

# 2020 Behavioral Risk Factor Survey, Ottawa County, MI

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Executive  
Summary



Background



Methodology



Findings &  
Implications

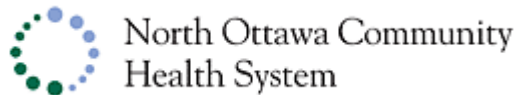
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# INTRODUCTION

# Financial Contributors

*The following community organizations are responsible for primary funding of the 2020 Ottawa County Behavioral Risk Factor Survey:*



*Additional funding for the Ottawa County Behavioral Risk Factor Survey was provided by:*



# Healthy Ottawa Advisory Council

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# Background and Objectives

- VIP Research and Evaluation was contracted by the Healthy Ottawa Advisory Council of Ottawa County to conduct a Behavioral Risk Factor Survey (BRFS) in 2020, as part of their larger community-wide health needs assessment in Ottawa County.
- The Patient Protection and Affordable Care Act (PPACA) passed by Congress in March of 2010 set forth additional requirements that hospitals must meet in order to maintain their status as a 501(c)(3) Charitable Hospital Organization. One of the main requirements states that a hospital must conduct a community health needs assessment (CHNA) and must adopt an implementation strategy to meet the community health needs identified through the assessment. The law further states that the assessment must take into account input from persons who represent the broad interests of the community, including those with special knowledge of, or expertise in, public health.
- In response to the PPACA requirements, organizations serving both the health needs and broader needs of Ottawa County communities began meeting to discuss how the community could collectively meet the requirement of a CHNA. Currently these partners comprise the Healthy Ottawa Advisory Council consisting of Ottawa County Department of Public Health, Community Mental Health of Ottawa County, Holland Hospital, North Ottawa Community Health System, Spectrum Health Zeeland Community Hospital, Community SPOKE. and the Greater Ottawa County United Way.



## Background and Objectives (Continued)

- Information collected from this research will be utilized in the Community Health Needs Assessment for the three hospitals in Ottawa County and in the Health section of the broader United Way Community Assessment.
- The overall objective of the BRFS is to obtain information from Ottawa County adult residents about a wide range of behaviors that affect their health. More specific objectives include measuring each of the following:
  - ❖ Physical health status indicators, such as perception of general health, physical health status, chronic pain, and weight (BMI)
  - ❖ Mental health status indicators, such as mental health status, psychological distress, anxiety disorder, depressive disorder, and suicide
  - ❖ Health risk behaviors, such as smoking and tobacco use, vaping, alcohol consumption, diet, and physical activity
  - ❖ Clinical preventative measures, such as oral health, cancer screenings, and immunizations
  - ❖ Chronic conditions, such as diabetes, pre-diabetes, asthma, COPD, and arthritis
  - ❖ Adverse childhood experiences (ACEs)
  - ❖ Social support and resiliency
  - ❖ COVID-19 and its impact on area residents



# Background and Objectives (Continued)

- The information collected will be used to:
  - ❖ Prioritize health issues and develop strategic plans
  - ❖ Monitor the effectiveness of intervention measures
  - ❖ Examine the achievement of prevention program goals
  - ❖ Support appropriate public health policy
  - ❖ Educate the public about disease prevention through dissemination of information





# Methodology

- A Behavioral Risk Factor Survey was conducted among 1,200 Ottawa County adults (age 18+) via telephone. The response rate was 35%.
- Disproportionate stratified random sampling (DSS) was used to ensure results could be generalized to the population of Ottawa County. DSS utilizes both listed and unlisted landline sample, allowing everyone with a landline telephone the chance of being selected to participate.
- In addition to landline telephone numbers, the design also targeted cell phone users. Of the 1,200 completed surveys:
  - ❖ 600 are cell phone completes (50.0%), and 600 are landline phone completes (50.0%)
  - ❖ 449 are cell-phone-only households (37.4%)
  - ❖ 106 are landline-only households (8.8%), and
  - ❖ 645 have both cell and landline numbers (53.8%)
- For landline numbers, households were selected to participate subsequent to determining that the number was that of an Ottawa County residence. Vacation homes, group homes, institutions, and businesses were excluded.



## Methodology (Continued)

- Respondents were screened to ensure they were at least 18 years of age and resided in Ottawa County, or resided in one of four ZIP codes that overlap with Ottawa County and neighboring counties (49404, 49423, 49448, 49456) that are considered to be service areas of Ottawa County health care systems.
- In households with more than one adult, interviewers randomly selected one adult to participate based on which adult had the nearest birthday to the date surveyed. In these cases, every attempt was made to speak with the randomly chosen adult; interviewers were instructed to not simply interview the person who answered the phone or wanted to complete the interview.
- Spanish-speaking interviewers were used where Spanish translation/interpretation was needed.
- The 1,200 households represent 1.2% of the 102,610 households in Ottawa County according to the 2019 U.S. Census 1-year estimate.
- The margin of error for the entire sample of 1,200, at a 95% confidence level, is +/- 2.8%. This calculation is based on a population of roughly 220,176 Ottawa County residents 18 years or older, according to the 2019 U.S. Census 1-year estimate.



# Methodology (Continued)

- Data collection for the Behavioral Risk Factor Survey occurred between June 10, 2020 and September 13, 2020.
- Unless noted, consistent with the Michigan BRFSS, respondents who refused to answer a question or did not know the answer to a specific question were excluded from analysis for that question. Thus, the base sizes vary throughout the report.
- Data weighting is an important statistical process that was used to reduce bias from the BRFSS sample. The formula consists of both design weighting and iterative proportional fitting, also known as “raking” weighting. The purposes of weighting the data are to:
  - ❖ Correct for differences in the probability of selection due to non-response and non-coverage errors
  - ❖ Adjust variables of age, gender, race/ethnicity, marital status, education, home ownership, and region to ensure the proportions in the sample match the proportions in the population of Ottawa County adults
  - ❖ Allow the generalization of findings to the entire Ottawa County adult population
- The formula used for the final weight is: Design Weight X Raking Adjustment



# Methodology (Continued)

- Adverse childhood experiences (ACEs) data were collected using the BRFSS 11-item version. The 11 items measure the following adverse groups and subgroups:
  - ❖ Abuse:
    - Emotional Abuse
    - Physical Abuse
    - Sexual Abuse
  - ❖ Household challenges:
    - Intimate Partner Violence
    - Household Substance Abuse
    - Household Mental Illness
    - Parental Separation or Divorce
    - Incarcerated Household Member
- Five of the 11 questions have “yes” or “no” response categories, and the remaining 6 questions have “never,” “once,” or “more than once” response categories. Respondents scored either “0” for each “no” and a “1” for each “yes,” and they scored either a “0” for each “never” and a “1” for each “once” or “more than once.” Their total ACEs score was computed by adding the sum of the scores across the 11 items. The total ACEs scores were segmented into three groups according to the number of adverse childhood experiences they had: none, 1 to 3, and 4 or more.



## Methodology (Continued)

- It should be noted that if the respondent said “don’t know” or refused to answer any of the ACEs items then they were not included in the ACEs analyses by groups. This decision was made because the CHNA team and the researchers believe that coding “don’t know” or “refused” answers as zero and then including them in one of the three groups could possibly create an inaccurate picture of the extent to which adverse childhood experiences exist in the population of Ottawa County residents. As an example, if someone refused to answer all 11 ACE questions, rather than coding them as a none (zero), it was determined best to exclude them from the analyses.



