ACCREDITATION DOCUMENT COVER PAGE
Greene County

| $\frac{\text { Measure \# }}{7.1 .1}$ | $\frac{\text { Required Document \# }}{1}$ | $\frac{\text { Example \# }}{1}$ | $\frac{\text { Document Date: }}{04 / 16 / 13}$ |
| :---: | :---: | :---: | :---: |
| Document Page \# | Required Element |  |  |
| 1 | Email showing a webinar for the members of the Community Health Assessment who worked on the access to care implementation based on the assessment results. |  |  |
| 11 | Community Health Assessment report with a summarize description of the members involved in the Community Health Assessment. |  |  |
| 50-59 | Access to care webinar 1 agenda and summary of access to care findings. |  |  |
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|  |  |  |  |

## Document Description:

This document shows participation of various community members and organizations who shared in a collaborative process during the 2013 Community Health Assessment and Community Health Improvement Plan process which included access to healthcare. Representatives included the Board of Health, Fire Departments, City representatives, Sheriff's office, the local hospitals, Children's First Council, United Way, Public TV, Help Me Grow, OSU Extension, township trustees, Mental Health, Regional Air Pollution Control Agency, Council on Aging, Environmental Services, and Juvenile Court. The access to care information is also highlighted in the document.

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## Dear Greene Country CHIP Participants,

Below you will find the information needed to join the access to care webinar TODAY Tuesday, April 16 at 9:30 am. When you are ready to join the webinar you can click the link and sign in as a guest by entering your name. To join the conference call, dial the number provided below and enter the participant code.

If you have any questions, please email me or call 937-775-2941.
Thank you,
Madeline

Meeting Information
Name: GCCHD CHIP Access to Care
Summary:
Start Time: 04/16/2013 9:30 AM
URL: http://wrightstate.adobeconnect.com/gcchd ac/
Conference Number(s): 1-877-820-7831
Participant Code: 433475\#

This email was Virus checked by the Greene County Combined Health District.


## PublicHealth <br> Prevent. Promote. Protect.

## Greene County

## ABSTRACT

This Community Health Assessment is a systematic collection, assembly, analysis, and dissemination of information about the health of our community. It highlights major health and social issues affecting the health status and quality of life in Greene County.

## COMMUNITY <br> HEALTH ASSESSMENT

Greene County Public Health
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## Executive Summary

A community health assessment is the foundation for improving and promoting the health of community members. In 2012, the Greene County Public Health contracted with the Center for Urban and Public Affairs (CUPA) at Wright State University (WSU) to conduct the fifth in a series of health assessments. Assessments had previously been conducted in 1995, 1999, 2004, and 2008 and were modeled after the state-based Behavioral Risk Factor Surveillance System (BRFSS) initiated by the Centers for Disease Control and Prevention (CDC). The data provides a broad assessment of community health issues, at risk behaviors and aids in shaping a broader definition of community health. It also aids in monitoring the impact of community health improvement plans and trends in behavioral risk modifications.

The following are highlights of the 2012 assessment:

We've made many improvements...
$\checkmark$ Greene County residents remain optimistic about their health, with the majority ( 85.8 percent) of residents saying they have good, very good or excellent health.
$\checkmark$ The percentage of adults who have been tested for HIV has significantly increased since 2008.
$\checkmark$ The percentage of adults in Greene County who have received a flu shot or seasonal vaccine in the past 12 months has increased since 2008.
$\checkmark$ The majority of women in Greene County ( $89.8 \%$ ) are taking preventative measures to decrease their risk for cervical cancer.
$\checkmark$ The percentage of adults, 50 years of age and older, getting a sigmoidoscopy or colonoscopy has continued to increase since 1999.
$\checkmark$ Since 2008, there has been a decrease among adults in Greene County who engage in binge drinking.
$\checkmark$ The percentage of adults in Greene County who reported binge drinking in the past month has decreased since 2008.

But we still have some work to do...
$\checkmark$ The percentage of residents with no health insurance has decreased slightly since 2008.
$\checkmark$ Since 2008, the percentage of adults reporting that there was a time during the last 12 months when they needed to see a doctor, or other health care provider but could not because cost has increased.
$\checkmark$ Since 2008, the percentage of adults who have been told by a doctor that they have prediabetes or borderline diabetes has significantly increased.
$\checkmark$ The percentage of women who have ever had a mammogram has significantly decreased.
$\checkmark$ Although more than three-quarters of adults in Greene County have made a visit to the dentist in the past year, over $45 \%$ of adults have had at least one of their permanent teeth removed due to tooth decay or gum disease.
$\checkmark$ The percentage of Greene County men who reported having had a PSA test to screen for prostate cancer has significantly decreased.
$\checkmark$ Overweight and obesity rates have increased and rates are higher than either the State or the nation.
$\checkmark$ With the loss of State foundation monies to the County and a reduction in smoking cessation programs, the percentage of adults who reported that they currently smoke increased.

## Collaboration from Local Community

Greene County Public Health recognizes that it is but one component of a community's health services and only part of a puzzle to improve community health. The health district has established partnerships and collaborations with private, voluntary and public agencies and residents to effectively meet the health needs of the county. According to the Robert Woods Johnson County Health Ranking s and Roadmaps, Greene County's overall health ranking fell to $14^{\text {th }}$ in overall health which is down from $8^{\text {th }}$ in 2011 . This should serve as a wakeup call to the community concerning unmet health needs in Greene County.

In July, 2012 a health consortium formed which included the following members: Job and Family Services, Board of Developmental Disabilities, Transportation, Violence Prevention, County Commissioners, Hospitals, Council on Aging, Mental Health and Recovery Board, Council on Rural Services, Public Library, Beavercreek City Council, Xenia Schools, and Wright State University. The consortium included representatives from mental health and the developmentally delayed who are often at risk for having poorer health outcomes.

The data analyzed by the consortium members was from a variety of sources. Primary sources of data were from a phone survey. Secondary data sources include the U.S. Census Bureau, County Health Rankings form Robert Woods Johnson, Mortality and Morbidity data from the Ohio Department of Health, Health Profiles from the Ohio Department of Health and Surveillance data from disease and injury registries. On November $15^{\text {th }}, 2013$ the consortium met to examine and analyze data, perform a Strength, Weakness, Opportunity and Threat Analysis (SWOT), and assess existing assets and capacity to fill unmet health needs and identify gaps in service.

Consortium members served as a focus group to examine the community's perception of health, factors that contribute to poor health outcomes and attitudes about health improvement. This Community Health Assessment provides a foundation for efforts to improve the health of Greene County residents. It serves as the basis for setting priorities identified in the Community Health Improvement Plan (CHIP), for strategic planning efforts, for program development, for funding applications, for policy changes, for coordinating community resources and for finding new ways to coordinate existing assets.

Consortium members used Nominal Group Technique to identify priority health issues. An online survey was sent to all participating partners asking for feedback on ten priority health topics identified from this survey on November $15^{\text {th }}, 2012$. For more information on the prioritized health issues and targeted interventions, please refer to the CHIP.

Meetings of the consortium were ongoing throughout 2013. In February, 2014 the United Way began data collection for a community needs assessment with a specific priority area on health. This assessment has been provided as part of an ongoing effort by local agencies to impact our community in a coordinated and collaborative effort. Consortium members continue to participate in local efforts to improve health.

## Demographic and Social Profile

According to the Centers for Disease Control and Prevention (CDC), factors that contribute to a person's current state of health and access to quality health care may be biological (sex, race, age) or socioeconomic (poverty, income, educational attainment, health insurance) in nature. Additionally, the World Health Organization (WHO) reports that health inequities are avoidable inequalities in groups of people. The effects of social and economic conditions determine the risk of illness, and the actions taken to prevent or treat illness when it occurs. WHO reports that the poorest of the poor have the worst health and in general the lower an individual's socioeconomic position the worse their health. The following section presents a snapshot of social and economic conditions in Greene County that may be linked to avoidable inequalities in access to quality health care and disease prevention.

