ACKNOWLEDGEMENTS

We would like to thank Allyson Rothrock, Interim Executive Director of The Harvest Foundation and Leonard Dawson, health research consultant to The Harvest Foundation, for their guidance and support during this research project. Thanks also to Harry Cerino, Executive Director of The Harvest Foundation, and to the members of the Board of Directors of The Harvest Foundation for their interest in and support of these first steps on behalf of their mission to better the lives of the citizens of Martinsville City and Henry County. We also appreciate the efforts of our colleagues at the Survey and Evaluation Research Laboratory who helped us administer the project and made the thousands of telephone calls necessary to contact our respondents. Finally, and most importantly, our sincere thanks go to the 2,122 citizens of Martinsville City and Henry County who took the time to answer to our survey questions.
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EXECUTIVE SUMMARY

- In order to assess the current health status of Henry County and Martinsville City residents, the Harvest Foundation collaborated with the Survey and Evaluation Research Laboratory (SERL) to conduct a revised version of the Behavioral Risk Factor Surveillance Survey (BRFSS) in the spring of 2003.

- The study was completed with 1,305 Henry County residents and 817 Martinsville City residents.

- Results from the study have been compared to the national health objectives described in Healthy People 2010. The goal of the Healthy People 2010 objectives is to improve the quality and years of life for all people and eliminate health disparities among different segments of the population. Throughout this report, data from Henry County and Martinsville City are referred to as the Harvest Area data.

- Throughout this report, the Harvest Area data are said to be better than the Healthy People 2010 goals if the Harvest Area survey percentages are more favorable than or equal to the Healthy People 2010 goal percentages. For example, because only 10% of the Harvest Area respondents had a loaded and unlocked firearm in their home and the Healthy People 2010 goal is 16%, the Harvest Area is better than Healthy People 2010 on loaded and unlocked firearms (the lower percentage is the more favorable one). By the same token, because 81% of the Harvest Area women over 40 years of age reported receiving a mammogram within the last two years and the Healthy People 2010 goal is 70%, the Harvest Area is better than Healthy People 2010 on women over 40 who reported receiving a mammogram within the last two years (in this comparison, the higher percentage is the more favorable one). Similarly, the Harvest Area data are said to be worse than the Healthy People 2010 goals if the Harvest Area data are less favorable than the Healthy People 2010 goals.

- Health Care: Henry County and Martinsville City (referred to as the Harvest Area throughout this report) are worse than the Healthy People 2010 goal for adults that have health insurance and a primary care provider.

- Heart Disease and Stroke: The Harvest Area is worse than the Healthy People 2010 goal for the percentage of adults who report having a healthy blood pressure and blood cholesterol levels. The area is worse than the Healthy People 2010 goal for adults who had their cholesterol checked within the preceding five years.

- Cancer: The Harvest Area is better than the Healthy People 2010 goals for colorectal cancer screening and mammogram objectives, but the Harvest Area is worse than the Healthy People 2010 goal for cervical cancer objectives. More Harvest Area women over 40 have received a mammogram within the preceding two years than the Healthy People 2010 goal, but fewer women have received a pap smear test within the last three years than the Healthy People 2010 goal. The area is also above the Healthy People goal for the percentage of adults over 50 who have received a colorectal cancer screening examination.
• **Weight Control and Exercise:** The Harvest Area is **worse than** the Healthy People 2010 healthy weight and physical activity goals.

• **Alcohol and Tobacco:** The Harvest Area is **worse than** the Healthy People 2010 goals for alcohol and tobacco. To reach the Healthy People 2010 goal, the Harvest Area needs to reduce the percentage of adults who engage in binge drinking, use cigarettes, cigars and smokeless tobacco products, and increase the number of smoking cessation attempts.

• **Arthritis:** The Harvest Area is **worse than** the Healthy People 2010 arthritis goals. The Harvest Area needs to decrease the number of people with arthritis who experience a limitation in activity and increase the employment rate among the working age population who has arthritis to meet the Healthy People 2010 goals.

• **Diabetes:** The Harvest Area is **better than** the Healthy People 2010 goal for the percentage of adults with diabetes who self-monitor their blood glucose at least daily. The Harvest Area is **worse than** the other Healthy People 2010 objectives for diabetes. To reach the other Healthy People 2010 goals regarding diabetes, the Harvest Area needs to increase the percent that receive formal diabetes education, have an annual dilated eye examination, and have an annual foot examination.

• **Immunization:** The Harvest Area is **worse than** the Healthy People 2010 goal for immunizations. To reach the goal the Harvest Area needs to increase the percentage of adults over the age of 65 that have a yearly flu vaccine and who have ever had a pneumonia vaccine.

• **Education:** The Harvest Area is **worse than** the Healthy People 2010 high school graduation goal.

• **Oral Health:** The Harvest Area is **better than** the Healthy People 2010 goal for adults who use the oral health care system each year, have an exam to detect for oral cancer, and for adults between 35-44 who have never had a tooth removed because of tooth decay or gum disease. The Harvest Area needs to reduce the percentage of adults between the ages of 65 and 74 who have had all of their natural teeth extracted to obtain the Healthy People 2010 goal.

• **Prenatal Care:** The Harvest Area is **better than** most of the Healthy People 2010 prenatal goals. A higher percentage of women in the Harvest Area received prenatal care in their first trimester and did not drink alcohol or use street drugs during pregnancy than the Healthy People 2010 goals. The Harvest Area is **worse than** the Healthy People 2010 goal on the percentage of women who smoke during pregnancy.

• **Violence and Injury Prevention:** The Harvest Area is **better than** the Healthy People 2010 goal for the number of homes that do not have an unlocked and loaded firearm. The Harvest Area is close to meeting the Healthy People 2010 goal of 100% of households having a functioning smoke alarm and 100% of children under the age of 4 who are restrained while riding in a vehicle.
Differences by Race

- A higher percentage of white respondents had health insurance (85%) compared to non-white respondents (75%).

- A higher percentage of white male respondents over the age of 40 had ever had a digital rectal exam (86%) compared to non-white male respondents over the age of 40 (70%).

- A higher percentage of white respondents over the age of 50 had ever had a blood stool kit test (39%) and ever had a colonoscopy (58%) compared to non-white respondents over the age of 40 (28% blood stool kit test; 37% colonoscopy).

- A higher percentage of white respondents age 65 and older had a flu shot in the last year (76% white; 43% non-white) and a higher percentage of white respondents age 65 and older had ever had a pneumonia shot (63% white; 32% non-white).

- A higher percentage of white respondents had visited the dentist in the last year (72% white; 62% non-white), had their teeth cleaned in the last year (77% white; 62% non-white), and had a test for oral cancer in the last year (31% white; 20% non-white).

- A higher percentage of white respondents had a firearm in their home (58% white; 33% non-white).

- A higher percentage of non-white respondents were very concerned about their personal safety (30% white; 63% non-white) and were very concerned about their child’s personal safety (77% white; 86% non-white).

Differences by Age

- Younger respondents were more likely to report that their general health was excellent, very good, or good (95% age 18-34; 79% age 35-54; 67% age 55 and older).

- Older respondents were more likely to have high blood pressure (8% age 18-34, 29% age 35-54, 47% age 55 and older) and high cholesterol (13% age 18-34; 32% age 35-54; 46% age 55 and older).

Differences by Gender

- A higher percentage of women are at a healthy weight (28% men; 41% women).

- Men were more likely to have had alcohol in the last 30 days (45% men; 25% women) and were more likely to smoke (32% men; 21% women).

- A higher percentage of women reported having ever been pushed, hit, slapped, kicked, or physically hurt by their partner (6% men; 18% women).
Differences by Education

- Respondents with less than a high school education were more likely to report that their general health was fair or poor (40% less than high school education; 16% high school education or more).

- Respondents with less than a high school education were more likely to have high blood pressure (40% less than high school education; 28% high school education or more) and high cholesterol (42% less than high school education; 33% high school education or more).

