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Midland County Health Survey: Final Report

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Overview

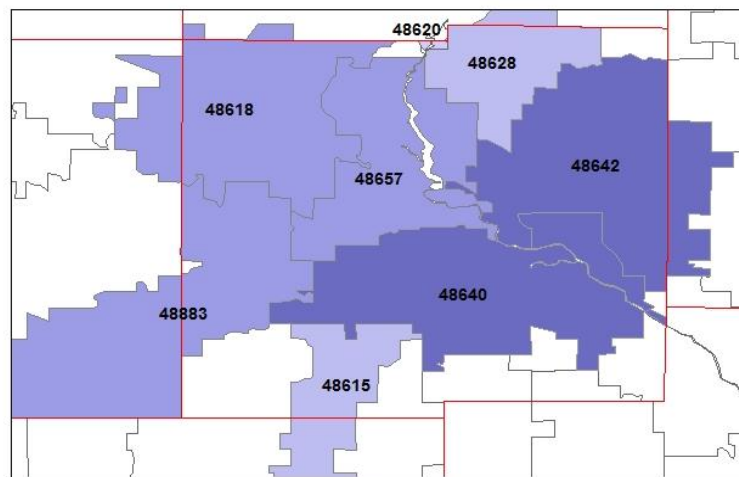
The 2014 Midland Health Survey was conducted to help inform health concerns in the county, address equity in access and preventative care, and create common “themes” based on data to help address countywide health issues and perceptions. The purpose of the research was to administer a survey to Midland county residents, evaluating their health behaviors and perceptions of services and programs offered within the county.

The Saginaw Valley State University team aimed to collect data from a sample across Midland County. Data collection occurred via online and paper surveys. SurveyMonkey was used to administer the online survey and the link was advertised in the local newspapers, on the radio, and in HHSC agency websites. The face-to-face survey was administered at various locations throughout Midland County. Site-specific locations for data collection were determined in collaboration with the Health and Human Services Council (HHSC) of Midland County to maximize access for researchers to reach the target population. In order to reach all Midland County residents, the team used community centers, libraries, schools, churches, family centers, health care agencies, and local events to gather face-to-face surveys and/or promote the online survey. Data collected face-to-face was collected as online (via laptops) and paper surveys. In the event that a participant wanted to take a paper survey home to complete, he/she was provided with a self-addressed envelope to return the completed survey.

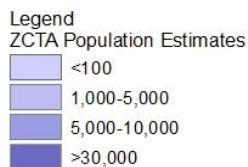
The team used existing US Census, state, and local data to ensure that the sample of ~500 was representative of all segments of the Midland County population and would generate quality data in rural areas and within the out-county population. Figure 1 (page 4) shows the geographical boundary for each zip code in Midland County. Figure 2 (Page 5) illustrates the population estimate for each Midland County zip code and Figure 3 (page 5) shows the number of survey observations that were collected for each zip code in Midland County. These figures show that the distribution of survey observations followed a trend similar to that of the population estimates obtained from the U.S. Census data. In addition to the existing CDC and MDCH questions, the SVSU Team worked with HHSC to add questions that address preventative health and perceptions of quality of services in Midland County. Additionally, the SVSU Team paid close attention to subpopulations within the County including women of childbearing age, out-county residents, seniors, MI Health Plan participants, low-income residents, and any other subpopulation deemed necessary. Special focus was placed on the impact of poverty and its relation to health, which is important in addressing the growing poverty in Midland.

The sample generated 414 online surveys and 142 paper surveys. Of the 556 surveys that were completed, 491 were used for analyses. All measures were taken to ensure that subgroups were properly represented as well as building a robust and diverse sample around key indicators such as income, education, household size, age, head of household, employment, marital status, location, etc. The final sample represented the population distribution within the out-county areas. The project oversampled women, higher education levels, and married individuals. Table 1 shows the demographic profile of the survey respondents.

Figure 1. Midland County Zip Codes by Population

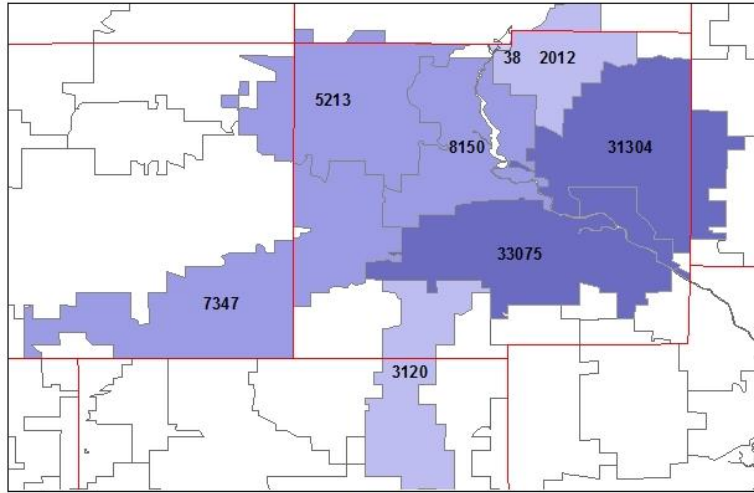


Midland County ZIP Codes (ZCTAs) are illustrated above. The 2000 Decennial Census does not provide population estimates or cartographic boundary files for Midland County ZIP codes (ZCTAs) 48641, 48674, and 48686 (likely due to rural areas and small populations). Thus graphical representation of them is not provided above. Seven survey respondents reported that they resided in one of these three ZIP codes.



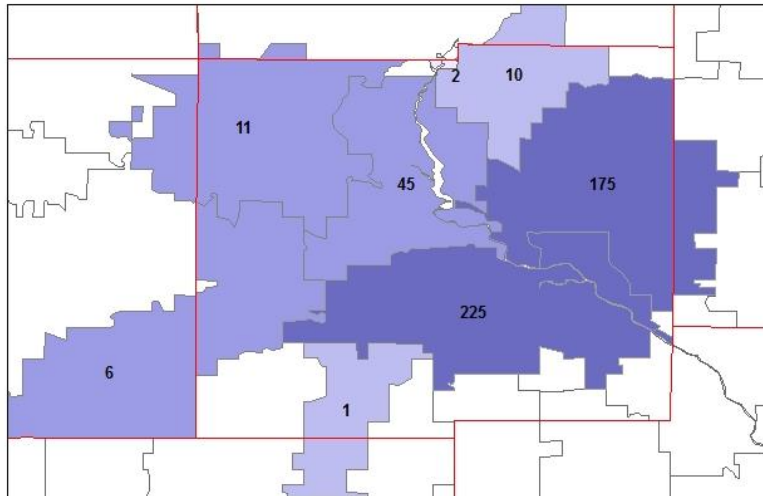
ZCTA population estimates reflect Decennial Census data, 2000 SF1 100% data files. (Source: Census.gov)
ZCTAs (Zip Code Tabulation Areas) and County Boundaries reflect 2000 Census Cartographic Boundary Files. (Source: Census.gov)

Figure 2. Midland County Zip Codes by Population Estimates



2000 Census Population estimates for ZCTAs are provided above, placed within (or alongside) their respective ZIP Code (ZCTA). The 2000 Decennial Census does not provide population estimates or cartographic boundary files for Midland County ZIP codes (ZCTAs) 48641, 48674, and 48686 (likely due to rural areas and small populations). Thus graphical representation of them is not provided above. Seven survey respondents reported that they resided in one of these ZIP codes.

Figure 3. Number of Survey Observations per Midland County ZIP Code



Numbers in the map above depict the number of survey responses collected from each respective Midland County ZIP Code. The Midland Co. ZIP Codes have been shaded to indicate population – see Legend for specific population ranges. The 2000 Decennial Census does not provide population estimates or cartographic boundary files for Midland County ZIP codes (ZCTAs) 48641, 48674, and 48686 (likely due to rural areas and small populations). Thus graphical representation of them is not provided above. Seven survey respondents reported that they resided in one of these three ZIP Codes.

Table 1. Demographic Profile of the Midland County Sample

| | Midland County Sample |
|--|-----------------------|
| Gender | |
| Male | 32.7 |
| Female | 67.3 |
| Age | |
| 18-24 | 8.8 |
| 25-34 | 20.6 |
| 35-44 | 15.0 |
| 45-54 | 22.3 |
| 55-64 | 16.3 |
| 65+ | 17.1 |
| Race | |
| White | 96.0 |
| African American | 1.3 |
| Other | 2.9 |
| Education | |
| < High School | 2.1 |
| High School | 12.5 |
| Some College | 18.1 |
| Associates | 12.9 |
| Bachelors Degree | 30.8 |
| Graduate + | 23.6 |
| Marital Status | |
| Married | 66.8 |
| Widowed | 2.7 |
| Divorced | 8.1 |
| Separated | 1.5 |
| In a domestic partnership or civil union | 1.7 |
| Not married | 19.2 |
| Employment Status | |
| Employed, 40+ hours/week | 48.3 |
| Employed, 1-39 hours/week | 17.8 |
| Not employed | 5.5 |
| Homemaker | 4.3 |
| Full-time student | 2.5 |
| Retired | 17.8 |
| Disabled, not able to work | 3.7 |
| Children under 18 | |
| Yes | 40.8 |
| No | 59.2 |
| Income | |
| < \$20,000 | 16.0 |
| \$20,000 - 39,999 | 13.6 |
| \$40,000 - 69,999 | 20.6 |
| \$70,000 - 99,999 | 18.0 |
| \$100,000 - 149,000 | 17.5 |
| \$150,000+ | 14.3 |

Health Status

Personal Health

When asked to describe their current health, 51.7% of respondents said their health was either excellent (16.9%) or very good (34.8%). Table 2 shows the distribution of respondents from Midland County by percentage. Table 3 shows the proportion of respondents who claimed their health was fair or poor, broken down by gender, age, education, and income.

- There were no statistically significant differences between genders or among age groups regarding fair or poor reports of health status.
- At large, individuals with lesser income and lower levels of education were more likely to report their health as fair or poor.

Table 2. Perceived Health Status

| Perceived Health Status | % |
|-------------------------|------|
| Excellent | 16.9 |
| Very Good | 34.8 |
| Good | 35.1 |
| Fair | 11.8 |
| Poor | 1.4 |

Table 3. Health Status Rating as Fair or Poor, by Demographic Characteristics

| | % Reporting Health Fair or Poor |
|---------------------|---------------------------------|
| Gender | |
| Male | 13.9 |
| Female | 12.9 |
| Age | |
| 18-24 | 14.6 |
| 25-34 | 11.3 |
| 35-44 | 15.3 |
| 45-54 | 11.2 |
| 55-64 | 10.4 |
| 65+ | 18.3 |
| Education | |
| < High School | 40.0* |
| High School | 36.0 |
| Some College | 20.9 |
| Associate | 7.9 |
| Bachelors Degree | 4.1 |
| Graduate + | 7.9 |
| Income | |
| < \$20,000 | 34.8* |
| \$20,000 - 39,999 | 16.4 |
| \$40,000 - 69,999 | 9.8 |
| \$70,000 - 99,999 | 6.1 |
| \$100,000 - 149,000 | 5.1 |
| \$150,000+ | 4.6 |

* p < .05; statistically significant *trend*

Perceived Importance of Family History

Among all respondents, 48.1%, 62.2%, and 50.3% reported actively collected health information from relatives for future reference, to share with a doctor or health care provider, or for the purposes of developing a family health history, respectively. Table 4 shows the percentage of respondents who reported having actively collected health information from relatives for future reference, to share with a doctor or health care provider, and to develop and family health history, broken down by gender, age, education, and income. The table indicates that:

- There were statistically significant differences in likeliness to report amassing health information from relatives for future reference between genders and among age groups and income levels.
- Overall, females were more likely than males to collect health information from relatives.
- As income increased, the percentage of respondents that reported collecting health information collection from relatives to be used to develop a family health history increased.

Table 4. Collection of Health Information, by Demographic Characteristics

| | % Reporting Health Information Collection... | | |
|---------------------|--|---|---------------------------------------|
| | ...for Future Reference | ...to Share with a Health Care Provider | ...to Develop a Family Health History |
| Overall | 48.1% | 62.2% | 50.3% |
| Gender | | | |
| Male | 37.8* | 52.2* | 41.0* |
| Female | 53.3 | 67.3 | 55.0 |
| Age | | | |
| 18-24 | 41.0* | 55.0* | 40.0 |
| 25-34 | 57.7 | 70.1 | 55.7 |
| 35-44 | 46.5 | 66.2 | 49.3 |
| 45-54 | 54.3 | 74.3 | 57.7 |
| 55-64 | 49.4 | 57.9 | 60.5 |
| 65+ | 32.5 | 44.4 | 32.5 |
| Education | | | |
| < High School | 50.0 | 60.0* | 50.0 |
| High School | 37.7 | 47.5 | 41.0 |
| Some College | 49.4 | 58.1 | 48.8 |
| Associates | 43.5 | 61.3 | 51.6 |
| Bachelors Degree | 48.3 | 66.7 | 46.6 |
| Graduate + | 54.5 | 68.1 | 60.7 |
| Income | | | |
| < \$20,000 | 35.2* | 53.6* | 38.0* |
| \$20,000 - 39,999 | 50.0 | 60.7 | 49.2 |
| \$40,000 - 69,999 | 45.6 | 54.9 | 44.4 |
| \$70,000 - 99,999 | 43.9 | 63.4 | 48.8 |
| \$100,000 - 149,000 | 48.8 | 65.0 | 51.2 |
| \$150,000+ | 62.5 | 76.6 | 68.3 |

Health Risk Behaviors

Sleep

Respondents were asked, on average, how many hours of sleep they get in a 24-hour period. Of the respondents, 29% of females reported getting 8 or more hours of sleep, compared to 24% of males. Table 5 indicates as age, education, and income level decreased, self-reported hours of sleep also decreased.

Table 5. Sleep behaviors, by Demographic Characteristics

| | ≤5 hours | 6 hours | 7 hours | 8 hours | ≥9 hours |
|-------------------|----------|---------|---------|---------|----------|
| Overall | 10.2 | 26.4 | 35.9 | 20.6 | 6.9 |
| Gender | | | | | |
| Male | 8.8 | 31.3 | 35.4 | 19.7 | 4.8 |
| Female | 10.9 | 24.1 | 36.0 | 21.1 | 7.9 |
| Age | | | | | |
| 18-24 | 18.9* | 24.3 | 24.3 | 16.2 | 16.2 |
| 25-34 | 12.4 | 21.3 | 42.7 | 16.9 | 6.7 |
| 35-44 | 14.7 | 27.9 | 33.8 | 17.6 | 5.9 |
| 45-54 | 7.1 | 35.7 | 36.7 | 18.4 | 2.0 |
| 55-64 | 4.0 | 30.7 | 38.7 | 24.0 | 2.7 |
| 65+ | 9.0 | 17.9 | 32.1 | 26.9 | 14.1 |
| Education | | | | | |
| < High School | 37.5* | 12.5 | 0.0 | 0.0 | 50.0 |
| High School | 25.5 | 20.0 | 30.9 | 16.4 | 7.3 |
| Some College | 13.9 | 35.4 | 22.8 | 15.2 | 12.7 |
| Associates | 13.3 | 28.3 | 28.3 | 21.7 | 8.3 |
| Bachelors Degree | 4.3 | 25.4 | 44.9 | 21.0 | 4.3 |
| Graduate+ | 3.7 | 23.9 | 43.1 | 27.5 | 1.8 |
| Income | | | | | |
| <\$20,000 | 27.5* | 26.1 | 15.9 | 11.6 | 18.8 |
| \$20,000-39,999 | 12.7 | 34.5 | 30.9 | 16.4 | 5.5 |
| \$40,000-69,999 | 9.5 | 27.4 | 29.8 | 28.6 | 4.8 |
| \$70,000-99,999 | 7.7 | 24.4 | 42.3 | 24.4 | 1.3 |
| \$100,000-149,999 | 5.3 | 26.7 | 42.7 | 22.7 | 2.7 |
| \$150,000+ | 1.6 | 24.6 | 49.2 | 21.3 | 3.3 |

* $p < .05$; statistically significant *trend*

Physical Activity: Adults

Respondents were asked to report if they participated in any physical activities or exercise such as running, calisthenics, golf, gardening, or walking for exercise, outside of work in the past month. Those who said they have not been physically active within the last month were considered to be inactive. Of the individuals that responded, 22.1% were inactive. This percentage is 2.1% lower than the 24.4% of adults considered inactive from the 2013 MiBRFS.