Greene County is located in the west central part of the State of Ohio, just east of Montgomery County and according to the U.S. Census in 2010, was home to 161,573 residents. Established May 1, 1803, these 266,350 acres were named for General Nathaniel Greene, a hero of the American Revolution. Greene County is bordered on the north by Clark County and on the south by Warren and Clinton Counties. Greene is bordered on the east by Fayette and Madison Counties, and on the west, it is bordered by Montgomery County.

Greene County, located along the Little Miami River, is primarily agricultural, especially the eastern half. Greene County has a land area of 415 square miles. The general landscape of the county is a plain with an average elevation above sea level of about 1000 feet. Land use within the county is arranged into six major categories and, as might be expected, cropland accounts for the largest use of land (56\%). Urban uses comprise $21.8 \%$ of the county.

Greene County is comprised of a combination of rural, urban, and suburban communities which include four cities, twelve townships, and six villages. Half of the county's population is suburban. The most densely populated areas in the county include Beavercreek City, Fairborn City, and Xenia City. About $63 \%$ of the county's population resides in the three larger cities. The remaining $37 \%$ are dispersed among the other townships, cities and villages. Xenia is the county seat and the county's third largest city with a population of 25,719 .

According to the U.S. Census there are 62,770 households. There are 41,696 family households and 21,074 are nonfamily households. A family household contains at least two persons -- the householder and at least one other person related to the householder by birth, marriage, or adoption. Family households are categorized into three types: married couple; female householder or male householder with no spouse present. A nonfamily household may contain only one person, the householder, or additional persons who are not relatives of the householder.


Map 1: Greene County, OH
The Ohio Development Services Agency reports that the population in Greene County has steadily increased since 1950 and will continue to grow through 2025 when population growth is expected to peak at 165,950 residents. The county is expected to witness a total increase in the population of $3.1 \%$ or 5,010 residents from 2011 through the year 2025. The population change is illustrated in Figure 1. The blue bars represent the total population. The red line indicates the percentage population change between decades.

Greene County Population \& Change, 1950-2030


Figure 1: Population Change, 1950-2030 ${ }^{12}$

## Population Characteristics

## Population by Race and Ethnicity

Since 1990, the county's minority population has nearly doubled from 12,716 individuals in 1990 to 24,133 in 2010. The percentage of the population who are minorities in Greene County as reported by Quickfacts for the U.S. Census Bureau is $14.9 \%$ collectively (Table 1). The minority population in Xenia is $18 \%$. The Metropolitan Statistical Area (MSA) which includes
multiple cities such as Dayton and Springfield in addition to Greene County records the percentage of the population who are minorities as (21.2\%) for 2010.

| Population by Age and Ethnicity | Count | $\%$ |
| :--- | ---: | ---: |
| Total Population | $\mathbf{1 6 1 , 5 7 3}$ |  |
| White alone | 137,440 | 85.1 |
| Black or African American alone | 11,506 | 7.1 |
| American Indian and Alaska Native alone | 367 | 0.2 |
| Asian alone | 4,663 | 2.9 |
| Native Hawaiian and Other Pacific Islander alone | 81 | 0.1 |
| Some Other Race alone | 261 | 0.2 |
| Hispanic or Latino | 3,439 | 2.1 |

Table 1: Population by Race \& Ethnicity, 2011
Population by Gender and Age
According to the 2010 Census, Greene County's population is nearly evenly split between the genders $-51.0 \%$ of the population is female, while $49.0 \%$ is male. The ratio of males to females remains relatively consistent across all age cohorts.

Since the 2000 Census, the population has continued the trend of aging in place as witnessed in the figure below. The median age has increased from 35.6 in 2000 to 37.2 in 2010. Younger age cohorts ( 54 years of age and younger) have experienced very modest growth ( $2.1 \%$ ), while the population cohorts 55 years of age and older experienced significant increases (36.1\%).

According to the 2010 Census, the largest population age cohort was that of school age children between 5 and 17 years of age ( $16 \%$ - see figure 2). The second largest age groups were between 45 and 54 years old and ages 18-24 ( $14 \%$ and $13.4 \%$, respectively). According to the 2010 Census, one in seven residents was age 65 years or older and this population is expected to grow $58.8 \%$ by the year 2030, when one in five residents will be 65 years of age or older.


Figure 2: Population Change by Age Cohort, 2000-2010

| Population by Age | 2000 |  | 2010 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Count | $\%$ | Count | $\%$ | Male | Female |  |
| Total Population | $\mathbf{1 4 7 , 8 8 6}$ |  | $\mathbf{1 6 1 , 5 7 3}$ |  | $\mathbf{7 9 , 1 0 0}$ | $\mathbf{8 2 , 4 7 3}$ |  |
| Under 5 years of age | 8,717 | $5.9 \%$ | 9,069 | $5.6 \%$ | 4,667 | 4,402 |  |
| 5 to 17 years of age | 26,642 | $18.0 \%$ | 26,064 | $16.1 \%$ | 13,317 | 12,747 |  |
| 18 to 24 years of age | 20,226 | $13.7 \%$ | 23,034 | $14.3 \%$ | 11,415 | 11,619 |  |
| 25 to 34 years of age | 17,082 | $11.6 \%$ | 19,045 | $11.8 \%$ | 9,658 | 9,387 |  |
| 35 to 44 years of age | 22,884 | $15.5 \%$ | 18,451 | $11.4 \%$ | 8,942 | 9,509 |  |
| 45 to 54 years of age | 21,269 | $14.4 \%$ | 23,643 | $14.6 \%$ | 11,579 | 12,064 |  |
| 55 to 64 years of age | 13,574 | $9.2 \%$ | 20,269 | $12.5 \%$ | 9,879 | 10,390 |  |
| 65 to 74 years of age | 9,857 | $6.7 \%$ | 11,791 | $7.3 \%$ | 5,557 | 6,234 |  |
| 75 years of age and over | 7,635 | $5.2 \%$ | 10,207 | $6.3 \%$ | 4,086 | 6,121 |  |

Table 2: Population by Gender \& Age

## Social and Economic Characteristics

## Household and Family Characteristics

According to the 2010 U.S. Census, 161,573 people lived in 62,770 households across Greene County. Married couple families made up approximately $51.9 \%$ of households in Greene County. Conversely, single-parent families accounted for $14.5 \%$ of families in the county, totaling 9,123 families. For a complete breakdown of households by household type, refer to Table 3.

| Houscholds by Type | Count | $\%$ |
| :--- | :---: | :---: |
| Total households | $\mathbf{6 2 , 7 7 0}$ |  |
| Family households (families) | 41.696 | $66.4 \%$ |
| With own children under 18 years | 17,230 | $27.4 \%$ |
| Married-couple family | 32.573 | $51.9 \%$ |
| With own children under 18 years | 12,167 | $19.4 \%$ |
| Male householder, no wife present | 2,471 | $3.9 \%$ |
| With own children under 18 years | 1,225 | $2.0 \%$ |
| Female householder, no husband present | 6,652 | $10.6 \%$ |
| With own children under 18 years | 3,838 | $6.1 \%$ |
| Nonfamily households | 21,074 | $33.6 \%$ |
| Householder living alone | 16,603 | $26.5 \%$ |
| 65 years and over | 5,737 | $9.2 \%$ |
| Table 3: Households by Type, 2010 |  |  |

## Disabled Population

"Research on economic mobility indicates that socioeconomic status, mediated by disability severity, is a key predictor in determining access to health care for people with disabilities." ${ }^{3}$ People with disabilities represent a large and growing sector of the population that need health care services. Many people with disabilities do not seek out or obtain quality health care. Often,
health care facilities are not accessible or do not have the equipment needed to serve people with disabilities. Also, people are often embarrassed because their disability requires them to obtain additional assistance from the staff, requiring them to surrender some of their independence. Sometimes, staff may not know how to assist a person with a disability, causing frustration for both the patient and the staff member. As a result, some people with disabilities only pursue medical attention for emergency or acute conditions, making primary and preventive health care services low priorities.