# EXECUTIVE SUMMARY



# Executive Summary

- The year 2020, will undoubtedly be remembered as the year of the coronavirus pandemic (COVID-19) since its physical and emotional impact, as well as its economic and social disruption, was far-reaching.
- Because this has been such a unique year, the findings of any research conducted, including this BRFS, should be approached with caution. That said, it can at the very least be used as a benchmark going forward.
- **Almost two-thirds (63.2%) of area adults say that communicable diseases, such as COVID-19, are the most important health problem in Ottawa County.**
  - ❖ To put this in perspective, when area adults have been asked in past BRFSs to list their most concerning health problems in Ottawa County, communicable diseases are rarely, if ever, mentioned
  - ❖ Further, the top issue cited usually garners around 20%-25% (in 2017, obesity was the top issue mentioned by 22.1% of adults)
- The vast majority of adults (89.4%) report knowing a fair amount or a great deal about COVID-19. Two-thirds (64.9%) are at least somewhat concerned about getting, or being exposed to the disease, and only one-third (32.5%) say they are less concerned now than when the pandemic first began.
  - ❖ Despite concern being quite high, 28.6% of adults report they would be unlikely to get a COVID-19 vaccine if it became available to them





## Executive Summary (Continued)

- Although half (54.0%) report their lives remained unchanged during the pandemic, 38.6% say their lives worsened.
  - ❖ There were myriad ways in which the pandemic negatively impacted people's lives, but the inability to socialize and do the things that are routine contributed to feelings of isolation. Other mentions include the economic impact (job loss), limits on freedom (forced to wear masks, comply with regulations), and fear of the disease
- Most critically, the COVID-19 pandemic impacted Ottawa County adults' mental health, contributing to increased anxiety, depression, and negative shifts in mood such as anger and frustration.
  - ❖ **Over half (52.4%) of the adults who experienced poor mental health in the past month say that their condition was related to COVID-19**
- Moreover, the proportions of adults who say they have anxiety or depression, report poor mental health over the past month, or are considered mild to severely psychologically distressed (per the Kessler-6 instrument) are all higher in 2020 (some much higher) than they were in 2017.
  - ❖ Although mental health appears to have deteriorated during this pandemic year, suicidal thoughts and attempts have remained on par with what was reported in 2017



## Executive Summary (Continued)

- An area of opportunity continues to exist for local health professionals to formulate a plan to address the fact that sizeable proportions of people with mental health challenges do not take medication or receive treatment for their condition.
  - ❖ For example, the proportion of adults who currently take medication or receive treatment for a mental health condition or emotional problem is 33.6% among those with mild to moderate psychological distress and 73.3% among those with severe psychological distress
  - ❖ Further, less than half (43.4%) of adults who have poor mental health currently take medication or receive treatment for their mental health
  - ❖ All of the above proportions have declined (worsened) from 2017
- It is surprising that so few people engage in treatment or medication for mental health conditions considering that nearly all adults (94.7%) believe treatment can help people with mental illness lead normal lives.
  - ❖ Reluctance to seek treatment or take medication might result from a perceived stigma attached to the label of mental illness
    - More than one-third (34.6%) of all adults view people as not “caring and sympathetic to people with mental illness”



## Executive Summary (Continued)

- Nearly nine in ten (86.8%) area adults report their health as good or better, while 13.2% report their health as fair or poor. Roughly one in ten (9.4%) are considered to have poor physical health (14 or more days per month).
  - ❖ General health status has declined slightly from 2017, and has continued a trend of steadily declining since 2011
- As stated earlier, mental health has deteriorated compared to 2017. About 15.3% report poor mental health (14 or more days per month). **This is almost double (8.8%) the proportion in 2017.**
- One in fourteen (7.0%) adults are limited in their usual activities due to poor physical or mental health.
  - ❖ This proportion has improved slightly since 2017
- Eight in ten (80.2%) Ottawa County adults are considered to be psychologically well/healthy per the Kessler 6 questionnaire that was part of the BRFSS instrument this year.
  - ❖ Still, 16.9% are classified as having mild to moderate psychological distress and 2.8% have severe psychological distress
  - ❖ **Both of these proportions are higher than they were in 2017**



## Executive Summary (Continued)

- More than one in five (22.9%) area adults have been told they have anxiety disorder by a health care provider, while 21.8% report having depression.
  - ❖ **Both of these proportions are up notably from 2017**
  - ❖ The proportion of those having anxiety has increased steadily since 2011
- More than one-third (34.5%) of adults in Ottawa County are considered to be obese per their BMI, while an additional 31.9% are overweight (but not obese).
  - ❖ **The rate of obesity has continued to increase since 2011**
  - ❖ Other than COVID-19, respondents consider obesity to be the top health issue in Ottawa County
- Another issue is that people who are obese tend to see themselves in a more favorable light; less than half (47.9%) see themselves as very overweight, while 48.6% feel they are slightly overweight.
  - ❖ That said, this perception has improved slightly since 2017 when 35.5% of obese adults perceived themselves as very overweight
- Although more than eight in ten (86.6%) obese adults are trying to lose weight or not gain additional weight, many are pursuing this goal **without advice from health care professionals**.
  - ❖ Slightly more than half (56.5%) of obese adults in Ottawa County report having received advice on their weight from a health care professional



## Executive Summary (Continued)

- The prevalence estimates of the chronic conditions measured is mixed. The proportion of adults reporting arthritis increased substantially since 2017 and the prevalence of diabetes increased as well.
  - ❖ On the other hand, there was a decline in the prevalence of asthma, COPD, and pre-diabetes
- One-third (32.5%) of area adults have chronic pain, and one in five (20.6%) say their pain is not managed well.
  - ❖ Prevalence of chronic pain increased substantially from 2017
  - ❖ There are myriad barriers to treating the pain, but inadequate programs/services and cost are cited most often
- One in five (19.8%) adults with chronic pain say they don't ask for treatment for their condition. **This finding needs to be explored further to see if there is a connection, or correlation, between this reluctance to seek treatment and a fear of becoming addicted to pain medication (which several people mentioned as a barrier).**
  - ❖ As an example, almost half (46.9%) of adults who suffer from chronic pain have not taken prescription pain medication and another third (34.8%) haven't taken pain medication in more than one year



## Executive Summary (Continued)

- Among adults aged 18-64, 91.8% currently have health care coverage.
  - ❖ Over half (55.8%) have coverage through a plan at work or through a union
- Among all adults, 8.6% had to forgo a needed doctor visit in the past year due to cost.
  - ❖ Additionally, 26.5% report having to delay needed medical care in the past year and this proportion is up from 17.9% in 2017
  - ❖ **The top reason cited for delay in getting care is “couldn’t get an appointment soon enough,” which is most certainly linked to the pandemic since this particular reason has not been a cited as a top reason in past BRFs (cost usually is the top reason cited)**
  - ❖ One in twenty (5.6%) report they were not able to take their medication as prescribed due to cost, and this actually improved from 2017
- Almost three in ten (28.5%) Ottawa County adults have visited an urgent care center in the past year and 17.3% have visited the emergency room (for their own care).