Table 6 shows the percentage of the sample that met the physical activity guidelines of 150 minutes of moderate to vigorous physical activity per week and those that reported engaging in no leisure-time physical activity. It indicates that:

- Males were more likely to meet the physical activity guidelines
- As age, education, and income level increased, the percentage of individuals meeting physical activity guidelines increased and the percentage of inactive individuals decreased.

Table 6. Physical Activity & Sedentary Behavior, by Demographic Characteristics

| | Met Physical Activity Guidelines | Engaged in NO Physical Activity |
|-------------------|----------------------------------|---------------------------------|
| Overall | 53.9 | 22.1 |
| Gender | | |
| Male | 67.8* | 16.9 |
| Female | 47.4 | 24.7 |
| Age | | |
| 18-24 | 31.6* | 42.1* |
| 25-34 | 48.3 | 26.7 |
| 35-44 | 48.5 | 26.5 |
| 45-54 | 62.2 | 16.3 |
| 55-64 | 60.8 | 16.0 |
| 65+ | 61.3 | 18.2 |
| Education | | |
| < High School | 20.0* | 55.6* |
| High School | 35.7 | 49.1 |
| Some College | 46.2 | 25.3 |
| Associates | 51.7 | 23.3 |
| Bachelors Degree | 63.0 | 11.6 |
| Graduate+ | 61.0 | 17.3 |
| Income | | |
| <\$20,000 | 36.2* | 42.9* |
| \$20,000-39,999 | 43.9 | 30.4 |
| \$40,000-69,999 | 58.8 | 19.0 |
| \$70,000-99,999 | 50.0 | 23.1 |
| \$100,000-149,999 | 62.7 | 17.3 |
| \$150,000+ | 68.3 | 6.6 |

* $p < .05$; statistically significant *trend*

Respondents were asked whether or not they participated in moderate activity. Moderate physical activity was referred to as brisk walking, bicycling, vacuuming, gardening, or anything else that causes some increase in breathing or heart rate (other than working) in a typical week. Table 7 indicates that:

- Males engaged in significantly more total minutes of moderate physical activity per week than females.
- Older individuals participated in more total minutes of moderate physical activity.

Respondents were asked whether or not they participated in vigorous physical activity. Vigorous physical activity is referred to as running, aerobics, heavy yard work, or anything else that causes large increases in breathing or heart rate other than working in a typical week. Table 7 indicates that:

- Males engaged in significantly more total minutes of vigorous physical activity than females.
- Participants with higher education levels participated in more vigorous physical activity.

Total physical activity is the combined total of moderate and vigorous physical activity that is performed in a typical week. Table 7 indicates that:

- Males engaged in significantly more total minutes of physical activity than females.
- Participants with higher education levels participated in more total physical activity.

Table 7. Minutes of Physical Activity per Week, by Demographic Characteristics

| | Moderate Physical Activity Mean (SD) | Vigorous Physical Activity Mean (SD) | Total Physical Activity Mean (SD) |
|-------------------|---|---|--------------------------------------|
| Overall | 151.0 (162.8) | 97.5 (138.9) | 244.1 (272.9) |
| Gender | | | |
| Male | 183.4 (168.2)* | 134.5 (159.1)* | 311.4 (296.6)* |
| Female | 135.5 (158.0) | 80.6 (125.2) | 212.4 (255.1) |
| Age | | | |
| 18-24 | 124.0 (216.5)* | 103.2 (184.8) | 227.1 (390.9) |
| 25-34 | 133.0 (160.7) | 92.8 (128.6) | 223.3 (263.7) |
| 35-44 | 128.0 (168.2) | 96.6 (135.2) | 220.9 (275.4) |
| 45-54 | 157.1 (136.9) | 97.8 (118.0) | 250.9 (226.9) |
| 55-64 | 185.8 (159.3) | 128.6 (156.7) | 308.4 (279.1) |
| 65+ | 170.3 (165.6) | 76.5 (137.1) | 240.4 (265.8) |
| Education | | | |
| < High School | 71.1 (112.9) | 11.0 (26.0)* | 75.0 (113.3)* |
| High School | 137.3 (221.5) | 68.0 (153.3) | 200.4 (344.2) |
| Some College | 137.1 (168.1) | 89.3 (132.6) | 222.4 (284.0) |
| Associates | 141.2 (169.8) | 96.8 (158.3) | 236.3 (300.5) |
| Bachelors Degree | 168.3 (144.0) | 113.4 (125.0) | 278.0 (243.7) |
| Graduate+ | 152.4 (137.4) | 101.9 (138.9) | 248.5 (231.1) |
| Income | | | |
| <\$20,000 | 126.7 (188.1) | 70.9 (144.2) | 196.5 (311.5) |
| \$20,000-39,999 | 129.3 (150.8) | 76.6 (141.6) | 200.0 (258.4) |
| \$40,000-69,999 | 166.1 (188.7) | 111.5 (164.2) | 272.9 (310.3) |
| \$70,000-99,999 | 151.9 (164.5) | 100.1 (126.6) | 246.6 (273.5) |
| \$100,000-149,999 | 145.2 (132.4) | 104.1 (123.2) | 246.5 (237.7) |
| \$150,000+ | 172.9 (137.7) | 102.9 (110.9) | 269.5 (197.0) |

* p < .05; statistically significant *trend*

Physical Activity: Children

Respondents were asked to report if they have any children under the age of 18 living in their household. Overall, 38.3% stated that they have at least one child under the age of 18. These respondents were then asked how many minutes or hours a day they actively play with their child/children. Table 8 illustrates that:

- Younger participants actively played with their children for more minutes per day.
- Participants with lower education levels played with their children for more minutes per day.
- Participants with lower income levels played with their children for more minutes per day.

Table 8. Time Spent Playing with Children, by Demographic Characteristics

| | Less than 30 minutes | 30 minutes – 2 hours | More than 2 hours |
|-------------------|----------------------|----------------------|-------------------|
| Overall | 29.5 | 51.8 | 18.7 |
| Gender | | | |
| Male | 29.6 | 67.4 | 13.0 |
| Female | 29.5 | 50.1 | 21.4 |
| Age | | | |
| 18-24 | 6.7* | 40.0 | 53.3 |
| 25-34 | 11.1 | 46.6 | 42.2 |
| 35-44 | 33.3 | 60.8 | 5.9 |
| 45-54 | 52.2 | 45.5 | 2.3 |
| 55-64 | 20.0 | 80.0 | 0.0 |
| 65+ | 33.3 | 33.3 | 33.3 |
| Education | | | |
| < High School | 0.0* | 40.0 | 60.0 |
| High School | 10.0 | 40.0 | 50.0 |
| Some college | 33.4 | 52.4 | 14.3 |
| Associates | 26.0 | 56.5 | 17.4 |
| Bachelors Degree | 31.6 | 54.4 | 14.0 |
| Graduate+ | 37.5 | 52.5 | 10.0 |
| Income | | | |
| <\$20,000 | 22.6* | 32.3 | 45.2 |
| \$20,000-39,999 | 11.8 | 53.0 | 35.3 |
| \$40,000-69,999 | 23.0 | 61.6 | 15.4 |
| \$70,000-99,999 | 31.6 | 45.8 | 12.5 |
| \$100,000-149,999 | 39.0 | 53.6 | 7.3 |
| \$150,000+ | 36.4 | 54.5 | 9.1 |

* p < .05; statistically significant *trend*

Physical Activity: Pregnancy

Female respondents were asked specific details about their most recent pregnancy (Table 9). Our data indicated that respondents with higher education levels participated in more

moderate or vigorous leisure-time physical activity during pregnancy. Respondents with higher education levels were more likely to receive a recommendation from their prenatal health care provider to engage in moderate or vigorous physical activity during pregnancy.

Table 9. Physical Activity During Pregnancy

| | % Yes |
|--|-------|
| Participated in moderate or vigorous physical activity in leisure time during pregnancy | 63.1 |
| Health care provider recommended that they engage in moderate or vigorous physical activity during pregnancy | 48.7 |
| Prenatal health care provider counseled on the amount of weight that should be gained during pregnancy | 75.6 |

Diet

Participants were asked about their consumption of sugar-sweetened beverages. Specifically, they were asked to report how often they drink the following beverages: soda, energy drinks, fruit drinks, or tea in a typical week. Table 10 expresses the mean beverage consumption for an average week. Overall, soda was consumed at a significantly higher rate, as compared to the mean consumption of energy drink, sugar-sweetened fruit drinks, and sugar-sweetened tea. A number of other conclusions can be drawn from Table 10:

Soda

- Younger individuals reported consuming more soda on a weekly basis.
- Individuals with lower education and income levels reported consuming more soda on a weekly basis.

Energy Drinks

- Females and younger individuals reported consuming more energy drinks on a weekly basis.
- Individuals with lower education and income levels reported consuming more energy drinks on a weekly basis.

Sugar-Sweetened Fruit Drinks

- Younger individuals reported consuming more fruit drinks on a weekly basis.
- Individuals with lower education and income levels reported consuming more fruit drinks on a weekly basis.

Sugar-Sweetened Tea

- Individuals with lower education and income levels reported consuming more tea on a weekly basis.

Table 10. Beverage Consumption, % Reporting Never Consuming, by Demographic Characteristics

| | Soda | Energy drinks | Sugar-sweetened Fruit Drinks | Sugar-sweetened Flavored Tea |
|-------------------|-------|---------------|------------------------------|------------------------------|
| Overall | 36.5 | 85.7 | 66.1 | 81.5 |
| Gender | | | | |
| Male | 33.8 | 79.2* | 59.0 | 78.6 |
| Female | 37.9 | 89.2 | 69.7 | 83.2 |
| Age | | | | |
| 18-24 | 8.1* | 62.2* | 43.2* | 67.6 |
| 25-34 | 39.5 | 73.3 | 57.6 | 80.2 |
| 35-44 | 37.9 | 86.2 | 68.2 | 83.3 |
| 45-54 | 40.8 | 89.8 | 73.2 | 82.7 |
| 55-64 | 38.7 | 96.0 | 74.7 | 86.7 |
| 65+ | 37.2 | 95.9 | 66.7 | 82.7 |
| Education | | | | |
| < High School | 0.0* | 66.7* | 44.4* | 88.9* |
| High School | 24.6 | 67.9 | 50.0 | 76.8 |
| Some College | 32.9 | 83.8 | 58.1 | 76.0 |
| Associates | 31.7 | 85.0 | 65.0 | 81.7 |
| Bachelors Degree | 39.4 | 89.8 | 68.4 | 80.3 |
| Graduate+ | 46.7 | 93.3 | 79.2 | 88.7 |
| Income | | | | |
| <\$20,000 | 25.0* | 66.2* | 44.1* | 66.7* |
| \$20,000-39,999 | 27.6 | 83.9 | 62.5 | 82.1 |
| \$40,000-69,999 | 37.3 | 89.2 | 60.2 | 78.3 |
| \$70,000-99,999 | 37.7 | 82.9 | 77.6 | 82.9 |
| \$100,000-149,999 | 40.0 | 90.7 | 74.3 | 89.3 |
| \$150,000+ | 48.3 | 98.3 | 73.3 | 85.0 |

* $p < .05$; statistically significant *trend* across frequency of consumption categories

Participants were asked to report the number of servings of fruit and vegetables they consumed per day in a typical week. Respondents could ‘count’ fruits and vegetables that were fresh, frozen, or canned, but not dried. Table 11 displays the average fruit and vegetable consumption according to various demographic characteristics. It indicates that more educated individuals consumed significantly more fruits and vegetables per day. Fruit and vegetable consumption was not significantly associated with any other demographic variable.

Table 11. Fruit and Vegetable Consumption per Week, by Demographic Characteristics

| | Mean (SD) |
|-------------------|------------|
| Overall | 3.9 (2.2) |
| Gender | |
| Male | 3.7 (2.3) |
| Female | 4.0 (2.2) |
| Age | |
| 18-24 | 3.5 (2.5) |
| 25-34 | 4.5 (2.5) |
| 35-44 | 3.7 (2.3) |
| 45-54 | 3.7 (2.1) |
| 55-64 | 4.2 (2.1) |
| 65+ | 3.4 (1.8) |
| Education | |
| < High School | 2.9 (3.0)* |
| High School | 3.5 (2.6) |
| Some College | 3.8 (2.1) |
| Associates | 3.6 (2.1) |
| Bachelors Degree | 3.9 (2.1) |
| Graduate+ | 4.2 (2.1) |
| Income | |
| <\$20,000 | 3.6 (2.9) |
| \$20,000-39,999 | 3.8 (2.0) |
| \$40,000-69,999 | 3.7 (2.0) |
| \$70,000-99,999 | 4.1 (2.3) |
| \$100,000-149,999 | 3.8 (2.0) |
| \$150,000+ | 4.2 (2.1) |

* $p < .05$; statistically significant *trend*

Participants were also asked to report the number of times they purchased food from one of following; grocery store, convenience store, fast food restaurant, sit-down restaurant, farmers market, co-op, food pantry, meals on wheels, or other. Overall, across all demographic variables, grocery stores appeared to be the most common resource for food purchases.

Table 12 indicates that:

- Younger individuals reported more food purchases from convenience stores, co-ops, and food pantries.
- Older individuals reported more food purchases from sit-down restaurants.
- Less educated individuals reported more food purchases from convenience stores and food pantries.
- Higher educated individuals reported more food purchases from sit-down restaurants.
- Lower income earning individuals reported more food purchases from convenience stores, food pantries, meals on wheels, and other resources.
- Higher income earning individuals reported more food purchases from sit-down restaurants and farmers markets.

