



**Comprehensive Summary to Partnership for Healthy Delaware  
County:  
Results of MAPP Research**

July, 2008

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# Preface

This report presents all results from the MAPP research process in one document. Because the summary report (completed in June, 2008) presents a synthesis of all research results, it is the main body of the comprehensive report. Each separate report, issued under separate cover, is presented in its entirety, as an attached Document. As such, each document retains its original cover page, table of contents (if applicable) page numbers and appendices.



**Summary Report to Partnership for Healthy Delaware County:  
Key Findings and Priorities of MAPP Research  
June, 2008**

Local health planning is too important to leave to chance or reactionary tactics. Recognizing this, the National Association of County and City Health Officials developed a comprehensive planning process to be used by local health departments to create short- and long-range strategic plans to continuously improve the health of the community. This planning process, called Mobilizing for Action through Planning and Partnership or MAPP:

- Is driven by the community and its needs;
- Identifies and prioritizes public health issues;
- Identifies resources for addressing these issues; and
- Uses a structured, comprehensive process tailored to each community’s needs and budget.

The Partnership for a Healthy Delaware County (PHDC), a community-wide collaboration involving the Delaware General Health District (DGHD) and many other partners, designed and implemented a variation of the MAPP process. As implemented in Delaware County, the MAPP process had five primary data collection steps shown in Table 1.

**Table 1: MAPP Primary Data-Collection Steps**

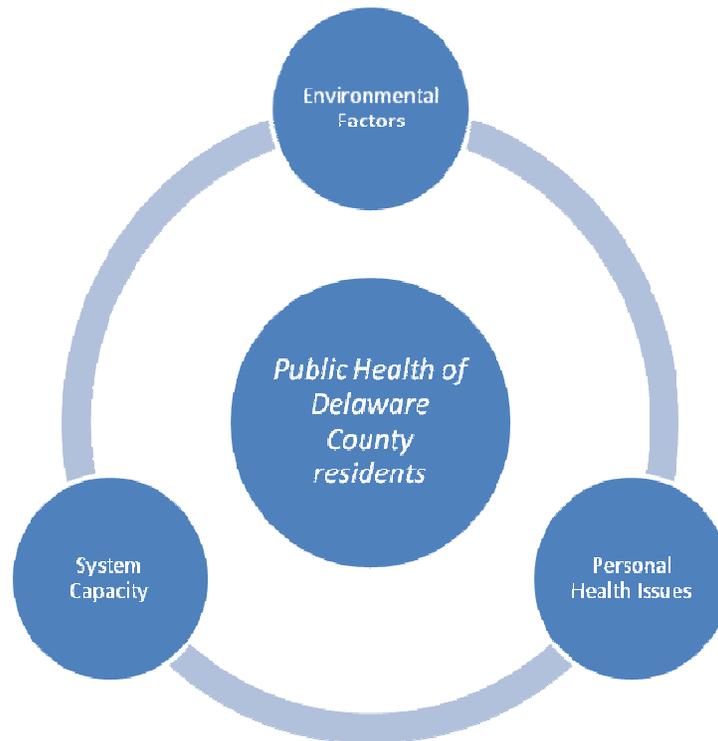
Step	Research Step & Acronym	Description
1	Community Health Status Assessment (Behavior Risk Factor Surveillance Survey – <b>BRFSS</b> )	Survey of county residents re: health behaviors and issues
2	Forces of Change Assessment (with Partnership for Healthy Delaware County) – <b>FOC</b>	Brainstorming session of local professionals re: health issues and needs
3	Community Themes and Strengths Assessment— <b>CTSA</b>	Town Hall Meetings with county residents
4	Youth Forums sponsored by the Delaware-Morrow Mental Health and Recovery Services Board – <b>YF</b>	Focus groups re: health and safety issues among youth
5	Local Public Health System Assessment – <b>LPHSA</b>	Local professionals’ assessment of system capacity, strengths, and weaknesses

In addition to these primary research steps, relevant secondary data were reviewed, most of them focusing on youth. These included:

- Recent statistics from the Delaware County Department of Job and Family Services (**DJFS**)
- 2006 Delaware County vital statistics from Ohio Department of Health’s “Data Warehouse” (**DW**)
- Delaware County Youth Health Assessment 2005 (**DCYHA**)
- Hayes High School Power of Healthy **Choice** Pilot Project (**Hayes**)
- Obesity Prevention Nutrition & Physical Activity Curricula Projects – 7<sup>th</sup> & 8<sup>th</sup> Grade Students and 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> Grade Students (**OPNPACP**)
- Body Mass Index (**BMI**) data from 2005–2007 in Elementary and Middle Schools in Delaware County

The goal of this summary report is to highlight the key findings across all of the research data, both primary and secondary, and describe how they may affect the public health of Delaware County residents. The key findings are presented from three perspectives, in this order:

- **Environmental Factors**, which are issues that can affect the health and well being of all residents of Delaware County. These have been determined by the qualitative research;
- **Personal Health issues**, as determined by the BRFSS, secondary data and qualitative research;
- **System Capacity**, as determined by the LPHSA.



The key findings presented in this summary report focus on possible problems and issues that PHDC may want to address first and foremost in its planning. Although an attempt has been made to make the three perspectives above (environmental factors, personal health issues, system capacity) discrete, the researchers acknowledge that many of the issues included in each category may overlap. Additionally, the researchers acknowledge that in many ways, the state of public health in Delaware County is strong and that future planning should include efforts to maintain these strengths.

Although each of the possible problem areas identified in this report has a number next to it ranging from 1 through 58, these numbers are not indicators of problem importance. They are for identification and planning purposes only, especially during the Prioritization Session that was held on June 10, 2008. This session, facilitated by TST, led to PHDC and DGHD selecting 10 priority issues, with four issues being ranked as top priority concerns.

## ENVIRONMENTAL FACTORS

For the purposes of this report, environmental factors were determined by two research steps: Forces of Change Assessment and the Community Themes and Strengths Assessment. The major findings are as follows:

### Communication challenges

1. *There are no longer centralized, traditional media sources in the county to help communicate to citizens about health issues. Media is now fragmented, with different sources serving different audiences. Traditional media misses younger residents. Source: **FOC**.*
2. *The role of the Internet and new technologies in communication (cell phones, iPhones, text messaging etc.) are examples of the fragmentation, especially for younger residents. Source: **FOC**.*
3. *Inter-agency communications among those involved with health, safety and quality of life issues are not up to par. Source: **FOC**.*

### Youth Issues

4. *There are increasing concerns re: substance abuse, violence and gangs among youth. Source: **FOC**.*
5. *Lack of healthy, positive activities / outlets for youth. Source: **FOC, CTSA**.*
6. *Lack of parental supervision and responsibility for their children. Source: **FOC**.*
7. *Must drive to do anything in the county, which isolates some people such as junior-high students. Also isolates some senior citizens. Source: **CTSA***

### Population changes

8. *Continuing population growth can put pressure on county services. Source: **FOC**.*
9. *For planning purposes, there is a need for accurate population data between census decades. Source: **FOC**.*
10. *Life span increases of population may put additional pressure on senior services. Source: **FOC**.*
11. *Increasing population diversity must be taken into account. Source: **FOC**.*

### Economic forces

12. *The effect of the economy has a disproportionate effect on the poor. The high cost of living leaves many in need of social services. Source: **FOC**.*
13. *Fewer families have health insurance due to the high costs. Source: **FOC**. On the other hand, data from the BRFSS states that only 9% of those surveyed had no health care coverage. Source: **BRFSS**.*

### Planning issues

14. *Problems arise with the county's transition from rural to developed, causing loss of farmland, trees, and wildlife habitat. Source: **FOC**.*
15. *A failure to grow smartly is perceived to be a root cause of traffic, pollution, accidents, isolated subdivisions, decreases in green space and community participation and fewer recreational opportunities, especially walking / biking. Source: **FOC, CTSA**.*
16. *There are not enough community centers (e.g., affordable recreational and health facilities) available to county residents. There is also a lack of public support for such centers. Source: **CTSA**.*
17. *Lack of public transportation causes problems for many, as well as traffic congestion. Source: **FOC, CTSA**.*

### Educational issues

18. *There is a perceived need for more education to promote healthier behaviors such as exercising, eating right, etc. Source: **CTSA**.*

## PERSONAL HEALTH ISSUES

For the purposes of this report, personal health issues were determined primarily by three research steps: Community Health Status Assessment (Behavior Risk Factor Surveillance Survey – BRFSS), the Forces of Change Assessment and the Community Themes and Strengths Assessment. Additional sources of data included the Youth Forums and the various secondary data sources. The major issues are as follows:

### Health care coverage

#### Among adults...

19. As measured by these data, this was an issue for two sub groups of the population: those living in the City of Delaware area (9.2%), and respondents aged 18 – 24 (25%). Source: **BRFSS**.

### Smoking/tobacco use, drinking and drugs

#### Among adults...

20. While use of tobacco has been steadily decreasing, DGHD is not at the Healthy People 2010 goal. Use is especially high among those 18-24 and among those in the City of Delaware. Source: **BRFSS**.

21. Fifteen percent of adults do binge drinking, defined as having 5 or more drinks on an occasion in the past 30 days, with males being statistically more likely to do so (24% vs. 7%). Those 18 to 24 are at 29%. Residents of the City of Delaware have the highest percentage among geographic areas, followed by Olentangy study area residents. Source: **BRFSS**

#### Among youth...

22. Delaware youth are very concerned about use of alcohol and other drugs among their peers, with use of alcohol being the greatest concern because it is easy to get. Binge drinking is a real problem, youth say, because teens are inexperienced and don't know how much they can drink. Source: **YF**.

23. Second-hand smoke may be an issue. Many youth live with someone who smokes cigarettes, and/or have been in a room or car with someone who smokes in at least one of the past seven days. Also, very few students said their parents discussed the dangers of smoking with them in the past year. Source: **DCYHA**.

24. Over one half of students who had smoked claimed they wanted to stop. The majority of young smokers had tried to quit. Source: **DCYHA**.

25. Minority youth are more at risk for smoking. Source: **DCYHA**.

26. Drug experimentation increases with grade in school – from 8% for 8<sup>th</sup> graders to 22% for 9<sup>th</sup> graders. Source: **DCYHA**.

27. Many youth have tried marijuana – increasing to 19% for 9<sup>th</sup> graders. And, youth who drink and smoke are more likely to have tried marijuana. Overall, alcohol use, smoking and drug use among Delaware's 6<sup>th</sup>-9<sup>th</sup> grade students are related. Source: **DCYHA**.

28. Fifteen percent of youth reported that in the past 30 days they had ridden in a car driven by someone who had been drinking alcohol. Source: **DCYHA**.

### Overweight and obesity

#### Among adults...

29. Fifty-seven percent of county residents have weight problems, which can adversely affect their health. Thirty-five percent of county residents are classified as overweight, as determined by their Body Mass Index (BMI); 22% are classified as obese. Males are more likely to find themselves in both categories – 67% of males are overweight or obese. Weight problems tended to increase with age. Source: **BRFSS**

30. Almost half of county residents reported they are now trying to lose weight. Source: **BRFSS**

Among youth...

31. Among youth, 10% were overweight, according to BMI measurements, while 24% believed they were overweight. Over half of female students are trying to lose weight. Fasting is frequently used for weight control. Source: **DCYHA**.
32. Many teens perceived themselves to be overweight but are really not. Large portion sizes, pressure to be thin and proliferation of unhealthy eating choices are among the causes of both overweight/obesity and the perception of being overweight or obese, even if one is not. Source: **YF**.

**Mental health issues**Among adults...

33. Relatively few problems reported among adults. Source: **BRFSS**.

Among youth...

34. About one quarter of youth surveyed have suffered from sadness or hopelessness every day for two weeks or more in the past year, affecting their ability to do usual activities. Especially at risk of depression were students with a low self image, smokers, alcohol users and drug users. Source: **DCYHA**.
35. More students report a low self image in 2005 than 2004. Source: **DCYHA**.
36. Teens say that depression among their peers is caused by social relationships and family pressures. Source: **YF**.

**Diet, nutrition and exercise**Among adults...

37. Only 35% of adults report consuming 5 servings of fruit and vegetables per day, with females being statistically more likely to do so. This rate was consistent countywide. Source: **BRFSS**.
38. More adults are trying to limit fat intake (67%) than are trying to limit salt intake (39%). Older adults try to limit both of these more than their younger counterparts. Source: **BRFSS**.
39. The majority of adults (72%) report getting 30 minutes of physical activity at least three times a week. This figure was consistent across genders and age groups, but residents of the city of Delaware were less likely than those in other geographic regions.

Among youth...

40. Only 13% of 6<sup>th</sup>-9<sup>th</sup> graders reported consuming fruit or fruit juice 3 times or more per day. Source: **DCYHA**.
41. Only 13% reported eating vegetables 3 or more times per day. Source: **DCYHA**.
42. Only 27% reported drinking 3 or more servings of milk per day. Source: **DCYHA**.
43. The majority of students indicated that more nutritious foods were seldom available at school, but would purchase them if they were. Source: **DCYHA**.

**Safety**Among adults...

44. Nonconsensual sex and partner violence are a concern in Delaware County. A little under 10% of participants would not answer this series of questions, but among those who did, 5% reported being the victim of nonconsensual sex and 14% reported being the victim of partner violence, with women significantly more likely to be victims than males. The less educated and less affluent were more likely to be victimized than others. Source: **BRFSS**.

Among youth...

45. Almost half of 6<sup>th</sup>-9<sup>th</sup> graders do not always wear a seatbelt in the car. Seatbelt use decreases with age: 71% of 6<sup>th</sup> graders always wear one; only 49% of 9<sup>th</sup> graders do. Source: **DCYHA**.
46. Helmet use while biking is significantly lower than seat belt usage. There is a clear trend such that the older the child, the greater the odds he/she is NOT always wearing a helmet when bicycling or rollerblading. Source: **DCYHA, BRFSS**.

### Researchers' comments regarding Personal Health Issues

- It is likely that reports of diseases are attenuated, and many may be undiagnosed. For instance, the CDC estimates that nearly a third of people with diabetes are undiagnosed.<sup>1</sup> It is also possible that respondents over-reported their healthy behaviors, such as frequency of consumption of fruits and vegetables and frequency of exercise, as there is often a tendency for respondents to answer in a fashion consistent with “social desirability.”
- The linkage between unhealthy lifestyles, overweight & obesity, and chronic disease is well documented.<sup>2</sup> As such, one could argue that “unhealthy lifestyle” factors may be the biggest health problem across the county, affecting all age groups, from young children to older adults. Participants in the Town Hall Meetings specifically asked for targeted campaigns related to this issue. Additionally, the Hayes High School Study (**HAYES**) and Obesity Prevention Nutrition & Physical Activity Curricula Projects – 7<sup>th</sup> & 8<sup>th</sup> Grade Students and 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> Grade Students (**OPNPACP**) demonstrate that positive effects are possible through prevention information and campaigns.

### Researchers' comments regarding geographic concentration of Personal Health Issues

- Many health-related problems were reported more frequently among residents in the areas roughly corresponding to the City of Delaware and the Buckeye Valley school district (**BRFSS**).

## SYSTEM CAPACITY

The Local Public Health System Assessment (LPHSA) focuses on all of the community agencies and organizations, non-profits, and governmental entities that contribute to the public's health.

The italicized paragraphs below are taken from the report issued by National Public Health Performance Standards Program regarding Delaware General Health District's Local Public Health Assessment (04/02/2008), available online at [http://www.delawarehealth.org/Assessment/PDF/LPHSA\\_DGHD\\_CDC\\_Report.pdf](http://www.delawarehealth.org/Assessment/PDF/LPHSA_DGHD_CDC_Report.pdf).

*The National Public Health Performance Standards Program (NPHPSP) assessments are intended to help users answer questions such as "What are the activities and capacities of our public health system?" and "How well are we providing the Essential Public Health Services in our jurisdiction?" The dialogue that occurs in answering these questions can help to identify strengths and weaknesses and determine opportunities for improvement.*

*The NPHPSP assessment instruments are constructed using the Essential Public Health Services (EPHS) as a framework. Within the Local (Assessment), each EPHS includes (many) model standards that describe the key aspects of an optimally performing public health system. Each model standard is followed by assessment questions that serve as measures of performance. Each site's responses to these questions should indicate how well the model standard – which portrays the highest level of performance or "gold standard" – is being met.*

Overall domains of strength (>94% performance scores) for Delaware County's local public health system (*The **Local Public Health System Assessment** (LPHSA) focuses on all of the community agencies & organizations; non-profits and governmental entities that contribute to the public's health*) include the following Essential Public Health Services:

- EPHS2 – Diagnose and Investigate Health Problems and Health Hazards
- EPHS3 – Inform, Educate & Empower People about Health Issues
- EPHS6 – Enforce Laws & Regulations that Protect Health & Ensure Safety

<sup>1</sup> See <http://www.diabetes.org/diabetes-statistics/prevalence.jsp>

<sup>2</sup> See <http://www.cdc.gov/nccdphp/dnpa/obesity>

The assessment of Delaware County's local public health system by the PHDC included the following Essential Public Health Services which were determined to be in most need of improvement<sup>3</sup>:

*EPHS 7: Link People to Needed Personal Health Services and Assure the Provision of Health Care when Otherwise Unavailable*

Assure linkage of people to personal health services

- 47. Link populations to needed personal health services*
- 48. Assistance to vulnerable populations in accessing needed health services*
- 49. Initiatives for enrolling individuals in public benefit programs*

*EPHS 9: Evaluate Effectiveness, Accessibility and Quality of Personal and Population-based Health Services*

Evaluation of Population-based Health Services

- 50. Use of population-based health services evaluation*

*EPHS 9.2: Evaluation of Personal Health Care Services*

- 51. Information technology to assure quality of personal health services*
- 52. Use of personal health services evaluation*

Lastly, Delaware General Health District managers conducted a prioritization process as part of the LPHSA. The managers scored the performance of many Essential Public Health Services as optimal or significant. The EPHS areas listed below were determined to be ones in most need of improvement (note: this list is not ordered by priority level).

EPHS 4.1:

- 53. Constituency Development*

EPHS 8.4:

- 54. Public Health Leadership Development*

EPHS 7.2:

- 55. Assuring the Linkage of People to Personal Health Services (note: same as item 47, above)*

EPHS 9.1:

- 56. Evaluation of Population-based Health Services (note: same as item 50, above)*

EPHS 10.2:

- 57. Linkage with Institutions of Higher Learning and/or Research*

During the prioritization session described in the next section, another item was added for the group's consideration:

- 58. Help residents get there (to public health services & resource) and back.*

<sup>3</sup> All had less than 75% performance scores

## PRIORITIZING THE ISSUES AND FACTORS

During a two-hour session on June 10<sup>th</sup>, 2008 members of the PHDC, along with personnel from the DGHD, reviewed the 58 issues/factors just discussed. Individually, each PHDC participant selected five issues as his or her top priorities and ranked each of the issues from 1 to 5, with higher rankings indicative of more importance. Ranked issues were gathered in a round-robin fashion, with scoring tallied for each issue or factor as the process proceeded. When appropriate, similar items were grouped. In the end, ten priorities were identified, with scoring decreasing as priority number increases – thus, Priority #1 was the top scoring factor or issue, while Priority #10 was the one with the least points. Several items that had been ranked by participants did not receive high enough scores to be included among the top ten priorities during the session.

The priorities were posted and checked with the participants. “Is this what you meant to do? Are these the correct priorities?” There was agreement among those present that the process and its results represented what the group wished to do.

The top four priority issues selected for focus by DGHD are presented below. An additional six priority issues are presented on the next page for review and future reference.

### **Priority issue #1: Overweight/obese status of residents and their related eating and exercise habits**

PHDC members selected two major related categories of issues for their top focus: Item 29 (overweight and obesity) and Items 37 and 39 (lack of adequate consumption of fruits and vegetables, and lack of exercise). These issues should be grouped, they indicated, as they are symptoms of the same problem: unhealthy lifestyles. Among youth, there is a perception of insufficient healthy food choices. (Item #43)

The PHDC also selected item 18 – the perceived need for more education to promote healthy behaviors such as exercising, eating right, etc. This item is mentioned here, as it is clearly related to the others that comprise Priority #1.

### **Priority issue #2: Alcohol, substance abuse, and violence among county youth**

Experimentation with drugs and alcohol is increasing, many indicate, as is gang participation. At the same time, parental supervision of many children has grown lax. There were also concerns about smoking and exposure to second-hand smoke among youth. (Items 4, 20, 22, 26, 27).

### **Priority issue #3: Linkages and access to services**

PHDC members said that three items discussed were related and affected the health of many in the county: Item 17, lack of sufficient public transportation; item 59, inability of many to get “from here to there and back” in a convenient manner; and item 47 – linking the population to the needed services. These issues affect many who need health and recreational services, especially senior citizens. They also affect junior high school students.

### **Priority issue #4: Assistance to vulnerable populations in accessing needed health services**

During the LPSA, item 48 was identified as one of the Essential Public Health Services in need of improvement in Delaware County. It can be seen as overlapping with priority issue #3 above, which focuses on physically linking people to services and getting them to where they need to go. This priority, however, helps identify what services are needed, from where, then helps assure that those services are accessible to the populations most in need.

**Six additional priority issues are as follows:****Priority issue #5: Pressures of population growth on county services**

Delaware is the fastest growing county in Ohio, and one of the faster growing areas in the nation. This rapid escalation puts pressure on all county-provided services. (Item 8)

**Priority issue #6: Lack of health insurance for some county residents**

Although the majority of county residents enjoy health insurance coverage, there are some who do not. The percentage of those without coverage may have increased over the past year since the BRFSS survey was performed, due to tough economic times and job losses. (Items 13, 19)

**Priority issue #7: Poor are disproportionately affected by the economy**

The increasing cost of living, job losses, and lack of adequate medical coverage leave many of the poorer residents in need of social services. (Item 12)

**Priority issue #8: No centralized, traditional media sources**

Items 1 and 2 need to be addressed, PHDC members say, if DGHD is to be able to effectively deliver messages to all residents of the county.

**Priority issue #9: Youth depression**

Item #34 rose to the surface because a substantial percentage of youth report suffering from sadness or hopelessness, affecting their ability to perform usual activities.

**Priority issue #10: Lack of seat belt and helmet use among youth**

Regular use of seat belts among youth is inadequate and use decreases with age. Helmet use among youth is even lower while rollerblading and/or biking, with use again decreasing with age. (Items #45, 46).

**Looked at another way, these are the citizen groups that seem to be most affected by each of the ten priorities:**

- Priorities affecting all citizens of Delaware County: #1, #3 and #8.
- Priorities affecting youth: #2, #9, #10
- Priorities affecting seniors: #3, #4
- Priorities affecting lower-income residents: #4, #5, #6, #7

**DOCUMENT A: Community Health Status Assessment Final Report**



**Report to Partnership for Health Delaware County: 2007  
Community Health Status Assessment**

July 31, 2007

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# Overview

The Partnership for a Healthy Delaware County (PHDC) is working to bring its vision of Delaware County to life – “A welcoming environment where all can thrive and enjoy emotional and physical wellbeing.” To help make this happen, PHDC is currently engaged in a Mobilizing for Action through Planning and Partnership (MAPP) process. One of the chief components of the MAPP process is the Community Health Status Assessment, which gathers and analyzes data about health status, quality of life, and risk factors from residents in the community.

Completion of the Community Health Status Assessment is accomplished by the deployment of the Behavioral Risk Factor Surveillance Survey (BRFSS), which utilizes a telephone survey to quantify the health needs and concerns of Delaware County residents. This survey identifies priority issues related to community health and quality of life by answering the following conceptual questions:

- *How healthy are Delaware County residents?*
- *What does the health status of the Delaware County community look like?*

The survey questions and procedures used for the 2007 Community Health Status Assessment were adapted from the Center for Disease Control and Prevention’s BRFSS and the Kansas Institute of Health’s Kansas Health-Nutrition Activity survey. Additional questions were determined jointly by the PHDC Assessment Subcommittee and The Strategy Team, Ltd.

Information regarding the survey methods used and the survey questions asked can be found in Appendices 1 and 2. Of the 1,321 telephone interviews conducted, 1,196 of these comprised a sample whose results can be generalized across the county, yielding a sampling error of  $\pm 2.8\%$ .

# Data Presentation

The data in this report are primarily presented via graphs. Because most of the questions asked were “yes/ no” questions, most graphs show the estimated population percentages of Delaware County residents who report a particular health condition, risk factor, or behavior. Like any estimate produced from population surveys, the population parameter estimates are subject to various kinds of error. When possible, the graphs in this report display not only the estimated population percentages or averages but also “error bars” to indicate the precision of each estimate. These error bars illustrate the 95% confidence interval around each point estimate – the range of values that most likely contains the “true” population parameter 95% of the time.

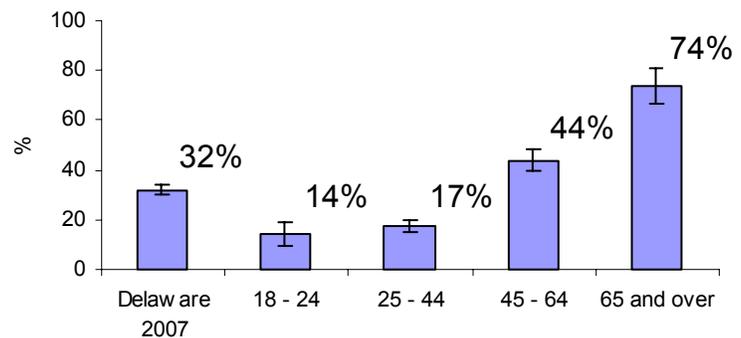
Graphical use of error bars yields another benefit to the reader – a visual test of statistical significance. Please see the **example graph**, below. Whenever one estimate’s error bars overlaps with another estimate’s error bars, those two estimates can be considered to be statistically similar. For example:

- The error bars for those aged 18-24 (14%) overlap with those aged 25-44 (17%). Therefore, the difference in responses between these two groups is not statistically significant.

However, if two or more estimates’ error bars do not overlap, the difference among the estimates is statistically significant.<sup>1</sup> For example:

- The error bars for those aged 18-24 (14%) do not overlap with those aged 45-64 (44%) or with those aged 65 and over (74%). Therefore, the difference between those aged 18-24 and those aged 45-64 is statistically significant, as is the difference between those aged 18-24 and those aged 65 and over.
- The error bars for those aged 65 and over do not overlap with any other bars – the responses from those aged 65 and over are statistically different from the responses from all other groups.

*Example graph: Percentage of adults who report having lost at least one permanent tooth*



For certain risk factors and health issues, comparisons are made to 2002 Delaware County BRFSS data as well as 2006 BRFSS Ohio data, when such data are available.

The next two pages present a demographic overview of those who participated in the survey. Following this, a summary of critical risk factors and health issues provides a “bird’s eye view” of the current health of Delaware County residents. This summary allows readers to consider risk factor and health behavior data both in 2007 and in comparison to historical data (i.e., to the 2002 Delaware County BRFSS and to the 2006 Ohio BRFSS data), which can help track healthy or unhealthy changes over time.

<sup>1</sup> Statistically significant differences refer to those differences that are unlikely to have been caused by random chance alone.

## 2007 Survey Demographics

**Table 1a: Randomly selected sample of Delaware County households ONLY (n=1,196)**

	Number in sample	Unweighted %	Weighted %	2005 Census
<b>Gender (n = 1196)</b>				
Male	399	33.4%	49.0%	48.9%
Female	797	66.6%	51.0%	51.1%
<b>Age (n = 1196)</b>				
18-24	29	2.4%	12.8%	12.6%
25-34	146	12.2%	22.2%	22.2%
35-44	282	23.6%	23.2%	23.3%
45-54	270	22.6%	19.8%	19.8%
55-64	230	19.2%	12.0%	11.9%
65+	239	20.0%	10.0%	10.3%
<b>Ethnicity (n = 1192)</b>				
White	1119	93.9%	92.2%	91.1%
Nonwhite	73	6.1%	7.8%	8.9%
<b>Education (n = 1192)</b>				
Less than high school	45	3.7%	5.6%	4.9%
High school or GED	268	22.5%	20.5%	23.4%
Some college	259	21.7%	21.3%	27.6%
College graduate	394	33.1%	33.9%	30.3%
Postgraduate degree	226	19.0%	18.7%	13.9%
<b>Income (n = 1002)</b>				
Less than \$25,000	123	12.3%	11.1%	12.7%
Between \$25,000 and less than \$50,000	196	19.6%	15.9%	18.7%
Between \$50,000 and less than \$75,000	159	15.9%	14.2%	18.1%
Between \$75,000 and less than \$100,000	198	19.8%	23.7%	16.0%
Between \$100,000 and less than \$150,000	179	17.9%	18.8%	19.9%
More than \$150,000	147	14.7%	16.3%	14.6%
<b>Employment (n = 1195)</b>				
Employed	733	61.3%	68.5%	68.6%
Unemployed	31	2.6%	3.6%	3.8%
Other	431	36.1%	27.9%	27.6%
<b>Geographical area (n = 1196)</b>				
Big Walnut region	145	12.1%	12.9%	12.0%
Buckeye Valley region	266	22.2%	20.9%	14.1%
Delaware region	329	27.5%	27.1%	22.7%
Olentangy region	456	38.1%	39.1%	51.2%

Note: Information about how the data were weighted can be found on page A-3 of the Appendix.

## 2007 Survey Demographics

Table 1b: Randomly selected sample of Delaware County households AND Big Walnut oversample (n=1,321)

	Big Walnut region	Buckeye Valley region	Delaware region	Olentangy region
<b>Total (RDD + Oversample)</b>	254	258	325	480
<b>Gender</b>				
Male	46.5%	52.5%	45.7%	51.4%
Female	53.5%	47.5%	54.3%	48.6%
<b>Age</b>				
18-24	20.9%	9.7%	14.4%	10.0%
25-34	17.3%	16.7%	26.1%	22.5%
35-44	15.7%	23.7%	15.3%	30.5%
45-54	23.2%	21.4%	21.8%	17.3%
55-64	11.4%	18.7%	9.5%	12.7%
65+	11.4%	9.7%	12.9%	6.9%
<b>Ethnicity</b>				
White	92.9%	93.4%	91.1%	92.1%
Nonwhite	7.1%	6.6%	8.9%	7.9%
<b>Education</b>				
Less than high school	5.9%	7.0%	7.1%	3.1%
High school or GED	21.3%	22.6%	30.2%	12.5%
Some college	30.3%	17.9%	24.9%	19.0%
College graduate	29.5%	35.0%	23.4%	42.5%
Postgraduate degree	13.0%	17.5%	14.5%	22.9%
<b>Income</b>				
Less than \$25,000	6.2%	12.1%	23.2%	3.5%
Between \$25,000 and less than \$50,000	15.9%	12.9%	22.8%	13.1%
Between \$50,000 and less than \$75,000	14.4%	18.8%	21.8%	7.4%
Between \$75,000 and less than \$100,000	29.7%	21.9%	15.2%	27.0%
Between \$100,000 and less than \$150,000	17.9%	23.7%	11.4%	22.0%
More than \$150,000	15.9%	10.7%	5.5%	27.0%
<b>Employment</b>				
Employed	65.1%	67.1%	68.9%	69.1%
Unemployed	1.2%	3.9%	2.2%	4.8%
Other	33.7%	29.1%	28.9%	26.1%

Data have been weighted.

Note: "Other" employment status includes students, homemakers, and retired adults.

## Data Summary – Risk Factors

This page summarizes the estimated prevalence of various risk factors and critical health issues reported by Delaware County residents in 2007. For each risk factor, the 2007 weighted percentage is compared to 2002 Delaware data and to 2006 Ohio data and are presented as being significantly **higher**, **lower**, or similar (i.e., no statistical difference).

*Example: The percentage of Delaware County adults reporting their general health status as “fair” or “poor” in 2007 (9%) is statistically similar to the 2002 estimate (8%) and statistically lower than the 2006 Ohio estimate (15%).*

**Table 2: Data Summary – Risk Factors and Critical Health Issues**

Risk Factors and Critical Health Issues (2007 Delaware County data)	Weighted Percentage	Compared to 2002 Delaware BRFSS	Compared to 2006 Ohio BRFSS
General health status is fair or poor	9%	Similar (8%)	Lower (15%)
No health care coverage (Ages 18-64)	9%	Similar (7%)	Lower (15%)
Medical visit in past 12 months	73%	Higher (67%)	Similar (74%*)
Dental visit in past 12 months	81%	Higher (75%)	Higher (73%*)
Flu shot during the past year (Ages 65+)	74%	Higher (56%)	Similar (68%)
Pneumonia vaccine ever (Ages 65+)	65%	Higher (49%)	Similar (69%)
Colonoscopy in past 2 years (Ages 50+)	60%	Higher (48%)	Similar (57%)
PSA test in past 2 years (Ages 40+)	42%	Similar (46%)	Lower (56%)
Mammogram in past 2 years (Ages 40+)	81%	Similar (78%)	Similar (77%)
Pap test in past 3 years (Ages 18+)	86%	Similar (86%)	Similar (83%)
Diagnosed arthritis	27%	n/a	Similar (30% <sup>§</sup> )
Diagnosed asthma	13%	Similar (11%)	Similar (14%)
Diagnosed diabetes	7%	Similar (7%)	Similar (7%)
Current smoking	16%	Lower (22%)	Lower (22%)
Binge drinking	15%	Similar (15%)	Similar (16%)
Do not eat 5 or more serving of fruits and vegetables per day	65%	n/a	Lower (77% <sup>§</sup> )
Overweight (BMI between 25.0 and 29.9)	35%	Similar (39%)	Similar (35%)
Obese (BMI greater than 30.0)	22%	Similar (18%)	Lower (28%)
Adult “always” wears seatbelts	84%	Similar (81%)	Higher (70%*)
Child aged <15 in household “always” wears seatbelt or is in car safety seats	92%	Similar (96%)	Higher (87%*)
Oldest child in household “always” wears helmet while riding bicycle	47%	Similar (40%)	Higher (32%*)

<sup>§</sup> = 2005 OH BRFSS data; \* 1997 = OH BRFSS data.

## Data Summary – Healthy Changes

This page summarizes changes in critical risk factors and health behaviors over time, reviewing areas in which there have been healthy, unhealthy, and no changes. So the PHDC can assess where the County is making progress and where more progress is necessary, health objectives / goals as determined by the 2010 Healthy People initiative<sup>2</sup> are included as a reference.

Overall, what are the **healthy changes** reported by Delaware County residents from 2002 to 2007? By healthy changes we refer to those risk factors that have decreased or proactive health behaviors that have increased over time.

**Table 3-a: Healthy changes over past five years**

Risk Factors and Health Behaviors	2007 BRFSS	2010 Healthy People goal
Current smoking	16%	12%
Medical visit in past 12 months	73%	n/a
Dental visit in past 12 months	81%	<b>56% (MET)</b>
Ever have colonoscopy (50+)	60%	<b>50% (MET)</b>

No **unhealthy changes** were reported by Delaware County residents from 2002 to 2007. What about those risk factors or health behaviors for which there have been **no changes** from 2002 to 2007? These areas may indicate where additional public health resources – either services or education – need to be focused.

**Table 3-a: No changes over past five years**

Risk Factors and Health Behaviors	2007 BRFSS	2010 Healthy People goal
No health care coverage (Ages 18-64)	9%	n/a
Binge drinking	15%	6%
Overweight (BMI between 25.0 and 29.9)	35%	n/a
Obese (BMI greater than 30.0)	22%	15%
Pap test in past 3 years (Ages 18+)	86%	90%
Mammogram in past 2 years (Ages 40+)	81%	<b>70% (MET)</b>
PSA test in past 2 years (Ages 40+)	42%	n/a
Adult “always” wears seatbelts	84%	n/a
Child aged <15 “always” wears seatbelt or is in car safety seat	92%	n/a
Oldest child in household “always” wears helmet while riding bicycle	47%	n/a

<sup>2</sup> See <http://www.healthypeople.gov/> for more details.

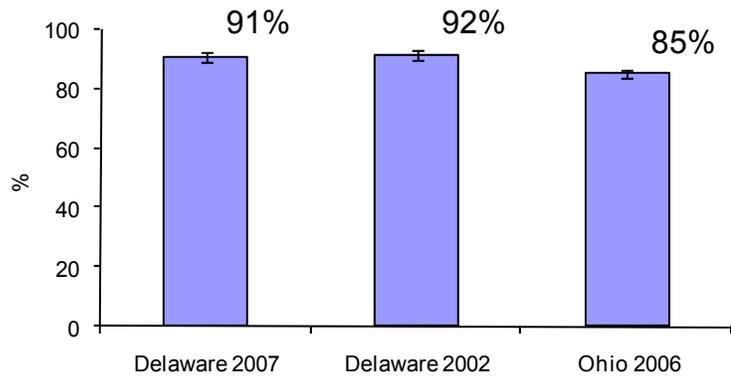
# Health Status

Assessing the community’s overall health status provides the “big picture” context in which public health programs and initiatives must operate. How do Delaware County residents rate their health and well-being? As shown below, a majority (66.6%) of Delaware County residents reported their health is “excellent” or “very good,” while a minority (9%) reported their health is “fair” or “poor.” These data are similar to that observed in the County’s 2002 BRFS.

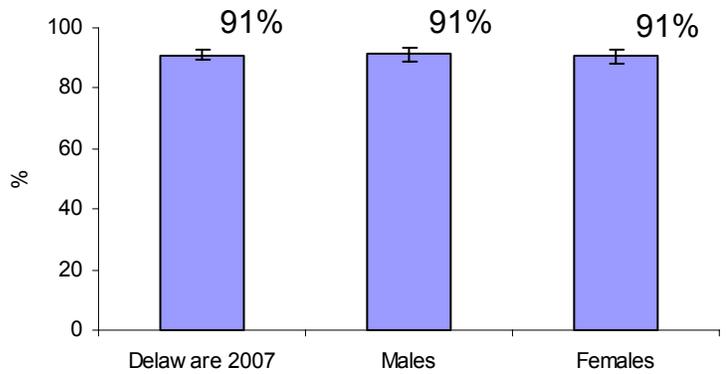
*Q2.1: Would you say that in general your health is excellent, very good, good, fair, or poor?*

In 2007, Delaware County residents’ ratings of overall health were overwhelmingly positive – a minority (9%) said their health was “fair” or “poor,” 24% said their health was “good,” and a majority (66.6%) said their health was “excellent” or “very good.” These patterns are similar to that observed in 2002 and better than the most recent Ohio data.

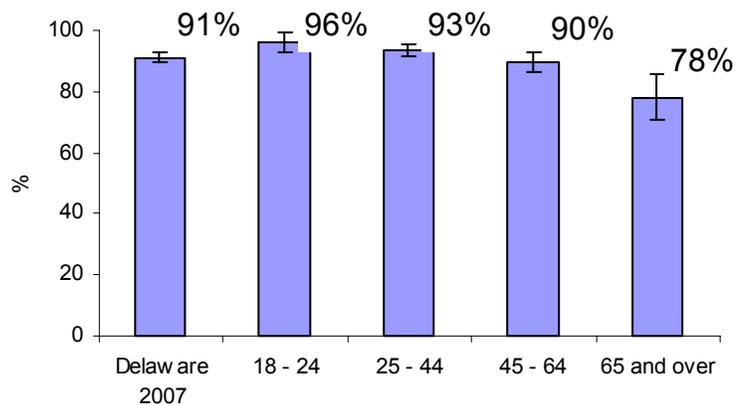
**Percentage saying “Good,” “Very Good,” or “Excellent”**



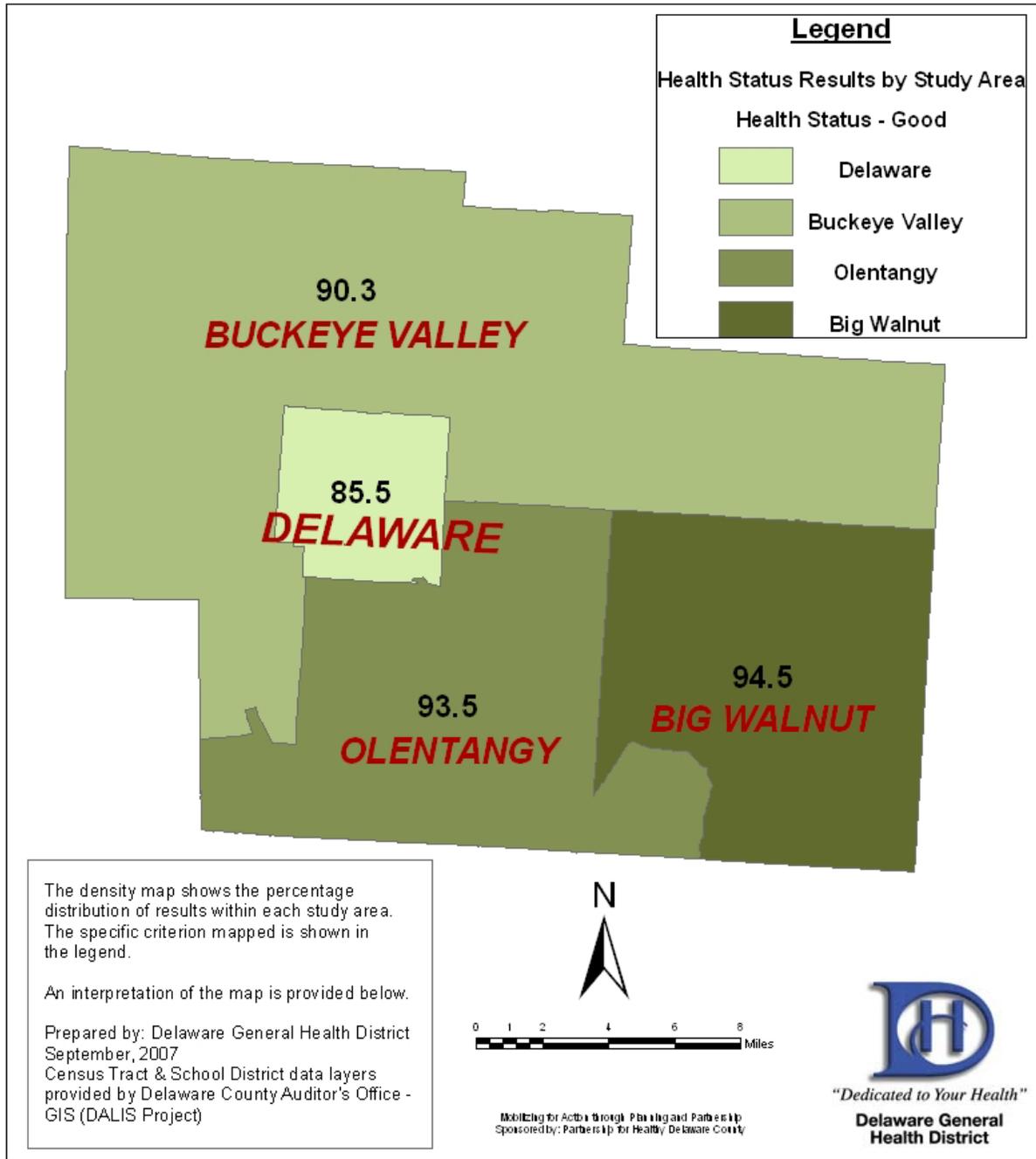
Males and females reported similar ratings of health and well-being – no statistically significant differences were noted on this factor.



Older respondents (65+) were less likely than younger respondents (18-24) or early middle-age respondents (25-44) to report their health was “good” or better.



## Adults who Perceived their Health as "Good" or better



As indicated by the above map, those in the Big Walnut and Olentangy regions were more likely to report their health was "good" or better (94.5% and 93.5%). Those in the Delaware region were less likely to report their health was "good" or better (85.5%).

**Additional Subgroup Differences:**

**Ethnicity:**

- Non-whites were less likely to report their health was “good” or better (82.7%).

**Education:**

- Those with lower education (less than high school and high school grad or equivalent) were less likely to report their health was “good” or better (73.1% and 84.9%, respectively).
- Those with higher education (post-graduate degree) were more likely to report their health was “good” or better (97.8%).

**Employment:**

- Those who were unemployed or who had an “other” employment status were less likely to report their health was “good” or better (77.3% and 84.4%, respectively).
  - *Note: “Other” employment status includes students, homemakers, and retired adults.*
  - *Note: Because the number of unemployed participants is low (under 50), these statistics should be interpreted cautiously.*
- Those who were employed were more likely to report their health was “good” or better (94.3%).

**Household income:**

- Those with lower household incomes (less than \$25,000 or between \$25,000-\$75,000) were less likely to report their health was “good” or better (69.9% and 86.7%, respectively).
- Those with higher incomes (between \$75,000-\$150,000 and greater than \$150,000) were more likely to report their health was “good” or better (95.9%, and 98.2%, respectively).

# Physical Health in Past 30 Days

Focusing on the physical health of Delaware County residents over the past 30 days, how many days did they report their health was “not good?” Knowing this information adds to our understanding of the quality of life experienced by County residents. As shown below, a majority (66.2%) of Delaware County residents reported having 0 days in which their physical health was “not good” during the month preceding the survey. This finding is consistent with the overall percentage who believed their health to be “excellent” or “very good.”

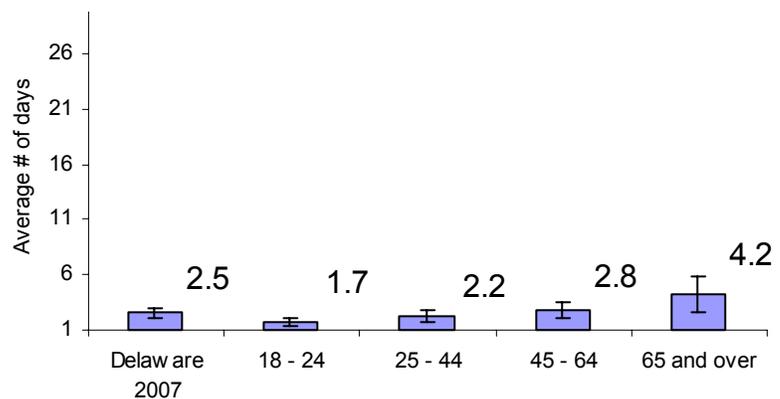
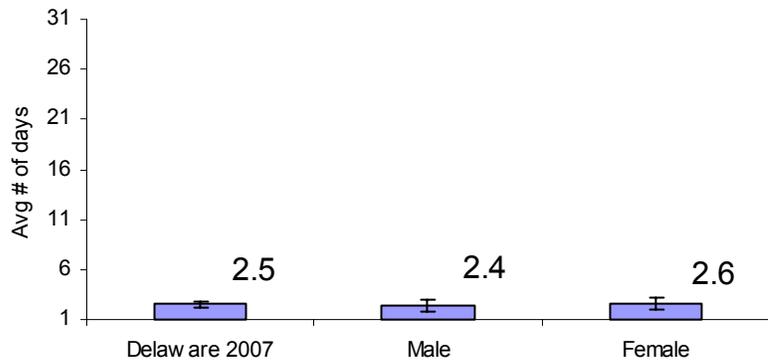
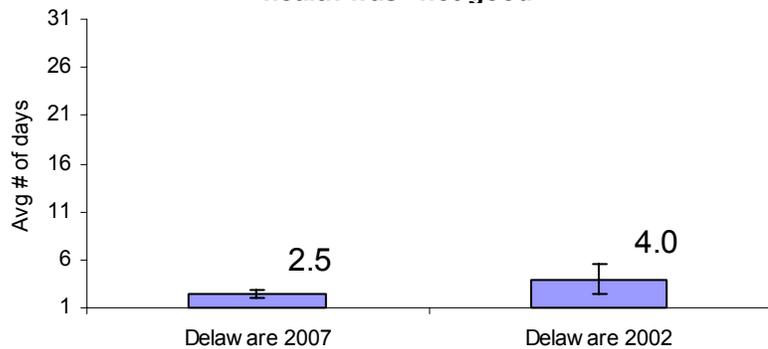
Q2.2: For how many days during the past 30 days was your physical health not good?

In 2007, most Delaware County residents report good physical health. In the 30 days preceding the survey, a majority (66.2%) said they had 0 days in which their physical health was “not good” and 22.3% said they had 5 days or fewer in which their physical health was not good. However, 5.2% reported having 20 days or more in which their physical health was not good.

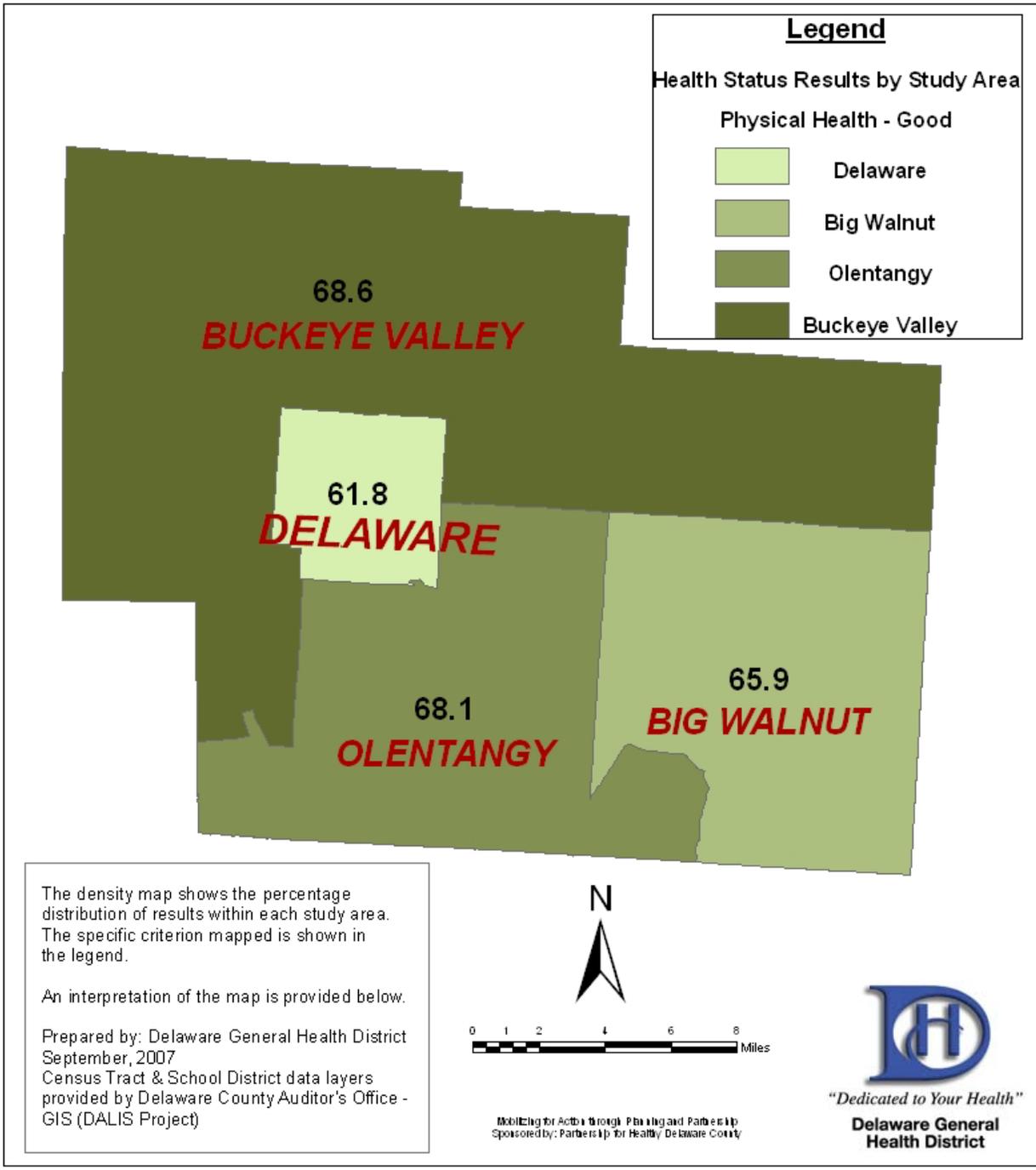
On average, males and females reported a similar number of poor physical health days in the 30 days preceding the survey. No statistically significant differences were noted.

Older respondents (65+) reported significantly more days of poor physical health as compared to 18-24 year olds and 25-44 year olds.

Average number of days in which physical health was “not good”



## Adults who had 30 "Good" Physical Health days in the past month



No statistically significant differences were observed among the four regions.

**Additional Subgroup Differences:**

**Ethnicity:**

- Non-whites reported more days in which their physical health was “not good” as compared to whites (average days were 3.8 and 2.4, respectively), a statistically significant difference.

**Education:**

- Those with less than high school education and high school degrees or equivalent reported more days in which their physical health was “not good” (average days were 5.5 and 3.7, respectively).
- Those with college or post-graduate degrees reported fewer days in which their physical health was “not good” (1.9 and 1.1, respectively).

**Employment:**

- Those whose employment status was classified as “other” reported more days in which their physical health was “not good” as compared to those who were employed (average days were 4.2 and 1.9, respectively), a statistically significant difference.

**Household income:**

- As household income decreases, the average number of days in which one’s physical health was “not good” increases significantly:
  - Income of \$150,000+ = average number of days was 1.4
  - Income of \$75,000 – under \$150,000 = average number of days was 1.6
  - Income of \$25,000 – under \$75,000 = average number of days was 3.2
  - Income of \$25,000 and less = average number of days was 5.9.
  - The differences among all of the above categories are statistically significant, with the exception of the top two income categories.

# Mental Health in Past 30 Days

Focusing on the mental health of Delaware County residents over the past 30 days, how many days did they report their mental health was “not good?” Knowing this information adds to our understanding of the quality of life experienced by County residents. Overall, a majority (66.3%) of Delaware County residents reported having 0 days in which their mental health was “not good” during the month preceding the survey. This finding is consistent with the overall percentage who believed their mental health to be “excellent” or “very good.”

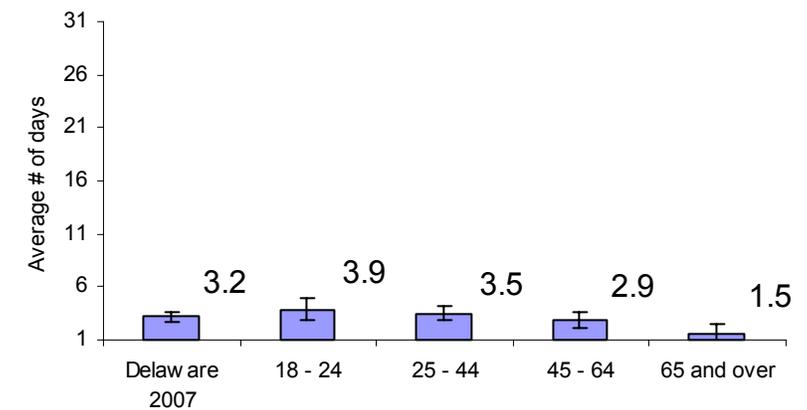
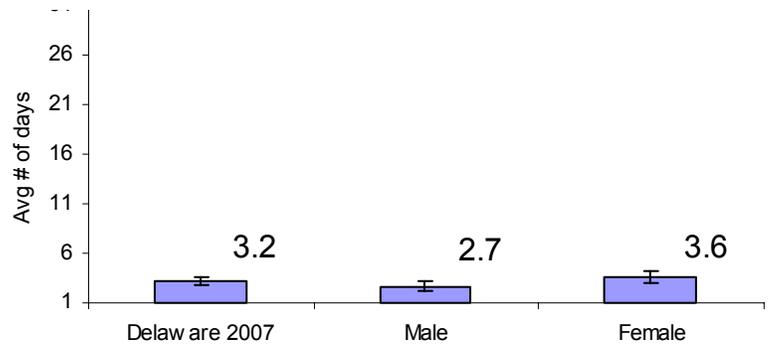
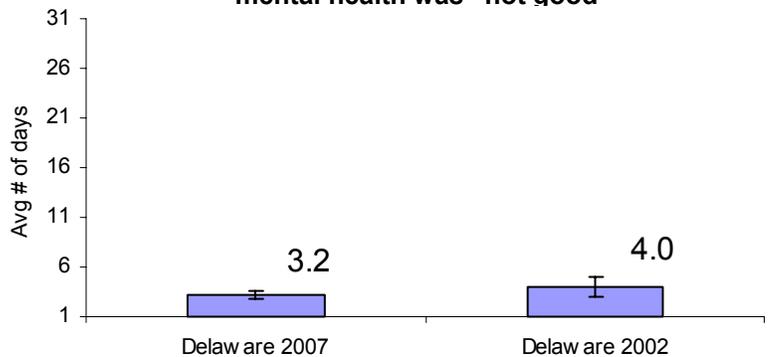
*Q2.3: For how many days during the past 30 days was your mental health not good?*

In 2007, most Delaware County residents report good mental health. In the 30 days preceding the survey, a majority (66.3%) said they had 0 days in which their mental health was “not good” and 19.6% said they had 5 days or fewer in which their mental health was not good. However, 5.9% reported having 20 days or more in which their mental health was not good.

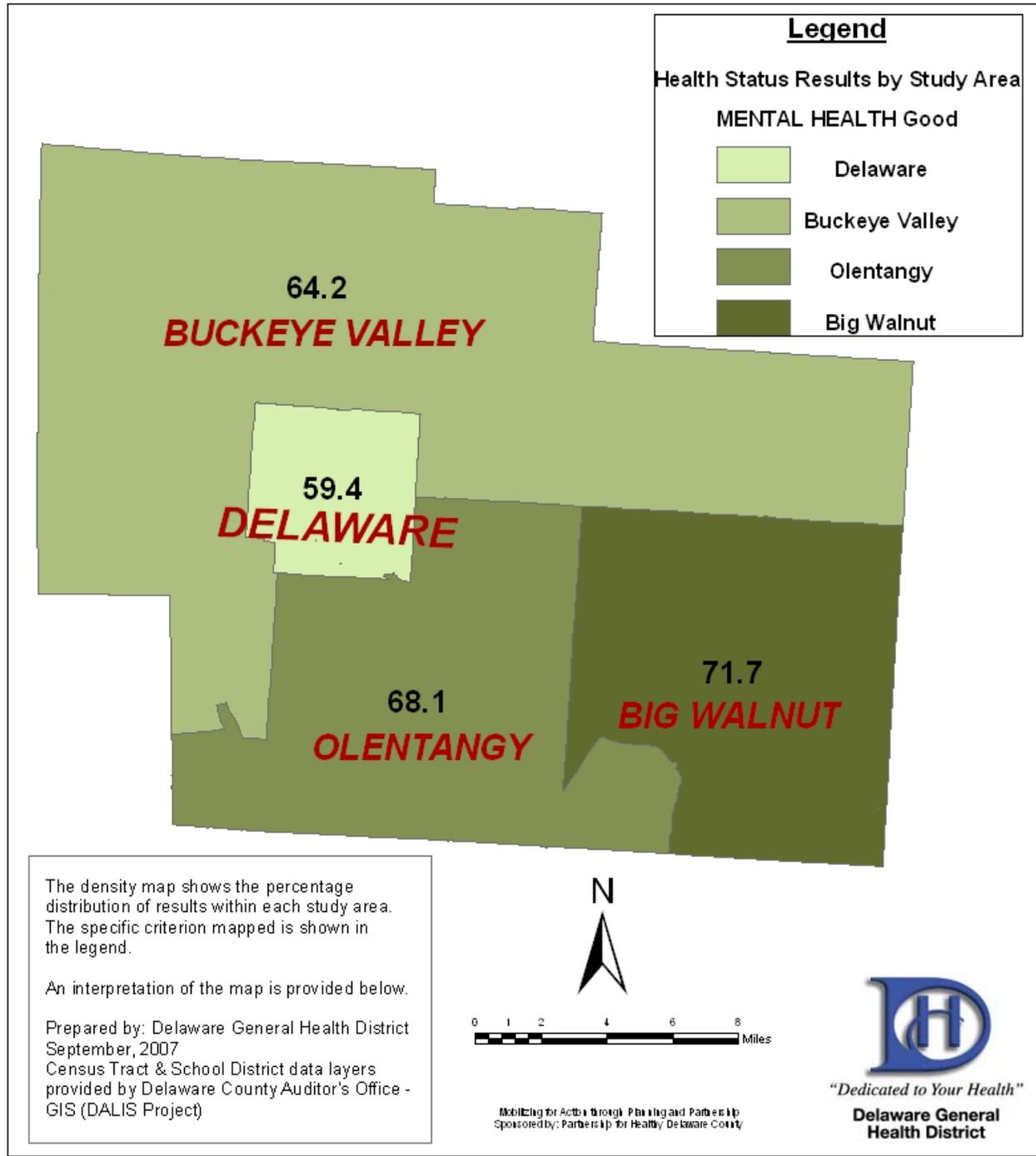
On average, females reported slightly more days in which their mental was “not good” as compared to males. Though a small difference, it is statistically significant.

Older respondents (65+) reported significantly fewer days of poor mental health as compared to 18-24 year olds and 25-44 year olds.

**Average number of days in which mental health was “not good”**



**Adults who had 30 "Good" mental health days in the past month**



Those in the Delaware region were less likely to report having 30 days in which their mental health was good (59.4%), while those in the Big Walnut region were more likely to report having 30 days in which their mental health was good (71.7%).

**Additional Subgroup Differences:**

**Ethnicity:**

- No significant differences were noted between whites and non-whites on this question.

**Education:**

- Those with less than high school education and high school degrees or equivalent reported more days in which their mental health was “not good” (average days were 5.6 and 4.6, respectively).
- Those with college or post-graduate degrees reported fewer days in which their mental health was “not good” (average days were 2.9 and 1.2, respectively).

