louisiana (rural)²	Louisiana (urban)²
Routine checkup in the last year	78.8%	72%	74%
Do not have health care coverage	27.0%	26%	20%
Time in last 12 months when needed to see a doctor but could not because of cost	13.6%	24%	19%
Does not have a primary care provider	14.3%	26%	26%



<sup>&</sup>lt;sup>1</sup> http://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Access-to-Health-Services

<sup>&</sup>lt;sup>2</sup> http://www.cdc.gov/brfss/annual\_data/annual\_2013.html

<sup>&</sup>lt;sup>3</sup> http://www.healthypeople.gov/node/3495/objectives#3966

## **Health Literacy**

Health literacy refers to a person's to obtain, communicate, capacity process, and understand basic health information and services to make appropriate health decisions.1

Low health literacy makes health systems less efficient, increasing overall health care costs. People with lower health literacy report poorer health and are less likely to seek preventive medical care.<sup>2</sup>

About 6-10% of West Carroll residents indicate issues with health literacy. This is lower than what is seen in other rural areas3 and may reflect the fact that a higher proportion of West Carroll residents have completed high school compared to other rural parishes in Louisiana (84% in West Carroll vs. 78% in other rural parishes).4

Despite the relatively high health literacy of West Carroll parish, lower income residents are disproportionally affected. Health professionals who work with lower income residents should make sure that they communicate in ways that people will understand and be able to act on.5



All of the time

Most of the time

Some of the time

A little

None

<sup>1.</sup> http://www.cdc.gov/healthliteracy/

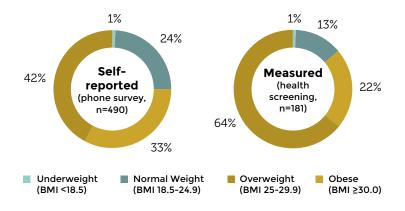
 $<sup>2. \</sup> http://publichealth.gwu.edu/departments/healthpolicy/CHPR/downloads/LowHealthLiteracyReport 10\_4\_07.pdf$ 

<sup>3.</sup> Zahnd, W.E., Scaife, S.L., and Francis, M.L. (2009). Health literacy skills in rural and urban populations. American Journal of Health Behavior 33(5): 550-557.

<sup>4.</sup> http://factfinder2.census.gov/

<sup>5.</sup> http://www.cdc.gov/healthliteracy/developmaterials/index.html

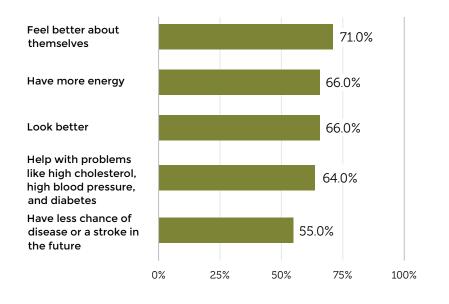
# Overweight and Obesity



PEOPLE WHO ARE OVERWEIGHT HAVE DIFFERENT REASONS FOR WANTING TO LOSE WEIGHT. WHAT DO YOU THINK ARE THE TOP REASONS THAT PEOPLE WANT TO TRY TO LOSE WEIGHT?

A total of 75% - 86% of West Carroll residents are either overweight or obese. The lower estimate of obesity from the phone survey participants may be due to the fact that people have difficulty estimating their weight.

When asked about reasons why someone would try to lose weight, most people respond with reasons related to feeling and looking better. Over half of people also list health reasons. These outcomes are important to people and can be highlighted in weight-reduction programs to increase their success.