According the American Community Survey, approximately 18,375 individuals or $11.4 \%$ of the Greene County population was estimated to have at least one disability in 2011. Approximately $9.5 \%$ of the population between the ages of 18 and 64 years of age were disabled. As age increases, so does the percentage of individuals reporting disabilities. Refer to the table below. Seniors (adults 65 years and older) reported the highest rate of disability with $33 \%$ reporting one or more disabilities.

| Under 5 |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Disability by Age | years | 5 to 17 years | 18 to 34 <br> years | 35 to 64 <br> years | 65 to 74 <br> years | 75 years <br> and over |
| With a disability | 206 | 1,450 | 2,709 | 6,997 | 2,449 | 4,564 |
| Percent With a <br> disability | $2.3 \%$ | $5.6 \%$ | $6.6 \%$ | $11.5 \%$ | $20.9 \%$ | $47.8 \%$ |
| No disability | 8,610 | 24,522 | 38,220 | 53,793 | 9,273 | 4,989 |
| Percent No disability | $97.7 \%$ | $94.4 \%$ | $93.4 \%$ | $88.5 \%$ | $79.1 \%$ | $52.2 \%$ |
| Total | $\mathbf{8 , 8 1 6}$ | $\mathbf{2 5 , 9 7 2}$ | $\mathbf{4 0 , 9 2 9}$ | $\mathbf{6 0 , 7 9 0}$ | $\mathbf{1 1 , 7 2 2}$ | $\mathbf{9 , 5 5 3}$ |

Table 4: Disabled Population, $2010{ }^{4}$

## Special Needs Individuals

In 2011, 2,897 (1.9\%) Greene County residents reported self-care limitations and 9,009 (6.0\%) reported ambulatory limitations. One of every two residents reporting self-care or ambulatory limitations were over the age of 65 .


Figure 3: Population with Self-Care or Mobility Limitations by Age Cohort, 2011

## Language and Language Isolation

According to the U.S. Census, the concept of "linguistic isolation" was developed in preparation for the 1990 census in order to provide estimates of the numbers and characteristics of households, which might need assistance to communicate with government and social services. As such, linguistic isolation may also serve as a barrier to receipt of medical and social services. In 1998, the Department of Health and Human Services proposed a revision of its rules for designating medically underserved populations and health professional shortage areas to incorporate linguistic isolation as one of several barriers to access to medical care. ${ }^{5}$

In Greene County, $93.9 \%$ of households speak English only. Just over six percent of the population (6.1\%) speak a foreign language at home and $1.5 \%(2,217)$ of Greene County residents are linguistically isolated or have very limited English language proficiency or do not speak English at all. An entire household's inability to communicate in English can be even more of a barrier than an individual's inability. For example, in case of a national or local emergency, such households could not receive an emergency communication in English.

## Education

Ninety-two percent of the county's residents 25 years of age and older have graduated from high school (higher than state average $-87.8 \%$ ) and $34.8 \%$ are estimated as having bachelor's degrees and/or graduate/professional degrees, which is over $10 \%$ higher than the $24.5 \%$ state average. There are several opportunities for higher education within Greene County.

| Educational Attainment | Count | Percent |
| :--- | ---: | ---: |
| Population 25 years and over | $\mathbf{1 0 2 , 5 8 4}$ |  |
| Less than 9th grade | 2,462 | $2.40 \%$ |
| 9th to 12th grade, no diploma | 5,523 | $5.40 \%$ |
| High school graduate (includes equivalency) | 28,356 | $27.60 \%$ |
| Some college, no degree | 21,332 | $20.80 \%$ |
| Associate's degree | 9,281 | $9.00 \%$ |
| Bachelor's degree | 18,937 | $18.50 \%$ |
| Graduate or professional degree | 16,693 | $16.30 \%$ |

Table 5: Educational Attainment, 2011 ${ }^{6}$

## Income Inequality

The median household income in 2010 was $\$ 57,553$, which is higher than the median income for both the state and nation, which was $\$ 48,071$ and $\$ 52,762$ respectively. Individual median earnings for the population vary greatly by level of educational attainment. For the population 25 years and over, the 2010 median earnings were $\$ 39,013$. Not surprisingly, as educational attainment levels increase, so does worker median income. Refer to the table below.

| 2010 Median Earnings for the Population 25 years and over |  |
| :--- | ---: |
| Population 25 years and over | $\$ 39,013$ |
| Less than high school graduate | $\$ 18,056$ |
| High school graduate (includes equivalency) | $\$ 27,806$ |
| Some college or associate's degree | $\$ 34,338$ |
| Bachelor's degree | $\$ 46,838$ |
| Graduate or professional degree | $\$ 72,452$ |

Table 6: 2010 Median Earnings for the Population 25 years and over

## Low Income and Poverty

Examination of 2011 American Community Survey data reveals that 24.1\% of all families in Greene County met guidelines to qualify for many Federal Low-Income Assistance Programs (i.e., food and nutrition assistance programs, home energy assistance programs, and low-income Medicaid coverage, etc.). Income eligibility to qualify for these program benefits or entitlements is based around the $185 \%$ poverty rate.

In addition, $12.7 \%$ of the families and $12.8 \%$ of the population in Greene County lived below the poverty level in 2010. For the purposes of the rest of the discussion, low-income population will be identified as people living below the level of poverty in 2010. According to the 2011 American Community Survey, approximately 19,472 households lived below the poverty level in Greene County. Individuals living below the poverty level are also disproportionate when comparing racial or ethnic background. Just over eleven percent (11.1\%) of white or Caucasian residents live below the poverty level, while $32.8 \%$ of African American residents and $17.8 \%$ of Hispanic residents live below the poverty level. In addition, $21.6 \%$ of individuals living with one or more reported disabilities also live in poverty compared to $16.9 \%$ of individuals with no disability.

| Poverty Level | With a disability |  | No disability |  |
| :--- | ---: | ---: | ---: | ---: |
| Under .50 | 1,874 | $10.5 \%$ | 12,091 | $9.0 \%$ |
| .50 to .99 | 1,986 | $11.1 \%$ | 10,588 | $7.9 \%$ |
| 1.00 to1.49 | 1,455 | $8.1 \%$ | 10,357 | $7.7 \%$ |
| 1.50 to 1.99 | 1,670 | $9.3 \%$ | 8,106 | $6.0 \%$ |
| 2.00 and over | 10,924 | $61.0 \%$ | 93,266 | $69.4 \%$ |

Table 7: Disability Status by Poverty Level, 2011

## Housing

According to the U.S. Census, there were 68,241 housing units in the county in 2010. Greene County's occupied housing stock is over two-thirds with 42,520 (67.7\%) of the units reported as owner-occupied and 20,250 or $(32.3 \%)$ of the units renter-occupied. The remaining units $(5,471)$ in the county were vacant at the time of the 2010 Census.