## Executive Summary (Continued)

- While a large majority (87.6%) of area adults are at least somewhat confident they can navigate the health care system, 12.4% are not confident. Almost all adults are at least moderately confident they can complete medical forms and always or often understand their condition and any communication from their provider.
  - ❖ Those who lack confidence or have trouble understanding their situation tend to be the youngest adults (18-24) and/or have low incomes
- More than eight in ten (83.6%) area adults participate in some form of leisure time physical activity, such as running, calisthenics, walking, golfing, or gardening.
  - ❖ **This proportion is up notably from 2017**
  - ❖ On the other hand, only half (51.9%) participate in physical activities to strengthen their muscles
- The prevalence of cigarette **smoking** among Ottawa County adults is 14.3%, and this **continues to drop from 2014**.
- The prevalence of e-cigarette or vaping device use is low (6.1%).
  - ❖ The low prevalence could be due to the perception that even moderate use could be harmful: more than three-fourths (77.2%) of Ottawa County adults believe that using e-cigarettes or other electronic vaping devices even once or twice per week is a moderate or great personal risk



## Executive Summary (Continued)

- Slightly more than one-third (36.9%) of Ottawa County adults are considered non-drinkers of alcohol, meaning they consumed no alcohol in the past month. Additionally, 54.5% are light to moderate drinkers and 8.5% are heavy drinkers.
  - ❖ 17.5% of adults are binge drinkers, meaning they have consumed at least 4 (if female) or 5 (if male) drinks on at least one occasion in the past month
  - ❖ **The prevalence of moderate, heavy, and binge drinking have all increased this year from 2017, while the proportion of non-drinkers had dropped significantly from 51.0% in 2017**
  
- One in seven (13.8%) area adults report using marijuana or cannabis and the most popular method of use, by far, is smoking it.
  - ❖ **Unlike with vaping, 64.7% of Ottawa County adults believe that using marijuana or cannabis once or twice per week is a slight risk or no risk at all**
  
- Area adults continue to consume inadequate amounts of fruits and vegetables per day.
  - ❖ 43.6% and 31.8% of adults eat fruit and vegetables less than one time per day on average, respectively
  - ❖ **On the other hand, when asked about “servings” per day, as opposed to “times” per day, the prevalence of eating fruits and vegetables looks better**





## Executive Summary (Continued)

- Almost all adults report that they always have enough to eat (96.1%) and have not had to cut the size of or skip meals because of lack of money (95.5%).
- Nearly nine in ten adults (88.1%) have a medical home (have a personal care provider) and 4.2% have more than one.
- More than one in five (22.6%) area adults have not visited a dentist in the past year to have their teeth cleaned.
  - ❖ **For some adults, this year proved more challenging when seeking needed dental care: 17.1% say they had problems getting dental care, which is up significantly from 2017 (6.5%)**
  - ❖ The top reason cited, by far, for the difficulty in accessing needed dental care was the **unavailability of their dentist/dental hygienist**
- Three-fourths (75.2%) of adults aged 65 or older have had a flu shot within the past year and 66.6% plan to get one in the fall of 2020.
- Almost all (94.2%) women 40 years or older have had a mammogram, and over half (55.7%) have had one in the past year.
  - ❖ The latter rate is down from 2011 and 2014
- Women report similar prevalence rates for receiving Pap tests compared to previous years.



## Executive Summary (Continued)

- This iteration of the BRFSS witnessed an increase in all of the adverse childhood experiences recalled by adults. **There are two main explanations** for this increase. First, there were fewer people who refused to answer the questions in 2020, and the assumption is that people who refuse to answer ACEs questions (as they did in 2017) may not be ready to identify and reflect on past adversities.
- Second, and probably more important, is that clinicians who treat survivors of trauma state that living in challenging or unprecedented times can cause people to recall things that they may have suppressed or not thought about in quite some time. Being isolated and confined as a result of COVID-19 could have led to some people to be more reflective, open, and forthcoming about their past.
  - ❖ Four in ten (40.2%) Ottawa County adults have experienced emotional abuse, up from 29.6% in 2017
  - ❖ Other notable increases from 2017 were seen in physical abuse from a parent, living with someone who had mental illness, and living with someone who had a problem with alcohol
  - ❖ A similar rate to 2017 was seen in having divorced/separated parents
  - ❖ **Two-thirds (64.5%) of Ottawa County adults have experienced at least one adverse childhood event, and 22.9% have experienced four or more (both up from 2017)**
  - ❖ There is a direct and linear relationship between the number of ACEs one experiences and negative outcomes later in life



## Executive Summary (Continued)

- Three-fourths (77.0%) of Ottawa County adults report they could rely on four or more people if they had to for practical help. Reaching outside of this circle of friends or family, to strangers for example, is more uncommon than common.
- More than three-fourths of adults say they “often” or “always” receive the social and emotional support they need, and the importance of receiving this support cannot be understated.
  - ❖ **If you compare adults who receive needed social and emotional support often or always, with adults who receive the same support sometimes, rarely, or never, the latter group demonstrates worse outcomes, such as mental illness (including suicide), physical health, chronic pain, substance use (marijuana and smoking), and obesity**
- Resiliency, in terms of adaptability and being able to bounce back, was measured using the two-item Connor-Davidson Resiliency Scale (CD-RISC-2). The vast majority of adults perceive themselves to be able to adapt when change occurs, and to be able to bounce back after illness, injury, or hardships.
  - ❖ **A major finding of this study is that if you take adults with four or more ACEs and divide the group into those who had negative outcomes in adulthood and those who did not, results show that those who avoided negative outcomes in adulthood had significantly higher resiliency scores on all measures tested. In other words, people who experience adverse life experiences in childhood, but are resilient, have a greater chance of avoiding negative outcomes as adults compared to those with lower, or less, resilience**



## Executive Summary (Continued)

- In terms of health disparities, there is a direct relationship between health outcomes and both education and income. Positive outcomes are more prevalent among adults with higher levels of education and adults from households with higher income levels, while negative outcomes are more prevalent among those with less education and lower incomes. Examples of this disparity include:
  - ❖ General health status
  - ❖ Physical health, activity limitation, and chronic pain
  - ❖ Mental health, psychological distress, and having anxiety or depression (more income-related than education)
  - ❖ Chronic diseases such as arthritis, diabetes, and COPD
  - ❖ Health risk behaviors such as fruit and vegetable consumption, smoking, and physical activity
  - ❖ Preventive practices such as visiting a dentist, being vaccinated against the flu, and some cancer screenings
  - ❖ Health care access such as having a primary care provider, having health insurance, lack of access to care and medication due to cost, or being health literate
- The link between both education and income and positive health outcomes goes beyond the direct relationship. Adults occupying the very bottom groups, for example having less than a high school diploma and/or having household income less than \$20K, are most likely to experience the worst health outcomes.



## Executive Summary (Continued)

- There is also a direct relationship between health outcomes and age. In many cases, negative outcomes are more often associated with **younger** adult age groups, for example:
  - ❖ Poor mental health, having psychological distress, or anxiety
  - ❖ No health care coverage and having no personal care provider
  - ❖ Risk behaviors such as smoking cigarettes, binge drinking, and marijuana use
- In other cases, negative outcomes are more associated with **older** adult groups, such as:
  - ❖ Fair or poor general health status, poor physical health, and activity limitation
  - ❖ Having chronic diseases like diabetes, pre-diabetes, arthritis, and COPD
  - ❖ Having chronic pain
  - ❖ Lack of muscle strengthening activities



# Executive Summary (Continued)

- There are links between health outcomes and gender. For example:
  - ❖ Men are more likely than women to:
    - Engage in risk behaviors such as smoking, binge drinking, marijuana use, eating fewer fruits
    - Lack health insurance or a personal health care provider
  - ❖ Women are more likely than men to:
    - Be at a healthy weight
    - Have psychological distress, anxiety, or depression
    - Have chronic conditions such as asthma and arthritis
    - Not engage in muscle strengthening activities
    - Report 4 or more ACEs
  
- There are also links between race and outcomes. Non-Whites are more likely than Whites to:
  - ❖ Engage in risk behaviors such as eating fewer fruits/vegetables
  - ❖ Not engage in preventive practices such as visiting a dentist
  - ❖ Have appropriately timed Pap tests and colonoscopies
  - ❖ Lack health insurance or a personal health care provider
  - ❖ Have problems receiving health care and navigating the health care system
  - ❖ Experience psychological distress
  - ❖ Report 4 or more ACEs



## Executive Summary (Continued)

- Adults living in the northeast section of Ottawa County fared worse than adults in other sections on the following measures:
  - ❖ Being at a healthy weight
  - ❖ Lacking health care coverage and having problems receiving health care
  - ❖ Being physically active and engaging in muscle strengthening activities
  - ❖ Engaging in risk behaviors such as smoking, heavy drinking, binge drinking, and marijuana use
  - ❖ Following preventive practices such as colon cancer screening and being likely to receive a COVID-19 vaccine (if available)
  - ❖ Having chronic diseases such as arthritis, COPD, and chronic pain
  - ❖ Lacking social and emotional support
  - ❖ Reporting 4 or more ACEs
  
- The above list should be considered with caution as there were only 33 respondents from the northeast section of Ottawa County.