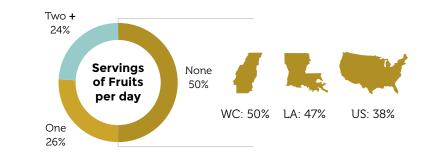
#### Diet

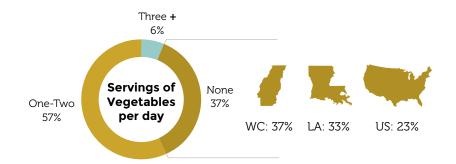
Adults in West Carroll Parish report eating an average of 3.1 meals prepared away from home in a week, which is slightly better than found in the nation (3.9).<sup>1</sup> On average, 14% of residents eat one of these meals per day. Meals prepared away from home include breakfast, lunch, or dinner from restaurants, fast food places, food stands, grocery stores, or vending machines. Food from these places is typically higher in saturated fat and salt than foods prepared at home.<sup>2</sup>

The USDA recommends that adults eat at least 2 servings of fruit and 3 servings of vegetables each day. Only one-fourth (24%) of West Carroll residents are eating enough servings of fruit per day, and very few (6%) are eating enough vegetables. Nearly half of the residents eat fruits or vegetables less than once per day (50% for fruits, 37% for vegetables), which is worse than the national average.<sup>3</sup>

When fruits and vegetables are added together, only 7% of West Carroll residents eat the recommended 5 or more servings daily.





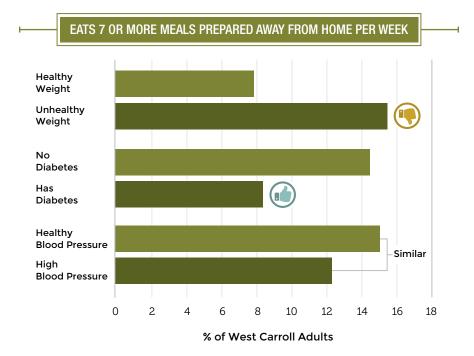


<sup>&</sup>lt;sup>1</sup> Kant, A.K., Whitley, M.I., & Grubard, B.I. (2014). Away from home meals: associations with biomarkers of chronic disease and dietary intake in American adults, NHANES 2005-2010. International Journal of Obesity, 1-8.

<sup>&</sup>lt;sup>2</sup> http://www.ers.usda.gov/media/977765/summaryeib105.pdf

<sup>&</sup>lt;sup>3</sup> http://www.cdc.gov/nutrition/downloads/State-Indicator-Report-Fruits-Vegetables-2013.pdf

## Diet continued



Among West Carroll adults, being at an unhealthy weight is associated with eating more meals prepared away from home. Nearly 16% of overweight or obese adults report eating 7 or more meals away from home per week, compared to only 8% of healthy-weight adults.



**RECOMMENDED DAILY SERVINGS OF FRUITS & VEGETABLES** Healthy Weight Similar Unhealthy Weight Νo Diabetes Has Diabetes Healthy Blood Pressure Similar High **Blood Pressure** 5 0 10 15 20 25 % of West Carroll Adults

West Carroll residents with diabetes report eating more fruits and vegetables than their healthier counterparts. This is encouraging; however, all groups have substantial room for improvement.

## Physical Activity and Sedentary Behavior

West Carroll residents spend an average of nearly 5 ½ hours sitting in a typical day.

About 60% of West Carroll adults participated in any physical activity in the past month, which is worse than found in the state (68%).<sup>1</sup>

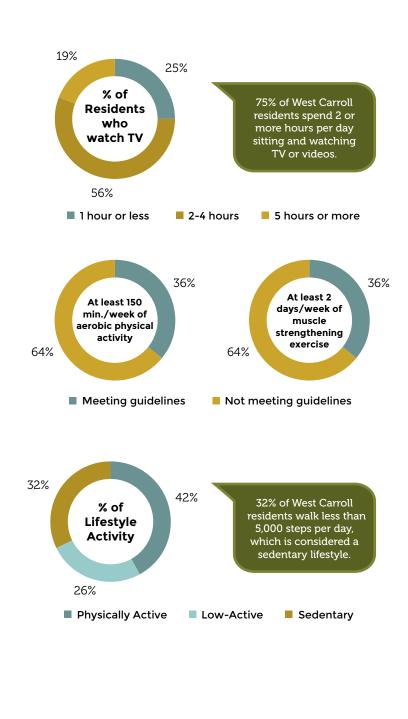
The U.S. Department of Health and Human Services provides physical activity guidelines for Americans. About one-third (36%) of West Carroll residents meet the guidelines for aerobic physical activity, which is worse than found nationwide (43.5%) and below the Healthy People 2020 target of 47.9%.<sup>2</sup>

Walking is identified as the primary form of exercise for 43% of individuals who reported participating in physical activity, followed by running (7.8%) and household work (6.7%).