- Respondents with less than a high school education were less likely to know the warning signs and symptoms of heart attacks and strokes.
**Table 1. Summary of Harvest Area Data Compared to Healthy People 2010 Goals**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Harvest Area</th>
<th>Virginia BRFSS</th>
<th>Baseline</th>
<th>Healthy People 2010 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health Care Access and Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adults under 65 with health insurance</td>
<td>79%</td>
<td>87%</td>
<td>83%</td>
<td>100%</td>
</tr>
<tr>
<td>Adults with usual primary care provider</td>
<td>82%</td>
<td>86%</td>
<td>77%</td>
<td>85%</td>
</tr>
<tr>
<td><strong>Heart Disease and Stroke</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adults with high blood pressure</td>
<td>31%</td>
<td>25%</td>
<td>28%</td>
<td>16%</td>
</tr>
<tr>
<td>Adults with high blood cholesterol</td>
<td>35%</td>
<td>32%</td>
<td>21%</td>
<td>17%</td>
</tr>
<tr>
<td>Adults who had blood cholesterol checked within last 5 years</td>
<td>78%</td>
<td>73%</td>
<td>67%</td>
<td>80%</td>
</tr>
<tr>
<td><strong>Cancer</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women who ever received a Pap test</td>
<td>96%</td>
<td>94%</td>
<td>92%</td>
<td>97%</td>
</tr>
<tr>
<td>Women who received a Pap test within the last 3 years</td>
<td>87%</td>
<td>84%</td>
<td>79%</td>
<td>90%</td>
</tr>
<tr>
<td>Adults over 50 who received colorectal cancer screening examination</td>
<td>53%</td>
<td>44%</td>
<td>37%</td>
<td>50%</td>
</tr>
<tr>
<td>Women over 40 who received a mammogram within last 2 years</td>
<td>81%</td>
<td>77%</td>
<td>67%</td>
<td>70%</td>
</tr>
<tr>
<td><strong>Weight Control and Exercise</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adults at a healthy weight</td>
<td>35%</td>
<td>44%</td>
<td>42%</td>
<td>60%</td>
</tr>
<tr>
<td>Adults who are obese</td>
<td>25%</td>
<td>18%</td>
<td>23%</td>
<td>15%</td>
</tr>
<tr>
<td>Adults who engage in no leisure time physical activity</td>
<td>32%</td>
<td>25%</td>
<td>40%</td>
<td>20%</td>
</tr>
<tr>
<td>Adults who engage in moderate physical activity 30 minutes a day 5+ days a week</td>
<td>32%</td>
<td>n/a</td>
<td>15%</td>
<td>30%</td>
</tr>
<tr>
<td>Adults who engage in vigorous physical activity for 20 minutes a day 3+ days a week</td>
<td>20%</td>
<td>16%</td>
<td>23%</td>
<td>30%</td>
</tr>
</tbody>
</table>

1 Equal to or Better Than Healthy People 2010 Goal  
2 All reported Virginia percents are from the 2000 BRFSS unless otherwise indicated  
3 Baseline data was collected between 1996 and 2000. Some baseline data have been age adjusted to the 2000 standard population. Additional details on baseline data may be found at [www.healthypeople.gov](http://www.healthypeople.gov)
### 2003 Harvest Behavioral Risk Factor Surveillance Survey

<table>
<thead>
<tr>
<th>Objective</th>
<th>Harvest Area</th>
<th>Virginia BRFSS</th>
<th>Baseline</th>
<th>Healthy People 2010 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alcohol and Tobacco Use</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adults who engage in binge drinking</td>
<td>9%</td>
<td>13% (1999)</td>
<td>17%</td>
<td>6%</td>
</tr>
<tr>
<td>Current smokers</td>
<td>26%</td>
<td>21%</td>
<td>24%</td>
<td>12%</td>
</tr>
<tr>
<td>Current smokeless tobacco users</td>
<td>4%</td>
<td>3%</td>
<td>3%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Current cigar users</td>
<td>6%</td>
<td>n/a</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Smoking cessation attempts by adults</td>
<td>50%</td>
<td>n/a</td>
<td>41%</td>
<td>75%</td>
</tr>
<tr>
<td><strong>Arthritis</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adults with arthritis who experience a limitation in activity</td>
<td>33%</td>
<td>28%</td>
<td>27%</td>
<td>21%</td>
</tr>
<tr>
<td>Employment rate of working age (18-64) adults with arthritis</td>
<td>56%</td>
<td>69%</td>
<td>67%</td>
<td>78%</td>
</tr>
<tr>
<td><strong>Diabetes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetics who received formal diabetes education</td>
<td>39%</td>
<td>38%</td>
<td>45%</td>
<td>60%</td>
</tr>
<tr>
<td>Diabetics who had an annual dilated eye examination</td>
<td>58%</td>
<td>65%</td>
<td>47%</td>
<td>75%</td>
</tr>
<tr>
<td>Diabetics who had an annual foot examination</td>
<td>70%</td>
<td>56%</td>
<td>55%</td>
<td>75%</td>
</tr>
<tr>
<td>Diabetics who self-monitor their blood-glucose at least daily</td>
<td>63%</td>
<td>41%</td>
<td>42%</td>
<td>60%</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed High school</td>
<td>77%</td>
<td>90%</td>
<td>85%</td>
<td>90%</td>
</tr>
<tr>
<td><strong>Immunizations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adults 65+ had influenza vaccine in past 12 months</td>
<td>70%</td>
<td>63%</td>
<td>64%</td>
<td>90%</td>
</tr>
<tr>
<td>Adults 65+ ever had pneumococcal vaccine</td>
<td>56%</td>
<td>64%</td>
<td>46%</td>
<td>90%</td>
</tr>
<tr>
<td>Objective</td>
<td>Harvest Area</td>
<td>Virginia BRFSS</td>
<td>Baseline</td>
<td>Healthy People 2010 Goal</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>--------------</td>
<td>----------------</td>
<td>----------</td>
<td>--------------------------</td>
</tr>
<tr>
<td><strong>Oral Health</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adults 35-44 who never had a tooth removed because of tooth decay or gum disease</td>
<td>43%</td>
<td>63%</td>
<td>31%</td>
<td>42%</td>
</tr>
<tr>
<td>Adults 65-74 who had all natural teeth removed</td>
<td>27%</td>
<td>16%</td>
<td>26%</td>
<td>20%</td>
</tr>
<tr>
<td>Adults in last year who had an exam to detect oral cancer</td>
<td>28%</td>
<td>n/a</td>
<td>13%</td>
<td>20%</td>
</tr>
<tr>
<td>Adults who used oral health care system last year</td>
<td>69%</td>
<td>71%</td>
<td>44%</td>
<td>56%</td>
</tr>
<tr>
<td><strong>Prenatal Care</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Received prenatal care in first trimester</td>
<td>93%</td>
<td>n/a</td>
<td>83%</td>
<td>90%</td>
</tr>
<tr>
<td>Pregnant women who did not drink</td>
<td>97%</td>
<td>n/a</td>
<td>86%</td>
<td>94%</td>
</tr>
<tr>
<td>Pregnant women who did not smoke</td>
<td>84%</td>
<td>n/a</td>
<td>87%</td>
<td>99%</td>
</tr>
<tr>
<td>Pregnant women who did not use street drugs</td>
<td>100%</td>
<td>n/a</td>
<td>98%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Violence and Injury Prevention</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adults in homes with firearms that are loaded and unlocked</td>
<td>10%</td>
<td>n/a</td>
<td>19%</td>
<td>16%</td>
</tr>
<tr>
<td>Children age 4 and under who always use child restraints</td>
<td>96%</td>
<td>n/a</td>
<td>92%</td>
<td>100%</td>
</tr>
<tr>
<td>Functioning smoke alarm</td>
<td>95%</td>
<td>n/a</td>
<td>88%</td>
<td>100%</td>
</tr>
</tbody>
</table>
HARVEST FOUNDATION
BEHAVIORAL RISK FACTOR SURVEILLANCE SURVEY

The Harvest Foundation contracted with the Survey and Evaluation Research Laboratory (SERL) to conduct a random digit dial (RDD), modified Behavioral Risk Factor Surveillance Survey (BRFSS) with adults in Henry County and Martinsville City. Data were collected from March 10, 2003 through April 28, 2003. A total of 2,122 interviews were conducted with 817 Martinsville residents and 1,305 Henry County residents. The data were adjusted prior to analysis to account for disproportionate sampling across the city and county and to better reflect the known demographics of the Harvest Area.