# Comparison of Ottawa County BRFSS Measures From 2011 to 2020

	Health Status Indicators			
	2011	2014	2017	2020
★ General Health Fair/Poor	9.9%	10.5%	12.6%	13.2% ●
Poor Physical Health (14+ days)	8.1%	6.1%	10.0%	9.4% ●
Poor Mental Health (14+ days)	8.6%	8.6%	8.8%	15.3% ●
Activity Limitation (14+ days)	5.1%	5.7%	7.6%	7.0% ●
Obese	25.8%	23.9%	29.9%	34.5% ●
★ Received Advice on Losing Weight (Obese)	--	--	49.5%	56.5% ●
Overweight	36.7%	35.3%	33.3%	31.9% ●
★ Received Advice on Losing Weight (Overweight)	--	--	22.7%	25.3% ●
★ Healthy Weight	36.3%	37.7%	35.9%	31.6% ●
★ Mild to Severe Psychological Distress	--	16.4%	16.1%	19.8% ●
★ Receiving Medication/Treatment for Mild to Severe Psychological Distress	--	25.8%	53.5%	39.2% ●
★ Thoughts of Suicide	--	--	5.0%	4.9% ●
★ Suicide Attempts (among those who had thoughts)	--	--	20.0%	19.6% ●
Rarely/Never Receive Social/Emotional Support	4.4%	5.5%	--	8.0% ●

● = better/improved

● = worse

★ = indicates an outcome measure for the 2021 Ottawa County Community Health Improvement Plan





# Comparison of Ottawa County BRFSS Measures From 2011 to 2020

	Health Care Access			
	2011	2014	2017	2020
No Health Care Coverage (18-64)	12.6%	9.3%	9.2%	8.2% ●
No Personal Health Care Provider	12.0%	11.4%	12.4%	11.9% ●
No Health Care Access Due to Cost	--	9.8%	7.4%	8.6% ●
★ Confidence in Navigating the Health Care System	--	81.4%	84.4%	87.6% ●
Confidence in Completing Medical Forms (Very/Extremely)	--	--	81.5%	78.3% ●
Problems Learning About Health Condition (Rarely/Never)	--	--	87.8%	84.8% ●
Difficulty Understanding Written/Verbal Information from Provider (Rarely/Never)	--	--	87.3%	87.5% ●
Urgent Care Use in Past 12 Months (1+ Times)	--	23.8%	24.5%	28.5% ●
Emergency Room Use in Past 12 Months (1+ Times)	--	17.5%	20.0%	17.3% ●

● = better/improved

● = worse

★ = indicates an outcome measure for the 2021 Ottawa County Community Health Improvement Plan



# Comparison of Ottawa County BRFs Measures From 2011 to 2020

	Risk Behavior Indicators			
	2011	2014	2017	2020
★No Leisure Time Physical Activity	12.7%	20.5%	23.4%	16.4% ●
★Consumes Fruits <1 time/day	--	20.6%	31.5%	43.6% ●
★Consumes Vegetables <1 time/day	--	17.1%	21.4%	31.8% ●
Consumes Fruits and Vegetables <5 times/day	83.0%	70.5%	82.4%	90.3% ●
Current Cigarette Smoking	17.2%	18.6%	17.6%	14.3% ●
Former Cigarette Smoking	24.5%	22.6%	19.5%	25.0% ●
Binge Drinking	20.3%	19.3%	14.1%	17.5% ●
Heavy Drinking	7.5%	6.5%	5.7%	8.5% ●
Current Vaping/E-cigarette Use	--	--	6.1%	6.1%

● = better/improved

● = worse

★ = indicates an outcome measure for the 2021 Ottawa County Community Health Improvement Plan



# Comparison of Ottawa County BRFs Measures From 2011 to 2020

	Clinical Preventive Practices			
	2011	2014	2017	2020
No Dental Visit for Teeth Cleaning in Past Year	22.0%	24.3%	20.5%	22.6% ●
Had Flu Vaccine in Past Year (65+)	67.9%	72.1%	70.8%	75.2% ●
Had Flu Vaccine in Past Year (All Adults)	43.0%	46.6%	51.8%	54.2% ●
Ever Had Mammogram (Female, 40+)	94.1%	93.1%	--	94.2% ●
Had Mammogram in Past Year (Female, 40+)	70.1%	66.8%	--	55.7% ●
Ever Had Pap Test (Female)	92.5%	87.7%	--	92.1% ●
Had Pap Test in Past Three Years (Female)	78.8%	71.2%	--	63.8% ●
Ever Had Sigmoidoscopy or Colonoscopy (50+)	75.5%	74.4%	--	85.4% ●
Had Sigmoidoscopy or Colonoscopy in Past 5 Years (50+)	62.6%	81.9%	--	61.8% ●

● = better/improved

● = worse

★ = indicates an outcome measure for the 2021 Ottawa County Community Health Improvement Plan



# Comparison of Ottawa County BRFSS Measures From 2011 to 2020

	Chronic Conditions			
	2011	2014	2017	2020
Arthritis	23.2%	18.3%	19.4%	30.1% ●
Depression	18.8%	--	17.1%	21.8% ●
Post-Partum Depression	--	--	12.7%	12.7%
Anxiety	14.8%	--	15.0%	22.9% ●
Lifetime Asthma	13.5%	11.9%	12.7%	15.3% ●
Current Asthma	8.4%	6.5%	8.7%	7.9% ●
Diabetes	7.3%	7.8%	9.8%	12.3% ●
Pre-Diabetes	--	--	10.9%	7.3% ●
COPD	--	3.0%	4.0%	3.7% ●
Chronic Pain	--	--	24.1%	32.5% ●
Chronic Pain Well Managed	--	--	72.2%	79.4% ●

● = better/improved

● = worse

★ = indicates an outcome measure for the 2021 Ottawa County Community Health Improvement Plan