Health screening participants wore pedometers for one week to measure physical activity – specifically, steps per day.

7,500 steps per day or more is considered a physically active lifestyle, while less than 5,000 is considered sedentary.<sup>3</sup> The average steps per day in West Carroll was 5,978 per person, which is categorized as low active.

 This low level of steps is not surprising considering the demographic characteristics of the health assessment participants, especially older age and rural environment.



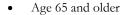
 $<sup>^1\</sup> http://www.cdc.gov/brfss/annual\_data/annual\_2013.html$ 

<sup>&</sup>lt;sup>2</sup> https://www.healthypeople.gov/2020/topics-objectives/topic/physical-activity/objectives

<sup>&</sup>lt;sup>3</sup> Tudor-Locke, C., Craig, C.L., Thyfault, J.P., and Spence, J.C. (2013). A step-defined sedentary lifestyle index: <5000 steps/day. Applied Physiology, Nutrition, and Metabolism 38:100-114.

## Physical Activity and Sedentary Behavior continued

More than half of the following groups of West Carroll residents walk less than 5,000 steps per day. These groups represent those in most need of a physical activity intervention.

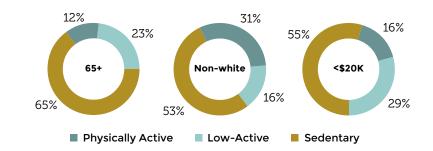


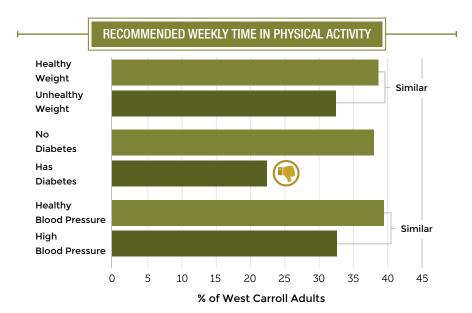
- Non-white (identified any race other than white)
- Low income (annual salary less than \$20,000/year)

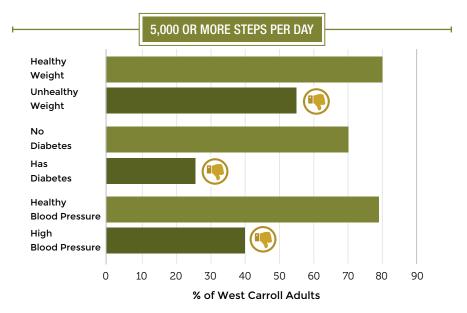
West Carroll adults with diabetes report less leisure time physical activity compared to those without diabetes. Physical activity is known to help control diabetes;<sup>1</sup> adults with diabetes are therefore in need of a physical activity intervention.

When health screening participants' physical activity was measured with a pedometer, instead of being self-reported in a survey (as in the results above), the different levels of physical activity between West Carroll adults with and without health conditions is even more apparent. West Carroll adults having unhealthy weight, diabetes, and high blood pressure have much less active lifestyles than adults without those conditions. All of these groups could benefit from programs or environmental interventions to increase their levels of physical activity.