As mentioned previously, approximately $68 \%$ of the units in the county were owner-occupied in 2010. In Greene County, $72.6 \%$ of owner-occupied units also have a mortgage. A commonly accepted standard for affordability is that a household's monthly housing costs should not exceed $30 \%$ of its monthly net household income and $25.9 \%$ of homeowners pay more than $30 \%$ of their income in payments on their residence, according to the 2009-2011 American Community Survey.

| Home owners and selected monthly owner costs <br> as a percentage of household income in 2010 | Number | $\%$ |
| :--- | :---: | :---: |
| With a mortgage | $\mathbf{3 0 , 7 1 2}$ | $\mathbf{7 1 . 9 \%}$ |
| Less than 20 percent | 12,752 | $41.5 \%$ |
| 20 to 24 percent | 5,940 | $19.3 \%$ |
| 25 to 29 percent | 4,043 | $13.2 \%$ |
| 30 to 34 percent | 2,624 | $8.5 \%$ |
| 35 percent or more | 5,353 | $17.4 \%$ |
| Median (dollars) |  | $\$ 1,432$ |

Table 8: Homeowners and Selected Monthly Owner Costs as a Percentage of Household Income in 2010

## Renter Occupied Units

In 2010 , 20,250 , or $32.3 \%$, of the units in the county were renter-occupied. For renters, the percentage of income dedicated to rent is much greater than it is for homeowners. In 2010, over half of all renters paid more than $30 \%$ of their income for rent, $26.9 \%$ greater than homeowners. For a complete breakdown of renters and the percentage of their household income dedicated to rent, see the Table 9.

| Renters and selected monthly owner <br> costs as a percentage of houschold income <br> in 2010 |  |  |
| :--- | :---: | :---: |
| Total renters | $\mathbf{N u m b e r}$ | $\%$ |
| Less than 20 percent | 2,157 | $11.7 \%$ |
| 20 to 24 percent | 2,457 | $13.4 \%$ |
| 25 to 29 percent | 2,118 | $11.5 \%$ |
| 30 to 34 percent | 1,935 | $10.5 \%$ |
| 35 percent or more | 1,325 | $7.2 \%$ |
| Median (dollars) |  | $\$ 813$ |

Table 9: Renters and Selected Monthly Renter Costs as a Percentage of Household Income in 2010

## Employment

According to the U.S. Census, 81,662 individuals were eligible for employment in Greene County in 2011 and $4.7 \%$ were unemployed.

## Transportation

According to the 2011 American Community Survey, 75,501 residents reported that they were employed. Nearly thirteen percent ( $12.8 \%$ ) of employed residents are working poor or earned incomes, which fell below the official poverty level in 2011. Low-income residents are more likely to require public transportation than middle- or high- income residents, meaning 9,500 low-income residents may need public transportation and have a problem connecting to employment centers in surrounding jurisdictions.

In Greene County, public transportation needs are met through the Greene CATS Public Transit System. The system is a demand-response system and is open to the general Greene County public to and from any destination in Greene County. Limited service is available to Clark and Montgomery Counties. Reservations must be made no less than one business day in advance to request regular curb-to-curb or disability door-to-door service assistance.

Looking to the future, Greene County's population is expected to grow 3.1\% from 2011 to 2025 creating an increasing need for public transportation, according to poverty projections developed for the Miami Valley Coordinated Public Transit - Human Services Transportation Plan in 2007. Fairborn and Xenia will continue to exhibit higher levels of poverty than other Greene County communities, thus requiring a higher level of service. The population in Greene County will also be aging in place and needing accessible and convenient modes of transportation to and from senior centers, shopping, medical services, and other necessities.

## Existing Community Assets

In considering existing community resources that can be mobilized to address health issues it is important to think of all the skills, potential and functions of individuals, local institutions, organizations, infrastructure and physical resources that exist within the community. Community representatives felt Greene County has an educated population with talented human capital. Community members also felt there is a strong sense of helping others and giving to charitable causes.

Community partnerships are important in Greene County. Previous planning cycles have allowed successful partnerships to accomplish a community guide for recreation and fitness, improve immunization rates and respond to disease outbreaks. The matrix of partners is listed in the following figure.

The local Parks and Recreation agency has worked to develop a community guide to activities throughout the county and promote healthy lifestyles. The Xenia YMCA has partnered with the Healthy Lifestyle Task Force to sponsor a 5K Walk/Run each year. Local farmers markets exist in Bellbrook and Xenia. Local research conducted by the health district has demonstrated partnerships and workshops have improved health outcomes therefore the health district
convenes members of the community to respond to health challenges.


The Greene County Combined Health District provides prenatal, reproductive and child and adolescent services to uninsured and underinsured women, children and infants in Greene County. The health district continues to be the only provider in Greene County that accepts prenatal clients who are uninsured, allowing $73 \%$ of women to enter prenatal care in the first trimester. Physicians surveyed in 2009 demonstrated that none would accept an uninsured prenatal client. The populations served are disproportionately affected by poor health outcomes, especially those living in Xenia and Fairborn. Greene County Linkages work to coordinate services to these populations who are at risk for poor health outcomes.

According to Greene County Job and Family Services, 14,000 people are receiving food assistance and cash assistance has increased by $52 \%$ since 2007 . There are 2,402 women and children receiving WIC services. In 2012, 1,320 clients were seen in the health district's dental clinic and $42 \%$ of those clients were uninsured. One hundred and twenty three (123) women received services for prenatal care, 484 clients received reproductive health screening, over one thousand referrals were made to health district social services, 187 children received comprehensive well child care, and 548 children received BCMH home visits.

## Factors that Contribute to Health Challenges

Community partners felt there were challenges to overcome in the future. The population is aging in place and has groups that may be marginalized from the main stream due to a language barrier, social isolation, or the presence of a disability. Affordable housing challenges the poorest in the community to have a safe place to raise a family. Health disparities exist because of poverty, unemployment, lack of insurance, lack of transportation and health literacy. Only 8 physicians accept Medicaid. Some individuals and families in the community may not hold a high value on preventive health care despite having access.

Intimate Partner Violence increased 132\% from 2008-2009 causing shelter days to increase from 3265 days to 7,582 according to the Family Violence Prevention Report, 2010. Social determinants of health like poverty, unequal access to care, lack of education, stigma, and discrimination are linked to poor health outcomes.

## Public Health Survey

The 2012 Greene County Health Assessment is the fifth in a series of assessments conducted over the past thirteen years to evaluate the health status of residents, establish public health priorities, and measure public health program outcomes. The assessments, first conducted in 1995 and then repeated in 1999, 2004, 2008, and 2012, were based on the Behavioral Risk Factor Surveillance System (BRFSS) survey conducted by the Centers for Disease Control and Prevention (CDC). The assessment addressed access to and utilization of health care, the prevalence of certain diseases, lifestyle choices, early detection and immunizations, attitudes and behaviors toward health and prevention, and some broader community concerns.

## Objectives

The overall goal of the needs assessment was to perform a community health assessment that would lead to improved quality of public and private health services. Additionally, the health assessment can be used for a variety of purposes such as the following:

- To assess the distribution of disease and behavioral risk factors.
- To assess broad community health issues and to shape a broader definition of community health.
- To monitor the impact of community health action plans and trends in behavioral risk modifications. The community health assessment will be conducted approximately every four to five years to determine if actions taken by communities are impacting the behaviors that lead to poor health.
- To provide a vehicle to discuss ways to improve community health. The study can assist stakeholders working collaboratively in the community to address issues that affect health.


## Methodology

## Questionnaire Design

The assessment has been based on a telephone survey of residents living in Greene County. As stated previously, the survey was adapted from the BRFSS, which was developed by the CDC. The BRFSS has been conducted annually by each state to assess health behaviors in the nation. The questionnaire was similar to one used in 1995, 1999, 2004 and 2008, to allow for comparisons across years. However, in 2008 and again in 2012, the survey instrument was revised based on current trends and programs being assessed through the Greene County Combined Health District, amending some longitudinal questions (per new CDC protocol) and addressing new topics.