**Employment:**

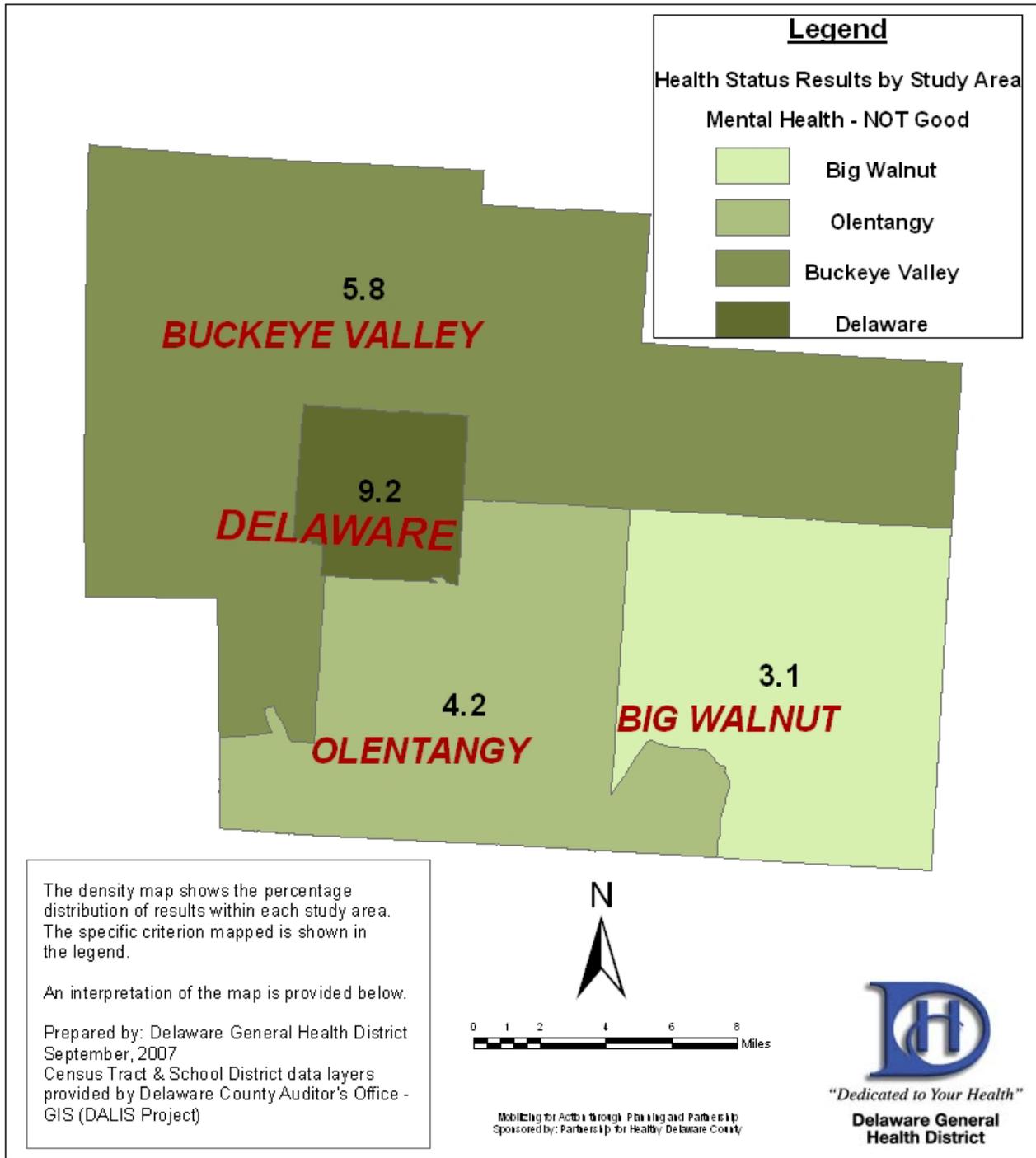
- Those who were unemployed reported more days in which their mental health was “not good” as compared to those who were employed (average days were 5.7 and 3, respectively), a statistically significant difference.

**Household income:**

- As household income decreases, the average number of days in which one’s mental health was “not good” increases significantly:
  - Income of \$150,000+ = average number of days was 1.3
  - Income of \$75,000 – under \$150,000 = average number of days was 2.2
  - Income of \$25,000 – under \$75,000 = average number of days was 4.4
  - Income of \$25,000 and less = average number of days was 7.2.
  - The differences among all of the above categories are statistically significant, with the exception of the top two income categories.

Another map related to this topic was prepared by DGHD – the percentage of those surveyed in each region who reported having 20 or more “NOT good” mental health days in the past month. In other words, looking across the county, where are the geographic areas of greatest need?

# Adults who had 20 or more "NOT Good" Mental Health days in the past month



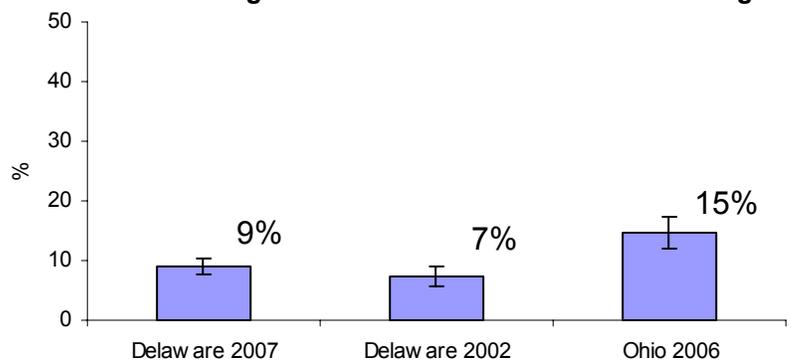
# Health Care Coverage

The ability to obtain medical care, whether it be preventative or for treatment of an illness and disease, has obvious links to overall levels of health and wellness. Therefore, residents without health care coverage may be less likely to seek medical care and therefore, may place their health at risk. What percentage of adults aged 18-64 in Delaware County lack health care coverage? (As Medicare covers most adults aged 65 and over, they were excluded from this analysis).

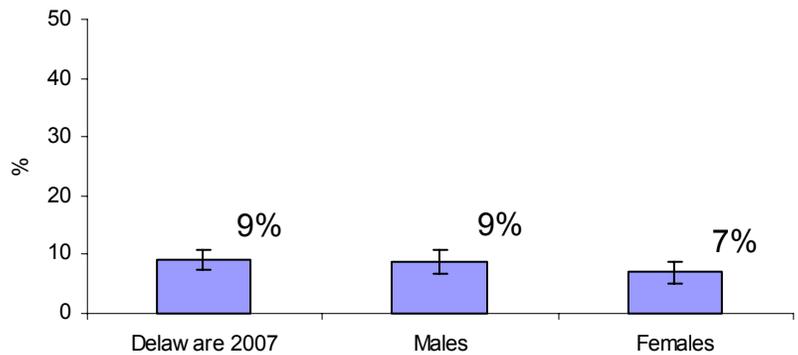
*Q5.1 Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?*

In 2007, only about 9% of Delaware residents aged 18 – 64 say they do not have some form of health care coverage. This is significantly lower than the statewide average. In 2006, 15% of Ohioans said they did not have access to health care coverage

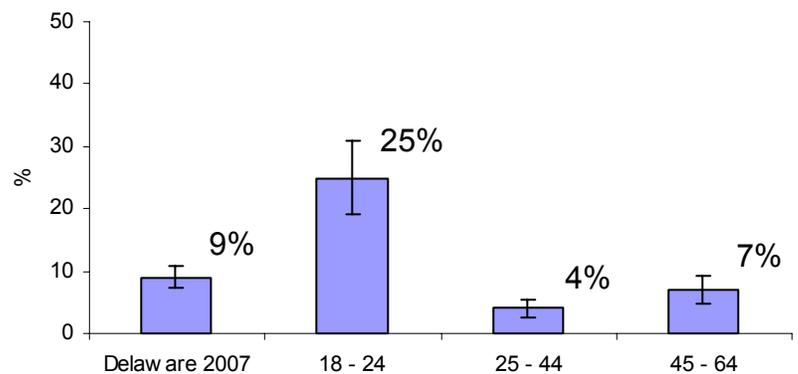
**Percentage of adults without health care coverage**



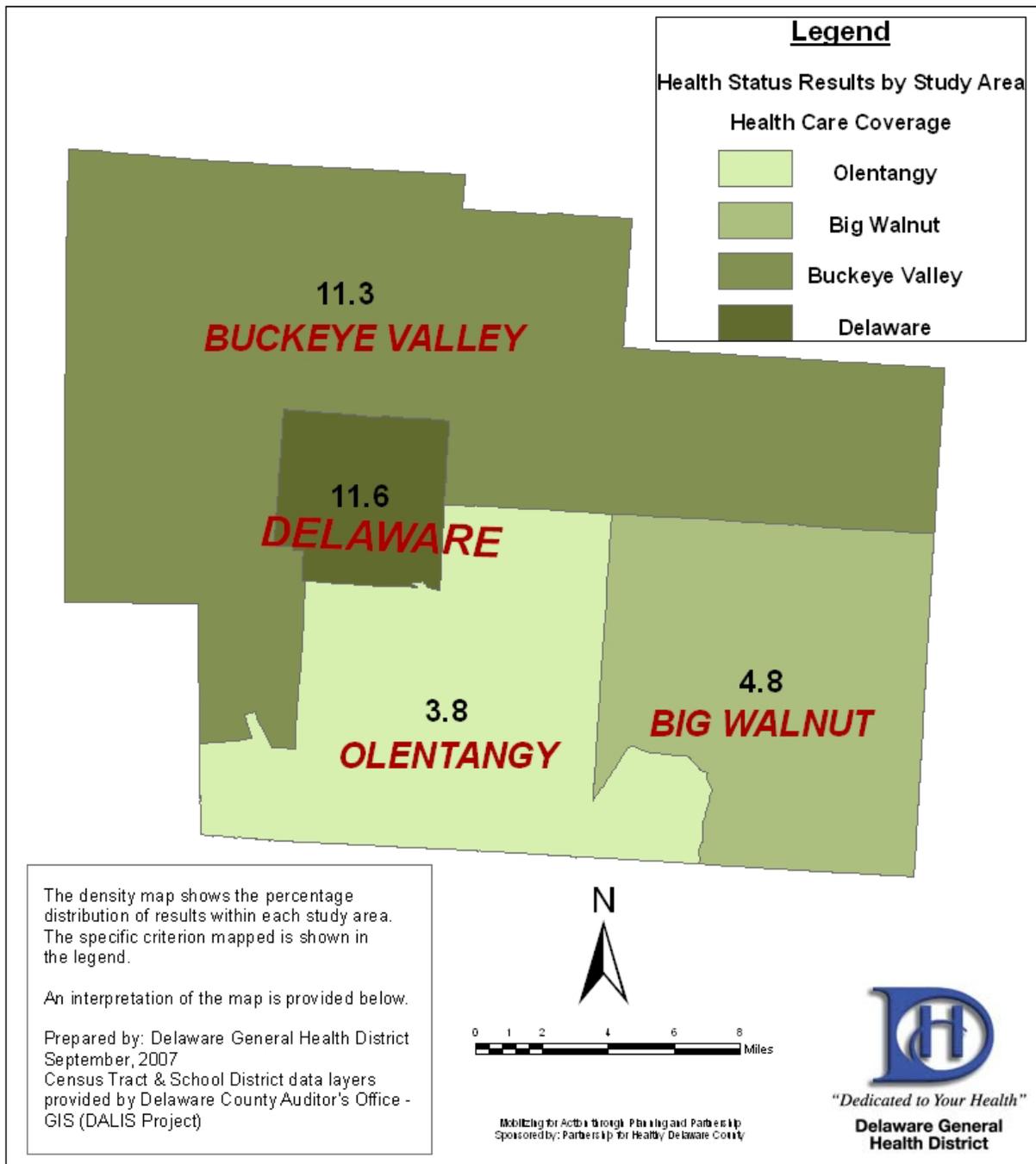
There were no significant differences in rates of health coverage between males and females.



Younger respondents (18-24) were significantly more likely than all other groups to say they lack health care coverage. As expected, older respondents (those aged 65 and up) were the most likely to report some health care coverage – only 2% of respondents in this age group reported they lacked health care coverage.



## Adults who reported having NO Health Care Coverage



Those in the Buckeye Valley and Delaware regions were more likely to report they lacked health care coverage (11.3% and 11.6%, respectively), while those in the Big Walnut and Olentangy regions were less likely to report they lacked health care coverage (4.8% and 3.8%, respectively).

**Additional findings regarding health care coverage**

**Ethnicity:**

- There were no statistically significant differences as a function of ethnicity.

**Education:**

- As levels of education increase, the percentage of those without health care coverage decreases:
  - Those with less than a high school education were more likely to report lacking health care coverage (45%).
  - 15% of those with a high school degree reported lacking health care coverage.
  - 1% of those with a post-graduate degree reported lacking health care coverage.

**Employment:**

- Unemployed respondents were more likely to report lacking health care coverage (37%).
- Employed respondents were less likely to report lacking health care coverage (8%).

**Household income:**

- As levels of household income increase, the percentage of those without health care coverage decreases:
  - Those with lower household incomes (less than \$25,000) were more likely to report lacking health care coverage (29%).
  - 11% of those with incomes between \$25,000-\$75,000 reported lacking health care coverage.
  - 3% of those with incomes between \$75,000-\$150,000 reported lacking health care coverage.
  - 5% of those with incomes over \$150,000 reported lacking health care coverage.

# Health Care Access

Those who are unable to receive prompt medical care can experience medical conditions that become progressively more serious and more complex over time. To what extent are Delaware County residents able to get the medical care they need? Do some residents have more difficulty getting access to health care than others?

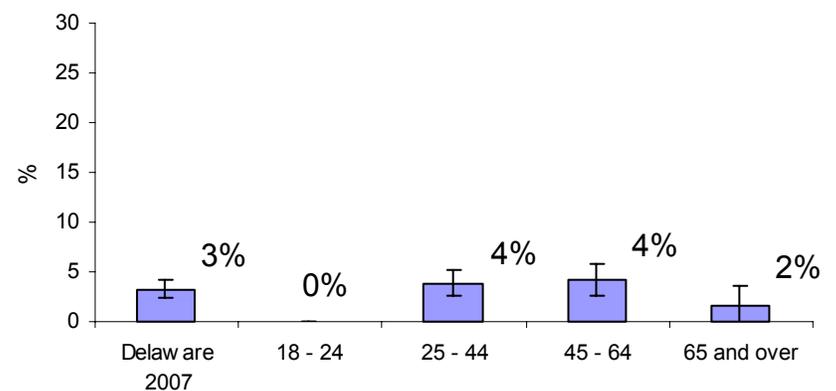
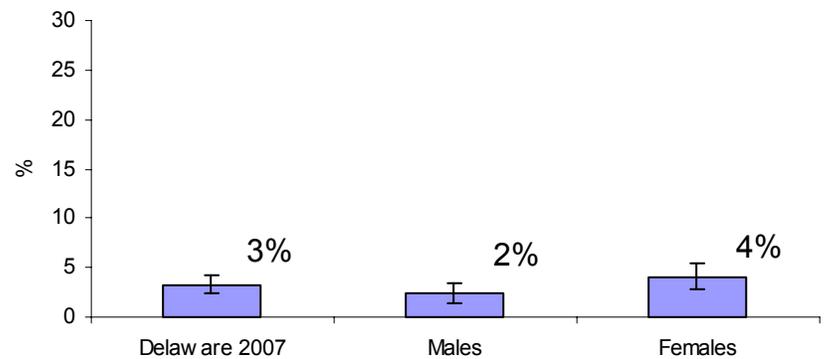
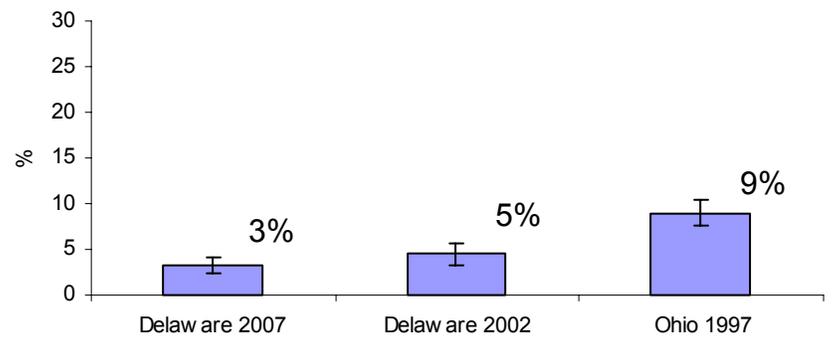
*Q5.2 Was there a time in the past 12 months when you needed medical care but could not get it?*

In 2007, only 3% of Delaware County residents reported a time in the past 12 months when they needed medical care but could not get it. This is significantly lower than the statewide figure (9%) in the last year for which state data is available (1997).

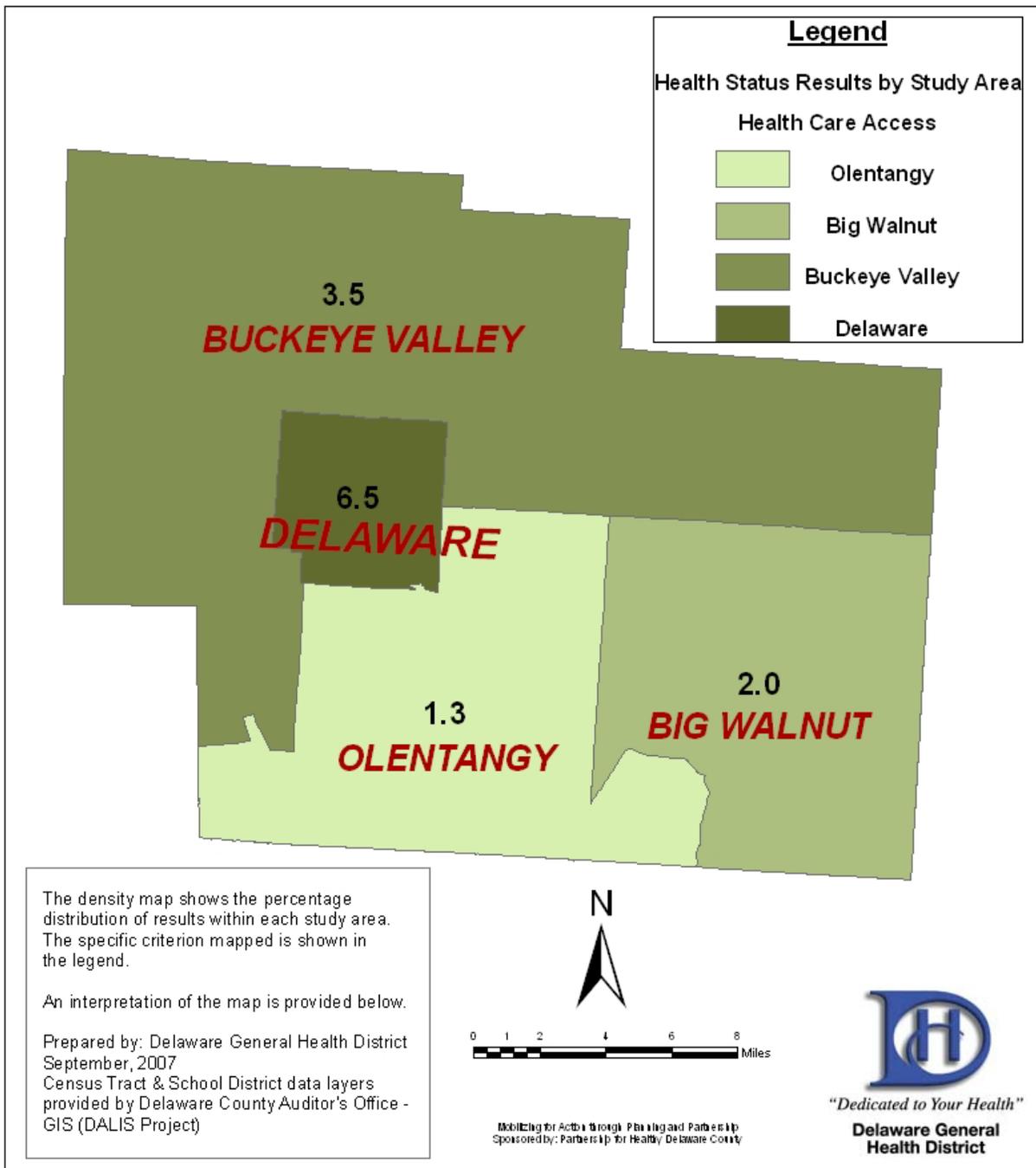
No significant differences were noted between males and females.

Younger adults (aged 18-24) were least likely to report there was a time in the past 12 months when they needed health care but couldn't obtain it.

**Percentage of adults who could not get health care when needed**



## Adults who needed Medical Care But could not get in the past 12 months



Those in the Delaware region were more likely to say there was a time in the past 12 months when they needed medical care but couldn't get it (6.5%), while those in the Olentangy region were less likely to report needing medical care but couldn't get it (1.3%).

**Additional Subgroup Differences:**

**Ethnicity:**

- There were no statistically significant differences as a function of ethnicity.

**Education:**

- Those with a high school degree or less were more likely to report needing health care in the past 12 months but not getting it (6%).
- Those with a post graduate degree were least likely to report needing health care in the past 12 months but not getting it (less than .5%).

**Employment:**

- There were no statistically significant differences as a function of employment status.

**Household income:**

- Those with higher incomes were significantly less likely to report barriers to accessing medical care.
  - Less than 1% with household incomes greater than \$75,000 reported needing health care in the past 12 months but not getting it.
  - 7% of those with incomes between \$25,000 and \$75,000 reported needing health care in the past 12 months but not getting it.
  - 12% of those with incomes less than \$25,000 reported needing health care in the past 12 months but not getting it.

# Health Care Utilization

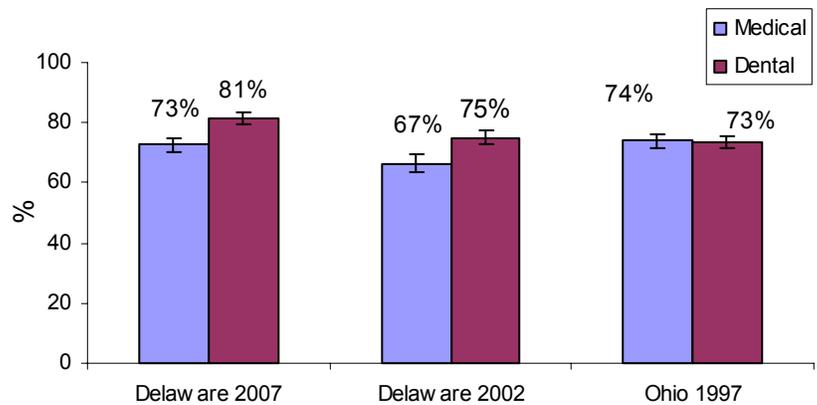
One important component of health care, especially preventative health care, is an annual checkup. This includes both medical and dental checkups. To measure health care utilization among Delaware County residents, two questions were asked:

*Q5.3 About how long has it been since you last visited a doctor for a routine checkup? (Interviewer note: A routine checkup is a general physical exam, not an exam for a specific injury, illness or condition.)*

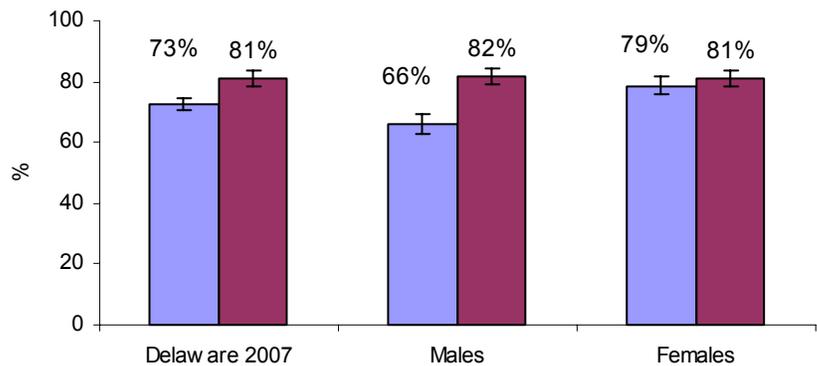
*Q4.1 How long has it been since you last visited a dentist or dental clinic for any reason?*

**Percentage obtaining health care in the past 12 months**

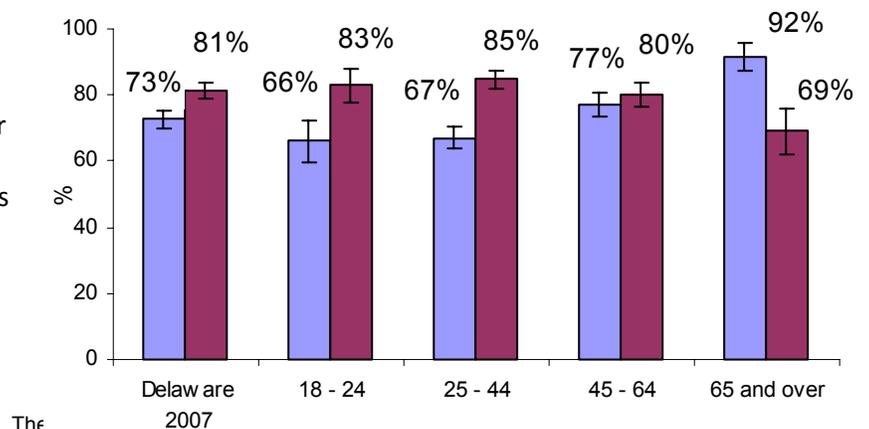
In 2007, the vast majority of Delaware County residents reported accessing a physician for a check-up in the past 12 months (73%), which was significantly higher than 2002 Delaware data. In addition, 81% of Delaware County residents reported seeing a dentist within the past year, which was significantly higher than 2002 data.



Females are significantly more likely to report having a routine physical exam within the past 12 months (79% compared to 66% of men). There were no statistically significant differences between genders with regard to dental exams.

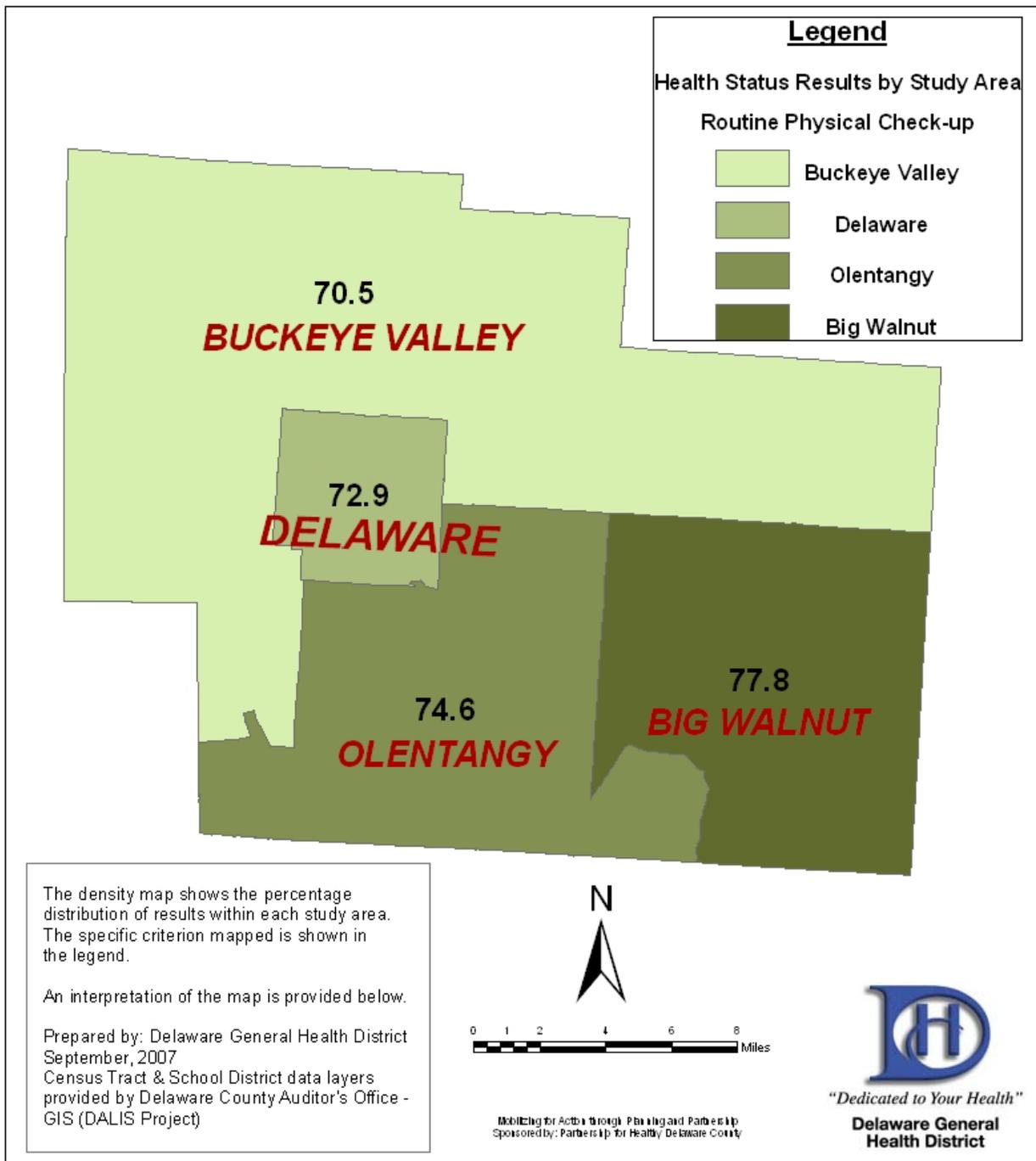


Residents under age 45 were significantly less likely to report having an annual medical checkup as compared to those over 45. In contrast, older respondents, especially those aged 65 and over, were less likely to report having a dental exam as compared to those under age 65.



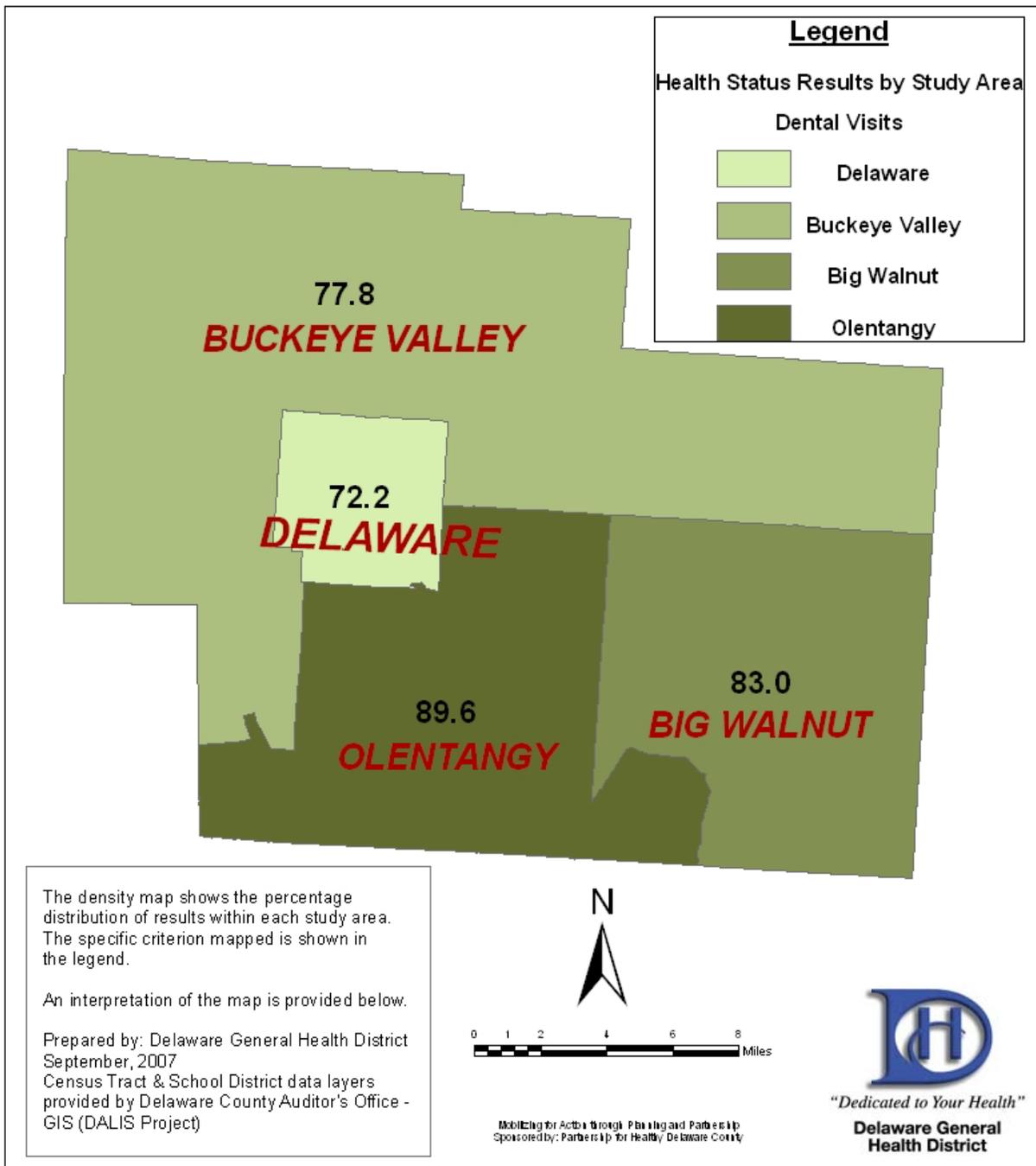
The

## Adults who visited a Doctor for Routine Check-up in the past month



There were no statistically significant differences among the four regions.

## Adults who visited a Dentist or Dental Clinic in the past month



Those in the Delaware region were less likely to report getting a checkup in the past 12 months (72.2%) while those in the Olentangy region were more likely to report getting a checkup in the past 12 months (89.6%).

**Additional Subgroup Differences – MEDICAL Checkups:**

**Ethnicity:**

- Non-whites were significantly more likely to report obtaining a routine checkup in the past 12 months, compared to Whites (83% and 73%, respectively).

**Education:**

- There were no statistically significant differences between education levels for annual physical exams.

**Employment:**

- Those with an employment status of “Other” were significantly more likely to report having a routine physical exam within the past 12 months, with 84% compared to 68% of employed and 67% of unemployed respondents.

**Household income:**

- There were no statistically significant differences in routine medical care for household income.

**Additional Subgroup Differences – DENTAL Checkups:**

**Ethnicity:**

- There were no statistically significant differences between whites and non-whites for dental exams.

**Education:**

- As education levels increase, the percentage getting dental checkups in the past 12 months increase:
  - 62% of those with less than a high school degree had a dental checkup in this period.
  - 67% of those with a high school diploma or GED had a dental checkup in this period.
  - 91% of college graduates and post graduates had a dental checkup in this period.

**Employment:**

- Unemployed respondents were less likely to report visiting the dentist within the past 12 months (56%), compared to 83% of employed respondents and 80% of other respondents.

**Household income:**

- Respondents with household incomes less than \$25,000 were less likely to have visited the dentist within the past year - just 49% of this group said they have done so.
- 76% of those with household incomes between \$25,000 and \$75,000 had a dental checkup in this period.

# Dental Health – Tooth Loss

In addition to regular dental exams, tooth loss is another indicator of dental health. In Delaware County, how many adults have had at least one tooth extracted, and do most adults report having multiple permanent teeth removed?

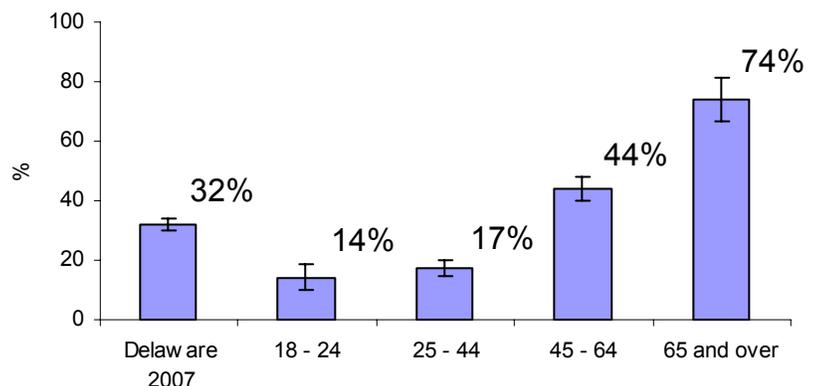
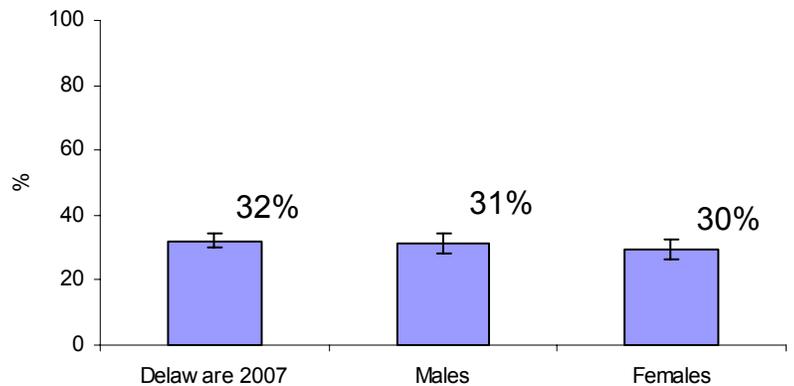
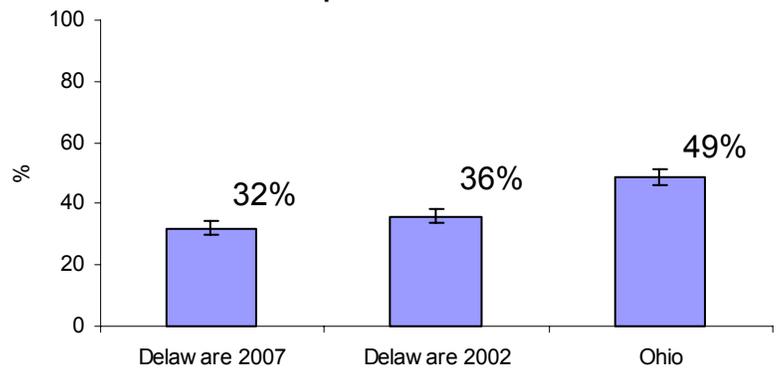
*Q4.2: How many of your permanent teeth have been removed because of tooth decay or gum disease? Do not include teeth lost for other reasons, such as injury or orthodontics.*

In 2007, 32% of Delaware County respondents say they have lost at least one permanent tooth. This proportion represents a statistically significant decrease from 2002 and is also significantly lower than all Ohio residents in 2006 (49%). Most adults have lost relatively few teeth. In 2007, of all adults who have lost any teeth, the majority (70%) say they've lost less than 5. Only 4% of all adults surveyed say they have had all their teeth removed.

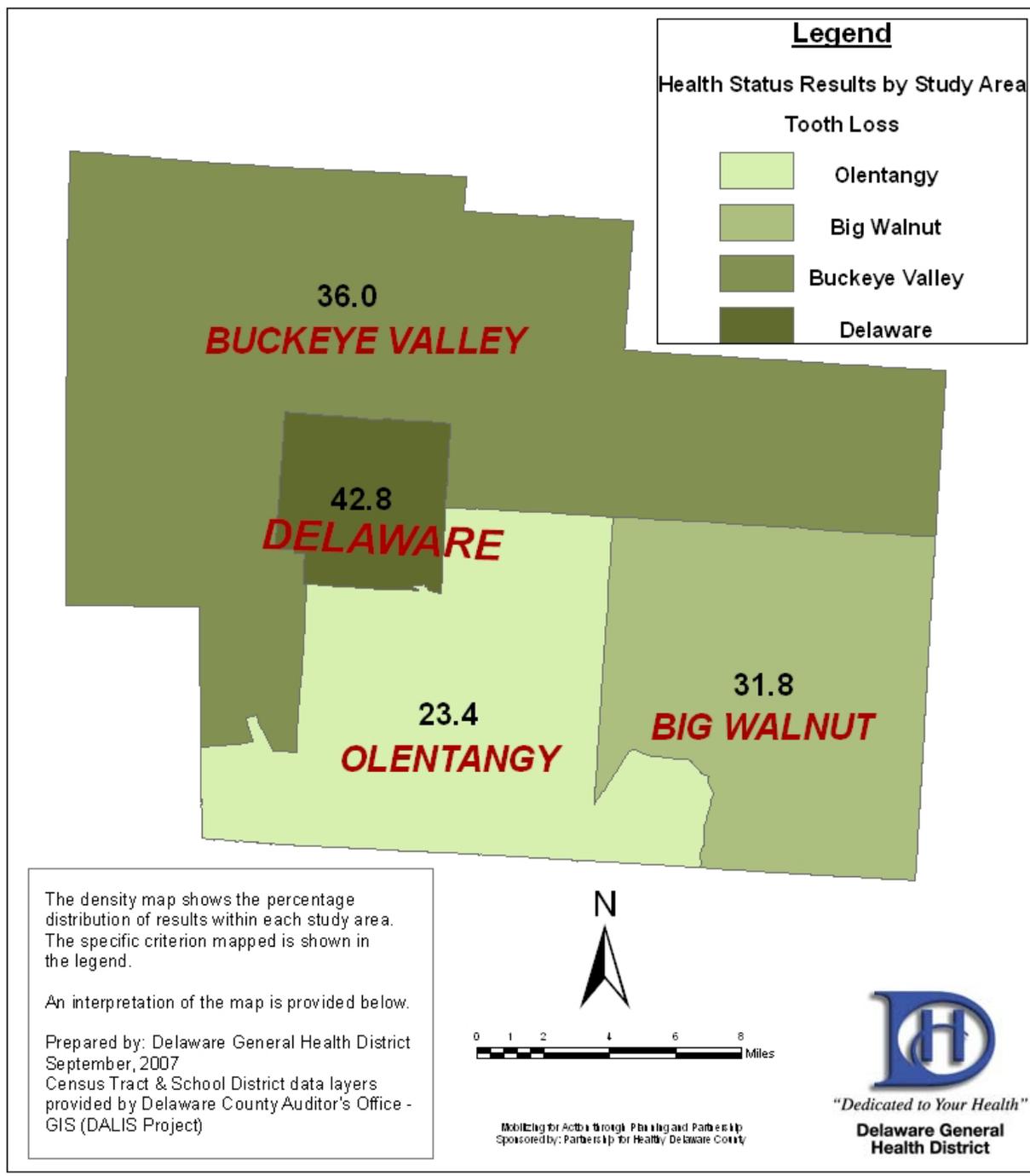
There were no statistically significant differences between males and females with regard to tooth loss. Also, 3% of males and 5% of females say they have lost all their permanent teeth.

Older respondents (especially those 65 and over) were more likely to report they had had at least one permanent tooth extracted. Those over aged 65 were much more likely than all other groups to report they had all their permanent teeth removed (19% of this age group, compared to 5% of adults 45 – 64 and less than 5% those 44 and under).

**Percentage of adults who have lost at least one permanent tooth**



## Adults who lost at least One Permanent tooth



Those in the Delaware region were more likely to report having lost at least one tooth (42.8%), while those in the Olentangy region were less likely to report having lost at least one tooth (23.4%).

**Additional Subgroup Differences:**

**Ethnicity:**

- There were no statistically significant differences as a function of ethnicity.

**Education:**

- Respondents with less than a college degree reported more teeth lost than those with a college or post graduate degree.

**Employment:**

- Those with an employment status of “Other” reported more teeth lost than employed or unemployed respondents.
  - This finding is likely due to the high number of older respondents (i.e., retired adults) who have an “other” employment status.

**Household income:**

- Respondents with lower household incomes (under \$25,000) reported more teeth lost than those with higher household incomes (greater than \$25,000).

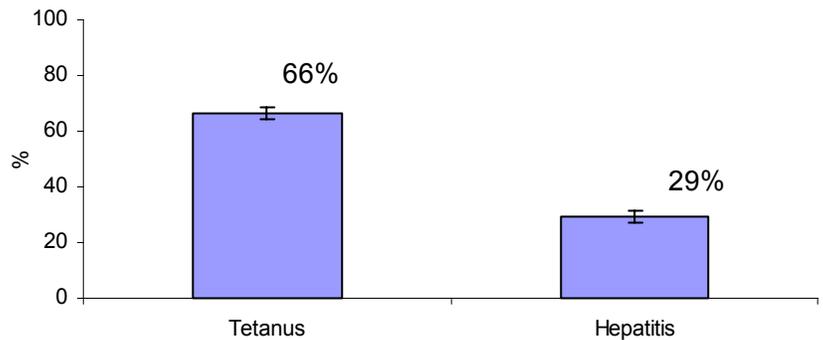
# Immunizations – Tetanus / Hepatitis B

All adults should receive vaccinations against hepatitis B at least once in their lifetime and against tetanus every ten years. To what extent are Delaware County residents taking these preventative measures to ensure their good health?

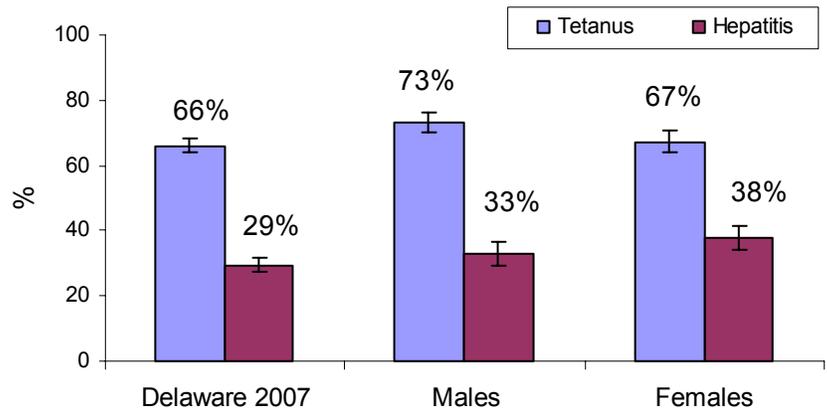
Q8.3: Have you ever received the hepatitis B vaccine? The hepatitis B vaccine is completed after the third shot is given.  
 Q8.4: During the past 10 years, have you received a tetanus shot?

In 2007, 66% of all adults say they've had a tetanus vaccine within the last 10 years, compared to 61% in 2002. This is a statistically significant increase over time. Only 29% of adults say they have ever received a hepatitis B vaccine. The hepatitis B question was not asked on the 2002 Delaware BRFSS. For both questions, no state data are available.

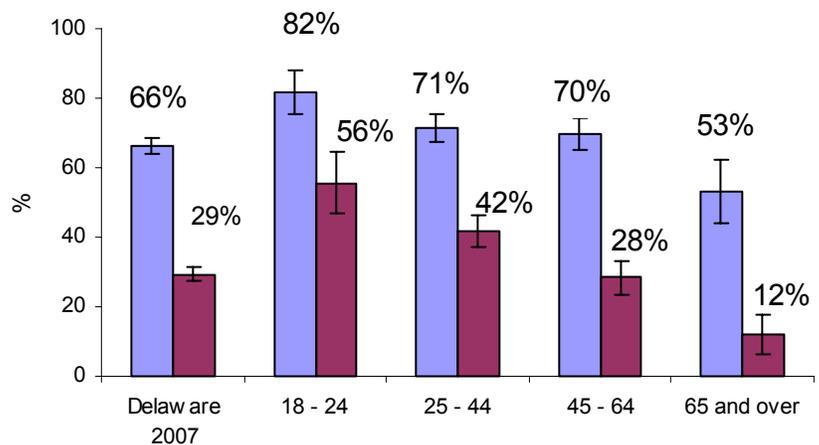
**Percentage receiving vaccination (2007 Delaware BRFSS)**



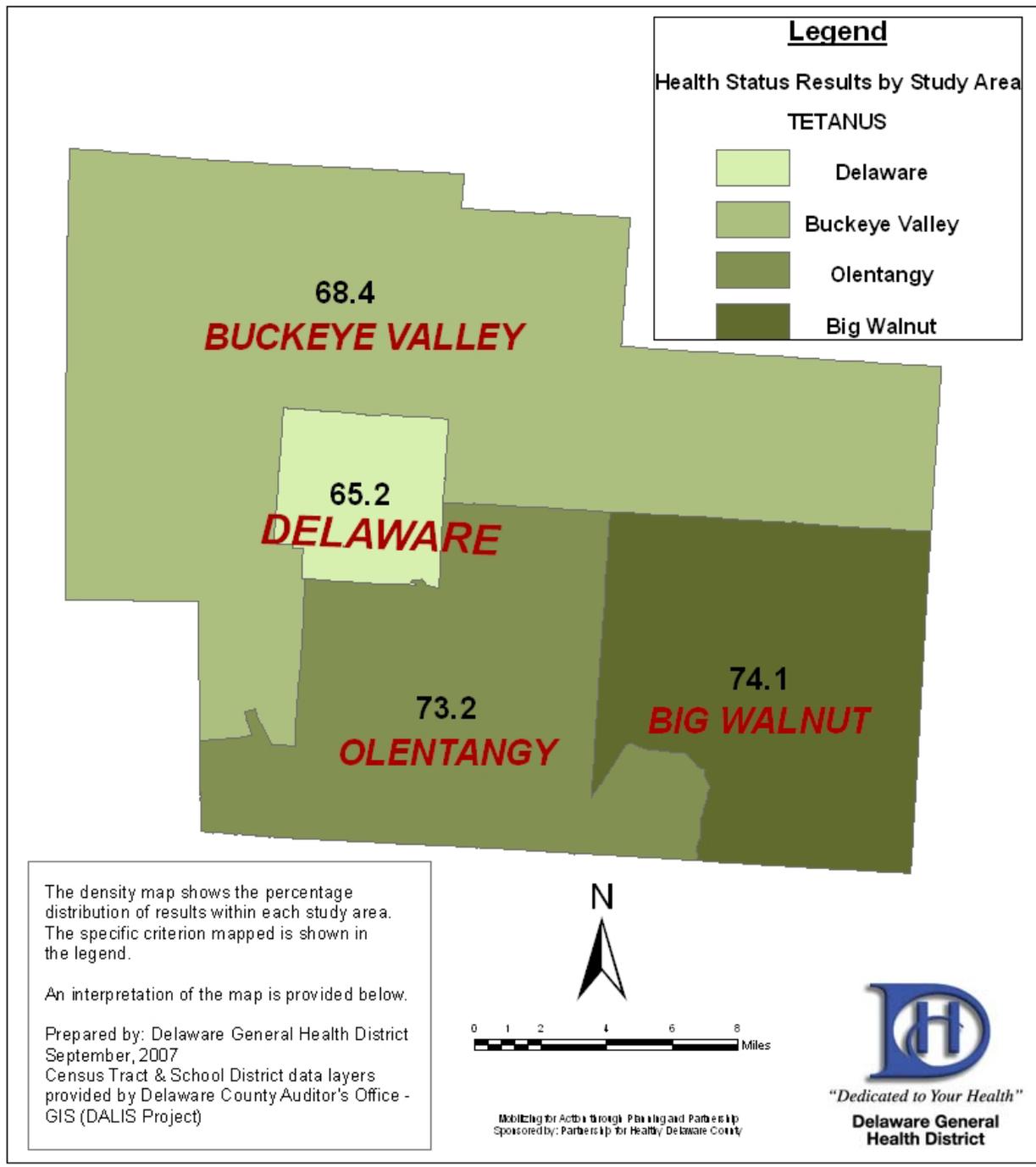
There were no significant differences by gender for tetanus. However, women were significantly more likely than men to report ever receiving a Hepatitis B vaccination (38% vs. 33%).



For both tetanus and hepatitis B vaccinations, the youngest residents (those under age 25) were significantly more likely to report being vaccinated than were the oldest residents (those 65 and over).

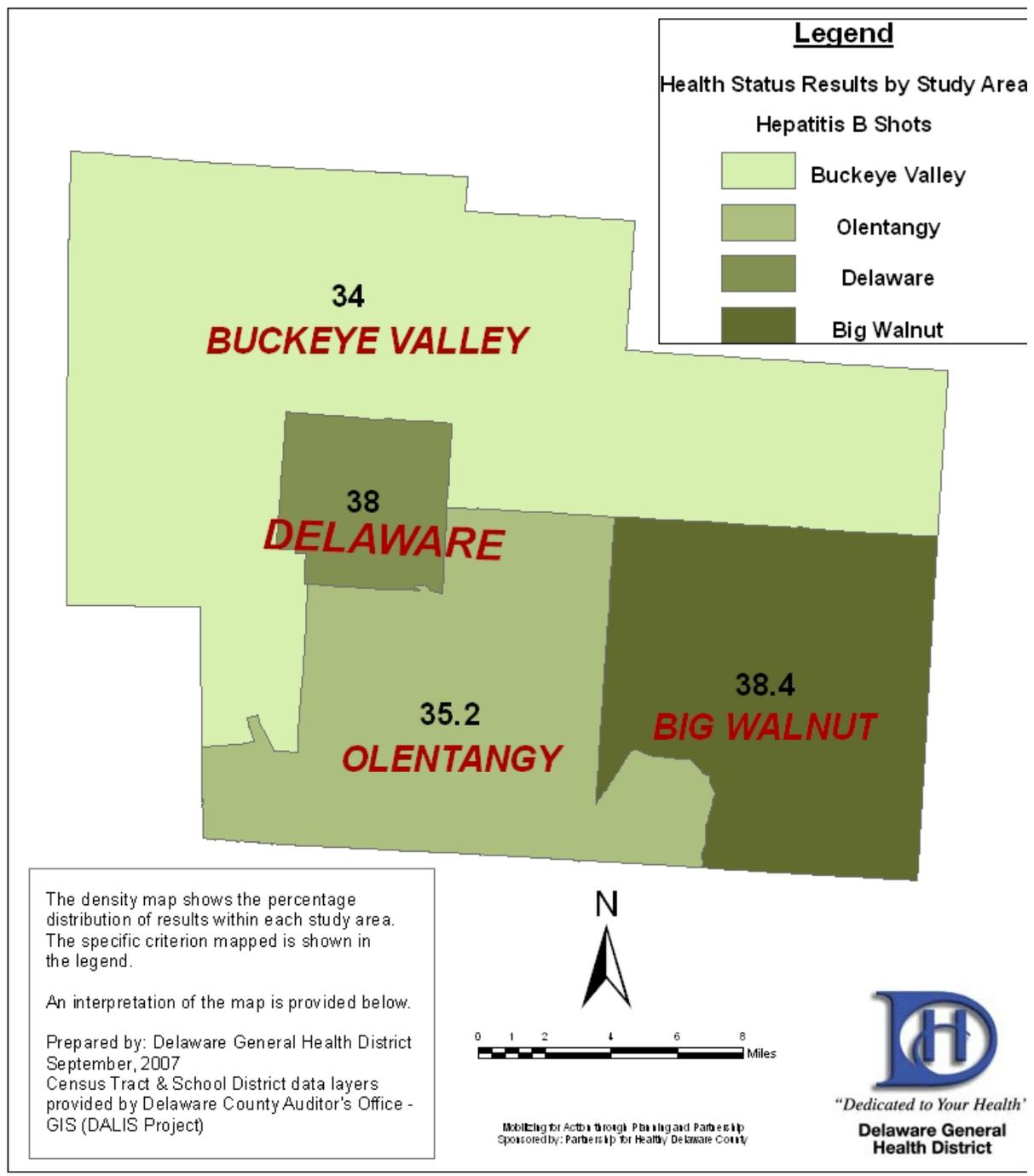


## Adult who reported ever getting a Tetanus shot in the past 10 years



Those in the Delaware region were less likely to have received a tetanus shot in the past 10 years (65.2%).

# Adult who reported ever getting a Hepatitis B vaccination



No statistically significant differences were noted across the four regions.

**Additional Subgroup Differences – TETANUS vaccination:**

**Ethnicity:**

- There were no statistically significant differences as a function of ethnicity.

**Education:**

- There were no statistically significant differences as a function of educational status.

**Employment:**

- There were no statistically significant differences as a function of employment status.

**Household income:**

- Those in the lowest income category were less likely to report receiving a tetanus shot in the past 10 years (55%).

**Additional Subgroup Differences – HEPATITIS B vaccination:**

**Ethnicity:**

- There were no statistically significant differences as a function of ethnicity.

**Education:**

- Those with a high school degree were less likely to report receiving the hepatitis B vaccinations (19%).

**Employment:**

- Unemployed respondents were less likely to report receiving the hepatitis B vaccinations (11%).

**Household income:**

- Those with household incomes below \$25,000 were less likely to report receiving the hepatitis B vaccinations (26%).

# Immunizations – Flu / Pneumonia

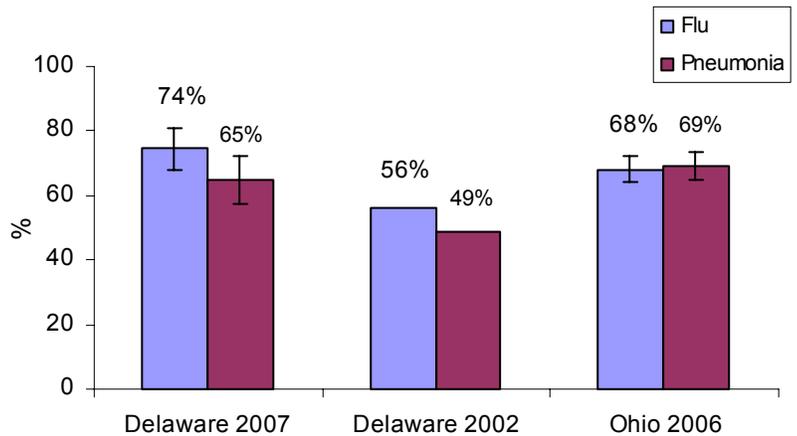
Flu and pneumonia vaccinations are a critical component of preventative care, especially for adults aged 65 and over. How many older adults (those 65 and over) in Delaware County have received these immunizations?

*Q8.1: A flu shot is an influenza vaccine injected into your arm. FluMist™ is the flu vaccine sprayed in your nose. During the past 12 months, have you had a flu shot or FluMist™?*

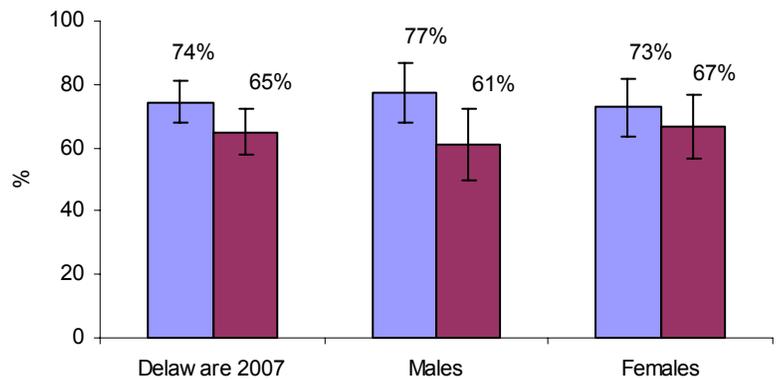
*Q8.2: A pneumonia shot or pneumococcal vaccine is usually given only once or twice in a person’s lifetime and is different from the flu shot. Have you ever had a pneumonia shot?*

**Adults 65 and over receiving flu vaccination in past year and pneumonia vaccination ever**

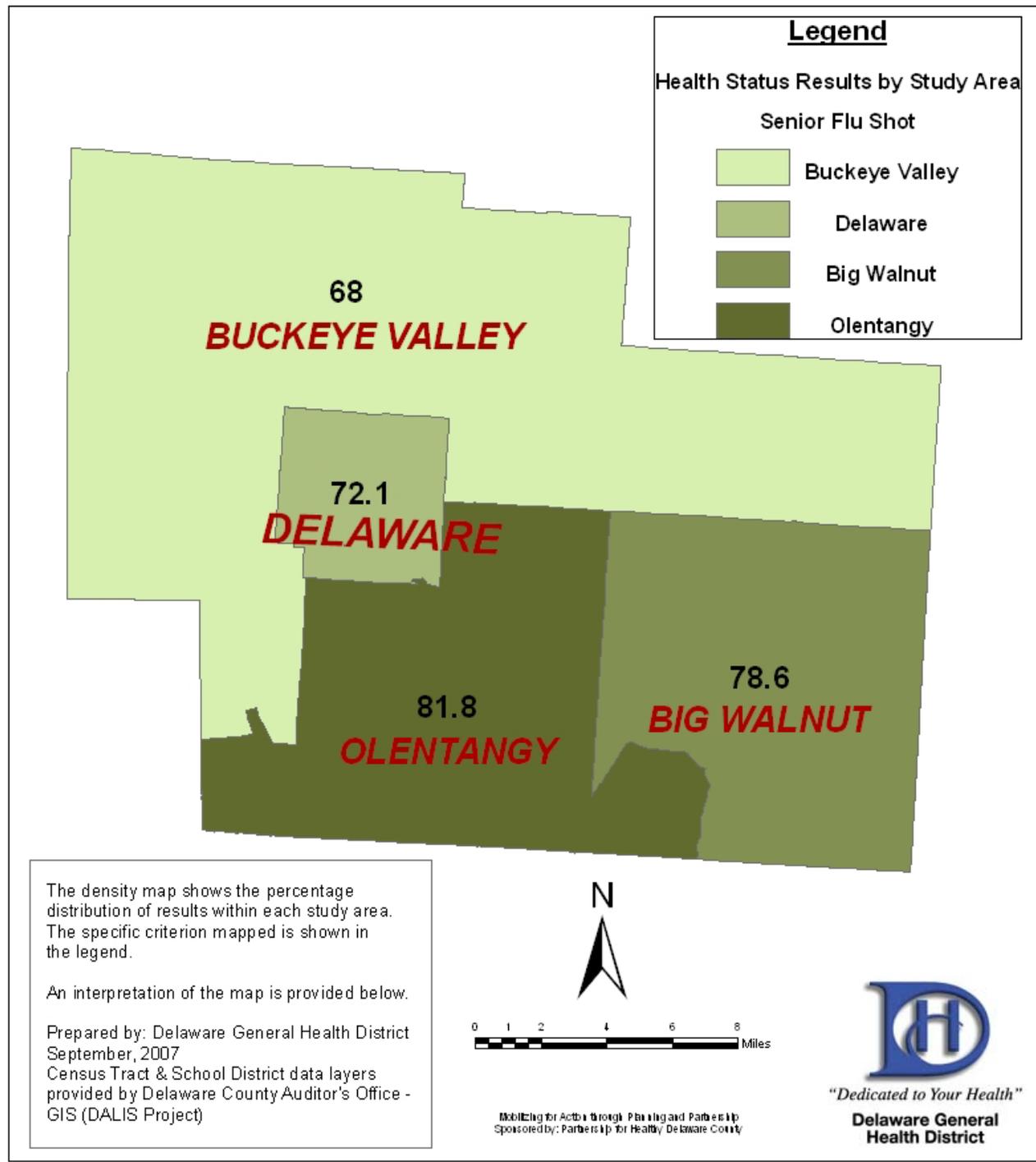
In 2007, 74% of all Delaware County residents aged 65 and over report receiving the flu vaccination within the past year and 65% say they have been vaccinated against pneumonia in their lifetime. These results are comparable to rates reported for Ohio in 2006.



There were no significant differences in vaccination rates by gender.