The purpose of the study was to collect data on the actual health behaviors of Henry County and Martinsville City residents. This information will help the Harvest Foundation to plan, initiate, and evaluate health programs. This study will inform the Harvest Foundation about the health status of their community by identifying health risk factors, examining trends, and by comparing the community to the state of Virginia and to Healthy People 2010 benchmarks and goals. This information may then be used to inform resource allocation and monitor the impact of future programs and initiatives. More detailed information about the methodology of the study may be found in Appendix A.

RESULTS

Healthy People 2010 is a set of national health objectives to be achieved by the year 2010. The goal of the objectives is to improve the quality and years of life for all people and eliminate all health disparities among different segments of the population. In the results below, Healthy People 2010 goals are listed to show how Henry County and Martinsville City compare to the national goal. Additional information about Healthy People 2010 may be found at www.healthypeople.gov.

DIFFERENCES BETWEEN MARTINSVILLE CITY AND HENRY COUNTY

Martinsville City and Henry County residents were very similar in their responses to the survey items. There were only a couple of items on which the localities differed by more than a few percentage points. The locations differed by their racial makeup, (Henry County 76% white; Martinsville City 59% white) and the locations differed by the percentage of respondents who had firearms in their home (Henry County 54%; Martinsville City 38%). Because the two localities are overwhelmingly similar, they are treated as one location referred to as the Harvest Area throughout this report.

HARVEST AREA COMPARED TO VIRGINIA BRFSS AND HEALTHY PEOPLE 2010

The demographic profile of the Harvest Area differs from that of Virginia in several ways. The population in the Harvest Area is more likely to be older, to have finished school before graduating from high school or obtaining a GED, to be unemployed, and to have a lower annual income. In comparison to Virginia overall, people in the Harvest Area are more likely to report
having fair or poor health, lacking health insurance, and being unable to afford a doctor. They are more likely to use aspirin daily, have high blood pressure, smoke cigarettes, and have had teeth removed because of tooth decay or gum disease. A lower proportion of people in the Harvest Area are at a healthy weight, but a greater proportion are trying to lose weight, compared to Virginia overall.

Compared to the national goals outlined by Healthy People 2010, the Harvest Area is better than or is close to meeting the Healthy People 2010 objectives for cancer prevention, prenatal care, violence and injury prevention, and oral health. The Harvest Area is worse than the Healthy People 2010 goals for health care access, heart disease and stroke prevention, exercise and weight control, alcohol and tobacco use, arthritis, diabetes, immunizations, and education.

**DEMOGRAPHICS**

Respondents in the Harvest Area are similar to Virginia BRFSS respondents in terms of race (white and non-white), marital status, and gender (Figure 1). Respondents in the Harvest Area differ from Virginia BRFSS respondents in terms of age (36% in the Harvest Area were age 55 or over compared to 27% in Virginia), education (22% in the Harvest Area have less than a high school education compared to 10% in Virginia), employment status (58% in the Harvest Area are employed compared to 70% in Virginia, but note this comparison is for 2003 in the Harvest Area and 2000 for Virginia overall), and household income (40% in the Harvest Area have an annual household income of less than $25,000 compared to 23% in Virginia). See Figure 2 for these data. The Healthy People 2010 goal is to have a high school graduation rate of 90%.


**HEALTH STATUS AND HEALTH CARE ACCESS**

**Health Status:** All respondents were asked to rate their general health (Figure 3). Residents in the Harvest Area were more likely to rate their health as fair or poor (21%) compared to residents in Virginia (13%). A lower percentage of residents in the Harvest Area reported zero days that their physical or mental health kept them from doing their usual activities (59%) compared to Virginia (67%), as shown in Figure 4.

![Figure 3. Would you say that in general your health is...](image)

![Figure 4. Number of Days on Which Poor Physical or Mental Health Kept You From Your Usual Activities](image)

**Health Care Access:** The majority of Harvest Area respondents (82%) stated they have some type of health care coverage such as health insurance, prepaid plans such as HMOs, or government plans such as Medicare. In the state of Virginia, 89% of those surveyed in the 2000 BRFSS stated they had health care coverage. The Healthy People 2010 goal is for all people to be covered by health insurance. The majority of Harvest residents (82%) had at least one person whom they thought of as their personal doctor or health care provider. The Healthy People 2010 goal is for 85% to have a usual primary care provider. A larger proportion of Harvest Area respondents (16%) than Virginia BRFSS respondents (9%) stated that sometime in the past year they needed to see a doctor but could not because of the cost (Figure 5).

![Figure 5. Health Care Access](image)
HEART DISEASE AND STROKE

Hypertension Awareness: In the Harvest Area, 31%\(^5\) stated they had been told by a doctor, nurse, or other health professional that their blood pressure was high compared to 25% of the Virginia BRFSS respondents. The Healthy People 2010 goal is to reduce the percentage of adults with high blood pressure to 16%. Figure 6 shows these data. Additional analysis showed that, of those with high blood pressure in the Harvest Area, 81% are taking medicine for their elevated blood pressure.

Cholesterol Awareness: The majority of Harvest Area (78%) and Virginia BRFSS (73%) respondents stated that they had their blood cholesterol checked within the past five years. Of those who had their cholesterol level checked, 35% in the Harvest Area and 32% in Virginia were told by a doctor, nurse, or other health professional that their cholesterol level was high. The Healthy People 2010 goal is to increase the percentage of adults checking their blood cholesterol level within the last five years to 80% and to decrease the percentage of adults who have been told they have high blood cholesterol levels to 17%. See Figure 6 for these data.

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\(^5\) In the Harvest study, unlike the statewide study, females who indicated they had high blood pressure were asked if they were told they had high blood pressure only during pregnancy. Only 1% of the Harvest females said their high blood pressure was during pregnancy. Females with high blood pressure during pregnancy are included in the total percent reporting high blood pressure to maintain comparability with the Virginia BRFSS data for this question.
Heart Attack and Stroke Warning Signs\textsuperscript{6}: Almost all of the Harvest Area respondents correctly identified chest pain (94%), pain or discomfort in the arms or shoulders (89%) and shortness of breath (88%) as warning signs of a heart attack. Half of the respondents knew that pain or discomfort in the jaw, neck, or back (47%) and feeling weak, lightheaded, or faint (58%) are symptoms of a heart attack. Sudden trouble seeing was incorrectly identified as a symptom of a heart attack by 28% of the respondents (Figure 7).

The majority of respondents correctly identified sudden numbness or weakness of face, arm, or leg (93%), sudden confusion or trouble speaking (85%), and sudden trouble walking or dizziness (81%) as symptoms of a stroke. Just over half of the respondents knew sudden trouble or seeing (60%) and a severe headache with no known cause (57%) are signs of a stroke. Sudden chest pain or discomfort was incorrectly identified as a symptom of a stroke by 41%. Respondents stated if they thought someone was having a heart attack or stroke they would call 911 first (87%). These data are shown in Figure 8.

\textsuperscript{6} The heart attack and stroke warning signs and symptoms questions were not asked in the statewide BRFSS in 1999 or 2000. The questions are currently being asked in the 2003 statewide BRFSS, for which results are not available.
Cardiovascular Disease: The majority of Harvest Area respondents said they are doing something to lower their risk of developing heart disease or stroke. These actions included eating fewer high fat and/or high cholesterol foods (69%), eating more fruits and vegetables (81%), or exercising (69%). These data are shown in Figure 9. A doctor, nurse, or health professional advised 23% to eat fewer high fat and/or high cholesterol foods, 37% to eat more fruits and vegetables, and 38% to exercise more (Figure 10).