## Survey Implementation

Interviews were conducted from August $10^{\text {th }}$ through the end of September 2012. Interviewers utilized a Computer Aided Telephone Interviewing (CATI) software program that displays the questionnaire on a computer screen and allows the interviewer to enter the response directly into the computer. Such a system helps to minimize errors in gathering the data. A total of 975
individuals were interviewed to obtain a $95 \%$ confidence level and a plus or minus $3.1 \%$ sampling error for the county as a whole.

## Data Analysis

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

Since data was available for five time periods (1995, 1999, 2004, 2008, and 2012), statistical analyses were used to evaluate changes in health behaviors across time. In most cases, the chisquare test was used to measure statistically significant differences between the time periods. 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 for the differences in the time periods. If no significant difference exists, the data for previous years will not be reported, unless it is used to highlight another point (e.g., the data has remained constant over time). Often, data that is not statistically significantly different may still have substantive differences.

The data from Greene County was compared to state and national data for key questions. The most recent state and national data was used, depending upon how recently specific questions were asked. In addition, it should be noted that the national estimates represent the median of the states and not the average (or mean) of the states' data.

To measure the statistical differences between the county and the state and nation the binomial test was used. It should be noted that the CDC has changed their measurement protocols since 2002, therefore some longitudinal state and national data is no longer available. Separate appendices have been created to show (1) changes in longitudinal data in Greene County since 1995, and (2) how Greene County compared to the state and nation on the new CDC variables.

## Limitations

The assessment had several limitations. As with every telephone survey, the primary limitation was that it excluded households without telephones. It is estimated that about twelve 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. This suggests that telephone studies may not address the special needs of people without telephones.

A second limitation of the study was that it was based on self-reported information, which may reflect respondents' likelihood of reporting or not reporting a particular behavior. However, since the same questionnaire was conducted in 1995, 1999, 2004, 2008, and 2012, the same bias would apply. For example, in 2004, respondents may have been less likely to report that they participated in an activity such as drinking and driving, but in 2012, respondents would still be
less likely to report that they participated in such an activity. Therefore, the differences between the two time periods can still be measured.

## Sample Demographics

The following presents the demographic profiles of survey respondents. The proportions for age, race, and gender were identical to the actual proportions as indicated in the 2010 U.S. Census. The data was weighted by age, race and gender to equal the actual proportion.

| Age | US Census <br> Estimate | Weighted <br> Sample <br> Proportion |
| :--- | :---: | :---: |
| $18-24$ | $18.2 \%$ | $18.2 \%$ |
| $25-34$ | $15.1 \%$ | $15.1 \%$ |
| $35-44$ | $14.6 \%$ | $14.6 \%$ |
| $45-54$ | $18.7 \%$ | $18.7 \%$ |
| $55-64$ | $16.0 \%$ | $16.0 \%$ |
| 65 or older | $17.4 \%$ | $17.4 \%$ |

Table 10: Sample Demographics
Most of the survey respondents indicated their racial affiliation as "white," which reflects the 2010 U.S. Census demographics. Of respondents to the survey only $4.4 \%$ were Black/African American, demonstrating this group was underrepresented. Respondents were asked if they were Hispanic or Latino. Less than three percent of respondents ( $2.5 \%$ ) indicated that they are Hispanic or Latino. The weighted sample contains a slightly higher percentage of females (51.7\%) than males (48.3\%).

In order to present analysis by community, a minimum of 132 surveys were completed from each of eight Greene County communities. These included Beavercreek/Beavercreek Township (15.6\%), Bellbrook/Sugarcreek Township/Spring Valley/Spring Valley Township (13.8\%), Xenia/Xenia Township (15\%), Fairborn/Bath Township (13.5\%), Yellow Springs/Miami Township (13.9\%), Cedarville/Cedarville and Ross Townships (14.1\%), and Jamestown and the remaining rural townships (14.1\%). Please note that surrounding townships and smaller villages were combined with the largest nearest city (i.e. Sugarcreek Township combined with Bellbrook).

Other demographic indicators include annual household income, employment and education level. Figure 4, charts the income distribution of survey respondents. Forty percent of survey respondents had an annual household income over $\$ 75,000$.

## Income Distribution of Respondents



Figure 4: Survey Respondents - Income Level
As illustrated in Figure 5, over half of respondents are married (52.4\%), while 30.8\% have never been married or are part of an unmarried couple. The remaining $16.8 \%$ of the respondents to the survey were divorced, widowed, or separated.


Figure 5: Survey Respondents - Marital Status
The greatest proportion of survey respondents had some college or associate's degree (34.8\%). More than one-quarter of respondents $(26.7 \%)$ have a high school diploma, while another $30.2 \%$ have a bachelor's degree or higher.

## Education



Figure 6: Survey Respondents - Education Attainment
Nearly half of respondents (45.4\%) are employed for wages, while $19.6 \%$ are retired. The employment status of the remaining respondents can be seen in the Figure 7.

## Employment Status:



Figure 7: Survey Respondent - Employment Status

## Results

## General Health

Before any survey questions were presented, respondents were asked to rate their general health as excellent, very good, good, fair, or poor. Almost one-fifth of respondents ( $18.5 \%$ ) reported that their health was excellent, while $33.8 \%$ reported very good, $33.5 \%$ reported good, $9.8 \%$ reported fair, and $4.4 \%$ reported that their health was poor.

## General health status:



Figure 8: General Health Status
Over the past thirteen years, the percentage of residents who say they have good, very good or excellent health has remained fairly consistent, as shown in the Figure 9. The percentage of Greene County residents rating their health as excellent, very good or good (85.8\%) is similar to the state ( $83.9 \%$ ) and the nation ( $85.3 \%$ ).

General health status:


Figure 9: General Health Status, 1995-2012
Analysis comparing Greene County communities shows differences. Respondents in Fairborn/Bath Township were more likely than any other community to identify their health as fair or poor, while respondents in Beavercreek and Bellbrook/Sugarcreek/Spring Valley were much more optimistic about their health.


Figure 10: General Health by Jurisdiction
Despite these assertions, $39.1 \%$ of residents said that, in the past month, they had days with poor physical health. This is a statistically significant decrease from 2004, when $42.8 \%$ of respondents reported days with poor physical health.

Days with poor physical health:


Figure 11: Days with Poor Physical Health
Fewer residents report having days with poor mental health in the past month (30.7\%). This was a marked increase from 2008 when $23.9 \%$ of respondents reported days with poor mental health, but similar to previous iterations of the survey.

Poor mental health:


Figure 12: Poor Mental Health
When asked if poor physical or mental health kept them from doing any activities, such as selfcare, work, or recreation; $23.6 \%$ of all respondents indicated they had at least one day in the past month in which they had limitations. The 2012 data was similar to data from the state ( $21.8 \%$ ) and the nation ( $21.2 \%$ ). The graph in Figure 13 shows how this data has trended over time.

Days when physical or mental health limited usual activities


Figure 13: Days When Physical or Mental Health Limited Usual Activities
Finally, respondents were asked if they were limited in any activities because of physical, mental or emotional problems. More than one in five respondents ( $22.7 \%$ ) indicated that they do have such limitations. Almost twelve percent of respondents (11.5\%) indicated that they have a health problem that requires them to use special equipment, such as a cane, wheelchair, special bed or special telephone.

## Access to Health Care

During tough economic times, the percentage of residents who are uninsured or underinsured can grow, particularly in areas hit hard by unemployment. Eleven point nine percent (11.9\%) of survey respondents said they had no health care coverage, nearly a 4\% increase from 1995
$(8.1 \%)$. This percentage is similar to the state ( $12.8 \%$ ) yet significantly lower than the national
percentage (15.0\%). The American Community Survey reports Greene County has among the lowest percentage of persons who are uninsured in the state - $8.8 \%$. Over three-quarters of the insured population carry private health insurance. However, 12,365 residents ( $12.2 \%$ ) between the ages of 18 and 64 have no medical insurance. Health insurance coverage, like poverty, is also disproportionate by race and ethnicity. Caucasians fare better than African Americans or the Hispanic population $-8.2 \%$ of white residents are uninsured while $11.1 \%$ of African Americans and $21.6 \%$ of Hispanics are uninsured.