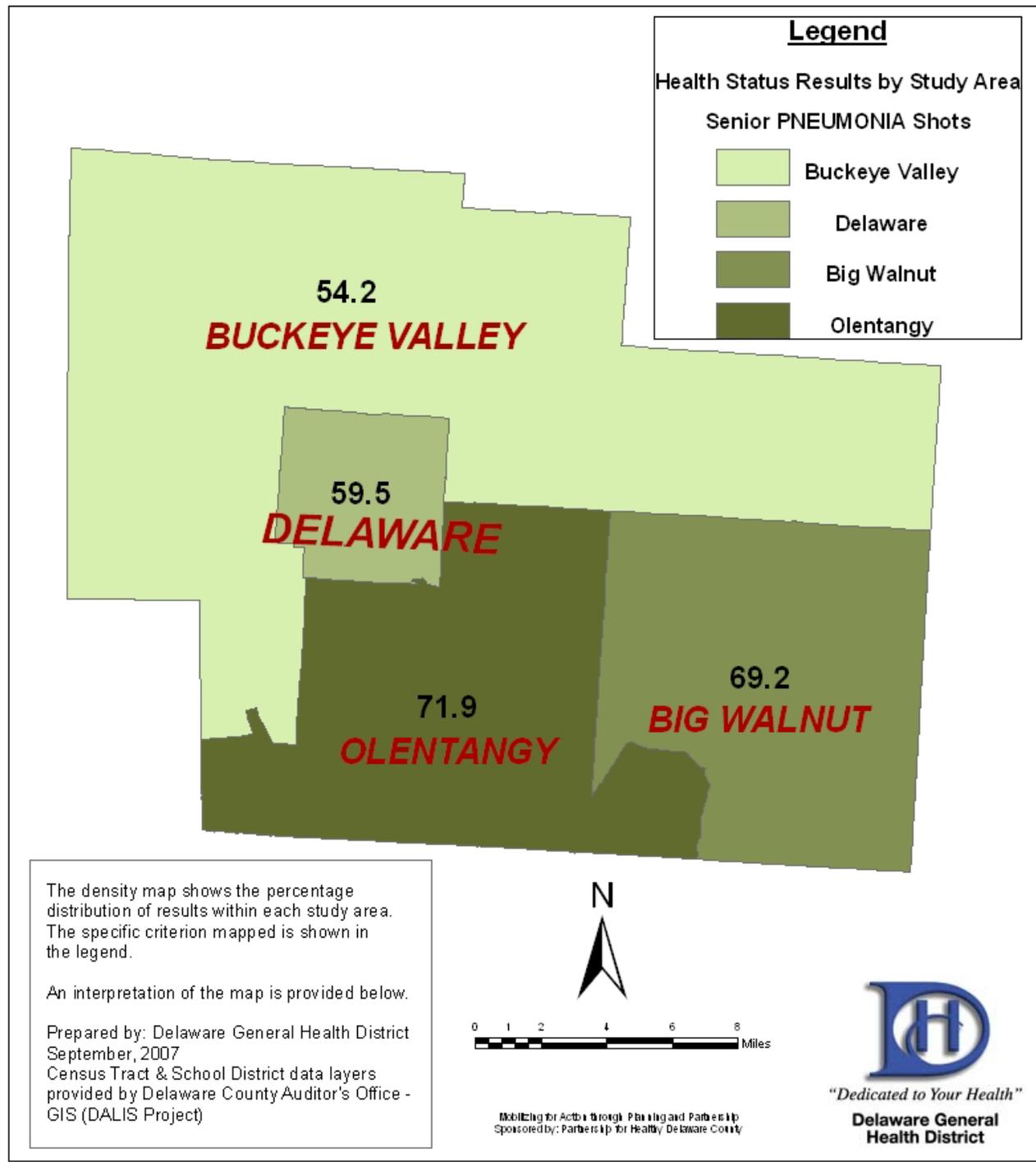


## Older Adults (65+) who reported getting a Flu Shot in the past 12 months



No statistically significant differences were noted across the four regions.

## Older Adults (65+) who reported getting a Pneumonia Vaccine



No statistically significant differences were noted across the four regions.

**Additional Subgroup Differences – FLU immunization:**

**Ethnicity:**

- There were no statistically significant differences as a function of ethnicity.

**Education:**

- There were no statistically significant differences as a function of educational status.

**Employment:**

- Those with an employment status of “Other” were more likely to report receiving a flu vaccine in the past 12 months (77%).

**Household income:**

- There were no statistically significant differences as a function of household income.

**Additional Subgroup Differences – PNEUMONIA immunization:**

**Ethnicity:**

- There were no statistically significant differences as a function of ethnicity.

**Education:**

- There were no statistically significant differences as a function of educational status.

**Employment:**

- Those with an employment status of “Other” were more likely to report ever receiving a pneumonia vaccine (68%).

**Household income:**

- There were no statistically significant differences as a function of household income.

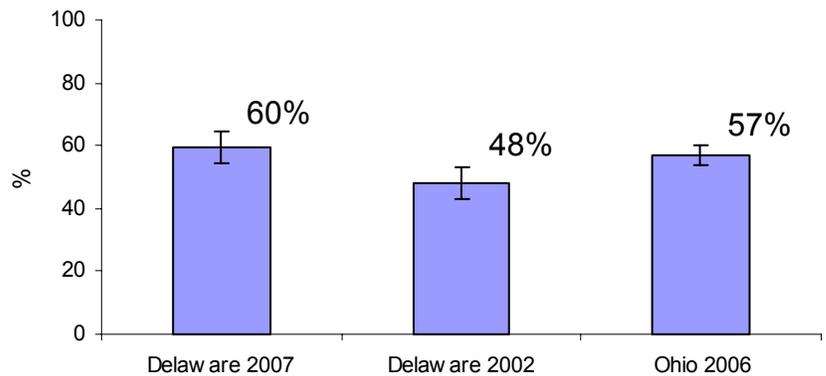
# Colon Cancer Screening

All adults over the age of 50 should have a sigmoidoscopy or colonoscopy to check for colon cancer. These tests should be repeated every 5 – 10 years. How many adults in Delaware County have had these screening procedures?

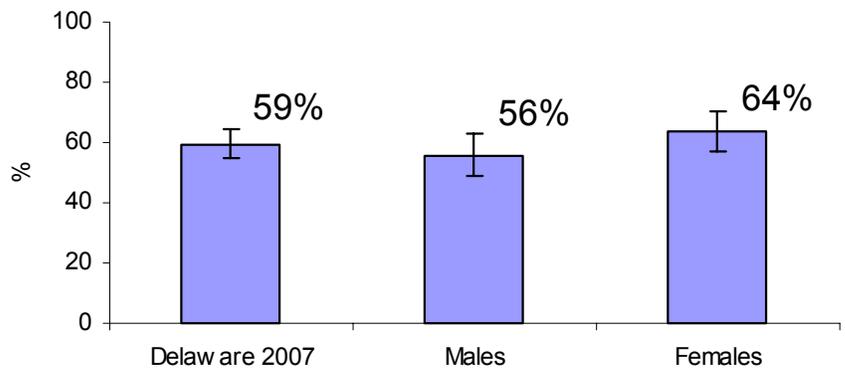
*Q16.1: Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems. Have you ever had either of these exams?*

In 2007, 60% of all adults aged 50 and over say they have received at least one sigmoidoscopy or colonoscopy in their lifetime. This proportion is similar to 2006 Ohio data but significantly greater than 2002 Delaware data. Of the 60% of adults over 50 who reported every having one of these screenings, 84% had such an exam within the past five years.

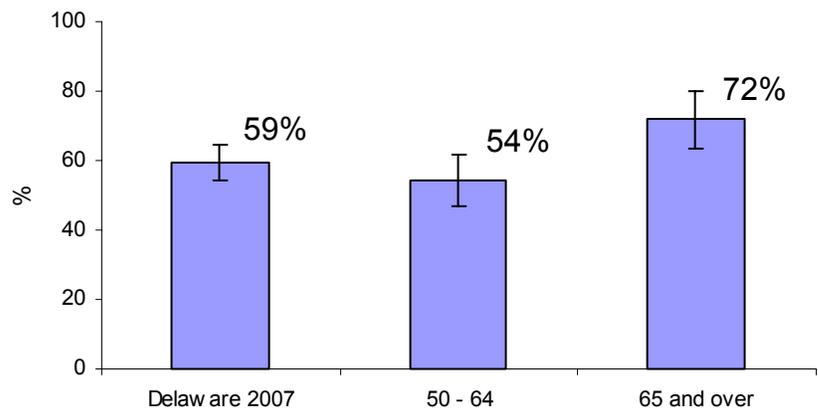
**Percentage of adults (age 50+) reporting ever having a colonoscopy or sigmoidoscopy**



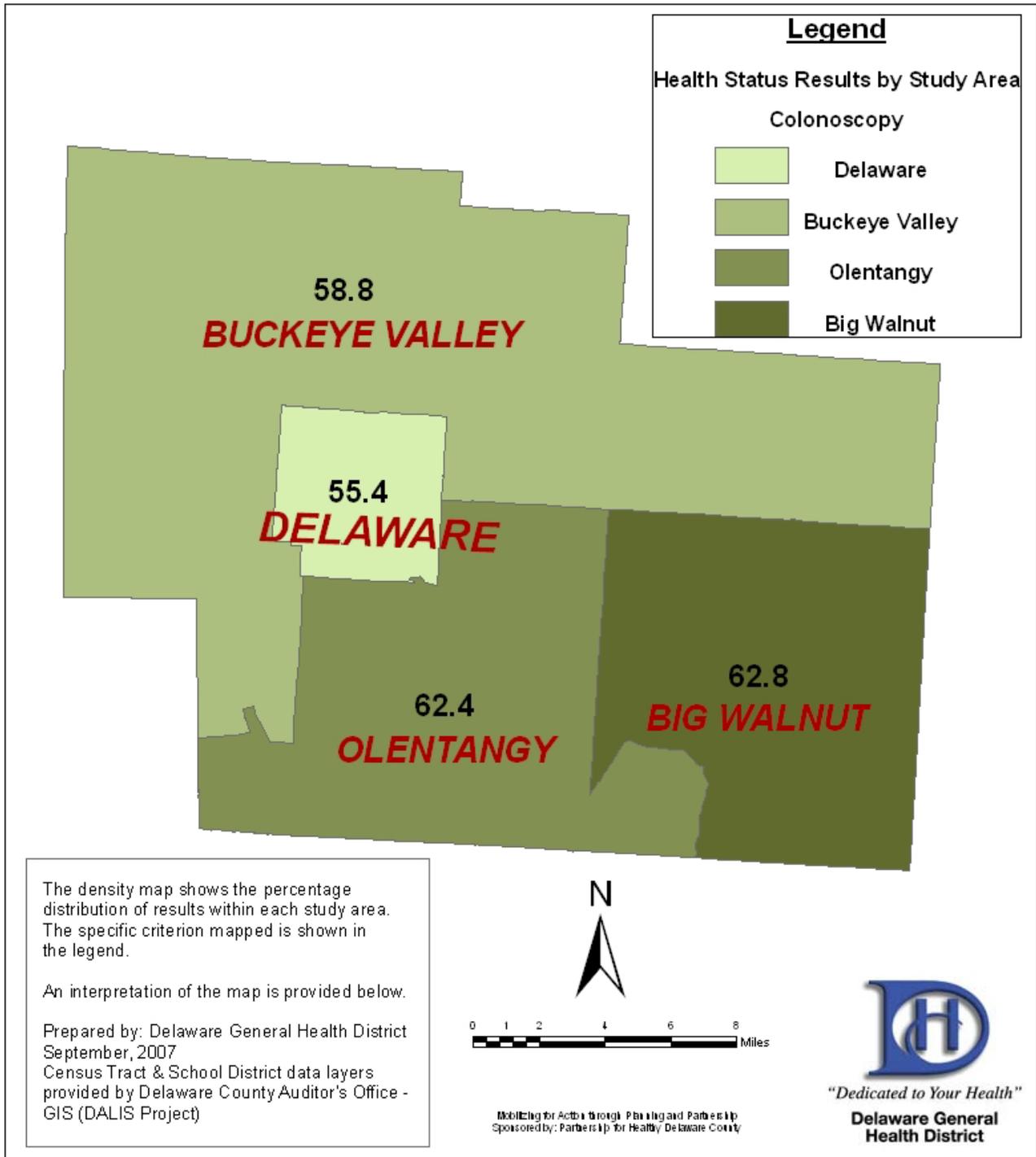
There were no significant differences between males and females for these procedures.



Residents aged 65 and over were significantly more likely to report having either a sigmoidoscopy or a colonoscopy: 72% of these surveyed adults reported having one of the exams, compared to 54% of respondents aged 50 – 64.



# Adults (50+) who reported ever having a Colonoscopy



There were no statistically significant differences in colon cancer screening rates across the four regions.

**Additional Subgroup Differences:**

**Ethnicity:**

- There were no statistically significant differences as a function of ethnicity.

**Education:**

- There were no statistically significant differences as a function of educational status.

**Employment:**

- There were no statistically significant differences as a function of employment status.

**Household income:**

- There were no statistically significant differences as a function of household income.

# Prostate Cancer Screening

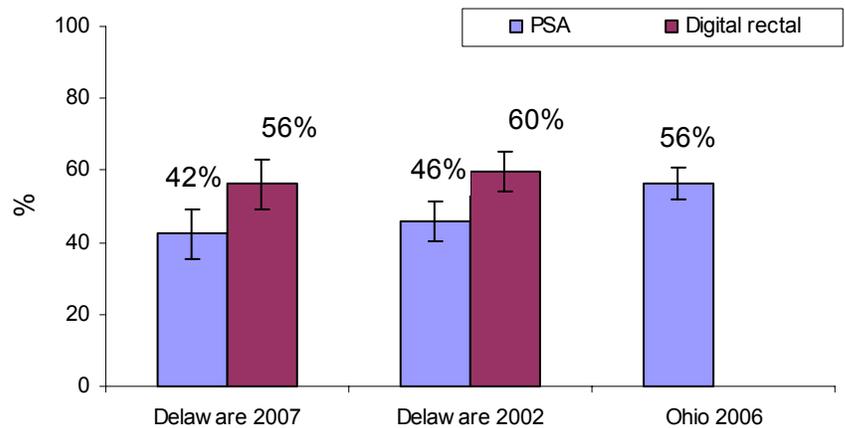
According to the 2007 BRFSS, 3% of men over the age of 40 have been diagnosed with prostate cancer. What preventative measures are men in Delaware County taking to ensure successful detection and treatment of this disease? There are at least two ways men can be tested for prostate cancer: by receiving a digital rectal exam from their doctor or other health provider and by having a blood test called a Prostate-Specific Antigen (or PSA) test.

Q15.2: How long has it been since your last PSA test?

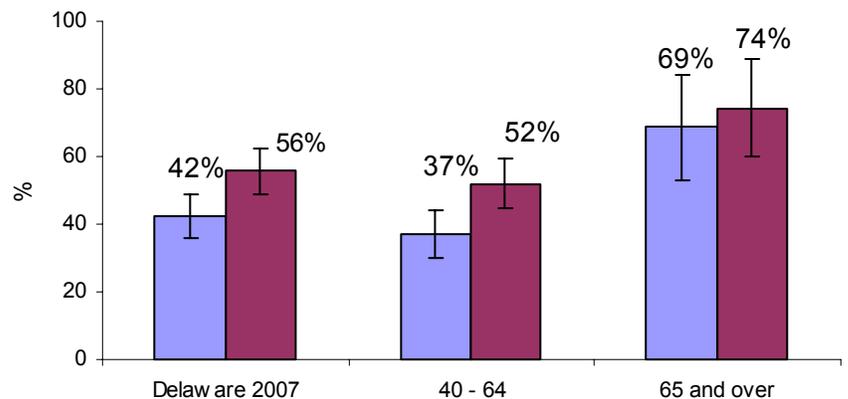
Q15.4: How long has it been since your last digital rectal exam?

In 2007, 42% of all Delaware County men aged 40 and over say they have received a PSA test within the past year. As compared to 2006 Ohio data (56%), this difference is a statistically significant one. In addition, 56% of men over 40 reported having a digital rectal exam within the past two years. State data for this variable is unavailable.

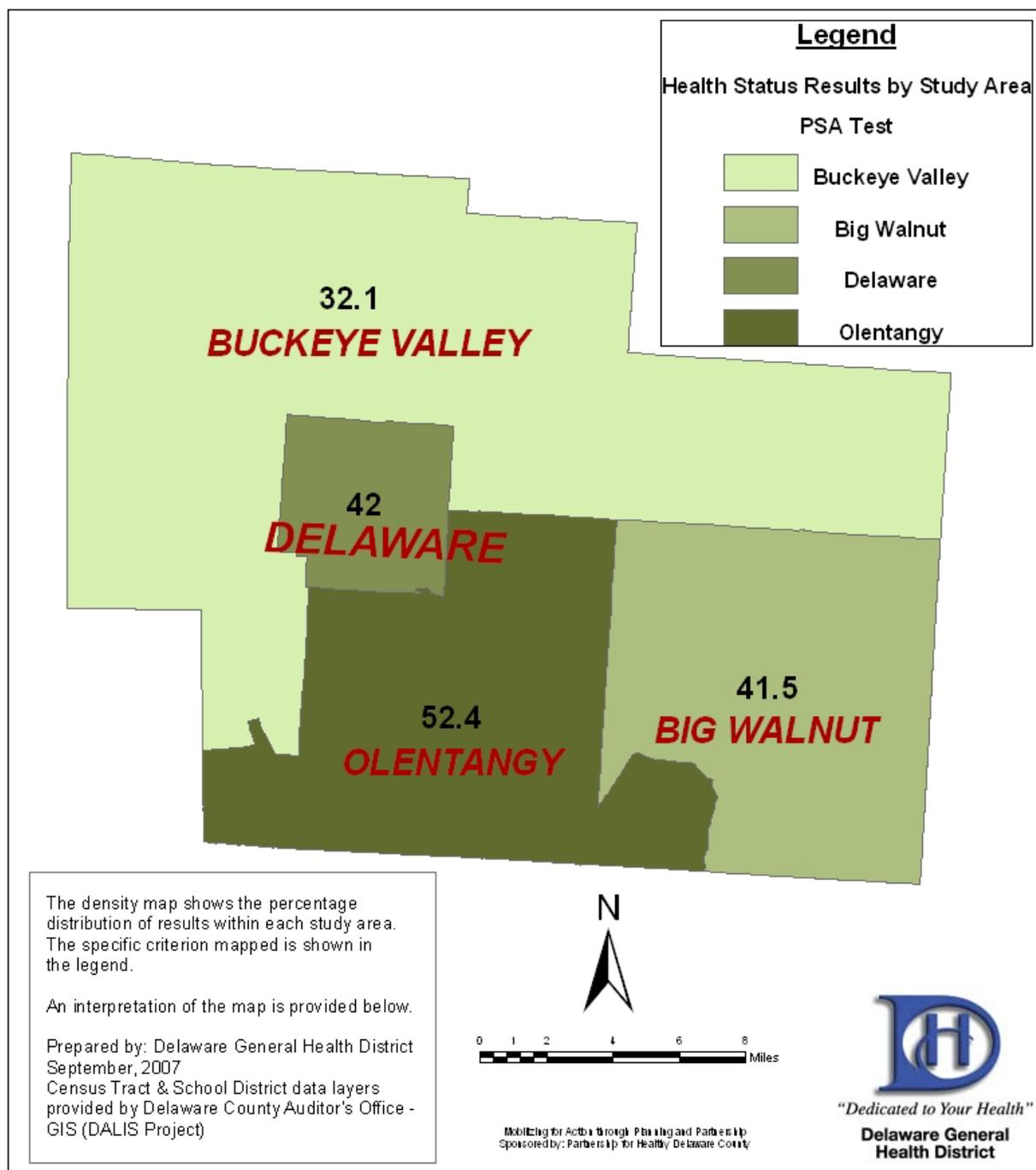
**Percentage of men over age 40 receiving a prostate cancer screen in past 2 years**



Respondents aged 65 and over were more likely to report have a PSA test and digital rectal exams in the past two years as compared to their younger counterparts.

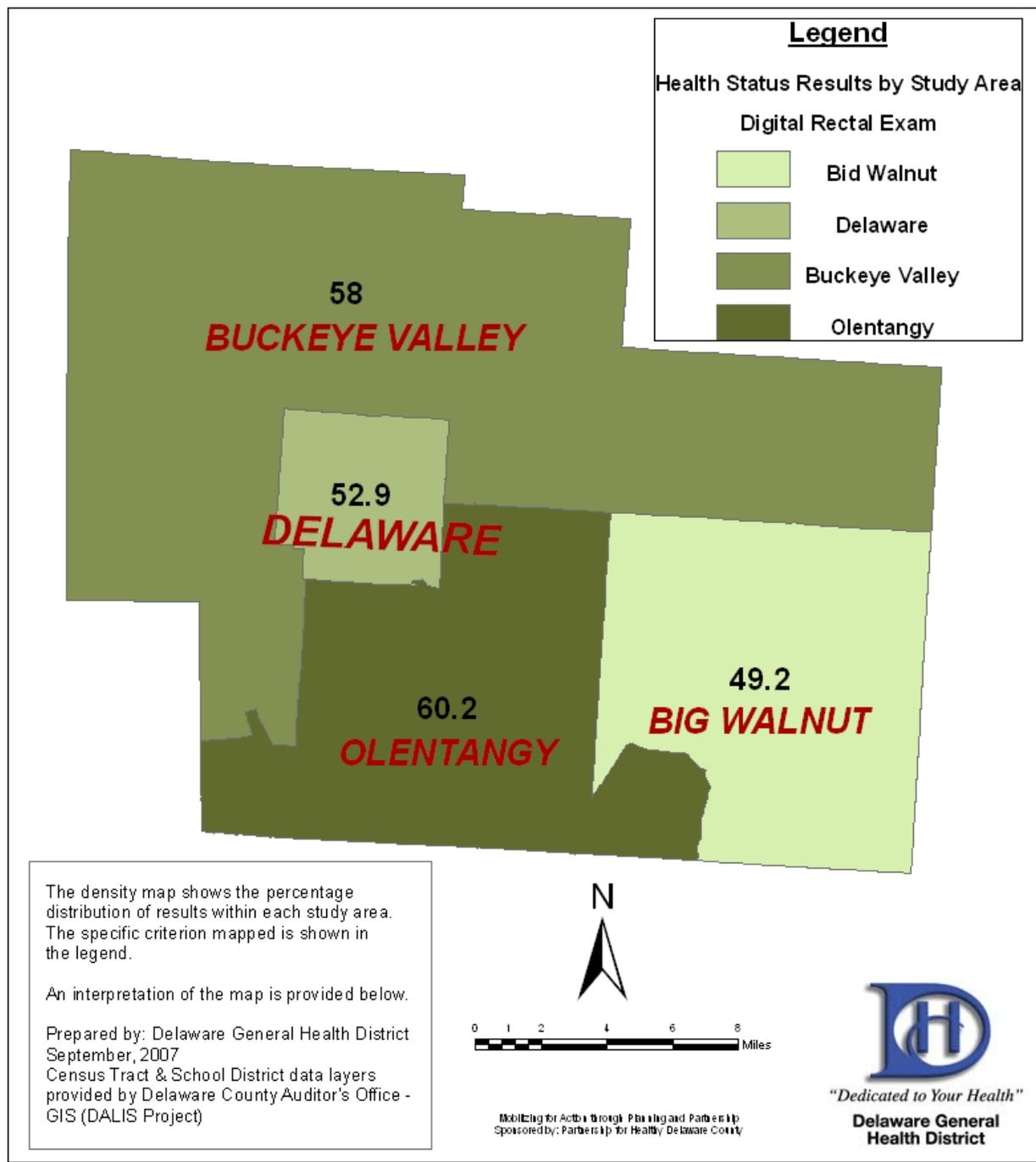


## Men (40+) who reported having a PSA test in the past two years



Those in the Buckeye Valley region were less likely to report having a PSA test in the past two years (32.1%) while those in the Olentangy region were more likely to report having one during this time period (52.4%).

## Men (40+) who reported having a Digital rectal exam in the past two years



There were no statistically significant differences in the rate of digital rectal exams across the four regions.

**Additional Subgroup Differences:**

**Ethnicity:**

- There were no statistically significant differences in colon cancer screenings as a function of ethnicity.

**Education:**

- There were no statistically significant differences in colon cancer screenings as a function of educational status.

**Employment:**

- Those with an “other” employment status were more likely to report having a PSA test or a digital rectal exam in the past two years (60% and 69%, respectively).

**Household income:**

- There were no statistically significant differences in colon cancer screenings as a function of household income.

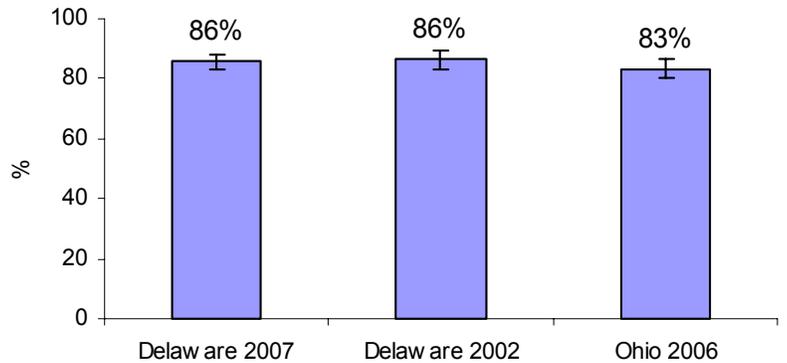
# Pap Test

All adult women should receive an annual Pap test to check for cervical cancer and other abnormalities. In Delaware County, what percentage of women has received a Pap smear within at least the past three years?

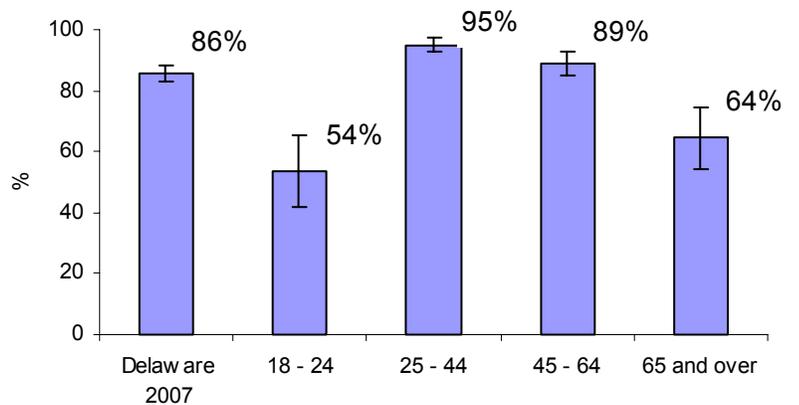
Q14.6: How long has it been since you had your last Pap test?

In 2007, 86% of all women report having a Pap test within the past three years. This figure is very similar to 2002 Delaware and 2006 Ohio data.

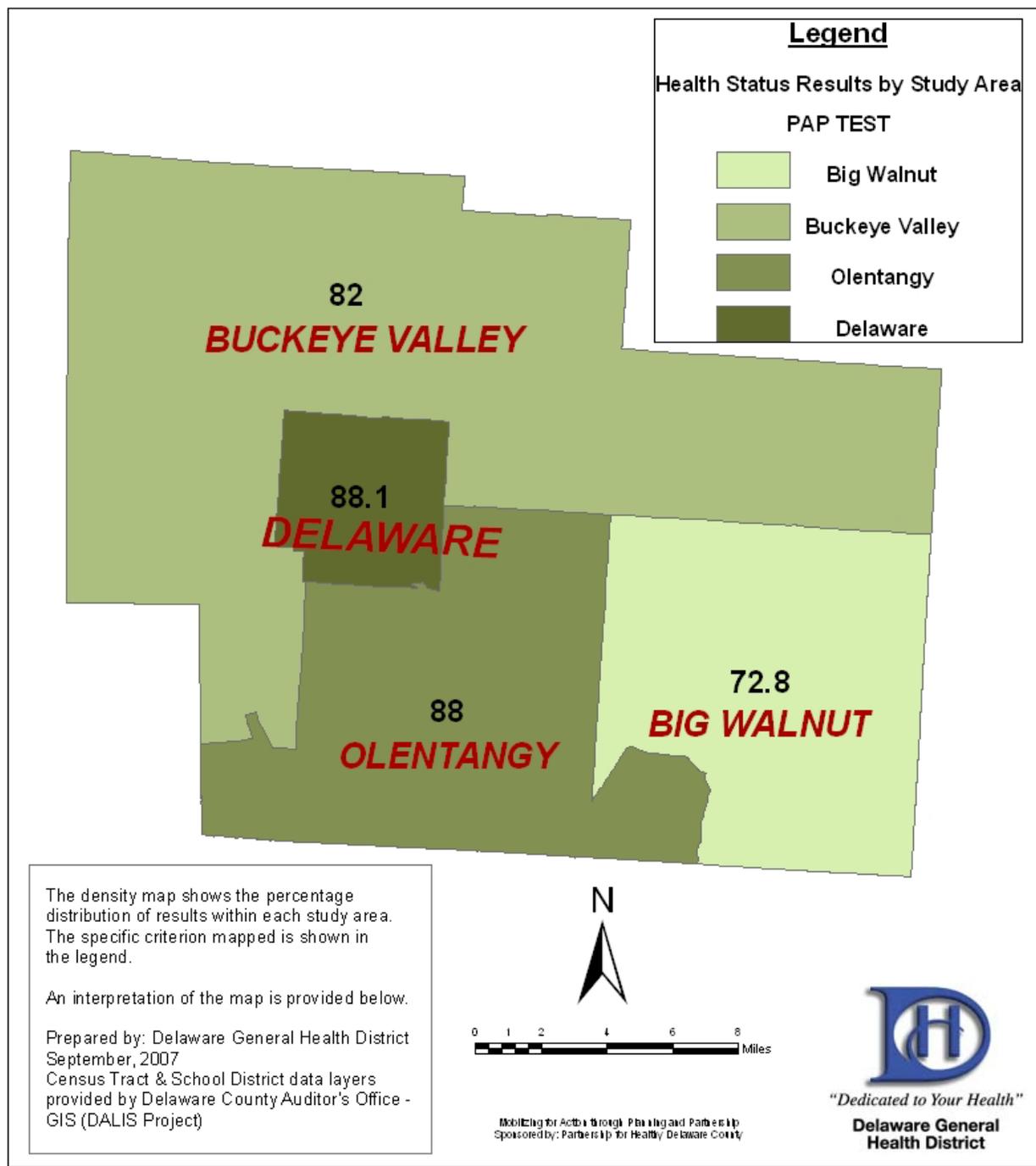
**Percentage of women reporting a Pap test in past three years**



Younger women (ages 18 – 24) and older women (ages 65 and over) were less likely to report having a Pap test in the past three years than were middle aged women.



## Women who reported having a Pap test in the past three years



Those in the Big Walnut region were less likely to report having a PAP test in the past 3 years (72.8%).

**Additional Subgroup Differences:**

**Ethnicity:**

- There were no statistically significant differences in Pap test rates as a function of ethnicity.

**Education:**

- Respondents with less than a high school education or a high school diploma were less likely to report having a Pap test in the past three years (41% and 75%, respectively).
- Those with a post graduate degree were more likely to report having a Pap test in the past three years (97%).

**Employment:**

- Employed women were more likely to report having a Pap test within the past three years (90%).

**Household income:**

- Respondents with the highest household incomes were more likely to report having a Pap test in the past three years (95%).

# Breast Cancer Screening

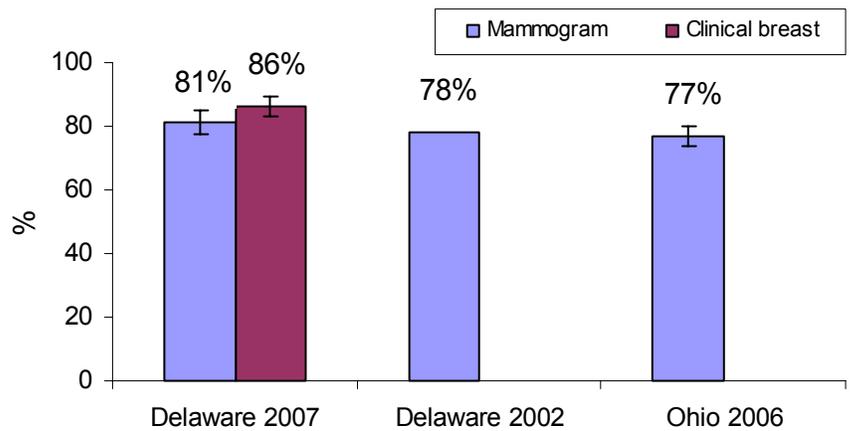
Because early detection of breast cancer significantly improves survival rates, organizations such as the American Cancer Society (among others) have recommended that women be regularly screened for breast cancer. There are two main ways to screen women for breast cancer: mammograms (i.e., x-rays of each breast taken by a technician) and clinical breast exams (i.e., physical examinations of the breast conducted by a doctor, nurse or other health care professional). Women over the age of 40, in particular, are encouraged to seek more frequent breast cancer screenings.

Q14.2: How long has it been since your last mammogram?

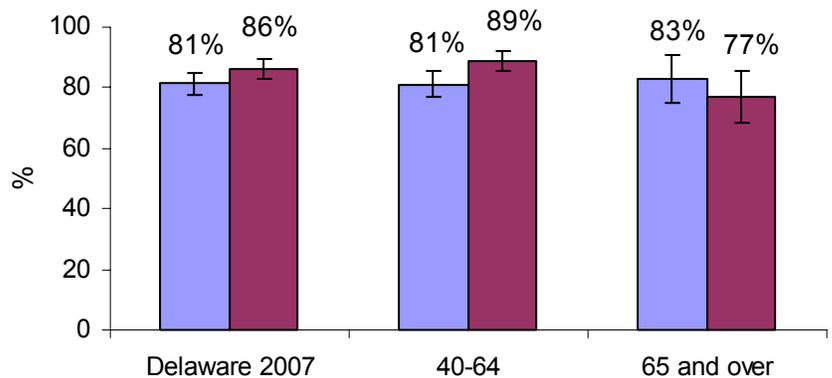
Q14.4: How long has it been since your last clinical breast exam?

**Percentage of women over age 40 reporting breast cancer screenings within past 2 years**

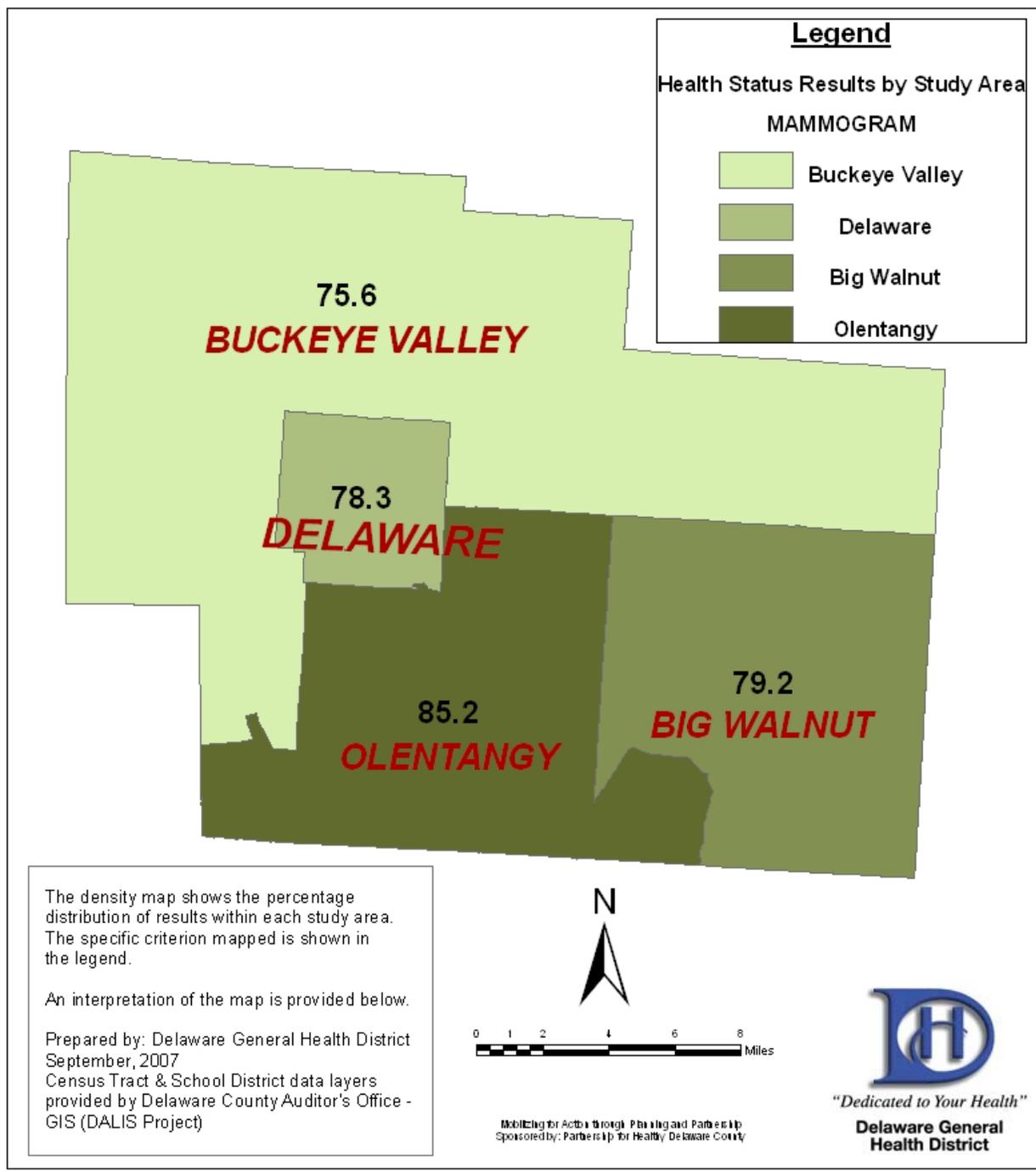
In 2007, 81% of all women aged 40 and over say they have received a mammogram within the past two years, similar to the statewide figure of 77% in 2006. Additionally, 86% of women in this aged group say they have had a clinical breast exam in the past two years. Data for this question is unavailable for the 2002 Delaware or 2006 Ohio BRFSS. (Because the raw data from Delaware 2002 were unavailable, error bars for that year's estimate could not be computed.)



No significant differences in mammogram rates were observed between age groups. However, those aged 40-64 were more likely than those aged 65 and over to report receiving a clinical breast exam in the past two years.

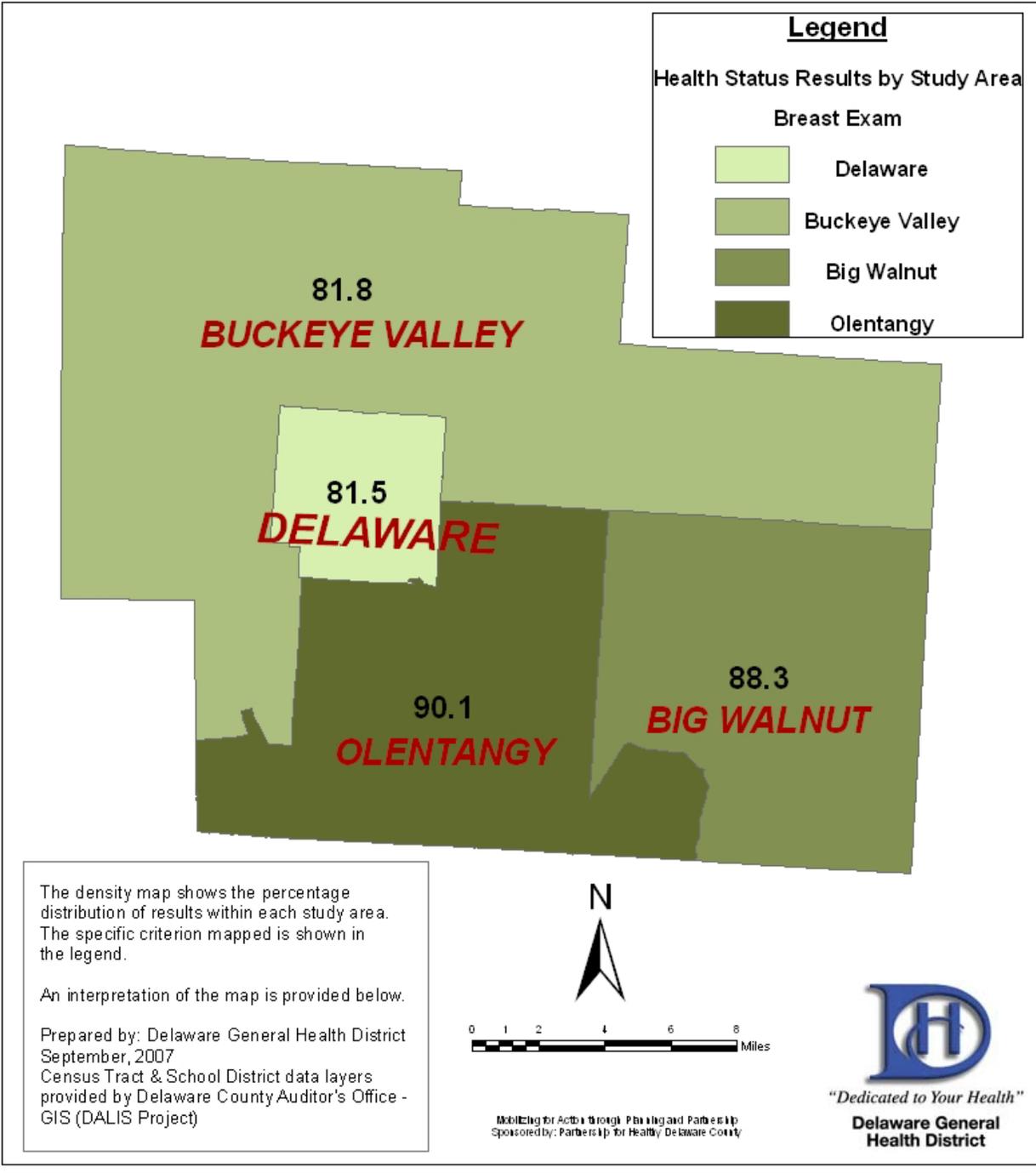


## Women (40+) who reported having a Mammogram in the past two years



There were no statistically significant differences observed across the four regions.

## Women (40+) who reported having a Breast exam in the past two years



There were no statistically significant differences observed across the four regions.

**Additional Subgroup Differences - MAMMOGRAMS:**

**Ethnicity:**

- There were no statistically significant differences in mammogram rates as a function of ethnicity.

**Education:**

- There were no statistically significant differences in mammogram rates as a function of educational status.

**Employment:**

- There were no statistically significant differences in mammogram rates as a function of employment status.

**Household income:**

- There were no statistically significant differences in mammogram rates as a function of household income.

**Additional Subgroup Differences – CLINICAL BREAST EXAMS:**

**Ethnicity:**

- There were no statistically significant differences in clinical breast exam rates as a function of ethnicity.

**Education:**

- Residents with lower levels of educations (those with less than a high school education or a high school education) were less likely to report having a clinical breast exam in the past two years (67% and 74%, respectively).

**Employment:**

- There were no statistically significant differences in clinical breast exam rates as a function of employment status.

**Household income:**

- Respondents with lower household incomes (less than \$25,000 and between \$25,000-\$75,000) were less likely to report having a clinical breast exam in the past two years (74% and 82%, respectively).

# Family Planning

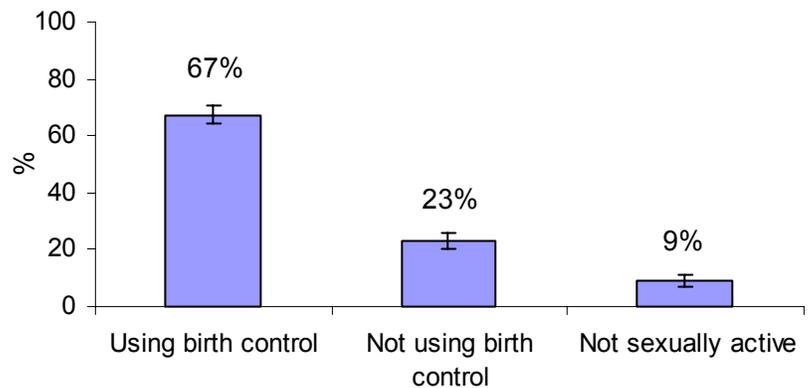
Men under age 60 and women under age 45 and under were asked to indicate what, if anything, they were doing to prevent pregnancy.

*Q18.6: Some things people do to keep from getting pregnant include not having sex at certain times, using birth control methods such as the pill, implants, shots, condoms, diaphragm, foam, IUD, having their tubes tied, or having a vasectomy. Are you or your partner doing anything to keep you / her from getting pregnant?*

*[IF NO] Q18.7 What is your main reason for not doing anything to keep you / her from getting pregnant?*

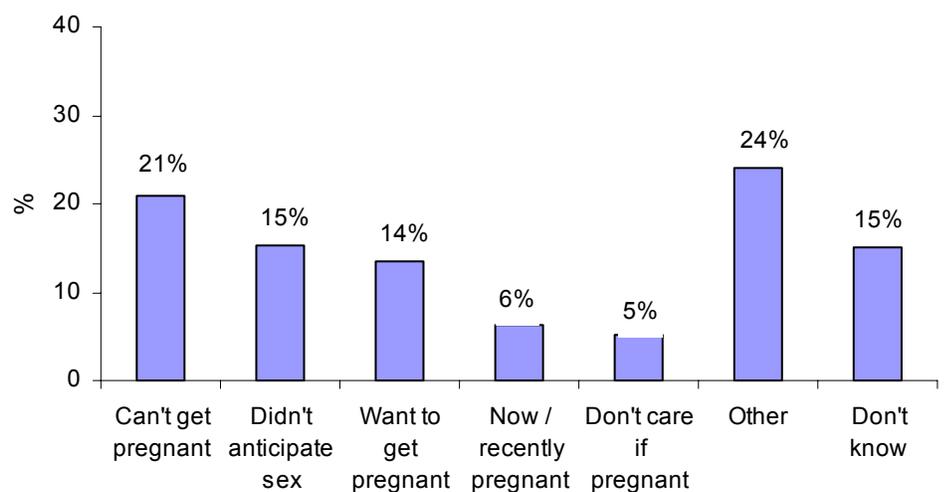
Of the 812 respondents who were asked this question, the majority (67%) reported engaging in some form of birth control. Note: The specific types of birth control used were not identified by the respondents.

**Percentage of men under age 60 and women under age 45 using birth control (2007 Delaware BRFSS)**

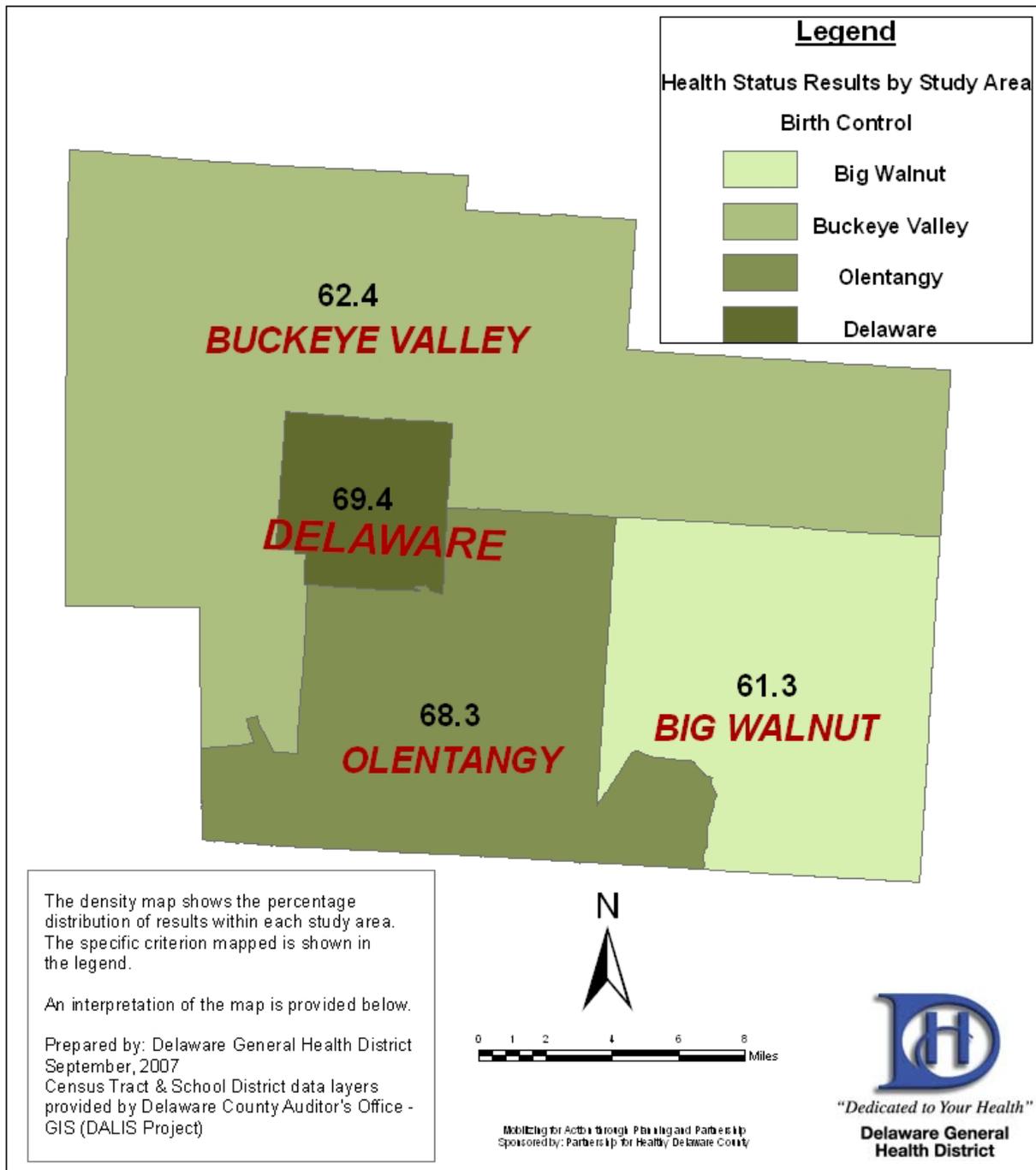


Of the 274 respondents who indicated they were not using birth control at the current time, a plurality (21%) said it was because they or their partner could not get pregnant for some reason (infertility, sterilization, age, etc.). Another 15% didn't anticipate having sex or they had no regular partner while 14% wanted to get pregnant.

**Percentage of men under age 60 and women under age 45 – rationale for not using birth control (2007 Delaware BRFSS)**



## Adults who reported using at least one form of birth control

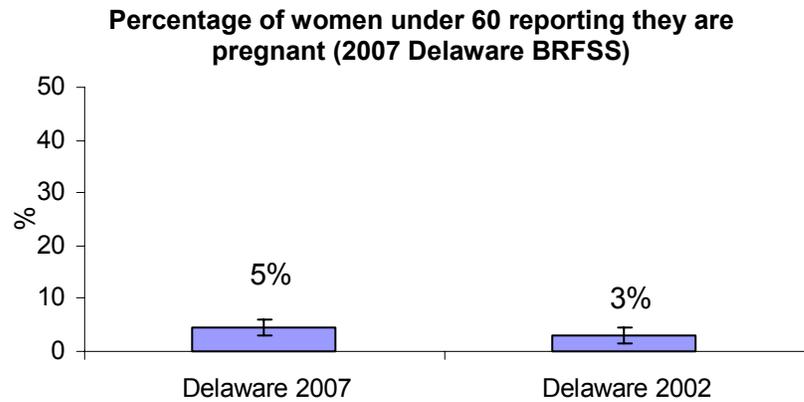


There were no statistically significant differences in birth control rates across the four regions.

How many women in Delaware County are currently pregnant? All female respondents under the age of 60 were asked:

Q1.9: To your knowledge, are you now pregnant?

In 2007, 5% of all women under the age of 60 say they are currently pregnant. This estimate is similar to the 2002 estimate of 3%.



**Additional Subgroup Differences:**

**Ethnicity:**

- There were no statistically significant differences in pregnancy rates as a function of ethnicity.

**Education:**

- There were no statistically significant differences in pregnancy rates as a function of educational status.

**Employment:**

- There were no statistically significant differences in pregnancy rates as a function of employment status.

**Household income:**

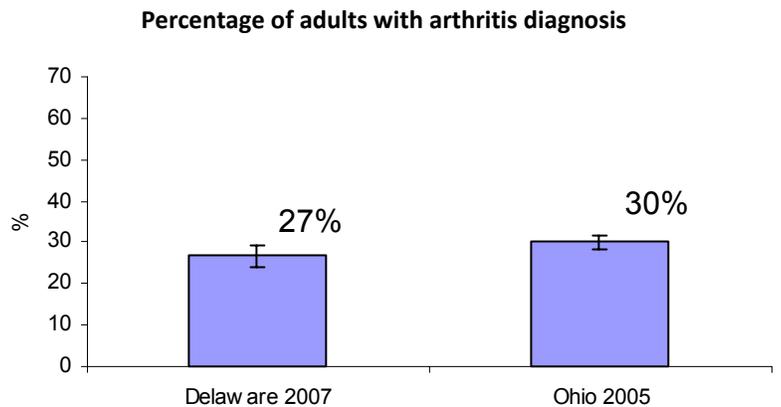
- There were no statistically significant differences in pregnancy rates as a function of household income.

# Arthritis

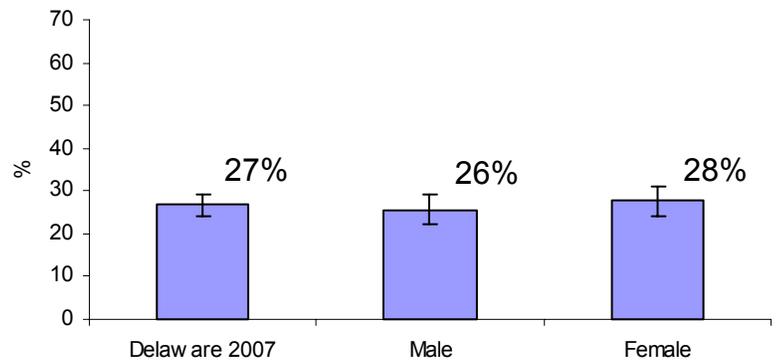
Arthritis is highly prevalent among U.S. adults (46.4 million adults in the United States have physician-diagnosed arthritis or just over 1 in 5 adults), the leading cause of disability, and associated with substantial activity limitation, work disability, reduced quality of life, and high health-care costs.<sup>1</sup> As the population ages, the CDC predicts arthritis will affect an estimated 67 million adults in the United States by 2030. What is the prevalence of arthritis diagnoses among Delaware County adults?

*The next questions refer to the joints in your body. When responding, please do NOT include the back or neck. Q12.1: Have you ever been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia? Q12.2: Are you now limited in any way in any of your usual activities because of arthritis or joint symptoms?*

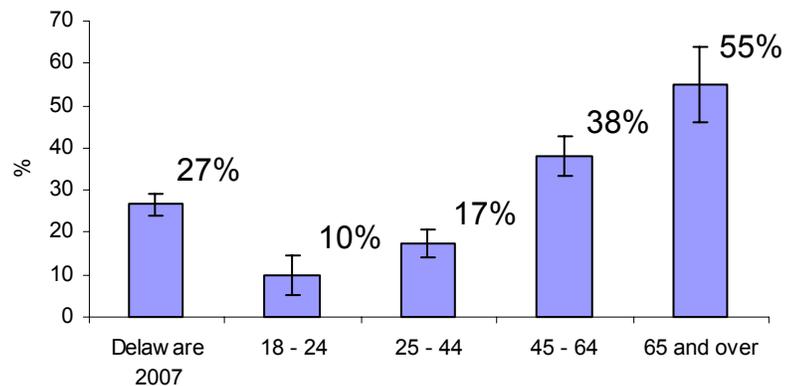
In 2007, the proportion of Delaware County residents who have ever been diagnosed with arthritis is statistically similar to 2005 Ohio data (the most recent available).



No statistically significant differences were noted between males and females.

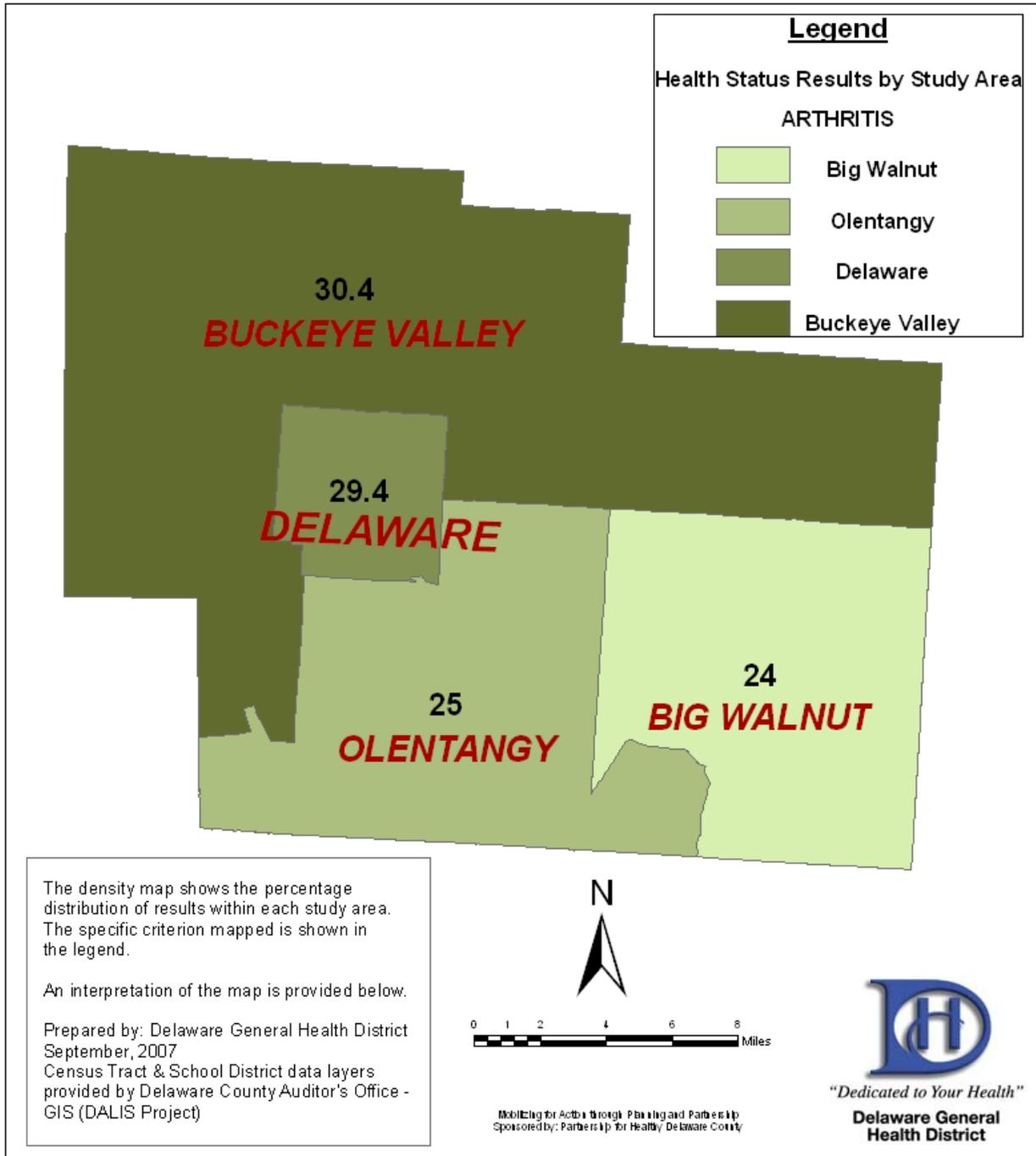


The proportion reporting arthritis diagnoses was statistically different from age category to age category, with those 65 and over being most likely to report an arthritis diagnosis.



<sup>1</sup> CDC, (2006) "Prevalence of Doctor-Diagnosed Arthritis and Arthritis-Attributable Activity Limitation --- United States, 2003–2005." Retrieved 7/12/07 from [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5540a2.htm?s\\_cid=mm5540a2\\_e](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5540a2.htm?s_cid=mm5540a2_e)

# Adults who have been diagnosed with Arthritis



There were no statistically significant differences in arthritis rates across the four regions.

**Additional Subgroup Differences:**

**Ethnicity:**

- There were no statistically significant differences in arthritis rates as a function of ethnicity.

**Education:**

- Those with less than high school education were more likely to report arthritis diagnoses (41.8%).
- Those with a postgraduate degree were less likely to report arthritis diagnoses (20.5%).

**Employment:**

- Those with an “other” employment status were more likely to report arthritis diagnoses (34.1%).
- Those who were employed were less likely to report arthritis diagnoses (23.3%).

**Household income:**

- Those with household incomes less than \$25,000 and between \$25,000 - \$75,000 were more likely to report arthritis diagnoses (44.2% and 32.7%, respectively).
- Those with household incomes between \$75,000-\$150,000 and greater than \$150,000 were less likely to report arthritis diagnoses (19.8% and 18.1%, respectively).

**ADDITIONAL FINDINGS REGARDING ARTHRITIS**

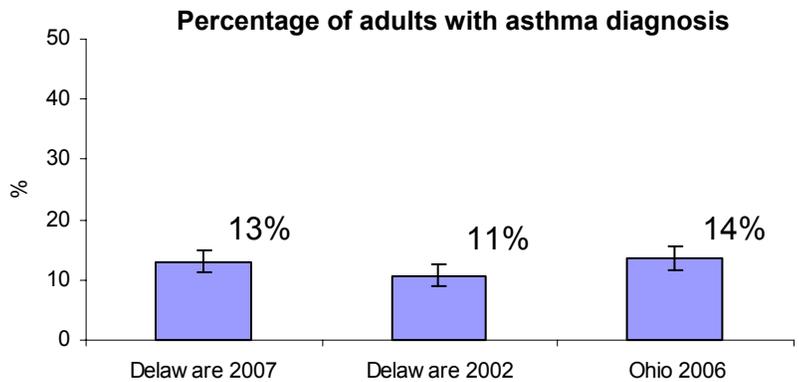
The 319 respondents who reported they have ever been diagnosed with arthritis were also asked whether the performance of their usual activities has been limited because of arthritis or joint symptoms. A minority of arthritis sufferers (112, or 35.4%) said “yes.” The only statistically significant subgroup difference detected on this variable related to employment status – those with an “other” employment status were especially likely to say their activities have been limited because of their arthritic symptoms (47.8%).

# Asthma

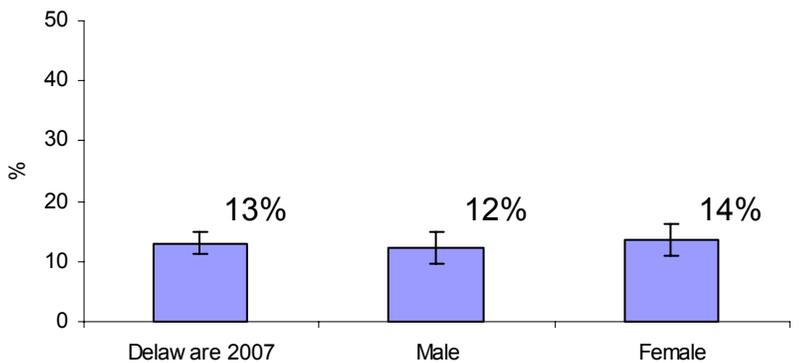
Asthma is a disease of the lungs in which the airways become blocked or narrowed causing breathing difficulty.<sup>2</sup> According to the National Heart, Lung, and Blood Institute<sup>3</sup>, about 20 million people have been diagnosed with asthma, with nearly 9 million of these children. How many Delaware County residents have been diagnosed with asthma, and what effect has this condition had on their daily lives?