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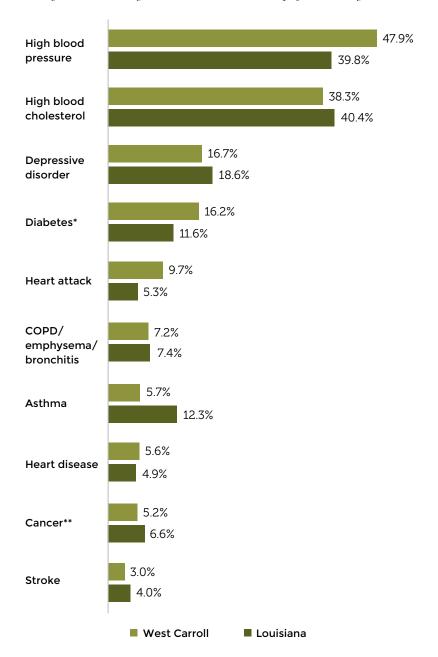


<sup>1</sup> http://www.diabetes.org/food-and-fitness/fitness/physical-activity-is-important.html

#### **Chronic Health Conditions**

#### PREVALENCE OF CHRONIC CONDITIONS AND RISK FACTORS

Have you ever been told by a doctor, nurse, or other health professional that you have...



High blood pressure, high blood cholesterol, and diabetes are of particular importance in West Carroll Parish. For both high blood pressure and diabetes, West Carroll exceeds the state average, and these conditions will be important targets for health intervention programs.

<sup>\*</sup> Diabetes does not include females told only during pregnancy.

<sup>\*\*</sup> Cancer does not include skin cancer.

 $<sup>^1\,</sup>Source\,for\,state\,percentages: http://www.cdc.gov/brfss/annual\_data/annual\_2013.html$ 

#### Diabetes<sup>1</sup>

A total of 16.2% of West Carroll residents have been told by a health professional they have diabetes, which is worse than seen statewide (11.6%).<sup>2</sup> Of those who have been told they have diabetes:

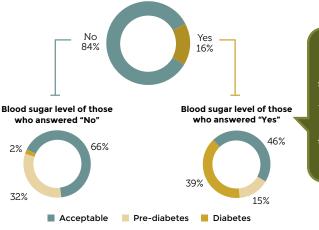
 43 years old is the average age when they were told they have diabetes

- 31% are now taking insulin
- 4.3 is the average number of times they have seen a health professional for their diabetes in the past year
- 26% have been told diabetes has affected their eyes
- 57% have never taken a course in how to personally manage their diabetes

In addition to answering survey questions, the health assessment participants had blood sugar checked through a finger stick. According to the finger stick, 11.8% of residents have blood sugar levels that indicate diabetes.

#### HAVE YOU EVER BEEN TOLD YOU HAVE DIABETES?



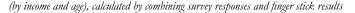


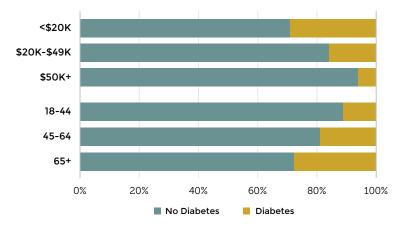
Of those who have been told they have diabetes, 39% still have blood sugar levels that indicate diabetes, indicating that they are not successfully controlling their blood sugar with the help of their medical provider or through lifestyle changes.

The most striking differences in diabetes status are found across age and income groups. Those with lower incomes have a higher prevalence of diabetes. Not surprisingly, older persons also have a higher prevalence of diabetes.

......

#### **DIABETES STATUS**





<sup>&</sup>lt;sup>1</sup> Prevalence rates do not include females told they had diabetes only during pregnancy.