## No Health Care Coverage



Figure 14: Respondents with No Health Care Coverage
Some residents with health insurance might be underinsured, since a higher percentage of respondents ( $13.9 \%$ ) said that during the past year they were prevented from seeing a doctor because of the cost. This represents a slight increase from 2008, when $10.6 \%$ of respondents indicated that they did not go to the doctor because of cost.

More than three-quarters of respondents (76.1\%) indicated that they have visited the doctor for a routine check-up in the past year. This was a significant increase from 2004, when $68.8 \%$ of respondents had a check-up in the past year preceding the survey.


Figure 15: Length of Time Since Respondent Last Visited a Doctor for a Routine Checkup
Most residents ( $76.1 \%$ ) say they have one person who is a primary care physician or health care provider and $19 \%$ said they did not have someone they think of as such. The remaining respondents said they had more than one person they consider as their personal health care provider. Not having a primary care physician can be an issue in terms of continuity of care. Most residents (89.5\%) also said they use a doctor's office or Health Maintenance Organization (HMO) as their source of primary care, a 7\% decrease from the 2008 assessment ( $82.5 \%$ ).

Do you have one person you think of as your personal health care provider?


Figure 16: Personal Health Care Providers
Respondents were asked if they have ever visited an urgent care facility or an emergency room for medical care because they did not have a primary care physician. Almost one-fifth of respondents $(17.3 \%)$ indicated that they have visited an urgent care facility, while $16.4 \%$ of respondents indicated that they have visited an emergency room.

Finally, two questions were asked about availability of transportation to health care services. Three-quarters of respondents ( $75.1 \%$ ) indicated that they primarily receive their health care
services in Greene County, and almost all respondents (94.8\%) indicated that they have transportation to health care services.

## Prevalence of Disease

This section discusses the prevalence of some diseases in Greene County, including cardiovascular diseases, asthma, arthritis, and cancer. It also provides some details on attitudes, behaviors, and actions toward disease, 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. One in five Greene County adults (20.3\%) have been diagnosed with asthma, and $12.6 \%$ say they still have asthma.

Almost eight percent of respondents (7.9\%) indicated that they have had an episode of asthma or an asthma attack in the past 12 months. More than one-third of those with asthma (7.4\%) have visited a doctor or other health professional due to worsening asthma symptoms and $1 \%$ of those with asthma visited the emergency room or urgent care due to asthma. Indoor air quality services are provided to Greene County residents through the Regional Air Pollution Control Agency housed within Public Health Dayton and Montgomery County.

Asthma issues (out of total respondents):


Figure 17: Asthma Prevalence

## Cancer

As of 2010, Greene County's death rate from all forms of cancer is less than the state rate. (167.7 per 100,000 versus 183.1 per 100,000 population). Skin cancer is the most common form of cancer in the United States, primarily caused by exposure to the sun's ultraviolet (UV) rays or UV rays from artificial sources of light, such as tanning beds and sunlamps. When used consistently, preventative measures can be taken to reduce the risk of skin cancer including staying in the shade, wearing sunscreen or sunblock, or wearing protective clothing such as hats
or long sleeves. According to the CDC, both tanning and burning can increase a person's risk for skin cancer.

More than one-fourth (27.2\%) of adults in Greene County say they have had a red or painful sunburn that lasted a day or more at least once in the past 12 months, and $12.5 \%$ have had sunburns multiple times.

## Cardiovascular Diseases

## Coronary Heart Disease and Heart Attack

Every year, one out of every four deaths, approximately 600,000 people, are due to heart disease in the United States. Coronary heart disease is the most common type of heart disease, killing more than 385,000 people annually. ${ }^{7}$ Almost $6 \%$ of respondents said they had had a heart attack and $7.6 \%$ have been diagnosed with angina or coronary heart disease. The death rate for heart disease ( 171.1 per 100,000 in 2010) has declined $25 \%$ over the past decade but remains the leading cause of death for Greene County residents. Ohio's death rate is 191.1 per 100,000 in 2010. There are big differences in the rates of heart disease and stroke between different racial groups. According to the U.S. Department of Health and Human Services, African American men were $30 \%$ more likely to die from heart disease than non-Hispanic white males.

## Stroke

A stroke occurs when a blood clot blocks a blood vessel or artery, or when a blood vessel breaks, interrupting blood flow to an area of the brain. When a stroke occurs, it kills brain cells in the immediate area within minutes to a few hours after the stroke starts. This can then lead to a cascade of other brain cell death. The physical impact of a stroke depends on the number and type of brain cells that die, but can include speech, movement, and memory. A small stroke may produce only weakness of an arm or leg, while a large stroke may cause paralysis on one side or an inability to speak. Recovery can vary, depending upon the severity of the stroke. A stroke can also be termed a "brain attack," similar to a heart attack in that action can be taken to prevent damage and death. About four percent of respondents ( $3.8 \%$ ) have had a stroke. In Ohio, heart disease and stroke are addressed together by developing interventions to support healthy lifestyles such as increasing physical activity and improving nutrition, reducing risk factors such as tobacco use and modifying public policies such as retail pharmacy stores ceasing to sell tobacco products.

## 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 types of diabetes (although others do exist), Type 1 and Type 2. Only about five $-10 \%$ 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.

Type 2 diabetes, the most common form, develops most often in middle aged and older people who are also overweight or obese. Scientists think genetic susceptibility and environmental
factors are the most likely triggers of type 2 diabetes. Physical Inactivity and obesity are strongly associated with the development of type 2 diabetes. An imbalance between caloric intake and physical activity can lead to obesity which causes insulin resistance.

Having diabetes dramatically increases the risk of heart attack and stroke, and $65 \%$ of deaths in diabetes patients are attributed to heart and vascular diseases (American Diabetes Association). More than $60 \%$ of Greene County residents ( $63.8 \%$ ) have been tested for diabetes in the past three years.

The incidence of diabetes in Greene County is rising significantly over time, from $5.1 \%$ in 1995 to $9 \%$ in both 2008 and 2012. The rates are about the same as the State of Ohio ( $10.1 \%$ ) and the nation ( $8.7 \%$ ). Another $10.9 \%$ of respondents have been told by a doctor that they have prediabetes or borderline diabetes.

## Has a doctor ever told you that you have diabetes?



Figure 18: Diabetes Prevalence

## Injury

Two-year trend data for Greene County Emergency Room (ER) admissions indicates that injuries may be on the rise - from 2011 to 2012, injuries increased by $37.25 \%{ }^{8}$ Injury includes many conditions, which cause physical damage to the body occurring in diverse circumstances and involving a wide range of external causal factors.

The following table shows the rate of incidence for all injuries. The mechanism for injury was not reported in $77.3 \%$ of all Emergency Room registrations. Motor vehicle accident (MVA) injury rates accounts for $10.5 \%$ of all injuries during 2012. MVA registrations among females ages 20-29 experienced the most dramatic increase of all injury registrations - 59.0\% over the two-year period, while MVA registrations for males ages 20-29 increased 24\%. ER registrations for drug-induced injuries accounted for $4.5 \%$ of all cases.

Twenty-six point 2 percent ( $26.2 \%$ ) of all injuries related to drug use were registered to 20-29 year-olds, and females in this age cohort accounted for $57.8 \%$ of registrations and increased by $15.1 \%$ over the two-year period.