*Q3.1: Have you ever been told by a doctor, nurse, or other health professional that you had asthma?*

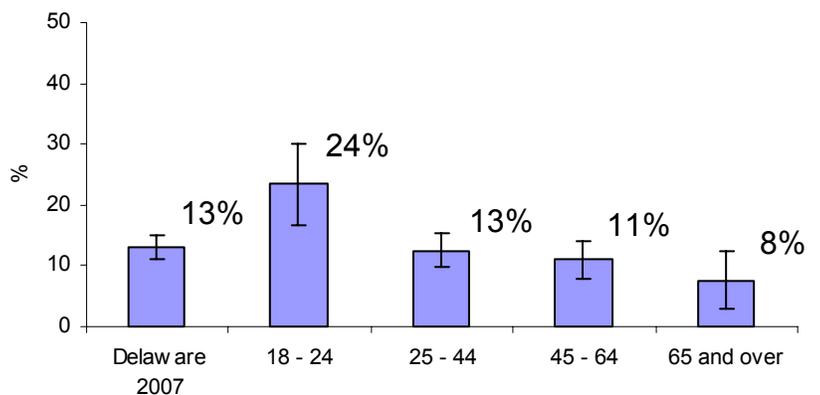
In 2007, the proportion of Delaware County residents who have ever been told they have asthma is statistically similar to 2002 Delaware data and 2006 Ohio data.



No statistically significant differences were noted between males and females.



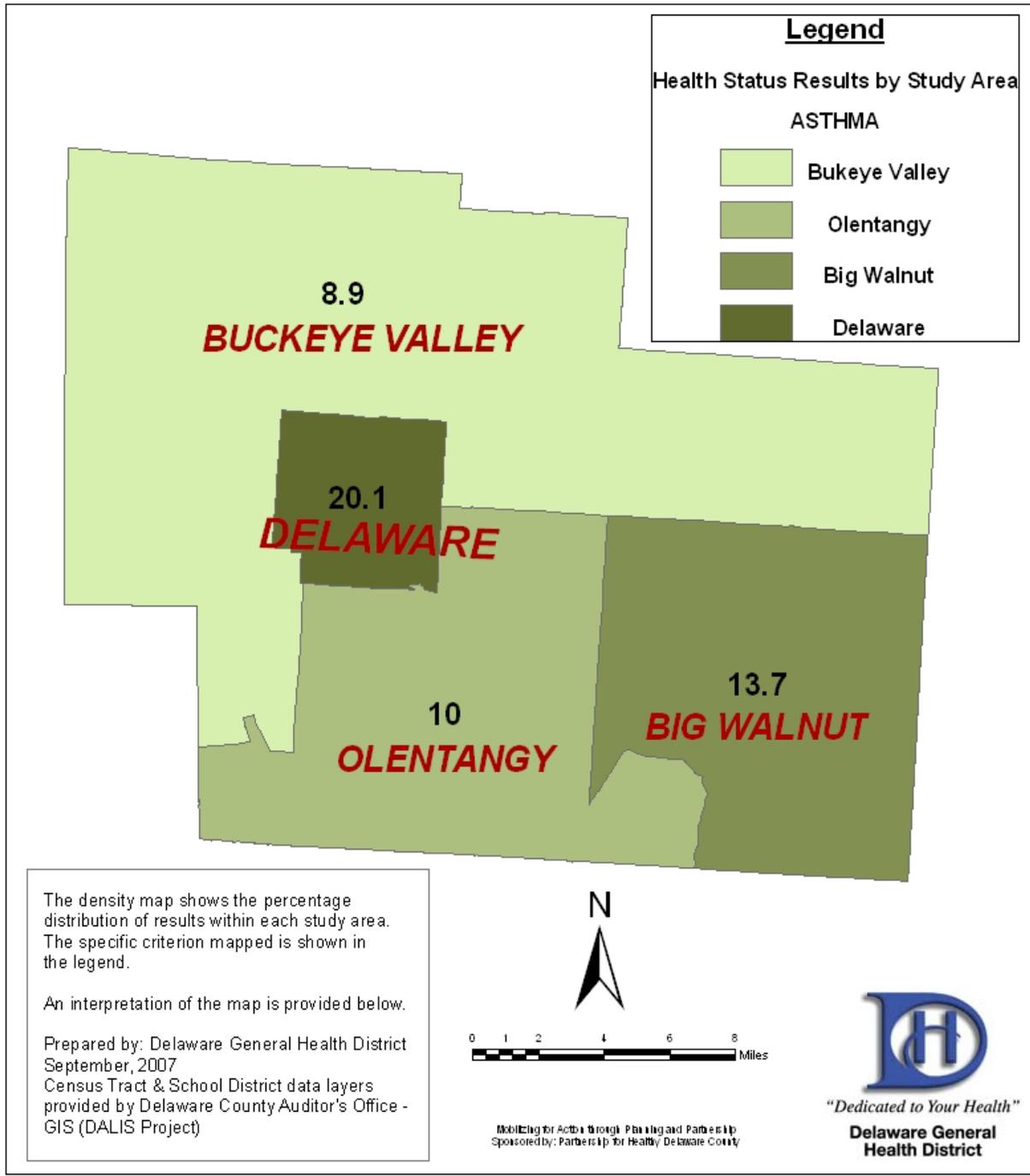
Younger respondents (18-24) were especially likely to report they had been diagnosed with asthma, compared to all other groups.



<sup>2</sup> Asthma and Allergy Foundation of America. "Asthma Overview." Retrieved 7/11/07 from <http://www.aafa.org/display.cfm?id=8>

<sup>3</sup> National Heart Lung and Blood Institute. "Who is at risk for asthma?" Retrieved 7/11/07 from [http://www.nhlbi.nih.gov/health/dci/Diseases/Asthma/Asthma\\_WholsAtRisk.html](http://www.nhlbi.nih.gov/health/dci/Diseases/Asthma/Asthma_WholsAtRisk.html)

# Adults who have been diagnosed with Asthma



Those in the Delaware region were more likely to report ever receiving an asthma diagnosis (20.1%), while those in the Buckeye Valley and Olentangy regions were less likely to report ever receiving an asthma diagnosis (8.9% and 10%, respectively).

**Additional Subgroup Differences:****Ethnicity:**

- Non-whites were especially likely to report having been diagnosed with asthma (24.5%).

**Education:**

- There were no statistically significant differences in asthma rates as a function of educational status.

**Employment:**

- Those with an “other” employment status were less likely to report having been diagnosed with asthma (8.7%)

**Household income:**

- Those with household incomes less than \$25,000 were more likely to report having been diagnosed with asthma (23.7%).

**ADDITIONAL FINDINGS REGARDING ASTHMA**

The 152 respondents who reported they have ever been diagnosed with asthma were asked a follow-up question: *(Q3.2) During the past 12 months, how many days were you unable to work or carry out your usual activities because of asthma?* The majority of asthma sufferers (124, or 81.9%) said “none.” Of those who reported at least one day, the average number of days they were unable to work or carry out usual activities because of asthma was 1.23.<sup>4</sup>

Later in the survey, respondents were asked the following: *Q18.4: Earlier you said there were [x] children under 18 years of age living in your household. How many of these children have ever been diagnosed with asthma?* Of the 551 respondents who reported children in the household, 473 (or 86%) said “none” of their children had been diagnosed, 67 (or 12%) said “1 child” and 9 (or 1.6%) said “2 or more children.” These numbers are statistically similar to 2002 Delaware data.

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<sup>4</sup> Because there are a handful of outliers in response to this question, the average reported here is actually the 5% trimmed mean – the lowest 2.5% responses (zeros) and the highest 2.5% responses (>95) are removed from analysis before computing the mean.

# Diabetes

According to the American Diabetes Association, 20.8 million children and adults in the United States (7% of the population) have diabetes. Although an estimated 14.6 million have been diagnosed with diabetes, as many as 6.2 million people (or nearly one-third) are unaware they have the disease.<sup>5</sup> What is the prevalence of diabetes diagnoses among Delaware County adults?

*Q3.3: Have you ever been told by a doctor that you have diabetes? (Interviewer Note: If respondent says pre-diabetes or borderline diabetes, mark accordingly)*

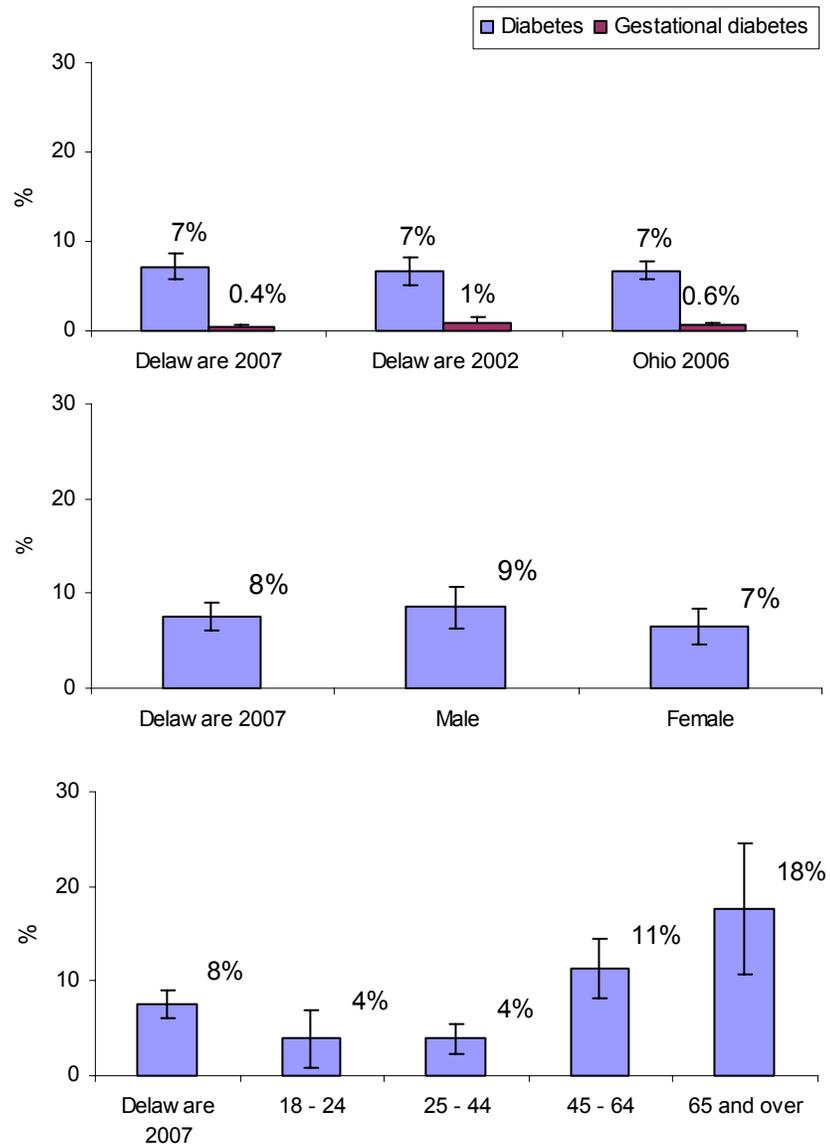
*Q3.3a: (If female), Was this only when you were pregnant?*

In 2007, the proportion of Delaware County residents who have ever been diagnosed with diabetes (Type 1, Type 2, or gestational diabetes) is statistically similar to 2002 Delaware data and 2006 Ohio data. Because the incidence of gestational diabetes is so low, the remaining analyses include this type of diabetes with other types.

No statistically significant differences were noted between males and females.

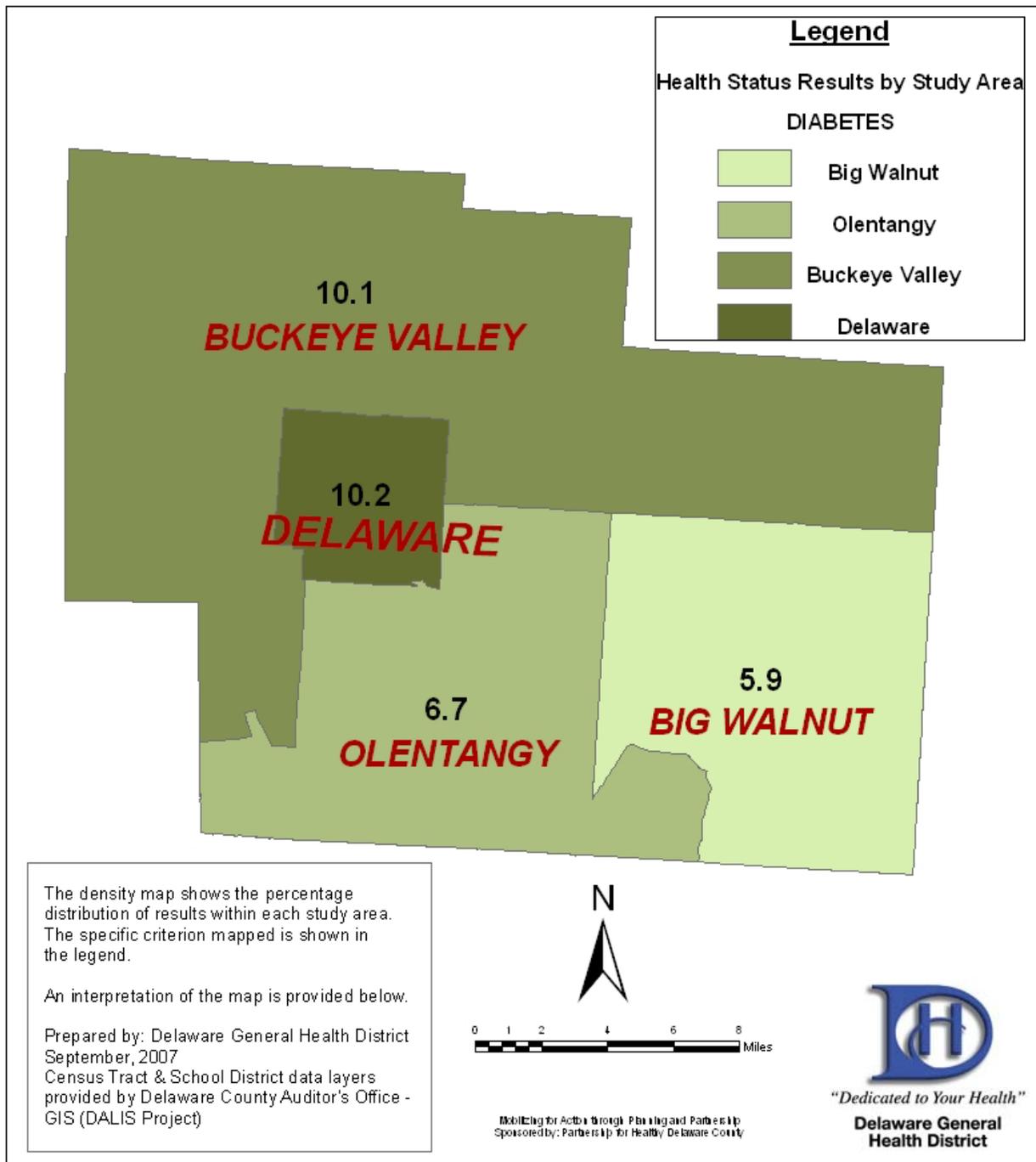
The two youngest age categories (18-24 and 25-44) reported lower incidence of diabetes diagnoses as compared to the two oldest age categories (45-64 and 65+).

**Percentage of adults with diabetes diagnosis**



<sup>5</sup> American Diabetes Association (2007). "All About Diabetes." Retrieved 7/11/07 from <http://www.diabetes.org/about-diabetes.jsp>.

# Adults who have been diagnosed with Diabetes



There were no statistically significant differences in diabetes rates across the four regions.

**Additional Subgroup Differences:**

**Ethnicity:**

- Non-whites were especially likely to report having been diagnosed with diabetes (15.3%).

**Education:**

- Those with “some college” were more likely to report a diabetes diagnosis (11.8%).
- Those with a college degree or a post graduate degree were less likely to report a diabetes diagnosis (5.2% and 4.4%, respectively).

**Employment:**

- Those who were employed were less likely to report a diabetes diagnosis (4.9%).
- Those with an “other” employment status were more likely to report a diabetes diagnosis (13.8%).

**Household income:**

- Those with household incomes less than \$25,000 were more likely to report a diabetes diagnosis (15%).
- Those with household incomes greater than \$150,000 were less likely to report a diabetes diagnosis (3%).

**ADDITIONAL FINDINGS REGARDING DIABETES**

An additional 7 participants (or .6%) reported a doctor has diagnosed them with pre-diabetes or borderline diabetes. This percentage is statistically similar to 2006 Ohio data.

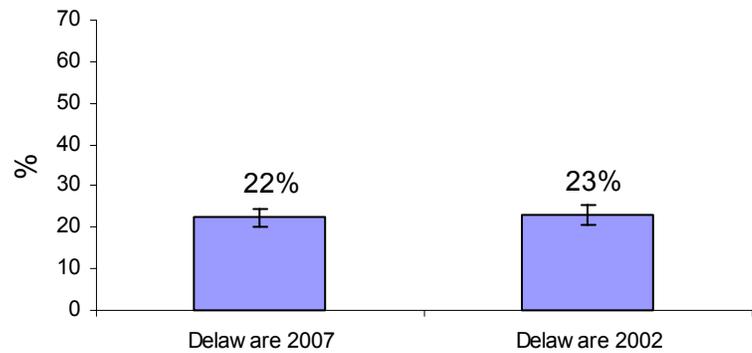
# High Blood Pressure

High blood pressure has been linked to many serious health issues, such as strokes, heart attacks, and heart disease. Also, it is a good indicator of one’s general physical condition. With that in mind, how common is high blood pressure among Delaware County residents?

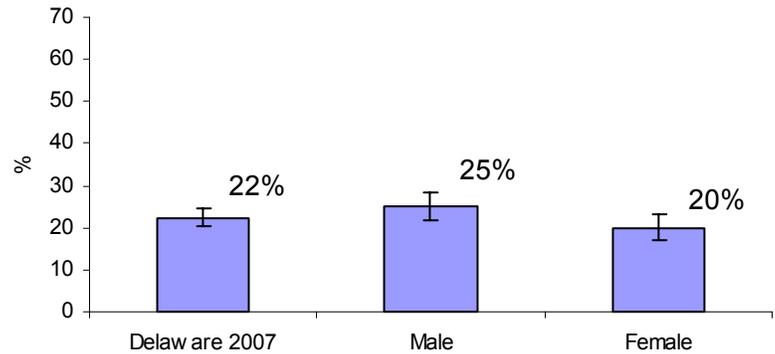
Q3.4: Have you ever been told by a doctor, nurse, or other health professional that you have high blood pressure?

In 2007, the proportion of Delaware County residents who have ever been diagnosed with high blood pressure is statistically similar to 2002 Delaware data.

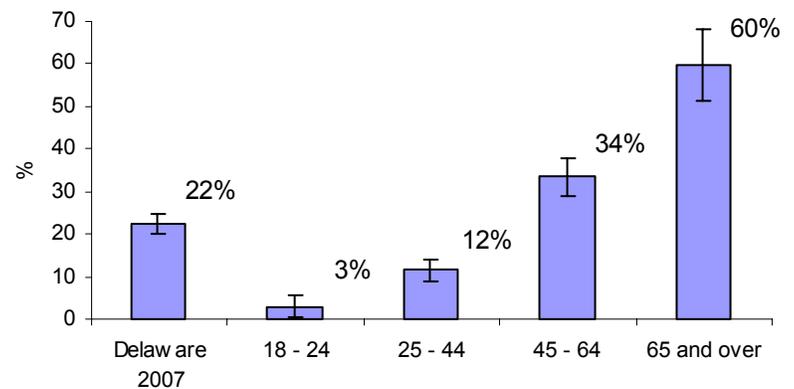
**Percentage of adults with high blood pressure**



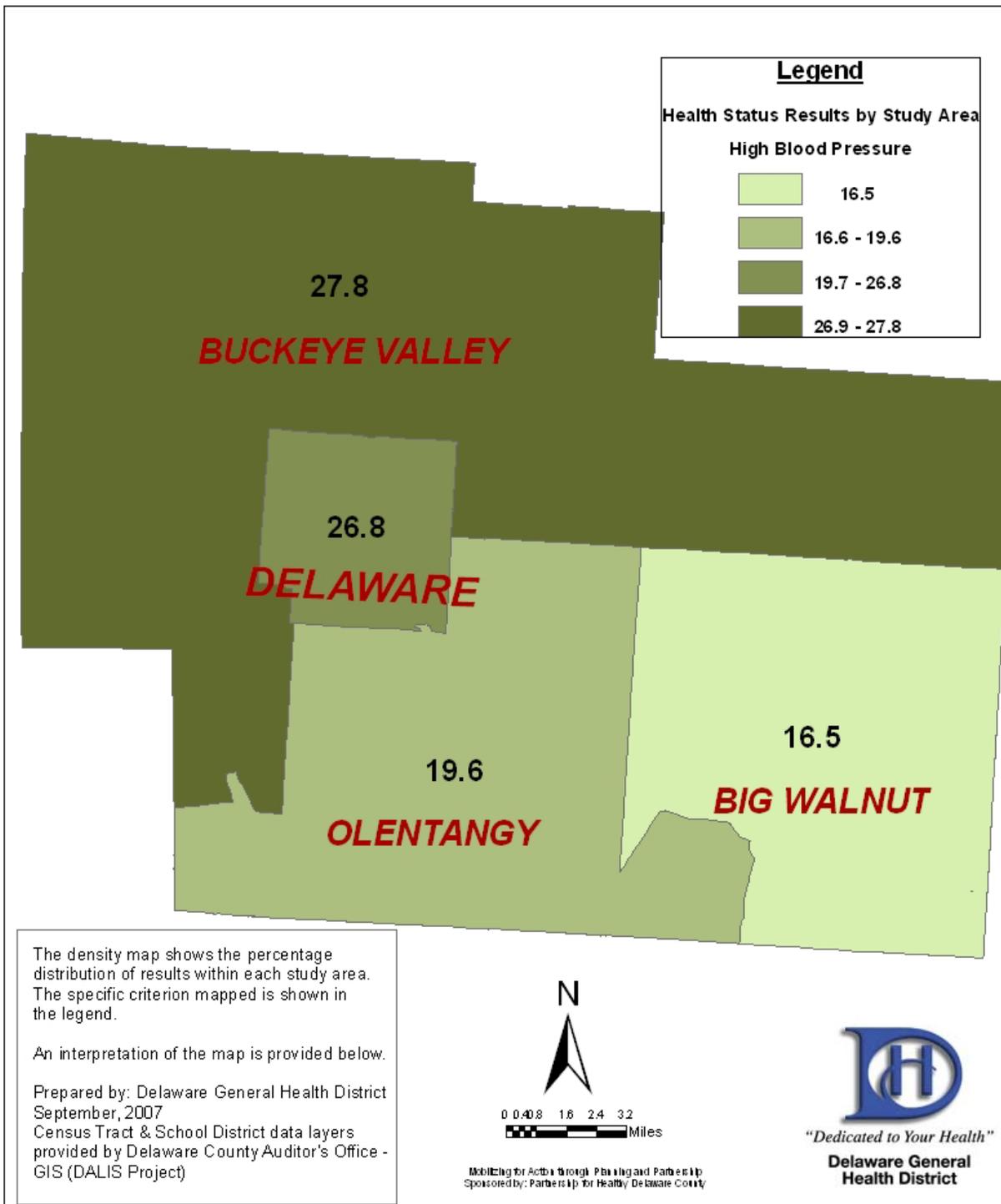
No statistically significant differences were noted between males and females.



The two oldest age categories (45-64 and 65 and over) were more likely to report high blood pressure diagnoses as compared to the two youngest age categories.



# High Blood Pressure



Those in the Buckeye Valley and Delaware regions were more likely to report ever receiving a high blood pressure diagnosis (27.8% and 26.8%, respectively), while those in the Big Walnut region were less likely to report ever receiving a high blood pressure diagnosis (16.5%).

**Additional Subgroup Differences:**

**Ethnicity:**

- There were no statistically significant differences in high blood pressure rates as a function of ethnicity.

**Education:**

- Those with a high school degree or equivalent were more likely to report a high blood pressure diagnosis (27.9%).

**Employment:**

- Those who were employed were less likely to report a high blood pressure diagnosis (17.3%).
- Those with an “other” employment status were more likely to report a high blood pressure diagnosis (33.6%).

**Household income:**

- Those with household incomes less than \$25,000 and those with incomes between \$25,000 to under \$75,000 were more likely to report a high blood pressure diagnosis (35.3% and 30.3%, respectively).
- Those with household incomes between \$75,000 to under \$150,000 and those with incomes greater than \$150,000 were less likely to report a high blood pressure diagnosis (17.3% and 11.1%, respectively).

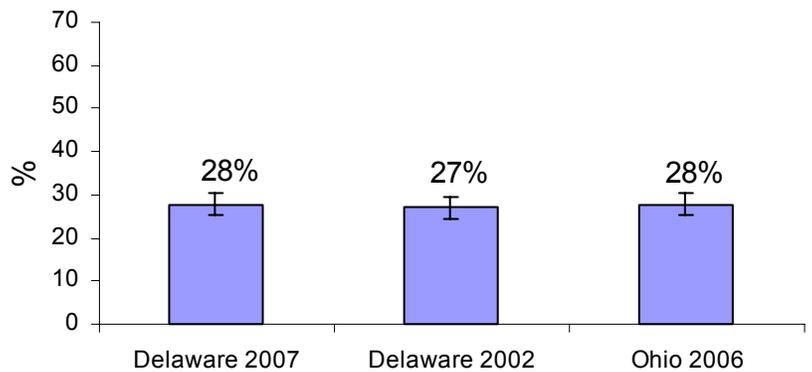
# High Blood Cholesterol

High blood cholesterol, like high blood pressure, has also been linked to many serious health issues such as strokes, heart attacks, and heart disease. With that in mind, how common are high rates of blood cholesterol among Delaware County residents?

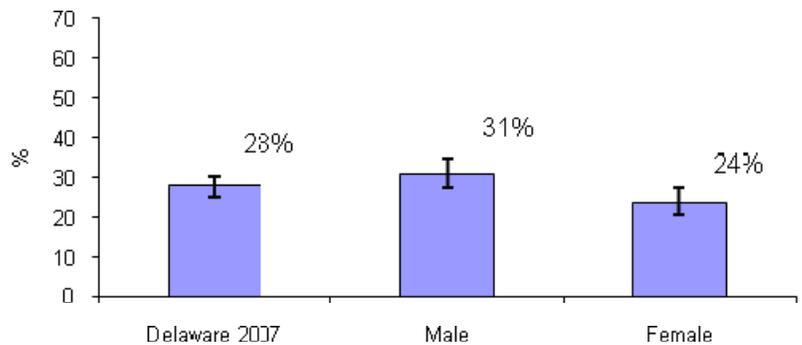
Q3.5: Have you ever been told by a doctor, nurse, or other health professional that you have high blood cholesterol?

In 2007, the proportion of Delaware County residents who have ever been diagnosed with high blood cholesterol is statistically similar to 2002 Delaware data and 2006 Ohio data.

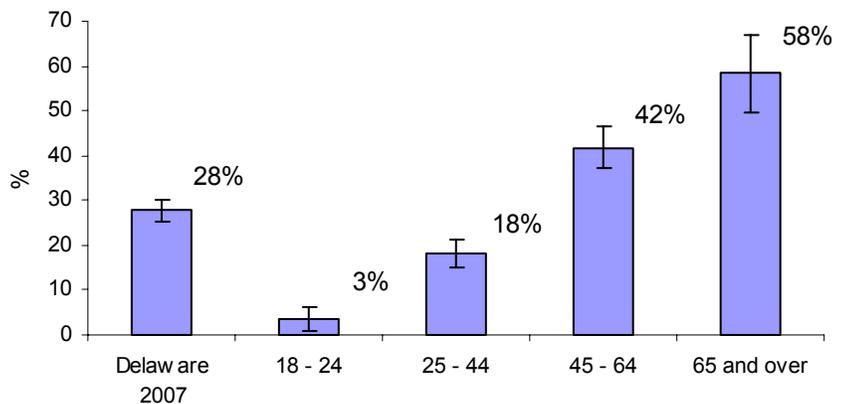
Percentage of adults with high blood cholesterol



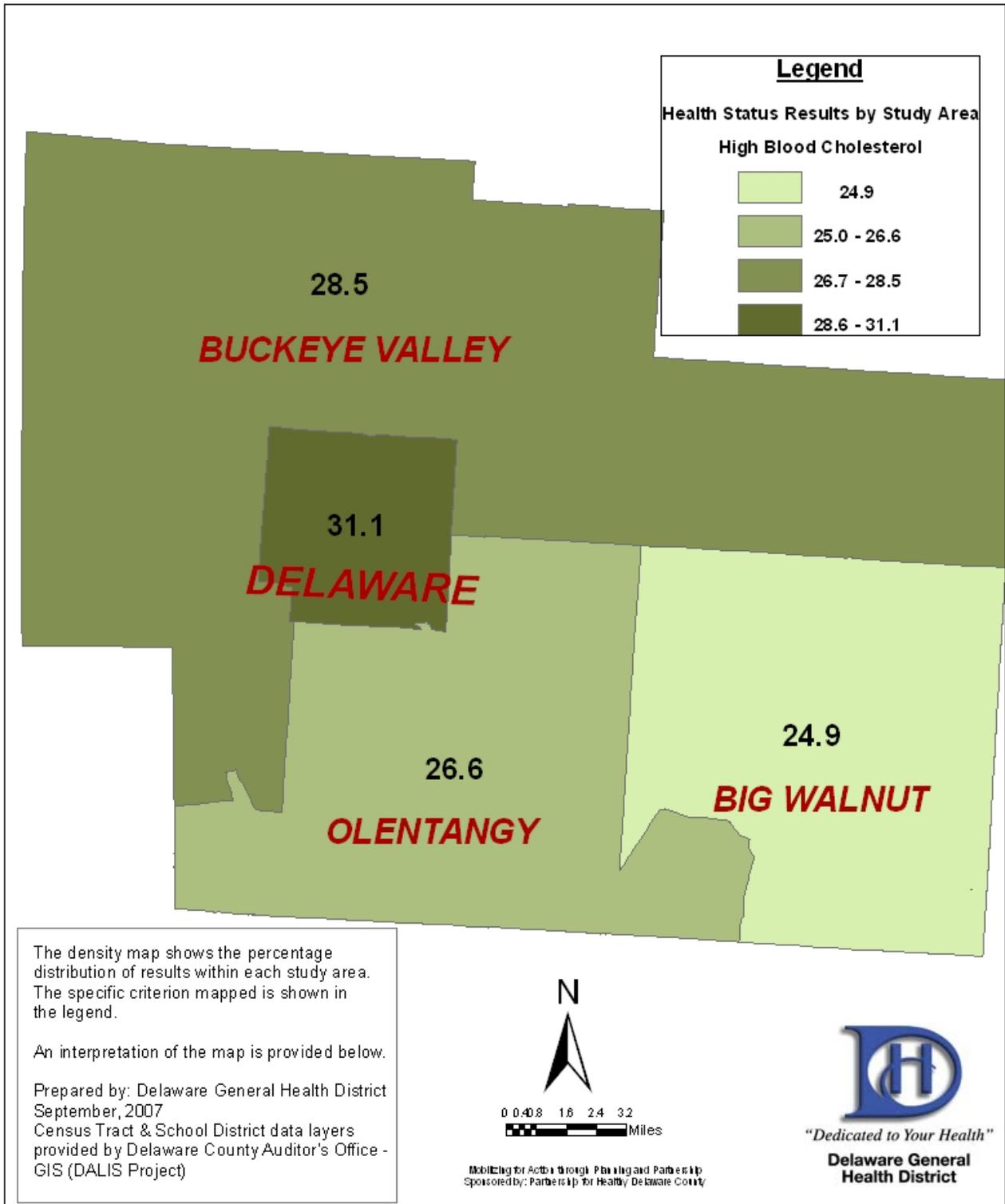
Males were more likely than females to report ever having received a diagnosis of high blood cholesterol.



The two oldest age categories (45-64 and 65 and over) were more likely to report high blood cholesterol diagnoses as compared to the two youngest age categories.



# High Blood Cholesterol



There were no statistically significant differences in blood cholesterol rates across the four regions.

**Additional Subgroup Differences:**

**Ethnicity:**

- Non-whites were less likely to report a high blood cholesterol diagnosis (15.5%).

**Education:**

- There were no statistically significant differences in high blood cholesterol rates as a function of education.

**Employment:**

- Those who were employed were less likely to report a high blood cholesterol diagnosis (24%).
- Those with an “other” employment status were more likely to report a high blood cholesterol diagnosis (37.7%).

**Household income:**

- Those with household incomes greater than \$150,000 were less likely to report a high blood cholesterol diagnosis (19.4%).

# Heart attacks, strokes and coronary heart disease

According to the most recent data from the National Center for Health Statistics (2004), two of the top three leading causes of death in the United States are heart disease and stroke. What are the rates of these in Delaware County, along with heart attacks? Participants were asked:

*Has a doctor, nurse, or other health professional EVER told you that you had:*

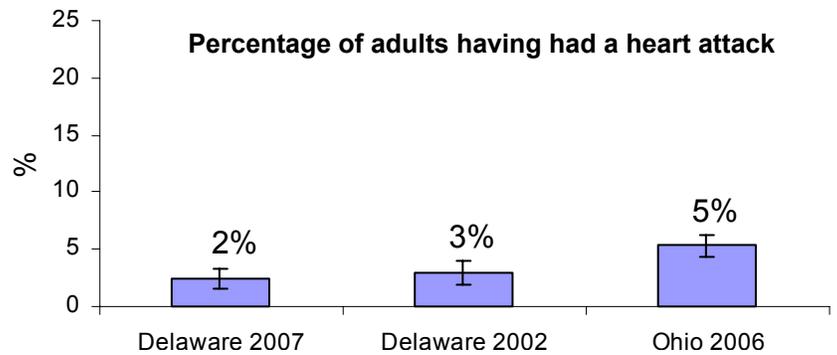
*Q3.6: A heart attack, also called a myocardial infarction?*

*Q3.8: A stroke?*

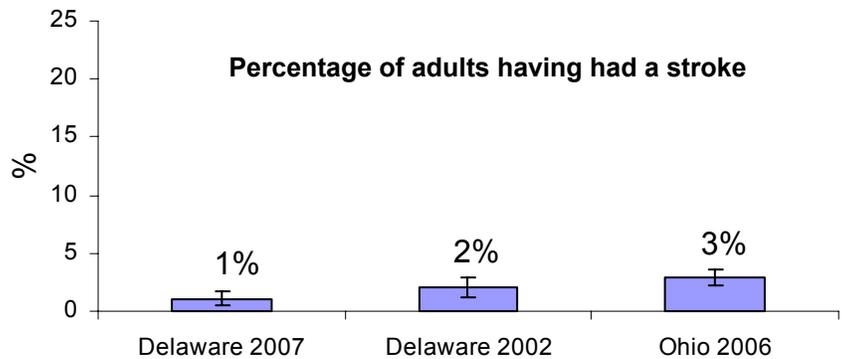
*Q3.7: Angina or coronary heart disease?*

As shown below, the percentage of survey respondents reporting any one of these serious heart issues in 2007 is less than 3%. Such low incidence levels make it difficult to provide meaningful subgroup differences (e.g., by male/female, age group) because the subgroups numbers are so small. Therefore, only topline comparisons to prior years of data (2002 Delaware BRFSS, 2006 Ohio BRFSS) are made.

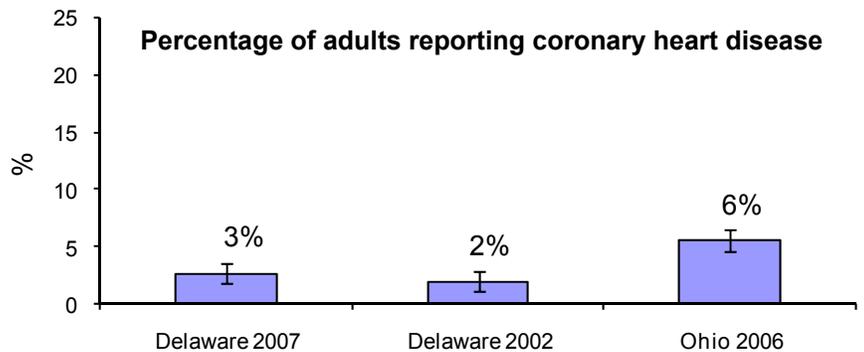
In 2007, the proportion of Delaware County residents who have ever had a heart attack (2%) is statistically similar to 2002 Delaware data but less than 2006 Ohio data.



In 2007, the proportion of Delaware County residents who have ever had a stroke (1%) is statistically similar to 2002 Delaware data and 2006 Ohio data.



In 2007, the proportion of Delaware County residents who have ever been diagnosed with coronary heart disease (3%) is statistically similar to 2002 Delaware data but less than 2006 Ohio data.



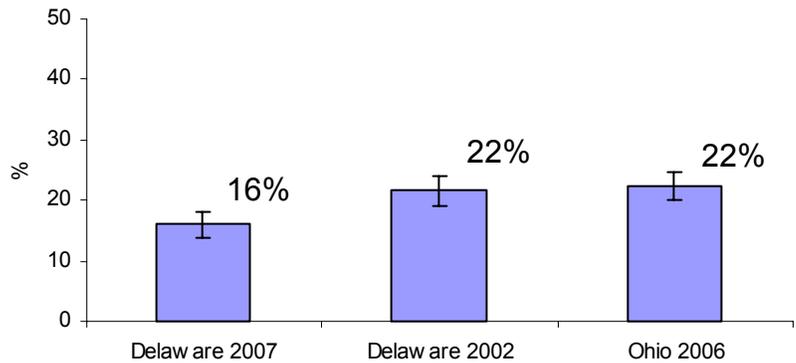
# Tobacco Use – Current Smokers

Tobacco use has been linked to lung, oral, bladder, kidney, and pancreatic cancer, as well as cardiovascular disease. What is the prevalence of Delaware County residents who are current smokers?

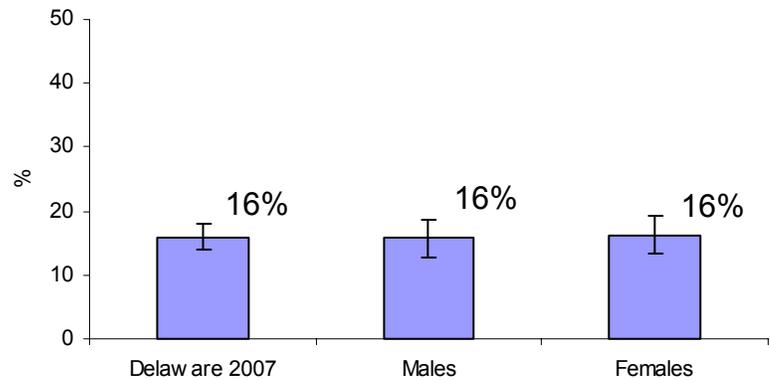
Q9\_0: Have you smoked at least 100 cigarettes in your entire life? &  
 Q9\_1 Do you now smoke cigarettes every day, some days, or not at all?

The BRFSS defines current smokers as respondents who answer “Yes” to the first question above and “Every day” or “Some days” to the second question. In 2007, a minority (15.9%) were current smokers. These patterns are significantly lower than 2002 Delaware data and the most recent Ohio data.

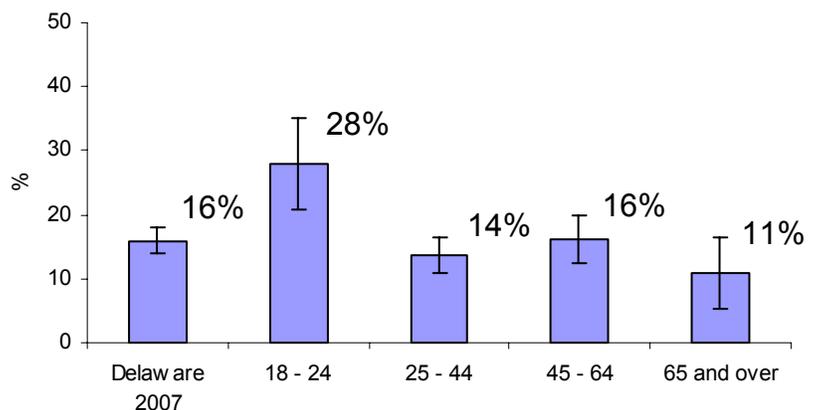
**Percentage of adults who are current smokers**



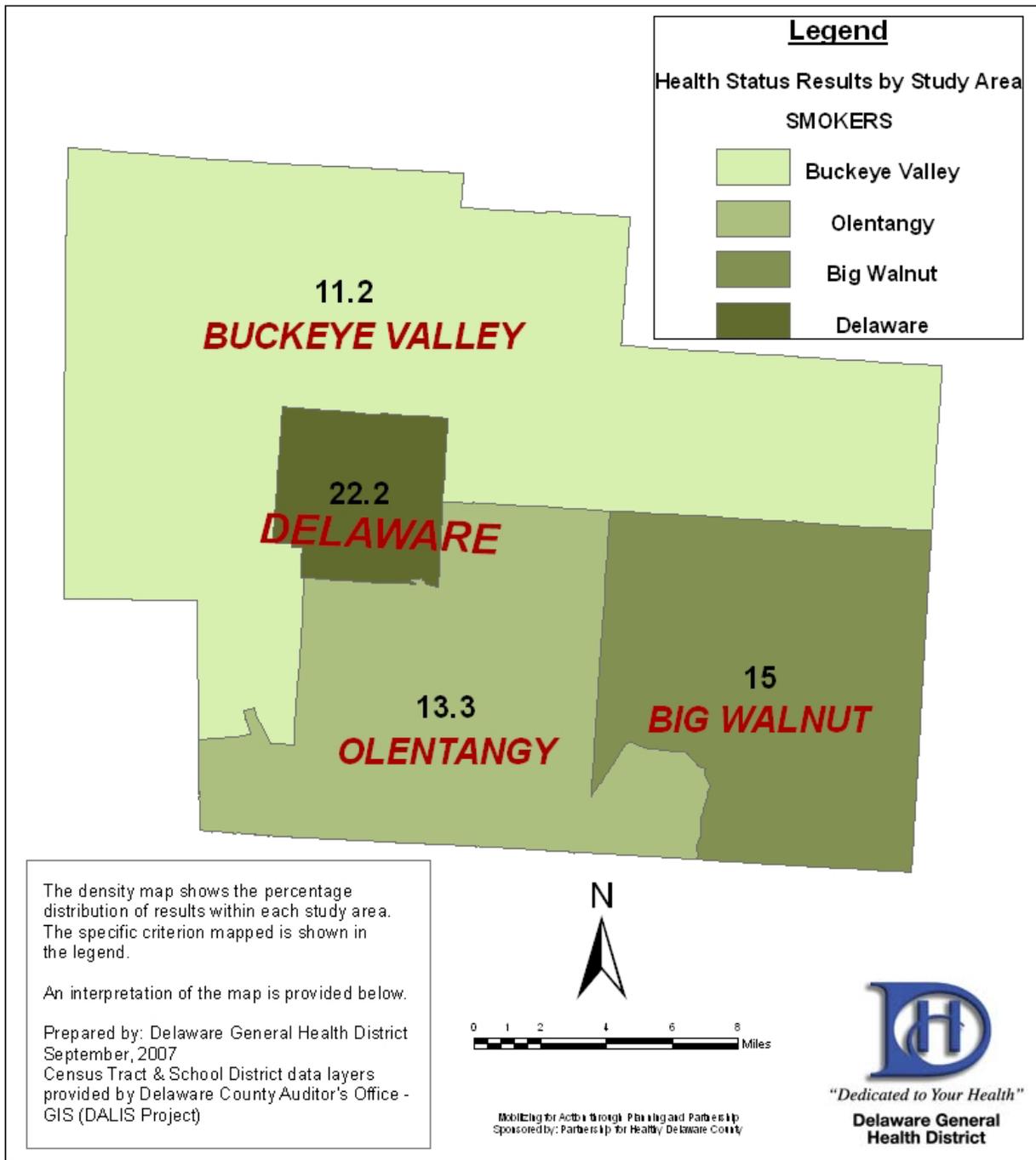
Males and females were similarly likely to be current smokers – no statistically significant differences were noted on this factor.



Younger respondents (18-24) were more likely to report being a current smoker as compared to all other age groups.



# Adult who reported they are current Smokers



Those in the Delaware region were more likely to report being current smokers (22.2%) while those in the Buckeye Valley region were less likely to report being current smokers (11.2%).

**Additional Subgroup Differences:**

**Ethnicity:**

- Non-whites were more likely to report being current smokers (24.7%).

**Education:**

- Those with less education (less than high school and high school grad or equivalent) were more likely to report being current smokers (46.3% and 31.4%, respectively).
- Those with more education (college or post-graduate degrees) were less likely to report being current smokers (7.4% and 5.4%, respectively).

**Employment:**

- Those who were unemployed were more likely to report being current smokers (27.9%)

**Household income:**

- Those with lower household incomes (less than \$25,000) were more likely to report being current smokers (38.1%).
- Those with higher incomes (between \$75,000 and \$150,000 and greater than \$150,000) were less likely to report being current smokers (11.5% and 12%, respectively).

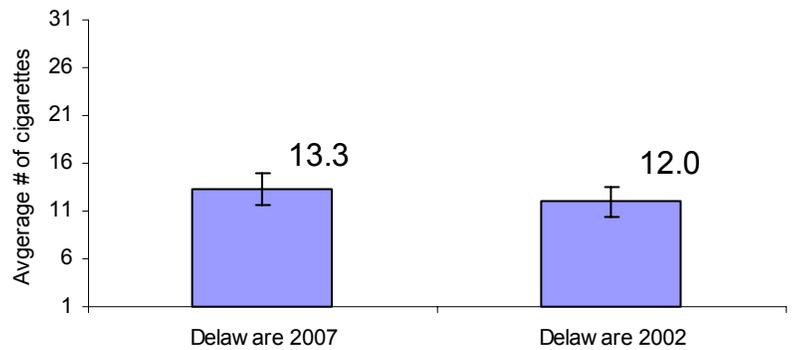
# Tobacco Use – Daily Use

Among those who are classified as current smokers, how many cigarettes do they smoke in an average day? Knowing this answer may help judge the extent to which they are at risk for future health complications.

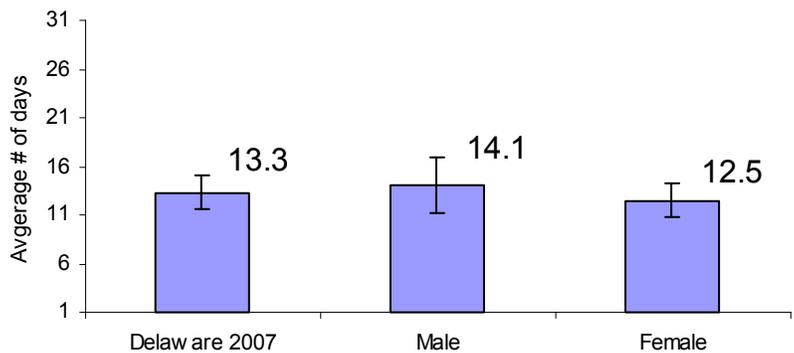
*Q9\_3b: On average, about how many cigarettes per day do you now smoke?*

In 2007, current smokers reported smoking an average of 13.3 cigarettes per day.

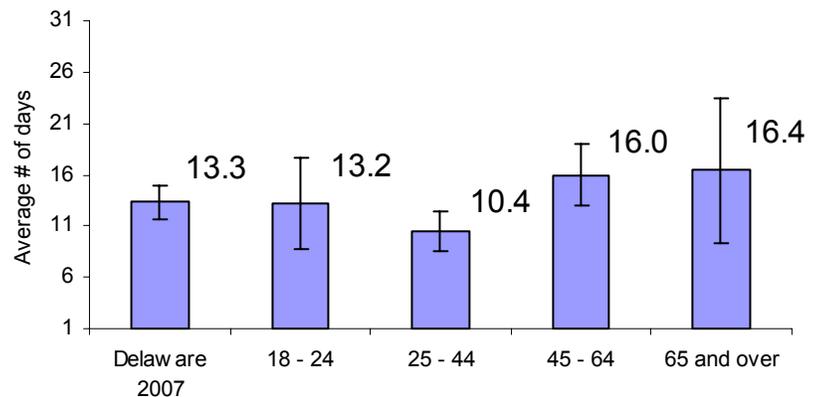
**Average number of cigarettes per day**



On average, males and females reported smoking a similar number of cigarettes per day. No statistically significant differences were noted.



Respondents between the ages of 25-44 reported smoking fewer cigarettes per day than did respondents between the ages of 45-64, a statistically significant difference.



**Additional Subgroup Differences:****Ethnicity:**

- Non-whites reported smoking more cigarettes per day than did whites (17.3 and 12.7, respectively), a difference that approaches statistical significance.

**Education:**

- There were no statistically significant differences in the rate of tobacco use as a function of educational status.

**Employment:**

- There were no statistically significant differences in the rate of tobacco use as a function of employment status.

**Household income:**

- Those with higher household incomes (\$150,000+) reported smoking fewer cigarettes (6.26).
- Those with lower household incomes (\$25,000 - \$75,000 and under \$25,000 reported smoking more cigarettes (15.9 and 18.6, respectively).

**ADDITIONAL FINDINGS REGARDING CURRENT SMOKERS**

Among the 191 respondents in the survey who were classified as current smokers, a third of them (34.4%) report they are seriously considering stopping smoking within the next 30 days. From a prevention standpoint, what can be done to improve upon this encouraging finding? Who are the Delaware County residents who do not currently have intentions to quit? Unfortunately, because the number of responses to this question is relatively low, analyses that attempt to detect meaningful subgroup differences have diminished statistical power. With that caveat presented, if one were to attempt to categorize those who are not currently considering a quit attempt within the next 30 days, one would describe these people as:

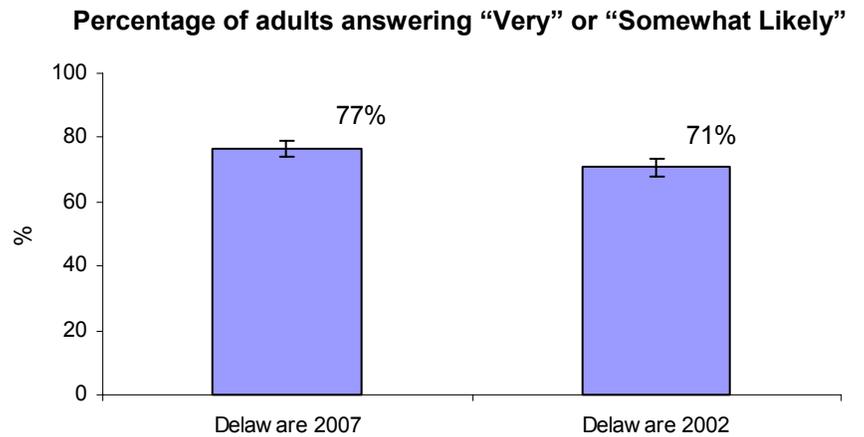
- Younger - 18-24 year olds appear to be less likely to express a desire to quit, compared to other age groups
- Male – males appear to be less likely to express a desire to quit, compared to females
- Less educated – those with less than a high school education appear to be less likely to express a desire to quit.

# Secondhand Smoke

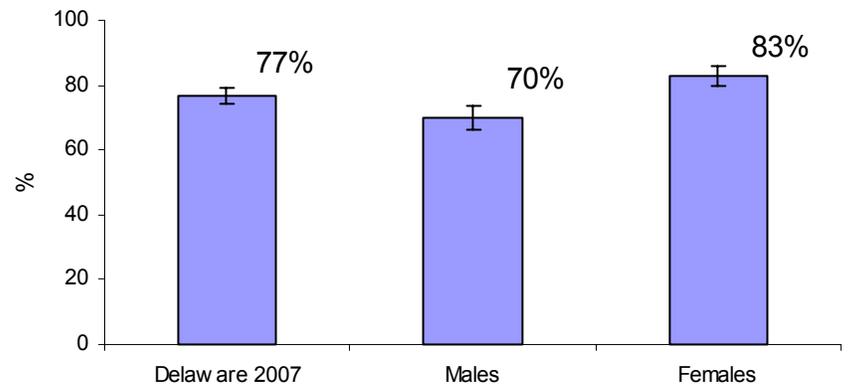
In recent years, a number of public health campaigns have attempted to educate the public as to the dangers of secondhand smoke while legislative actions have occurred to protect the public from secondhand smoke in public areas. Among the general public, what is current public opinion as to the dangers of secondhand smoke?

*Q9\_6: How likely is secondhand smoke to cause health problems?*

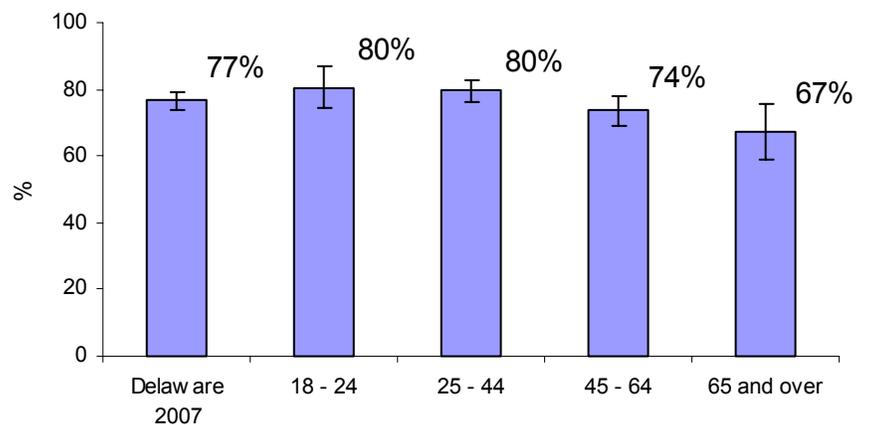
In 2007, the majority of Delaware County residents' reported that secondhand smoke is "very" or "somewhat likely" to cause health problems. This proportion is significantly greater than that observed in 2002.



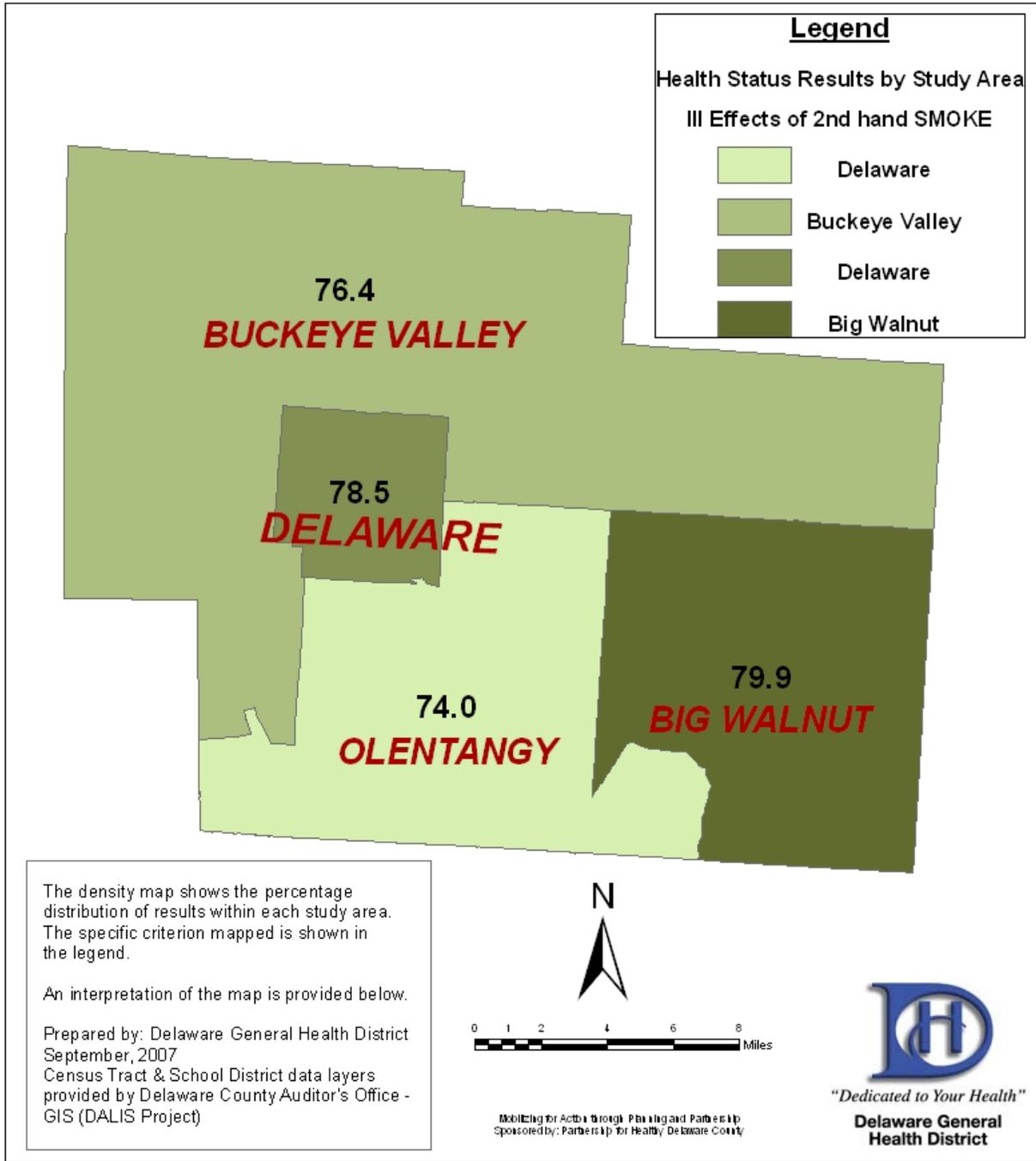
Females were significantly more likely than males to report secondhand smoke is "very" or "somewhat likely" to cause health problems.



Older respondents (65+) were especially unlikely to report secondhand smoke is "very" or "somewhat likely" to cause health problems.



**Adults who believed second hand smoke is likely to cause health problems**



There were no statistically significant differences in perceptions of secondhand smoke across the four regions.

**Additional Subgroup Differences:****Ethnicity:**

- There were no statistically significant differences in perceptions of secondhand smoke as a function of ethnicity.

**Education:**

- Those with less education (less than high school) were less likely to report secondhand smoke as “very” or “somewhat likely” to cause health problems (63.6%).
- Those with higher levels of education were more likely to report secondhand smoke as “very” or “somewhat likely” to cause health problems (80.8%).

**Employment:**

- There were no statistically significant differences in perceptions of secondhand smoke as a function of employment status.

**Household income:**

- There were no statistically significant differences in perceptions of secondhand smoke as a function of household income.

**ADDITIONAL FINDINGS REGARDING SECONDHAND SMOKE**

Participants were also asked to report whether they have been exposed to secondhand smoke in the seven days preceding the survey. Of the 914 residents who answered the question, 61.6% reported they had not been exposed to secondhand smoke in the past seven days. Overall, the average number of days in which residents were exposed to secondhand smoke was 1.45, with a 95% confidence interval of 1.29 – 1.61. Who was most likely to be exposed to secondhand smoke?

- Younger respondents (18-24) reported significantly more days in which they were exposed to secondhand smoke, compared to all other age groups.
- Those with lower household incomes (less than \$25,000) reported significantly more days in which they were exposed to secondhand smoke, compared to all other income groups.
- As educational status increases, exposure to secondhand smoke decreases – from less than high school to high school graduate to some college to college graduate to postgraduate degree, each category is different from the other regarding secondhand smoke exposure (with the exception of the two highest education categories).

# Alcohol Use – Binge drinking

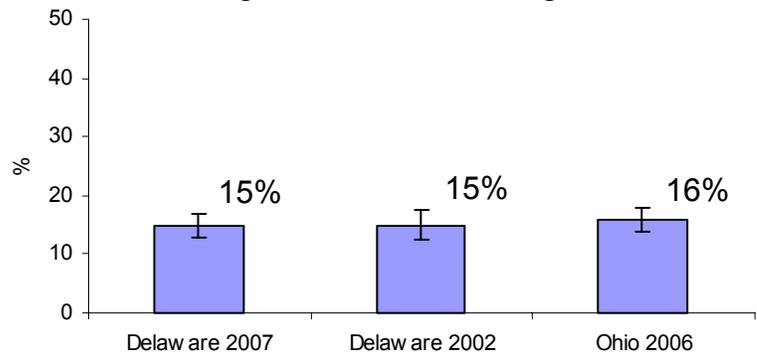
Excessive alcohol use has been linked to a wide range of unhealthy behavioral outcomes including vehicular accidents, cirrhosis of the liver, and cancers of the mouth, throat, esophagus, and liver.<sup>1</sup> Among those who had at least one drink, how many drank excessively – otherwise known as “binge drinking?” Knowing this may indicate the need for increased education and prevention efforts.

*Q10\_1 During the past 30 days, how many days per week or per month did you have at least one drink of any alcoholic beverage? When responding, keep in mind that one drink is equivalent to a 12-ounce beer, a 5-ounce glass of wine, or one shot of liquor.*

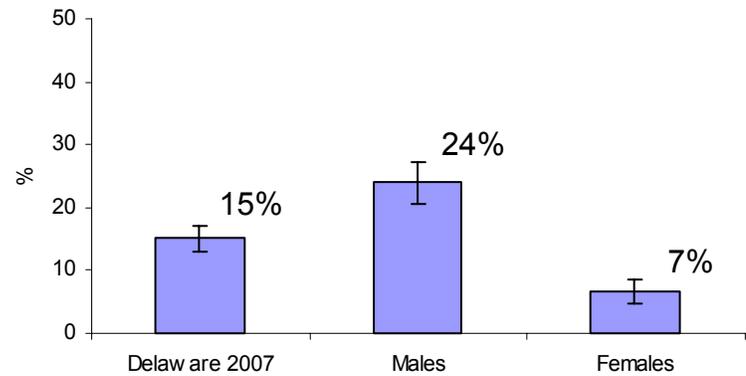
*Q10\_3 Considering all types of alcoholic beverages, how many times during the past 30 days did you have 5 or more drinks on an occasion?*

Overall, a minority of adult Delaware residents could be classified as binge drinkers, defined as those who had 5 or more drinks on at least one occasion during the past 30 days. (Note: In 2007, 36.9% of those interviewed had no alcoholic drinks in the 30 days prior to the survey.)

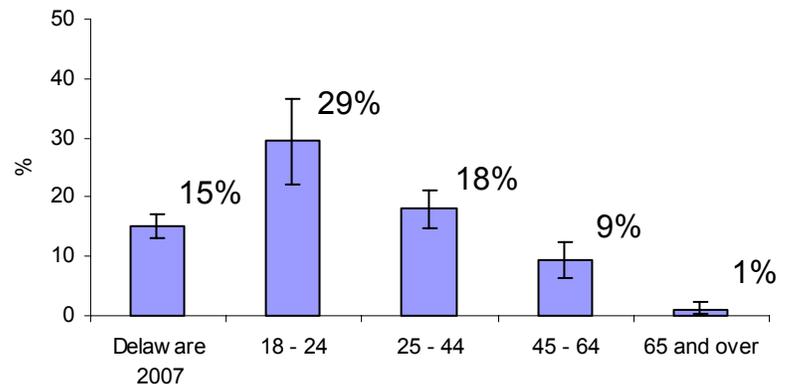
**Percentage of adults who are binge drinkers**



More males reported at least one binge drinking episode in the past 30 days as compared to females – a statistically significant difference.