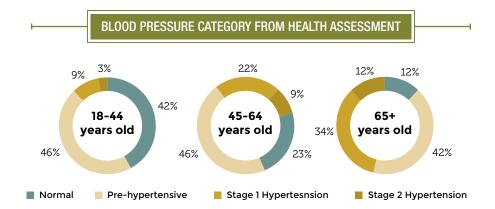
<sup>&</sup>lt;sup>2</sup> http://www.cdc.gov/brfss/annual\_data/annual\_2013.html

# High Blood Pressure

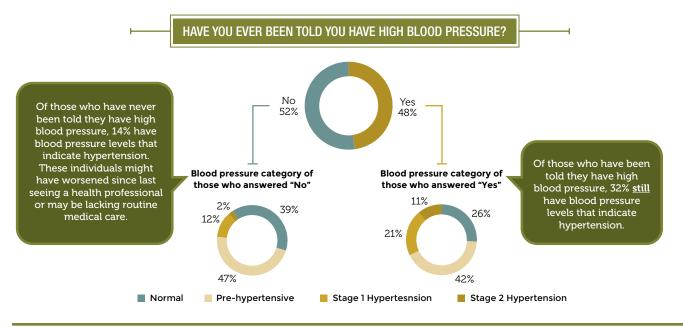
A total of 48% of West Carroll residents have ever been told by a health professional that they have high blood pressure, which is worse than seen statewide (40%). Of those who have been told they have high blood pressure, 86% are currently taking medicine for this condition.

In addition to answering survey questions, the health assessment participants had blood pressure checked in person. According to this blood pressure check, 22% of participants have either stage 1 or stage 2 hypertension.

The most striking differences in blood pressure are found across age groups, with older persons having stage 1 or stage 2 hypertension more often than younger persons.



Also, by comparing actual blood pressure measures to survey responses, the health assessment highlights a need for better blood pressure control and ongoing high blood pressure identification and awareness in West Carroll Parish.



<sup>1</sup> http://www.cdc.gov/brfss/annual\_data/annual\_2013.html

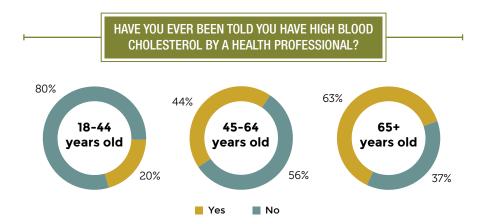
# **High Blood Cholesterol**

Almost 81% of West Carroll residents have had their blood cholesterol checked.

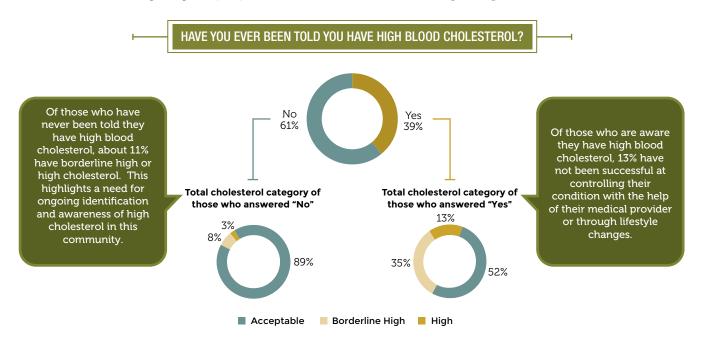
Almost 38% of West Carroll residents have been told by a health professional

that their blood cholesterol is high, which is similar to what is seen statewide (40%).<sup>1</sup> The most striking differences in reported cholesterol are found across age and income groups. Not surprisingly,

older persons report higher cholesterol, as do those with lower incomes.



In addition to answering survey questions, the health assessment participants also had their cholesterol checked through a finger stick. Almost one in four participants (24%) were found to have either borderline high or high total cholesterol.



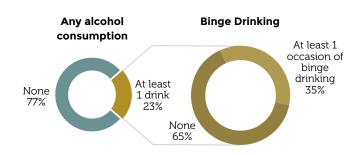
<sup>1</sup> http://www.cdc.gov/brfss/annual\_data/annual\_2013.html

# **Alcohol Consumption**

Survey respondents were asked about general alcohol consumption as well as binge drinking during the past 30 days. (Binge drinking is defined as 4 or more drinks on one occasion for women, and 5 or more for men.)

A total of 23% of West Carroll respondents report having at least one alcoholic drink in the past 30 days. Of these people, 35% report participating in at least one occasion of binge drinking.