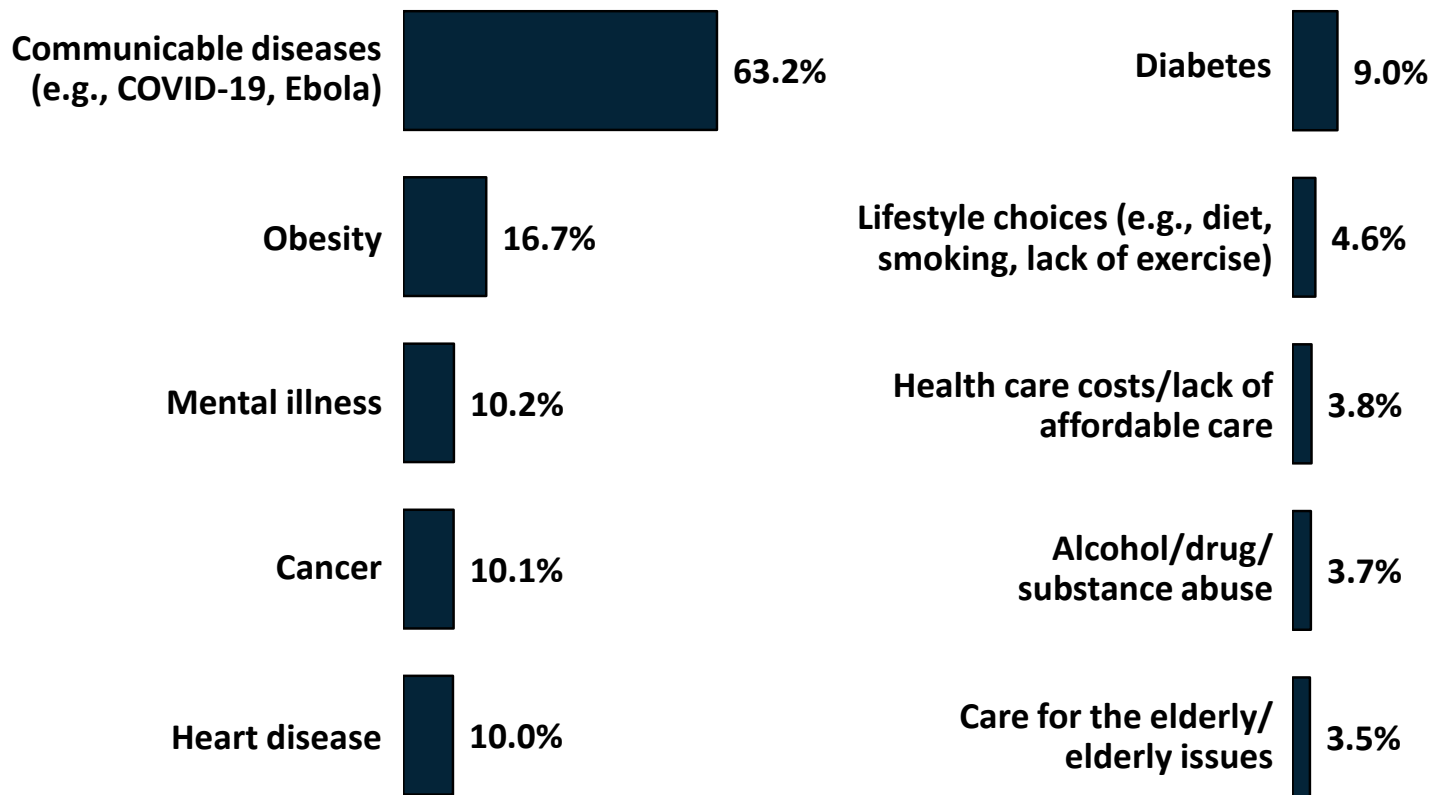
# DETAILED FINDINGS

# Perception of Community Problems



# Top 10 Most Important Health Problems in the Community Today

- With 2020 being such a unique year, it is not surprising that a sizeable majority of Ottawa County adults (63.2%) perceive the coronavirus (COVID-19) as the most important health problem in their community. At least one in ten also mention obesity, mental illness, cancer, or heart disease.



# Health Status Indicators

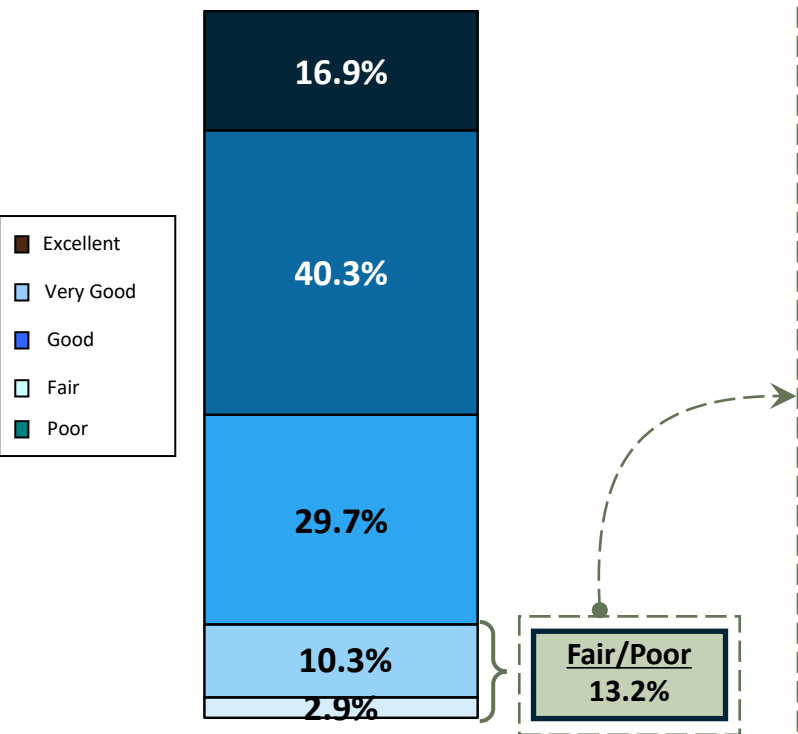




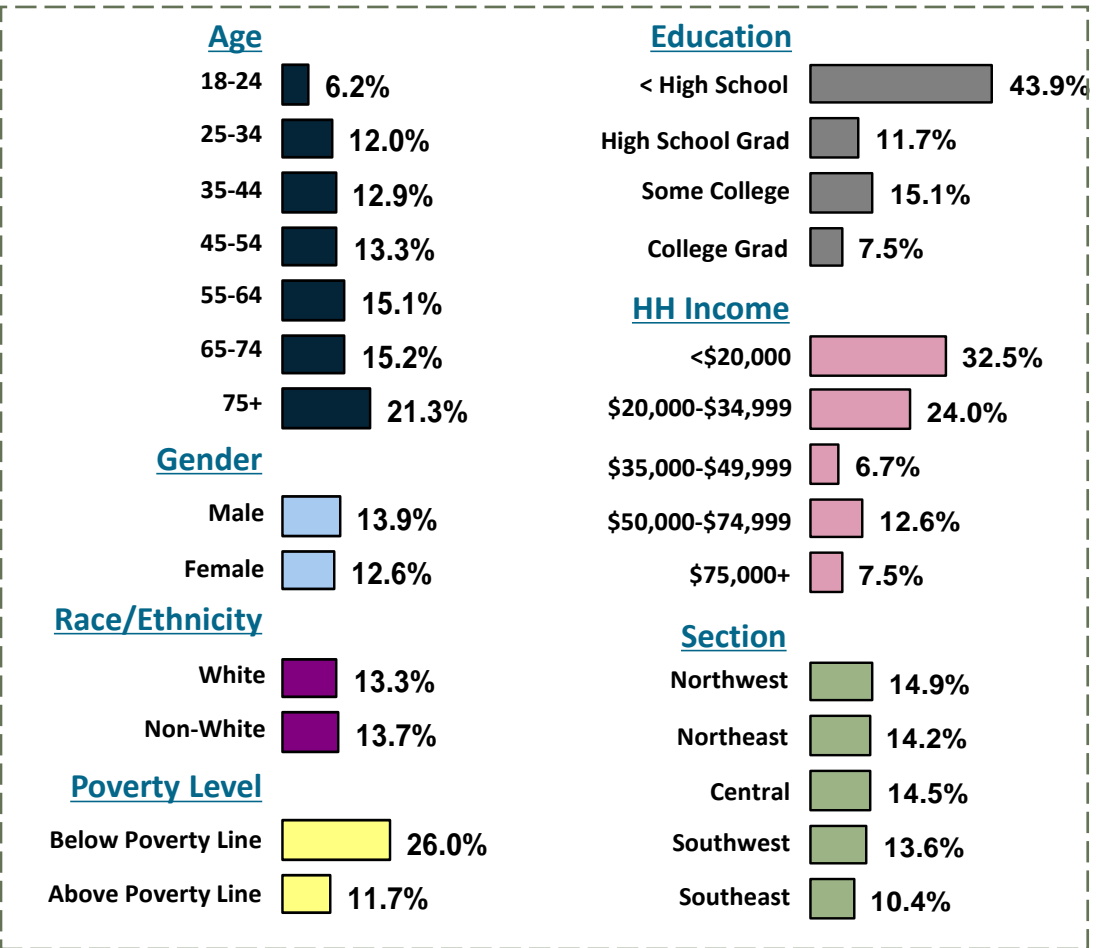
# General Health Status

- Although over half of Ottawa County adults report very good or excellent health, 13.2% report their health to be fair or poor.
  - ❖ The proportion of adults who perceive their health as fair or poor is inversely related to level of education and household income; people living below the poverty line are more likely to report fair or poor health than those above the poverty line