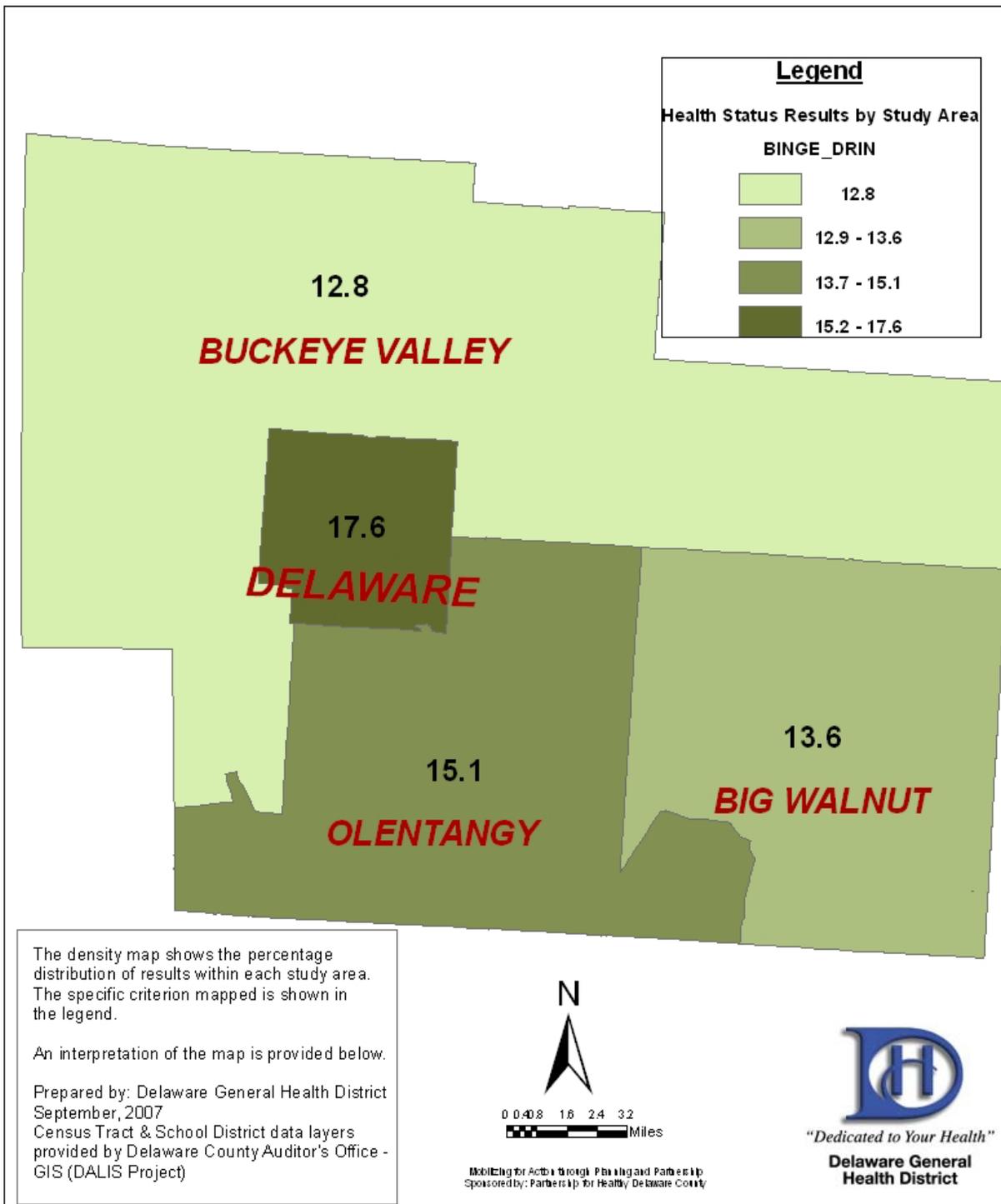


Younger respondents (18-24) most often reported episodes of binge drinking as compared to all other age categories. Older respondents (65+) least often reported binge drinking.



<sup>1</sup> American Cancer Society. (2006). “Alcohol and Cancer” Retrieved 7/18/07 <http://www.cancer.org/downloads/PRO/alcohol.pdf> .

# Binge Drinking (5 or more drinks on an occasion)



There were no statistically significant differences in rates of binge drinking across the four regions.

**Additional Subgroup Differences:**

**Ethnicity:**

- There were no statistically significant differences in rates of binge drinking as a function of ethnicity.

**Education:**

- Those with a high school degree or equivalent were more likely to report binge drinking (21.2%).

**Employment:**

- Those who were employed were more likely to report binge drinking (17.9%).
- Those with an “other” employment status were less likely to report binge drinking (7.2%).

**Household income:**

- Those with high household incomes (more than \$150,000) were more likely to report binge drinking (25.3%).

**ADDITIONAL FINDINGS REGARDING ALCOHOL USE**

Those who reported having at least one alcoholic drink in the past 30 days were also asked to report how many times they had driven after they had perhaps too much to drink. Among the 759 residents interviewed who had at least one alcoholic drink in the past 30 days, only 8 (1.1%) reported driving while possibly intoxicated. Note: Because responses to this question may be biased for self-presentation and self-preservation reasons, this result should be interpreted cautiously – the true prevalence of this behavior may well be greater than reported.

# Diet – Fruits and Vegetables

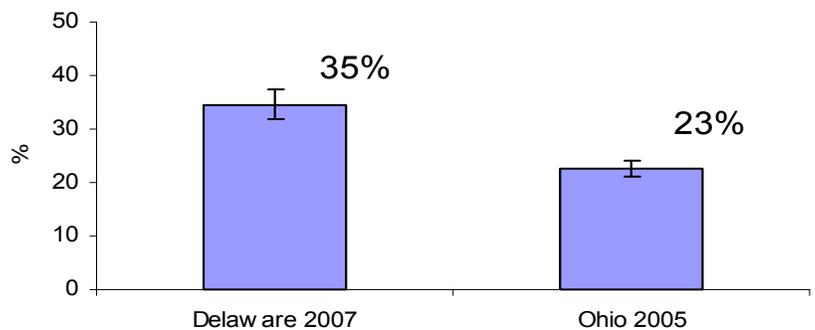
People who have diets high in fruits and vegetables tend to have lower risk of a variety of cancers including lung, colon and rectal, breast, oral cavity, stomach, pancreas, ovary, and others. Because of this lowered risk, the National Cancer Institute and other organizations recommend adults should have at least 5 servings of fruits and vegetables every day. How many Delaware County residents follow these recommendations?

*Q6.1 How many servings of fruit or fruit juice, including fresh, canned, frozen, or dried, do you usually eat or drink per day or per week?*

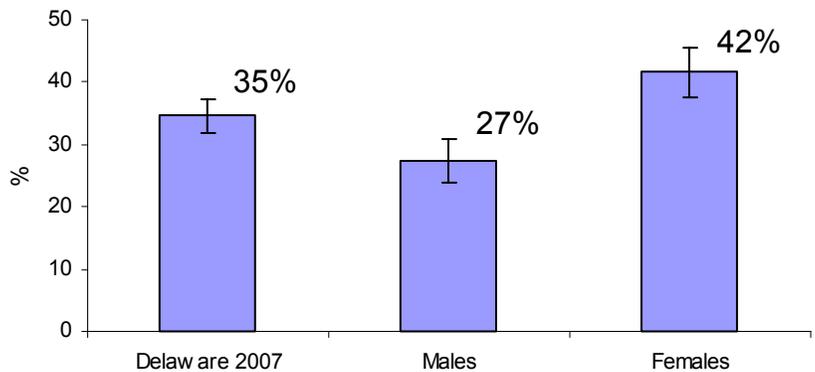
*Q6.2 How many servings of vegetables or vegetable juice, including fresh, canned or frozen, do you usually eat or drink per day or per week? Please include potatoes, but not French Fries.*

In 2007, 34.6% of those interviewed reported having at least 5 servings of fruit and vegetables per day. This proportion is significantly higher than the most recent Ohio data. The average number of fruit and vegetable servings was 3.95.

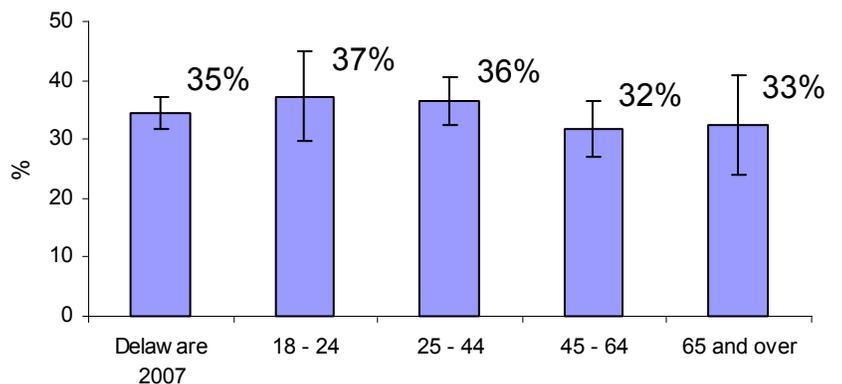
**Percentage of adults who eat 5 or more servings of fruits and vegetables per day**



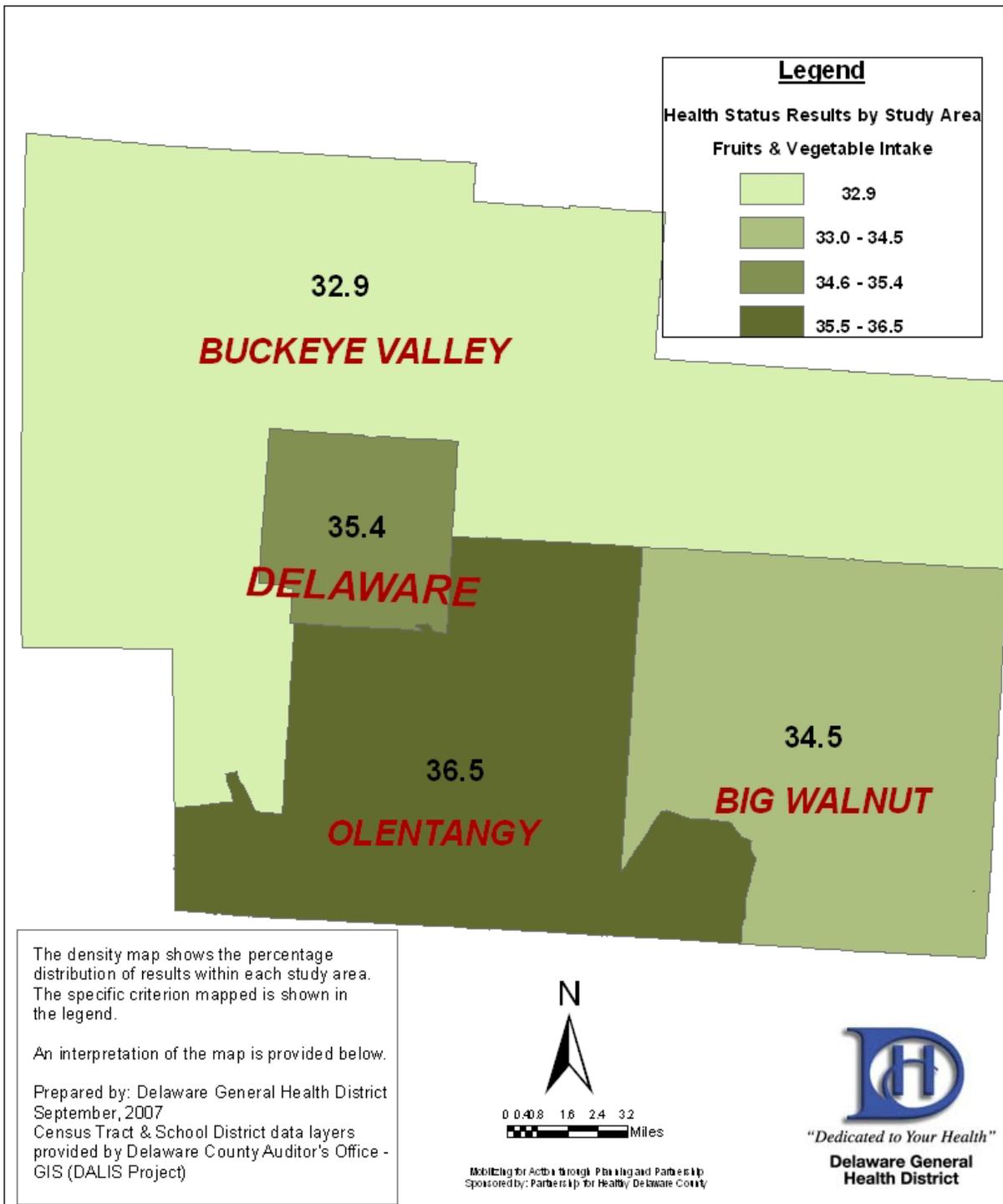
More females than males reported eating 5 servings of fruits and vegetables per day – a statistically significant difference.



For this health behavior, no statistically significant differences were found among Delaware County residents of different ages.



# Fruits & Vegetable Intake



There were no statistically significant differences in fruit and vegetable consumption rates across the four regions.

**Additional Subgroup Differences:**

**Ethnicity:**

- There were no statistically significant differences in fruit and vegetable consumption as a function of ethnicity.

**Education:**

- Those with less than high school education or a high school education were less likely to say they eat 5 servings of fruits and vegetables per day (22.4% and 26.1%, respectively).

**Employment:**

- Those with an “other” employment status were more likely to report eating 5 servings of fruits and vegetables (41.6%).

**Household income:**

- Those with lower household incomes (less than \$25,000) were less likely to report eating 5 servings of fruits and vegetables (20.4%).

**ADDITIONAL FINDINGS REGARDING RESIDENTS’ DIETS**

Participants were also asked to report how often they usually eat sweets or snack foods:

*Q6.3 How often do you usually eat sweets? (Interviewer Note: Examples include cakes, pies, donuts, cookies, or candy bars)*

*Q6.4 How often do you usually eat snack foods? (Interviewer Note: Examples include crackers, chips, or nuts)*

For both questions, the majority of Delaware County residents (56%) reported eating less than one serving of sweets or snacks per day, on average, while 31% reported eating one serving of sweets or snacks per day. Overall, the average number of sweet servings per day was .87 and the average number of snack servings per day was .83.

# Diet – Limiting Fat and Salt Intake

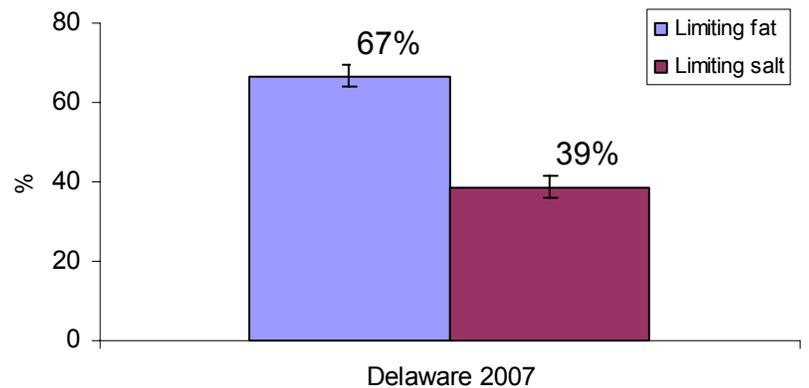
In addition to increasing consumption of fruits and vegetables, diets that control the amount of high-fat and high-salt foods have been associated with positive health benefits. How many Delaware County residents follow these diet recommendations?

Q6.5 Are you currently trying to decrease or limit the amount of fat in the foods that you eat?

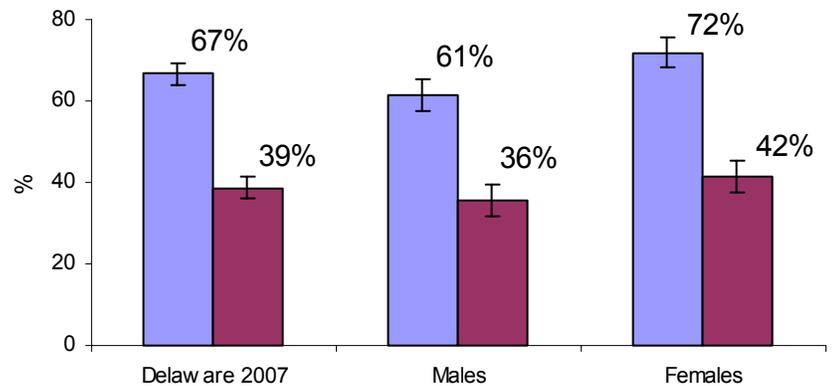
Q6.6 Are you currently trying to decrease or limit the amount of salt in the foods that you eat?

**Percentage of adults who are trying to limit amount of fat or salt in diet (2007 Delaware BRFSS)**

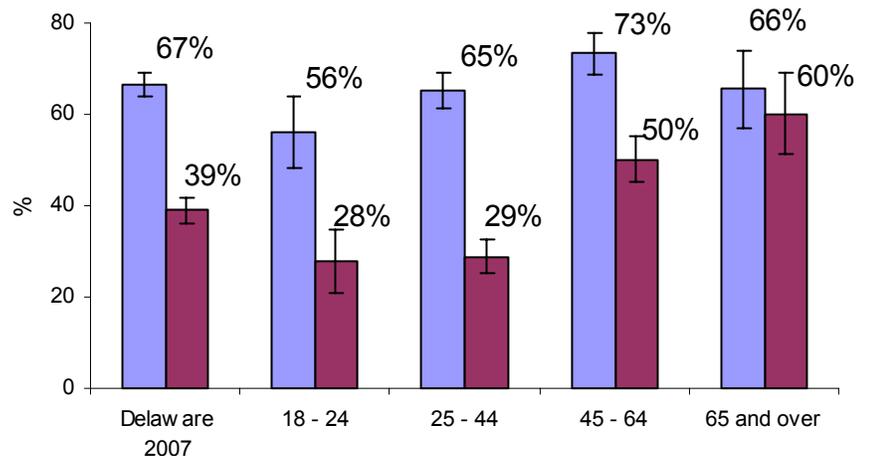
In 2007, 66.6% of those interviewed reported they were currently trying to limit the amount of fat in their diet. Far fewer (38.7%) were currently trying to limit the amount of salt in their diet.



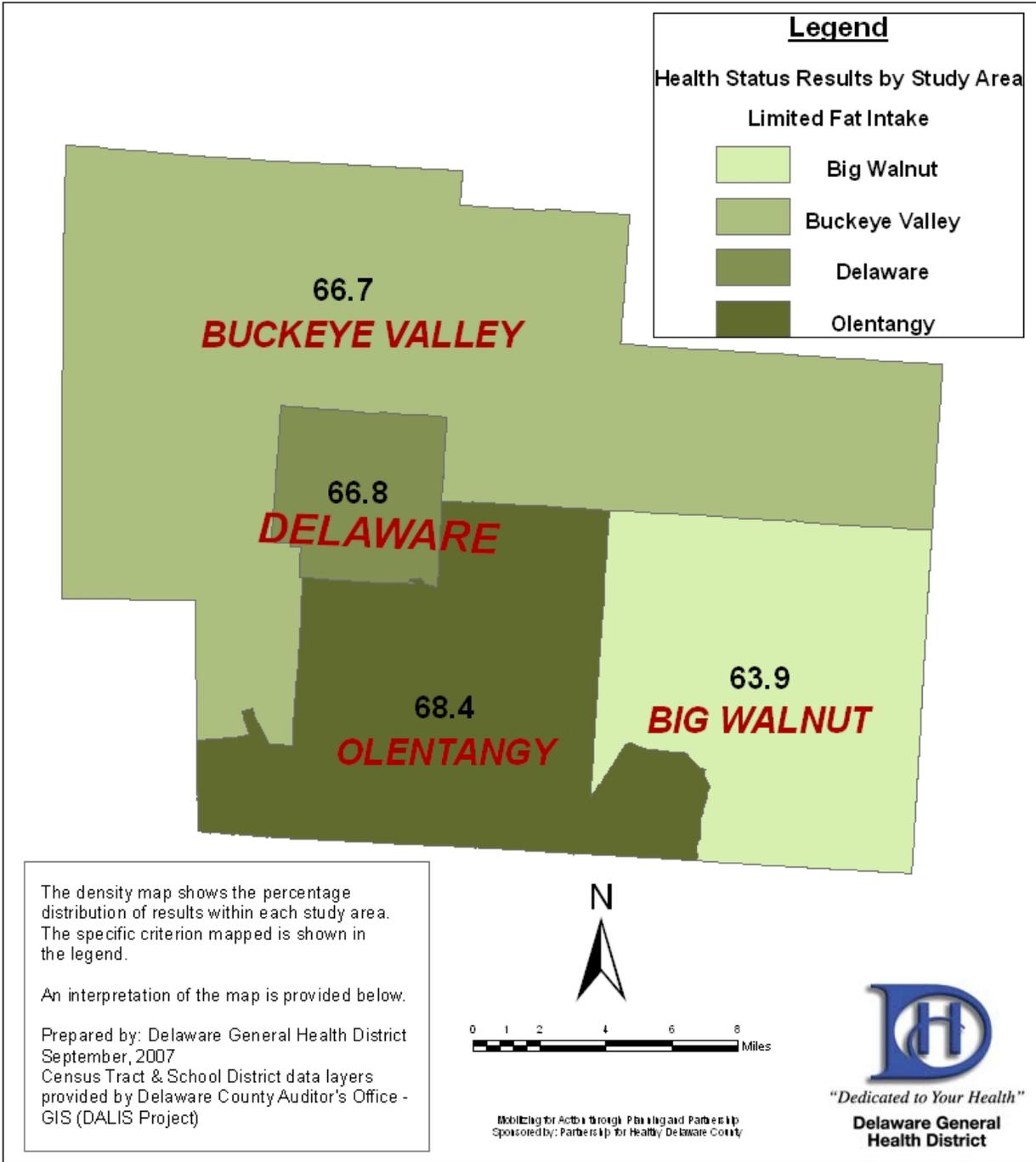
Overall, more females than males reported trying to limit their intake of fat and salt in their diet. This pattern was statistically significant for fat intake and marginally significant for salt intake.



Those aged 45-64 more often reported trying to limit their fat intake as compared to 18-24 year olds. Regarding attempts to limit salt intake, older respondents (45-64 year olds and those over age 65) were more likely than younger respondents (18-24 year olds and 25-44 year olds) to say they were trying to limit the amount of salt in their diet.

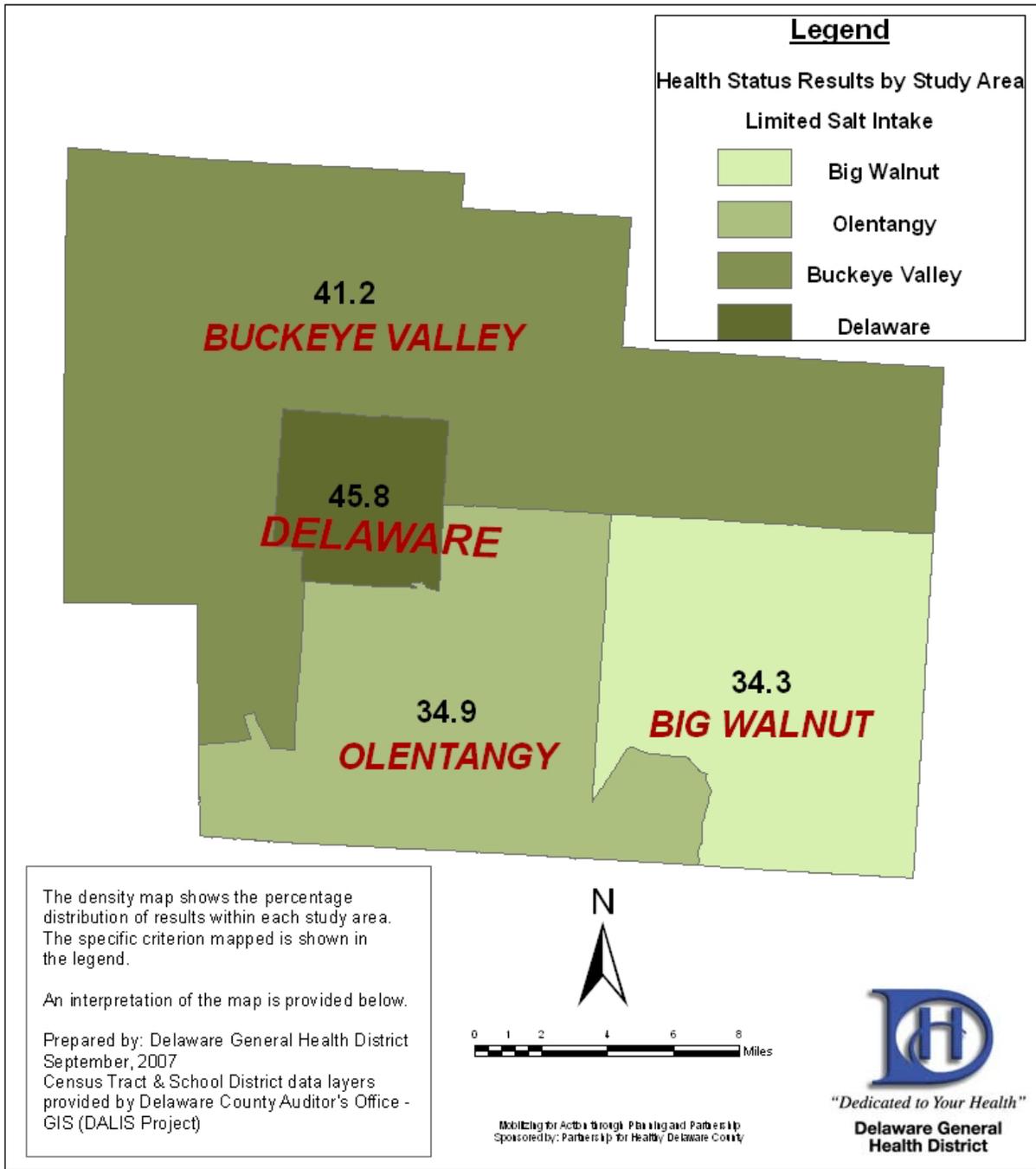


# Adults trying to limit the amount of Fat in their diet



There were no statistically significant differences across the four regions.

# Adults trying to limit the amount of Salt in their diet



Those in the Delaware region were more likely to report they were trying to decrease the amount of salt in their diet (45.8%) while those in the Olentangy region were less likely to report they were trying to decrease the amount of salt in their diet (34.9%).

**Additional Subgroup Differences – LIMITING FAT INTAKE:**

**Ethnicity:**

- There were no statistically significant differences in the rate of limiting fat intake as a function of ethnicity.

**Education:**

- Those with less than a high school education were less likely to report trying to limit fat in their diet (43.3%).

**Employment:**

- Those who were unemployed were more likely to say they were trying to limit the amount of fat in the foods they eat (86.4%).

**Household income:**

- There were no statistically significant differences in the rate of limiting fat intake as a function of household income.

**Additional Subgroup Differences – LIMITING SALT INTAKE:**

**Ethnicity:**

- Non-white residents were more likely to report trying to limit the amount of salt in their diet (50.5%).

**Education:**

- Those with less than a high school education were less likely to report trying to limit salt in their diet (21.2%).

**Employment:**

- Those who were unemployed were more likely to say they were trying to limit the amount of salt in the foods they eat (58.1%).
- Those who were employed were less likely to say they were trying to limit the amount of salt in the foods they eat (34.1%).

**Household income:**

- Those with lower household incomes (under \$25,000 and \$25,000-\$75,000) were more likely to report they were trying to limit their salt intake (47.3% and 44%, respectively).
- Those with higher household incomes (\$75,000-\$150,000 and over \$150,000) were less likely to report they were trying to limit their salt intake (33.6% and 25.6%, respectively).

# Exercise

A key component to staying healthy is regular exercise approved by a healthcare professional. Some benefits of regular exercise include reduced risk of coronary heart disease, reduced heart rate, blood pressure, and weight, psychological benefits such as feelings of well-being / quality of life, among others. How many Delaware County residents exercise regularly?

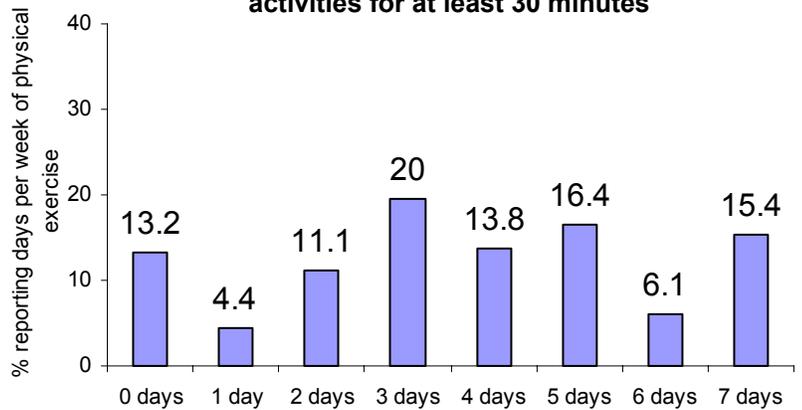
*Q7.3: In a usual week, do you participate in any physical activities for at least 30 minutes, such as brisk walking, bicycling, vacuuming, gardening, or anything else that causes some increase in breathing / heart rate?*

*Q7.4: How many days per week do you do any physical activities for at least 30 minutes?*

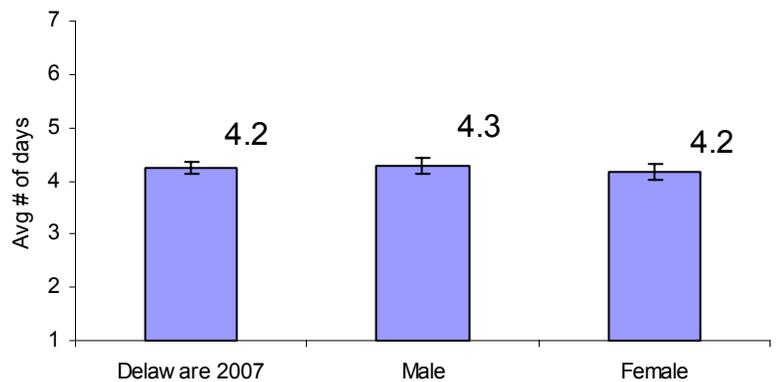
*Q7.5: What is the main personal reason you do not exercise more or be more physically active?*

In 2007, the majority of Delaware County residents (71.7%) reported having at least three days per week in which they do physical activities for at least 30 minutes. The average number of days in which adults do physical activities for at least 30 minutes was 4.23.

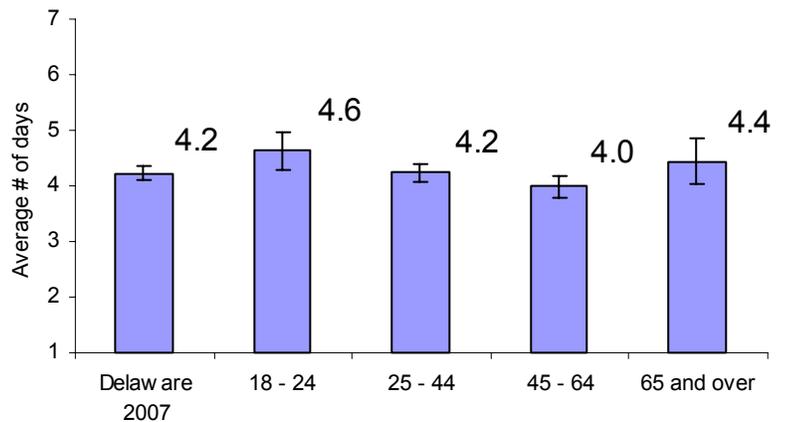
**Days per week in which adults did physical activities for at least 30 minutes**



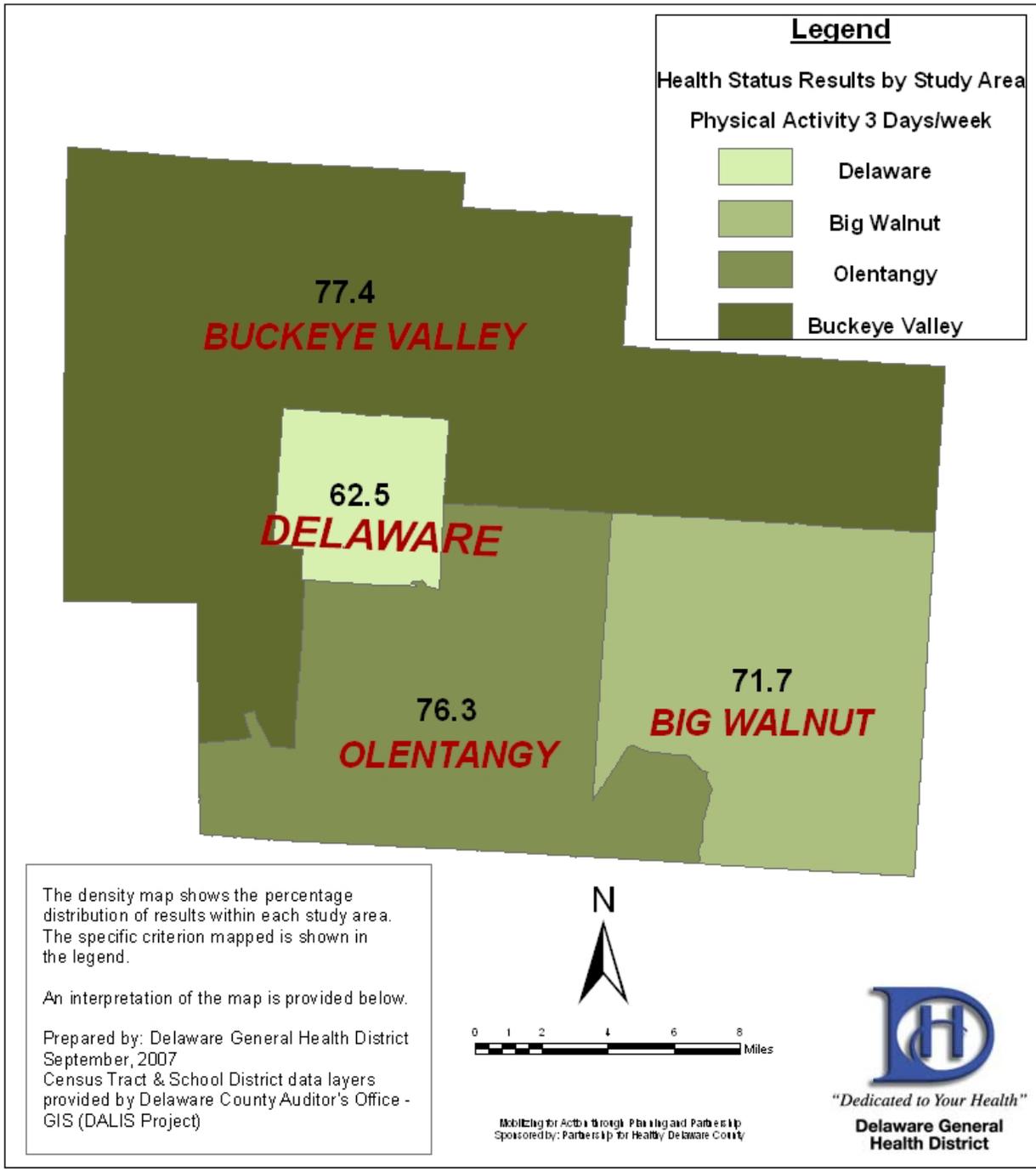
No statistically significant differences between males and females were noted.



Younger respondents (18-24) reported more days in which they did physical activity for at least 30 minutes as compared to 45-64 year olds.



## Adults who get at least three days of Physical Activity in a typical week



Those in the Delaware region were less likely to report exercising at least 3 times a week (62.5%).

**Additional Subgroup Differences:****Ethnicity:**

- There were no statistically significant differences in the amount of exercise as a function of ethnicity.

**Education:**

- Those with less than a high school education reported the highest average number of days (5.29) in which they were active for at least 30 minutes.

**Employment:**

- Those who were unemployed or who had an “other” employment status reported a higher number of days than others (4.9 and 4.6, respectively).

**Household income:**

- Those with household incomes less than \$25,000 reported an average number of days that was significantly higher than those with household incomes of between \$25,000-\$75,000 (4.7 and 4.1, respectively).

**ADDITIONAL FINDINGS REGARDING PHYSICAL EXERCISE**

Do Delaware County residents exercise while they work? Of the 822 respondents who were employed for wages, 73.6% reported their work requires them to mostly sit or stand, while 16.3% reported their work requires them to mostly walk and 10.3% reported they mostly do heavy labor or other physically demanding work.

Of the 822 respondents who were employed for wages, 23.2% reported they use their lunch or other work breaks to do physical activity or exercise, such as walking, aerobics, or jogging for at least 10 minutes at a time.

What about the 144 participants who reported they exercise 0 days in a usual week? What are their reasons for not participating in activities that can cause some increase in breathing or heart rate? These participants were asked the following: *What is the main personal reason you do not exercise more or be more physically active?* The most frequently heard reasons related to the following:

- “I don’t have enough time”
- “Ill or otherwise physically unable”
- Issues of “Self-motivation or willpower”
- A belief that one “already gets enough exercise” (likely through work)
- “Too tired or don’t have the energy.”

# Overweight and Obesity

According to the Centers for Disease Control, overweight and obese individuals are at increased risk for many diseases and health conditions, including hypertension, Type 2 diabetes, coronary heart disease, stroke, gallbladder disease, osteoarthritis, and sleep apnea, among others. How many Delaware County residents can be classified as overweight or obese?

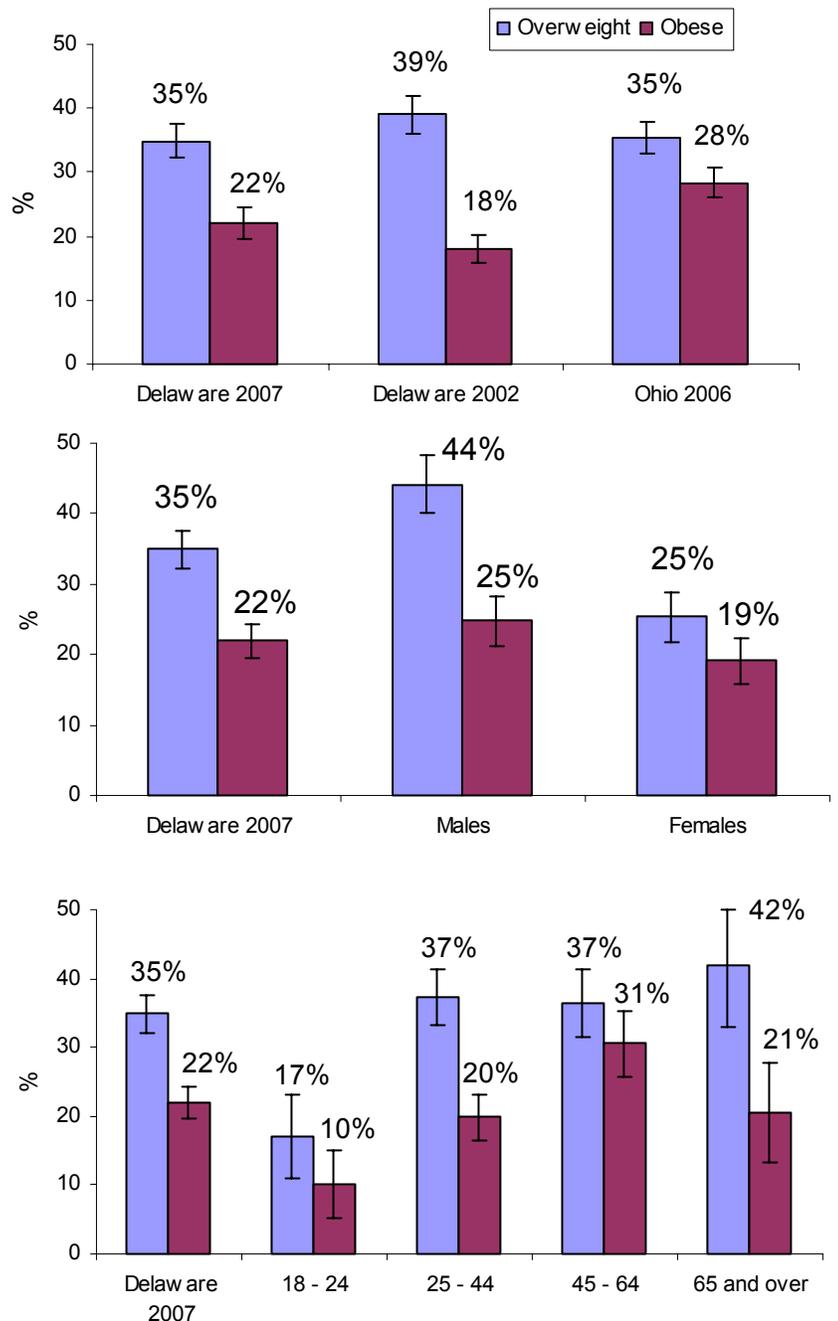
Q17.5 & Q17.6 About how much do you weigh without shoes? And about how tall are you without shoes?

To estimate the prevalence of obesity and overweight among those surveyed, a Body Mass Index (BMI) was calculated for each individual who provided his/her height and weight.  $BMI = (weight / inches^2) \times 703$ . Standard weight status guidelines were used: Normal weight, BMI = 18.5-24.9; Overweight, BMI = 25-29.9; Obese, BMI = over 30. The percentage with BMIs indicating obesity in 2007 is significantly lower than the Ohio 2006 data.

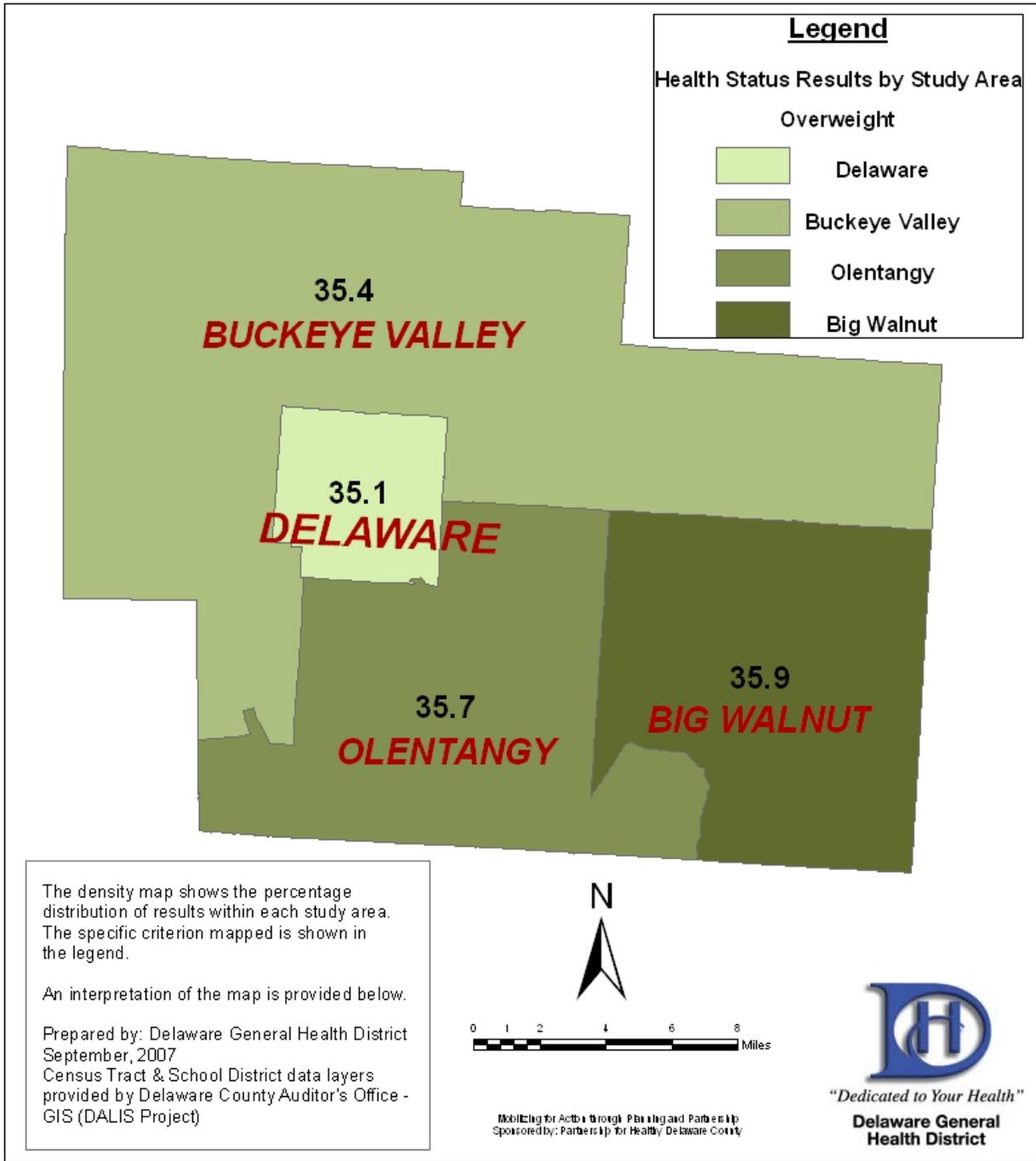
Overall, more males than females had BMIs indicating an “overweight” status. Although not shown in this figure, more females than males had BMIs indicating a “normal weight” status.

Those aged 18-24 were much less likely to have BMIs indicating overweight or obese weight status as compared to almost every other age category. BMIs indicating obesity were most often reported among those aged 45-64.

**Percentage of adults with BMIs indicating overweight or obesity**

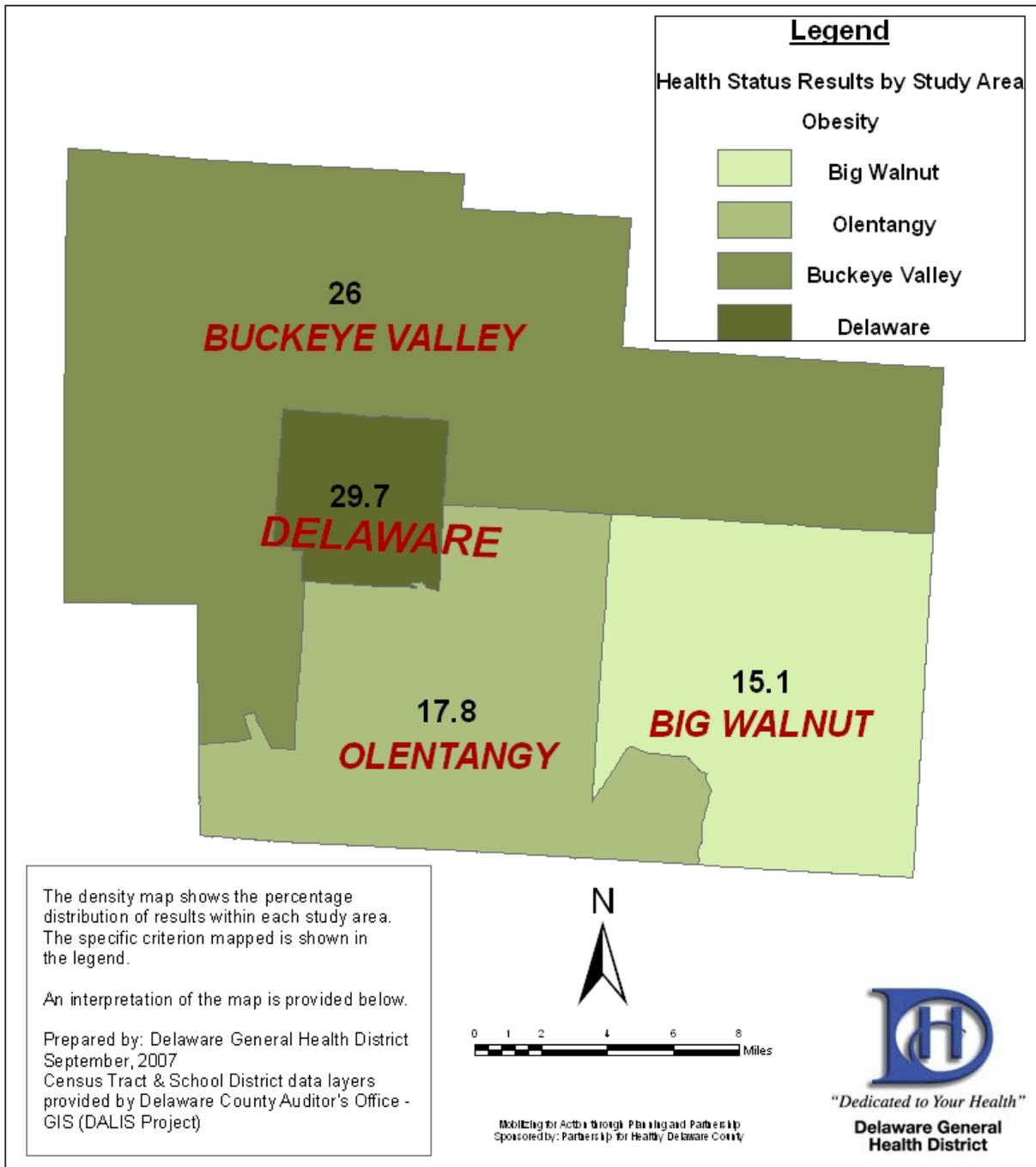


# Adults having BMIs in the "Overweight" range



There were no statistically significant differences across the four regions.

# Adults having BMIs in the "Obese" range



Those in the Delaware region were more likely to have BMIs indicating obesity (29.7%) while those in the Big Walnut and Olentangy regions were less likely to have BMIs indicating obesity (15.1% and 17.8%).

**Additional Subgroup Differences:**

**Ethnicity:**

- There were no statistically significant differences in overweight or obesity rates as a function of ethnicity.

**Education:**

- Those with a high school education (or equivalency) were less likely to have BMIs indicating “normal weight” and more likely to have BMIs indicating obesity (34.2% and 26.8%, respectively).

**Employment:**

- Those who were employed were less likely to have BMIs indicating “normal weight” and more likely to have BMIs indicating overweight (36.9% and 39.1%, respectively).
- Those with an “other” employment status were more likely to have BMIs indicating “normal weight” and less likely to have BMIs indicating overweight (54% and 25.9%, respectively).

**Household income:**

- There were no statistically significant differences in overweight or obesity rates as a function of household income.

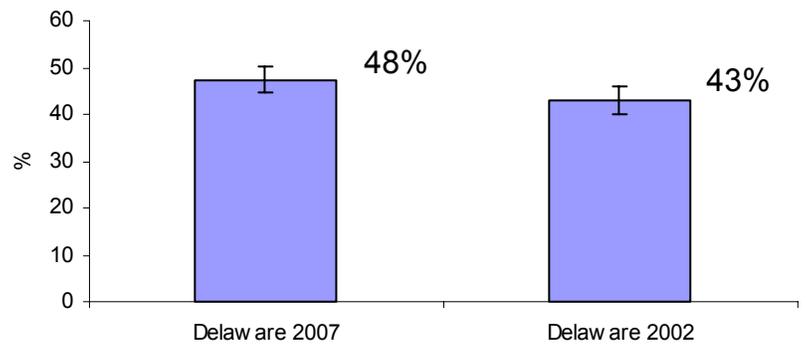
# Weight Loss

Given that 57% of Delaware County adults have BMIs indicating they are overweight or obese, what are residents doing to address this issue? To what extent are Delaware County adults currently trying to lose weight, either through exercise, diet, or some other process?

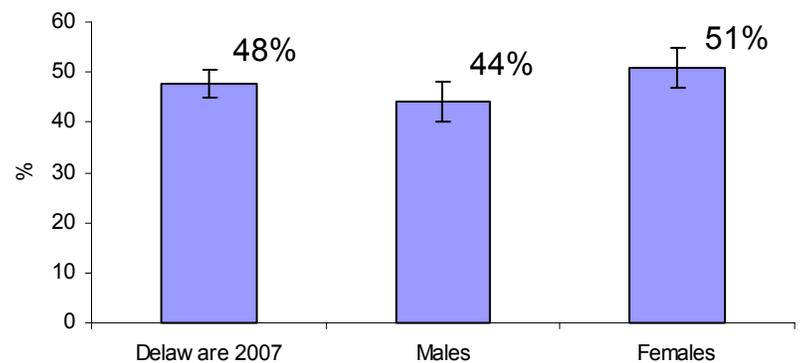
Q6.7: Are you now trying to lose weight?

In 2007, almost half of Delaware County residents' reported they are now trying to lose weight. A comparison of the 2007 proportion to the 2002 one indicates the two are statistically similar.

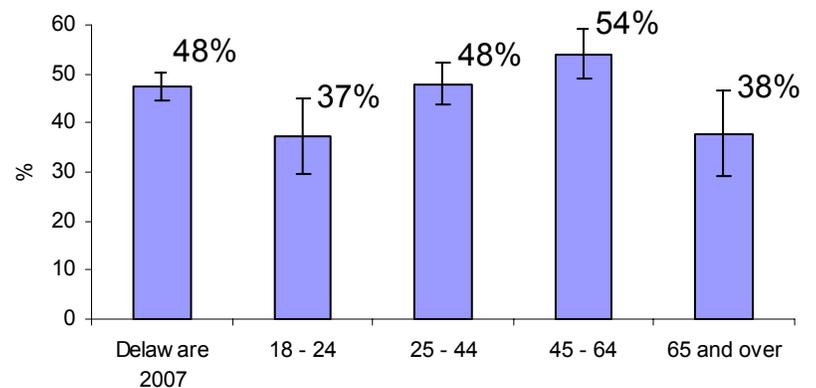
Percentage of adults now trying to lose weight



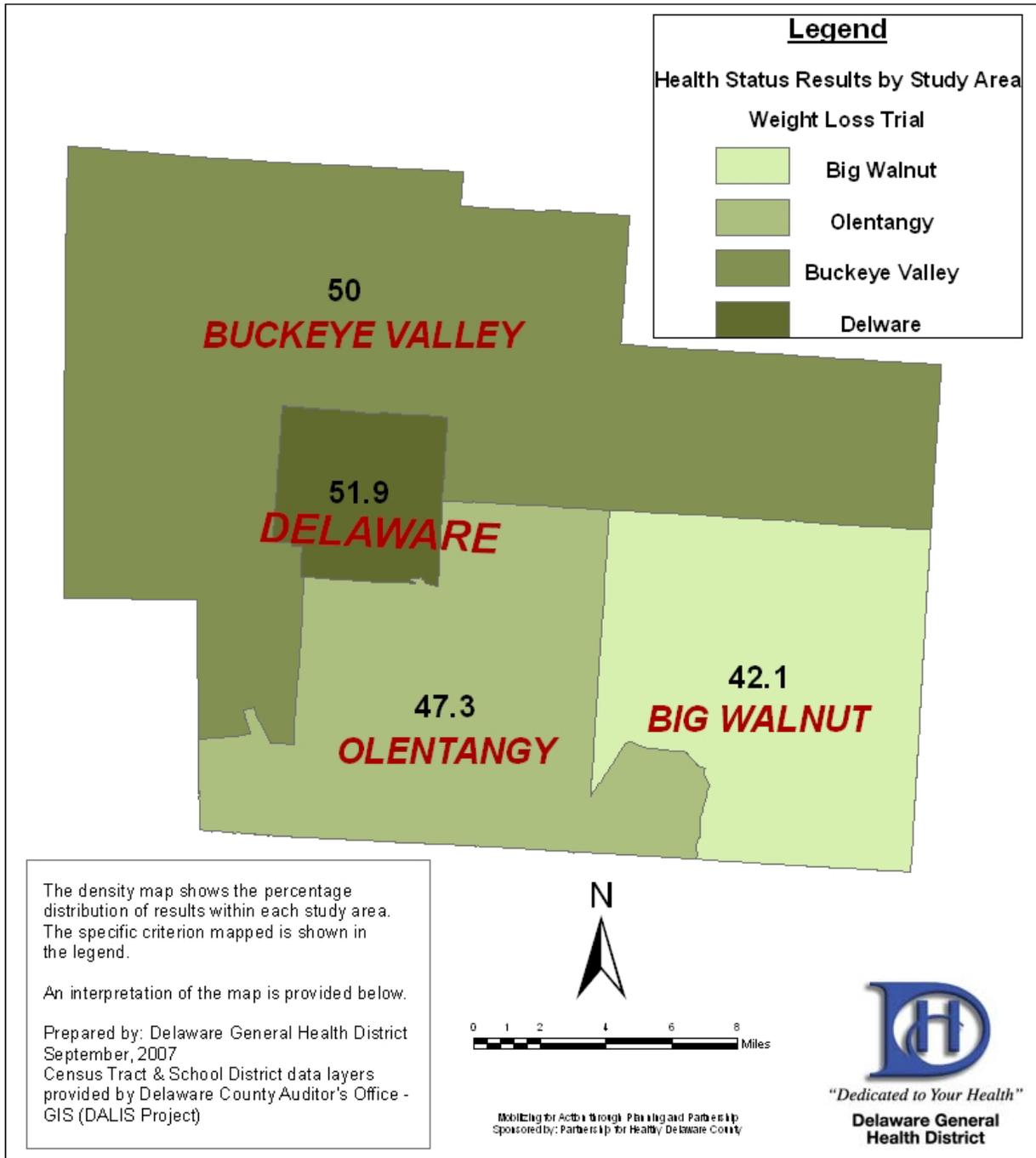
No statistically significant differences were noted between males and females.



Those aged 45-64 were more likely than younger respondents (18-24) or the oldest respondents (65+) to report they were currently trying to lose weight.



## Adults who reported they are currently trying to lose weight



There were no statistically significant differences in rates of weight loss across the four regions.

**Additional Subgroup Differences:**

**Ethnicity:**

- There were no statistically significant differences in the rate of attempted weight loss as a function of ethnicity.

**Education:**

- There were no statistically significant differences in the rate of attempted weight loss as a function of educational status.

**Employment:**

- Those who were unemployed were more likely to report they were trying to lose weight (79.5%).
- Those with an “other” employment status were less likely to report they were trying to lose weight (40.8%).

**Household income:**

- There were no statistically significant differences in the rate of attempted weight loss as a function of household income.

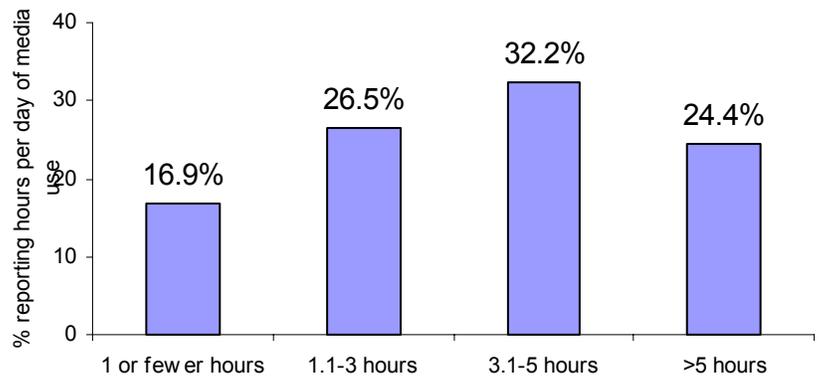
# Television / Computer Time

The opposite of an active, healthy lifestyle is a sedentary one. Too often, an indicator of a sedentary lifestyle is one that includes the heavy use of television or a computer. In a typical day, how much time do Delaware County residents spend watching a screen?

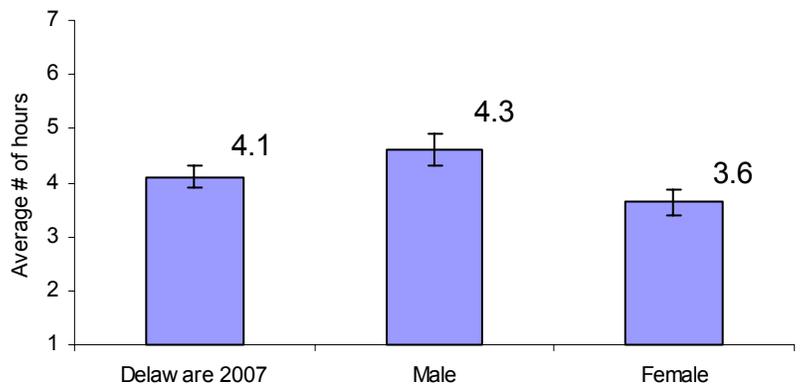
*Q7.6: On a typical day how many hours and minutes do you watch TV, play video games or use a computer?*

**Hours per day watching TV, playing video games, or using a computer among adults**

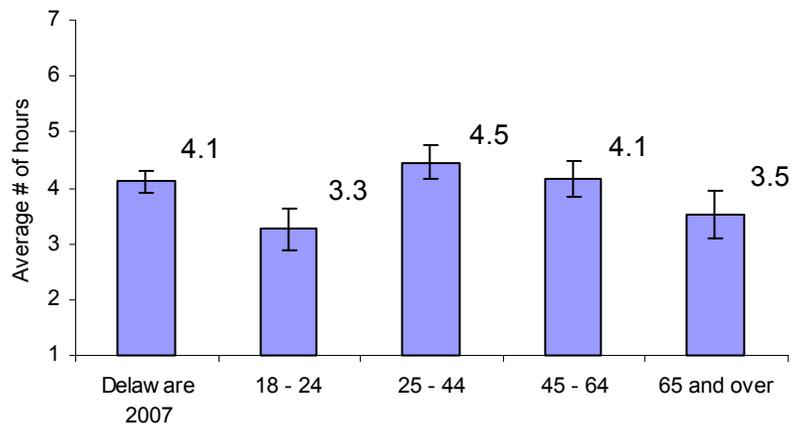
In 2007, a plurality of Delaware County residents (32.2%) reported spending between 3.1 and 5 hours per day watching TV, playing video games, or using a computer.



Males reported more hours spent watching television, playing video games, or using the computer than did females.



Middle aged respondents (25-44 and 45-64 year olds) reported more hours spent watching television, playing video games, or using the computer than did younger respondents (18-24).



**Additional Subgroup Differences:**

**Ethnicity:**

- There were no statistically significant differences in the rate of television / computer use as a function of ethnicity.

**Education:**

- There were no statistically significant differences in the rate of television / computer use as a function of educational status.

**Employment:**

- There were no statistically significant differences in the rate of television / computer use as a function of employment status.

**Household income:**

- Those with household incomes less than \$25,000 reported the most hours per day (appx 5) spent watching television, playing video games, or using a computer than all other categories.
- Those with household incomes greater than \$150,000 reported the fewest hours per day (appx 3.8) than all other categories.