Table 12. Food Purchasing Locations, % Purchasing Food at Least Once per Week, by Demographic Characteristics

| | Grocery Store | Convenience Store | Fast Food | Restaurant | Farmer Market | Coop | Pantry | Meals on Wheels |
|-------------------|---------------|-------------------|-----------|------------|---------------|-------|--------|-----------------|
| Overall | 98.7 | 44.9 | 74.0 | 85.2 | 69.8 | 6.0 | 6.4 | 2.1 |
| Gender | | | | | | | | |
| Male | 97.9 | 45.0 | 75.0 | 90.5* | 72.9 | 4.9 | 6.3 | 2.8 |
| Female | 99.0 | 45.1 | 73.8 | 82.9 | 68.5 | 6.5 | 6.1 | 1.7 |
| Age | | | | | | | | |
| 18-24 | 94.6 | 50.0* | 67.6 | 64.9* | 48.6 | 11.1* | 24.3* | 2.7 |
| 25-34 | 100.0 | 51.2 | 73.3 | 79.1 | 71.8 | 6.0 | 4.7 | 1.2 |
| 35-44 | 98.5 | 42.2 | 74.2 | 81.8 | 64.6 | 9.2 | 6.2 | 1.5 |
| 45-54 | 100.0 | 42.6 | 78.1 | 84.4 | 77.9 | 3.2 | 7.3 | 1.1 |
| 55-64 | 100.0 | 8.0 | 67.3 | 93.2 | 70.7 | 6.8 | 2.7 | 1.4 |
| 65+ | 96.2 | 35.1 | 77.6 | 96.2 | 70.9 | 1.3 | 1.3 | 5.5 |
| Education | | | | | | | | |
| < High School | 100.0 | 62.5* | 55.6 | 44.4* | 22.2 | 12.5 | 44.4* | 11.1 |
| High School | 94.9 | 62.3 | 75.0 | 70.7 | 63.2 | 9.4 | 24.1 | 3.8 |
| Some college | 97.4 | 49.3 | 76.3 | 80.5 | 64.9 | 5.4 | 5.3 | 0.0 |
| Associates | 100.0 | 46.7 | 80.0 | 91.7 | 81.7 | 3.4 | 3.3 | 3.3 |
| Bachelors Degree | 100.0 | 42.2 | 71.1 | 86.8 | 71.6 | 5.2 | 3.7 | 2.2 |
| Graduate+ | 99.1 | 34.6 | 74.5 | 94.3 | 71.4 | 6.7 | 0.0 | 1.0 |
| Income | | | | | | | | |
| <\$20,000 | 94.1 | 56.9* | 70.1 | 55.1* | 59.4* | 7.7 | 28.4* | 4.5* |
| \$20,000-39,999 | 100.0 | 44.4 | 82.1 | 70.2 | 61.4 | 5.6 | 14.3 | 5.6 |
| \$40,000-69,999 | 98.8 | 39.8 | 79.3 | 92.8 | 67.5 | 2.4 | 0.0 | 2.4 |
| \$70,000-99,999 | 100.0 | 55.3 | 77.6 | 92.0 | 77.3 | 6.6 | 1.3 | 0.0 |
| \$100,000-149,999 | 98.6 | 39.2 | 70.3 | 95.9 | 75.7 | 5.4 | 0.0 | 1.4 |
| \$150,000+ | 100.0 | 35.6 | 68.3 | 96.7 | 70.0 | 10.0 | 0.0 | 0.0 |

* p < .05; statistically significant *trend* across frequency of purchasing categories

Seatbelt Utilization

Participants were asked how often they use seat belts when riding or driving in a vehicle. In Midland County, 94.6% of residents reported that they always wear a seat belt. This is higher than the 2013 MiBRFS 89.6%. 96.3% of females reported utilizing seat belts at all times, which is 4.1% higher than the 92.2% reported in the 2013 MiBRFS. Among males, 91.2% reported wearing seat belts at all times, which is 4.6% higher than the 86.8% reported in the 2013 MiBRFS.

Table 13 indicates that a lower percentage of younger individuals and those with lower education and income levels reported always wearing a seatbelt.

Table 13. Seatbelt Usage, by Demographic Characteristics

| | Always wear a seatbelt |
|-------------------|------------------------|
| Overall | 94.6 |
| Gender | |
| Male | 91.2 |
| Female | 96.3 |
| Age | |
| 18-24 | 78.4* |
| 25-34 | 96.5 |
| 35-44 | 92.6 |
| 45-54 | 94.8 |
| 55-64 | 98.7 |
| 65+ | 97.5 |
| Education | |
| < High School | 77.8* |
| High School | 82.8 |
| Some College | 92.2 |
| Associates | 96.7 |
| Bachelors Degree | 97.1 |
| Graduate+ | 100.0 |
| Income | |
| <\$20,000 | 84.1* |
| \$20,000-39,999 | 93.0 |
| \$40,000-69,999 | 97.6 |
| \$70,000-99,999 | 96.1 |
| \$100,000-149,999 | 97.3 |
| \$150,000+ | 100.0 |

* p < .05; statistically significant *trend* across seatbelt use categories

Cigarette Smoking, Tobacco Use, Smoke exposure, and E-cigarettes

Respondents were asked to report if they currently smoke cigarettes every day, some days, or not at all. Of the respondents, 7.2% reported smoking cigarettes every day. Respondents were also asked to report if they currently use chewing tobacco, snuff, or any form of smokeless tobacco. Overall, 98.2% of respondents stated that they did not use any type of smokeless tobacco. Respondents were asked if they currently use e-cigarettes. Of the individuals that answered this question, 0.9% stated that they use e-cigarettes every day.

Table 14 indicates that:

- A greater percentage of males reported using smokeless tobacco.
- As age, income, and education decreased the percentage of respondents reporting usage of cigarettes, smokeless tobacco and e-cigarettes decreased.
- The prevalence of cigarette and e-cigarette usage increased and education and income level decreased.

Table 14. Tobacco Usage, % Reporting Usage, by Demographic Characteristics

| | Cigarette Smoking | Smokeless Tobacco | E-cigarettes |
|-------------------|-------------------|-------------------|--------------|
| Overall | 8.9 | 1.8 | 4.9 |
| Gender | | | |
| Male | 9.5 | 4.1* | 5.4 |
| Female | 8.7 | 0.7 | 4.7 |
| Age | | | |
| 18-24 | 18.9* | 8.1* | 18.9* |
| 25-34 | 14.1 | 2.3 | 5.8 |
| 35-44 | 4.5 | 0.0 | 4.4 |
| 45-54 | 9.3 | 2.1 | 5.2 |
| 55-64 | 8.0 | 1.4 | 0.0 |
| 65+ | 2.5 | 0.0 | 2.5 |
| Education | | | |
| < High School | 66.7* | 11.1 | 33.3* |
| High School | 18.6 | 5.1 | 13.6 |
| Some College | 13.2 | 0.0 | 6.5 |
| Associates | 8.3 | 3.4 | 5.0 |
| Bachelors Degree | 4.4 | 0.7 | 2.2 |
| Graduate+ | 1.9 | 0.9 | 0.0 |
| Income | | | |
| <\$20,000 | 24.6* | 5.8 | 15.9* |
| \$20,000-39,999 | 17.2 | 0.0 | 10.3 |
| \$40,000-69,999 | 6.1 | 0.0 | 3.6 |
| \$70,000-99,999 | 6.6 | 2.6 | 2.6 |
| \$100,000-149,999 | 0.0 | 2.7 | 0.0 |
| \$150,000+ | 3.3 | 0.0 | 0.0 |

* p < .05; statistically significant *trend*

Participants were asked to report their average exposure to smoke where they live, at their job, and in public spaces within the past 5 years. Table 15 indicates that:

- Males were more likely to report being exposed to smoke where they work.
- Younger respondents were more likely to report being exposed to smoke where they live and work.
- Less educated respondents were more likely to report being exposed to smoke where they live, work, and in public places.
- Respondents with lower income levels were more likely to report being exposed to smoke where they live, work, and in public places.

Table 15. Exposure to Smoke in Past 5 Years, % Reporting *any* Exposure, by Demographic Characteristics

| | Where You Live | Where You Work | In Public |
|-------------------|----------------|----------------|-----------|
| Overall | 14.7 | 8.7 | 61.2 |
| Gender | | | |
| Male | 13.7 | 13.4* | 68.0 |
| Female | 15.3 | 6.4 | 58.5 |
| Age | | | |
| 18-24 | 25.0* | 22.3* | 67.6 |
| 25-34 | 17.5 | 12.8 | 61.2 |
| 35-44 | 14.7 | 4.5 | 60.3 |
| 45-54 | 16.5 | 10.4 | 66.0 |
| 55-64 | 13.3 | 1.4 | 59.5 |
| 65+ | 5.1 | 5.7 | 59.5 |
| Education | | | |
| < High School | 77.8* | 12.5* | 44.4* |
| High School | 29.2 | 19.2 | 69.0 |
| Some College | 19.5 | 13.3 | 64.5 |
| Associates | 20.0 | 11.9 | 67.8 |
| Bachelors Degree | 7.4 | 3.7 | 61.8 |
| Graduate+ | 4.6 | 4.7 | 54.6 |
| Income | | | |
| <\$20,000 | 24.8* | 20.9* | 56.5* |
| \$20,000-39,999 | 19.0 | 16.8 | 63.8 |
| \$40,000-69,999 | 7.4 | 4.9 | 71.6 |
| \$70,000-99,999 | 18.2 | 10.5 | 63.6 |
| \$100,000-149,999 | 6.6 | 2.7 | 58.7 |
| \$150,000+ | 3.3 | 0.0 | 54.2 |

* p < .05; statistically significant *trend* across exposure categories

Alcohol

Participants were asked if they had consumed at least one alcoholic drink within the past 30 days. Respondents were then asked how many days in a typical week they had one drink of any alcoholic beverage. They were also asked, on the days they did drink, how many drinks they consumed (drinks are equivalent to a 12 ounce beer, a 5 ounce glass of wine, or a drink with one shot of liquor). Table 16 indicates that:

- Respondents with higher education levels were more likely to report consumption of alcohol within the past 30 days.
- Respondents with higher yearly incomes were more likely to report consumption of alcohol within the past 30 days.
- Individuals with higher education and income consumed more total alcohol per week, on most days of the week, and consumed more alcohol on days when they did drink.
- Younger individuals consumed more alcohol on days when they did drink.

Table 16. Alcohol Consumption, by Demographic Characteristics

| | Consumed within the past 30 days | Total Alcohol Consumption per week Mean (SD) |
|-------------------|-------------------------------------|---|
| Overall | 65.5 | 2.3 (4.5) |
| Gender | | |
| Male | 70.5 | 2.9 (4.8) |
| Female | 63.2 | 2.1 (4.4) |
| Age | | |
| 18-24 | 47.2 | 1.7 (3.5) |
| 25-34 | 64.0 | 2.6 (5.2) |
| 35-44 | 70.1 | 2.7 (5.1) |
| 45-54 | 76.6 | 2.8 (5.4) |
| 55-64 | 69.3 | 2.4 (3.8) |
| 65+ | 52.6 | 1.4 (3.0) |
| Education | | |
| < High School | 0.0* | 0.0* (0.0) |
| High School | 29.3 | 0.6 (2.1) |
| Some College | 60.0 | 3.5 (7.0) |
| Associates | 66.1 | 1.5 (3.3) |
| Bachelors Degree | 78.4 | 2.7 (4.5) |
| Graduate+ | 77.6 | 2.7 (3.7) |
| Income | | |
| <\$20,000 | 31.9* | 0.8* (2.8) |
| \$20,000-39,999 | 47.4 | 2.4 (5.9) |
| \$40,000-69,999 | 67.1 | 2.3 (4.5) |
| \$70,000-99,999 | 81.8 | 2.7 (5.2) |
| \$100,000-149,999 | 80.8 | 3.2 (4.8) |
| \$150,000+ | 89.8 | 3.1 (3.5) |

* p < .05; statistically significant *trend*

Respondents that reported current alcohol consumption were asked if in the last year they felt they wanted or needed to cut down on their drinking. Respondents were also asked if they experienced any negative consequences from their alcohol use in the last year. Finally, they were asked to report if they have sought treatment or attended a support group to help with their alcohol use within the last year. Table 17 indicates that a larger percentage of younger respondents reported wanting to cut down on drinking and reported negative consequences from alcohol use within the past year.

Table 17. Consequences of Alcohol in Past Year, among Drinkers, by Demographic Characteristics

| | Felt Like Wanted or Needed to Cut Back | Experienced Negative Consequences | Sought Treatment or Attended a Support Group |
|-------------------|--|-----------------------------------|--|
| Overall | 10.2 | 8.2 | 1.6 |
| Gender | | | |
| Male | 12.0 | 9.2 | 1.9 |
| Female | 10.2 | 7.7 | 1.4 |
| Age | | | |
| 18-24 | 17.6* | 23.5* | 0.0 |
| 25-34 | 11.9 | 11.7 | 4.8 |
| 35-44 | 16.0 | 9.6 | 1.9 |
| 45-54 | 9.5 | 8.0 | 0.0 |
| 55-64 | 8.9 | 5.3 | 1.8 |
| 65+ | 1.9 | 0.0 | 0.0 |
| Education | | | |
| < High School | 0.0 | 0.0 | 0.0 |
| High School | 4.5 | 9.1 | 0.0 |
| Some College | 20.0 | 14.0 | 3.9 |
| Associates | 11.4 | 8.9 | 2.3 |
| Bachelors Degree | 10.2 | 8.2 | 0.9 |
| Graduate+ | 5.7 | 4.5 | 1.1 |
| Income | | | |
| <\$20,000 | 7.7 | 15.4 | 7.4 |
| \$20,000-39,999 | 13.5 | 15.8 | 2.6 |
| \$40,000-69,999 | 10.3 | 6.8 | 0.0 |
| \$70,000-99,999 | 7.8 | 4.7 | 0.0 |
| \$100,000-149,999 | 8.2 | 4.8 | 1.6 |
| \$150,000+ | 14.8 | 10.9 | 1.8 |

* $p < .05$; statistically significant *trend*

Drug Use

Prescription and Illegal Drug Use

Respondents were asked if they have used prescription drugs that were not prescribed by a health care provider, such as anti-depressants, painkillers, sedatives or stimulants in the past year. Table 18 indicates the breakdown of prescription drug use among age, education level, and income level. There were no significant trends or correlations between prescription drug use and any demographic variables.

Respondents were asked if they have used illegal drugs, such as marijuana, cocaine, crack, crystal meth, heroin, smack, PCP, LSD, uppers or downers within the last 12 months. Table 18 indicates that:

- Respondents with lower levels of education and income were more likely to report prescription drug use.

- Younger and lower income earning individuals were more likely to report using illegal drugs.

Table 18. Drug Use in the Past Year, by Demographic Characteristics

| | Used Prescription Drugs | Used Illegal Drugs |
|-------------------|-------------------------|--------------------|
| Overall | 4.5 | 3.6 |
| Gender | | |
| Male | 6.1 | 4.7 |
| Female | 3.7 | 3.0 |
| Age | | |
| 18-24 | 8.1 | 10.8* |
| 25-34 | 3.5 | 5.8 |
| 35-44 | 5.9 | 5.9 |
| 45-54 | 5.2 | 1.1 |
| 55-64 | 2.7 | 1.4 |
| 65+ | 3.8 | 0.0 |
| Education | | |
| < High School | 0.0* | 0.0 |
| High School | 5.1 | 6.8 |
| Some College | 10.4 | 3.9 |
| Associates | 8.5 | 1.7 |
| Bachelors Degree | 1.5 | 3.7 |
| Graduate+ | 1.9 | 2.8 |
| Income | | |
| <\$20,000 | 8.7* | 10.1* |
| \$20,000-39,999 | 6.9 | 3.5 |
| \$40,000-69,999 | 4.9 | 4.9 |
| \$70,000-99,999 | 5.2 | 2.6 |
| \$100,000-149,999 | 1.4 | 0.0 |
| \$150,000+ | 1.7 | 0.0 |

* p < .05; statistically significant *trend*

Respondents were asked to report if they wanted to or needed to cut down on drug use, if they experienced negative consequences from drug use, or if they sought treatment or attended a support group to help with their drug use (Table 19). It indicates that:

- Young respondents were more likely to report wanting/needing to cut down on their drug use.
- Younger, less education, and lower income respondents were more likely to report that they experienced negative consequences from their drug use.
- Younger individuals were more likely to report seeking treatment or attendance at a support group.