One-third of Harvest Area respondents over the age of 35 take aspirin daily or every other day. Of those doing so, 89% do so to reduce the chance of a heart attack and 73% do so to reduce the chance of a stroke (Figure 11).
Five percent or fewer of Harvest and Virginia BRFSS respondents reported that they had ever had a heart attack, angina or coronary heart disease, or a stroke (see Figure 12). Among Harvest Area respondents who had ever had a heart attack (n=100), a third had their first heart attack before the age of 50 (Figure 13). Among Harvest Area respondents who had ever had a stroke (n=69), half had their first stroke before the age of 50 (Figure 14). Only 25% of those who had a heart attack, angina, or stroke received any kind of outpatient rehabilitation after leaving the hospital. It should be noted, of course, that these survey questions could only be asked of survivors of these events.
CANCER

Breast Cancer: More than half of all women in both the Harvest Area and Virginia had a mammogram within the last two years. In the Harvest Area, of the women who had ever had a mammogram, 20% said their most recent mammogram was to check a possible problem. Among women 40 years of age and older, 81% in the Harvest Area and 77% in Virginia had a mammogram within the last two years. The Healthy People 2010 goal is for 70% of women age 40 and over to have a mammogram in the last two years. Figure 15 shows these data.

Cervical Cancer: Almost all women in both the Harvest Area and Virginia reported ever having a pap smear. In the Harvest Area, 87% of women who have not had a hysterectomy had a pap test within the last three years. Nearly one-third of the Harvest Area women have had a hysterectomy. The Healthy People goal is to increase the percentage of women who have ever had a pap smear to 97% and to increase the percentage of women who had a pap smear within the past three years to 90%. Figure 16 shows these data.
**Prostate Cancer:** In the Harvest Area, men 40 years of age or older were asked if they had ever had a Prostate-Specific Antigen test (PSA); 64% said they had a PSA. Of those who had a PSA, 63% had a PSA within the last year. Respondents were also asked if they had ever had a digital rectal exam. Approximately four-fifths had ever had a digital rectal exam, and 58% of those had one in the past year. Only 5% of the male Harvest respondents age 40 or older had been told by a doctor, nurse, or other health professional that they had prostate cancer. See Figure 17 for these numbers.

![Figure 17. Prostate Cancer](image)

**Colorectal Cancer:** Male and female respondents 50 years of age or older were asked a series of questions about colorectal cancer screening. In the Harvest Area, 36% of these respondents stated they had done a blood stool test using a blood stool test kit, compared to 39% in the state. Of those that had a blood stool kit test, 39% of those in the Harvest Area and 47% in Virginia had the test within the past year. In the Harvest Area, 53% of the respondents had ever had a sigmoidoscopy or colonoscopy. In Virginia, 44% of the respondents had ever had a sigmoidoscopy or colonoscopy. Of those that had a sigmoidoscopy or colonoscopy, approximately one-third had the test in the last year in both areas. The Healthy People 2010 goal is to increase colorectal cancer screening in adults over the age of 50 to 50%. Figure 18 shows these data.

![Figure 18. Colorectal Cancer](image)

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7 Prostate cancer questions were only asked in the Harvest Area study.

*Survey and Evaluation Research Laboratory, Virginia Commonwealth University*
WEIGHT CONTROL AND EXERCISE

Weight Control: The Healthy People 2010 goal is to increase the percentage of adults who are at a healthy weight to 60% and to decrease the percentage of adults who are obese to 15%. In the Harvest Area 35% of the respondents are at a healthy weight\(^8\) compared to 44% in Virginia. Almost half of the Harvest respondents said they are trying to lose weight, compared to 39% in Virginia, but only 16% of the Harvest respondents who have been given advice from a doctor, nurse, or other health professional to lose weight. Of those that are trying to lose or maintain their weight, in both the Harvest Area and in Virginia, approximately 75% are eating fewer calories and/or less fat and 65% are using physical activity (Figures 19 and 20).

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8 A healthy weight is defined as a body mass index (BMI) of less than 25, overweight is a BMI of greater than 25 but less than 30, and obese is defined as a BMI of 30 or greater. BMI was calculated by computing weight in kilograms divided by height in meters squared.

Survey and Evaluation Research Laboratory, Virginia Commonwealth University
Exercise: Approximately two-thirds of the Harvest Area respondents reported that they had participated in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking in the past 30 days, compared to three-fourths of Virginians. The Healthy People 2010 goal is to increase the percentage of adults who engage in leisure-time physical activity to 80%. Only one-third of Harvest respondents reported doing moderate physical activity for at least 30 minutes a day, five or more days a week and only one-fifth report doing vigorous physical activity for at least 20 minutes a day, three or more days a week. The Healthy People 2010 moderate and vigorous physical activity goals are both 30%. See Figure 21 for these data.

ALCOHOL AND TOBACCO USE

Alcohol Consumption\(^9\): In the past month, 65% of the Harvest Area respondents did not have any alcoholic drinks. On the days when respondents drank, a third had only one drink. Less than 10% of the Harvest respondents engaged in binge drinking behaviors\(^10\) compared to 13% of the Virginia BRFSS respondents. The Healthy People 2010 goal is to reduce binge drinking to 6%. See Figure 22 for these data.

The Harvest respondents who reported they had at least one binge drinking episode were asked a series of questions about their most recent binge drinking experience (n=166). During the most recent binge drinking occasion, 69% bought their alcohol at a store and 59% drank their alcohol

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\(^{9}\) Virginia data for alcohol consumption is based on the 1999 BRFSS.

\(^{10}\) Binge drinking is defined as having five or more drinks on one occasion.
at home. The majority of alcohol consumed during the most recent binge occasion consisted of beer (85%) as opposed to wine (20%) or liquor/cocktails (38%). Of the binge drinkers, 14% in the Harvest Area said they drove a motor vehicle during or within a couple of hours after that occasion.

![Figure 23. Binge Drinking (n=166)](image)

**Tobacco Use:** Half of the Harvest and Virginia BRFSS respondents have ever smoked 100 or more cigarettes. The percentage of current smokers in the Harvest Area is 26%, compared to 21% in Virginia. Half of the current smokers in the Harvest Area have tried to quit. The Healthy People 2010 goal is to reduce the percentage of current smokers to 12% and to increase the percentage of cessation attempts to 75% (Figure 24).

![Figure 24. Cigarettes](image)

Approximately 15% of the Harvest Area and Virginia BRFSS respondents had ever tried smokeless tobacco products. Approximately 5% of the Harvest respondents are current smokeless tobacco or cigar users. The Healthy People 2010 goal is to reduce the percentage of smokeless tobacco users to 0.4% and reduce the percentage of cigar smokers to 1.2% (Figure 25).
Thirty-five percent of the Harvest respondents said a doctor had ever told them they had arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia, compared to only 22% in Virginia. Of those with arthritis, 33% in the Harvest Area and 28% in Virginia said they were limited in their usual activities because of arthritis or joint symptoms. The Healthy People 2010 goal is to reduce the percentage of adults with arthritis who are limited in their usual activities to 21%. In the Harvest Area, 56% of those with arthritis and who are of working age were employed, compared to 69% in Virginia. The Healthy People 2010 goal is for 78% of the working age adults with arthritis to be employed. One-third of Harvest respondents said their arthritis or joint symptoms affect their ability to work at all, as well as the type and amount of work that they do. Figure 26 shows these data.

Less than half of the Harvest Area respondents with arthritis said their doctor had suggested physical activity to help their arthritis or joint symptoms, 19% said a doctor suggested they lose weight. Only 8% had taken a class on how to manage their arthritis or joint symptoms (Figure 27).
Asthma

In the Harvest Area, 12% of the respondents stated they had been told by a doctor, nurse, or other health professional that they have asthma. In Virginia, 11% stated they had been told they have asthma. In the Harvest Area only, respondents were also asked if any of their children had been diagnosed with asthma. Seventeen percent (n=122) reported that at least one child has been diagnosed with asthma and two-thirds (n=81) of the children still had asthma (Figure 28).