## Perception of General Health (Total Sample)



## General Health Fair or Poor by Demographics

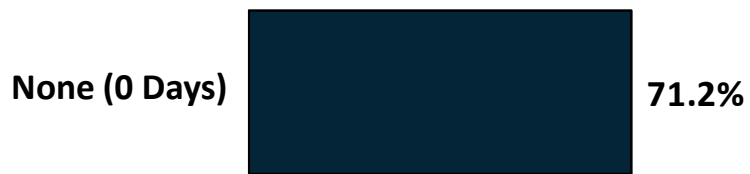




# Quality of Life – Physical Health Status

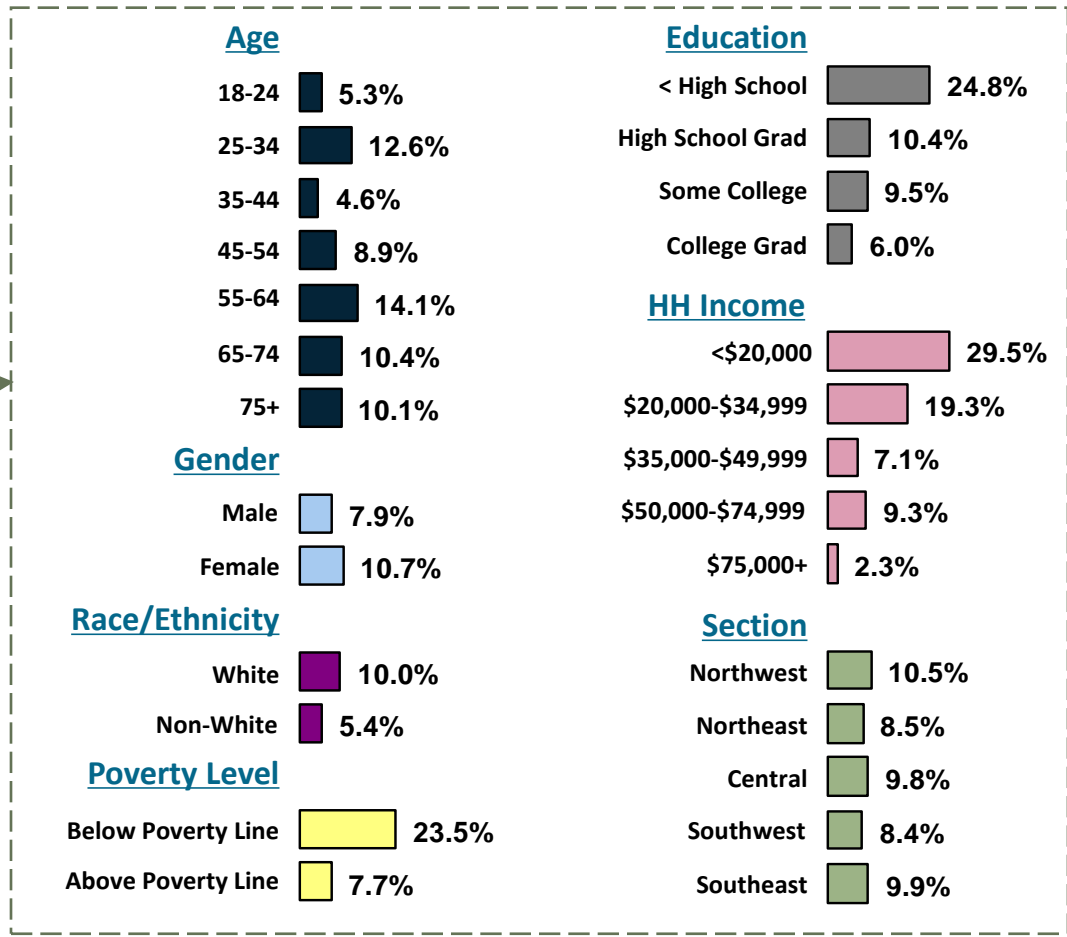
- Nearly one in ten (9.4%) Ottawa County adults report poor physical health.
  - ❖ The prevalence of poor physical health is inversely related to education and income
  - ❖ Further, women and White adults report higher rates of poor physical health slightly more than men and non-White adults, respectively

## Number of Days Physical Health Was Not Good in Past 30 Days



Mean Days (Including Zero) = 3.0  
 Mean Days (Without Zero) = 10.4

## Poor Physical Health\* by Demographics



\*14 or more days of poor physical health, which includes physical illness and injury, during the past 30 days.

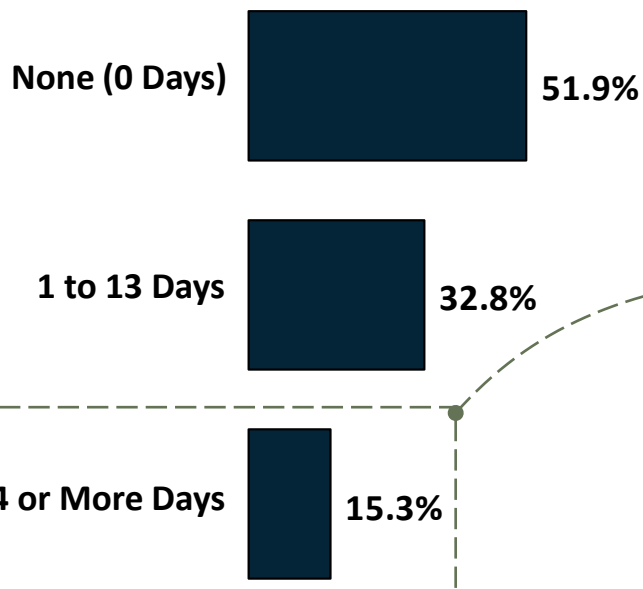
Q2.2: Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good? (n=1,160)