Table 19. Consequences of Drug Use in Past Year, among Drug Users, by Demographic Characteristics

| | Felt Like Wanted or Needed to Cut Down | Experienced Negative Consequences | Sought Treatment or Attended a Support Group |
|-------------------|--|-----------------------------------|--|
| Overall | 23.3 | 13.6 | 9.3 |
| Gender | | | |
| Male | 22.2 | 21.1 | 11.8 |
| Female | 24.0 | 8.0 | 7.7 |
| Age | | | |
| 18-24 | 40.0* | 20.0* | 25.0* |
| 25-34 | 80.0 | 60.0 | 50.0 |
| 35-44 | 40.0 | 20.0 | 0.0 |
| 45-54 | 10.0 | 9.1 | 0.0 |
| 55-64 | 0.0 | 0.0 | 0.0 |
| 65+ | 12.5 | 0.0 | 0.0 |
| Education | | | |
| < High School | 0.0 | 0.0* | 0.0 |
| High School | 40.0 | 16.7 | 20.0 |
| Some College | 40.0 | 40.0 | 30.0 |
| Associates | 16.7 | 16.7 | 0.0 |
| Bachelors Degree | 0.0 | 0.0 | 0.0 |
| Graduate+ | 23.1 | 0.0 | 0.0 |
| Income | | | |
| <\$20,000 | 62.5* | 37.5* | 50.0 |
| \$20,000-39,999 | 16.7 | 28.6 | 0.0 |
| \$40,000-69,999 | 16.7 | 16.7 | 0.0 |
| \$70,000-99,999 | 37.5 | 0.0 | 0.0 |
| \$100,000-149,999 | 0.0 | 0.0 | 0.0 |
| \$150,000+ | 0.0 | 0.0 | 0.0 |

* p < .05; statistically significant *trend*

Chronic Disease

Obesity

Respondents were asked to report their height and weight, which were used to calculate the individual's body mass index (BMI). If the BMI is 30 kg/ m² or more, the individual is classified as 'obese'. An individual with a BMI of 25 to 29.9 kg/ m² is 'overweight'. The 'normal weight' BMI is 18.5 to 24.9. There was a statistically significant difference in BMI between males (28.1 kg/m²) and females (29.8 kg/m²). Table 20 shows the mean differences in BMI within demographic variables. It indicates that:

- Females reporting having a significantly higher BMI than males.
- As education and income decreased, mean BMI increased.
- As age increased, mean BMI increased.

Table 20. Body Mass Index and Weight Category, by Demographic Characteristics

| | BMI Mean (SD) | Weight Category | | | |
|---------------------|------------------|-----------------|---------------|------------|-------|
| | | Underweight | Normal Weight | Overweight | Obese |
| Overall | 29.2 (7.3) | 0.6 | 29.2 | 33.9 | 36.3 |
| Gender | | | | | |
| Male | 28.1 (5.2)* | 0.7 | 25.3 | 43.3 | 30.7 |
| Female | 29.8 (8.1) | 0.3 | 31.1 | 29.5 | 39.0 |
| Age | | | | | |
| 18-24 | 27.1 (8.4) | 2.6* | 53.8 | 15.4 | 28.2 |
| 25-34 | 28.6 (7.6) | 0.0 | 32.6 | 37.9 | 29.5 |
| 35-44 | 29.5 (8.5) | 0.0 | 34.8 | 27.5 | 37.7 |
| 45-54 | 30.3 (7.0) | 0.0 | 25.5 | 30.4 | 44.1 |
| 55-64 | 29.6 (7.4) | 1.3 | 29.3 | 28.0 | 41.3 |
| 65+ | 29.1 (5.5) | 1.3 | 13.9 | 51.9 | 32.9 |
| Education | | | | | |
| < High School | 35.7 (13.6)* | 0.0* | 30.0 | 10.0 | 60.0 |
| High School | 31.2 (8.7) | 1.8 | 19.3 | 35.1 | 43.9 |
| Some College | 30.5 (7.8) | 0.0 | 25.3 | 30.1 | 44.6 |
| Associates | 29.4 (6.2) | 1.6 | 26.2 | 29.5 | 42.6 |
| Bachelors Degree | 28.1 (6.5) | 0.0 | 37.1 | 31.4 | 31.4 |
| Graduate + | 28.2 (6.4) | 0.9 | 27.4 | 44.2 | 27.4 |
| Income | | | | | |
| < \$20,000 | 31.6 (10.5)* | 1.4* | 25.7 | 27.1 | 45.7 |
| \$20,000 - 39,999 | 29.4 (6.4) | 1.8 | 24.6 | 35.1 | 38.6 |
| \$40,000 - 69,999 | 30.1 (6.7) | 0.0 | 35.6 | 31.1 | 43.3 |
| \$70,000 - 99,999 | 28.7 (7.2) | 0.0 | 37.5 | 30.0 | 32.5 |
| \$100,000 - 149,000 | 28.8 (6.7) | 1.3 | 27.3 | 33.8 | 37.7 |
| \$150,000+ | 26.9 (5.7) | 0.0 | 38.1 | 44.4 | 17.5 |

* p < .05; statistically significant *trend*

Cancer

Respondents were asked if they had ever been diagnosed with cancer. Overall, 11.4% reported they have or had cancer. This estimate is comparable to the 2013 MiBRFS, which reported that 11.9% of residents have told by a doctor that they have or have had cancer. The average age an individual was diagnosed with cancer was 53.8 years. Table 21 indicates that as age increased the prevalence of cancer diagnoses also increased. As shown in Table 22, among those with cancer, the most common types were breast cancer (50%), Melanoma (skin) cancer (36.0%), and prostate cancer (32.1%).

Table 21. Prevalence of Cancer, by Demographic Characteristics

| | Any Cancer |
|---------------------|------------|
| Overall | 11.4 |
| Gender | |
| Male | 11.5 |
| Female | 11.4 |
| Age | |
| 18-24 | 0.0* |
| 25-34 | 4.7 |
| 35-44 | 1.5 |
| 45-54 | 6.3 |
| 55-64 | 12.0 |
| 65+ | 38.5 |
| Education | |
| < High School | 22.2 |
| High School | 13.6 |
| Some College | 15.6 |
| Associates | 10.3 |
| Bachelors Degree | 9.6 |
| Graduate + | 9.3 |
| Income | |
| < \$20,000 | 5.9 |
| \$20,000 - 39,999 | 19.0 |
| \$40,000 - 69,999 | 17.1 |
| \$70,000 - 99,999 | 11.7 |
| \$100,000 - 149,000 | 4.1 |
| \$150,000+ | 5.0 |

* $p < .05$; statistically significant *trend*

Table 22. Prevalence of Cancer Types, among those Reporting Cancer

| Type of Cancer | % Reporting |
|------------------------|-------------|
| Breast cancer | 50.0 |
| Melanoma (skin) cancer | 36.0 |
| Prostate cancer | 32.1 |
| Bladder cancer | 12.5 |
| Lymphoma cancer | 12.5 |
| Thyroid cancer | 12.5 |
| Lung cancer | 8.0 |
| Leukemia | 4.3 |
| Endometrial cancer | 4.2 |

Cardiovascular Disease

Respondents were asked if a doctor, nurse, or other healthcare provider had ever told them they have had a heart attack (myocardial infarction), angina or coronary heart disease, or a stroke. Among the Midland county respondents, 3.2% were told they have had a heart attack, 5.2% were told they have angina or coronary heart disease, 1.8% had been told they have had a stroke, and 36.1% were told they have hypertension. The 2013 MiBRFS reported a prevalence of 5.2%, 5.2%, and 3.6% for heart attack, angina/coronary heart disease, and stroke, respectively. However, it did not evaluate the prevalence of hypertension.

Table 23 below shows the percentage of respondents who reported a diagnosis of one or more forms of cardiovascular disease. It indicates that:

- Males were more likely than females to report having had a heart attack or angina.
- The percentage of individuals who reported having each of the four types of cardiovascular disease increased with age.
- As education increased, the prevalence of hypertension increased.

Table 23. Prevalence of Cardiovascular Disease, by Demographic Characteristics

| | Heart Attack | Angina/CHD | Stroke | Hypertension |
|---------------------|--------------|------------|--------|--------------|
| Overall | 3.1 | 5.2 | 1.8 | 36.1 |
| Gender | | | | |
| Male | 6.8* | 9.5* | 2.7 | 37.8 |
| Female | 1.4 | 3.0 | 1.4 | 35.4 |
| Age | | | | |
| 18-24 | 0.0* | 0.0* | 0.0* | 5.4* |
| 25-34 | 0.0 | 1.2 | 0.0 | 14.0 |
| 35-44 | 0.0 | 1.5 | 1.5 | 20.9 |
| 45-54 | 0.0 | 5.3 | 2.1 | 33.7 |
| 55-64 | 4.0 | 2.7 | 0.0 | 48.6 |
| 65+ | 14.1 | 17.9 | 5.3 | 76.3 |
| Education | | | | |
| < High School | 0.0 | 0.0 | 0.0 | 33.3* |
| High School | 6.8 | 10.2 | 1.8 | 49.2 |
| Some College | 4.0 | 5.4 | 3.9 | 36.0 |
| Associates | 0.0 | 1.7 | 1.7 | 50.0 |
| Bachelors Degree | 3.0 | 5.1 | 0.7 | 28.7 |
| Graduate + | 2.8 | 4.6 | 1.9 | 31.5 |
| Income | | | | |
| < \$20,000 | 4.4 | 5.9 | 1.5 | 29.4 |
| \$20,000 - 39,999 | 3.4 | 5.2 | 1.8 | 46.6 |
| \$40,000 - 69,999 | 3.7 | 4.9 | 3.7 | 42.7 |
| \$70,000 - 99,999 | 0.0 | 6.5 | 1.3 | 28.6 |
| \$100,000 - 149,000 | 0.0 | 5.3 | 1.3 | 29.7 |
| \$150,000+ | 1.7 | 0.0 | 0.0 | 31.7 |

* p < .05; statistically significant *trend*

Asthma

Among respondents, 17.2% reported being told by a doctor, nurse or other health professional that they have asthma, which is slightly higher than the 16.6% estimate reported in the 2013 MiBRFS. Table 24 shows the percentage of respondents who reported having ever been told they have asthma. The table indicates that the prevalence of asthma diagnoses decreased as age increased.

Table 24. Prevalence of Asthma, by Demographic Characteristics

| | Asthma |
|---------------------|--------|
| Overall | 17.2 |
| Gender | |
| Male | 16.9 |
| Female | 17.4 |
| Age | |
| 18-24 | 24.3* |
| 25-34 | 24.4 |
| 35-44 | 17.9 |
| 45-54 | 18.8 |
| 55-64 | 10.8 |
| 65+ | 10.0 |
| Education | |
| < High School | 33.3 |
| High School | 18.6 |
| Some College | 15.8 |
| Associates | 15.3 |
| Bachelors Degree | 20.0 |
| Graduate + | 13.9 |
| Income | |
| < \$20,000 | 23.5 |
| \$20,000 - 39,999 | 13.8 |
| \$40,000 - 69,999 | 20.7 |
| \$70,000 - 99,999 | 15.8 |
| \$100,000 - 149,000 | 17.3 |
| \$150,000+ | 10.0 |

* p < .05; statistically significant *trend*

Diabetes

Among all respondents, 17.9% reported being told by a healthcare provider that they have pre-diabetes or borderline diabetes and 40.3% of respondents reported they had been tested for high blood sugar or diabetes within the past three years. Among respondents, 3.6% said that they were currently taking insulin. One in ten (10.8%) said they take diabetes medication. Table 25 indicates that:

- Older individuals and those with less education were more likely to be told they have pre-diabetes or borderline diabetes.
- As income decreased, the prevalence of diabetes diagnoses increased.
- Older respondents were more likely tested for high blood sugar or diabetes in the past three years.
- Those with more education greater incomes were more likely to be tested for high blood sugar or diabetes in the past three years.

Table 25. Prevalence of Diabetes-related Conditions and Blood Sugar Screening, by Demographic Characteristics

| | Pre- Diabetes/ Borderline Diabetes | Blood Sugar tested in past 3 years |
|---------------------|------------------------------------|------------------------------------|
| Overall | 17.9 | 59.8 |
| Gender | | |
| Male | 19.6 | 63.4 |
| Female | 17.1 | 57.8 |
| Age | | |
| 18-24 | 2.8* | 16.7* |
| 25-34 | 8.1 | 43.5 |
| 35-44 | 11.8 | 58.8 |
| 45-54 | 21.9 | 67.4 |
| 55-64 | 17.3 | 69.9 |
| 65+ | 38.0 | 80.3 |
| Education | | |
| < High School | 22.2* | 44.4* |
| High School | 30.5 | 52.7 |
| Some College | 17.1 | 52.0 |
| Associates | 23.7 | 64.4 |
| Bachelors Degree | 14.0 | 61.5 |
| Graduate + | 13.1 | 65.1 |
| Income | | |
| < \$20,000 | 21.7* | 47.8* |
| \$20,000 - 39,999 | 28.1 | 56.4 |
| \$40,000 - 69,999 | 19.5 | 67.5 |
| \$70,000 - 99,999 | 13.2 | 53.9 |
| \$100,000 - 149,000 | 14.7 | 69.3 |
| \$150,000+ | 8.3 | 64.4 |

* p < .05; statistically significant *trend*

Mental Health

Overall, 12.6% of respondents reported experiencing limitations in activities because of mental or emotional problems (such as depression). 9.7% of respondents considered themselves in recovery from a past mental health problem. Table 26 indicates that:

- Females were more likely to experience limitations and be in recovery for mental and/or emotional problems.
- Generally, younger respondents were more likely to report having limitations or be in recovery from mental and/or emotional problems.
- Those with less education were more likely than those who have a college degree to report feeling limited in activities because of mental and/or emotional problems.

- Those with lower incomes were more likely to report having limitations or be in recovery from mental and/or emotional problems.

Table 26. Mental Health Limitations and Recovery, by Demographic Characteristics

| | Limitations Due to Mental/Emotional Problems | Recovering from mental health problem |
|---------------------|--|---------------------------------------|
| Overall | 12.6 | 9.7 |
| Gender | | |
| Male | 7.7* | 32.7* |
| Female | 14.9 | 67.3 |
| Age | | |
| 18-24 | 27.5* | 18.9* |
| 25-34 | 16.8 | 18.6 |
| 35-44 | 12.7 | 5.9 |
| 45-54 | 14.2 | 7.4 |
| 55-64 | 5.3 | 8.1 |
| 65+ | 4.9 | 2.6 |
| Education | | |
| < High School | 20.0* | 11.1 |
| High School | 21.7 | 14.0 |
| Some College | 18.6 | 13.3 |
| Associates | 8.1 | 5.1 |
| Bachelors Degree | 9.7 | 8.9 |
| Graduate + | 8.8 | 8.4 |
| Income | | |
| < \$20,000 | 30.6* | 21.7* |
| \$20,000 - 39,999 | 14.8 | 7.0 |
| \$40,000 - 69,999 | 6.7 | 6.3 |
| \$70,000 - 99,999 | 12.5 | 9.1 |
| \$100,000 - 149,000 | 5.1 | 5.3 |
| \$150,000+ | 7.8 | 8.3 |

* $p < .05$; statistically significant *trend*

Respondents were also asked to report whether they personally have concerns about their mental health. Specifically, response options included concerns about their memory or concentration; decision making that affects how they perform familiar tasks; and confusion when driving in familiar locations. Among all respondents concerned with their mental health (14%), 48.7% reported having concerns about memory, 41.1% had concerns about concentration, 10.4% had concerns about performance, and 10.3% had concerns about confusion when driving in familiar locations. Table 27 indicates that those with higher levels of income and education were more likely to have mental health concerns (among all mental health constructs).