![Figure 28. Asthma](image)

Attention Deficit Hyperactivity Disorder/Attention Deficit Disorder

Twelve percent of the Harvest respondents (n=98) reported that a doctor or health care professional told them that their child or children had Attention Deficit Hyperactivity Disorder (ADHD) or Attention Deficit Disorder (ADD). Half of the children (n=61) that have ADHD or ADD are taking medications (Figure 29).

![Figure 29. ADHD/ADD in Children](image)

11 ADHD/ADD questions were only asked in the Harvest Area study.
DIABETES

Nine percent of the Harvest Area respondents (n=204) stated they had been told by a doctor that they have diabetes, compared to six percent of Virginians (n=118). The Healthy People 2010 goal is to reduce the rate that diabetes is clinically diagnosed to 25 overall cases per 1,000 population (2.5%). Approximately 40% of both the Harvest Area and the Virginia BRFSS respondents had ever taken a course or class in how to manage diabetes. The Healthy People 2010 goal is to increase the percentage of people with diabetes who receive formal diabetes education to 60%. In the Harvest Area, 63% of those with diabetes are monitoring their blood glucose at least daily, but only 41% of Virginians are monitoring their blood glucose daily. The Healthy People 2010 goal is for 60% of those with diabetes to self-monitor their blood glucose at least once daily. A larger percentage of the Harvest Area respondents with diabetes take diabetes pills than diabetics in Virginia. Figure 30 shows these data.

![Figure 30. Diabetes](image)

The percentage of adults with diabetes who had a glycosylated hemoglobin (or hemoglobin A one C) test at least once in the last year is 85% in the Harvest Area and 78% in Virginia. The Healthy People 2010 goal is 50%. In the 1999 BRFSS statewide survey, respondents with diabetes were first asked if they had ever heard of the glycosylated hemoglobin test. Two-thirds of the 1999 Virginia BRFSS respondents had not heard of the test. In the 2000 statewide BRFSS and in the Harvest study, respondents were not specifically asked if they had heard of this test. Only nine Harvest respondents (6%) and fourteen Virginia BRFSS respondents (13%) stated they had never heard of the test which is drastically different from the 62% of the 1999 BRFSS respondents who had never heard of the test. We believe this difference demonstrates that the frequency of glycosylated hemoglobin testing is being over reported in the 2000 Virginia BRFSS and in the Harvest study.

Fifty-eight percent of Harvest adults and 65% of Virginia adults with diabetes reported having a dilated eye examination within the past year. The Healthy People 2010 goal is to increase the percentage of adults who receive an annual dilated eye examination to 75%. Those with diabetes were asked how many times in the past year had a doctor, nurse, or health professional checked their feet for any sores or irritations. More Harvest respondents (70%) than Virginia BRFSS respondents (56%) had their feet checked within the past year, but both percentages are below the Healthy People 2010 goal of 75% (Figure 31).
DISABILITY

Twenty percent of the Harvest respondents are limited in their activities because of physical, mental, or emotional problems and 8% need to use special equipment such as a cane, wheelchair, special bed, or special telephone (Figure 32). Of those that said they are limited in their activities because of physical, mental, or emotional problems one-fifth stated their major impairment was arthritis (Figure 33). A third of the individuals who are limited in their activities and who are of working age are employed. The Healthy People 2010 goal is for 82% of those that are of working age and have a disability to be employed. Another Healthy People 2010 objective is to develop a standard definition of disability, because this definition has not been developed at this time we are unable to determine if the employment rate in the Harvest Area is better than or worse than the Healthy People 2010 goal.

Comparable disability questions were not asked in the 2000 BRFSS study.
FALLS\textsuperscript{13}

Respondents over the age of 45 were asked if they had fallen in the last three months and if yes, were they injured. Thirteen percent in the Harvest Area had fallen (n=180) and 35\% of those respondents were injured (Figure 34). This module was only asked in the Harvest study and there are no Healthy People 2010 goals associated with falls.

![Figure 34. Falls](image)

HIV/AIDS

Harvest respondents who were under the age of 65 were asked how important they thought it was for people to know their HIV status by getting tested and were asked if they had ever been tested. Ninety-two percent thought it was very important for people to know their HIV status and 45\% had been tested for HIV compared to 56\% in the state. These numbers are shown in Figure 35.

![Figure 35. HIV/AIDS](image)

\textsuperscript{13} Survey questions on falls were only asked in the Harvest Area study.

Survey and Evaluation Research Laboratory, Virginia Commonwealth University
IMMUNIZATION

Approximately one-third of all Harvest and Virginia BRFSS respondents had a flu shot in the past 12 months and 21% in both the Harvest Area and in Virginia have ever had a pneumonia shot. The Healthy People 2010 goal is to increase both immunizations to 90% in adults age 65 and older. Of the Harvest Area respondents over the age of 65, 70% had an influenza vaccine in the last year compared to 63% in Virginia. Of the Harvest Area respondents over the age of 65, 56% had ever had a pneumonia vaccine compared to 64% in Virginia (Figure 36).

Figure 36. Immunizations

ORAL HEALTH

Over half of the respondents in the Harvest Area and in Virginia reported having dental insurance coverage. Approximately 70% of both the Harvest and Virginia BRFSS respondents reported visiting a dentist or a dental clinic in the past year and having their teeth cleaned by a dentist or dental hygienist and 28% of Harvest respondents also had a test for oral cancer. The Healthy People 2010 goal is to increase the percentage of people age 2 and older who visit a dentist once a year to 56% and increase the percentage of adults who are tested for oral cancer to 20% (Figure 37).

Figure 37. Oral Health

Of the 30% who had not visited a dentist in the last year, 41% in the Harvest Area and 35% in Virginia said they did not visit the dentist because they had no reason to go and 25% in both the

14 The Harvest and 2000 BRFSS study only ask about adults and not children between the ages of 2-17.
Harvest Area and in Virginia said they did not go to the dentist because they disliked the cost (Figure 38).

![Figure 38. Main Reason Did Not Visit Dentist in Last Year](image)

When all respondents were asked how many permanent teeth had been removed because of tooth decay or gum disease, 39% of the Harvest Area respondents reported having no teeth removed, compared to 56% in Virginia. The Healthy People 2010 goal is increase the percentage of adults between the ages of 35 and 44 who have never had a tooth removed because of tooth decay or gum disease to 42% and decrease the percentage of adults between the ages of 65 and 74 who have had all of their natural teeth extracted to 20% (Figure 39).

![Figure 39. Permanent Teeth Removed Due to Tooth Decay or Gum Disease](image)
**Prenatal Care and Pregnancy**

**Prenatal:** The prenatal section was only asked of Harvest Area women who had given birth (n=1,069). When asked if the women had received prenatal care within the first three months of their most recent pregnancy, 93% said they had. This is above the target (90%) percent for the Healthy People 2010 goal for maternal prenatal care in the first trimester of pregnancy. The women were asked if they had abstained from substance exposure. The majority had not smoked (84%), drunk any alcohol (97%), or taken street drugs (100%) during their most recent pregnancy. The Healthy People 2010 goal is to increase abstinence from cigarettes (99%), alcohol (94%), and illicit drugs (100%) in pregnant women. These numbers are shown in Figure 40.

![Figure 40. Prenatal Care](image)

**Pregnancy:** All male Harvest respondents under the age of 60 and females under the age of 45 with no hysterectomy (n=989) were asked if they or their partner were doing anything to keep from becoming pregnant. Sixty percent of the respondents were doing something to prevent pregnancy (Figure 41). The top four methods were using the pill (32%), having tubes tied (27%), using condoms (15%), and having a vasectomy (12%). Figures 41 and 42 show these data (Figure 42).