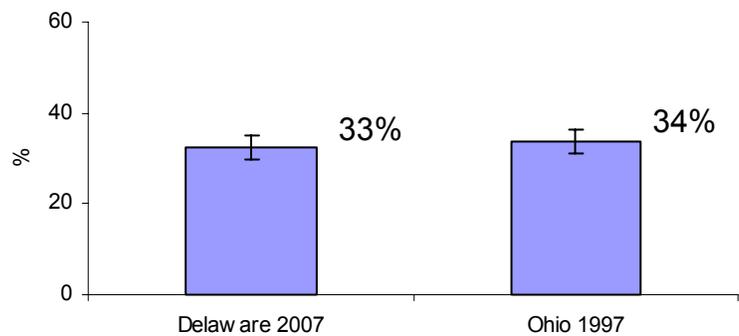
# HIV Testing

Knowing one’s Human Immunodeficiency Virus (HIV) status yields a number of benefits. If one is HIV negative, one can avoid worrying unnecessarily about possible infection – and hopefully practice safer health behaviors in the future. If one is HIV positive, health care professionals can chart a health care plan that may slow down the progression of the disease. Additionally, one can take steps to protect others. How many Delaware County residents have ever been tested for HIV?

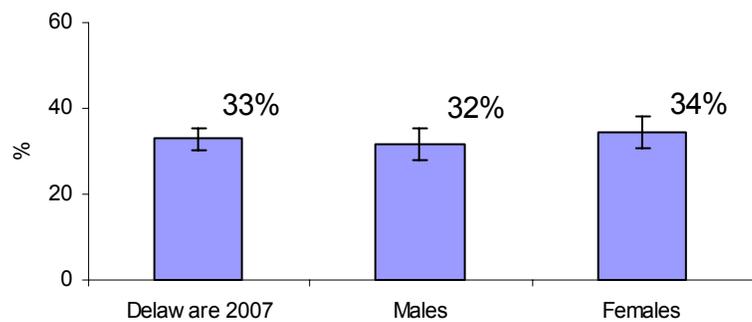
Q 13.1: *Have you ever been tested for HIV? Do not count tests you may have had as part of a blood donation. Include testing fluid from your mouth.*

In 2007, about a third of Delaware County residents’ reported they have ever been tested for HIV. This proportion is statistically similar to 1997 Ohio data (the most recent available).

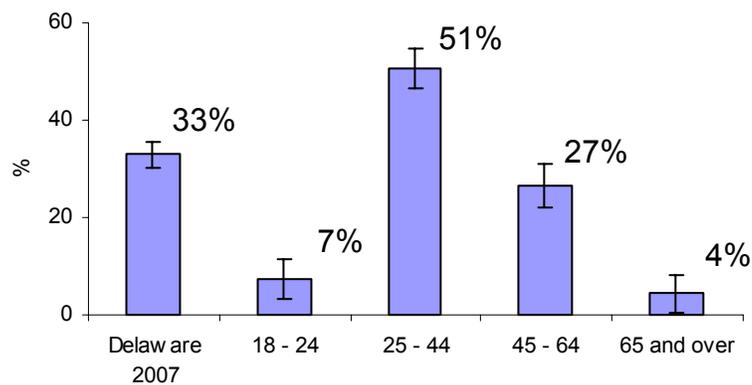
Percentage of adults who have ever been tested for HIV



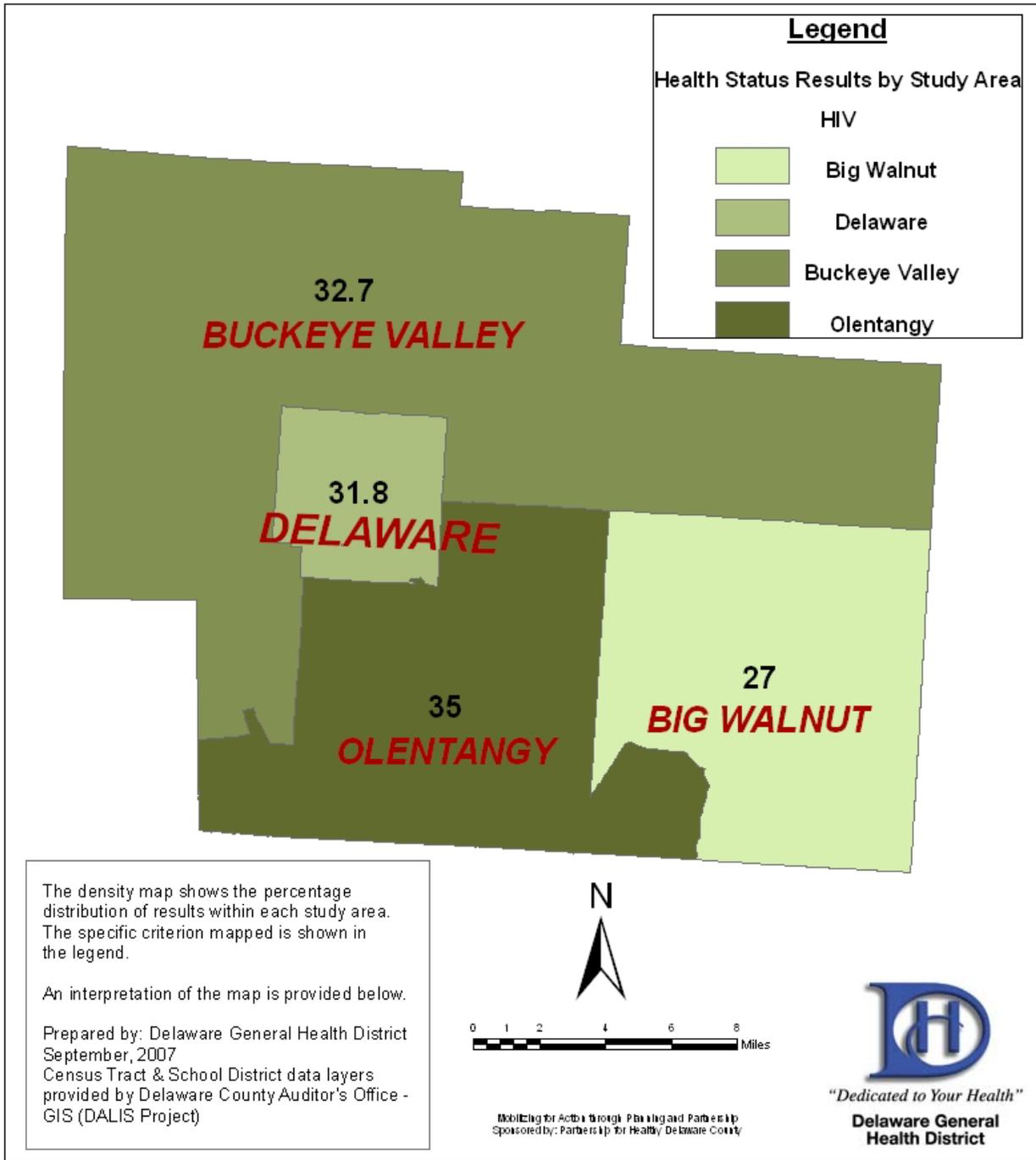
No statistically significant differences were observed between females and males.



Those aged 25-44 were especially likely to have been tested for HIV, while those in the other three age categories were all especially unlikely to have been tested for HIV.



## Adults who reported ever getting an HIV test



There were no statistically significant differences in HIV testing rates across the four regions.

**Additional Subgroup Differences:**

**Ethnicity:**

- There were no statistically significant differences in the rate of attempted weight loss as a function of ethnicity.

**Education:**

- Those with less education (less than high school and high school degree or equivalent) were less likely to have been tested for HIV (13.8% and 23.7%, respectively).
- Those with a post graduate degree were more likely to have been tested for HIV (44.4%).

**Employment:**

- Those with an “other” employment status were less likely to have been tested for HIV (22.1%).
- Those who were employed were more likely to have been tested for HIV (38%).

**Household income:**

- Those with lower household incomes (less than \$25,000) were less likely to have been tested for HIV (21.1%).
- Those with incomes greater than \$150,000 were more likely to have been tested for HIV (43%).

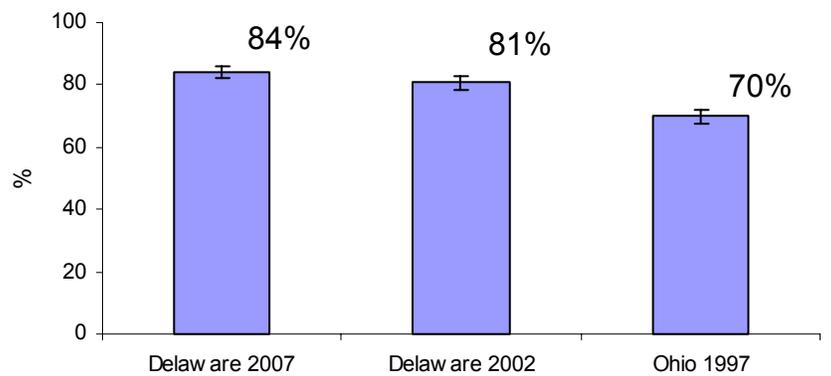
# Safety Belt and Safety Seat Use

According to the National Highway Traffic Safety Administration, safety belts saved an estimated 15,700 lives and prevented 350,000 serious injuries in the United States in 2005. Unfortunately, one of the greatest public health problems are injuries sustained during motor vehicle accidents – injuries that may be prevented if proper safety measures are taken. How many Delaware County residents report they are “always” properly restrained while in a car?

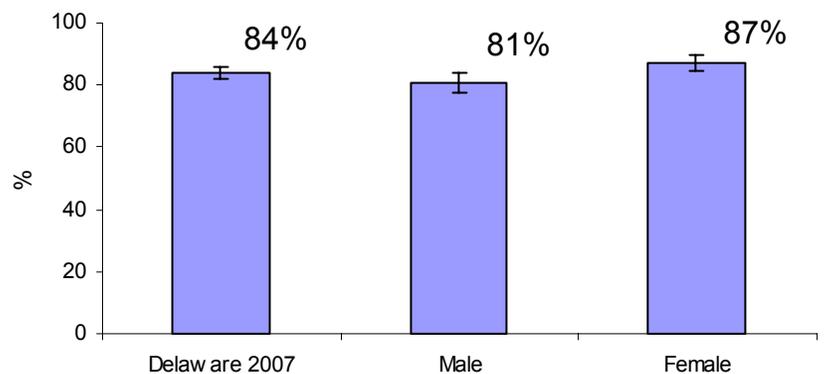
Q11.1: How often do you use seatbelts when you drive or ride in a car?

In 2007, the great majority of Delaware County adults reported they “always” wear a seatbelt when driving or riding in a car. This percentage is statistically similar to that observed in 2002 but significantly higher than 1997 Ohio data (the most recent available).

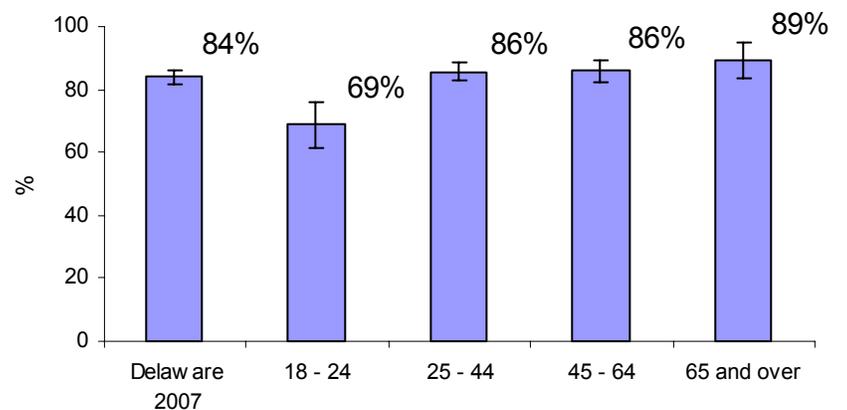
Percentage of adults who “always” use seatbelts



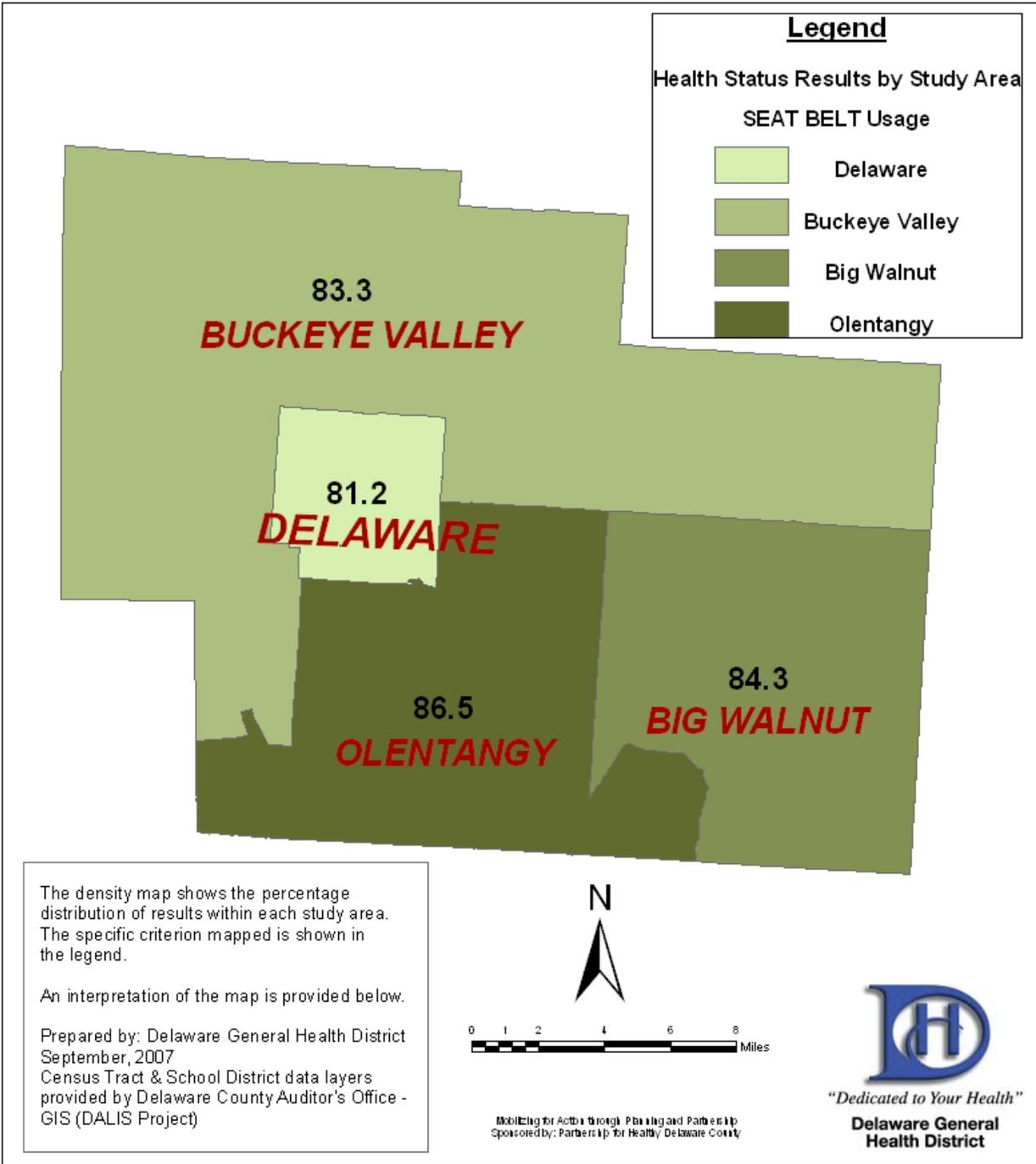
Females were more likely than males to report they “always” use seatbelts.



Younger respondents (18-24) had the lowest percentage of adults reporting they “always” wear safety belts, compared to all other groups.



## Adults who reported "Always" using a Seat belt when in a car



There were no statistically significant differences across the four regions.

**Additional Subgroup Differences Regarding Adult Use of Safety Belts:**

**Ethnicity:**

- There were no statistically significant differences in the rate of seatbelt use as a function of ethnicity.

**Education:**

- Those with higher educational status (post graduate degree) were more likely to report “always” using a safety belt (92.8%).

**Employment:**

- There were no statistically significant differences in the rate of seatbelt use as a function of employment status.

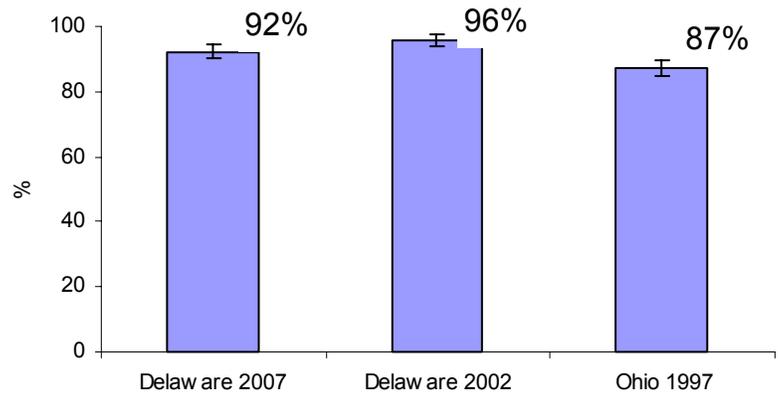
**Household income:**

- Those with lower household incomes (less than \$25,000) were less likely to report “always” using a safety belt (71.9%).

According to statistics compiled by the Association of State and Territorial Health Officials, 7,810 children under age 15 were involved in fatal vehicle crashes in 2005: 29% were unrestrained and 50% of those who died were unrestrained. How many children are properly restrained?

*Q11.2: Think about the oldest child in your household aged 15 or younger. How often does this child use a car safety seat or booster seat (if under 8) or a seatbelt (if 8 or older) when he or she rides in a car?*

**Percentage of children who “always” use either a car safety seat or safety belt**



In 2007, the great majority of survey respondents with children younger than 15 in their household reported these children “always” use either a car safety seat or safety belt. This percentage is statistically similar to that observed in 2002 but higher than 1997 Ohio data (the most recent available).

**Additional Subgroup Differences Regarding Child's Use of Safety Seats or Safety Belts:**

**Ethnicity:**

- There were no statistically significant differences in the rate of safety seat / seatbelt use as a function of ethnicity.

**Education:**

- There were no statistically significant differences in the rate of safety seat / seatbelt use as a function of educational status.

**Employment:**

- There were no statistically significant differences in the rate of safety seat / seatbelt use as a function of employment status.

**Household income:**

- There were no statistically significant differences in the rate of safety seat / seatbelt use as a function of employment status.

**Gender:**

- There were no statistically significant differences in the rate of safety seat / seatbelt use as a function of respondents' gender.

**Age:**

- Adults in the youngest age category (18-24) were less likely to report children in their household "always" use either a safety seat or safety belt (77.1%).

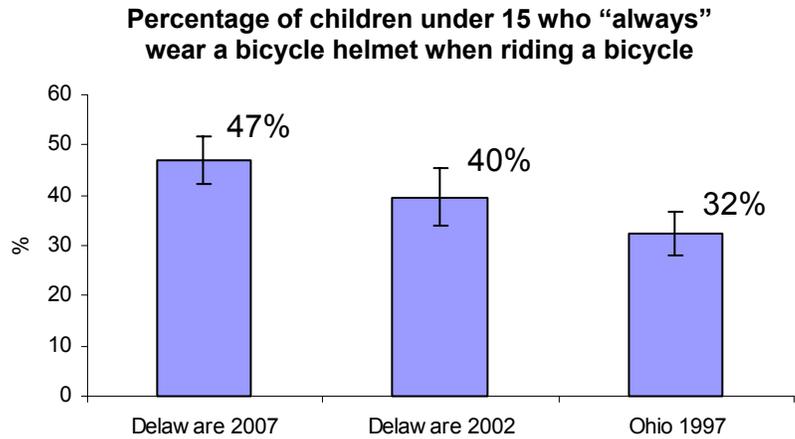
# Bicycle Helmet Use

According to the Safe Kids USA, 134 children ages 14 and under died in bicycle-related crashes in 2001 and nearly 288,900 were treated in hospital emergency rooms for bicycle-related injuries in 2002. How many Delaware County children reportedly “always” wear a helmet when riding their bicycles?

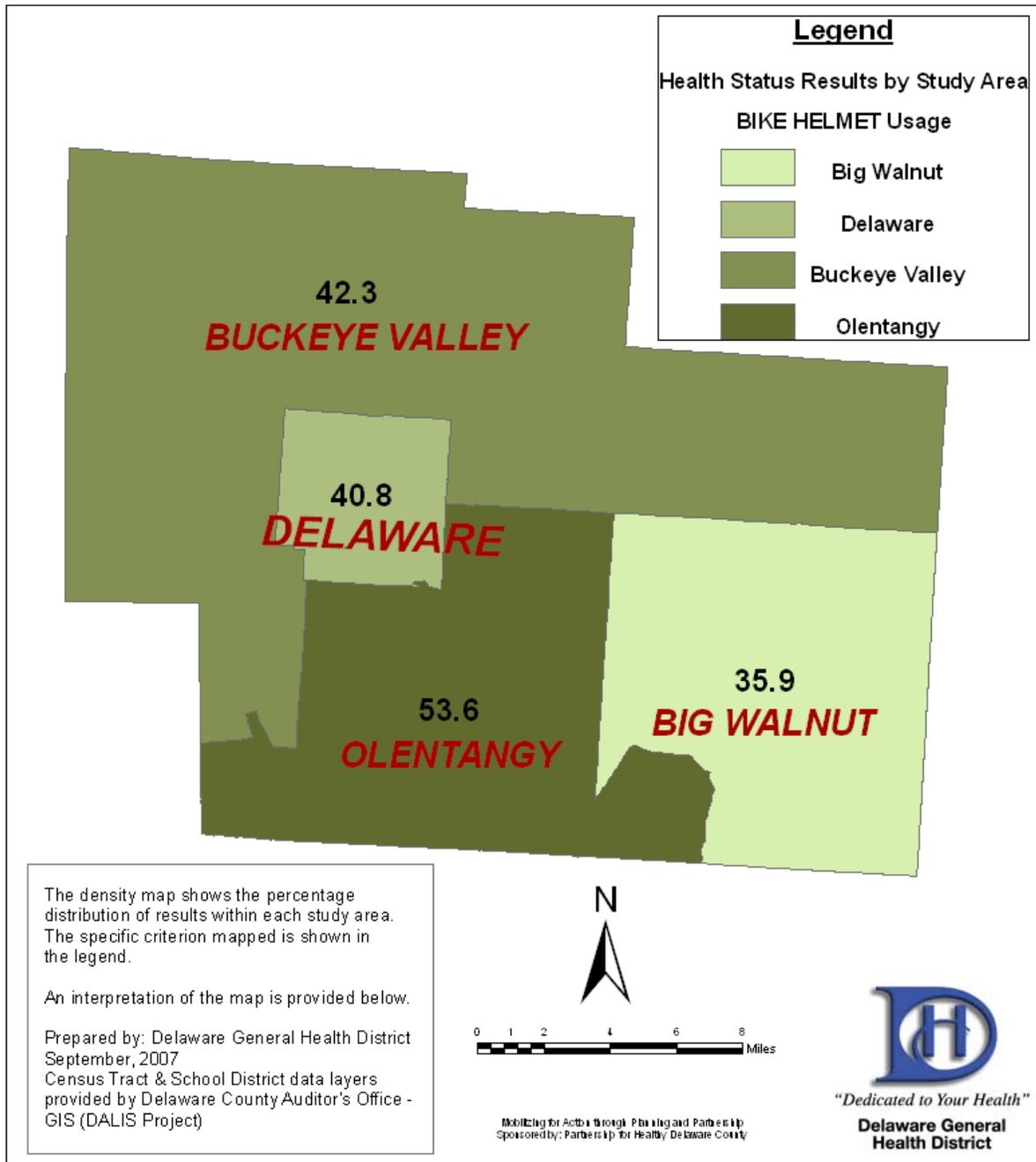
*Q11.3: During the past year, how often has this oldest child worn a bicycle helmet when riding a bicycle?*

In 2007, almost half of Delaware County adults report that the oldest child in their household “always” wears a helmet when riding a bicycle. (Note: adults who reported their children do not ride a bicycle were removed from this analysis.)

Although the 2007 percentage is greater than the 2002 one, it is not significantly greater. This proportion is significantly greater than Ohio 1997 data (the most recent available).



# Adults who reported their oldest child "Always" uses a Bike helmet when bicycling



Those in the Olentangy region are more likely to say their oldest child “always” wears a bicycle helmet while riding (53.6%) while those in the Big Walnut area are less likely to say their oldest child “always” wears a bicycle helmet while riding (35.9%).

**Additional Subgroup Differences Regarding Child's Use of Bicycle Helmets:**

**Ethnicity:**

- There were no statistically significant differences in the rate of a child's bicycle helmet use as a function of the respondents' ethnicity.

**Education:**

- Those with a high school degree or equivalent were less likely to report that children in their household "always" wear helmets when riding a bicycle (32.3%).

**Employment:**

- There were no statistically significant differences in the rate of a child's bicycle helmet use as a function of employment status.

**Household income:**

- Those with household incomes between \$25,000 and \$75,000 were less likely to report that children in their household "always" wear helmets when riding a bicycle (34.1%).
- Those with household incomes greater than \$150,000 were more likely to report that children in their household "always" were helmets while riding a bicycle (66.2%).

# Nonconsensual Sex / Partner Violence

As noted by the Ohio Commission on the Prevention of Injury (2003), intimate partner violence (IPV) can be defined as a pattern of actual or threatened physical or sexual violence, or psychological/emotional abuse by a spouse, ex-spouse, boyfriend/girlfriend, ex-boyfriend/ ex-girlfriend, or date. Within the United States, one out of every four women will likely experience violence by an intimate partner sometime during her lifetime (Tjaden & Thoennes, 1999). According to the Rape, Abuse, and Incest National Network, there were 200,780 victims of rape, attempted rape or sexual assault in 2004-2005. Every two and a half minutes in America, someone is sexually assaulted. One in six American women are victims of sexual assault, and one in 33 men. What is the prevalence of these forms of violence among Delaware County residents?

*Q18.1 Now I'd like to ask you about unwanted sexual experiences and intimate partner violence. Are you in a safe place to answer these questions?*

*Q18.2 Now, I am going to ask you a question about unwanted sex. Unwanted sex includes things like putting anything into your vagina [if female], anus, or mouth or making you do sexual things after you said or showed you didn't want to. It includes times when you were unable to consent, for example, you were drunk or asleep, or you thought you would be hurt or punished if you refused. Has anyone EVER had sex with you after you said or showed you didn't want them to or without your consent?*

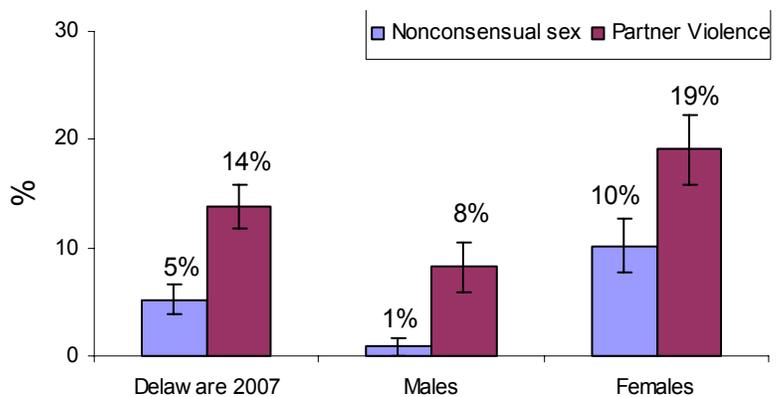
*Q18.3 The next question is about different types of violence in relationships with an intimate partner. By an intimate partner I mean any current or former spouse, boyfriend, or girlfriend. Someone you were dating, or romantically or sexually intimate with would also be considered an intimate partner. Has an intimate partner EVER hit, slapped, pushed, kicked, or hurt you in any way?*

*Q18.3c Would you or someone you know like to talk with a trained counselor about either of these topics?*

Overall, 113 participants (9.4%) refused to answer this series of questions, either because they felt they could not answer safely or because they wanted to end the survey more quickly. This section presents data from the 1,085 participants who agreed to answer the questions.

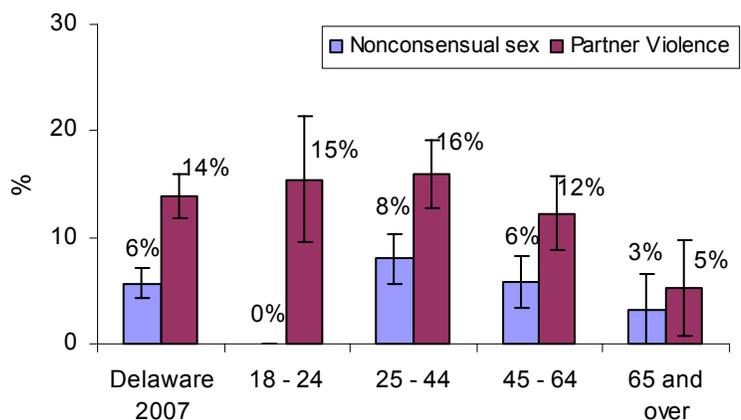
More females than males reported ever experiencing nonconsensual sex and partner violence.

**Percentage of adults reporting intimate partner violence**



Those aged 25-44 were slightly more likely to report nonconsensual sex and intimate partner violence. Those aged 65 or older were especially unlikely to report nonconsensual sex and intimate partner violence.

**Percentage of adults reporting intimate partner violence**



Two respondents requested contact information for trained counselors who could provide further information on these topics. This contact information - 1-800-656-HOPE and 1-800-799-SAFE - was provided to them.

**Additional Subgroup Differences – NONCONSENSUAL SEX:**

**Ethnicity:**

- There were no statistically significant differences in the rate of reported nonconsensual sex as a function of ethnicity.

**Education:**

- There were no statistically significant differences in the rate of reported nonconsensual sex as a function of educational status.

**Employment:**

- Those who were unemployed were more likely to say they were victims of nonconsensual sex (12.8%).

**Household income:**

- Those with household incomes between \$25,000-\$75,000 were more likely to report nonconsensual sex (9.8%).
- Those with household incomes between \$75,000-\$150,000 and \$150,000+ were less likely to report nonconsensual sex (3% and 3.2%, respectively).

**Additional Subgroup Differences – INTIMATE PARTNER VIOLENCE:**

**Ethnicity:**

- There were no statistically significant differences in the rate of intimate partner violence as a function of ethnicity.

**Education:**

- Those with a high school degree or equivalent were more likely to report intimate partner violence (18.7%).
- Those with a post graduate degree were less likely to report intimate partner violence (5.1%).

**Employment:**

- Those who were unemployed were more likely to say they were victims of intimate partner violence (31.6%).

**Household income:**

- Those with household incomes of less than \$25,000 were more likely to report intimate partner violence (23.2%).
- Those with incomes between \$75,000-\$150,000 were less likely to report intimate partner violence (9%).

## Appendix 1: Survey Methods

The survey method was designed to provide estimates of various health behaviors of Delaware County residents at two levels: at the County-wide level (to allow for comparisons to prior data collection, specifically the 2002 Delaware County BRFSS and the 2006 Ohio BRFSS); and across four geographic regions within Delaware County. Details of procedures used to collect data for these estimates are now presented.

**Geographic analysis:** Staff from DGHD and DALIS (Delaware Appraisal Land Information System, a division of the Delaware County Auditor's office focusing on geographic data and analysis) used census tracts to partition the county into four regions of interest: Big Walnut, Buckeye Valley, Delaware, and Olentangy. These regions correspond roughly to the four major school districts in the county, but should not be considered equivalent to them. A map showing the intra-county regions of interest is included on the next page.

**Survey design:** Questions for the 2007 Community Health Status Assessment came from three sources:

- From the CDC's Behavioral Risk Factor Surveillance Survey (BRFSS).
- From the Kansas Institute of Health's Kansas Health-Nutrition Activity survey.
- From Delaware County's 2002 Community Health Status Assessment.
- From collaboration between the Partnership for a Health Delaware County and its contracted research partner, The Strategy Team, Ltd.

The survey was designed to have an average length of 16 minutes. A copy of the 2007 survey instrument is included at the end of this appendix.

**Sample selection:** Random digit dial (RDD) with oversample.

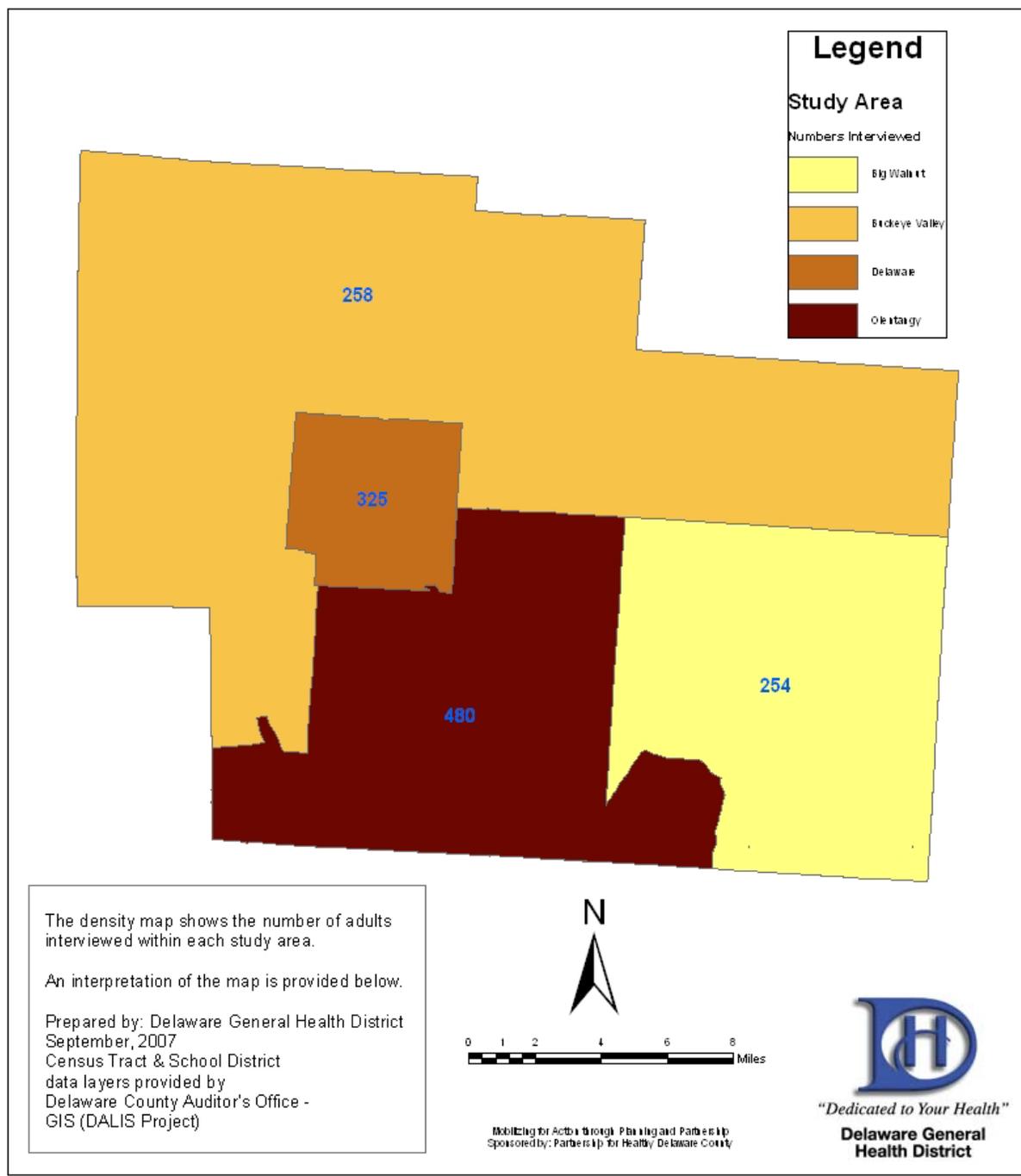
- Random digit dial sample: For the first 1,000 interviews, households were chosen at random from all households in the County with telephones, using randomly generated lists of phone number exchanges, provided by our fieldwork partner. Telephone numbers were provided by Survey Sampling Inc. Interim checks of the data for geographic distribution were performed to ensure a proportionate spread about the county. Geo-spatial analysis of the first 1,004 interviews revealed eight census tracts (geographical areas) had not been sampled. To correct this, an additional 192 interviews were allotted to these tracts to ensure the sample was proportionate to the geographic area surveyed. A total of **1,196** surveys comprised the random digit dial sample.
- Oversample: Analysis of the first 1,004 interviews revealed one particular geographic area of interest (the Big Walnut region) needed additional surveying for the sake of increased precision in the estimates for this region. A total of **125** surveys comprised the oversample.

**Sampling error:** Sampling error refers to the inaccuracy resulting from an attempt to generalize from a sample to the total population, assuming all members of the total population had an equivalent chance to participate in the survey. For the random county-wide sample (n=1,196), the sampling error was  $\pm 2.8\%$  at the 95% confidence level. For each of the four geographic regions and including the oversample, the sampling errors at the 95% confidence level were:

- Big Walnut region (n=254),  $\pm 6\%$
- Buckeye Valley region (n=258),  $\pm 6\%$
- Delaware region (n=325),  $\pm 5.4\%$
- Olentangy region (n=480),  $\pm 4.4\%$

A map showing these regions – and the number of households interviewed within each – is included below.

## Number of Adults Interviewed in each Study Area



Because the number of respondents who answer each question varies slightly due to refusals, skip patterns, etc., actual error rates will also vary by question. Additionally, the total population to whom the error rate applies is all households in Delaware County with a working telephone line.

**Respondent selection:** Once a qualified household was identified, multiple callbacks (8 to each eligible household) were made on different days at different times. Respondents were randomly selected from all adults ages 18 and older living in the household via the “last birthday method.”

**Surveying period:** Interviews were conducted May 15 – June 20, 2007. Calling was restricted to evening (after 5:00pm) and weekend hours, in an attempt to select from a diverse set of respondents – especially working and/or younger residents – within the household. Interviews were performed using computer-aided telephone interviewing (CATI).

**Quality assurance:** The following steps were taken to ensure the quality of the data collected.

- All interviewers completed CDC training in BRFSS administration.
- TST personnel frequently monitored the survey, providing feedback and guidance as necessary.
- Survey fieldwork managers regularly monitored and verified completed surveys, to ensure data was collected to specifications.
- Because CATI was used, error in data entry, question presentation, or adhering to skip / logic patterns is minimized.
- On occasion, extreme / outlier data were “cleaned” (i.e., edited) to ensure accurate reporting.

**Data adjustments:**

- **Weighting:** To ensure the random digit dial sample represented the county population on critical demographic variables, post-stratification weights for age and gender were applied, using data for Delaware County from the 2005 Census - American Community Survey.
- **Imputation:** 31 of the 1,196 RDD interviews did not provide their age to the interviewer. Because age was a critical component of the weighting process, missing data was imputed using nearest-neighbor hotdeck imputation:
  - The data file was sorted by gender, income, marital status, race, and education to group similar respondents together.
  - After this sort, a search was done for those cases with missing age data.
  - When such a missing case was found, the age value for the case immediately preceding the missing one was copied and inserted.
  - After this imputation procedure, weights were calculated.

Use of this method allowed all cases to be included in the final data file.

**Data limitations / Caveats:**

- Households without telephones are ineligible to participate in the BRFSS. Because lower income households are less likely than higher income households to have landline telephones<sup>1</sup>, the BRFSS sample is likely to include a greater proportion of higher income households than is present in the County population. According to 2000 Census data for Delaware County, 99.1% of all occupied households had telephone service. In addition, as time goes by, more and more

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<sup>1</sup> Centers for Disease Control and Prevention, National Center for Health Statistics. (2007) Wireless Substitution: Preliminary Data from the January-June 2006 National Health Interview Survey. Retrieved 7/9/07 from <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/wireless2006/wireless2006.htm>

households (especially those headed by younger adults) are shifting to wireless only telephone service. These respondents, too, are excluded from this survey.

- Random digit dialed telephone surveys are the gold standard for accuracy in public opinion polling. In addition, the BRFSS methodology provided by the Centers for Disease Control is an extremely rigorous one. Unfortunately, such methods come with a high price tag, one that could not be supported by the county's budget. To help Delaware County perform a high quality, robust study at a lower cost, several design changes were made, including fewer callbacks to eligible households and use of a less stringent within-household random selection procedure.
- Some respondents may be reluctant to report negative or socially undesirable behaviors (e.g., drinking and driving) or more likely to report positive or desirable behaviors (e.g., having regular cancer screenings). As a result, incidence estimates may be under or overestimated. This is a problem for any self-report method, and assurances of confidentiality were used to attempt to mitigate this issue.
- If respondents failed to correctly remember or estimate their recent health behaviors, this could have increased error in their reports.
- Because this survey occurred within a time frame spanning the late spring / early summer part of the year, certain behavioral estimates may be over or under-represented due to seasonal factors (e.g., reported exercise may be higher during this surveying time period as compared to a mid-winter one).

**2007**

**Delaware County  
Health Status Assessment  
Questionnaire**

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**Section 0 - Screener Questions**

1. HELLO, I am calling for the **Delaware General Health District**. My name is **(name)**. We are gathering information about the health and health practices of **Delaware County** residents. This project is conducted by your local public health department with assistance from the Centers for Disease Control and Prevention. Your household has been chosen randomly to participate.

All information given will be confidential. You do not have to answer any question you do not want to, and you can end the interview at any time. This survey will take about 15 minutes.

2. First let me ask: Is this a private residence? (*If necessary, "That is, not a place of business"*)
  - a. Yes (continue)
  - b. No (TERMINATE) *Thank you, but we are only interviewing private residences.*
3. Is this household located in Delaware County, Ohio?
  - a. Yes (continue)
  - b. No (TERMINATE) *Thank you, but we are only interviewing Delaware County households.*
  - c. Don't know / not sure (TERMINATE) *Thank you, but we are only interviewing Delaware County households.*
4. In what city, village, or township do you live?
  - a. Ashley
  - bb. Westerville
  - b. Berkshire
  - cc. Don't know /
  - c. Berlin
  - Unsure (TERM)
  - d. Brown
  - e. Columbus (TERM)
  - f. Concord
  - g. Delaware
  - h. Delaware City
  - i. Dublin
  - j. Galena
  - k. Genoa
  - l. Harlem
  - m. Kingston
  - n. Liberty
  - o. Marlboro
  - p. Orange
  - q. Ostrander
  - r. Oxford
  - s. Porter
  - t. Powell
  - u. Radnor
  - v. Scioto
  - w. Shawneehill
  - x. Sunbury
  - y. Thompson
  - z. Trenton
  - aa. Troy

5. Your household qualifies for the survey. In order for our results to be scientifically valid, we need to randomly pick an adult within your household to interview. How many members of your household, including yourself, are 18 years of age or older? **(If 1, skip to Section 1)**
  
6. Please take a moment to think about the birthdays of all the adults in your household. Of those who are 18 or older, who most recently had a birthday?
  - a. Me (person currently on the line) [CONTINUE]
  - b. Someone else [Obtain name and determine availability to complete survey at this time. If available to complete survey at this time, begin again at #1. If unavailable to complete survey at this time, obtain callback information and begin again at #1.]

**Section 1: HH & Respondent Demos**

---

**1.4** How long have you lived in Delaware County? *(Do not read answers)*

- |   |  |
|---|--|
| 1 | Less than 1 year                       |
| 2 | At least 1 year but less than 3 years  |
| 3 | At least 3 years but less than 5 years |
| 4 | At least 5 but less than 10 years      |
| 5 | At least 10 but less than 20           |
| 6 | More than 20 years                     |
| 7 | Don't Know/Not Sure                    |
| 9 | Refused                                |

**1.5** What is your ZIP Code?

- |           |                       |
|-----------|-----------------------|
| _ _ _ _ _ | ZIP Code              |
| 7 7 7 7 7 | Don't know / Not sure |
| 9 9 9 9 9 | Refused               |

**1.5b** In what school district is this household?

- |   |                               |
|---|-------------------------------|
| 1 | Big Walnut                    |
| 2 | Buckeye Valley                |
| 3 | Delaware                      |
| 4 | Olentangy                     |
| 5 | Westerville                   |
| 6 | Dublin                        |
| 7 | Other (please specify): _____ |
| 9 | Don't know / Not sure         |

**1.6** What is your age?

- |     |                   |
|-----|-------------------|
| _ _ | Code age in years |
| 99  | Refused           |

**1.7** Are you currently...?

**Please read:**

- 1 Employed for wages
- 2 Self-employed
- 3 Out of work for more than 1 year
- 4 Out of work for less than 1 year
- 5 A Homemaker
- 6 A Student
- 7 Retired

**Or**

- 8 Unable to work

**Do not read:**

- 9 Refused

**1.8** *(Indicate sex of respondent. Ask only if necessary.)*

- 1 Male **(SKIP to 1.10)**
- 2 Female **(If age >=60, skip to 1.10)**

**1.9** To your knowledge, are you now pregnant?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

**1.10** How many children younger than 18 years of age live in your household?

- — Number of children [If 0, SKIP TO SECTION 2]
- 9 8 None [SKIP TO SECTION 2]
- 9 9 Refused [SKIP TO SECTION 2]

**1.11a** And what is the age of your (first) child?

- Record age in years
- 9 9 Refused

**1.11b** And what is the age of your second child?

- Record age in years
- 9 9 Refused

**1.11c** And what is the age of your third child?

- Record age in years
- 9 9 Refused

**1.11d** And what is the age of your fourth child?

- Record age in years
- 9 9 Refused

**1.11e** And what is the age of your fifth child?

- Record age in years
- 9 9 Refused

**Section 2: Health Status**

---

**2.1** Would you say that in general your health is—

**Please read:**

- 1 Excellent
- 2 Very good
- 3 Good
- 4 Fair

**Or**

- 5 Poor

**Do not read:**

- 7 Don't know / Not sure
- 9 Refused

**2.2** Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?

- — Number of days
- 9 7 None
- 9 8 Don't know / Not sure
- 9 9 Refused

**2.3** Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?

- — Number of days
- 9 7 None **[If Q2.2 and Q2.3 = 88 (None), SKIP to SECTION 3]**
- 9 8 Don't know / Not sure
- 9 9 Refused

**2.4** Has a doctor or other healthcare provider EVER told you that you had an anxiety disorder? These include acute stress disorder, generalized anxiety disorder, obsessive-compulsive disorder, panic disorder, phobia, posttraumatic stress disorder, or social anxiety disorder.

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

**2.5** Has a doctor or other healthcare provider EVER told you that you have a depressive disorder? This includes depression, major depression, dysthymia, or minor depression?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

### Section 3: Health Related – Quality of Life

---

**3.1** Have you ever been told by a doctor, nurse or other health professional that you had asthma?

- 1 Yes
- 2 No **Go to 3.3**
- 7 Don't Know/Not sure **Go to 3.3**
- 9 Refused **Go to 3.3**

**3.2** During the past 12 months, how many days were you unable to work or carry out your usual activities because of your asthma?

- \_\_\_ \_\_\_ \_\_\_ Number of days
- 9 9 7 None
  - 9 9 8 Don't Know/Not sure
  - 9 9 9 Refused

**3.3** Have you ever been told by a doctor that you have diabetes? **(Interviewer Note: If respondent says pre-diabetes or borderline diabetes, use response code #3)**

- 1 Yes (CONTINUE)
- 2 No (SKIP TO 3.4)
- 3 No, pre-diabetes or borderline diabetes (SKIP TO 3.4)
- 7 Don't know / Not sure (SKIP TO 3.4)
- 9 Refused (SKIP TO 3.4)

**3.3a** **IF 1.8=2 (female),** Was this only when you were pregnant? **Otherwise, SKIP TO 3.4**

- 1 Yes, told only during pregnancy
- 2 No
- 7 Don't know / not sure
- 9 Refused

**3.4** Have you EVER been told by a doctor, nurse, or other health professional that you have high blood pressure?

- 1 Yes
- 2 No (SKIP TO 3.5)
- 3 Told borderline high or pre-hypertensive (SKIP TO 3.5)
- 7 Don't know / Not sure (SKIP TO 3.5)
- 9 Refused (SKIP TO 3.5)

**3.4A. IF 1.8=2 (female), Was this only when you were pregnant? Otherwise, SKIP TO 3.5**

- 1 Yes, told only during pregnancy
- 2 No
- 7 Don't know / not sure
- 9 Refused

**3.5 Have you EVER been told by a doctor, nurse or other health professional that your blood cholesterol is high?**

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

**3.6 Has a doctor, nurse, or other health professional EVER told you that you had any of the following? For each, tell me "Yes", "No", or you're "Not sure." A heart attack, also called a myocardial infarction?**

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

**3.7 (Ever told you had) Angina or coronary heart disease?**

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

**3.8 (Ever told you had) A stroke?**

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

**3.9 Have you ever been told by a doctor, nurse or other health professional that you had cancer?**

- 1 Yes
- 2 No
- 7 Don't Know/Not sure
- 9 Refused

## Section 4: Dental Health

---

**4.1** How long has it been since you last visited a dentist or a dental clinic for any reason?

**Interviewer Note: Include visits to dental specialists, such as orthodontists.**

**Read only if necessary:**

- 1 Within the past year (anytime less than 12 months ago)
- 2 Within the past 2 years (1 year but less than 2 years ago)
- 3 Within the past 5 years (2 years but less than 5 years ago)
- 4 5 or more years ago

**Do not read:**

- 7 Don't know / Not sure
- 8 Never
- 9 Refused

**4.2** How many of your permanent teeth have been removed because of tooth decay or gum disease?  
Do not include teeth lost for other reasons, such as injury or orthodontics.

**Interviewer Note: Include teeth lost to infection. If wisdom teeth were removed because of tooth decay or gum disease, they should be included in the count for lost teeth.)**

- \_\_\_ Record # of teeth lost, with "0" if none
- 97 All teeth lost
- 98 Don't know / Not sure

## Section 5: Health Care Access

---

**5.1** Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

**5.2** Was there a time in the past 12 months when you needed medical care, but could not get it?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

- 5.3 About how long has it been since you last visited a doctor for a routine checkup?  
**Interviewer Note: A routine checkup is a general physical exam, not an exam for a specific injury, illness, or condition.**

**Read Only if Necessary**

- 1 Within past year (anytime less than 12 months ago)
- 2 Within past 2 years (1 year but less than 2 years ago)
- 3 Within past 5 years (2 years but less than 5 years ago)
- 4 5 or more years ago
- 7 Don't know / Not sure
- 8 Never
- 9 Refused

**Section 6: Nutrition/Dietary Intake**

---

- 6.1 How many servings of fruit or fruit juice, including fresh, canned, frozen, or dried, do you usually eat or drink per day or per week? (**Interviewer Note: 1 serving = 1 medium piece of fresh (size of baseball) OR ½ c. diced, sliced, cooked, canned or frozen, OR ½ c. 100% fruit juice**)

- 1 \_\_ Per day
- 2 \_\_ Per week
- 96 Less than once per week
- 97 Never
- 98 Don't know / Not sure
- 99 Refused

- 6.2 How many servings of vegetables or vegetable juice, including fresh, canned or frozen, do you usually eat or drink per day or per week? Please include potatoes, but not French Fries.  
**(Interviewer Note: 1 serving = 1 c. leafy or raw (size of baseball or small fist), small baked potato (size of small fist or regular computer mouse) or ½ c. cooked OR ½-3/4 c. vegetable juice)**

- 1 \_\_ Per day
- 2 \_\_ Per week
- 96 Less than once per week
- 97 Never
- 98 Don't know / Not sure
- 99 Refused

- 6.3 How often do you usually eat sweets? (**Interviewer Note: Examples include cakes, pies, donuts, cookies, or candy bars**)

- 1 \_\_ Per day
- 2 \_\_ Per week
- 96 Less than once per week
- 97 Never
- 98 Don't know / Not sure
- 99 Refused

6.4 How often do you usually eat snack foods? (*Interviewer Note: Examples include crackers, chips, or nuts*)

- 1 \_\_ Per day
- 2 \_\_ Per week
- 96 Less than once per week
- 97 Never
- 98 Don't know / Not sure
- 99 Refused

6.5 Are you currently trying to decrease or limit the amount of fat in the foods that you eat?

- 1 Yes
- 2 No
- 7 Don't know/ Not sure
- 9 Refused

6.6 Are you currently trying to decrease or limit the amount of salt in the foods that you eat?

- 1 Yes
- 2 No
- 7 Don't know/ Not sure
- 9 Refused

6.7 Are you now trying to lose weight?

- 1 Yes
- 2 No
- 7 Don't know/Not sure
- 9 Refused

## Section 7: Physical Activity / Exercise

---

7.1 [IF 1.7 = 1 (employed for wages) or 2 (self-employed), CONTINUE. Otherwise, SKIP to Q 7.3.] When you are at work, which of the following best describes what you do? Would you say—

**Please read:**

- 1 Mostly sitting or standing
- 2 Mostly walking
- 3 Mostly heavy labor or physically demanding work

**(Interviewer Note: If respondent has multiple jobs, include all jobs.)**

**(PROGRAMMING NOTE – ALLOW MULTIPLE RESPONSES)**

**Do not read:**

- 7 Don't know / Not sure
- 9 Refused

**7.2** In a usual week, do you use your lunch or other regular work breaks to do physical activity or exercise, such as walking, aerobics, or jogging for at least 10 minutes at a time?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

**7.3** In a usual week, do you participate in any physical activities for at least 30 minutes, such as brisk walking, bicycling, vacuuming, gardening, or anything else that causes some increase in breathing or heart rate?

- 1 Yes
- 2 No **[SKIP TO Q7.5]**
- 7 Don't know / Not sure **[SKIP TO Q7.5]**
- 9 Refused **[SKIP TO Q7.5]**

**7.4** How many days per week do you do any physical activities for at least 30 minutes?

- Days per week
- 97 Do not do any physical activity
- 98 Don't know / Not sure
- 99 Refused

**SKIP TO 7.6**

**7.5** What is the main personal reason you do not exercise more or be more physically active?

**[Mark only one, do not read]**

- 1 I don't have enough time
- 2 Too tired or don't have the energy
- 3 Ill or otherwise physically unable
- 4 Don't enjoy being active
- 5 Don't have anyone to be active with
- 6 Afraid of injury
- 7 It is too expensive
- 8 Already get enough exercise
- 9 Self-motivation or will-power
- 10 No personal reason
- 11 Other (specify) \_\_\_\_\_
- 77 Don't know/ Not sure
- 99 Refused

- 7.6** On a typical day how many hours and minutes do you watch TV, play video games or use a computer?
- 1 Record response in Hours and Minutes per day
  - 7 None
  - 8 Don't know/ Not sure
  - 9 Refused

### Section 8: Immunization

---

- 8.1** A flu shot is an influenza vaccine injected into your arm. Flu Mist is the flu vaccine sprayed in your nose. During the past 12 months, have you had a flu shot or FluMist™?
- 1 Yes
  - 2 No
  - 7 Don't know / Not sure
  - 9 Refused

**(If 1.6 (age) >= 65, CONTINUE. Otherwise, SKIP to 8.3) If Q1.6=DK/RF, SKIP TO 8.3**

- 8.2** A pneumonia shot or pneumococcal vaccine is usually given only once or twice in a person's lifetime and is different from the flu shot. Have you ever had a pneumonia shot?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

- 8.3** Have you EVER received the hepatitis B vaccine? The hepatitis B vaccine is completed after the third shot is given. (*Interviewer Note: Record as "Yes" only if respondent has received the entire series of three shots.*)

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

- 8.4** During the past 10 years, have you received a tetanus shot?

- 1 Yes
- 2 No
- 7 Don't Know/Not sure
- 9 Refused

**Section 9: Tobacco Use**

---

9.0 Have you smoked at least 100 cigarettes in your entire life?

**Interviewer note: 5 packs = 100 cigarettes**

- 1 Yes
- 2 No **SKIP to Q9.5**
- 7 Don't Know/Not sure **SKIP to Q9.5**
- 9 Refused **SKIP to Q9.5**

**(Asked in 2002 BRFS, makes sense to ask here too)**

9.1 Do you now smoke cigarettes every day, some days, or not at all?

- 1 Every day
- 2 Some days
- 3 Not at all **[SKIP TO 9.5]**
- 7 Don't know/Not sure **[SKIP TO 9.5]**
- 9 Refused **[SKIP TO 9.5]**

9.2 During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

9.3 On average, about how many cigarettes per day do you now smoke?

\_\_ \_\_ Number of cigarettes (Note to interviewer: 1 pack=20 cigarettes. Verify all responses of 61 or more cigarettes.)

- 97 Less than one cigarette a day
- 98 Don't know/Not sure
- 99 Refused

9.4 Are you seriously considering stopping smoking within the next 30 days?

- 1 Yes
- 2 No
- 7 Don't know/Not sure
- 9 Refused

9.5 During the past seven days, that is since last [DATEFILL], on how many days have you been exposed to secondhand smoke by anyone smoking cigarettes, cigars, or pipes?

- \_\_ \_\_ Number of days
- 98 Don't know/Not sure
  - 99 Refused

**9.6** How likely is second hand smoke to cause health problems? Would you say very likely, somewhat likely, somewhat unlikely, or very unlikely?

- 1 Very Likely
- 2 Somewhat Likely
- 3 Somewhat Unlikely
- 4 Very Unlikely
  
- 7 Don't Know/Not sure
- 9 Refused

### Section 10: Alcohol Consumption

---

**10.1** During the past 30 days, how many days per week or per month did you have at least one drink of any alcoholic beverage? When responding, keep in mind that one drink is equivalent to a 12-ounce beer, a 5-ounce glass of wine, or one shot of liquor.

- 1 Record # of Days per week
- 2 Record # of Days per month
- 97 No drinks in past 30 days [SKIP TO SECTION 11]
- 98 Don't know / Not sure
- 99 Refused

**10.2** On the days when you drank, about how many drinks did you drink on the average?

- \_ \_ Number of drinks
- 98 Don't know / Not sure
- 99 Refused

**10.3** Considering all types of alcoholic beverages, how many times during the past 30 days did you have 5 or more drinks on an occasion?

- \_ \_ \_ Number of times
- 97 None
- 98 Don't know/Not sure
- 99 Refused

**10.4** During the past 30 days, how many times have you driven when you've had perhaps too much to drink?

- \_ \_ Number of times
- 97 None
- 98 Don't know/Not sure
- 99 Refused

**Section 11: Seatbelt Usage**

---

**11.1** How often do you use seatbelts when you drive or ride in a car?

- 1 Always
- 2 Nearly always
- 3 Sometimes
- 4 Seldom
- 5 Never

**Do not read**

- 7 Don't Know/Not sure
- 8 Never drive or ride in a car
- 9 Refused

**[If 1.10= 0, 88 OR 99, SKIP TO SECTION 12. OTHERWISE, CONTINUE.]**

**11.2** Think about the oldest child in your household aged 15 or younger. How often does this child use a car safety seat or booster seat (if under 8) or a seatbelt (if 8 or older) when he or she rides in a car?

Would you say:

- 1 Always
- 2 Nearly always
- 3 Sometimes
- 4 Seldom
- 5 Never
- 7 DK/NS
- 8 Never rides in a car
- 9 Refused

**11.3** During the past year, how often has this oldest child worn a bicycle helmet when riding a bicycle? Would you say...

- 1 Always
- 2 Nearly always
- 3 Sometimes
- 4 Seldom
- 5 Never
- 7 Don't know/Not sure
- 8 Too young to ride a bicycle
- 9 Oldest child does not ride a bicycle
- 10 Refused

## Section 12: Arthritis Burden

---

The next questions refer to the joints in your body. When responding, please do **NOT** include the back or neck.

**12.1** Have you ever been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?

- |   |                       |                             |
|---|-----------------------|-----------------------------|
| 1 | Yes                   |                             |
| 2 | No                    | <b>[SKIP TO SECTION 13]</b> |
| 7 | Don't know / Not sure | <b>[SKIP TO SECTION 13]</b> |
| 9 | Refused               | <b>[SKIP TO SECTION 13]</b> |

**INTERVIEWER NOTE: Arthritis diagnoses include:**

- *ankylosing spondylitis; spondylosis*
- *carpal tunnel syndrome, tarsal tunnel syndrome*
- *connective tissue disease, scleroderma, polymyositis, Raynaud's syndrome*
- *joint infection, Reiter's syndrome*
- *osteoarthritis (not osteoporosis)*
- *rheumatism, polymyalgia rheumatica*
- *rotator cuff syndrome*
- *tendonitis, bursitis, bunion, tennis elbow*
- *vasculitis (giant cell arteritis, Henoch-Schonlein purpura, Wegener's granulomatosis, polyarteritis nodosa)*

**12.2** Are you now limited in any way in any of your usual activities because of arthritis or joint symptoms?

- |   |                       |
|---|-----------------------|
| 1 | Yes                   |
| 2 | No                    |
| 7 | Don't know / Not sure |
| 9 | Refused               |

## Section 13: HIV/AIDS

---

**13.1** Have you ever been tested for HIV? Do not count tests you may have had as part of a blood donation. Include testing fluid from your mouth.

- |   |                       |
|---|-----------------------|
| 1 | Yes                   |
| 2 | No                    |
| 7 | Don't know / Not Sure |
| 9 | Refused               |

**Section 14: Women's Health**

---

[If respondent is male (Q1.8 = 1), SKIP TO SECTION 15.]

**14.1** The next questions are about breast and cervical cancer. A mammogram is an x-ray of each breast to look for breast cancer. Have you ever had a mammogram?

- 1 Yes
- 2 No [SKIP TO Q14.3]
- 7 Don't know / Not sure [SKIP TO Q14.3]
- 9 Refused [SKIP TO Q14.3]

**14.2** How long has it been since you had your last mammogram?

**Read only if necessary:**

- 1 Within the past year (anytime less than 12 months ago)
- 2 Within the past 2 years (1 year but less than 2 years ago)
- 3 Within the past 3 years (2 years but less than 3 years ago)
- 4 Within the past 5 years (3 years but less than 5 years ago)
- 5 5 or more years ago

**Do not read:**

- 7 Don't know / Not sure
- 9 Refused

**14.3** A clinical breast exam is when a doctor, nurse, or other health professional feels the breasts for lumps. Have you ever had a clinical breast exam?