Table 27. Mental Health Concerns, by Demographic Characteristics

| | Memory Concerns | Concentration Concerns | Decision Making Concerns | Driving Confusion Concerns |
|---------------------|-----------------|------------------------|--------------------------|----------------------------|
| Overall | 48.7 | 41.4 | 10.4 | 10.3 |
| Gender | | | | |
| Male | 0.0 | 50.0 | 10.3 | 11.9 |
| Female | 44.4 | 38.2 | 10.6 | 8.8 |
| Age | | | | |
| 18-24 | 20.0 | 19.0 | 0.0 | 5.0 |
| 25-34 | 46.0 | 52.9 | 16.7 | 16.7 |
| 35-44 | 55.6 | 70.8 | 23.1 | 23.1 |
| 45-54 | 77.8 | 60.7 | 22.2 | 22.2 |
| 55-64 | 60.0 | 45.0 | 21.4 | 21.4 |
| 65+ | 36.4 | 21.8 | 2.0 | 2.0 |
| Education | | | | |
| < High School | 12.5* | 12.5* | 0.0* | 12.5* |
| High School | 25.0 | 18.8 | 2.1 | 6.3 |
| Some College | 48.8 | 47.7 | 17.1 | 11.4 |
| Associates | 63.6 | 61.9 | 0.0 | 0.0 |
| Bachelors Degree | 71.4 | 54.3 | 26.1 | 21.7 |
| Graduate + | 53.3 | 46.7 | 10.5 | 10.5 |
| Income | | | | |
| < \$20,000 | 25.0* | 22.6* | 9.6* | 2.0* |
| \$20,000 - 39,999 | 44.4 | 29.4 | 6.1 | 6.1 |
| \$40,000 - 69,999 | 50.0 | 41.7 | 3.8 | 10.7 |
| \$70,000 - 99,999 | 65.0 | 60.0 | 11.1 | 27.3 |
| \$100,000 - 149,000 | 84.6 | 88.2 | 50.0 | 33.3 |
| \$150,000+ | 72.7 | 57.1 | 33.3 | 33.3 |

* p < .05; statistically significant *trend*

Preventative Care and Health Screening

Cancer: Females

Mammogram

Female respondents were asked how long it has been since their last mammogram. Among those individuals that responded, 44.0% had a mammogram less than 1 year ago, 12.0% had one within the last 1 – 2 years, 3.7% have had one within the last 3 – 5 years, 3.3% stated it's been 5 or more years, and 37.0% stated they've never had a mammogram. Table 28 indicates that:

- As income increased, the duration since the last mammogram decreased.
- As age increased, the duration since the last mammogram decreased.

Table 28. Women Who Had a Mammogram, by Demographic Characteristics

| | < 1 year | 1–2 years | 3–5 years | ≥5 years | Never |
|---------------------|----------|-----------|-----------|----------|-------|
| Overall | 44.0 | 12.0 | 3.7 | 3.3 | 37.0 |
| Age | | | | | |
| 18-24 | 3.7* | 0.0 | 0.0 | 0.0 | 96.3 |
| 25-34 | 2.9 | 4.4 | 1.5 | 1.5 | 88.2 |
| 35-44 | 42.6 | 8.5 | 6.4 | 2.1 | 40.4 |
| 45-54 | 70.2 | 21.1 | 1.8 | 1.8 | 5.3 |
| 55-64 | 64.2 | 18.9 | 3.8 | 11.3 | 1.9 |
| 65+ | 77.8 | 11.1 | 6.7 | 2.2 | 2.2 |
| Education | | | | | |
| < High School | 22.2 | 11.1 | 0.0 | 11.1 | 55.6 |
| High School | 40.5 | 14.3 | 4.8 | 2.4 | 38.1 |
| Some College | 30.6 | 8.2 | 4.1 | 8.2 | 46.9 |
| Associates | 56.1 | 17.1 | 0.0 | 2.4 | 24.4 |
| Bachelors Degree | 45.3 | 9.5 | 4.2 | 2.1 | 38.9 |
| Graduate + | 49.2 | 13.8 | 4.6 | 1.5 | 30.8 |
| Income | | | | | |
| < \$20,000 | 22.4* | 12.2 | 2.0 | 4.1 | 59.2 |
| \$20,000 - 39,999 | 46.3 | 4.9 | 7.3 | 4.9 | 36.6 |
| \$40,000 - 69,999 | 46.2 | 9.6 | 1.9 | 0.0 | 40.4 |
| \$70,000 - 99,999 | 39.0 | 8.5 | 8.5 | 8.5 | 35.6 |
| \$100,000 - 149,000 | 45.0 | 15.0 | 0.0 | 2.5 | 37.5 |
| \$150,000+ | 65.9 | 17.1 | 2.4 | 0.0 | 14.6 |

* p < .05; statistically significant *trend*

Clinical Breast Exam

Female respondents were asked how long it has been since their last clinical breast exam. Of the individuals that responded, 62.2% had a breast exam less than 1 year ago, 21.7% had one within the last 1 – 2 years, 5.7% had one within the last 3 – 5 years; 3.7% stated it has been 5 or more years, and 6.7% stated they've never had a breast exam. Table 29 indicates that:

- As income increased, the time since last clinical breast exam decreased.
- As education increased, the time since last clinical breast exam decreased.

Table 29. Women Who Had a Clinical Breast Exam, by Demographic Characteristics

| | < 1 year | 1–2 years | 3–5 years | ≥5 years | Never |
|---------------------|----------|-----------|-----------|----------|-------|
| Overall | 62.2 | 21.7 | 5.7 | 3.7 | 6.7 |
| Age | | | | | |
| 18-24 | 37.0* | 18.5 | 0.0 | 0.0 | 44.4 |
| 25-34 | 62.7 | 19.4 | 7.5 | 3.0 | 7.5 |
| 35-44 | 72.3 | 21.3 | 4.3 | 2.1 | 0.0 |
| 45-54 | 66.7 | 21.1 | 8.8 | 3.5 | 0.0 |
| 55-64 | 64.2 | 22.6 | 3.8 | 5.7 | 3.8 |
| 65+ | 61.4 | 25.0 | 4.5 | 6.8 | 2.3 |
| Education | | | | | |
| < High School | 55.6* | 11.1 | 11.1 | 0.0 | 22.2 |
| High School | 45.2 | 26.2 | 9.5 | 4.8 | 14.3 |
| Some College | 41.7 | 20.8 | 12.5 | 10.4 | 14.6 |
| Associates | 65.9 | 24.4 | 2.4 | 2.4 | 4.9 |
| Bachelors Degree | 74.7 | 18.9 | 3.2 | 2.1 | 1.1 |
| Graduate + | 68.8 | 23.4 | 3.1 | 1.6 | 3.1 |
| Income | | | | | |
| < \$20,000 | 41.7* | 22.9 | 6.3 | 4.2 | 25.0 |
| \$20,000 - 39,999 | 58.5 | 17.1 | 12.2 | 7.3 | 4.9 |
| \$40,000 - 69,999 | 68.6 | 21.6 | 5.9 | 0.0 | 3.9 |
| \$70,000 - 99,999 | 72.9 | 16.9 | 5.1 | 3.4 | 1.7 |
| \$100,000 - 149,000 | 62.5 | 25.0 | 2.5 | 7.5 | 2.5 |
| \$150,000+ | 70.7 | 22.0 | 4.9 | 0.0 | 2.4 |

* p < .05; statistically significant *trend*

Pap Test

Female respondents were asked how long it has been since their last pap test. Of the individuals that responded, 46.6% had a pap exam less than 1 year ago, 29.9% had one within the last 1 – 2 years, 10.2% had one within the last 3 – 5 years, 9.2% stated it has been 5 or more years, and 4.1% stated they've never had a pap test. Table 30 indicates that:

- As income increase the duration since the last pap test decreased.
- As education increase the duration since the last pap test decreased.
- As age increased, the duration since the last pap test also increased.

Table 30. Women Who Had a Pap Test, by Demographic Characteristics

| | < 1 year | 1–2 years | 3–5 years | ≥5 years | Never |
|---------------------|----------|-----------|-----------|----------|-------|
| Overall | 46.6 | 29.9 | 10.2 | 9.2 | 4.1 |
| Age | | | | | |
| 18-24 | 50.0* | 11.5 | 0.0 | 3.8 | 34.6 |
| 25-34 | 62.7 | 28.4 | 7.5 | 0.0 | 1.5 |
| 35-44 | 52.2 | 37.0 | 6.5 | 4.3 | 0.0 |
| 45-54 | 38.6 | 40.4 | 10.5 | 10.5 | 0.0 |
| 55-64 | 49.0 | 27.5 | 9.8 | 11.8 | 2.0 |
| 65+ | 27.9 | 23.3 | 20.9 | 27.9 | 0.0 |
| Education | | | | | |
| < High School | 66.7* | 0.0 | 0.0 | 11.1 | 22.2 |
| High School | 32.5 | 27.5 | 15.0 | 22.5 | 2.5 |
| Some College | 31.9 | 25.5 | 17.0 | 8.5 | 17.0 |
| Associates | 51.2 | 26.8 | 9.8 | 9.8 | 2.4 |
| Bachelors Degree | 57.4 | 28.7 | 8.5 | 5.3 | 0.0 |
| Graduate + | 46.0 | 42.9 | 4.8 | 6.3 | 0.0 |
| Income | | | | | |
| < \$20,000 | 45.7* | 23.9 | 4.3 | 13.0 | 13.0 |
| \$20,000 - 39,999 | 50.0 | 17.5 | 15.0 | 17.5 | 0.0 |
| \$40,000 - 69,999 | 43.1 | 31.4 | 13.7 | 7.8 | 3.9 |
| \$70,000 - 99,999 | 50.9 | 31.6 | 12.3 | 5.3 | 0.0 |
| \$100,000 - 149,000 | 45.0 | 32.5 | 10.0 | 10.0 | 2.5 |
| \$150,000+ | 46.3 | 43.9 | 2.4 | 4.9 | 2.4 |

* p < .05; statistically significant *trend*

Cancer: Males

PSA Test

Male respondents were asked how long it has been since their last PSA test. Of the individuals that responded, 26.1% had a PSA test less than 1 year ago, 16.9% had one within the last 1 – 2 years, 9.2% had one within the last 3 – 5 years, 4.2% stated it has been 5 or more years, and 43.7% stated they've never had a PSA test. Table 31 indicates that as the respondent's age increased, the duration since their last PSA test decreased.

Table 31. Men Who Had a PSA Test, by Demographic Characteristics

| | < 1 year | 1–2 years | 3–5 years | ≥5 years | Never |
|---------------------|----------|-----------|-----------|----------|-------|
| Overall | 26.1 | 16.9 | 9.2 | 4.2 | 43.7 |
| Age | | | | | |
| 18-24 | 0.0* | 0.0 | 0.0 | 0.0 | 100.0 |
| 25-34 | 5.6 | 0.0 | 0.0 | 0.0 | 94.4 |
| 35-44 | 0.0 | 10.5 | 0.0 | 0.0 | 89.5 |
| 45-54 | 26.3 | 18.4 | 2.6 | 2.6 | 34.2 |
| 55-64 | 36.4 | 18.2 | 9.1 | 9.1 | 18.2 |
| 65+ | 51.5 | 30.3 | 9.1 | 9.1 | 3.0 |
| Education | | | | | |
| High School | 23.5 | 11.8 | 0.0 | 11.8 | 52.9 |
| Some College | 17.9 | 25.0 | 3.6 | 7.1 | 46.4 |
| Associates | 31.1 | 18.8 | 6.3 | 0.0 | 43.8 |
| Bachelors Degree | 22.5 | 12.5 | 12.5 | 2.5 | 50.0 |
| Graduate + | 33.3 | 16.7 | 14.3 | 2.4 | 33.3 |
| Income | | | | | |
| < \$20,000 | 22.2 | 5.6 | 0.0 | 5.6 | 66.7 |
| \$20,000 - 39,999 | 35.3 | 17.6 | 0.0 | 5.9 | 41.2 |
| \$40,000 - 69,999 | 33.3 | 23.3 | 3.3 | 6.7 | 33.3 |
| \$70,000 - 99,999 | 11.8 | 17.6 | 17.6 | 5.9 | 47.1 |
| \$100,000 - 149,000 | 11.4 | 17.1 | 14.3 | 0.0 | 57.1 |
| \$150,000+ | 42.1 | 10.5 | 15.8 | 0.0 | 31.6 |

* p < .05; statistically significant *trend*

Digital Rectal Exam

Male respondents were asked how long it has been since their last digital rectal exam. Of the individuals that responded, 26.2% have had a digital rectal exam less than 1 year ago, 18.6% have had one within the last 1 – 2 years, 14.5% have had one within the last 3 – 5 years, 10.3% stated it's been 5 or more years, and 30.3% stated they've never had a digital rectal exam. Table 32 indicates that as age, income, and education increased, the time since the last digital rectal exam decreased.

Table 32. Males Who Had a Digital Rectal Exam, by Demographic Characteristics

| | < 1 year | 1–2 years | 3–5 years | ≥5 years | Never |
|---------------------|----------|-----------|-----------|----------|-------|
| Overall | 26.2 | 18.6 | 14.5 | 10.3 | 30.3 |
| Age | | | | | |
| 18-24 | 0.0* | 0.0 | 0.0 | 9.1 | 90.9 |
| 25-34 | 0.0 | 16.7 | 5.6 | 11.1 | 66.7 |
| 35-44 | 5.3 | 5.3 | 0.0 | 5.3 | 84.2 |
| 45-54 | 30.8 | 25.6 | 25.6 | 7.7 | 10.3 |
| 55-64 | 36.4 | 27.3 | 13.6 | 13.6 | 9.1 |
| 65+ | 45.7 | 17.1 | 20.0 | 14.3 | 2.9 |
| Education | | | | | |
| High School | 11.8* | 17.6 | 5.9 | 11.8 | 52.9 |
| Some College | 24.1 | 10.3 | 10.3 | 20.7 | 34.5 |
| Associates | 27.8 | 22.2 | 27.8 | 0.0 | 22.2 |
| Bachelors Degree | 22.5 | 20.0 | 15.0 | 10.0 | 32.5 |
| Graduate + | 35.7 | 22.4 | 14.3 | 7.1 | 21.4 |
| Income | | | | | |
| < \$20,000 | 10.0* | 5.0 | 15.0 | 10.0 | 60.0 |
| \$20,000 - 39,999 | 29.4 | 23.5 | 5.9 | 11.8 | 29.4 |
| \$40,000 - 69,999 | 29.0 | 22.6 | 12.9 | 12.9 | 22.6 |
| \$70,000 - 99,999 | 35.3 | 11.8 | 23.5 | 5.9 | 23.5 |
| \$100,000 - 149,000 | 14.3 | 25.7 | 14.3 | 8.6 | 37.1 |
| \$150,000+ | 47.4 | 10.5 | 15.8 | 5.3 | 21.1 |

* p < .05; statistically significant *trend*

Blood Stool Test

Male respondents were asked how long it has been since their last blood stool test using a home kit. Of the individuals that responded, 10.5% had a blood stool test less than 1 year ago, 11.9% had one within the last 1 – 2 years, 7.0% had one within the last 3 – 5 years, 15.4% stated it's been 5 or more years, and 55.2% stated they've never had a blood stool test. Table 33 indicates that as age increased, the duration since the last blood stool test decreased.