![Figure 41. Are you doing anything now to keep from getting pregnant?](image)

![Figure 42. Pregnancy Prevention](image)
VIOLANCE AND INJURY PREVENTION

Injury Control: Ninety-six percent of the Harvest Area respondents (n=215) stated that their children under the age of four always use a car seat when they are in a motor vehicle. The Healthy People goal is for 100% of children under four to be in a car seat. The majority of Harvest Area respondents (n=447; 87%) reported that their children between 5 and 15 always use seatbelts when they are in a motor vehicle. However, only 23% of children between 5 and 15 always use a helmet when they ride a bicycle (Figure 43).

Firearms: Half of the Harvest respondents reported that they have a firearm in or around their home. Of those that had a firearm in their home, approximately one-third stated the firearm was loaded. Of those that said the firearm was loaded, 60% said the firearm was also unlocked. Overall, only 10% of all of the respondents had a loaded and unlocked firearm in their home. The Healthy People 2010 goal is to reduce the percentage of homes that have loaded and unlocked firearms to 16% (Figure 44).

Sexual and Other Violence: Respondents were asked a series of questions about sexual assault and physical violence. One–quarter of all Harvest respondents had been a victim of either sexual assault or other violence. Seven percent of the Harvest respondents had been sexually assaulted by a partner, relative, or stranger. One–quarter of the Harvest respondents had been assaulted by a partner, family member, or stranger. See Figure 45 for these numbers.

Figure 43. Injury Control

Figure 44. Firearms

Figure 45. Sexual and Other Violence

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15 This section of questions was only asked in the Harvest Area study.
Suicide: Only 3% of the Harvest respondents (n=76) reported seriously considering attempting suicide during the past 12 months. Of those that contemplated suicide, almost half (n=30; 44%) made a plan about how to attempt suicide. Of those that made a plan, 40% (n=10) actually attempted suicide at least once during the past 12 months. Of those that attempted suicide, one-third (n=4) resulted in an injury, poisoning, or overdose that required medical attention (Figure 46).

Smoke Detectors and Carbon Monoxide Detectors: Ninety-five percent of the Harvest respondents reported having a working smoke detector in their homes. The Healthy People 2010 goal is for all homes to have a working smoke detector on every floor of the home. Of the 857 Harvest respondents who had a gas fireplace or stove or kerosene heaters, only 41% had a carbon monoxide alarm or sensor in their home (Figure 47).
**Personal Safety:** Approximately one-quarter of the Harvest respondents stated that they were not concerned about their own personal safety, but only 5% were not concerned about their child’s personal safety (Figures 48 and 49).

![Figure 48. How concerned are you about your own personal safety?](image)

![Figure 49. How concerned are you about your child’s personal safety?](image)
DIFFERENCES BY RACIAL CATEGORIES

All respondents were asked to identify what racial group best represents them. Responses were grouped into two categories, white (n=1,567 [unweighted], 73% [weighted]) and non-white (n=515 [unweighted], 27% [weighted]). In 95 out of 100 samples like this one, the survey percentages for questions answered by all white respondents would be within +/- 2.4% of the actual percentages that would be found if all white adults in the Harvest Area had participated in the study and sampling error was the only source of error. In 95 out of 100 samples like this one, the survey percentages for questions answered by all non-white respondents would be within +/- 4.3 percentage points of the actual percentages that would be found if all non-white adults in the Harvest Area had participated in the study and sampling error was the only source of error. Therefore, differences of about 7 percentage points in the responses of all whites and all non-whites will indicate statistical significance. Where the answers of subgroups are reported, the sampling error would be higher. For questions with highly skewed distributions of responses, the sampling error would be lower.

One of the main objectives of the Healthy People 2010 goals is to eliminate health status disparities among racial groups. For this reason, there are no Healthy People 2010 goals by racial groups. For survey items that relate to Healthy People 2010 objectives, the Healthy People 2010 goals are listed for all people.

This section highlights differences between these two categories of people. In summary, the non-white group was younger, less educated, and had a lower annual income than the white respondents. White respondents were more likely to have health insurance, to have had an examination to detect for oral cancer, prostate cancer, and colorectal cancer, and to have received immunizations. A larger percentage of white respondents correctly identified the symptoms and warning signs of heart attacks and strokes.

Demographics: The white respondents (19%) had a higher percentage of people over the age of 65 compared to the non-white respondents (12%). The white respondents (66%) were also more likely to be married (48% non-whites). The white respondents (46%) were more likely to have at least some college education (32% non-whites). The white respondents (26%) were more likely to have an annual household income of $50,000 or more (13% non-whites). See Figure 50 for these data.
Health Care Access: White respondents (85%) were more likely to have health care coverage such as health insurance, prepaid plans such as HMOs or Medicare than non-whites (75%). A lower percentage of white respondents (14%) reported there was a time in the last month when they were unable to see a doctor because they could not afford a doctor than non-whites (21%). See Figure 51 for these data. Additional analysis showed that 79% of white respondents said their general health was good or better, compared to 80% of non-white respondents (Figure 51).

![Figure 51. Health Care Access By Race](image)

Heart Attack and Stroke: More non-white respondents had been told by a doctor or health professional that they had high blood pressure, but more white respondents had been told by a doctor or health professional that they had high cholesterol (Figure 52).

![Figure 52. Hypertension and Cholesterol Awareness By Race](image)

White respondents were more likely to be aware of the signs and symptoms of heart attacks and strokes than non-white respondents. Pain or discomfort in the jaw, neck, or back was identified as a symptom of a heart attack by 19% more white respondents and pain in the arms or shoulders was identified as a symptom of a heart attack by 12% more white respondents. White and non-white respondents were equally likely to misidentify trouble seeing as a symptom of a heart attack (Figure 53).
Figure 53. Percent Stating Following are Heart Attack Symptoms By Race

White respondents were more likely to identify sudden confusion or trouble speaking, sudden trouble seeing, and a severe headache with no known cause as warning signs or symptoms of a stroke than were non-white respondents (Figure 54).

Figure 54. Percent Stating Following are Stroke Symptoms By Race

Cancer: White women were more likely than non-white women to have ever had a mammogram, but about the same percentages of white and non-white women over 40 had a mammogram within the last 2 years (Figure 55). About the same percentages of white and non-white women had ever had a pap smear or had one within the last three years (Figure 56).

Figure 55. Breast Cancer Prevention By Race
White men were more likely to have had a digital rectal exam, a blood stool test, and a sigmoidoscopy and/or colonoscopy than were non-white men (Figures 57 and 58).

**Exercise and Weight Control**: More respondents in the white group are at a healthy weight. However, the same percentages of whites and non-whites are trying to lose weight. A greater percentage of white respondents reported doing moderate physical activity for at least 30 minutes a day, 5 or more days a week, but the groups were the same in terms of the percentages doing vigorous activities (Figure 59).
**Alcohol:** A larger percentage of the non-white respondents had no alcoholic drinks in the last month. Approximately 10% of both groups reported having five or more alcoholic drinks on one occasion (Figure 60).

**Tobacco:** White respondents were more likely to use cigarettes and smokeless tobacco products. A larger percentage of the non-white smokers have tried to stopping smoking (Figure 61).
Arthritis: A higher percentage of white respondents reported having symptoms of pain, aching, or stiffness in or around a joint and have been told by a doctor that they have arthritis, compared to non-white respondents. Of those that have arthritis, a larger percentage of the non-white respondents said that arthritis affects whether they work, as well as the amount and type of work they do. See Figure 62 for these data.

Immunizations: A larger percentage of the white respondents received a flu or pneumonia vaccination. The difference between the racial groups becomes more dramatic when looking at adults age 65 and older to compare to Healthy People 2010 goals (Figure 63).

Oral Health: Even though more non-white respondents had dental insurance, white respondents were more likely to have visited a dentist in the last year, had their teeth cleaned by a dentist or dental hygienist, and had been screened for oral cancer (Figure 64).
Violence and Injury Prevention: Non-whites were less likely to have firearms around their homes. Non-whites were more likely to report that they were very concerned about their own personal safety and their children’s personal safety (Figure 65).
DIFFERENCES BY AGE CATEGORIES

The following three age categories were created to analyze differences among various age groups; 18-34 (n=370 [unweighted], 26% [weighted]), 35-54 (n=876 [unweighted], 38% [weighted]), and 55 and older (n=844 [unweighted], 36% [weighted]). In 95 out of 100 samples like this one, the survey percentages for questions answered by all respondents aged 18-34 years would be within +/- 5.1% of the results that would be obtained if all adults aged 18-34 were included in the survey, assuming sampling error were the only source of error. The comparable margins of error for the 35-54 and 55 and older age groups are +/- 3.3% in both cases.