Overall, gunshot rates had the most dramatic change, doubling over the two-year period.
Gunshot ER registrations had the biggest difference in rates by gender. Injuries involving male ER registrants accounted for $83.3 \%$ of all gunshot ER registrations during the two-year period. The most frequently reported age category for Gunshot ER registrations were 20-29 year old males.

For a complete breakdown by ER registration type, refer to the table below.

| Injury Classification | 2011 | 2012 | 2-year Total |
| :--- | :---: | :---: | :---: |
| Drugs | 349 | 406 | 755 |
| Drugs, Motor Vehicle Accident (MVA) |  | Suppressed |  |
| Gunshot | 7 | 14 | 21 |
| Gunshot, Injury | 5,500 | 7,871 | 13,371 |
| Injury |  | Suppressed |  |
| Injury, Drugs | 92 | 102 | 194 |
| Injury, MVA | 12 | 13 | 25 |
| Injury, Suture/Wound Check | 59 | 68 | 127 |
| Injury, Violence |  | Suppressed |  |
| Injury, Violence, Drugs | 697 | 928 | 1,625 |
| Injury, Violence, MVA | 346 | 362 | 708 |
| Motor Vehicle Accident (MVA) | 223 | 236 | 459 |
| Suture/Wound Check |  | Suppressed |  |
| Violence |  | Suppressed |  |
| Violence, Drugs | $\mathbf{7 , 2 9 1}$ | $\mathbf{1 0 , 0 0 7}$ | $\mathbf{1 7 , 2 9 8}$ |
| Violence, MVA |  |  |  |
| Grand Total |  |  |  |

Table 11: Injury Classifications for ER registrations for 2011 and 1012

## 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 the 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 Greene County residents.

## Physical Activity

Exercise is an essential part of a well-balanced lifestyle and increasing attention has been placed on the link between exercise and disease prevention. To receive the most benefit from exercise, the CDC recommends that adults exercise moderately for at least 30 minutes a day and at least five days per week. Nearly three-fourths of respondents (74.6\%) indicated participating in
physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise. Almost all of these respondents ( $92.8 \%$ ) indicated taking part in this activity for at least 20 minutes when they did exercise.

The percentage of Greene County adults who participate in physical activity has remained relatively stable since 2004, ranging from $75.4 \%$ in 2004 to $74.6 \%$ in 2012.
Nearly three-fourths of respondents ( $74.6 \%$ ) indicated participating in physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise.

> Percentage of Greene County adults participating in any physical activity


Figure 19: Percentage of Adults Participating in Any Physical Activity

## Weight Control

The National Institutes of Health (NIH) define obesity and overweight using a Body Mass Index (BMI), which is a calculation of a person's weight in kilograms divided by the square of their height in meters. An overweight adult is defined as one with a BMI between 25 and 29.9, while an obese adult has a BMI of 30 or higher. Over two-thirds of Greene County adults were overweight ( $35.7 \%$ ) or obese ( $34.6 \%$ ), a significant increase from 2004, when $54.1 \%$ were overweight or obese. Increased weight, high blood pressure and high cholesterol have increased significantly over the past 9 years with Fairborn and Xenia most at risk for developing these conditions. Child and Family Health Services data available from the health district indicates $27.2 \%$ of children between 2 to 5 years of age are overweight.

2012 BMI classifications:


Figure 20: BMI Classification

2004-2012 BMI classifications:


Figure 21: BMI Classification, 2004-2012
Respondents in Bellbrook and Jamestown were less likely than respondents in other communities to be overweight or obese. Figure 22 details differences by community.


Figure 22: Respondents Reporting Overweight or Obesity Status by Jurisdiction

## Tobacco Use

According to the Journal of the American Medical Association, tobacco use is the leading cause of preventable death in the United States. Forty-two percent (41.9\%) of adults in Greene County have been a smoker (defined as smoking at least 100 cigarettes), and $19.5 \%$ currently smoke every day or some days. The percentage of current smokers has dropped since 1999 (22.9\%), but rose almost three percent since 2008. While this percentage was significantly lower than the state ( $22.5 \%$ ) it was however, significantly higher than the nation (17.3\%).

## Current smokers



Figure 23: Current Smokers
Six of 10 current smokers (60.9\%) had been advised by their doctor to quit smoking in the past year. Of these respondents, $36.5 \%$ reported being prescribed or recommended a patch, nicotine
gum, nasal spray, an inhaler, or pills such as Zyban; $45.8 \%$ reported having a doctor suggest they set a specific date to stop smoking; $23.4 \%$ reported having a doctor suggest smoking cessation class, program, quit line, or counseling; and $42.7 \%$ reported being provided with booklets, videos, or other materials to help them quit smoking.

Assistance with quitting smoking


Figure 24: Assistance with Smoking
Of those who were current smokers, $16.4 \%$ reported that workplace non-smoking policies led them to attempt to quit smoking and $19.8 \%$ reported that in the past 12 months an employer had offered stop-smoking programs or other help to employees who wanted to quit smoking. Of those who were current smokers and employed, $55.6 \%$ believed their company or employer should offer stop-smoking programs to help employees who want to quit smoking.

Of those who were current smokers, more than half (54.9\%) had stopped smoking for one day or longer because they were trying to quit smoking within the past year.

All respondents were asked if they currently use chewing tobacco, snuff, or snus every day, some days, or not at all. Less than three percent ( $2.5 \%$ ) indicated that they had used chewing tobacco, snuff, or snus every day or some days.

## Alcohol Consumption

While recent research has shown moderate alcohol consumption to be beneficial to health, excessive alcohol consumption has the opposite effect. Almost half ( $45.8 \%$ ) of adults in Greene County have had at least one drink of an alcoholic beverage in the past month. On average these respondents consumed alcohol ten times during the month with about three drinks each time. Excessive drinking can take three forms: chronic drinking, heavy drinking or binge drinking. One-fifth (20.4\%) of Greene County adults who drink were binge drinkers, consuming five or more drinks on any one occasion. The percentage of binge drinkers has decreased significantly from 2004 (31.5\%) and 2008 (25.3\%).

Less than one percent of Greene County adults who have consumed alcohol (0.1\%) report driving after having too much to drink. This figure is significantly lower than in previous surveys as illustrated in the table below.

Those who have driven after having too much to drink (of those who have drank)


Figure 25: Respondents Who Have Driven after Having Too Much to Drink

## Preventive Screenings

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 will be prevented, and so early detection through screenings and regular check-ups is also vital to health and longevity.

## Early Detection for Breast Cancer

The biggest risk for breast cancer is simply being a woman, 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. Looking at women of all ages, eight out of 10 ( $80.6 \%$ ) have had a clinical breast exam, and of these women, $62.1 \%$ have had one within the past year. This continues a decline in women who have had a clinical breast exam since 2004.

2004-2012 Women who have had a clinical breast exam


Figure 26: Women Who Have Had a Clinical Breast Exam, 2004-2012
The ACS also 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. Sixty-four percent (63.7\%) of all women have had a mammogram, a decrease from 73.9\%.

2004-2012 Women who have had a mammogram


Figure 27: Women Who Have Had a Mammogram, 2004-2012
In women ages 40 and over $89 \%$ have had a mammogram which is also a decrease from previous surveys with $94.4 \%$ in 2008 and $90.5 \%$ in 2004. Yet it was still an improvement over 1999 when $86.1 \%$ of women ages 40 and over had received a mammogram.

As Figure 28 shows, an analysis by community revealed that female respondents living in Yellow Springs, Beavercreek, and Cedarville were more likely than respondents living in other communities to have had a mammogram.