Table 33. Males Who Had a Blood Stool Test using a Home Kit, by Demographic Characteristics

| | < 1 year | 1–2 years | 3–5 years | ≥5 years | Never |
|---------------------|----------|-----------|-----------|----------|-------|
| Overall | 10.5% | 11.9% | 7.0% | 15.4% | 55.2% |
| Age | | | | | |
| 18-24 | 0.0* | 0.0 | 0.0 | 9.1 | 90.9 |
| 25-34 | 0.0 | 5.6 | 0.0 | 0.0 | 94.4 |
| 35-44 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 |
| 45-54 | 12.8 | 15.4 | 7.7 | 10.3 | 53.8 |
| 55-64 | 22.7 | 9.1 | 18.2 | 22.7 | 27.3 |
| 65+ | 14.7 | 23.5 | 8.8 | 38.3 | 17.6 |
| Education | | | | | |
| High School | 17.6 | 11.8 | 0.0 | 0.0 | 70.6 |
| Some College | 0.0 | 20.7 | 6.9 | 24.1 | 48.3 |
| Associates | 11.1 | 0.0 | 5.6 | 22.2 | 61.1 |
| Bachelors Degree | 10.3 | 12.8 | 2.6 | 10.3 | 64.1 |
| Graduate + | 14.6 | 9.8 | 14.6 | 17.1 | 43.9 |
| Income | | | | | |
| < \$20,000 | 10.0 | 10.0 | 0.0 | 5.0 | 75.0 |
| \$20,000 - 39,999 | 12.5 | 12.5 | 6.3 | 25.0 | 43.8 |
| \$40,000 - 69,999 | 16.1 | 9.7 | 6.5 | 25.8 | 41.9 |
| \$70,000 - 99,999 | 5.9 | 5.9 | 0.0 | 5.9 | 82.4 |
| \$100,000 - 149,000 | 5.9 | 11.8 | 8.8 | 14.7 | 58.8 |
| \$150,000+ | 15.8 | 15.8 | 10.5 | 5.3 | 52.6 |

* $p < .05$; statistically significant *trend*

Colonoscopy

Male respondents were asked how long it has been since their last sigmoidoscopy and colonoscopy exam. Of the individuals that responded, 5.5% had a sigmoidoscopy and colonoscopy exam less than 1 year ago, 17.2% had one within the last 1 – 2 years, 17.9% had one within the last 3 – 5 years, 9.7% stated it has been 5 or more years, and 49.7% stated they've never had a sigmoidoscopy and colonoscopy exam. Table 34 indicates as the age increased, the duration since the last sigmoidoscopy and colonoscopy exam decreased.

Table 34. Men Who Had Sigmoidoscopy/Colonoscopy, by Demographic Characteristics

| | < 1 year | 1–2 years | 3–5 years | ≥5 years | Never |
|---------------------|----------|-----------|-----------|----------|-------|
| Overall | 5.5 | 17.2 | 17.9 | 9.7 | 49.7 |
| Age | | | | | |
| 18-24 | 0.0* | 0.0 | 0.0 | 0.0 | 100.0 |
| 25-34 | 0.0 | 5.6 | 5.6 | 0.0 | 88.9 |
| 35-44 | 0.0 | 0.0 | 5.0 | 5.0 | 90.0 |
| 45-54 | 10.3 | 20.5 | 12.8 | 7.7 | 48.7 |
| 55-64 | 4.5 | 22.7 | 31.8 | 18.2 | 22.7 |
| 65+ | 5.9 | 32.4 | 35.3 | 17.6 | 8.8 |
| Education | | | | | |
| High School | 5.6 | 16.7 | 5.6 | 5.6 | 66.7 |
| Some College | 0.0 | 13.8 | 27.6 | 0.0 | 58.6 |
| Associates | 5.9 | 35.3 | 5.9 | 5.9 | 47.1 |
| Bachelors Degree | 10.0 | 10.0 | 20.0 | 10.0 | 50.0 |
| Graduate + | 4.8 | 19.0 | 19.0 | 19.0 | 38.1 |
| Income | | | | | |
| < \$20,000 | 15.0 | 5.0 | 15.0 | 0.0 | 65.0 |
| \$20,000 - 39,999 | 5.9 | 23.5 | 5.9 | 5.9 | 58.8 |
| \$40,000 - 69,999 | 3.2 | 25.8 | 16.1 | 9.7 | 45.2 |
| \$70,000 - 99,999 | 11.8 | 0.0 | 23.5 | 17.6 | 47.1 |
| \$100,000 - 149,000 | 0.0 | 20.0 | 8.6 | 11.4 | 60.0 |
| \$150,000+ | 5.3 | 21.1 | 31.6 | 5.3 | 36.8 |

* $p < .05$; statistically significant *trend*

Influenza

Respondents were asked if they received a flu vaccination within the last year. Of the individuals that responded, 62.6% stated that they have received a flu vaccination via shot or nasal spray within the last year. Table 35 indicates that as age, education and income level increased, the number of respondents that have received a flu vaccination increased.

Table 35. Got a Flu Vaccine in Past Year, by Demographic Characteristics

| | Flu Vaccine |
|---------------------|-------------|
| Overall | 62.6 |
| Gender | |
| Male | 64.2 |
| Female | 61.8 |
| Age | |
| 18-24 | 45.9* |
| 25-34 | 50.0 |
| 35-44 | 57.4 |
| 45-54 | 67.4 |
| 55-64 | 62.2 |
| 65+ | 84.6 |
| Education | |
| < High School | 77.8* |
| High School | 47.5 |
| Some College | 62.3 |
| Associates | 62.1 |
| Bachelors Degree | 63.2 |
| Graduate + | 70.4 |
| Income | |
| < \$20,000 | 46.4* |
| \$20,000 - 39,999 | 62.1 |
| \$40,000 - 69,999 | 59.3 |
| \$70,000 - 99,999 | 56.0 |
| \$100,000 - 149,000 | 73.3 |
| \$150,000+ | 73.3 |

* $p < .05$; statistically significant *trend*

HIV

Respondents were asked how long it had been since their last HIV test (including testing fluid from their mouth). Of the individuals that responded, 5.5% had a HIV test less than 1 year ago, 5.3% had one within the last 1 – 2 years, 5.0% had one within the last 3 – 5 years, 16.5% stated it's been 5 or more years, and 67.3% stated they've never had a HIV test. Table 36 indicates that age and income level increased, the time since the last HIV test increased.

Table 36. Had a HIV Test, by Demographic Characteristics

| | < 1 year | 1–2 years | 3–5 years | ≥5 years | Never |
|---------------------|----------|-----------|-----------|----------|-------|
| Overall | 5.5 | 5.3 | 5.3 | 16.5 | 67.4 |
| Gender | | | | | |
| Male | 4.8 | 1.4 | 5.5 | 16.6 | 71.7 |
| Female | 5.9 | 7.2 | 4.8 | 16.6 | 65.5 |
| Age | | | | | |
| 18-24 | 5.7* | 0.0 | 11.4 | 2.9 | 80.0 |
| 25-34 | 10.7 | 16.7 | 9.5 | 11.9 | 51.2 |
| 35-44 | 5.9 | 5.9 | 8.8 | 32.4 | 47.1 |
| 45-54 | 3.2 | 3.2 | 1.1 | 21.3 | 71.3 |
| 55-64 | 1.3 | 1.3 | 4.0 | 18.7 | 47.7 |
| 65+ | 2.7 | 1.4 | 1.4 | 5.4 | 89.2 |
| Education | | | | | |
| < High School | 25.0 | 25.0 | 12.5 | 12.5 | 25.0 |
| High School | 5.5 | 3.6 | 9.1 | 9.1 | 72.7 |
| Some College | 2.6 | 3.9 | 5.3 | 18.4 | 69.7 |
| Associates | 5.2 | 8.6 | 3.4 | 19.0 | 63.8 |
| Bachelors Degree | 6.1 | 5.3 | 3.8 | 19.7 | 65.2 |
| Graduate + | 5.6 | 3.7 | 5.6 | 14.0 | 71.0 |
| Income | | | | | |
| < \$20,000 | 10.8* | 7.7 | 13.8 | 7.7 | 60.0 |
| \$20,000 - 39,999 | 3.5 | 8.8 | 7.0 | 15.8 | 64.9 |
| \$40,000 - 69,999 | 5.0 | 5.0 | 2.5 | 20.0 | 67.5 |
| \$70,000 - 99,999 | 4.1 | 4.1 | 4.1 | 23.0 | 64.9 |
| \$100,000 - 149,000 | 5.3 | 5.3 | 4.0 | 9.3 | 76.0 |
| \$150,000+ | 5.1 | 3.4 | 3.4 | 22.0 | 66.1 |

* $p < .05$; statistically significant *trend*

Access to Care and Utilization

Healthcare coverage

Respondents were asked if they have any kind of healthcare coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare or Indian Health Services. Of the individuals that responded, 92.8% stated that they have healthcare coverage. Table 37 indicates that as age, education and income level increased, the amount of respondents that reported having healthcare coverage increased.

Table 37. Have Healthcare Coverage, by Demographic Characteristics

| | Healthcare Coverage |
|---------------------|---------------------|
| Overall | 92.8 |
| Gender | |
| Male | 95.0 |
| Female | 91.6 |
| Age | |
| 18-24 | 89.3* |
| 25-34 | 90.4 |
| 35-44 | 91.2 |
| 45-54 | 92.5 |
| 55-64 | 94.4 |
| 65+ | 97.3 |
| Education | |
| < High School | 75.0* |
| High School | 83.6 |
| Some College | 87.3 |
| Associates | 93.0 |
| Bachelors Degree | 97.0 |
| Graduate + | 96.2 |
| Income | |
| < \$20,000 | 83.3* |
| \$20,000 - 39,999 | 87.5 |
| \$40,000 - 69,999 | 93.8 |
| \$70,000 - 99,999 | 94.7 |
| \$100,000 - 149,000 | 93.2 |
| \$150,000+ | 98.3 |

* p < .05; statistically significant *trend*

Healthcare Provider (HCP) Utilization

HCP Utilization: Doctor

Respondents were asked how many times in the past 12 months they have seen a doctor. Of the individuals that responded, 10.5% have never seen a doctor within the past 12 months, 27.9% have seen one once, 47.3% have seen one 2 – 5 times, 7.5% have seen one 6 – 9 times, and 6.6% stated they've seen a doctor 10 or more times. Table 38 indicates that:

- Men reported utilizing a doctor less frequently than women within the last 12 months.
- As education level increased, the number of times they've seen a doctor within the past 12 months decreased.

Table 38. Saw Doctor in Past 12 Months, by Demographic Characteristics

| | Never | Once | 2–5 times | 6–9 times | ≥10 times |
|---------------------|-------|-------|-----------|-----------|-----------|
| Overall | 10.5% | 27.9% | 47.3% | 7.5% | 6.6% |
| Gender | | | | | |
| Male | 13.5* | 29.1 | 48.0 | 6.1 | 2.7 |
| Female | 9.0 | 27.2 | 46.9 | 8.3 | 8.6 |
| Age | | | | | |
| 18-24 | 24.3 | 27.0 | 21.6 | 16.2 | 10.8 |
| 25-34 | 11.8 | 25.9 | 47.1 | 8.2 | 7.1 |
| 35-44 | 16.4 | 25.4 | 49.3 | 4.5 | 4.5 |
| 45-54 | 10.8 | 26.9 | 51.6 | 4.3 | 6.5 |
| 55-64 | 8.1 | 33.8 | 48.6 | 8.1 | 1.4 |
| 65+ | 0.0 | 28.6 | 50.6 | 7.8 | 11.7 |
| Education | | | | | |
| < High School | 0.0* | 12.5 | 37.5 | 37.5 | 12.5 |
| High School | 12.3 | 17.5 | 45.6 | 5.3 | 17.5 |
| Some College | 15.6 | 27.3 | 41.6 | 9.1 | 6.5 |
| Associates | 5.2 | 25.9 | 56.9 | 6.9 | 5.2 |
| Bachelors Degree | 9.1 | 34.1 | 44.7 | 6.8 | 5.3 |
| Graduate + | 11.3 | 27.4 | 50.9 | 7.5 | 2.8 |
| Income | | | | | |
| < \$20,000 | 14.9 | 22.4 | 37.3 | 13.4 | 11.9 |
| \$20,000 - 39,999 | 12.7 | 27.3 | 43.6 | 5.5 | 10.9 |
| \$40,000 - 69,999 | 11.1 | 25.9 | 46.9 | 8.6 | 7.4 |
| \$70,000 - 99,999 | 6.7 | 32.0 | 52.0 | 5.3 | 4.0 |
| \$100,000 - 149,000 | 12.2 | 27.0 | 54.1 | 4.1 | 2.7 |
| \$150,000+ | 10.0 | 28.3 | 53.3 | 6.7 | 1.7 |

* p < .05; statistically significant *trend*

HCP Utilization: Nurse

Respondents were asked how many times in the past 12 months they have seen a nurse. Of the individuals that responded, 44.8% have never seen a nurse within the past 12 months, 24.3% have seen one once, 22.7% have seen one 2 – 5 times, 3.8% have seen one 6 – 9 times, and 4.4% stated they've seen a nurse 10 or more times. Table 39 indicates that:

- As the income level increased, the amount of times respondents reported seeing a nurse within the past 12 months decreased.
- Individuals with higher education reported seeing a nurse less frequently over the past 12 months compared to those with lower levels of education.

Table 39. Saw Nurse in Past 12 Months, by Demographic Characteristics

| | Never | Once | 2–5 times | 6–9 times | ≥10 times |
|---------------------|-------|------|-----------|-----------|-----------|
| Overall | 44.8 | 24.3 | 22.7 | 3.8 | 4.4 |
| Gender | | | | | |
| Male | 46.7 | 25.8 | 22.5 | 0.8 | 4.2 |
| Female | 43.9 | 23.6 | 22.8 | 5.3 | 4.5 |
| Age | | | | | |
| 18-24 | 40.0 | 22.9 | 17.1 | 14.3 | 5.7 |
| 25-34 | 42.9 | 23.4 | 29.9 | 1.3 | 2.6 |
| 35-44 | 53.4 | 17.2 | 24.1 | 3.4 | 1.7 |
| 45-54 | 43.6 | 28.2 | 21.8 | 1.3 | 5.1 |
| 55-64 | 44.6 | 32.1 | 14.3 | 5.4 | 3.6 |
| 65+ | 43.1 | 19.0 | 25.9 | 3.4 | 8.6 |
| Education | | | | | |
| < High School | 14.3* | 14.3 | 42.9 | 14.3 | 14.3 |
| High School | 41.7 | 16.7 | 31.3 | 4.2 | 6.3 |
| Some College | 43.8 | 23.4 | 20.3 | 7.8 | 4.7 |
| Associates | 46.0 | 28.0 | 14.0 | 6.0 | 6.0 |
| Bachelors Degree | 47.2 | 24.1 | 22.2 | 1.9 | 4.6 |
| Graduate + | 44.9 | 28.1 | 24.7 | 1.1 | 1.1 |
| Income | | | | | |
| < \$20,000 | 44.1* | 15.3 | 25.4 | 8.5 | 6.8 |
| \$20,000 - 39,999 | 38.6 | 29.5 | 18.2 | 9.1 | 4.5 |
| \$40,000 - 69,999 | 43.1 | 19.4 | 27.8 | 4.2 | 5.6 |
| \$70,000 - 99,999 | 51.7 | 26.7 | 20.0 | 0.0 | 1.7 |
| \$100,000 - 149,000 | 43.8 | 26.6 | 25.0 | 0.0 | 4.7 |
| \$150,000+ | 53.2 | 29.8 | 12.8 | 4.3 | 0.0 |

* p < .05; statistically significant *trend*

HCP Utilization: Dentist

Respondents were asked how many times in the past 12 months they have seen a dentist. Of the individuals that responded, 15.4% have never seen a dentist within the past 12 months, 24.2% have seen one once, 58.2% have seen one 2 – 5 times, 2.1% have seen one 6 – 9 times, and 0.0% stated they've seen a dentist 10 or more times. Table 40 indicates that:

- Overall, younger respondents visited the dentist less frequently in the last 12 months, as compared to older respondents.
- As education and income level increased, the number of dentist visits within the past 12 months increased.