Not surprisingly for a health risk behavior survey, there are numerous differences in the survey responses by age groups. It is important to remember that the population of the Harvest Area is generally older than the population of Virginia or the nation.

In summary, a higher percentage of older respondents reported that their general health was fair or poor and reported a greater number of days that they were limited in their activities because of their health. Older respondents are more likely to have been told that they have high blood pressure, high cholesterol, arthritis, and diabetes. Older respondents are more likely to have had flu and pneumonia shots, as well as examinations or tests for breast cancer and prostate cancer.

Demographics: Older respondents were more likely to have less than a high school education, not be employed, and have an annual household income of less than $50,000. See Figure 66 for these data.

Figure 66. Demographics By Age

![Figure 66. Demographics By Age](image-url)
Health Status: Older respondents are less likely to report that their general health is good or better (Figure 67), and report more days on which their physical health was not good during the last 30 days and kept them from doing their usual activities. The older respondents reported fewer days when their mental health was not good (Figure 68).

Health Care Access: As the respondents’ age increases they are more likely to have health insurance and to think of one person as their primary health care provider, and are less likely to report that they were not able to afford a doctor within the last year when one was needed (Figure 69).
Heart Attack and Stroke: As age increases respondents are more likely to have been told by a doctor or health professional that they have high blood pressure or high cholesterol and to be taking medication to treat their high blood pressure (Figure 70).

Figure 70. Hypertension and Cholesterol Awareness By Age

All respondents were asked if they were trying to reduce their chance of having a heart attack or stroke by eating fewer high fat and/or high cholesterol foods, by eating more fruits and vegetables, and by exercising more. All respondents were then asked if a doctor, nurse, or other health professional in the last year had advised them to eat better or exercise more to reduce their chance of developing heart disease or stroke. Respondents age 55 and older were more likely to have been told by a doctor to eat fewer high fat or high cholesterol foods, eat more fruits and vegetables, and to be more active (Figure 71), but majorities of all age groups are trying to lower their risk of developing heart disease or stroke by implementing the three suggestions (Figure 72).

Figure 71. To lower your risk of heart disease or stroke are you: By Age
Half of the respondents age 55 and older take aspirin daily or every other day, compared to only one-quarter of respondents between the ages of 35 and 54 (respondents under 35 were not asked questions about aspirin). Those taking aspirin regularly were asked why (Figure 73).

Respondents age 55 and older were more likely to have had a heart attack, angina or heart disease, or stroke (Figure 74).
Cancer: As women age, they are more likely to report having had a mammogram and a hysterectomy and are less likely to have had a pap smear in the past three years (Figure 75).

![Figure 75. Breast and Cervical Cancer By Age](image)

Only males age 40 and older were asked a series of questions about prostate cancer screening. Four-fifths of males age 55 and over had ever had a PSA and almost half of the males between the ages of 40 and 54 had a PSA. When asked if they had ever had a digital rectal exam, 91% of the respondents age 55 and older said yes compared to 73% of those between the ages of 40 and 54. Because colorectal cancer screening questions were only asked of adults age 50 and over, it is not possible to present results by the three age cohorts. Figure 76 shows these data.

![Figure 76. Cancer By Age](image)

Weight Control: The middle age cohort (35-54 years of age) was most likely to report being overweight or obese and a higher percentage reported that they were trying to lose weight (Figure 77).
Exercise: The youngest cohort group was more likely to report doing any physical activity in the last month. Older respondents were less likely to report doing moderate and vigorous activities (Figure 78).

![Figure 78. Exercise By Age](image)

Alcohol: Younger adults were more likely to have had at least one alcoholic drink in the last month. The two younger age groups were more likely to engage in binge drinking (Figure 79). It is unknown whether the higher rates of alcohol use and binge drinking among respondents 18-24 years of age will decrease as that cohort ages, or if they represent a generational shift in behaviors that will carry forward as those respondents age.

![Figure 79. Alcohol By Age](image)

Tobacco: Approximately half of each of the age cohorts have smoked 100 or more cigarettes, but only 16% of respondents age 55 and older are current smokers compared to approximately one-third of the younger age groups. Of the current smokers, the respondents in the youngest age group were more likely to report trying to stop smoking in the last year (Figure 80).

![Figure 80. Tobacco By Age](image)
Arthritis: Over half of the respondents who are age 55 or older have experienced symptoms of pain, aching, or stiffness in or around a joint in the past 30 days and have been diagnosed with arthritis. Only 10% of respondents between 18 and 34 have been told they have arthritis, but 30% have experienced joint symptoms. A lower percentage of the youngest age group with arthritis reported that their arthritis limits them in their daily activities (Figure 81).

Diabetes: A higher percentage of respondents age 55 or older reported that they had been told by a doctor that they have diabetes (15%). Among those with diabetes, respondents age 55 or older were more likely to check their blood for glucose or sugar on at least a daily basis. See Figure 82 for these data.

HIV/AIDS: Even though it is the consensus of all age groups that it is very important for people to know their HIV status by getting tested, only 59% of 18-34 year olds, 44% of 35-54 year olds, and 29% of those age 55 or older have ever been tested for HIV (Figure 83).
**Immunization:** Respondents age 55 and older are more likely to have had a flu shot in the past year (57%) and to have ever had a pneumonia shot (39%) than were those in the younger groups (Figure 84).

![Figure 84. Immunization By Age](image)

**Oral Health:** A higher percentage of younger adults reported having visited a dentist in the past year. Older respondents were more likely to have had a test for oral cancer in the past year. Three-fourths of the respondents age 34 and younger had not had any teeth removed because of tooth decay or gum disease (Figure 85).

![Figure 85. Oral Health By Age](image)

**Personal Safety:** Respondents differed in how concerned they were about their own personal safety and their child’s personal safety. The oldest age group reported lower percentages of being very concerned about their own personal safety and their children’s personal safety (Figure 86).

![Figure 86. Personal Safety By Age](image)
DIFFERENCES BY GENDER

An analysis was done on questions answered by both male (n=761 [unweighted], 47% [weighted]) and female (n=1,361 [unweighted], 53% [weighted]) respondents to determine if males and females differ in their responses. For questions answered by all male respondents, the survey percentages are likely to be within +/- 3.5 percentage points of the actual percentages that would be found if all adult males in the Harvest Area had participated in the study and sampling error was the only source of error. For questions answered by all female respondents, the survey percentages are likely to be within +/- 2.6 percentage points of the actual percentages that would be found if all adult females in the Harvest Area had participated in the study and sampling error was the only source of error.

There are no gender differences in reported health status, health insurance, diabetes, high blood pressure, high cholesterol, oral health care, colorectal cancer screening, and personal safety. A higher percentage of women stated they are trying to lose weight even though a higher percentage of men are overweight and obese. Men were more likely to report drinking alcohol and using tobacco products. Women were more likely to report having been sexually or physically abused by their spouses, but a higher percentage of men reported having been hit, pushed, kicked or physically assaulted by a stranger or someone else that they knew and who was not their spouse.

Demographics: The women in the sample are slightly older than the males and a higher percentage of the women do not work. The men and women have the same racial, educational, and income breakdowns (Figure 87).
**Health Status:** There is not a gender difference in reported general health status, but when asked the number of days in the past month that physical and mental health was not good, women reported more days that their physical and mental health was not good. However, men reported more days that poor physical and/or mental health kept them from their usual activities. Figures 88 and 89 show these data.