# Quality of Life – Mental Health Status

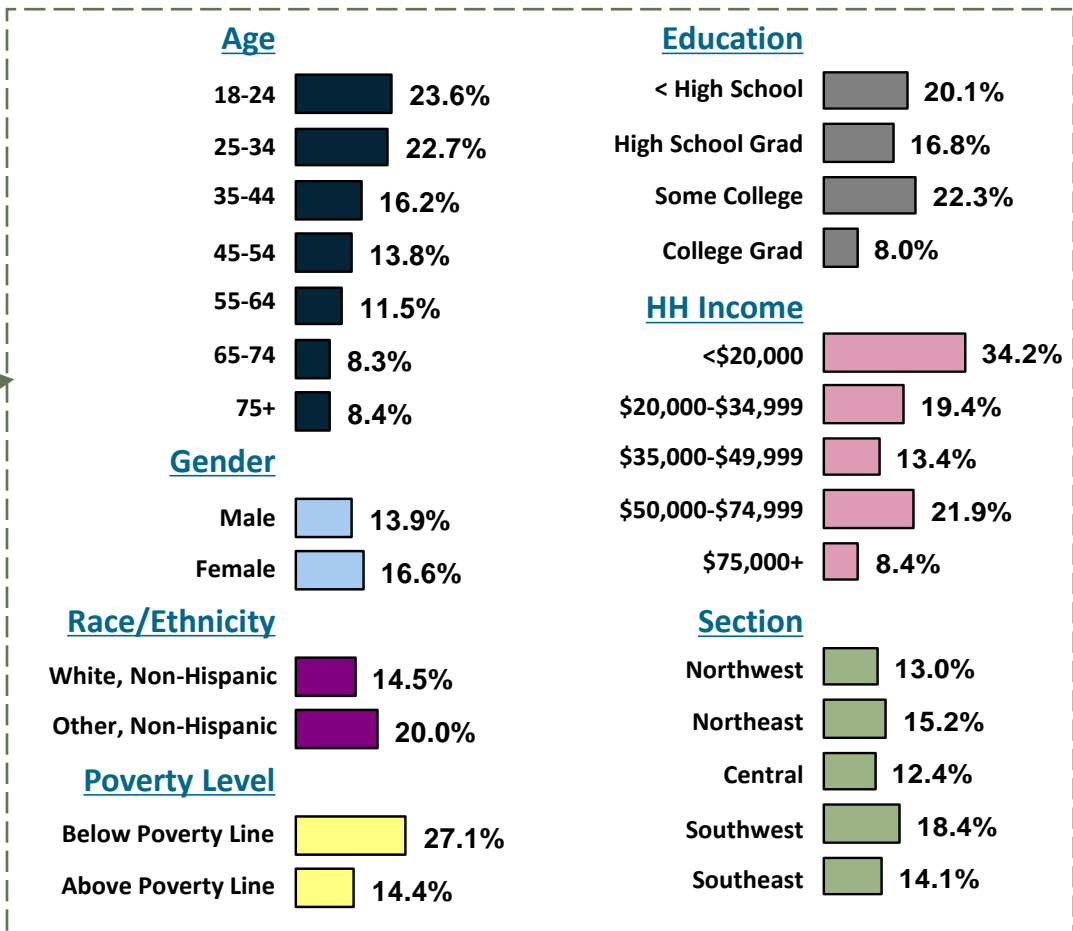
- Roughly one in six (15.3%) area adults report poor mental health; this is almost twice the proportion in 2017.
  - ❖ The prevalence of poor mental health is inversely related to age and income
  - ❖ College graduates are far less likely to report poor mental health than adults with less education
  - ❖ Poor mental health rates are higher among non-White adults than White adults

## Number of Days Mental Health Was Not Good in Past 30 Days



Mean Days (Including Zero) = 4.9  
 Mean Days (Without Zero) = 10.1

## Poor Mental Health\* by Demographics



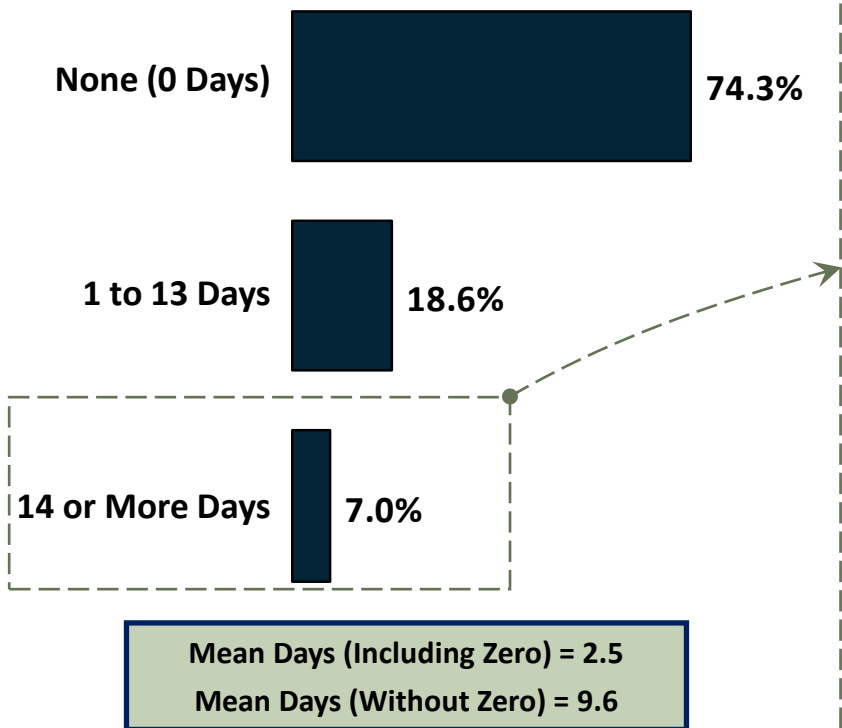
\*14 or more days of poor mental health, which includes stress, depression, and problems with emotions, during the past 30 days.



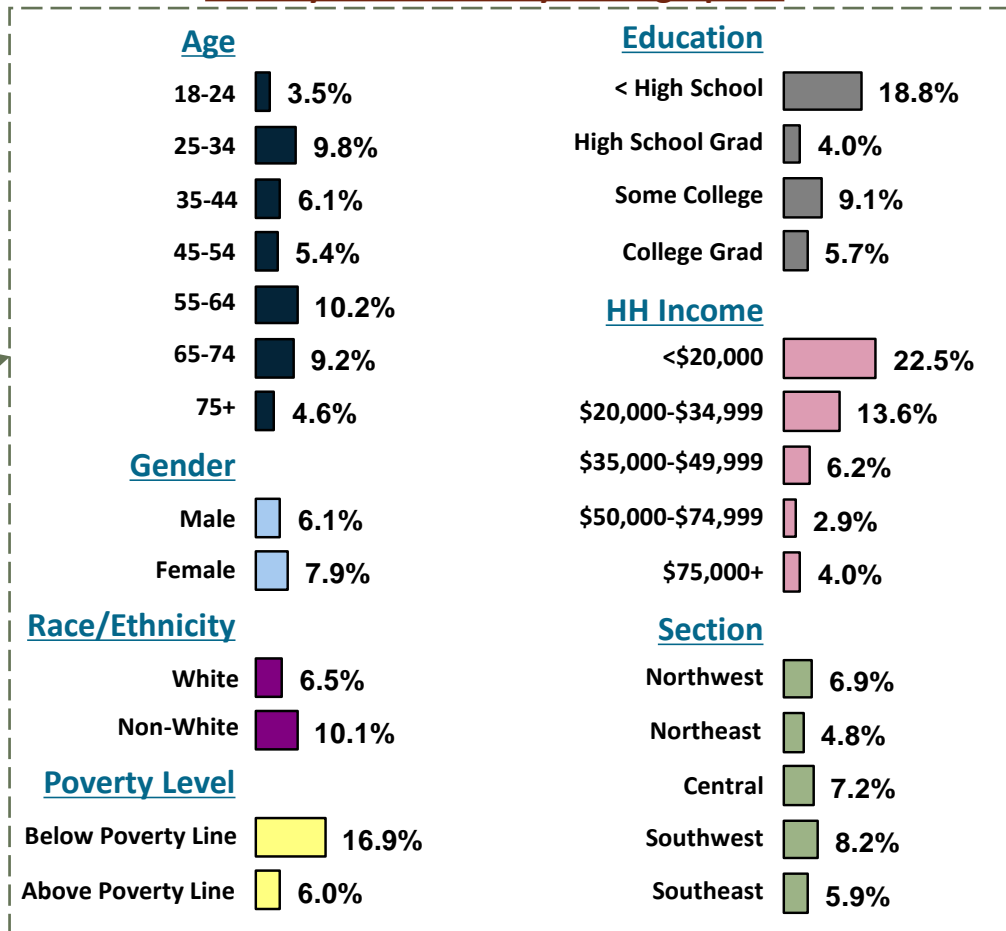
# Activity Limitation

- In the past 30 days, poor physical or mental health prevented 7.0% of area adults from doing their usual activities (e.g., self-care, work, recreation).
  - ❖ The largest proportions of adults who report activity limitation are found among adults with the lowest incomes and among those with less than a high school education

## Activity Limitation During Past 30 Days



## Activity Limitation\* by Demographics



\*14 or more days in the past 30 days in which either poor physical health or poor mental health kept respondents from doing their usual activities, such as self-care, work, and recreation.