Table 40. Saw Dentist in Past 12 Months, by Demographic Characteristics

| Demographic Characteristic | Never | Once | 2–5 times | 6–9 times |
|----------------------------|-------|------|-----------|-----------|
| Overall | 15.4 | 24.2 | 58.2 | 2.1 |
| Gender | | | | |
| Male | 13.8 | 18.1 | 66.7 | 1.4 |
| Female | 16.3 | 27.2 | 54.1 | 2.5 |
| Age | | | | |
| 18-24 | 30.6* | 38.9 | 30.6 | 0.0 |
| 25-34 | 20.2 | 28.6 | 50.0 | 1.2 |
| 35-44 | 9.1 | 25.8 | 62.1 | 3.0 |
| 45-54 | 11.6 | 17.4 | 68.6 | 2.3 |
| 55-64 | 15.7 | 18.6 | 65.7 | 0.0 |
| 65+ | 12.2 | 25.7 | 58.1 | 4.1 |
| Education | | | | |
| < High School | 44.4* | 0.0 | 33.3 | 22.2 |
| High School | 32.1 | 30.2 | 34.0 | 3.8 |
| Some College | 23.6 | 25.0 | 51.4 | 0.0 |
| Associates | 20.4 | 18.5 | 55.6 | 5.6 |
| Bachelors Degree | 7.8 | 27.9 | 64.3 | 0.0 |
| Graduate + | 5.8 | 22.1 | 70.2 | 1.9 |
| Income | | | | |
| < \$20,000 | 38.1* | 28.6 | 28.6 | 4.8 |
| \$20,000 - 39,999 | 23.6 | 30.9 | 41.8 | 3.6 |
| \$40,000 - 69,999 | 19.0 | 25.3 | 53.2 | 2.5 |
| \$70,000 - 99,999 | 2.8 | 26.8 | 67.6 | 2.8 |
| \$100,000 - 149,000 | 9.9 | 22.5 | 67.6 | 0.0 |
| \$150,000+ | 3.4 | 13.8 | 82.8 | 0.0 |

* $p < .05$; statistically significant *trend*

HCP Utilization: Other Health Professional

Respondents were asked how many times in the past 12 months they have seen an other health professional. Of the individuals that responded, 54.1% have never seen an other health professional within the past 12 months, 17.7% have seen one once, 17.7% have seen one 2 – 5 times, 5.6% have seen one 6 – 9 times, and 4.8% stated they've seen a doctor 10 or more times. Table 41 indicates that females visited an “other” health care professional more frequently within the past 12 months than males.

Table 41. Saw Other Health Professional in Past 12 Months, by Demographic Characteristics

| | Never | Once | 2–5 times | 6–9 times | ≥10 times |
|---------------------|-------|------|-----------|-----------|-----------|
| Overall | 54.1 | 17.7 | 17.7 | 5.6 | 4.8 |
| Gender | | | | | |
| Male | 64.0* | 14.9 | 17.5 | 2.6 | 0.9 |
| Female | 49.4 | 19.1 | 17.8 | 7.1 | 6.6 |
| Age | | | | | |
| 18-24 | 62.9 | 14.3 | 5.7 | 14.3 | 2.9 |
| 25-34 | 49.3 | 18.8 | 20.3 | 8.7 | 2.9 |
| 35-44 | 59.0 | 16.4 | 16.4 | 4.9 | 3.3 |
| 45-54 | 51.9 | 18.2 | 19.5 | 2.6 | 7.8 |
| 55-64 | 60.0 | 16.4 | 14.5 | 3.6 | 5.5 |
| 65+ | 50.9 | 20.0 | 20.0 | 3.6 | 5.5 |
| Education | | | | | |
| < High School | 33.3 | 16.7 | 50.0 | 0.0 | 0.0 |
| High School | 53.2 | 12.8 | 21.3 | 6.4 | 6.4 |
| Some College | 54.0 | 20.6 | 14.3 | 7.9 | 3.2 |
| Associates | 68.1 | 12.8 | 17.0 | 0.0 | 2.1 |
| Bachelors Degree | 53.5 | 20.2 | 15.8 | 4.4 | 6.1 |
| Graduate + | 48.7 | 17.9 | 19.2 | 9.0 | 5.1 |
| Income | | | | | |
| < \$20,000 | 55.2 | 15.5 | 15.5 | 6.9 | 6.9 |
| \$20,000 - 39,999 | 55.3 | 12.8 | 23.4 | 2.1 | 6.4 |
| \$40,000 - 69,999 | 56.1 | 18.2 | 16.7 | 6.1 | 3.0 |
| \$70,000 - 99,999 | 51.7 | 25.0 | 15.0 | 5.0 | 3.3 |
| \$100,000 - 149,000 | 60.7 | 18.0 | 18.0 | 3.3 | 0.0 |
| \$150,000+ | 50.0 | 17.4 | 17.4 | 4.3 | 10.9 |

* p < .05; statistically significant *trend*

Other Health Concerns

Disability

Respondents were asked to report if they have a physical health problem that requires them to use special equipment such as a cane, wheelchair, walker, Amigo, special bed, or special telephone. Overall, 5.7% of respondents stated that they have a physical health problem that requires them to use special equipment. Table 42 shows differences in the use of special equipment according to demographic characteristics. Older respondents and those with less education were more likely to report using special equipment.

Table 42. Use Special Equipment (e.g. Cane, Wheelchair, Walker, Amigo, Special Bed, Special Telephone), by Demographic Characteristics

| | Use Special Equipment |
|---------------------|-----------------------|
| Overall | 5.7 |
| Gender | |
| Male | 5.8 |
| Female | 5.6 |
| Age | |
| 18-24 | 2.5* |
| 25-34 | 0.0 |
| 35-44 | 4.3 |
| 45-54 | 8.5 |
| 55-64 | 4.1 |
| 65+ | 13.4 |
| Education | |
| < High School | 0.0* |
| High School | 16.7 |
| Some College | 7.0 |
| Associates | 0.0 |
| Bachelors Degree | 4.2 |
| Graduate + | 4.4 |
| Income | |
| < \$20,000 | 12.5 |
| \$20,000 - 39,999 | 8.2 |
| \$40,000 - 69,999 | 5.6 |
| \$70,000 - 99,999 | 2.5 |
| \$100,000 - 149,000 | 2.6 |
| \$150,000+ | 1.6 |

* p < .05; statistically significant *trend*

The percentage of participants who reported relying on others for help with bathing, dressing, shopping, and meals is shown in Table 43. Overall, a low percentage of respondents relied on others for help with these activities. Differences according to demographic characteristics are also shown in Table 43. Older respondents were more likely to report relying on others for help with meals. Those with lower education and income levels were more likely to report relying on others for bathing, shopping, and meals.

Table 43. Rely on Others for Help For the Following, by Demographic Characteristics

| | Bathe | Dress | Shop | Meals |
|---------------------|-------|-------|-------|-------|
| Overall | 1.5 | 1.5 | 3.8 | 3.6 |
| Gender | | | | |
| Male | 1.3 | 1.3 | 3.9 | 4.5 |
| Female | 1.6 | 1.6 | 3.8 | 3.1 |
| Age | | | | |
| 18-24 | 0.0 | 0.0 | 0.0 | 2.6* |
| 25-34 | 2.1 | 1.1 | 3.2 | 3.2 |
| 35-44 | 0.0 | 0.0 | 2.8 | 2.8 |
| 45-54 | 3.8 | 4.8 | 7.6 | 2.9 |
| 55-64 | 1.3 | 0.0 | 1.3 | 0.0 |
| 65+ | 0.0 | 1.3 | 5.0 | 10.0 |
| Education | | | | |
| < High School | 10.0* | 10.0 | 20.0* | 30.0* |
| High School | 5.1 | 5.1 | 8.6 | 8.6 |
| Some College | 1.2 | 0.0 | 6.0 | 3.6 |
| Associates | 0.0 | 0.0 | 0.0 | 0.0 |
| Bachelors Degree | 0.7 | 1.4 | 3.4 | 3.4 |
| Graduate + | 0.9 | 0.9 | 0.9 | 0.9 |
| Income | | | | |
| < \$20,000 | 6.9* | 4.2 | 9.9* | 9.9* |
| \$20,000 - 39,999 | 1.7 | 1.7 | 4.9 | 5.1 |
| \$40,000 - 69,999 | 0.0 | 0.0 | 2.2 | 3.3 |
| \$70,000 - 99,999 | 1.2 | 1.2 | 2.5 | 1.2 |
| \$100,000 - 149,000 | 0.0 | 0.0 | 0.0 | 0.0 |
| \$150,000+ | 0.0 | 1.5 | 1.5 | 0.0 |

* p < .05; statistically significant *trend*

Falls

Respondents were asked if they have fallen in the past 12 months. Of the responses 15.2% said they have fallen in the past 12 months. Differences in falls according to demographic characteristics are shown in Table 44. Males and older respondents were more likely to have fallen in the past 12 months.

Table 44. Fallen in the Past 12 Months, by Demographic Characteristics

| Demographic Characteristic | Fallen in Past 12 Months |
|----------------------------|--------------------------|
| Overall | 15.2 |
| Gender | |
| Male | 17.9* |
| Female | 14.0 |
| Age | |
| 18-24 | 0.0* |
| 25-34 | 14.7 |
| 35-44 | 8.5 |
| 45-54 | 18.1 |
| 55-64 | 15.6 |
| 65+ | 25.9 |
| Education | |
| < High School | 10.0 |
| High School | 20.3 |
| Some College | 18.6 |
| Associates | 16.4 |
| Bachelors Degree | 12.3 |
| Graduate + | 13.9 |
| Income | |
| < \$20,000 | 12.5 |
| \$20,000 - 39,999 | 16.7 |
| \$40,000 - 69,999 | 16.7 |
| \$70,000 - 99,999 | 14.8 |
| \$100,000 - 149,000 | 16.5 |
| \$150,000+ | 10.8 |

* p < .05; statistically significant *trend*

Respondents were asked if they sustained an injury due to falling. Of the responses 27.5% said they have sustained an injury due to falling. Table 45 shows the percentages of respondents that have sustained an injury due to a fall, by demographic characteristics.

Table 45. Sustained an Injury Due to Falling, by Demographic Characteristics

| | Injured by Fall |
|---------------------|-----------------|
| Overall | 27.5 |
| Gender | |
| Male | 28.9 |
| Female | 26.8 |
| Age | |
| 18-24 | 0.0 |
| 25-34 | 19.0 |
| 35-44 | 40.0 |
| 45-54 | 40.0 |
| 55-64 | 33.3 |
| 65+ | 26.5 |
| Education | |
| < High School | 0.0 |
| High School | 31.8 |
| Some College | 40.0 |
| Associates | 15.4 |
| Bachelors Degree | 25.0 |
| Graduate + | 21.7 |
| Income | |
| < \$20,000 | 16.0 |
| \$20,000 - 39,999 | 29.4 |
| \$40,000 - 69,999 | 40.0 |
| \$70,000 - 99,999 | 20.0 |
| \$100,000 - 149,000 | 35.7 |
| \$150,000+ | 22.2 |

* $p < .05$; statistically significant *trend*

Emergency/Disaster Preparedness

Midland residents were asked if their household is prepared to withstand a large-scale disaster or emergency. Overall, 74.7% of residents said their household is very prepared or somewhat prepared to withstand a large-scale disaster or emergency. Table 46 shows differences in emergency preparedness, by demographic characteristics. Overall, older individuals reported being more prepared for a large-scale disaster.

Table 46. Large-scale Disaster or Emergency Preparedness, by Demographic Characteristics

| | Very prepared | Somewhat prepared | Not prepared at all |
|---------------------|---------------|-------------------|---------------------|
| Overall | 13.6 | 61.1 | 25.3 |
| Gender | | | |
| Male | 14.4 | 66.4 | 19.2 |
| Female | 12.9 | 58.6 | 28.5 |
| Age | | | |
| 18-24 | 21.6* | 59.5 | 18.9 |
| 25-34 | 9.3 | 61.6 | 29.1 |
| 35-44 | 10.3 | 50.0 | 39.7 |
| 45-54 | 13.8 | 56.4 | 29.8 |
| 55-64 | 13.7 | 69.9 | 16.4 |
| 65+ | 16.9 | 68.8 | 14.3 |
| Education | | | |
| < High School | 22.2 | 77.8 | 0.0 |
| High School | 10.3 | 60.3 | 29.3 |
| Some College | 14.5 | 63.2 | 22.4 |
| Associates | 19.3 | 59.6 | 21.1 |
| Bachelors Degree | 11.9 | 58.2 | 29.9 |
| Graduate + | 12.3 | 63.2 | 24.5 |
| Income | | | |
| < \$20,000 | 18.2 | 51.5 | 30.3 |
| \$20,000 - 39,999 | 14.0 | 64.9 | 21.1 |
| \$40,000 - 69,999 | 11.1 | 56.8 | 32.1 |
| \$70,000 - 99,999 | 8.0 | 68.0 | 24.0 |
| \$100,000 - 149,000 | 16.2 | 62.2 | 21.6 |
| \$150,000+ | 11.7 | 65.0 | 23.3 |

* p < .05; statistically significant *trend*

Respondents were asked if they have a disaster evacuation plan. Overall, 15.7% said they do have a disaster evacuation plan. Table 47 shows the percentages of respondents that have a disaster evacuation plan, by demographic characteristics.

Table 47. Disaster Evacuation Plan, by Demographic Characteristics

| | Have Plan |
|---------------------|-----------|
| Overall | 15.7 |
| Gender | |
| Male | 14.6 |
| Female | 16.3 |
| Age | |
| 18-24 | 21.6 |
| 25-34 | 18.6 |
| 35-44 | 8.8 |
| 45-54 | 16.1 |
| 55-64 | 15.1 |
| 65+ | 13.3 |
| Education | |
| < High School | 55.6 |
| High School | 19.6 |
| Some College | 17.1 |
| Associates | 12.5 |
| Bachelors Degree | 11.2 |
| Graduate + | 16.8 |
| Income | |
| < \$20,000 | 22.7 |
| \$20,000 - 39,999 | 12.1 |
| \$40,000 - 69,999 | 16.3 |
| \$70,000 - 99,999 | 16.0 |
| \$100,000 - 149,000 | 14.9 |
| \$150,000+ | 13.3 |

* $p < .05$; statistically significant *trend*

Respondents reported the main method of communication during a large scale emergency. The most common methods of communication include cell phone (96.3%), house phone (59.1%), and social media (57.3%). Differences in communication methods according to demographic characteristics are shown in Table 48.