![Figure 88. General Health By Gender](image)

![Figure 89. Health Status In Past Month By Gender](image)

**Health Care Access:** The same percentage of men and women had health insurance. A higher percentage of women reported having a primary doctor, but a higher percentage of women also reported there was a time in the last 12 months when they could not afford to see a doctor (Figure 90).

![Figure 90. Health Care Access By Gender](image)
**Heart Attack and Stroke:** There are very few differences in men’s and women’s knowledge of heart attack and stroke symptoms. Women were more likely to know that pain or discomfort in the jaw, neck, or back is symptomatic of a heart attack and that a severe headache with no known cause is symptomatic of a stroke (Figure 91).

Approximately the same percentages of men and women had been told by a doctor, nurse, or other health professional that they had high blood pressure and a slightly higher percentage of men had been told they had high cholesterol. Men were more likely to report taking aspirin daily or every other day (Figure 92).

To lower their risk of developing heart disease or stroke, a larger percentage of men are exercising more and a larger percentage of women are eating more fruits and vegetables. About the same percentage of men and women are eating fewer high fat and high cholesterol foods. Figure 93 show these data.
Men were more likely to report having had a heart attack or heart disease. Men were also more likely to have their first heart attack at an earlier age (Figure 94).

Exercise and Weight Control: Women were more likely to be at a healthy weight and also trying to lose weight, but a greater percentage of men are overweight or obese. Of the adults who are trying to lose weight, women are more likely to be trying to lose weight by eating fewer calories or less fat and men are more likely to be trying to lose weight by exercising (Figure 95).

A higher percentage of men are more physically active than women. In the past 30 days, 64% of women reported participating in any physical activities compared to 73% of men. A higher percentage of men reported doing moderate and vigorous physical activity (Figure 96).
Alcohol: A greater percentage of men reported having had at least one alcoholic beverage in the last 30 days and having five or more alcoholic beverages on one occasion (binge drinking), as shown in Figure 97.

![Figure 97. Alcohol By Gender](image)

Tobacco: A larger percentage of men reported having ever smoked 100 or more cigarettes. Higher percentages of men are current smokers or users of smokeless tobacco products. Approximately half of both the male and female smokers tried to quit smoking in the last year (Figure 98).

![Figure 98. Tobacco By Gender](image)

Arthritis: A slightly higher percentage of women experienced joint symptoms of arthritis, had been diagnosed with arthritis, and had been told by doctors to increase their physical activity level to ease their symptoms of arthritis. A higher percentage of women reported that arthritis limits their physical activities and the type and amount of work they can do (Figure 99).

![Figure 99. Arthritis By Gender](image)
Sexual Assault and Other Violence: A higher percentage of women reported that their spouse had either forced them to do sexual things or had pushed, hit, slapped, kicked, or physically hurt them. A higher percentage of men reported that a stranger or someone they knew had pushed, hit, slapped, kicked, or physically hurt them. See Figure 100 for these data.

![Figure 100. Sexual Assault and Violence By Gender](image-url)
DIFFERENCES BY EDUCATION CATEGORIES

Respondents were classified into one of four educational categories; less than a high school education (n=451 [unweighted], 22% [weighted]), high school education (n=736 [unweighted], 36% [weighted]), some college (n=532 [unweighted], 24% [weighted]), and college graduate (n=401 [unweighted], 17% [weighted]). For questions answered by all respondents, the survey percentages are likely to be within +/- 4.6% for those with less than a high school education, +/- 3.6% for those with a high school education, +/-4.2% for those with some college, and +/-4.8% for those with a college degree.

Education may sometimes serve as a proxy variable for income because the two variables are highly correlated; as a person’s education increases so does their income (r=.471). Only one-tenth of one percent refused or did not know the answer to their highest educational achievement, but over 15% did not know or refused to answer the question about their family’s total annual income.

In summary, respondents with more education were more likely to be white, employed, and have an annual income of $50,000 or more. Respondents with higher educational achievements reported better general health, higher rates of insurance coverage, more physical activity and exercise, knew more of the warning signs of heart attacks and strokes, and reported more oral health care. Respondents without a high school education were more likely to have not been able to afford a doctor in the last year, more likely to have arthritis, be a current smoker, and have high blood pressure and high blood cholesterol.

Demographics: A higher percentage of respondents with a college degree or those that had attended some college are white. Approximately one-third of respondents without a high school diploma are not employed. Over half of the respondents with a college degree have an annual household income of $50,000 or more (Figure 101).
**Health Status:** As a respondent’s education increases a higher percentage reported that their general health was excellent, very good, or good, and a lower percentage reported days on which their physical and/or mental health was poor and kept them from their usual activities (Figures 102 and 103).

![Figure 102. General Health By Education](attachment:figure102.png)

**Figure 102. General Health By Education**

- **Less than High School:** 60%
- **High School:** 81%
- **Some College:** 85%
- **College:** 89%

**Figure 103. Health Status In Past Month By Education**

- **Poor Physical Health:**
  - Less than High School: 7.8
  - High School: 3.9
  - Some College: 3.7
  - College: 2.5

- **Poor Mental Health:**
  - Less than High School: 4.8
  - High School: 3.6
  - Some College: 3.7
  - College: 2.9

- **Kept from Usual Activities:**
  - Less than High School: 9.2
  - High School: 5.6
  - Some College: 3.8
  - College: 3.6

**Health Care Access:** A higher percentage of respondents with more than a high school diploma had health insurance and thought of someone as their primary care doctor. College graduates had the lowest percentage of respondents who were unable to afford to see a doctor in the last year when needed, as shown in Figure 104.

![Figure 104. Health Care Access By Education](attachment:figure104.png)

**Figure 104. Health Care Access By Education**

- **Have Insurance:**
  - Less than High School: 79%
  - High School: 77%
  - Some College: 86%
  - College: 93%

- **Primary Doctor:**
  - Less than High School: 80%
  - High School: 78%
  - Some College: 86%
  - College: 88%

- **Could not afford doctor:**
  - Less than High School: 85%
  - High School: 20%
  - Some College: 16%
  - College: 17%
**Weight Control:** Approximately the same percentages of adults are at a healthy weight across all educational categories. However, respondents with at least some college experience are more likely to be trying to lose weight by exercising (Figure 105).

![Figure 105. Weight Control By Education](image)

**Exercise:** As respondents’ educational attainment increased a greater percentage of respondents reported they had participated in some form of physical activity in the last 30 days. Those with some college experience or who had graduated from college were more likely to participate in moderate physical activity on a regular basis (Figure 106).

![Figure 106. Exercise By Education](image)

**Heart Attack and Stroke:** Forty percent of those with less than a high school education had been told that they had high blood pressure. Those without a high school education were more likely to report having high cholesterol, as shown in Figure 107.

![Figure 107. Hypertension and Cholesterol By Education](image)
Respondents without a high school education had the smallest percentage of respondents who correctly identified the warning signs and symptoms of heart attacks and strokes (Figures 108 and 109).

There were no differences among respondents of different levels of education regarding what they are doing to lower their risk of developing heart disease or stroke (Figure 110).
Alcohol: Respondents with higher educational attainment were more likely to report having an alcoholic drink in the last month (Figure 111).

![Figure 111. Alcohol By Education](image)

Tobacco: Respondents without a high school education reported higher percentages of ever smoking at least 100 cigarettes and are more likely to be current smokers (Figure 112).

![Figure 112. Tobacco By Education](image)

Arthritis: Half of the respondents without a high school education have experienced symptoms of pain, aching or stiffness in or around a joint in the past 30 days and almost half have been told by a doctor or health professional that they have arthritis. Similarly, almost half of the respondents with a college education also had arthritis symptoms, but only 28% had been told by a doctor or other health professional that they had arthritis. Respondents with less than a high school education reported higher percentages of arthritis limiting them in their daily activities and affecting the amount and type of work they can do (Figure 113).

![Figure 113. Arthritis By Education](image)
**Oral Health**: Respondents with higher educational achievements reported higher percentages of visiting a dentist or dental hygienist within the last year, having a test for oral cancer within the past year, and having fewer teeth removed because of tooth decay or gum disease. See Figure 114 for these data.