Compared to the rest of the state, fewer adults in West Carroll Parish report



any alcohol consumption (23% in West Carroll and 50% in LA).<sup>1</sup>

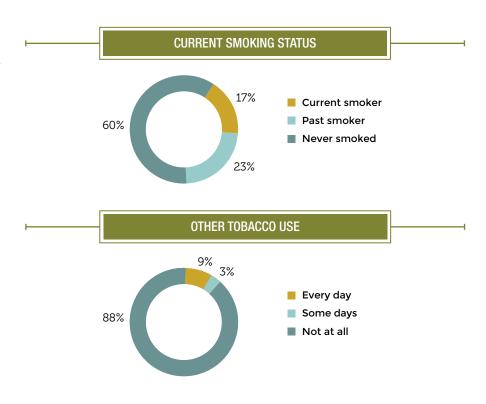
Of all adults in West Carroll Parish (those who do and do not drink alcohol),

12% report binge drinking in the past 30 days. This meets the Healthy People 2020 target of 24% or less.<sup>2</sup>

#### Tobacco Use

A total of 17% of adults in the parish identify as current smokers (meaning they currently smoke every day or on some days). This figure is better than the state  $(24\%)^1$  and the nation  $(19\%)^1$ , but it is still almost 1.5 times higher than the Healthy People 2020 target of 12%.

Almost 12% of adult respondents report using chewing tobacco, snuff, or snus everyday or on some days. This use of smokeless tobacco is worse in West Carroll Parish than in LA (5.7%)<sup>1</sup> and the US (4.3%).<sup>1</sup>



<sup>&</sup>lt;sup>1</sup> http://www.cdc.gov/brfss/annual\_data/annual\_2013.html

<sup>&</sup>lt;sup>2</sup> https://www.healthypeople.gov/2020/topics-objectives/topic/substance-abuse/objectives

## **Technical Notes and Other Data Resources**

#### **Existing/Comparison Data**

A variety of secondary data were sought to complement and inform the results of the community health assessment. Namely, existing data at the state and national level were used as benchmarks to compare West Carroll Parish to the rest of Louisiana or the Unites States. Comparisons were possible because the community health assessment uses several survey items that are also used in existing state and national surveys. Most comparison data were derived from the U.S. Centers for Disease Control and Prevention's (CDC) Behavioral Risk Factor Surveillance System (BRFSS), which is a large, on-going telephone health survey program. Other sources include the National Health and Nutrition Examination Survey (NHANES) and Healthy People 2020. NHANES is a program of the CDC, and it is similar to this community health assessment in that it combines survey questions with objective health measures. Healthy People 2020 is an initiative of the U.S. Department of Health and Human Services that identifies health promotion priorities and sets objectives for health improvements. Where applicable, Healthy People 2020's national objectives were used as benchmarks to gauge the health status of West Carroll residents.

Direct web address/URL citations are provided throughout the report.

#### **Duplicate Participants**

As mentioned above in the methodology section, a small percentage of health screening participants also completed the phone survey. These participants were identified by comparing demographic information provided on the phone survey and on the day of the health screening. 15 matches were identified, and duplicate survey responses were eliminated from the sample by using the survey responses provided on the phone survey in place of the survey responses completed on the day of the health screening. All objective health measures from the health screening were used in analyses, including height, weight, blood pressure, blood cholesterol and blood glucose.

#### **Adjusted Data and Limitations**

The participants in the community health assessment were disproportionately female and older in age compared to the population of adults in West Carroll Parish. Data in this report were therefore adjusted to reflect the West Carroll population in terms of age and gender.

This report provides an overview of the chronic disease risk factors most relevant to the residents of West Carroll Parish, and it will help identify targets for meaningful intervention. However, information gaps might exist. The information collected through the community health assessment represents a sample of adults, and some populations might not be included, such as pregnant women or those who only speak a language other than English.



# West Carroll Healthy Communities 2014 Health Assessment

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