Table 48. Main Method of Communication During Large Scale Emergency, by Demographic Characteristics

| | Cell Phone | House Phone | Social Media | Message Board | Predetermined Location | Other |
|---------------------|------------|-------------|--------------|---------------|------------------------|-------|
| Overall | 96.3 | 59.1 | 57.3 | 0.7 | 31.5 | 5.6 |
| Gender | | | | | | |
| Male | 95.7 | 68.6 | 52.8 | 0.0 | 40.0 | 7.5 |
| Female | 96.5 | 54.8 | 59.0 | 1.0 | 27.4 | 4.9 |
| Age | | | | | | |
| 18-24 | 91.9 | 37.0* | 50.0* | 0.0 | 22.7* | 0.0 |
| 25-34 | 96.4 | 40.0 | 63.3 | 0.0 | 43.8 | 18.2 |
| 35-44 | 98.4 | 58.3 | 73.5 | 0.0 | 50.0 | 7.7 |
| 45-54 | 100.0 | 72.1 | 75.0 | 0.0 | 37.0 | 5.6 |
| 55-64 | 98.6 | 71.9 | 80.6 | 9.1 | 59.1 | 8.3 |
| 65+ | 91.0 | 64.6 | 24.6 | 0.0 | 7.4 | 1.9 |
| Education | | | | | | |
| < High School | 100.0* | 25.0* | 0.0* | 0.0 | 12.5* | 0.0 |
| High School | 86.2 | 34.6 | 17.3 | 0.0 | 10.2 | 4.1 |
| Some College | 91.8 | 48.8 | 48.0 | 3.0 | 28.6 | 6.1 |
| Associates | 100.0 | 69.2 | 69.0 | 0.0 | 38.9 | 8.3 |
| Bachelors Degree | 99.2 | 70.2 | 78.5 | 0.0 | 40.6 | 4.8 |
| Graduate + | 99.0 | 80.4 | 78.6 | 0.0 | 57.6 | 9.5 |
| Income | | | | | | |
| < \$20,000 | 89.2* | 27.3* | 21.4* | 1.9 | 18.2* | 5.8 |
| \$20,000 - 39,999 | 93.0 | 46.2 | 25.0 | 0.0 | 8.3 | 5.7 |
| \$40,000 - 69,999 | 97.4 | 60.5 | 56.9 | 0.0 | 30.0 | 0.0 |
| \$70,000 - 99,999 | 100.0 | 80.0 | 86.8 | 0.0 | 35.7 | 18.2 |
| \$100,000 - 149,000 | 100.0 | 95.5 | 93.5 | 0.0 | 88.2 | 0.0 |
| \$150,000+ | 98.3 | 82.8 | 96.0 | 0.0 | 70.6 | 0.0 |

* p < .05; statistically significant *trend*

Community Satisfaction and Resource Utilization

Community Satisfaction

Satisfaction with various aspects of Midland County are shown in Tables 49 and 50. In general, respondents were satisfied or very satisfied with most aspects of their county. However, satisfaction was lower for some services/opportunities (e.g. availability of jobs, affordable housing, mental health services).

Table 49. Personal Satisfaction with Aspects of Midland County

| % Reporting Level of Satisfaction | | | | | |
|---------------------------------------|----------------------------|------------------------|------------------------|---------|--------------------------|
| | Recreational Activities | Neighborhood Safety | Air & Water Quality | Schools | Public Transportation |
| Very Dissatisfied | 1.8 | 1.1 | 1.3 | 1.9 | 6.5 |
| Not Satisfied | 4.6 | 2.4 | 7.3 | 3.1 | 16.4 |
| Neither Satisfied nor Dissatisfied | 12.5 | 6.3 | 14.0 | 10.9 | 35.9 |
| Satisfied | 44.2 | 40.7 | 42.3 | 42.4 | 28.4 |
| Very Satisfied | 37.0 | 49.6 | 35.0 | 41.7 | 12.8 |

Table 50. Personal Satisfaction with Aspects of Midland County

| % Satisfaction with the Availability of... | | | | | | | |
|--|------|--------------------------------|--------------------------------|---------------|--------------------------------|------------------------------|-----------------------|
| | Jobs | Adult Education Services | Child Education Services | Fresh Food | Substance Abuse Services | Mental Health Services | Affordable Housing |
| Very Dissatisfied | 4.6 | 1.6 | 2.0 | 1.7 | 2.6 | 6.1 | 7.5 |
| Not Satisfied | 18.7 | 7.6 | 6.0 | 3.7 | 5.6 | 10.2 | 16.2 |
| Neither Satisfied nor Dissatisfied | 35.3 | 37.8 | 19.4 | 8.3 | 38.6 | 34.9 | 33.8 |
| Satisfied | 34.8 | 41.4 | 42.7 | 46.3 | 35.1 | 33.0 | 32.3 |
| Very Satisfied | 6.7 | 11.6 | 30.0 | 40.0 | 18.1 | 15.8 | 10.2 |

The percentage of respondents satisfied or very satisfied with various aspects of their community, by demographic characteristics are shown in Tables 51 and 52. Males were more satisfied than females with neighborhood safety, air and water quality, and the availability of affordable housing. Respondents who were older, more educated, and had a higher income were more satisfied with many aspects of Midland County (see Tables 51 and 52). However, less educated and lower income respondents were more satisfied with public transportation.

Table 51. Satisfied or Very Satisfied with Aspects of Midland County, by Demographic Characteristics

| | % Satisfied or Very Satisfied | | | | |
|---------------------|-------------------------------|---------------------|-----------------------|---------|-----------------------|
| | Recreational Activities | Neighborhood Safety | Air and Water Quality | Schools | Public Transportation |
| Gender | | | | | |
| Male | 80.5 | 92.7* | 82.1* | 81.6 | 43.1 |
| Female | 81.5 | 89.0 | 74.9 | 85.4 | 40.0 |
| Age | | | | | |
| 18-24 | 57.1* | 91.7* | 67.6* | 80.0 | 54.1 |
| 25-34 | 79.3 | 39.4 | 66.7 | 79.2 | 31.4 |
| 35-44 | 82.4 | 85.5 | 68.1 | 79.4 | 44.6 |
| 45-54 | 81.8 | 93.9 | 83.8 | 88.3 | 36.6 |
| 55-64 | 85.3 | 90.8 | 87.0 | 85.1 | 41.9 |
| 65+ | 91.3 | 93.8 | 87.5 | 90.4 | 47.1 |
| Education | | | | | |
| < High School | 33.3* | 77.8* | 55.6* | 57.1* | 33.3* |
| High School | 69.1 | 64.9 | 64.9 | 72.7 | 51.9 |
| Some College | 75.9 | 73.8 | 73.8 | 81.3 | 59.5 |
| Associates | 81.0 | 81.4 | 81.4 | 87.8 | 34.1 |
| Bachelors Degree | 88.7 | 81.7 | 81.7 | 87.6 | 39.3 |
| Graduate + | 85.3 | 80.2 | 80.2 | 88.1 | 26.4 |
| Income | | | | | |
| < \$20,000 | 62.1* | 77.9* | 59.4* | 61.5* | 46.2* |
| \$20,000 - 39,999 | 79.7 | 93.3 | 71.7 | 82.7 | 48.1 |
| \$40,000 - 69,999 | 79.5 | 88.8 | 73.0 | 86.1 | 43.8 |
| \$70,000 - 99,999 | 95.0 | 93.8 | 77.5 | 89.5 | 41.8 |
| \$100,000 - 149,000 | 90.5 | 94.6 | 88.0 | 92.6 | 36.8 |
| \$150,000+ | 78.7 | 93.4 | 88.7 | 91.1 | 21.3 |

* p < .05; statistically significant *trend* across all satisfaction categories

Table 52. Satisfied or Very Satisfied with Aspects of Midland County, by Demographic Characteristics

| | % Satisfied or Very Satisfied | | | | | | |
|---------------------|-------------------------------|--------------------------|--------------------------|------------|--------------------------|------------------------|--------------------|
| | Jobs | Adult Education Services | Child Education Services | Fresh Food | Substance Abuse Services | Mental Health Services | Affordable Housing |
| Gender | | | | | | | |
| Male | 41.7 | 48.3 | 68.2 | 86.0 | 47.2 | 43.2 | 48.5* |
| Female | 41.2 | 54.9 | 74.8 | 86.3 | 55.7 | 51.0 | 39.3 |
| Age | | | | | | | |
| 18-24 | 45.7 | 44.1* | 76.5 | 75.0* | 40.6 | 50.0 | 37.8* |
| 25-34 | 40.7 | 49.2 | 76.0 | 86.0 | 48.2 | 47.7 | 35.9 |
| 35-44 | 45.2 | 47.2 | 70.3 | 74.6 | 51.0 | 42.3 | 42.4 |
| 45-54 | 38.9 | 83.0 | 69.7 | 90.9 | 50.7 | 42.3 | 37.2 |
| 55-64 | 50.0 | 61.9 | 69.2 | 87.0 | 67.2 | 56.3 | 49.3 |
| 65+ | 32.2 | 56.9 | 75.4 | 96.2 | 55.7 | 55.0 | 55.4 |
| Education | | | | | | | |
| < High School | 12.5 | 44.4 | 66.7* | 66.7* | 25.0* | 37.5 | 22.2 |
| High School | 51.9 | 51.9 | 61.5 | 75.4 | 45.8 | 52.9 | 35.3 |
| Some College | 49.4 | 49.4 | 71.4 | 86.7 | 54.3 | 52.8 | 42.1 |
| Associates | 56.5 | 56.5 | 74.0 | 88.1 | 44.2 | 41.9 | 43.9 |
| Bachelors Degree | 53.8 | 53.8 | 73.3 | 88.6 | 55.8 | 41.9 | 35.8 |
| Graduate + | 54.3 | 54.3 | 78.7 | 89.0 | 61.0 | 46.3 | 40.9 |
| Income | | | | | | | |
| < \$20,000 | 26.2* | 42.2* | 60.9* | 72.5* | 48.3 | 51.5 | 31.7* |
| \$20,000 - 39,999 | 55.6 | 55.6 | 73.1 | 86.4 | 53.2 | 46.9 | 40.0 |
| \$40,000 - 69,999 | 49.3 | 49.3 | 74.7 | 90.8 | 49.3 | 51.4 | 41.3 |
| \$70,000 - 99,999 | 50.8 | 50.8 | 75.4 | 84.8 | 51.7 | 45.0 | 36.9 |
| \$100,000 - 149,000 | 56.0 | 56.0 | 81.3 | 93.3 | 58.7 | 51.0 | 53.2 |
| \$150,000+ | 65.3 | 65.3 | 75.5 | 85.5 | 62.2 | 46.9 | 52.7 |

* p < .05; statistically significant *trend* across all satisfaction categories

Resource Utilization

Midland County residents selected their primary source for getting information regarding the following topics: schools, healthcare, transportation, community safety, economic development, housing, volunteering, arts/recreation, mental health services, and substance abuse services. Table 53 shows the percentage of participants who chose each source. Overall, the internet, friends, and newspaper were reported as primary sources of health information by Midland County residents.

Table 53. Primary Source for Information in Midland County, by Demographic Characteristics

| | % Reporting Primary Source of Information | | | | | | | | |
|-----------------------------|---|---------|----------|----------------|--------------|----------|--------------------------|------------------|-------|
| | 211 | Friends | Employer | News- paper | TV/ radio | Internet | Religious Institution | Govern Agency | Other |
| Schools | 0.7 | 32.9 | 2.7 | 18.4 | 6.3 | 26.2 | 0.2 | 3.1 | 9.4 |
| Healthcare | 1.4 | 26.1 | 19.0 | 5.9 | 3.1 | 24.9 | 0.0 | 6.6 | 13.0 |
| Transportation | 2.0 | 22.1 | 2.8 | 12.8 | 4.5 | 31.8 | 0.0 | 6.3 | 17.8 |
| Community Safety | 2.2 | 13.1 | 0.7 | 32.4 | 13.1 | 25.5 | 0.0 | 8.9 | 4.0 |
| Economic Development | 2.3 | 7.5 | 4.0 | 33.3 | 12.0 | 30.5 | 0.5 | 3.8 | 6.3 |
| Housing | 3.0 | 13.2 | 2.5 | 24.1 | 4.5 | 34.5 | 0.5 | 6.7 | 11.2 |
| Volunteering | 2.2 | 25.0 | 11.8 | 11.5 | 2.5 | 27.7 | 9.1 | 2.9 | 7.4 |
| Arts/Recreation | 15.0 | 18.4 | 1.2 | 22.4 | 7.4 | 42.5 | 0.2 | 0.7 | 5.7 |
| Mental Health Services | 5.3 | 8.8 | 11.5 | 6.7 | 2.4 | 29.3 | 1.1 | 15.2 | 19.7 |
| Substance Abuse Services | 4.8 | 8.8 | 10.7 | 8.0 | 3.2 | 28.3 | 1.6 | 12.5 | 22.1 |

Student Experiences

In January 2015, Saginaw Valley State University was selected by the Carnegie Foundation for the Advancement of Teaching to receive its Community Engagement Classification, marking SVSU as a university that is exceptionally engaged with the community it serves. To be selected, institutions provide descriptions and examples of institutionalized practices of community engagement that showed alignment among mission, culture, leadership, resources and practices. SVSU’s status will remain in effect for 10 years.

According to the Learn and Serve America National **Service Learning** Clearinghouse, service learning is defined as a teaching and **learning** strategy that integrates meaningful community **service** with instruction and reflection to enrich the **learning** experience, teach civic responsibility, and strengthen communities. The Midland Health Behavior Survey is an example of a service learning project which is highly valued at SVSU. During this project, more than 20 students from the Health Science program and Exercise Science program were actively engaged in all aspects of the project including development of the survey instrument, recruitment of study participants at locations across Midland County, data analysis, and final project preparation. Upon completion of this project, we asks student to reflect on their experiences. Table 54 shows the mean results for student perception related to this service learning experience. Table 55 includes four quotes from students involved with this project describing the personal impact of this service learning project.

Table 54. SVSU Student Perceptions of Service Learning Experience

| | Rating Average |
|--|----------------|
| Because of this project I learned a great deal about academic content in the field. | 4.44 |
| Because of this project I have developed a broader appreciation of this field of study. | 4.78 |
| I learned a great deal from this project about myself and others. | 4.67 |
| This project has helped me gain a clearer idea of my professional goals. | 4.56 |
| This project frequently caused me to think about my own attitudes, values, and perspectives. | 4.11 |
| This project caused me to feel more concern about social problems in the community. | 4.33 |
| This project has increased my interest in participating in community service/volunteer activities. | 4.56 |
| I found this project to be relevant to my personal development. | 4.33 |
| I have developed significant relationships with other students through my participation in this project. | 4.44 |

Table 55. SVSU Student Perceptions Quotes

| |
|---|
| <p>This project has made me more aware of the issues that communities face on a day-to-day basis. Often times, the exploration of one issue is the main emphasis of a project, but this one allowed me to research a multitude of concerns within the community.</p> |
| <p>This project has embedded the importance of community service, civic involvement, and awareness of one's community. I gained a better understanding of the community's breadth of viewpoints and cultural diversity. I feel prompted to continue engaging with my community to better the "whole."</p> |
| <p>I would love to be able to create and implement programs for the community based off of the surveys that we distributed to the population. After being involved with data analysis, I realized how much I enjoy research.</p> |
| <p>While I feel confident in my academic courses, it takes a heightened knowledge and comprehension to implement classroom information in a real-life setting. I am grateful to enhance the education I received in the classroom by employing it in a service-learning opportunity.</p> |

Survey Instrument