Figure 28: Percentage of Women Who Have Ever Had a Mammogram by Jurisdiction

## 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 Papanicolaou (Pap), which can detect lesions before they become cancer. Most physicians recommend an annual Pap test. The majority of women surveyed (89.9\%) have had a Pap test, and $48.2 \%$ of these women have had one within the past year. This is a significant decrease from 2008, when $63.0 \%$ of women reported having a Pap test within the past year.

2004-2012 Women who have had a pap test


Figure 29: Percentage of Women Who Have Had a Pap Test Within the Past Year

## Early Detection for Prostate Cancer

Men over age 55 are most at risk for prostate cancer. 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 50. Most men in Greene County are following this advice. $51.7 \%$ of men ages 50 or older have had a PSA test, and $33.8 \%$ have had one within the past year. This is down from data reported in the 2008 Cancer Incidence Surveillance System profiles where $65.7 \%$ of men reported having a PSA test.

## 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 $90 \%$ 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. Looking only at those ages 50 and older, $39 \%$ have had an occult blood stool test. The percentage of respondents over the age of 50 reporting having had an occult blood stool test decreased significantly since 2004 (from $53.7 \%$ to $39 \%$ ) but is similar to 2008 data ( $41.1 \%$ ). According to the American College of Gastroenterology, colonoscopy remains the screening test of choice and should be offered to all average-risk adults aged 50 years or older. For African Americans, 45 is the recommended age for a colonoscopy. The use of colonoscopy may explain the decrease in the number of Greene County residents getting the FOBT.

1999-2012 Adults over 50 who have had a fecal occult blood stool test

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Figure 30: Percentage of Adults Over 50 Years of Age Who Have Had a Blood Stool Test
Just over two-thirds of respondents (68.2\%) have had a sigmoidoscopy or colonoscopy. The percentage of respondents reporting having had a sigmoidoscopy or colonoscopy has continued to increase since 1999.

1999-2012 Adults 50 and over who have had a sigmoidoscopy/colonoscopy


Figure 31: Percentage of Adults over 50 Years of Age Who Have Had a Sigmoidoscopy/Colonoscopy
Of those who have had a fecal occult blood stool test, $41.5 \%$ have had their blood stool test within the past two years. Of those who have had a sigmoidoscopy or colonoscopy, $39.4 \%$ have had the test within the past two years. There are no specific guidelines for how often individuals should be screened for colorectal cancer. The answer depends upon individual risk factors and should be discussed with the personal physician.

## 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.

More than three-fourths of Greene County adults (76.6\%) reported having visited a dentist or dental clinic in the past year. However, dental health might be an issue, since over forty percent $(47.7 \%)$ of adults have had at least one of their permanent teeth removed because of tooth decay or gum disease.

1999-2012 Adults who have visited the dentist in the past year


Figure 32: Percentage of Adults Who Have Visited the Dentist in the Past Year

## Immunizations

Influenza (flu) and pneumonia immunizations are important prevention measures, particularly for older adults. In addition, national guidelines recommend that adults over the age of 65 receive an annual influenza and a one-time pneumonia vaccination. Of adults ages 65 and older, $73.2 \%$ reported receiving a flu shot in the past 12 months. This data is similar to 2008 when $73.3 \%$ of adults 65 or older had received a flu shot. This was higher than the state (64.8\%) or the nation ( $67.5 \%$ ). While in 2004, $78.9 \%$ of adults ages 65 and older said they had been given the flu shot within the past 12 months.

In addition, $44.8 \%$ of all adults had a seasonal flu shot or nasal vaccine in the past year. This is an increase from $31.7 \%$ in $1995,36.8 \%$ in $1999,41.2 \%$ in 2004 , and $42.4 \%$ in 2008.

Adults 65+ who received a flu shot in the past year


[^0]Fewer adults ages 65 and older (70.0\%) and adults of all ages (34.8\%) said they have had the pneumonia vaccine within the past 12 months. The percentage of Greene County adults ages 65 and older receiving a pneumonia vaccination is slightly higher than the state $(68.5 \%)$ and the nation (68.8\%).

## Maternal Child Health

The 2012 survey added a tier of questions pertaining to children's programs in Greene County and children's health. More than one-third of respondents ( $34.2 \%$ ) indicated that they have children under the age of 18 living in their home.

## Greene County Programming

Respondents were asked a series of questions pertaining to their knowledge of Greene County programs for children. Fourteen percent of respondents with children (14.1\%) indicated that they were aware of a newborn home visiting program in Greene County.

Ten percent of Greene County parents (9.9\%) indicated that they have a special needs child, and four in 10 of those parents ( $41.2 \%$ ) were aware that there is a program in Greene County that will assist families with special needs children with insurance.

## Asthma

Of the adults with children, $24.5 \%$ said their children have been diagnosed with asthma, which was slightly higher than 2008 , when $22.8 \%$ of adults indicated that their child had been diagnosed with asthma. Most of the children who were diagnosed (91.3\%) still have asthma.

2004-2012 Children with asthma


Figure 34: Percentage of Children with asthma

## Birth Outcomes

In 2010, the total births for Greene County were 1,720 . The teen birth rate per 1,000 females age $15-17$ is $12.4 \% .7 .4 \%$ were low birth weight. The Greene County preterm birth rate is $11.2 \%$, but among African-American's it is $20.2 \%$. Preterm birth has been associated with lower socioeconomic status, dental caries and/or periodontal disease, poor nutrition, substance abuse
and late prenatal care. Smoking during pregnancy, mothers who lack a support system, or who are obese are a risk to a having a normal healthy baby.

## Vision and Eye Care

More than half of respondents (59.4\%) have had their eyes examined by an eye doctor in the past year, a significant decrease from 2008 when $69.2 \%$ had their eyes examined in the last year. Another $16.4 \%$ reported having their eyes examined within the past two years.

Most respondents who indicated that they have not had their eyes examined in the past year indicated that they had no reason to go ( $67.3 \%$ ) or that cost/insurance was a prohibitive factor (21.1\%).

Respondents were then asked if they have been diagnosed with a series of eye related ailments. Nearly seventeen percent of respondents ( $16.9 \%$ ) have been told by a doctor that they have vision problems in one or both eyes even when wearing glasses, while $2.0 \%$ of respondents have age related macular degeneration.

## HIV and AIDS

According to the Centers for Disease Control and Prevention (CDC), in the United States there are $800,000-900,000$ people with Human Immunodeficiency Virus (HIV) and 40,000 new people are infected every year. African Americans make up 54\% of all new infections and $64 \%$ of all new infections in women are African American.

Though the percentage of respondents who have had their blood tested for HIV has significantly decreased since 1995 when $45.7 \%$, of respondents reported having been tested for HIV to only $41.9 \%$ in 2012.

1995-2012 Adults who have been tested for HIV


Figure 35: Percentage of Adults Who Have Been Tested for HIV

Next, respondents were read a list of options and were asked if any of the options applied to them. (Respondents were not asked to identify which one). The options included:

- Used intravenous drugs
- Treated for Sexually Transmitted Infection or venereal disease
- Given or received money in exchange for sex
- Had anal sex without a condom

Four percent of respondents (4.3\%) indicated that one of these situations applied to them. All but one of these respondents had been tested for HIV.

## Conclusion

Greene County, OH ranked $14^{\text {th }}$ out of the 88 counties in overall health in 2013. Positive health outcomes are associated with higher socioeconomic status, lower crime rates and higher levels of education. Challenging social circumstances can inhibit an individual from making healthy lifestyle choices. In 2012, community leaders gathered to discuss current health status for Greene County residents in order to develop a Community Health Improvement Plan. This assessment is an integral part of continually assessing the community and planning interventions to impact health outcomes.

To access this report please go to our website www.ggcph.info or contact Laurie Fox at (937)374-5669.

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Agenda

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[^0]:    Figure 33: Percentage of Adults 65 Years of Age or Older Who Have Received a Flu Vaccine