- 1 Yes
- 2 No [SKIP TO Q14.5]
- 7 Don't know / Not sure [SKIP TO Q14.5]
- 9 Refused [SKIP TO Q14.5]

**14.4** How long has it been since your last clinical breast exam?

**Read only if necessary:**

- 1 Within the past year (anytime less than 12 months ago)
- 2 Within the past 2 years (1 year but less than 2 years ago)
- 3 Within the past 3 years (2 years but less than 3 years ago)
- 4 Within the past 5 years (3 years but less than 5 years ago)
- 5 5 or more years ago

**Do not read:**

- 7 Don't know / Not sure
- 9 Refused

**14.5** A Pap test is a test for cancer of the cervix. Have you ever had a Pap test?

- 1 Yes
- 2 No [SKIP TO SECTION 15]
- 7 Don't know / Not Sure [SKIP TO SECTION 15]
- 9 Refused [SKIP TO SECTION 15]

**14.6** How long has it been since you had your last Pap test?

**Read only if necessary:**

- 1 Within the past year (anytime less than 12 months ago)
- 2 Within the past 2 years (1 year but less than 2 years ago)
- 3 Within the past 3 years (2 years but less than 3 years ago)
- 4 Within the past 5 years (3 years but less than 5 years ago)
- 5 5 or more years ago

**Do not read:**

- 7 Don't know / Not sure
- 9 Refused

### Section 15: Prostate Cancer Screening

---

[If respondent is female (Q1.8=2) or male (Q1.8=1) & age  $\leq$  39 years, SKIP TO SECTION 16. Otherwise, CONTINUE] If Q1.6=DK/RF, SKIP TO SECTION 16

**15.1** Now, I will ask you some questions about prostate cancer screening. A Prostate-Specific Antigen test, also called a PSA test, is a blood test used to check men for prostate cancer. Have you ever had a PSA test?

- 1 Yes
- 2 No [SKIP TO Q15.3]
- 7 Don't Know / Not Sure [SKIP TO Q15.3]
- 9 Refused [SKIP TO Q15.3]

**15.2** How long has it been since you had your last PSA test?

**Read only if necessary:**

- 1 Within the past year (anytime less than 12 months ago)
- 2 Within the past 2 years (1 year but less than 2 years)
- 3 Within the past 3 years (2 years but less than 3 years)
- 4 Within the past 5 years (3 years but less than 5 years)
- 5 5 or more years ago

**Do not read:**

- 7 Don't know
- 9 Refused

**15.3** A digital rectal exam is an exam in which a doctor, nurse, or other health professional places a gloved finger into the rectum to feel the size, shape, and hardness of the prostate gland. Have you ever had a digital rectal exam?

- 1 Yes
- 2 No **[SKIP TO Q15.5]**
- 7 Don't know / Not sure **[SKIP TO Q15.5]**
- 9 Refused **[SKIP TO Q15.5]**

**15.4** How long has it been since your last digital rectal exam?

**Read only if necessary:**

- 1 Within the past year (anytime less than 12 months ago)
- 2 Within the past 2 years (1 year but less than 2 years)
- 3 Within the past 3 years (2 years but less than 3 years)
- 4 Within the past 5 years (3 years but less than 5 years)
- 5 5 or more years ago

**Do not read:**

- 7 Don't know / Not sure
- 9 Refused

**15.5** Have you ever been told by a doctor, nurse, or other health professional that you had prostate cancer?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

**Section 16: Colorectal Cancer Screening**

---

**[If age ≤ 49 years, SKIP TO SECTION 18]. If Q1.6=DK/RF, SKIP TO SECTION 18**

**16.1** Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems. Have you ever had either of these exams?

- 1 Yes
- 2 No **[SKIP TO SECTION 18]**
- 7 Don't know / Not sure **[SKIP TO SECTION 18]**
- 9 Refused **[SKIP TO SECTION 18]**

**16.2** How long has it been since you had your last Sigmoidoscopy or colonoscopy?

**Read only if necessary:**

- 1 Within the past year (anytime less than 12 months ago)
- 2 Within the past 2 years (1 year but less than 2 years ago)
- 3 Within the past 5 years (2 years but less than 5 years ago)
- 4 Within the past 10 years (5 years but less than 10 years ago)
- 5 10 or more years ago

**Do not read:**

- 7 Don't know / Not sure
- 9 Refused

**Section 18: General Topics:**

---

**18.1** Now I'd like to ask you about unwanted sexual experiences and intimate partner violence. Are you in a safe place to answer these questions?

- 1 Yes
- 2 No **[SKIP to 18.3c]**

- 18.2** Now, I am going to ask you a question about unwanted sex. Unwanted sex includes things like putting anything into your vagina [*If female*], anus, or mouth or making you do sexual things after you said or showed you didn't want to. It includes times when you were unable to consent, for example, you were drunk or asleep, or you thought you would be hurt or punished if you refused.

Has anyone EVER had sex with you after you said or showed you didn't want them to or without your consent?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

- 18.3** The next question is about different types of violence in relationships with an intimate partner. By an intimate partner I mean any current or former spouse, boyfriend, or girlfriend. Someone you were dating, or romantically or sexually intimate with would also be considered an intimate partner.

Has an intimate partner EVER hit, slapped, pushed, kicked, or hurt you in any way?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

- 18.3c** Would you or someone you know like to talk with a trained counselor about either of these topics?

- 1 Yes
- 2 No [**SKIP to 18.4**]

- 18.3d** There are two toll-free and confidential hotlines you can call. Their numbers are 1-800-656-HOPE and 1-800-799-SAFE. Would you like me to repeat the numbers?

- 18.4** (If Q1.10 = 0, 88, or 99, **SKIP TO 18.5. Otherwise, CONTINUE**) Earlier you said there were [fill in number from Q1.10] children under 18 years of age living in your household. How many of these children have ever been diagnosed with asthma?

- |   |   |                              |
|---|---|------------------------------|
| — | — | Number of children           |
| 8 | 8 | None Go to Next Module       |
| 7 | 7 | Don't Know Go to Next Module |
| 9 | 9 | Refused Go to Next Module    |

(If Q1.10=1, CONTINUE. If Q1.10 > 1, program CATI to implement a systematic sampling technique using responses to Q1.11 to randomly select one child from a household with multiple). If respondent refused to give age of child/children earlier (Q1\_11), SKIP to 18.6

**18.5** I have a specific question for you about your \_\_\_ year old child. During the past 12 months, has this child had a flu shot or flu vaccine sprayed in his/her nose?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

**18.6 [If respondent is female & 45 years of age or older, male & 60 years of age or older, or female & had hysterectomy or is pregnant, SKIP TO SECTION 17.] If Q1.6=DK/RF, SKIP TO SECTION 17**  
The next question asks you about your thoughts and experiences with family planning. Please remember all of your answers will be kept confidential.

Some things people do to keep from getting pregnant include not having sex at certain times, using birth control methods such as the pill, implants, shots, condoms, diaphragm, foam, IUD, having their tubes tied, or having a vasectomy. Are you or your partner doing anything now to keep [If female, insert "you", if male, insert "her"] from getting pregnant?

**(Interviewer Note: If more than one partner, consider usual partner.)**

- 1 Yes (SKIP TO SECTION 17)
- 2 No
- 3 No partner/not sexually active
- 4 Same sex partner
- 7 Don't know / Not sure
- 9 Refused

**18.7** What is your main reason for not doing anything to keep [If female, insert “you”, if male, insert “her”] from getting pregnant?

**Read only if necessary:**

- 01 Didn't think you were going to have sex/no regular partner
- 02 You want a pregnancy
- 03 You or your partner don't want to use birth control
- 04 You or your partner don't like birth control/fear side effects
- 05 You can't pay for birth control
- 06 Lapse in use of a method
- 07 Don't think you or your partner can get pregnant
- 08 You or your partner had tubes tied (sterilization)
- 09 You or your partner had a vasectomy (sterilization)
- 10 You or your partner had a hysterectomy
- 11 You or your partner are too old
- 12 You or your partner are currently breast-feeding
- 13 You or your partner just had a baby/postpartum
- 14 Other reason
- 15 Don't care if you get pregnant
- 16 Partner is pregnant now

**Do not read:**

- 77 Don't know / Not sure
- 99 Refused

**Section 17: Demographics**

---

**17.1** The following questions are for statistical purposes only. Which one of these groups would you say best represents your race?

- 1 White
- 2 Black or African American
- 3 Asian
- 4 Native Hawaiian or Other Pacific Islander
- 5 American Indian or Alaska Native
- 6 Other [specify] \_\_\_\_\_

**Do not read:**

- 7 Don't know / Not sure
- 9 Refused

**17.2** Are you...?**Please read:**

- 1 Married
- 2 Divorced
- 3 Widowed
- 4 Separated
- 5 Never married

**Or**

- 6 A member of an unmarried couple

**Do not read:**

- 9 Refused

**17.3** What is the highest grade or year of school you completed?**Read only if necessary:**

- 1 Never attended school or only attended kindergarten
- 2 Grades 1 through 8 (Elementary)
- 3 Grades 9 through 11 (Some high school)
- 4 Grade 12 or GED (High school graduate)
- 5 College 1 year to 3 years (Some college or technical school)
- 6 College 4 years or more (College graduate)
- 7 Master's degree
- 8 Professional degree (e.g., doctor, lawyer)
- 9 Doctorate degree

**Do not read:**

- 11 Refused

**17.4 (What is) your annual household income from all sources?**

- 1 = Less than \$25,000
- 2 = Between \$25,000 and less than \$50,000
- 3 = Between \$50,000 and less than \$75,000
- 4 = Between \$75,000 and less than \$100,000
- 5 = Between \$100,000 and less than \$150,000
- 6 = \$150,000 or more

**Do not read:**

- 77 Don't know / Not sure
- 99 Refused **If respondent refuses ANY income level, code as Refused**

17.5 About how much do you weigh without shoes?

**Interviewer Note: If respondent answers in metrics, enter “9” first. Round fractions up**

- 1 Record weight in pounds
- 2 Record weight in kilograms
- 98 Don't know / Not sure
- 99 Refused

17.6 About how tall are you without shoes?

**Interviewer Note: If respondent answers in metrics, enter “9” first. Round fractions down**

- 1 Record height in feet / inches
- 2 Record weight in meters / centimeters
- 98 Don't know / Not sure
- 99 Refused

17.7 We need to verify that all our survey respondents live in Delaware County. This information is strictly confidential and will not be linked to any of the information you have shared. May I have your address? \_\_\_\_\_ (Verify address)

- (If refuse to provide address) Then please tell me the streets of the closest major intersection near your residence.

**SURVEY CLOSING STATEMENT**

19.1 Later this summer the Delaware General Health District will be hosting town-hall meetings and an Internet survey to gather more information about the health of Delaware County residents. We'd like to make sure you know about these when they occur. May I have your e-mail address so we can keep you updated on what we are doing? (If respondent refuses once, say Your e-mail address will not be linked to the information you provided)

- 1 Yes (record e-mail address, spell back to confirm accuracy)
- 2 No

**Interviewer note: Be sure to confirm accuracy of e-mail address – spell back to participant.**

That was my last question. Everyone's answers will be combined to give us information about the health practices of people in Delaware County. Thank you very much for your time and cooperation.

**DOCUMENT B: Forces of Change Assessment Final Report**



**Report to Partnership for Healthy Delaware County: 2007  
Forces of Change Assessment**

July 31, 2007

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# Overview and Method

The Partnership for a Healthy Delaware County (PHDC) is working to bring its vision of Delaware County – “A welcoming environment where all can thrive and enjoy emotional and physical wellbeing” – to life. To help make this happen, PHDC is currently engaged in a Mobilizing for Action through Planning and Partnership (MAPP) process. One of the primary components of the MAPP process is the Forces of Change Assessment (FOC), which identifies legislative, technological, and other impending changes affecting the community in which the public health system operates. This assessment answers the questions:

- “What is occurring or might occur that affects the health of our community or the local public health system?” and
- “What specific threats or opportunities are generated by these occurrences?”

Properly executed, the Forces of Change Assessment yields a comprehensive yet focused list of the key forces facing the community and a description of their impacts. The following method was used to implement the Forces of Change Assessment for Delaware County:

- 1) Partners at the Delaware General Health District arranged a three hour working meeting attended by PHDC members on July 16, 2007.
- 2) PHDC members were provided with a pre-meeting worksheet designed to help them identify forces of change. This brainstorming worksheet was completed and submitted to The Strategy Team, Ltd. (TST), the meeting facilitator, in advance of the meeting. A copy of the pre-meeting worksheet is included as Appendix A.
- 3) TST condensed and categorized the forces into the list shown in the section of this report titled “**Forces of Change (Condensed).**”
- 4) To start the session, the PHDC reviewed the condensed list of forces (nearly 60 in all). Members identified one additional force to add to this list.
- 5) Using a dot-voting technique, each participant marked the six forces he/she believed to be the most important facing Delaware County. Eleven forces were identified as priorities for group discussion after this procedure.
- 6) The large group then split into two smaller ones, with each one focusing on half of the identified forces. PHDC members joined whichever group they felt aligned better with their interests or expertise. Led by TST facilitators, the groups identified the threats and opportunities related to each force of change via a written exercise. These threats and opportunities were then recorded on a post-it pad. After the session, the facilitators reviewed the written exercises to ensure all threats and opportunities were reflected. Results from this exercise are shown in the section of this report titled “**Threats and Opportunities Related to Key Issues.**”
- 7) PHDC members then identified the three most important threats and opportunities among all those discussed. Results from this exercise are included as Appendix B.
- 8) At the end of the meeting, the groups presented the results from their break-out session to one another. After each presentation, all participants were asked to identify any missing threats or opportunities.

This descriptive report now presents the results from the Forces of Change Assessment.

# Forces of Change (Condensed)

This section of the report presents a condensed list of the Forces of Change submitted by PHDC members prior to and during the facilitated session. Only unique forces are shown (i.e., those forces receiving multiple mentions are not featured), along with the categories into which TST grouped them.

After a brief review of these forces during the facilitated session, participants indicated which forces they perceived to be most important via the use of a dot-voting technique. The results of this exercise are also shown below, with the numbers in parentheses indicating how many dots each force received.

Note: If a force does not have a number next to it, it received no dots during this exercise.

## Population forces

- Continuing population growth (3)
- Increasing population diversity (7)
- Geographic differences in population (2)
- Increase in young families with children in south / east (3)
- Aging and life span increases of population (7)
- Many job transfers in and out

## Communication forces

- Role of Internet and new technologies in communication, especially among younger residents (2)
- No centralized traditional media (2)
- Traditional media misses younger residents (1)
- Inter-agency communications

## Economic forces

- Decreasing state and federal funding (5)
- Increasing state and federal regulations (2)
- Lack of large industries – bedroom communities (1)
- Difficulty passing county levies
- Disparities among school districts (4)
- Economy affects the poor disproportionately (10)
- Unstable economic indicators – foreclosures, bankruptcies, high taxes, high gas prices & interest rates, lower CD rates, etc.

## Youth issues

- Increasing concerns re: substance abuse, violence & gangs among youth (5)
- Lack of healthy, positive activities/outlets for youth (7)
- Lack of parental supervision & responsibility for their children (1)

## Social service issues

- High cost of living leaves many in need of more health care and social services from agencies (11)
- Lower allocations to social service agencies
- Lack of social services & facilities for those with disabilities, the homeless, those needing residential treatment & behavioral health care (1)

## Development forces: Environmental issues

- Air/water pollution (1)
- Global warming
- Possible toxic spills on I-71

## Development forces: Transportation issues

- Lack of public transportation (8)
- Roads
- Increasing traffic congestion (4)
- Aging population will need public transportation (1)

## Development forces: Land use issues

- Problems re: transition from rural to developed: loss of farmland, trees, animal habitat (7)
- “Build out” along Route 23 (2)

## Development forces: Recreational issues

- Poor planning decisions affect health, well being (7)
- Increased desire and expectations for public recreation and athletic facilities (2)
- Need for music and art (1)
- Major recreational opportunities exist now (parks, trails)

## Political forces: Leadership issues

- Change in governor and state department heads (1)
- One-party rule – 80% Republican
- Potential for better cooperation (City, county) (1)

## Political forces: Jurisdictional issues

- Many townships, school districts, annexation possibilities (1)

## Political forces: Citizen attitudes

- Lack of trust in government (1)
- Lack of respect for law & enforcement
- Lack of county identity, esp. among newer residents (1)

**Health forces: Dietary issues**

- Need healthier food & snacks in schools (3)
- Need healthier menus at local restaurants (1)
- Eating disorders

**Health forces: Other health issues**

- Increasing disapproval of smoking (ban, Scotts)
- Fewer families w/ health insurance b/c cost (13)
- Lack of private psychiatrists in county (3)
- Lack of interest in good health (1)
- Increasing heart disease & cancer (2)
- Use of “fear factor” re: health issues (Avian flu, TB, tainted foods)

**Miscellaneous forces**

- More evidence/research-based approaches are available
- University, branch campus (OWU, OSU)
- The war
- Bio-terrorism
- Moving of hospital (1)
- Moving of Council for Older Adults (1)
- Need for continuing education for adults (1)

Those forces receiving the most dots (or, groups of highly related forces) were classified as “Key Forces of Change” and were discussed during the small group sessions. Overall,

***FIVE KEY FORCES OF CHANGE were identified during the course of the PHDC’s Forces of Change Assessment.***

The next section reviews the threats and opportunities related to these top five Forces of Change in Delaware County.

# Threats and Opportunities Related to Key Forces

## **FORCE 1: Communication Challenges**

- *Role of internet / new technologies in communication, esp. for younger residents.*
- *No centralized traditional media source in county.*
- *Traditional media misses younger residents.*
- *Inter-agency communications.*

Overall, group participants focused most on the first threat identified – the lack of a centralized way to communicate to residents and among agencies. They see a need for this kind of core communication tool, as well as to find out what the community’s communication needs are in order to better plan for them.

### Threats

- No way to communicate effectively to all of Delaware County (no one centralized media source).
- Decreased problem solving ability because of lack of communication.
- [Lack of communication] Decreases services provided (people do not know about them). Affects all issues and service areas.
- Columbus TV and local media do not communicate positive stories in Delaware County (especially about kids and schools).
- No one reads the papers anymore.
- Costs associated with using traditional media are high, as are costs of necessary technological equipment and staff.
- Always chasing technology / catching up – need to think ahead.
- Missing younger audiences because we’re not using internet effectively.
- Smaller papers can magnify opinions of one person or a small group – same content gets published in multiple outlets.
- Just as easy to communicate misinformation as it is to communicate accurate information.
- Hard to reach majority, impossible to reach everyone, very bad for communicating during emergencies.
- Misconception that different areas of the county are in better economic health.
- Loss of young families feeling “tied” to county.
- Gazette is no longer a viable entity as most information is national or off wire.
- No major radio station.

### Opportunities

- Technology can reduce costs (use of blogs, etc).
- Two cities in the county are already wired. Core of city will be done next year. More coming online all the time.
- Some other cities have created online communities.
- Communication strategy for elected officials is needed. What messages work? How should they be delivered?
- Common message and medium could facilitate inter-agency communication.

- Need for website for resources / referrals in Delaware County – or if one exists, need to publicize it.
- Agencies could take lead in communicating to residents, if they feel the traditional media isn't working. (e.g. Council for Older Adults "Communicator").
- Monthly meeting with (state) representatives already occur – could be used more strategically.
- Using businesses / employers to communicate to employees.
- Create one centralized place for people to seek help (e.g. Wal-Mart facility on 23).
- Create a website or blog so agencies can communicate with one another.
- School as a resource for county communication.
- Delaware Gazette could become the county-wide print and electronic media.

## **FORCE 2: Youth Issues**

- *Increasing concerns re: substance abuse, violence and gangs among youth.*
- *Lack of healthy, positive activities / outlets for youth.*
- *Lack of parental supervision and responsibility for their children.*

Overall, group participants felt the lack of activities, lack of parental involvement; and high expectations of parents were the most important threats. Utilizing the Youth Leadership Program and other volunteer opportunities and also involving youth in generating solutions seem to be good opportunities.

### Threats

- Lack of activities in county exacerbates problems.
- Parents must be involved to engage youth.
- Harder for two working parents to be involved, also single parents.
- Parents have high expectations for the school district.
- Petty theft among very young kids may be on the increase.
- Less wealthy kids become disenfranchised because all activities take money and transportation.
- School isn't the only way to engage children.
- Gangs moving in from Franklin County – Bloods / Crips.
- More violent crimes, loitering.
- More graffiti.
- Negative peer influence.
- More teen pregnancy.
- Lower academic achievement.
- What is the difference between perception and reality?
- Lack of recreational options is especially problematic in the north / northeastern parts of the county.

### Opportunities

- See need / desire among youth to participate – agencies could tap this.
- Collaborate between agencies to offer youth activities.
- There is community support to address these issues.
- Youth Leadership Program already exists.
- Maintain momentum of OWU reaching out into the community.
- Volunteer opportunities should instill civic pride in Delaware County.
- Child involvement can lead to parental involvement.
- Time activities so students can participate right after school – transportation not necessary.
- Involve youth in generating the solutions.
- Communicate accurate prevalence statistics about drugs / violence.
- Employers offer internships to youth.
- County wide taskforce to create recreation and activity sources.
- Activities that are not associated with schools, also not tied to school funding issues.

### **FORCE 3: Population Changes**

- *Continuing population growth.*
- *Aging and life span increases of population.*
- *Increasing population diversity.*

In this area, group priorities seemed to focus on the issue of uncontrolled growth and its negative impacts along with the need for more accurate data regarding population figures in the county. This includes data from different sources and in between census years. There is also a need to communicate what growing population means – it doesn't necessarily mean a decreased demand for funding and services. In fact, the opposite may be true, as many residents and legislators may only perceive Delaware County as a fast-growing, wealthy community.

#### Threats

- Growing population = “Nonloyal”, not interested in the community.
- Philanthropy may be decreased because residents don't expect to stay, therefore don't make long-term investments.
- Different priorities in different regions, donate for different causes. Northern = Preserve what's left, Southern = expand, create new things.
- Some residents, especially older adults, can't get specialized medical care within county.
- Suburban development isolates people from perceived “urban” problems – enables them to ignore issues outside of their small enclave.
- Mental health issues for senior citizens, due to isolation.
- Growing population leads to perception that we're wealthy, don't need services / funding.
- Overcrowding of certain areas, using up farmland.
- Diversity will happen slowly. Still very “WASP.” Less and less opportunities for lower middle class to live in the county.
- We're maxing out on available resources – reaching an absolute limit.
- Uncontrolled growth.

#### Opportunities

- More people = more resources.
- Accurate figures regarding ethnic / minority populations are needed. Need to define population better, with updated data in between census years.
- Hospital is trying to bring more specialized services to the county.
- Health care providers are moving into the county because there is a market to serve the aging population.
- Volunteer opportunity: High school students can assist with eliminating senior isolation.
- Senior specialist at the mental health center can do more outreach.
- Salvage what is left and pay attention to the difference between preservation and conservation.
- More venues for multicultural events / education.
- How can aging population contribute to the community, especially as a knowledge source?
- What non-English languages are being spoken here (look at ESL numbers).

## **FORCE 4: Economic Issues**

- *Disproportionate Effect of the Economy on the Poor*
- *High Cost of Living Leaves Many in Need of Social Services*
- *Fewer Families with Health Insurance (due to cost)*

The PHDC identified three related forces that touch on the effects of our changing economy on Delaware County residents. Not only did most participants perceive the poor to be most vulnerable to short-term economic fluctuations, there was also a perception among many that the poor were most unable to change their situation. As a result, they are at greater risk for poor health outcomes.

In addition to the perception that the poor likely have a disproportionately greater need for health care services, economically disadvantaged populations may also be more likely to need other social services, said many participants.

### Threats

- Local residents react in a negative manner (ex. it may be harder to pass levies to help the poor).
- Increased crime.
- Increased potential for mental health issues.
- Lack of communication channels to share info.
- Shift in population – poor needing to relocate.
- State funding does not fund affluent areas even when we have pockets of need – generalization.
- Inability to understand available resources.
- Voter apathy.
- Children born into poverty continue the cycle.
- Shorter lifespan.
- Need for routine health care checks.
- Stress on social service agencies.
- Lower potential for school levy passage.
- Transportation costs, especially affect older adults.
- Accountability of doctors.
- Higher potential for tax rollbacks.
- Higher demand for services leads [to greater stress on available supply], which may not be available.

### Opportunities

- Locate services where they are needed.
- Increased education support for the poor.
- Increase job training for the poor.
- Create volunteer opportunities (esp. bilingual).
- Opportunities to identify locations or pockets (e.g. churches).
- Creation of affordable housing.
- Economic development / micro loans.
- Tax incentives / abatements.
- Outreach to connect poor to needed services.
- Education of some availability.
- Create new and/or different services.
- Increases collaborations among agencies.
- More locations and agencies and extended hours for existing services.

- More opportunities for preventative care.

In response to the force of the perceived increase in the incidence of families without health insurance, participants identified many opportunities such as from efforts to educate / promote preventive health care to the consideration of models of health care that are more integrated and expanded in the community.

Threats (regarding perceived health insurance gap)

- Increased years of productive life lost.
- Higher chronic care needs.
- Taxing Medicare system.
- Changing retirement benefits.
- Threat of contagion due to lack of care.
- Children without routine care.
- Threats to employment.
- Misuse of providers.
- More family stress, leading to divorce.
- More reliance on public assistance.
- Chose among basic needs.
- Lower health status of population.
- High cost burden on those with insurance.
- Social services move budget money to cover costs.
- Late stage diagnosis.

Opportunities (regarding perceived health insurance gap)

- More opportunity for outreach / education.
- Teach people how to stay well – health promotion.
- Educating within schools.
- More nutrition education.
- Pressure to change medical care system / health care reform.
- Higher number of portable clinics / medical and dental.
- Potential for statewide action.
- Universal health care.
- Free care for children.

## **FORCE 5: Planning issues**

- *Problems with Transition from Rural to Developed (farmland, trees, habitat)*
- *Poor Planning Decisions Affect Health / Well-being*
- *Transportation Issues (i.e., “Lack of public transportation,” “More traffic congestion”)*

The PHDC also identified three related forces touching on the effects of Delaware County’s high rate of growth and how this growth could have been planned or managed better to ensure the health of county residents.

A perceived failure to grow smartly is perceived to be at the root of many problems / issues facing Delaware County, including increases in traffic, pollution, accidents and decreases in green space and community participation. Some feel the county’s infrastructure – including both physical and social resources available to residents – is struggling to keep up with continued growth.

Additionally, a number of planning decisions within the county are perceived to have negatively affected or have the potential to negatively affect residents’ health and well-being. These include increased traffic, isolated subdivisions, and fewer recreation opportunities, especially walking / biking.

### Threats

- Decreasing green space means less farmland, less fresh fruits and vegetables.
- Transportation / road issues, greater burden on existing infrastructure, threat to roads and bridges.
- Stress on sewage and water service.
- Lower quality of life.
- More traffic congestion.
- Shift in community values / clash.
- Lack of community sense.
- More people to serve, including schools.
- Lack of affordable housing.
- Threatened wildlife.
- Moving from conservation society to a throw-away society.
- Economic loss / more dependent society.
- Lack of access to subdivisions in emergency situations.
- House numbering problems.
- Less greenspace, recreational opportunities, walking and biking.
- More stress and more traffic.
- Increased need for health services due to environmental stress.
- Grady Hospital moving south may increase or decrease access.
- Sense of community is lacking (no whole view).
- More resources used to fix problems created by poor growth (budget, impact).
- Exacerbate existing problems.
- Erosion.

### Opportunities

- Develop parks in neighborhoods, increase green space.
- More diversity within communities.
- Recycling opportunities.

- More taxes generated.
- Increases employee base.
- More opportunity for smart growth and land use planning.
- Identification of critical resources prior to development (water conservation).
- Education of zoning officials re: farm land use, mixed use development.
- Opportunity for community consensus prior to development.
- Develop housing to include neighborhoods.
- More mixed use development.
- More roundabouts.
- Public participation in community planning.
- Opportunities for federal funding.
- Public transportation.
- Increased opportunities for mixed use development.
- Collaborations involving developers.
- More control of community.

Overall, participants saw the lack of a good public transportation system as a factor contributing to many other problems / issues facing the county, from pollution to traffic and a continued dependency on the automobile.

Threats (regarding public transportation system gap)

- More carbon dioxide / global warming.
- Higher cost.
- Longer commute.
- Isolated communities.
- Higher accident rate / risk taking.
- Mental health and depression – stress.
- Less community participation due to lack of access.
- Greater floods, pollution.
- Manufacturing – getting people to work, getting products out.
- Less federal funding.
- Higher gas prices.
- Delaware county transportation is completely dominated by personal automobiles.
- Longer drive time = less family time.
- Isolated populations (poor, older).

Opportunities (regarding public transportation system gap)

- Increasing routes, give it time to develop.
- Partnering with neighboring municipalities.
- More marketing of existing transportation system.
- Ride share system / Incentives for companies to develop ride share programs.
- More opportunities for funding.
- Higher gas prices.
- Develop a long term plan.

## Other Forces

*(Note: Because of time constraints, only a few minutes were spent discussing the forces shown on this page. The list of threats and opportunities related to these forces should not be considered comprehensive.)*

### **Disparities among School Districts**

#### Threats

- School districts seen as rivals. Students don't associate across school district lines.
- Competition between schools becomes competition between communities.
- Older population in the northern half may not want / be able to support taxes.
- Technological disparities lead to educational deficits.

#### Opportunities

- Buckeye Valley may be interested in (helping).
- Churches, non-profits, faith-based organizations may be able to help correct some inequalities.
- Need more county-wide opportunities to bring kids together. "We are Delaware County."

### **Decreased State / Federal Funding**

#### Threats

- Many services are no longer available.
- Funding going down as Federal mandates for health and human services are going up.
- Local health departments lost a lot in the last state budget.

#### Opportunities

- Agencies, organizations should take back the role of helping poor, oppressed (has been usurped by the government).

## **Appendix A: Forces of Change Assessment Pre-Meeting Worksheet**

The Forces of Change Assessment is designed to help the Partnership for Health Delaware (PHD) answer the following questions: “What is occurring or might occur that affects the health of our community or the local public health system?” and “What specific threats or opportunities are generated by these occurrences?” During this phase, participants will engage in a brainstorming session that will identify and prioritize the forces that are or will be influencing the health and quality of life of the community and the local public health system. The results from this process will supplement the results from the other three MAPP Assessments and guide the PHD as it works toward a healthier Delaware County.

This worksheet is designed for PHD members to use in preparation for the Forces of Change brainstorming session. So we can make the best use of your time, **we need you to complete this worksheet at least four days before the session. When complete, please fax it to Dr. Ori Kristel (who will lead the brainstorming session) at 614-267-2220.**

### **What are Forces of Change?**

Forces are a broad all-encompassing category that includes trends, events, and factors.

- **Trends are patterns over time**, such as migration in and out of a community or a growing disillusionment with government.
- **Factors are discrete elements**, such as a community’s large ethnic population, an urban setting, or a jurisdiction’s proximity to a major waterway.
- **Events are one-time occurrences**, such as a hospital closure, a natural disaster, or the passage of new legislation.

### **What Kind of Areas or Categories Are Included?**

Be sure to consider any and all types of forces, including:

- |             |                 |           |
|-------------|-----------------|-----------|
| • social    | • technological | • legal   |
| • economic  | • environmental | • ethical |
| • political | • scientific    |           |

### **How To Identify Forces of Change**

Think about forces of change that affect the local public health system or community and are outside of your control. For example:

1. What has occurred recently that may affect our local public health system or community?
2. What may occur in the future?
3. Are there any trends occurring that will have an impact? Describe the trends.
4. What forces are occurring locally? Regionally? Nationally? Globally?
5. What characteristics of our jurisdiction or state may pose an opportunity or threat?
6. What may occur or has occurred that may pose a barrier to achieving the shared vision?
7. Was the MAPP process spurred by a specific event such as changes in funding or new trends in public health service delivery?
8. Did discussions during the Local Public Health System Assessment reveal changes in organizational activities that were the result of external trends?
9. Did brainstorming discussions during the Visioning or Community Themes and Strengths phases touch upon changes and trends occurring in the community?

Using the information from the previous page, list all forces that come to mind for you, including factors, events, and trends. Continue onto another page if needed.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
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13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_
16. \_\_\_\_\_

**Please complete this worksheet at least four days before the session. When complete, please fax it to Dr. Orié Kristel at 614-267-2220.**

**Appendix B: Most Important Threats and Opportunities**

After each small group identified the threats and opportunities for each major force, the participants then identified the three most important threats and opportunities among all those discussed in their small group. Results from this exercise are included below.

**GROUP 1**

**Need to do more to help vulnerable populations (e.g., poor, aged)**

Priority	Reason
Poor are affected disproportionately, leading to higher crime, poor health, lack of education, etc = turning into a vicious cycle	Poverty affects entire population. Most vulnerable; least to correct their situation.
Lack of insurance & effects of the economy on the poor	Shortens life, increases pain & apathy
Locate services where they're needed to help the poor more effectively.	-
Identify the most disadvantaged & educate them where it makes sense & is effective	-
Increase # of portable clinics	Inability of population to travel due to no car, no gas, no money, lack of motivation
Impact on poor	Most vulnerable – least able to change situation
Increased years of productive life lost	Caring community; All getting older; Many have much more to offer.
Poor and lower middle class cannot afford healthcare.	-
Expanding services to economically disadvantaged	Lower cost (?)

**Need for smarter growth**

Priority	Reason
Lack of infrastructure (both physical & services)	Needs of growth can't be met
Smarter growth – traffic congestion = accidents, stress, pollution, reduced community participation, etc, all coming from poor planning	Quality of life is affected
Lack of green space	Decreases farm land, water, and wild life. Discourages conversation.
Affordable housing and decrease in green space due to poor planning	Security in housing affects health and well-being of society
Opportunity for smart growth and better land use planning & prevention.	Mixed use / affordable housing etc will decrease dependency on cars & has potential to create better social network.
Decreasing green space, farmland, trees, etc.	Stress related issues. Areas w/o recreation.
Smart growth / planning	When creating (a) community, build in recreation, housing, schools

**Need for expanded public transportation**

Priority	Reason
Increased routes & funding for public transportation	Reduce stress and risk taking
Lack of public transportation – helps community participation and access to services	People isolated. Opportunity to access services, parks, society.
Traffic congestion	Smog, damage to roads & bridges, accidents leads to increase in insurance, crowded hospitals, permanent damage and costs
Lack of public transportation	If corrected, may impact other problems
Public transportation	Reduces costs for people to drive. Reduces carbon dioxide emissions. Reduces traffic, wear and tear on roadways.

**Need for increased health education / preventive care**

Priority	Reason
Increased years of productive life lost	People need health care to detect / prevent life threatening health problems.
Increase opportunities for preventive care	This will have a greater impact in the long run – decreases health issues, reduces costs for families / individuals with or w/o insurance; reduces number of those in needing services from social service agencies.
Health care services	Health care affects our quality of life and ability to be active members of the community
Increase opportunities for health education including pressure for state wide action	Promotes development of healthier lifestyle, increase knowledge of preventive / diagnostic care services, promotes climate for change

**Need for increased collaboration within the county**

Priority	Reason
Collaboration – too many people need too few social services (due to lack of health insurance, etc.)	Do we have the services to offer?
Partnership / collaboration / public participation	Opportunity to work together to solve multiple issues
Increased collaboration by agencies	Individually, agencies cannot be all things to all people
Greater collaboration with social service or planning agencies	More efficient. Combining resources.

**Other priorities**

Priority	Reason
Threat to wildlife	Wildlife is part of our area. Road kill, damage to vehicles, insurance claims, threat to our health, more court cases...
If services are promoted, could lead to an increase in services needed which may not be available	Service need to be available to all – education in schools need too.
Taxing (i.e., stress) our health care system	Feasible
Pressure to change medical care system	Improved health care for all people
Create more opportunities for local employment	Leads to stronger sense of community.

**GROUP 2**

**Communication needs (to stakeholders, to population, between agencies)**

Priority	Reason
No way to communicate effectively to entire population of Delaware County	Whole population needs to be aware of key information, factors, services, realities of their local community
County-wide communication	-
Communications	Collectively, what are the county needs and how can we communicate them in the voice to focus resources on community needs?
Communication	-
Better communication in county	We can't fix things if we don't know each other
Communication with elected officials of true needs	They are out of touch.
Inter-agency communication	We need to work together to help people holistically
Coordinated county-wide communications strategy	Relay important information and create a sense of community

**Youth concerns: need for more youth activities in county**

Priority	Reason
Youth	Not depending on schools
Youth	We need to create more opportunities for youth recreation which are not sports-related. Include youth in decision-making activities
Identify potential disenfranchisement of youth / families and engage them in healthy productive endeavors	<ul style="list-style-type: none"> <li>– Prevention against crime, anti-social behaviors, poor health</li> <li>– Requires looking at behaviors of most vulnerable pops (ethnic, poor, over privileged youth) – need data sources</li> <li>– More volunteers to assist others</li> <li>– Develop work ethic and skills, sense of community, intergenerational influence</li> <li>– Increase knowledge of needs and sense of community</li> </ul>
Opportunities, programs, activities for youth	It’s a realistic, attainable goal, with the potential for long-term benefits
Parents investing themselves	Parents divesting of their responsibility
Lack of school activities for youth	-
Youth – parents must be engaged	-
Give students the opportunity to be part of the solution	-

**Population growth and its consequences**

Priority	Reason
Define the population: diversity data	Then we can plan for issues (e.g. elderly, needs of specific ethnic populations, youth, etc.)
Unchecked growth	Lose what remains of what makes Delaware County what it was. That’s what brought the growth in the first place.
Population forces: Northern vs. Southern Delaware county	-
Population growth	-

**Other priorities**

Priority	Reason
Cuts in funding People’s perception	People are losing faith or confidence – we pay for things we don’t believe in.
Decreased federal funding	Provide guidance and money to find more grant money
Economics	-
Medical care	People need to be able to stay closer to home to receive health care
Need for medical care	-
Collaboration	Shared resources
Education / preventative services	Help with healthcare costs, keep community healthy
Integrating all segments of the Delaware County community	-
Chasing technology	We aren’t reaching our younger population
Suburban isolation	People of means and abilities are disengaging from community, could otherwise be part of the solutions.

**DOCUMENT C: Community Themes and Strengths Assessment Final Report**



**Report to Partnership for Healthy Delaware County:  
Community Themes and Strengths Assessment**

October 23, 2007

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# Overview and Method

As part of the Mobilizing for Action through Partnership and Planning (MAPP) process, the Community Themes and Strengths Assessment calls for opportunities for any citizen in Delaware County to:

- Voice his or her opinion regarding health and health care issues in the county;
- Identify strengths that should be preserved; and
- Express concerns and suggest priorities for action.

These citizen opinions are to be added to the information collected from the other phases of the MAPP process.

To accomplish this, the Delaware General Health District (DGHD) and The Strategy Team, Ltd. held two town hall meetings in the county, open to all citizens. The meetings were well publicized by various methods and the locations were chosen for their accessibility to residents. The dates, times and locations of the meetings were as follows:

- September 25, 2007, Genoa Baptist Church; and
- September 27, 2007, Delaware Area Career Center.

Both meetings were scheduled from 7 to 8:30 p.m. Nine residents attended the first session, ten attended the second, for a total of 19. The attendees were predominantly female, but there were three male attendees between the two groups<sup>1</sup>.

During each meeting, a representative from the DGHD provided a brief overview of the purpose and process of MAPP as well as the goals for the evening's session. Professionals from The Strategy Team then facilitated each session for discussion of two central questions:

- What about Delaware County makes it a healthy place for you and your family to live? Personal health, environmental health, safety, etc. are included in this category – i.e., all aspects of health.
- What about Delaware County needs to be changed to make it a healthier place for you and your family to live? In other words, what are your concerns about health issues including environmental health, personal health, safety, etc.?

To ensure continuity between the groups, each session followed a discussion guide, which is included at the end of this report.

During the facilitation, participants voiced their opinions which were written on cards, posted, and then prioritized using the "dot" method of voting. Brief discussions followed the prioritization process to verify that the dots reflected participants' wishes. Because the results were very similar across both groups, they are reported in the aggregate this report. Each meeting ended with an evaluation of the session. These comments are included at the end of this report.

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<sup>1</sup> An online survey covering the same topics was also created and publicized for those who could not attend the Town Hall meetings. Only one response was received.

# Results of the Town Hall Meetings

## **Positive aspects of Delaware County**

The facilitation began with a discussion of those aspects of Delaware County that encourage healthier living among its residents. Generally, the participants saw as strengths the social services available, particularly for senior citizens; the parks and recreational programs and facilities (mostly outdoors), including biking and walking trails; the cleanliness of the county; and many aspects of its safety, including its disaster preparedness.

Individual comments and their priority ranking (from highest to lowest) regarding these positive aspects are presented next. These are the aspects of Delaware County that citizens find very desirable from a health perspective and want to preserve.

### **Positive aspects regarding the health of Delaware County (prioritized)**

- Excellent services exist for senior citizens through the Council for Older Adults – COA – including senior health fairs and events like the summer festival. (5 dots)
- County-wide system for preservation parks – sixth park just opened. Well funded. (5 dots)
- Good recreational programs, sports and facilities for kids by both the city and the county. Orange Park, Mingo Park, etc. (5 dots)
- It's a safe community in which to walk or hike. Parks and walking paths are also safe. (4 dots)
- There are many social service agencies to serve many different families' needs, including the Mental Health & Recovery Services Board. (3 dots)
- Bike and walking trails. (2 dots)
- It's a clean community – Keep Delaware County Beautiful. (2 dots)
- There are many opportunities to educate the public – through the schools (K to 12), through agencies, governmental entities, etc. Example: there are excellent middle and high school health programs, especially in Delaware City schools. (2 dots)
- The health district's involvement in a smoke-free work place/banning tobacco smoke. (2 dots)
- There is a farmers' market with fresh fruits and vegetables. (1 dot)
- Low-cost flu inoculations and vaccines by the health district; immunizations for children. (1 dot)
- Good monitoring of food safety. (1 dot)
- There is a good disaster preparedness plan within the county. (1 dot)
- Health Department does a good job with car seat installation checks, helmet use and giveaways. (1 dot)
- Strong prevention programs for tobacco, suicide, violence, drug and alcohol use. (1 dot)
- Lack of turf issues – collaboration is great among agencies and jurisdictions. (1 dot)
- Abundance of concerned residents, agencies & organizations. Good participation. (1 dot)

### **Other positive aspects, not dotted:**

- Urgent care facility in Sunbury, other local places.
- Good drinking water.
- Not much worry about crime. Safe community. Fire and police are good.
- Lots of community events – contribute to social health.
- Not a lot of concrete – lots of trees – makes it healthy.
- Testing goes on for rabies, etc. (bats).

- Good access to health care – many options for doctors and dentists.
- Bike paths through the college, etc.
- Low-impact industries, therefore minimal amount of manufacturing – therefore less pollution.
- Good resources for substance abuse problems – i.e., good provider agencies.
- County-wide mosquito spraying is very effective.
- Genoa township officials are concerned and take action to keep residents safe. Example: email communications.
- (There are) worksite wellness programs for some businesses and schools by the city and county government.
- Grady Hospital offers good educational services – exercise programs, child birth classes, support groups, etc.
- Appreciate communication from the health district with the community via newsletters, newspapers, website and TV coverage.

### **Areas of concern regarding Delaware County**

Next, town hall participants were asked to voice their areas of concern regarding health issues in Delaware County. In other words, what issues are viewed as priority areas for the County's attention? Again, these were posted and prioritized using the same process as before.

#### ***Overall, the highest priority health issues perceived by Delaware County residents included the following:***

- Not enough community centers (e.g., affordable recreational and health facilities) available to county residents / Lack of widespread public support for community centers;
- Traffic and transportation problems / Lack of bike paths / Need for connecting rights-of-way to access bike paths / Lack of sufficient public transportation;
- Need for more education to promote healthier behaviors.

Possible actions for addressing these priority areas were then discussed. The full output from this guided discussion is presented below.

- **Not enough community centers. Affordable recreational and health facilities are not available to county residents (Powell has one); also, lack of public support for them. (13 dots)**

*Possible actions that could be taken on this issue:*

- Work with existing facilities, perhaps partnering with World Gym – public/private partnerships between private entities and the health district; work with National Guard.
- Look at creative funding options for buildings and operations.
- COA Senior Center may be able to provide more opportunities for seniors.
- Marketing of new ideas.
- Fund with property tax.
- Must ask: Do people know what a *community center* entails? Do they see it as a workout place or a place for seniors?
- Must market center(s) appropriately.
- More sharing of “toys” with Westerville facility.
- Find private money – many “Ys” are funded privately.
- Grass roots efforts may be needed. Example: Skate park.

- **Commuting – there is no public transit. Need increased public transit that connects with COTA. (7 dots)**

*Possible actions that could be taken on this issue:*

- Create a Park ‘N Ride.
- COTA Link
- Expand DATA.

- **Traffic is dangerous when you want to exercise by walking or biking as paths do not connect but users must drive or face traffic. (7 dots)**

*Possible actions that could be taken on this issue:*

- Widen routes to accommodate lanes for bikes and walking.
- Use traffic-calming measures.
- Designate which jurisdiction this problem belongs to – it is city, county or state? Which officials do you go to?
- Look at successful models – do a best-practice study, including reviews of Westerville.
- More planned development.

- **Need education to promote healthier behaviors – exercising, eating right, etc. (4 dots)**

*Possible actions that could be taken on this issue:*

- Make more education available.
- Figure out incentives to motivate these behaviors. (Cost is a problem for lower income people) Relatedly, find out what motivates people to continue bad behaviors. Learn how to break the cycle.
- Use the state smoking ban as an opportunity.
- Link education to existing venues and the way they are promoted (parks, etc.).
- Identify target audiences, then look at ways to reach them in their lifestyles.

- **Must drive to do anything. This isolates some groups such as seniors, junior high students who need to get to and from activities. (4 dots)**

*Possible actions that could be taken on this issue:*

- Have more bike racks available.
- Must have more access to public transportation.
- Lack of knowledge – people don’t know if there is public transportation (some for seniors is available).
- Study being done regarding transportation in Delaware (ODOT grant to DATA).
- Add bike lanes when roads are expanded.
- Creative planning for bike routes.

- **We need more bike paths. (3 dots)**

*Possible actions that could be taken on this issue:*

- Publicize ones that exist.
- Powell is a local “best practice.”
- Need for legislation to require sidewalks and bike paths.
- Fit buses with bike racks.

**Other areas of concern, dotted but no possible actions generated:**

- There is political gridlock at the highest levels of government. (4 dots)
- Bad organization/logistics for Super Flu Saturday. Might need to move the location or use a different system for people to register. (3 dots)
- Worries about air quality (pollution from traffic, allergies, asthma, etc.). (3 dots)
- There are a lot of downtown bars in Delaware, which increases alcohol use and younger people getting hooked up with the bar scene and a bad crowd. (3 dots)
- Communicable diseases and antibiotics may not be as effective as before. (2 dots)
- Need improvements in school lunch programs. (2 dots)
- Odor from wastewater treatment facilities. (2 dots)
- Tobacco use is high compared to state rates. (2 dots)
- People go to Franklin County for specialty health care. (2 dots)
- Many empty store fronts in towns – local communities may not be thriving. (1 dot)
- Need more tolerance for ethnic diversity. Not welcoming now. (1 dot)
- Geographical disparities among school district resources and services. (1 dot)
- Alcohol consumption is higher than it should be, Need education to discourage it. (1 dot)
- Diabetes (1dot)
- Obesity and overweight (2 dots)
- Not enough productive activities for kids. (1 dot)
- Child/baby abuse (1 dot)
- There are many unhealthy aspects about commuting to work, including the time lost and pollution. (1dot)
- New subdivisions isolate residential areas from commercial areas – not mixed land use. (1 dot)
- Development on Route 23 has led to fast, unsafe traffic plus many curb cuts. (1 dot)

**Other areas of concern, not dotted:**

- Much self medication – both over the counter and prescription drugs.
- Cancer
- Heart disease
- Need tolerance of political and religious diversity, too.
- Must drive to access basic needs.
- Law enforcement is inconsistent among various jurisdictions. More collaboration is needed.
- Lack of women’s health services for the under- and uninsured and the working poor.
- Urban sprawl and unplanned development.
- Need more linkages between Ohio Wesleyan University and Delaware County.
- Lack of continual updates about pandemics and emergency preparedness. Where are we and what progress has been made?
- Vector-born diseases (rabies, West Nile, Rocky Mountain Spotted Fever).
- Lack of healthy eating establishments.

## **Session evaluations**

Each session concluded with a brief two-part evaluation. During the first part, participants were asked to voice “what worked” about the session; in the second part, they were asked “what would you change if we were to do the session over?”

### **What worked**

- We felt comfortable sharing
- Fed off of each other
- Very visual process
- Liked starting with the positives
- Small group – got our voices heard
- (Session was) kept on time
- Had an agenda
- Good ideas and next steps
- Time of day

- Very interactive
- Food

### **Things participants would have changed**

- Start earlier – 6 to 7:30
- More specific directions to get to the room
- Get more people to attend
- Take this meeting to existing groups
- Busy facility

**DGHD/PHDC Community Themes & Strengths Assessment:**

**Town Hall Meetings Discussion Guide**

**September 25, 2007, 7-8:30pm, Genoa Baptist Church**

**September 27, 2007, 7-8:30pm, Delaware Area Career Center**

**Goal of Town Hall Meetings: To explore community priorities regarding health issues, health care issues, and other quality of life issues in Delaware County.**

**Preparation assignments:**

**DGHD**

- Logistics: signage, people to point the way
- Refreshments: water, muffins, fruit, napkins
- Door prizes
- Projector, computer for Tues. p.m.
- List of acknowledgements

- Jump drive with Qs, etc.
- Box for door prizes
- Cards for registration
- Facilitation materials: storyboards, post-it easels, card, marking pens, dots, 3x5 cards
- Digital recorder

**Set up:**

Participants will be seated at tables in a “U” shape so they can see each other. Brief agenda and discussion questions will be projected on screen as appropriate. Microphones will assure everyone can hear each other.

**Agenda Expanded**

**1) Welcome**

**DGHD**

7:05

- DGHD / PHDC rep provides brief overview of purpose of MAPP, where we are in the process, what we need to get from the group tonight (i.e., the goal of the session).
- Talks of importance of public input
- Introduces Orië Kristel & Karen Snyder

**2) Orientation to today’s sessions**

**Orië Kristel, TST**

7:10

- Bathroom locations and bathroom breaks – rolling breaks at any time
- Cell phones and pagers off, please
- Reviews purpose of today’s session
- Introduces facilitators

**3) Explains use of storyboard, cards, etc.**

**Orië Kristel, TST**

- Ground rules
- Explains storyboard process
- Will address two major questions tonight regarding the health of Delaware County

**4) Addressing the questions**

**Q. 1:** What about Delaware County makes it a healthy place for your and you family to live? We include personal health, environmental health, safety, etc. in this category – all aspects of health. (*“Currently healthy” – green cards*)

7:15

**Q. 2:** What about Delaware County needs to be changed to make it a healthier place for you and your family to live? In other words, what are your concerns about health issues, including environmental health, personal health, safety, etc.? (*“Currently unhealthy” – yellow cards*)

7:35

**5) Dot-voting to create priorities.**

7:55

- Approximately 1 dot for every 5-10 cards.
- One dot per person to a card.
- Facilitators stand by boards to help interpret writing, ideas.

**6) Drawing for door prizes while TST groups, re-arranges cards**

8:10

**7) Discussion of priorities**

- Check with group at this point – is this what you meant to do? Anyone want to make a case for an additional issue? Anyone want to make a case for removal of an issue?

**8) Identify action steps, based on prioritized health issues**

8:15

- **For “currently healthy” issues:** What can be done to preserve or strengthen these healthy attributes? [Answers go up on flip pad.]
- **For “currently unhealthy” issues:** What can be done to change or eliminate these unhealthy attributes? [Answers go up on flip pad.]

**9) Closing the session**

8:30

- TST reviews proceedings, priorities – turns session over to DGHD
- DGHD thanks participants, gives next steps, asks them to tell others to attend next session (Tues. night group only). Dismissal.

If time allows or need arises, probe on following questions...

1. When you think of the Delaware County community, what makes you or your family feel **most proud?** (o/e)
2. When you think of the Delaware County community, what makes you or your family feel **most concerned?** (o/e)
3. How satisfied or dissatisfied are you with the quality of life in the Delaware County community? (1-5 Likert, with probe)
4. To what extent do you think the Delaware County community is a good place to raise children? (1-5 Likert, with probe)
5. To what extent do you think the Delaware County community is a good place to grow older? (1-5 Likert, with probe)
6. What do you think are the two or three most important things that can help a community like ours be as healthy as possible? (o/e)
7. How satisfied or dissatisfied are you with the health care system in the Delaware County community? (1-5 Likert, with probe) **Can you tell us more about your answer?**
8. What suggestions do you have for improving Delaware County, especially the health of its residents? (o/e)
9. What would have to happen for you, your family or your friends to become even more involved in working to improve our community? (o/e)

**DOCUMENT D: Delaware County Youth Forums Final Report**



**Report to Delaware-Morrow Mental Health and Recovery Services Board:**

**Delaware County Youth Forums**

**June, 2007**

**Overview**

On behalf of the Delaware-Morrow Mental Health and Recovery Services Board (DMMHR), The Strategy Team, Ltd. (TST) conducted two youth forums in Delaware County on June 14<sup>th</sup> and 20<sup>th</sup>, 2007. These town hall meetings were designed as a follow up to the Youth Behavioral Risk Surveillance Survey (YBRSS) completed by high school students in Delaware and Morrow County schools during the 2006-07 academic year. The objectives of the forums were to flesh out the health and safety issues present among youth in Delaware County and to solicit opinions from youth regarding what could be done about these problems.

DMHHR recruited participants and hosted the groups (held at the Delaware General Health District and the Mean Bean Caffeine Lounge). TST designed and moderated the groups and compiled, analyzed and reported the findings. Youth participants were primarily those engaged in leadership activities in the community, affiliated with two groups in particular – Stand Leadership and Jobs for Ohio Graduates. Overall, the 14 youth who participated had the following characteristics<sup>1</sup>:

**Table 1: Demographics of participating youth**

<u>Gender</u>	<u>High school</u>	<u>Academic Year</u>
<b>Male</b>	8	Buckeye Valley
		2
		Graduated
		3
<b>Female</b>	6	Delaware Christian
		1
		Senior
		4
		Hayes
		4
		Junior
		5
		Liberty
		4
		Sophomore
		1
		Olentangy
		1
		Unknown
		1
		River Valley
		1
		Unknown
		1

The report presents findings for each of the key areas discussed during the meetings. The general approach was to first solicit top-of-mind reactions to key topics, and then to discuss youth reactions to survey findings on the topic. For most issues, youth were asked what, if anything, could be done to address the problem. A copy of the focus group discussion guide is included at the end of this report.

<sup>1</sup> Note: 8 of the 13 students currently attend the Delaware Career Center, however they are included in the count for their home school.

## 1) Alcohol, tobacco and other drugs

Respondents are clearly concerned about the use of alcohol and other drugs among their peers. When asked to write down the top two most important issues facing Delaware youth, students overwhelmingly mentioned alcohol and drug use – this theme comprised 50% of all mentions; 11 youth said alcohol and drug use was the first most important problem and 2 listed it as the second most important problem. None of the remaining issues received more than 3 total mentions<sup>2</sup>.

Youth believe alcohol is the most important problem because it is relatively easy to get. Most youth can get alcohol in their own homes because their parents have it. Some teens also have older siblings and friends buy alcohol for them. Perhaps most distressingly, several respondents also said it's easy for teens to purchase alcohol. As one teen put it, *"Half the places in Marion will sell you beer and alcohol without an ID."* Another teen suggested some clerks will ask you to show ID *"just for the cameras."*

The problem of binge drinking is a real one, students say. They suggest it occurs because teens are inexperienced and don't know how much they can drink. Additionally, most teen drinking occurs primarily in social situations, where it's easy to be pressured into drinking more or to lose track of how much you've had. As one teen suggested, *"People in high school drink to get drunk. They're not just going to drink a glass of wine with dinner."*

Respondents also noted they have heard of students using "harder drugs" like marijuana, crack, cocaine, and prescription pain killers, though they think these are less common than alcohol and tobacco.

For the most part, respondents were not surprised by the statistics regarding alcohol, tobacco and other drug use. If anything, they thought the numbers would be higher. One group of students did suggest tobacco use was higher than they expected, because most teens they knew think smoking is *"gross."*

*What students think could curb the problem:* Most solutions offered by Delaware youth revolved around increased enforcement efforts on the part of police and parents. They suggest underage drinking is often not taken seriously enough by police. One student shared a story of a keg party interrupted by police. Underage students were drinking and police sent them home, but no punishment was involved. Students think cops are lazy and don't take underage drinking seriously.

Similarly, students suggest parents must wake up and realize what's happening, sometimes in their own homes. One youth shared a story of a MySpace posting that detailed a student and her friends playing beer pong in the basement while her parents were upstairs. They suggest parents are naïve about drinking or are interested in being liked rather than being parents. As one student suggested, *"Kids don't need cool parents."*

Students also say there may not be enough alternative activities in town that teens can engage in. Their suggestions for changes in this arena include:

- Make the downtown area more youth friendly by encouraging more youth-oriented stores and allowing skateboarding on downtown streets. In lieu of legalizing skating, the City might provide other transportation options.
- Assist youth with their "warehouse project" which combines an indoor skate park with other youth-friendly activities, all in a drug and alcohol free setting.

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<sup>2</sup> Violence, suicide / depression, weight and selfishness / self indulgence each received 2 or 3 mentions.

Finally, students say they are aware of the negative effects of alcohol and drug use because they are exposed to many related programs from a very early age. The key for programming, they suggest, is to address the peer pressure involved in teen drug and alcohol use, as the following verbatims illustrate:

- *We know the effects of using – we’re taught those from the time we’re little... It’s a lot about peer pressure. Need to let people know... What kind of friend is a friend if you have to get trashed to be cool?*
- *Kids who don’t use should speak up, voice opinions, so others know not everyone is doing it. Kids shouldn’t be afraid to speak up, but they are.*

## 2) Depression and Suicide

Students say many kids who call themselves depressed are seeking attention. They also suggest depression is more a middle school problem than a high school one, as these comments illustrate:

- *Do you mean real depression or “I’m cutting myself for attention” depression?*
- *It’s an 8th, 9th, 10th grade phase. Everyone goes through it. Teenage angst.*
- *I’d say half of the people who say they’re depressed are seriously depressed.*
- *Thought depression was a much bigger problem in middle school. Haven’t seen as much in high school.*

Nonetheless, some students do know teenagers and others, including family members with depression. They acknowledge that it is real and in fact feel that people who are actually depressed don’t necessarily express their feelings. As one student put it, *“If people are really depressed, they don’t talk about it. You don’t want people to think you’re doing it for attention.”* Another said, *“If kids are depressed, they don’t talk about it. There’s a stigma.”* Students seemed surprised that 16% of high school students said they seriously considered suicide and that 7.5% had actually attempted it. These numbers were much higher than teens would have expected.

Students say the causes of depression are likely related to two things – these social relationships and family pressures. Teens want to fit in and have friends they can rely on. They also face serious pressure from their parents to do well in school, to get into good colleges and be competitive for scholarships. This may be especially true when students are compared to their siblings. An additional trigger for some youth may be trouble at home. One student shared that his mother was bipolar and that he was depressed at one point because of his home life.

*What students think could curb the problem:* Students say it may be difficult for anyone to help teens cope with this problem as it is largely related to maintaining social contacts and good relationships. Anything that could be done to maintain such relationships, or to help teens cope with the ups and downs of them, might be helpful as the following verbatim comments illustrate:

- *Help people find their niche, find friends that they fit in with, aren’t fake.*
- *Some way to help kids develop lasting close relationships at a young age – need friends to talk to.*
- *Just someone to listen, even if you’re not that close to them.*
- *Help others deal with stress. Help people learn to cope.*

One group suggested funding the warehouse and indoor skate project could help because it would create a place for area teens to network and socialize. They envision a “hangout” spot with something for everyone, ranging from a stage to game rooms and party rooms. Students also say teachers could play a critical role, but to do so they must acknowledge and relate to the difficulties teens face. As one student put it, *“Teachers need to be selected better – not just on teaching skills, but maybe on personality too.”* One student recalled monthly peer sessions held during his freshman year that placed younger students in discussion groups with seniors. While this particular program wasn’t necessarily successful, (*“It’s like, I don’t know who these people are, why would I want to talk to them?”*) a similar concept might work if peers were closer in age, teens say.

### 3) Violence

While most students say they personally feel safe at their school, they do acknowledge that fighting and violence occur with some regularity. When fights do occur, they say, students get very excited and pay a lot of attention to them. Students at Hayes and Liberty seem to feel violence is less common, and some students say what could be called “violence” is actually play fighting, especially among male friends (*“A fight is really just one punch or push,”* and *“a lot of play fights, joking around”* is how these events are described). At other schools, students say fights happen relatively often and that some students are known to be violent:

- *There are random fights sometimes.*
- *See other kinds of violence – bringing weapons... Japanese knives.*
- *There are people at Buckeye Valley you do **not** mess with. They fight, get suspended and they don’t care.*
- *At River Valley, we had a physical fight every single day except for three in the second semester. There is a group of people who just start stuff. One kid will randomly punch someone, then they’ll get into it. There’s an area where we go out to the busses... One kid walked out and two others...jumped him. These kids don’t care because they’ve been in trouble so much, they don’t want to be at school. They already have so many absences, they’re automatically failing.*

*What students think could curb the problem:* Many students say fights and violence are symptoms of larger discipline issues within schools. They say discipline is lax at their schools, especially for some subgroups, like athletes. One student shared a story of football players being caught at a party with alcohol and the school waiting until after an upcoming game to sanction them. Additionally, they say many teachers could do more to curb violence. Some hear about fights but do not take them seriously; others want to be seen as the “cool teacher,” not a “narc.” One student even suggested some teachers are entertained by the fights, just as students are.

Students say police and security personnel should be more visible and take their jobs seriously. They also think students could play a role in the solution. For instance, one student suggested a peer mediation program and another thought there needed to be a better way for students to anonymously let authorities know about problems before they break into violence. Otherwise, as one student said, *“You will get jumped because you said something and it wasn’t your business.”*

### 4) Internet Activity

Teens acknowledge the internet can have both positive and negative consequences for them and their peers (*“It can be really bad, but it can be awesome, too”*). They say nearly everybody uses the internet, especially sites like MySpace.com and facebook.com. As a group, they don’t seem to take internet bullying too seriously. As one student suggested, *“Words and letters online don’t hold that much emotion.”* However, many students say they or someone they know has been the target of online gossip and rumors,

and several students say they themselves or someone they know have met people in real life that they first connected to online.

While some teens feel parents and teachers need to be more aware of what their children and students do online, others feel most teens act reasonably. One teen said, *"They shouldn't know anything. They're just going to blow it all out of proportion."* Added another, *"They talk about closing down MySpace. But we'll just make another site like it if they do that."* Most teens acknowledge the dangers of the internet, indicating they've been contacted by *"creepy"* older men or random people. Another suggested the young girls at their school post *"slutty"* pictures of themselves online. To prevent dangerous activities like these, some teens felt parents should make an effort to be aware of what teens are doing online,

Some students see positive benefits to these social networking sites, describing them as *"social clubs"* and relating stories of connecting with members of other cliques from their own schools. Additionally, one student said he communicates with some people from his school online who would *"never talk to me in real life."*

## 5) Physical activity

Teens are not surprised by the findings regarding dieting and obesity among teenagers but suggest that many of those who identified themselves as obese are probably not. Rather, they say these are average weight teens who think they are obese. Students link the issues faced by teenagers to larger issues in America, including the pressure to be thin, the large size of portions, and the proliferation of unhealthy eating choices. Teens indicate they know students who do not eat enough, or who over-exercise to become or stay thin.

*What students think could curb the problem:* Students say school food encourages bad habits. They also note that healthy options like salads and juice are more expensive than less healthy choices like soda and candy bars. At least one student indicated it was difficult to use school lunch cards to pay for a la carte items like the healthy choice item. Students say they do not want to have to calculate and disclose their BMI in health class in front of their peers and that *"people have to learn to accept who they are, how they are."*

## 6) Additional issues

At the end of each discussion, students were asked to indicate if there were any other unhealthy behaviors or situations facing Delaware area high school students that hadn't already been discussed. These miscellaneous concerns included:

- *Promiscuous sex.*
- *Tanning*
- *Caffeine – Starbucks, energy drinks, Mountain Dew*
- *Other kinds of violence – emotional, prejudging*
- *People are just so mean. They are nice to your face, but mean behind your back.*
- *People act very cocky. They are self-indulgent.*
- *Teenagers now think it's cool to drink, do drugs, have sex. It didn't use to be that way.*

*Researchers' Notes:*

- *It is the researchers' belief that youth attendance to the groups was greatly helped by the use of a significant incentive (iPods), promised comfort features (snacks, food, drinks), an informal setting, and the personal relationship between the recruiters and the youth. In the future, we recommend conducting these groups during the school year instead of just after commencement in an effort to increase attendance and therefore youth input.*
- *Participating youth were perceived to provide honest opinions with the moderators, indicating the information learned from this process should be trusted.*
- *The researchers recommend that future groups have a greater focus on the prevalence of bullying / harassment in and out of school. These issues were discussed peripherally during the group but not delved into in great detail – the researchers believe there is much to be learned from focusing on this area.*
- *Future discussion of alcohol and tobacco issues should be sure to probe on what youth can do to help curb use. That is, youth seem to be focused on what authority figures can do differently, but not what youth themselves can do differently.*

**DMMHRS Youth Focus Groups**  
**June 14, 6:00 – 7:30 PM and June 20, 9:00 – 10:30 AM**

***Purpose of forums – To seek input from Delaware County youth regarding health and safety issues facing them and their peers***

(Alcohol, Tobacco and Other Drugs)

1. Last fall, high school students in Delaware and Morrow County participated in an anonymous Youth Risk Behavior Survey. During this survey the high school students reported how often they used a variety of ATOD within 30 days of taking the survey. Before I tell you the survey results, what drugs do you think are most often used by your fellow students? (Probe heavily) Why these drugs?

*Additional probes*

- Here are the percentages of Delaware high school students using alcohol, tobacco, or marijuana in the past 30 days: *Alcohol* (33%), *Tobacco* (21%), *Marijuana* (15%). Are you surprised by these stats?
- For those students engaged in these behaviors, where do they get access to the ATOD?
- Binge drinking is defined as having 5 or more alcoholic drinks on an occasion. How much of an issue do you think binge drinking is among high schoolers?
  - Would it surprise you if I told you that 22% of high school students report bingeing?
- What do you think would help address this problem? (Probe heavily)

(Depression and Suicide)

2. Moving to a different topic, some of those surveyed felt depression and suicide were major problems facing high school students in Delaware County. Others did not. How about you? How serious a problem do you think depression and suicide is among high schoolers in Delaware County?

*Additional probes*

- In the past 12 months, 25% of Delaware high school students said they had suffered from feelings of sadness / hopelessness at some time, nearly 16% of high school students said they had seriously considered committing suicide, and 7.5% had actually attempted suicide. Do any of these statistics surprise you? Are they higher or lower than what you'd expect?
- What are the causes of depression and suicidal thoughts, in your opinion?
- What do you think would help address this problem? (Probe heavily)

(Violence)

3. According to the survey, more than 20% of Delaware high school students surveyed had carried a weapon to school more than once in a 30-day time period and 28.2% had been in a physical fight in the past 12 months. How prevalent is violence at your school?
  - Do you feel unsafe at your school?
  - What do you think would help address this problem? (Probe heavily)

(Internet Activity – *as time allows*)

4. Although the Internet is part of our daily routines and has a lot of good uses, it can also be used in harmful ways. 13% of Delaware high school students said someone has used the Internet to bully or threaten harm to them, 29% said someone used the Internet to gossip or spread rumors about them, and 22% said someone they met on the Internet and did not know previously had asked to meet them in person. What types of Internet activity do you think are harmful to young people?
  - What should parents, teachers, etc. know about these activities that they are not currently aware of? (*29% said they keep their Internet activity private from friends and family*)

(Physical Health – *as time allows*)

5. Regarding physical health, 30% of Delaware high school students identified themselves as slightly to very overweight. Also, 55% of female high school students and 30% of male students were trying to lose weight. Do you see the issues of obesity, physical fitness, or eating disorders as major ones facing your peers, and if so, how much an issue is it?
  - What do you think would help address these problems?

(Summary)

6. Are there any other unhealthy behaviors or situations facing Delaware high school students that we didn't discuss today?
7. Of all the health behaviors and situations we talked about today, which are the top two you think need the greatest amount of attention from parents, teachers, or the Delaware County community?

**DOCUMENT E: Local Public Health System Performance Assessment Report (provided by CDC)**



Local Public Health System  
Performance Assessment

Report of Results

Delaware General Health District

04/02/2008

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What are potential areas for attention, based on the priority ratings and performance scores?

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How much does the Local Health Department contribute to the system's performance, as perceived by assessment participants?

## **Appendix**

Resources for Next Steps

# The National Public Health Performance Standards Program

## Local Public Health System Performance Assessment Report of Results

### A. The NPHPSP Report of Results

#### I. INTRODUCTION

The National Public Health Performance Standards Program (NPHPSP) assessments are intended to help users answer questions such as "What are the activities and capacities of our public health system?" and "How well are we providing the Essential Public Health Services in our jurisdiction?" The dialogue that occurs in answering these questions can help to identify strengths and weaknesses and determine opportunities for improvement.

The NPHPSP is a partnership effort to improve the practice of public health and the performance of public health systems. The NPHPSP assessment instruments guide state and local jurisdictions in evaluating their current performance against a set of optimal standards. Through these assessments, responding sites consider the activities of all public health system partners, thus addressing the activities of all public, private and voluntary entities that contribute to public health within the community.

Three assessment instruments have been designed to assist state and local partners in assessing and improving their public health systems or boards of health. These instruments are the:

- State Public Health System Performance Assessment Instrument,
- Local Public Health System Performance Assessment Instrument, and
- Local Public Health Governance Performance Assessment Instrument.

The NPHPSP is a collaborative effort of seven national partners:

- Centers for Disease Control and Prevention, Office of Chief of Public Health Practice (CDC/OCPHP)
- American Public Health Association (APHA)
- Association of State and Territorial Health Officials (ASTHO)
- National Association of County and City Health Officials (NACCHO)
- National Association of Local Boards of Health (NALBOH)
- National Network of Public Health Institutes (NNPHI)
- Public Health Foundation (PHF)

This report provides a summary of results from the NPHPSP Local Public Health System Assessment (OMB Control number 0920-0555, expiration date: August 31, 2010). The report, including the charts, graphs, and scores, are intended to help sites gain a good understanding of their performance and move on to the next step in strengthening their public system.

## II. ABOUT THE REPORT

### **Calculating the scores**

The NPHSP assessment instruments are constructed using the Essential Public Health Services (EPHS) as a framework. Within the Local Instrument, each EPHS includes between 2-4 model standards that describe the key aspects of an optimally performing public health system. Each model standard is followed by assessment questions that serve as measures of performance. Each site's responses to these questions should indicate how well the model standard – which portrays the highest level of performance or "gold standard" – is being met.

Sites responded to assessment questions using the following response options below. These same categories are used in this report to characterize levels of activity for Essential Services and model standards.

NO ACTIVITY	0% or absolutely no activity.
MINIMAL ACTIVITY	Greater than zero, but no more than 25% of the activity described within the question is met.
MODERATE ACTIVITY	Greater than 25%, but no more than 50% of the activity described within the question is met.
SIGNIFICANT ACTIVITY	Greater than 50%, but no more than 75% of the activity described within the question is met.
OPTIMAL ACTIVITY	Greater than 75% of the activity described within the question is met.

Using the responses to all of the assessment questions, a scoring process generates scores for each first-tier or "stem" question, model standard, Essential Service, and one overall score. The scoring methodology is available from CDC or can be accessed on-line at <http://www.cdc.gov/od/ocphp/nphsp/Conducting.htm>.

### **Understanding data limitations**

Respondents to the self-assessment should understand what the performance scores represent and potential data limitations. All performance scores are a composite; stem question scores represent a composite of the stem question and subquestion responses; model standard scores are a composite of the question scores within that area, and so on. The responses to the questions within the assessment are based upon processes that utilize input from diverse system participants with different experiences and perspectives. The gathering of these inputs and the development of a response for each question incorporates an element of subjectivity, which can be minimized through the use of particular assessment methods. Additionally, while certain assessment methods are recommended, processes can differ among sites. The assessment methods are not fully standardized and these differences in administration of the self-assessment may introduce an element of measurement error. In addition, there are differences in knowledge about the public health system among assessment participants. This may lead to some interpretation differences and issues for some questions, potentially introducing a degree of random non-sampling error.

Because of the limitations noted, the results and recommendations associated with these reported data should be used for quality improvement purposes. More specifically, results should be utilized for guiding an overall public health infrastructure and performance improvement process for the public health system. These data represent the collective performance of all organizational participants in the assessment of the local public health system. The data and results should not be interpreted to reflect the capacity or performance of any single agency or organization.

### **Presentation of results**

The NPHPSP has attempted to present results – through a variety of figures and tables – in a user-friendly and clear manner. Results are presented in Rich Text Format (RTF), which allows users to easily copy and paste or edit the report for their own customized purposes. Original responses to all questions are also available.

For ease of use, many figures in tables use short titles to refer to Essential Services, model standards, and questions. If in doubt of the meaning, please refer to the full text in the assessment instruments.

Sites may choose to complete two optional questionnaires – one which asks about priority of each model standard and the second which assesses the local health department's contribution to achieving the model standard. Sites that submit responses for these questionnaires will see the results included as an additional component of their reports. Recipients of the priority results section may find that the scatter plot figures include data points that overlap. This is unavoidable when presenting results that represent similar data; in these cases, sites may find that the table listing of results will more clearly show the results found in each quadrant.

## **III. TIPS FOR INTERPRETING AND USING NPHPSP ASSESSMENT RESULTS**

The use of these results by respondents to strengthen the public health system is the most important part of the performance improvement process that the NPHPSP is intended to promote. Report data may be used to identify strengths and weaknesses within the local public health system and pinpoint areas of performance that need improvement. The NPHPSP User Guide describes steps for using these results to develop and implement public health system performance improvement plans. Implementation of these plans is critical to achieving a higher performing public health system. Suggested steps in developing such improvement plans are:

1. Organize Participation for Performance Improvement
2. Prioritize Areas for Action
3. Explore "Root Causes" of Performance Problems
4. Develop and Implement Improvement Plans
5. Regularly Monitor and Report Progress

Refer to the User Guide section, "After We Complete the Assessment, What Next?" for details on the above steps.

Assessment results represent the collective performance of all entities in the local public health system and not any one organization. Therefore, system partners should be involved in the discussion of results and improvement strategies to assure that this information is appropriately used. The assessment results can drive improvement planning within each organization as well as system-wide. In addition, coordinated use of the Local Instrument with the Governance Instrument or state-wide use of the Local Instrument can lead to more

successful and comprehensive improvement plans to address more systemic statewide issues.

Although respondents will ultimately want to review these results with stakeholders in the context of their overall performance improvement process, they may initially find it helpful to review the results either individually or in a small group. The following tips may be helpful when initially reviewing the results, or preparing to present the results to performance improvement stakeholders.

### ***Examine performance scores***

First, sites should take a look at the overall or composite performance scores for Essential Services and model standards. These scores are presented visually in order by Essential Service (Figure 1) and in descending order (Figure 2). Additionally, Figures 3 and 5 use color designations to indicate performance level categories. Examination of these scores can immediately give a sense of the local public health system's greatest strengths and weaknesses.

### ***Review the range of scores within each Essential Service and model standard***

The Essential Service score is an average of the model standard scores within that service, and, in turn, the model standard scores represent the average of stem question scores for that standard. If there is great range or difference in scores, focusing attention on the model standard(s) or questions with the lower scores will help to identify where performance inconsistency or weakness may be. Some figures, such as the bar charts in Figure 4, provide "range bars" which indicate the variation in scores. Looking for long range bars will help to easily identify these opportunities.

Also, refer back to the original question responses to determine where weaknesses or inconsistencies in performance may be occurring. By examining the assessment questions, including the subquestions and discussion toolbox items, participants will be reminded of particular areas of concern that may most need attention.

### ***Consider the context***

The NPHPSP User Guide and other technical assistance resources strongly encourage responding jurisdictions to gather and record qualitative input from participants throughout the assessment process. Such information can include insights that shaped group responses, gaps that were uncovered, solutions to identified problems, and impressions or early ideas for improving system performance. This information should have emerged from the general discussion of the model standards and assessment questions, as well as the responses to discussion toolbox topics.

The results viewed in this report should be considered within the context of this qualitative information, as well as with other information. The assessment report, by itself, is not intended to be the sole "roadmap" to answer the question of what a local public health system's performance improvement priorities should be. The original purpose of the assessment, current issues being addressed by the community, and the needs and interests for all stakeholders should be considered.

Some sites have used a process such as Mobilizing for Action through Planning and Partnerships (MAPP) to address their NPHPSP data within the context of other community issues. In the MAPP process, local users consider the NPHPSP results in addition to three other assessments – community health status, community themes and strengths, and forces of change – before determining strategic issues, setting priorities, and developing action

plans. See "Resources for Next Steps" for more about MAPP.

***Use the optional priority rating and agency contribution questionnaire results***

Sites may choose to complete two optional questionnaires – one which asks about priority of each model standard and the second which assesses the local health department's contribution to achieving of the model standard. The supplemental priority questionnaire, which asks about the priority of each model standard to the public health system, should guide sites in considering their performance scores in relationship to their own system's priorities. The use of this questionnaire can guide sites in targeting their limited attention and resources to areas of high priority but low performance. This information should serve to catalyze or strengthen the performance improvement activities resulting from the assessment process.

The second questionnaire, which asks about the contribution of the public health agency to each model standard, can assist sites in considering the role of the agency in performance improvement efforts. Sites that use this component will see a list of questions to consider regarding the agency role and as it relates to the results for each model standard. These results may assist the local health department in its own strategic planning and quality improvement activities.

**IV. FINAL REMARKS**

The challenge of preventing illness and improving health is ongoing and complex. The ability to meet this challenge rests on the capacity and performance of public health systems. Through well equipped, high-performing public health systems, this challenge can be addressed. Public health performance standards are intended to guide the development of stronger public health systems capable of improving the health of populations. The development of high-performing public health systems will increase the likelihood that all citizens have access to a defined optimal level of public health services. Through periodic assessment guided by model performance standards, public health leaders can improve collaboration and integration among the many components of a public health system, and more effectively and efficiently use resources while improving health intervention services.

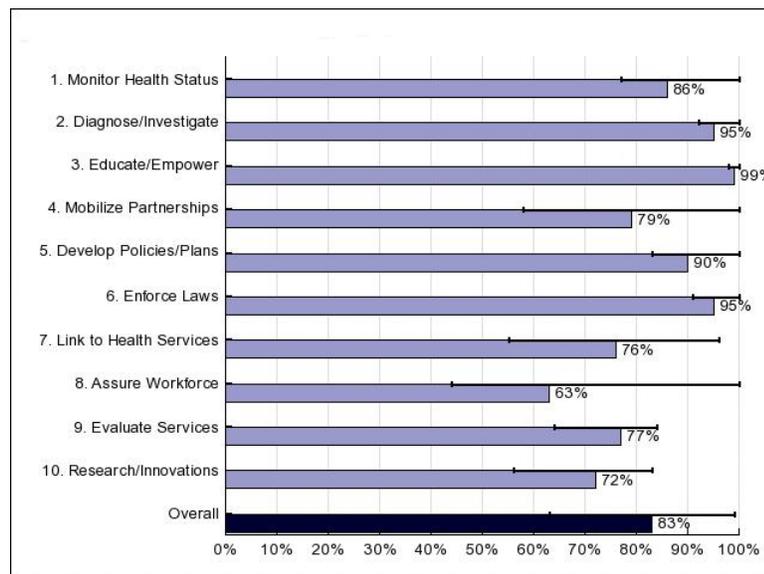
## B. Performance Assessment Instrument Results

### I. How well did the system perform the ten Essential Public Health Services (EPHS)?

**Table 1:** Summary of performance scores by Essential Public Health Service (EPHS)

EPHS	Score
1 Monitor Health Status to Identify Community Health Problems	86
2 Diagnose and Investigate Health Problems and Health Hazards	95
3 Inform, Educate, and Empower People about Health Issues	99
4 Mobilize Community Partnerships to Identify and Solve Health Problems	79
5 Develop Policies and Plans that Support Individual and Community Health Efforts	90
6 Enforce Laws and Regulations that Protect Health and Ensure Safety	95
7 Link People to Needed Personal Health Services and Assure the Provision of Health Care when Otherwise Unavailable	76
8 Assure a Competent Public and Personal Health Care Workforce	63
9 Evaluate Effectiveness, Accessibility, and Quality of Personal and Population-Based Health Services	77
10 Research for New Insights and Innovative Solutions to Health Problems	72
Overall Performance Score	83

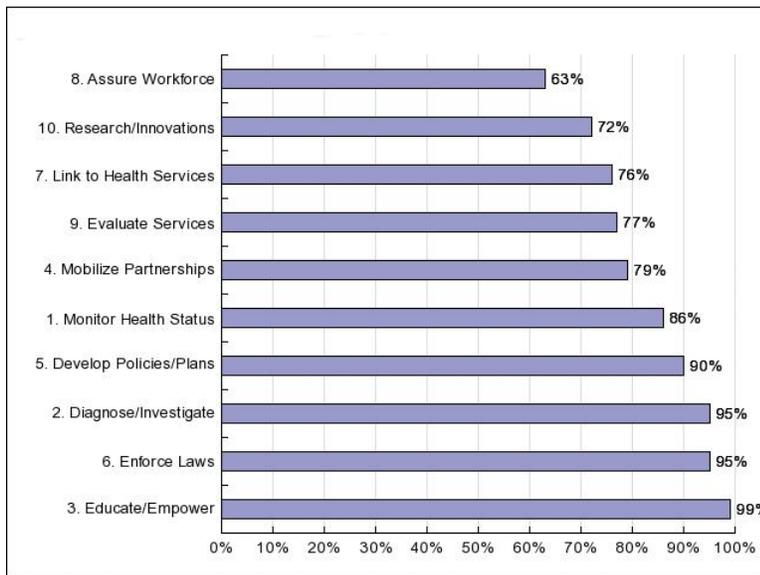
**Figure 1:** Summary of EPHS performance scores and overall score (with range)



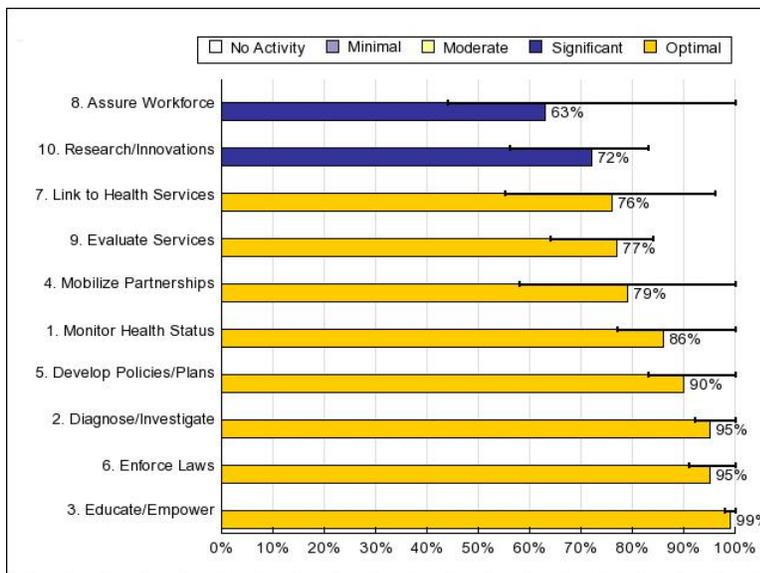
**Table 1** (above) provides a quick overview of the system's performance in each of the 10 Essential Public Health Services (EPHS). Each EPHS score is a composite value determined by the scores given to those activities that contribute to each Essential Service. These scores range from a minimum value of 0% (absolutely no activity is performed pursuant to the standards) to a maximum of 100% (all activities associated with the standards are performed at optimal levels).

**Figure 1** (above) displays performance scores for each Essential Service along with an overall score that indicates the average performance level across all 10 Essential Services. The range bars show the minimum and maximum values of responses within the Essential Service and an overall score. Areas of wide range may warrant a closer look in **Figure 4** or the raw data.

**Figure 2:** Rank ordered performance scores for each Essential Service



**Figure 3:** Rank ordered performance scores for each Essential Service, by level of activity



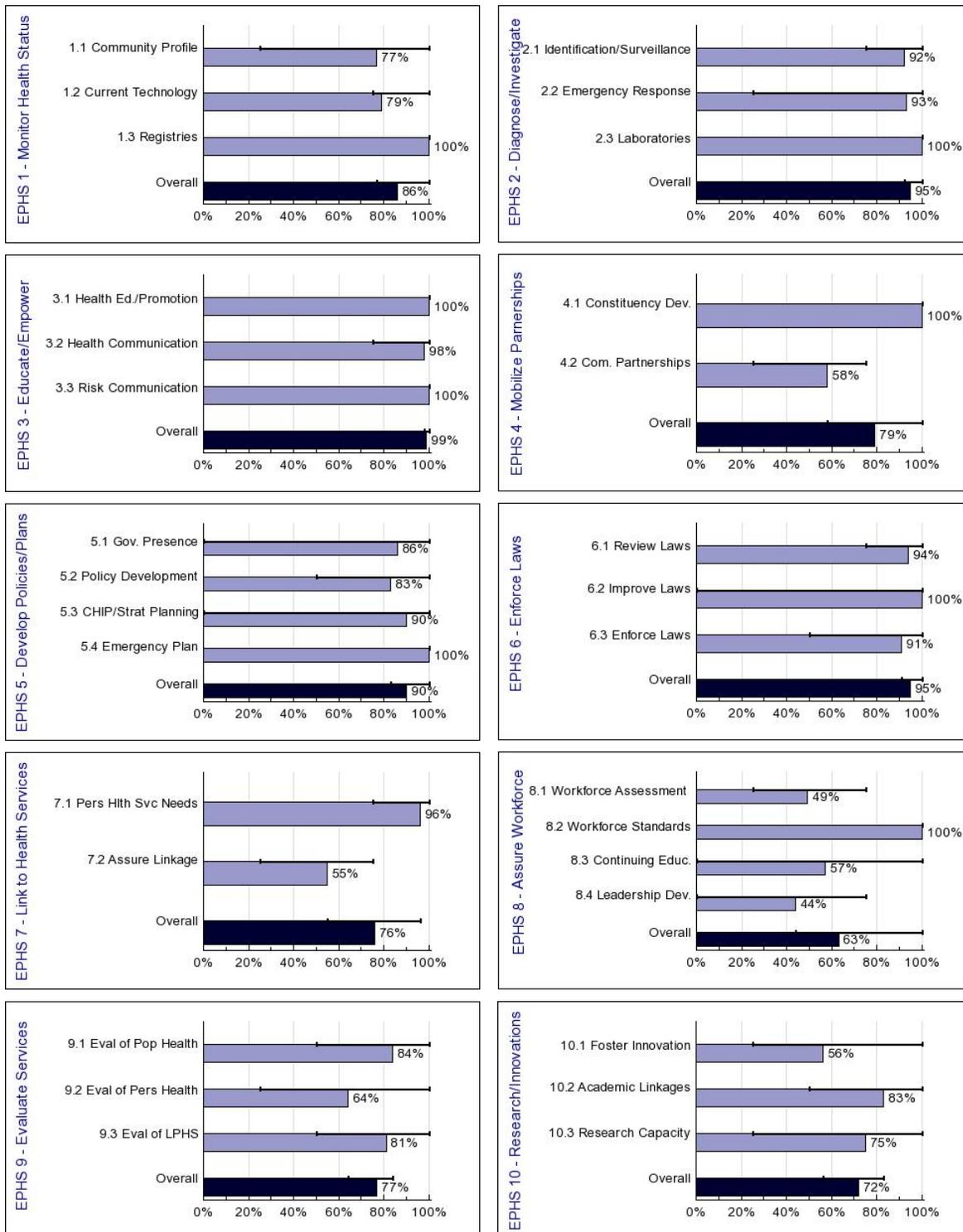
**Figure 2** (above) displays each composite score from low to high, allowing easy identification of service domains where performance is relatively strong or weak.

**Figure 3** (above) provides a composite picture of the previous two graphs. The range lines show the range of responses within an Essential Service. The color coded bars make it easier to identify which of the Essential Services fall in the five categories of performance activity.

**Figure 4** (next page) shows scores for each model standard. Sites can use these graphs to pinpoint specific activities within the Essential Service that may need a closer look. Note these scores also have range bars, showing sub-areas that comprise the model standard.

## II. How well did the system perform on specific model standards?

**Figure 4:** Performance scores for each model standard, by Essential Service



**Table 2:** Summary of performance scores by Essential Public Health Service (EPHS) and model standard

Essential Public Health Service	Score
EPHS 1. Monitor Health Status To Identify Community Health Problems	86
1.1 Population-Based Community Health Profile (CHP)	77
1.1.1 Community health assessment	75
1.1.2 Community health profile (CHP)	75
1.1.3 Community-wide use of community health assessment or CHP data	100
1.2 Access to and Utilization of Current Technology to Manage, Display, Analyze and Communicate Population Health Data	79
1.2.1 State-of-the-art technology to support health profile databases	100
1.2.2 Access to geocoded health data	75
1.2.3 Use of computer-generated graphics	75
1.3 Maintenance of Population Health Registries	100
1.3.1 Maintenance of and/or contribution to population health registries	100
1.3.2 Use of information from population health registries	100
EPHS 2. Diagnose And Investigate Health Problems and Health Hazards	95
2.1 Identification and Surveillance of Health Threats	92
2.1.1 Surveillance system(s) to monitor health problems and identify health threats	100
2.1.2 Submission of reportable disease information in a timely manner	100
2.1.3 Resources to support surveillance and investigation activities	75
2.2 Investigation and Response to Public Health Threats and Emergencies	93
2.2.1 Written protocols for case finding, contact tracing, source identification, and containment	100
2.2.2 Current epidemiological case investigation protocols	100
2.2.3 Designated Emergency Response Coordinator	100
2.2.4 Rapid response of personnel in emergency / disasters	75
2.2.5 Evaluation of public health emergency response	100
2.3 Laboratory Support for Investigation of Health Threats	100
2.3.1 Ready access to laboratories for routine diagnostic and surveillance needs	100
2.3.2 Ready access to laboratories for public health threats, hazards, and emergencies	100
2.3.3 Licenses and/or credentialed laboratories	100
2.3.4 Maintenance of guidelines or protocols for handling laboratory samples	100
EPHS 3. Inform, Educate, And Empower People about Health Issues	99
3.1 Health Education and Promotion	100
3.1.1 Provision of community health information	100
3.1.2 Health education and/or health promotion campaigns	100
3.1.3 Collaboration on health communication plans	100
3.2 Health Communication	98
3.2.1 Development of health communication plans	100
3.2.2 Relationships with media	100
3.2.3 Designation of public information officers	100
3.3 Risk Communication	100
3.3.1 Emergency communications plan(s)	100
3.3.2 Resources for rapid communications response	100
3.3.3 Crisis and emergency communications training	100
3.3.4 Policies and procedures for public information officer response	100

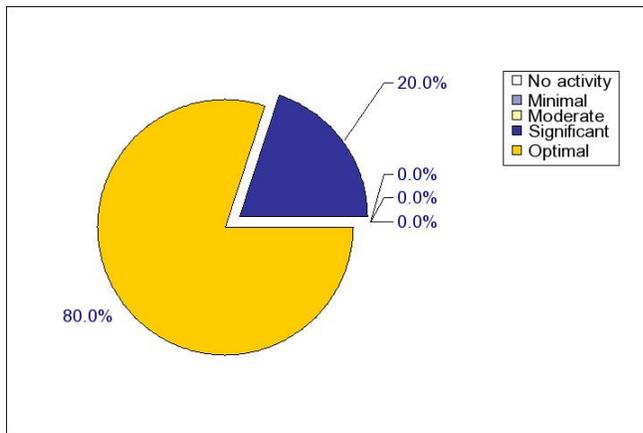
EPHS 4. Mobilize Community Partnerships to Identify and Solve Health Problems	79
4.1 Constituency Development	100
4.1.1 Identification of key constituents or stakeholders	100
4.1.2 Participation of constituents in improving community health	100
4.1.3 Directory of organizations that comprise the LPHS	100
4.1.4 Communications strategies to build awareness of public health	100
4.2 Community Partnerships	58
4.2.1 Partnerships for public health improvement activities	75
4.2.2 Community health improvement committee	75
4.2.3 Review of community partnerships and strategic alliances	25
EPHS 5. Develop Policies and Plans that Support Individual and Community Health Efforts	90
5.1 Government Presence at the Local Level	86
5.1.1 Governmental local public health presence	100
5.1.2 Resources for the local health department	50
5.1.4 LHD work with the state public health agency and other state partners	100
5.2 Public Health Policy Development	83
5.2.1 Contribution to development of public health policies	100
5.2.2 Alert policymakers/public of public health impacts from policies	100
5.2.3 Review of public health policies	50
5.3 Community Health Improvement Process	90
5.3.1 Community health improvement process	100
5.3.2 Strategies to address community health objectives	75
5.3.3 Local health department (LHD) strategic planning process	100
5.4 Plan for Public Health Emergencies	100
5.4.1 Community task force or coalition for emergency preparedness and response plans	100
5.4.2 All-hazards emergency preparedness and response plan	100
5.4.3 Review and revision of the all-hazards plan	100
EPHS 6. Enforce Laws and Regulations that Protect Health and Ensure Safety	95
6.1 Review and Evaluate Laws, Regulations, and Ordinances	94
6.1.1 Identification of public health issues to be addressed through laws, regulations, and ordinances	100
6.1.2 Knowledge of laws, regulations, and ordinances	75
6.1.3 Review of laws, regulations, and ordinances	100
6.1.4 Access to legal counsel	100
6.2 Involvement in the Improvement of Laws, Regulations, and Ordinances	100
6.2.1 Identification of public health issues not addressed through existing laws	100
6.2.2 Development or modification of laws for public health issues	100
6.2.3 Technical assistance for drafting proposed legislation, regulations, or ordinances	100
6.3 Enforce Laws, Regulations and Ordinances	91
6.3.1 Authority to enforce laws, regulation, ordinances	100
6.3.2 Public health emergency powers	100
6.3.3 Enforcement in accordance with applicable laws, regulations, and ordinances	75
6.3.4 Provision of information about compliance	100
6.3.5 Assessment of compliance	75
EPHS 7. Link People to Needed Personal Health Services and Assure the Provision of Health Care when Otherwise Unavailable	76
7.1 Identification of Populations with Barriers to Personal Health Services	96
7.1.1 Identification of populations who experience barriers to care	100
7.1.2 Identification of personal health service needs of populations	100

7.1.3 Assessment of personal health services available to populations who experience barriers to care	100
7.2 Assuring the Linkage of People to Personal Health Services	55
7.2.1 Link populations to needed personal health services	50
7.2.2 Assistance to vulnerable populations in accessing needed health services	50
7.2.3 Initiatives for enrolling eligible individuals in public benefit programs	50
7.2.4 Coordination of personal health and social services	75
EPHS 8. Assure a Competent Public and Personal Health Care Workforce	63
8.1 Workforce Assessment Planning, and Development	49
8.1.1 Assessment of the LPHS workforce	50
8.1.2 Identification of shortfalls and/or gaps within the LPHS workforce	75
8.1.3 Dissemination of results of the workforce assessment / gap analysis	25
8.2 Public Health Workforce Standards	100
8.2.1 Awareness of guidelines and/or licensure/certification requirements	100
8.2.2 Written job standards and/or position descriptions	100
8.2.3 Annual performance evaluations	100
8.2.4 LHD written job standards and/or position descriptions	100
8.2.5 LHD performance evaluations	100
8.3 Life-Long Learning Through Continuing Education, Training, and Mentoring	57
8.3.1 Identification of education and training needs for workforce development	50
8.3.2 Opportunities for developing core public health competencies	25
8.3.3 Educational and training incentives	50
8.3.4 Interaction between personnel from LPHS and academic organizations	75
8.4 Public Health Leadership Development	44
8.4.1 Development of leadership skills	50
8.4.2 Collaborative leadership	75
8.4.3 Leadership opportunities for individuals and/or organizations	50
8.4.4 Recruitment and retention of new and diverse leaders	0
EPHS 9. Evaluate Effectiveness, Accessibility, and Quality of Personal and Population-Based Health Services	77
9.1 Evaluation of Population-based Health Services	84
9.1.1 Evaluation of population-based health services	100
9.1.2 Assessment of community satisfaction with population-based health services	100
9.1.3 Identification of gaps in the provision of population-based health services	100
9.1.4 Use of population-based health services evaluation	50
9.2 Evaluation of Personal Health Care Services	64
9.2.1. Personal health services evaluation	75
9.2.2 Evaluation of personal health services against established standards	100
9.2.3 Assessment of client satisfaction with personal health services	75
9.2.4 Information technology to assure quality of personal health services	50
9.2.5 Use of personal health services evaluation	25
9.3 Evaluation of the Local Public Health System	81
9.3.1 Identification of community organizations or entities that contribute to the EPHS	100
9.3.2 Periodic evaluation of LPHS	100
9.3.3 Evaluation of partnership within the LPHS	50
9.3.4 Use of LPHS evaluation to guide community health improvements	75
EPHS 10. Research for New Insights and Innovative Solutions to Health Problems	72
10.1 Fostering Innovation	56
10.1.1 Encouragement of new solutions to health problems	75
10.1.2 Proposal of public health issues for inclusion in research agenda	25

10.1.3 Identification and monitoring of best practices	100
10.1.4 Encouragement of community participation in research	25
10.2 Linkage with Institutions of Higher Learning and/or Research	83
10.2.1 Relationships with institutions of higher learning and/or research organizations	100
10.2.2 Partnerships to conduct research	50
10.2.3 Collaboration between the academic and practice communities	100
10.3 Capacity to Initiate or Participate in Research	75
10.3.1 Access to researchers	100
10.3.2 Access to resources to facilitate research	100
10.3.3 Dissemination of research findings	75
10.3.4 Evaluation of research activities	25

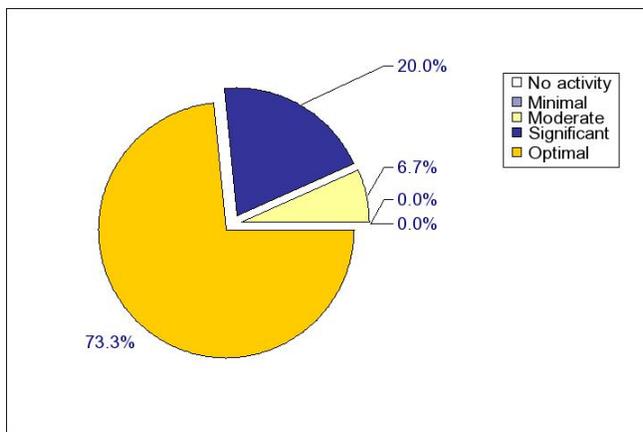
### III. Overall, how well is the system achieving optimal activity levels?

**Figure 5:** Percentage of Essential Services scored in each level of activity



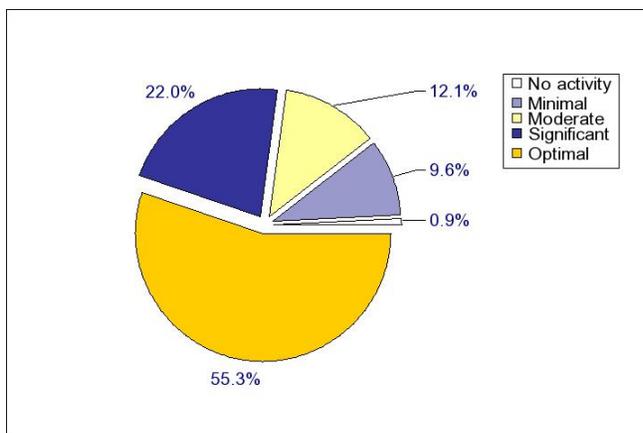
**Figure 5** displays the percentage of the system's Essential Services scores that falls within the five activity categories. This chart provides the site with a high level snapshot of the information found in **Figure 3**.

**Figure 6:** Percentage of model standards scored in each level of activity



**Figure 6** displays the percentage of the system's model standard scores that falls within the five activity categories.

**Figure 7:** Percentage of all questions scored in each level of activity



**Figure 7** displays the percentage of all scored questions that falls within the five activity categories. This breakdown provides a closer snapshot of the system's performance, showing variation that may be masked by the scores in **Figures 5 and 6**.

### **C. Optional Priority Rating Results**

**What are potential areas for attention, based on the priority ratings and performance scores?**

**Tables 3 and 4** show priority ratings (as rated by participants on a 1-10 scale, with 10 being the highest) and performance scores for Essential Services and model standards, arranged under the four quadrants in **Figures 8 and 9**, which follow the tables. The four quadrants, which are based on how the performance of each Essential Service and/or model standard compares with the priority rating, should provide guidance in considering areas for attention and next steps for performance improvement.

**Table 3:** Essential Service by priority rating and performance score, with areas for attention

Essential Service	Priority Rating	Performance Score (level of activity)
<b>Quadrant I (High Priority/Low Performance) – These important activities may need increased attention.</b>		
<b>Quadrant II (High Priority/High Performance) – These activities are being done well, and it is important to maintain efforts.</b>		
2. Diagnose And Investigate Health Problems and Health Hazards	9	95 (Optimal)
3. Inform, Educate, And Empower People about Health Issues	9	99 (Optimal)
4. Mobilize Community Partnerships to Identify and Solve Health Problems	9	79 (Optimal)
5. Develop Policies and Plans that Support Individual and Community Health Efforts	9	90 (Optimal)
6. Enforce Laws and Regulations that Protect Health and Ensure Safety	9	95 (Optimal)
<b>Quadrant III (Low Priority/High Performance) – These activities are being done well, but the system can shift or reduce some resources or attention to focus on higher priority activities.</b>		
1. Monitor Health Status To Identify Community Health Problems	8	86 (Optimal)
7. Link People to Needed Personal Health Services and Assure the Provision of Health Care when Otherwise Unavailable	8	76 (Optimal)
9. Evaluate Effectiveness, Accessibility, and Quality of Personal and Population-Based Health Services	8	77 (Optimal)
<b>Quadrant IV (Low Priority/Low Performance) – These activities could be improved, but are of low priority. They may need little or no attention at this time.</b>		
8. Assure a Competent Public and Personal Health Care Workforce	8	63 (Significant)
10. Research for New Insights and Innovative Solutions to Health Problems	7	72 (Significant)

**Table 4:** Model standards by priority and performance score, with areas for attention

Model Standard	Priority Rating	Performance Score (Level of Activity)
<b>Quadrant I (High Priority/Low Performance) – These important activities may need increased attention.</b>		
4.2 Community Partnerships	9	58 (Significant)
8.3 Life-Long Learning Through Continuing Education, Training, and Mentoring	9	57 (Significant)
<b>Quadrant II (High Priority/High Performance) – These activities are being done well, and it is important to maintain efforts.</b>		
1.1 Population-Based Community Health Profile (CHP)	9	77 (Optimal)
2.1 Identification and Surveillance of Health Threats	9	92 (Optimal)
2.2 Investigation and Response to Public Health Threats and Emergencies	9	93 (Optimal)
3.1 Health Education and Promotion	9	100 (Optimal)
3.2 Health Communication	10	98 (Optimal)
3.3 Risk Communication	9	100 (Optimal)
5.1 Governmental Presence at the Local Level	9	86 (Optimal)
5.4 Plan for Public Health Emergencies	10	100 (Optimal)
6.1 Review and Evaluation of Laws, Regulations, and Ordinances	9	94 (Optimal)
6.3 Enforcement of Laws, Regulations, and Ordinances	10	91 (Optimal)
8.2 Public Health Workforce Standards	9	100 (Optimal)
9.3 Evaluation of the Local Public Health System	9	81 (Optimal)
<b>Quadrant III (Low Priority/High Performance) – These activities are being done well, but the system can shift or reduce some resources or attention to focus on higher priority activities.</b>		
1.2 Current Technology to Manage and Communicate Population Health Data	8	79 (Optimal)
1.3 Maintenance of Population Health Registries	7	100 (Optimal)
2.3 Laboratory Support for Investigation of Health Threats	8	100 (Optimal)
4.1 Constituency Development	8	100 (Optimal)
5.2 Public Health Policy Development	8	83 (Optimal)
5.3 Community Health Improvement Process and Strategic Planning	8	90 (Optimal)
6.2 Involvement in the Improvement of Laws, Regulations, and Ordinances	8	100 (Optimal)
7.1 Identification of Personal Health Service Needs of Populations	8	96 (Optimal)
9.1 Evaluation of Population-Based Health Services	8	84 (Optimal)
10.2 Linkage with Institutions of Higher Learning and/or Research	7	83 (Optimal)
<b>Quadrant IV (Low Priority/Low Performance) – These activities could be improved, but are of low priority. They may need little or no attention at this time.</b>		
7.2 Assuring the Linkage of People to Personal Health Services	8	55 (Significant)
8.1 Workforce Assessment, Planning, and Development	6	49 (Moderate)
8.4 Public Health Leadership Development	8	44 (Moderate)
9.2 Evaluation of Personal Health Services	8	64 (Significant)
10.1 Fostering Innovation	8	56 (Significant)
10.3 Capacity to Initiate or Participate in Research	7	75 (Significant)

**Figures 8 and 9** (below) display Essential Services and model standards data within the following four categories using adjusted priority rating data:

**Quadrant I** (High Priority/Low Performance) – These important activities may need increased attention.

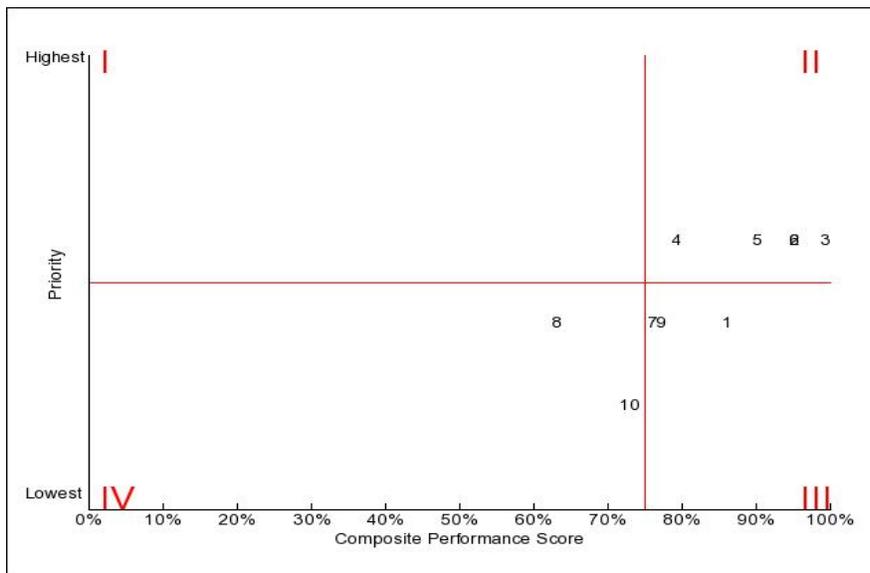
**Quadrant II** (High Priority/High Performance) – These activities are being done well, and it is important to maintain efforts.

**Quadrant III** (Low Priority/High Performance) – These activities are being done well, but the system can shift or reduce some resources or attention to focus on higher priority activities.

**Quadrant IV** (Low Priority/Low Performance) – These activities could be improved, but are of low priority. They may need little or no attention at this time.

The priority data are calculated based on the percentage standard deviation from the mean. Performance scores in the "optimal" range (76 or above) are displayed in the "high" performance quadrants. All other levels are displayed in the "low" performance quadrants. Essential Service data are calculated as a mean of model standard ratings within each Essential Service. In cases where performance scores and priority ratings are identical or very close, the numbers in these figures may overlap. To distinguish any overlapping numbers, please refer to the raw data or Table 4.

**Figure 8:** Scatter plot of Essential Service scores and priority ratings



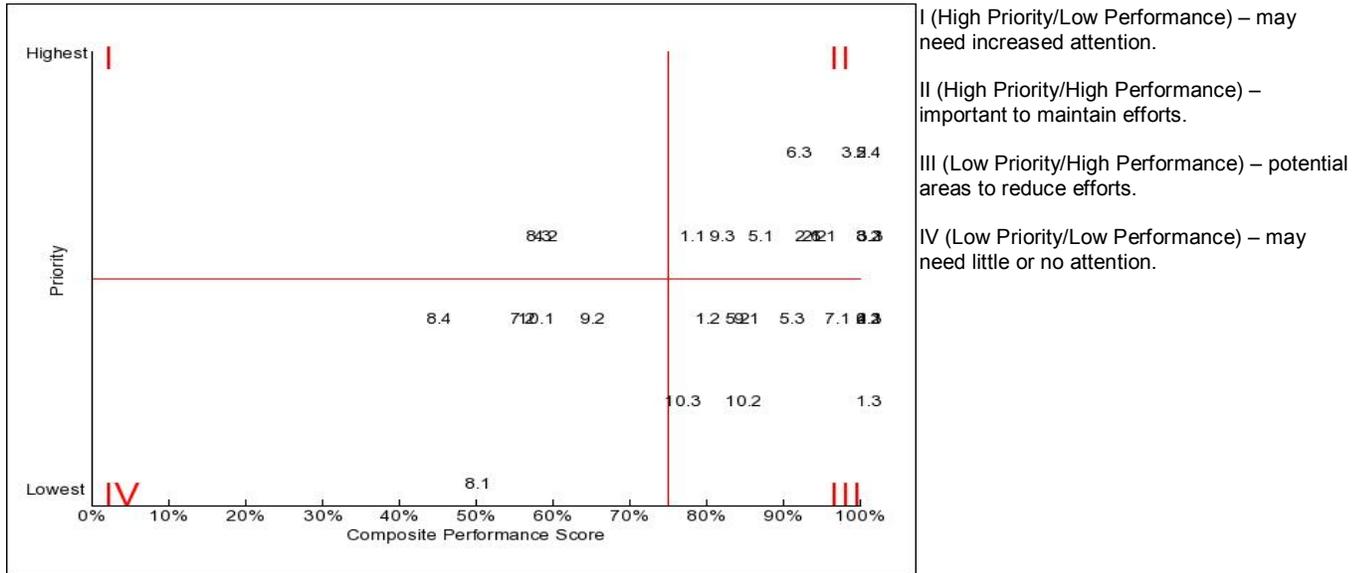
I (High Priority/Low Performance) – may need increased attention.

II (High Priority/High Performance) – important to maintain efforts.

III (Low Priority/High Performance) – potential areas to reduce efforts.

IV (Low Priority/Low Performance) – may need little or no attention.

**Figure 9:** Scatter plot of model standards scores and priority ratings



## **D. Optional agency contribution results**

**How much does the Local Health Department contribute to the system's performance, as perceived by assessment participants?**

**Tables 5 and 6** (below) display Essential Services and model standards arranged by Local Health Department (LHD) contribution (Highest to Lowest) and performance score. Sites may want to consider the questions listed before these tables to further examine the relationship between the system and Department in achieving Essential Services and model standards. Questions to consider are suggested based on the four categories or "quadrants" displayed in **Figures 10 and 11**.

<b>Quadrant</b>		<b>Questions to Consider</b>
<b>I.</b>	<b>Low Performance/High Department Contribution</b>	<ul style="list-style-type: none"> <li>• Is the Department's level of effort truly high, or do they just do more than anyone else?</li> <li>• Is the Department effective at what it does, and does it focus on the right things?</li> <li>• Is the level of Department effort sufficient for the jurisdiction's needs?</li> <li>• Should partners be doing more, or doing different things?</li> <li>• What else within or outside of the Department might be causing low performance?</li> </ul>
<b>II.</b>	<b>High Performance/High Department Contribution</b>	<ul style="list-style-type: none"> <li>• What does the Department do that may contribute to high performance in this area? Could any of these strategies be applied to other areas?</li> <li>• Is the high Department contribution appropriate, or is the Department taking on what should be partner responsibilities?</li> <li>• Could the Department do less and maintain satisfactory performance?</li> </ul>
<b>III.</b>	<b>High Performance/Low Department Contribution</b>	<ul style="list-style-type: none"> <li>• Who are the key partners that contribute to this area? What do they do that may contribute to high performance? Could any of these strategies be applied to other areas?</li> <li>• Does the low Department contribution seem right for this area, or are partners picking up slack for Department responsibilities?</li> <li>• Does the Department provide needed support for partner efforts?</li> <li>• Could the key partners do less and maintain satisfactory performance?</li> </ul>
<b>IV.</b>	<b>Low Performance/Low Department Contribution</b>	<ul style="list-style-type: none"> <li>• Who are the key partners that contribute to this area? Are their contributions truly high, or do they just do more than the Department?</li> <li>• Is the total level of effort sufficient for the jurisdiction's needs?</li> <li>• Are partners effective at what they do, and do they focus on the right things?</li> <li>• Does the low Department contribution seem right for this area, or is it likely to be contributing to low performance?</li> <li>• Does the Department provide needed support for partner efforts?</li> <li>• What else might be causing low performance?</li> </ul>

**Table 5:** Essential Service by perceived LHD contribution and score

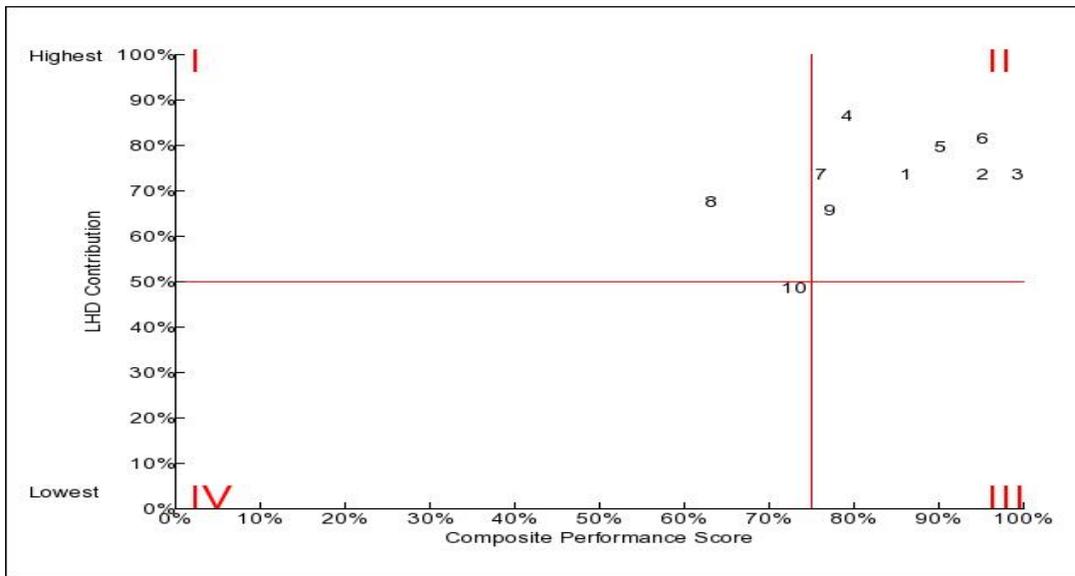
Essential Service	LHD Contribution	Performance Score	Consider Questions for:
1. Monitor Health Status To Identify Community Health Problems	75%	Optimal (86)	Quadrant II
2. Diagnose And Investigate Health Problems and Health Hazards	75%	Optimal (95)	Quadrant II
3. Inform, Educate, And Empower People about Health Issues	75%	Optimal (99)	Quadrant II
4. Mobilize Community Partnerships to Identify and Solve Health Problems	88%	Optimal (79)	Quadrant II
5. Develop Policies and Plans that Support Individual and Community Health Efforts	81%	Optimal (90)	Quadrant II
6. Enforce Laws and Regulations that Protect Health and Ensure Safety	83%	Optimal (95)	Quadrant II
7. Link People to Needed Personal Health Services and Assure the Provision of Health Care when Otherwise Unavailable	75%	Optimal (76)	Quadrant II
8. Assure a Competent Public and Personal Health Care Workforce	69%	Significant (63)	Quadrant I
9. Evaluate Effectiveness, Accessibility, and Quality of Personal and Population-Based Health Services	67%	Optimal (77)	Quadrant II
10. Research for New Insights and Innovative Solutions to Health Problems	50%	Significant (72)	Quadrant I

**Table 6:** Model standards by perceived LHD contribution and score

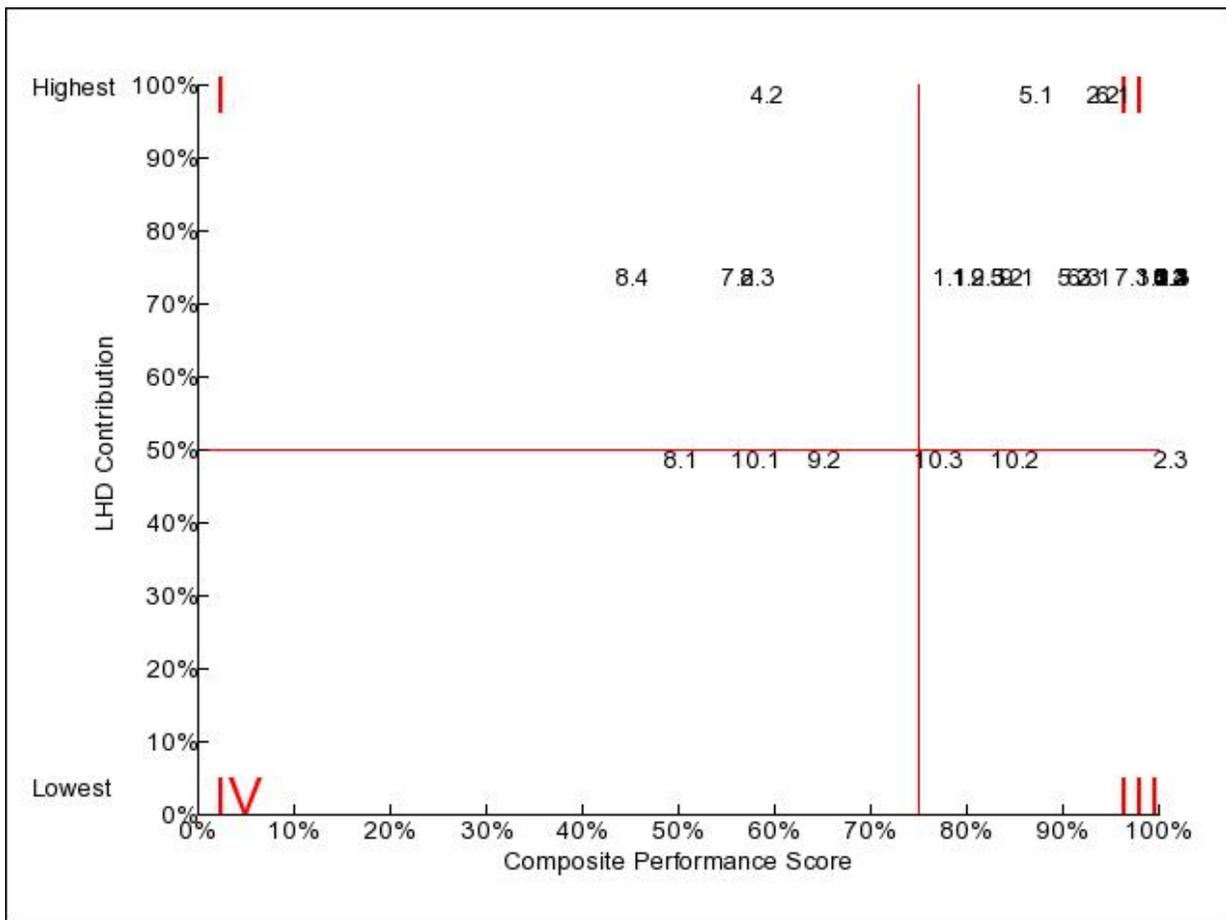
Model Standard	LHD Contribution	Performance Score	Consider Questions for:
1.1 Population-Based Community Health Profile (CHP)	75%	Optimal (77)	Quadrant II
1.2 Current Technology to Manage and Communicate Population Health Data	75%	Optimal (79)	Quadrant II
1.3 Maintenance of Population Health Registries	75%	Optimal (100)	Quadrant II
2.1 Identification and Surveillance of Health Threats	75%	Optimal (92)	Quadrant II
2.2 Investigation and Response to Public Health Threats and Emergencies	100%	Optimal (93)	Quadrant II
2.3 Laboratory Support for Investigation of Health Threats	50%	Optimal (100)	Quadrant II
3.1 Health Education and Promotion	75%	Optimal (100)	Quadrant II
3.2 Health Communication	75%	Optimal (98)	Quadrant II
3.3 Risk Communication	75%	Optimal (100)	Quadrant II
4.1 Constituency Development	75%	Optimal (100)	Quadrant II
4.2 Community Partnerships	100%	Significant (58)	Quadrant I
5.1 Governmental Presence at the Local Level	100%	Optimal (86)	Quadrant II
5.2 Public Health Policy Development	75%	Optimal (83)	Quadrant II
5.3 Community Health Improvement Process and Strategic Planning	75%	Optimal (90)	Quadrant II
5.4 Plan for Public Health Emergencies	75%	Optimal (100)	Quadrant II
6.1 Review and Evaluation of Laws, Regulations, and Ordinances	100%	Optimal (94)	Quadrant II
6.2 Involvement in the Improvement of Laws, Regulations, and Ordinances	75%	Optimal (100)	Quadrant II
6.3 Enforcement of Laws, Regulations, and Ordinances	75%	Optimal (91)	Quadrant II
7.1 Identification of Personal Health Service Needs of Populations	75%	Optimal (96)	Quadrant II
7.2 Assuring the Linkage of People to Personal Health Services	75%	Significant (55)	Quadrant I
8.1 Workforce Assessment, Planning, and Development	50%	Moderate (49)	Quadrant I
8.2 Public Health Workforce Standards	75%	Optimal (100)	Quadrant II
8.3 Life-Long Learning Through Continuing Education, Training, and Mentoring	75%	Significant (57)	Quadrant I
8.4 Public Health Leadership Development	75%	Moderate (44)	Quadrant I
9.1 Evaluation of Population-Based Health Services	75%	Optimal (84)	Quadrant II
9.2 Evaluation of Personal Health Services	50%	Significant (64)	Quadrant I
9.3 Evaluation of the Local Public Health System	75%	Optimal (81)	Quadrant II
10.1 Fostering Innovation	50%	Significant (56)	Quadrant I
10.2 Linkage with Institutions of Higher Learning and/or Research	50%	Optimal (83)	Quadrant II
10.3 Capacity to Initiate or Participate in Research	50%	Significant (75)	Quadrant I

**Figure 10:** Scatter plot of Essential Service scores and LHD contribution scores

Essential Service data are calculated as a mean of model standard ratings within each Essential Service.



**Figure 11:** Scatter plot of model standard scores and LHD contribution scores



## **APPENDIX: RESOURCES FOR NEXT STEPS**

The NPHPSP offers a variety of information, technical assistance, and training resources to assist in quality improvement activities. Descriptions of these resources are provided below. Other resources and websites that may be of particular interest to NPHPSP users are also noted below.

- **Technical Assistance and Consultation** - NPHPSP partners are available for phone and email consultation to state and localities as they plan for and conduct NPHPSP assessment and performance improvement activities. Contact 1-800-747-7649 or [phpsp@cdc.gov](mailto:phpsp@cdc.gov).
- **NPHPSP User Guide** - The NPHPSP User Guide section, "After We Complete the Assessment, What Next?" describes five essential steps in a performance improvement process following the use of the NPHPSP assessment instruments. The NPHPSP User Guide may be found on the NPHPSP website [www.cdc.gov/od/ocphp/nphpsp](http://www.cdc.gov/od/ocphp/nphpsp).
- **NPHPSP Online Tool Kit** - Additional resources that may be found on, or are linked to, the NPHPSP website ([www.cdc.gov/od/ocphp/nphpsp/](http://www.cdc.gov/od/ocphp/nphpsp/)) under the "Post Assessment/ Performance Improvement" link include sample performance improvement plans, quality improvement and priority-setting tools, and other technical assistance documents and links.
- **NPHPSP Online Resource Center** - Designed specifically for NPHPSP users, the Public Health Foundation's online resource center ([www.phf.org/nphpsp](http://www.phf.org/nphpsp)) for public health systems performance improvement allows users to search for State, Local, and Governance resources by model standard, essential public health service, and keyword. Alternately, users may read or print the resource guides available on this site.
- **NPHPSP Monthly User Calls** - These calls feature speakers and dialogue on topics of interest to users. They also provide an opportunity for people from around the country to learn from each other about various approaches to the NPHPSP assessment and performance improvement process. Calls occur on the third Tuesday of each month, 2:00 – 3:00 ET. Contact [phpsp@cdc.gov](mailto:phpsp@cdc.gov) to be added to the email notification list for the call.
- **Annual Training Workshop** - Individuals responsible for coordinating performance assessment and improvement activities may attend an annual two-day workshop held in the spring of each year. Visit the NPHPSP website ([www.cdc.gov/od/ocphp/nphpsp/](http://www.cdc.gov/od/ocphp/nphpsp/)) for more information.
- **Improving Performance Newsletter** and the **Public Health Infrastructure Resource Center at the Public Health Foundation** - This website ([www.phf.org/performance](http://www.phf.org/performance)) presents tools and resources that can help organizations streamline efforts and get better results. A five minute orientation presentation provides an orientation on how to access quality improvement resources on the site. The website also includes information about the Improving Performance Newsletter, which contains lessons from the field, resources, and tips designed to help NPHPSP users with their performance management efforts. Read past issues or sign up for future issues at: [www.phf.org/performance](http://www.phf.org/performance).
- **Mobilizing for Action through Planning and Partnerships (MAPP)** - MAPP has proven to be a particularly helpful tool for sites engaged in community-based health improvement planning. Systems that have just completed the NPHPSP may consider using the MAPP process as a way to launch their performance improvement efforts. Go to [www.naccho.org/topics/infrastructure/MAPP](http://www.naccho.org/topics/infrastructure/MAPP) to link directly to the MAPP website.