# Psychological Distress

- Eight in ten (80.2%) Ottawa County adults are considered to be mentally healthy according to their feedback on the Kessler 6 Psychological Distress Questionnaire.\*
  - ❖ Conversely, 16.9% experience mild to moderate psychological distress and 2.8% are severely distressed

	<i>During the Past 30 Days, About How Often Did You....</i>					
<i>Frequency of Feeling</i>	Feel Nervous (n=1,194)	Feel Hopeless (n=1,199)	Feel Restless or Fidgety (n=1,195)	Feel So Depressed That Nothing Could Cheer You Up (n=1,196)	Feel That Everything Is An Effort (n=1,194)	Feel Worthless (n=1,197)
<b>None of the time</b>	<b>43.9%</b>	<b>75.8%</b>	<b>52.9%</b>	<b>84.4%</b>	<b>60.6%</b>	<b>84.3%</b>
<b>A Little</b>	<b>33.2%</b>	<b>13.7%</b>	<b>22.8%</b>	<b>9.3%</b>	<b>18.9%</b>	<b>9.2%</b>
<b>Some of the time</b>	<b>16.4%</b>	<b>8.3%</b>	<b>16.2%</b>	<b>4.6%</b>	<b>15.4%</b>	<b>4.0%</b>
<b>Most of the time</b>	<b>4.8%</b>	<b>1.4%</b>	<b>5.1%</b>	<b>1.2%</b>	<b>3.1%</b>	<b>1.3%</b>
<b>All of the time</b>	<b>1.7%</b>	<b>0.8%</b>	<b>3.0%</b>	<b>0.5%</b>	<b>2.0%</b>	<b>1.2%</b>

**Mentally Healthy (Well) = 80.2%**  
**Mild to Moderate Psychological Distress = 16.9%**  
**Severe Psychological Distress = 2.8%**

\*Calculated from responses to Q. 18.1- 18.6, where none of the time = 1, a little = 2, some of the time = 3, most of the time = 4, and all of the time = 5. Responses were summed across all six questions with total scores representing the above categories: mentally well (6-11), mild to moderate psychological distress (12-19), and severe psychological distress (20+).



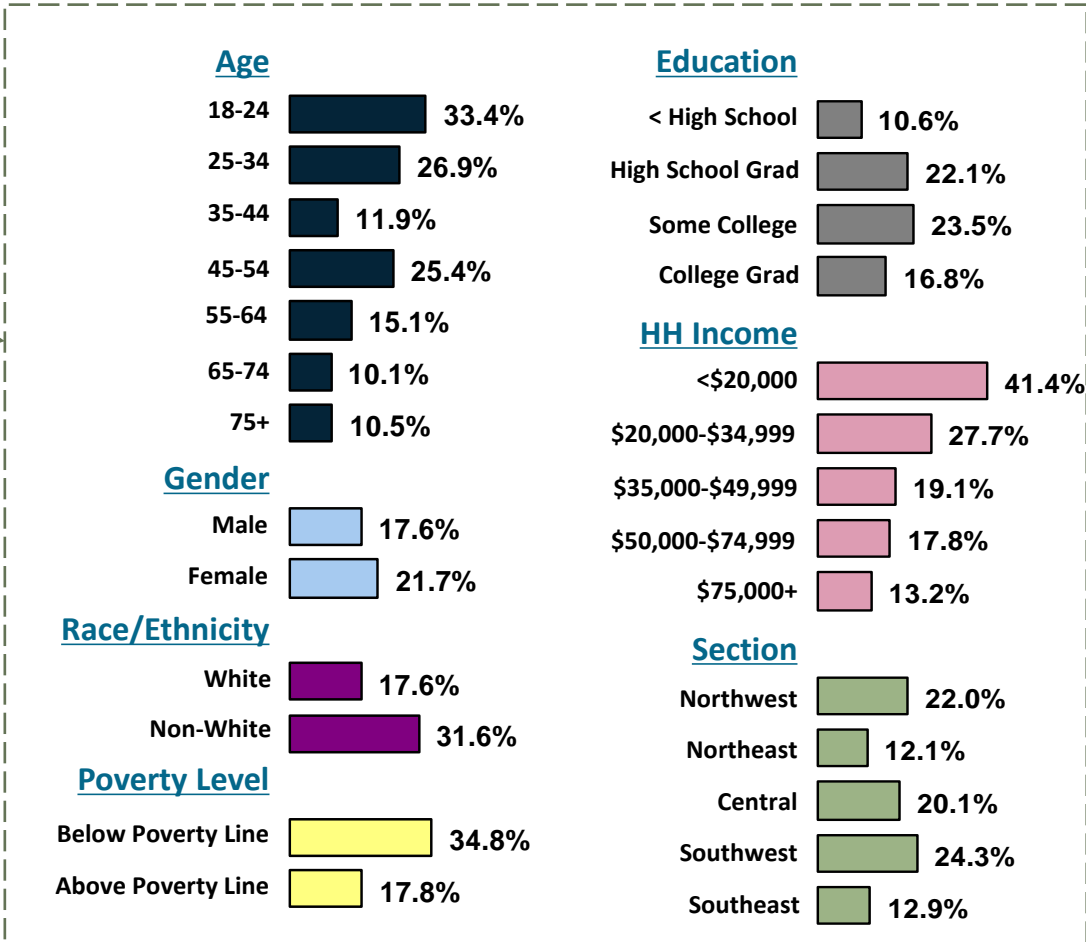
# Psychological Distress (Continued)

- Among Ottawa County adults, the groups most likely to report mild to severe psychological distress include those who are younger (< age 35), are non-White, live in the more urban sections of the county (northwest, southwest), and have household incomes less than \$35K. To this last point, the disparity between those who live below the poverty line (34.8%) and those who live above it (17.8%) is stark.

## Mild to Severe Psychological Distress\* (Total Sample)

19.8%

## Mild to Severe Psychological Distress by Demographics



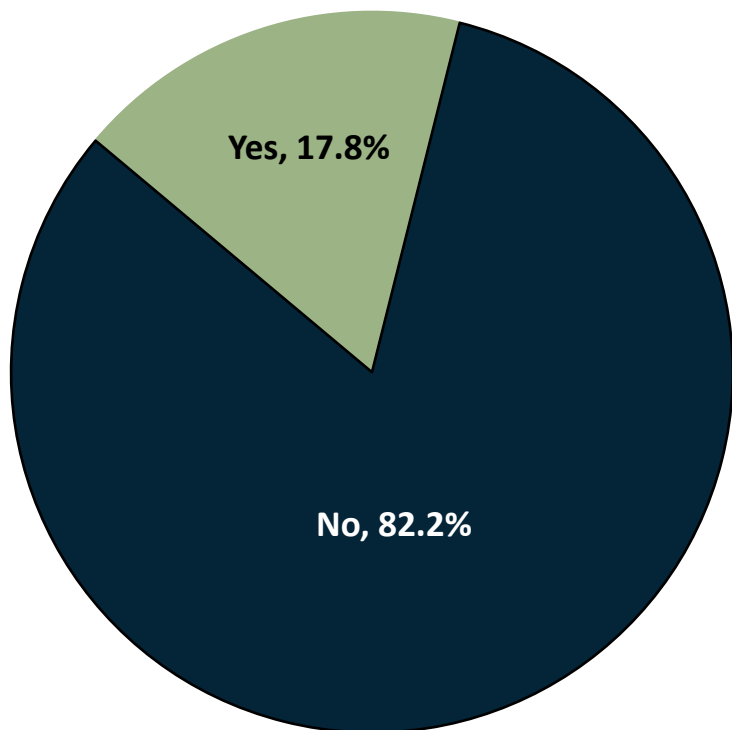
\*Calculated from responses to Q. 18.1- 18.6 where respondents scored 12 or more across the six items on the Kessler 6 scale. (n=204)



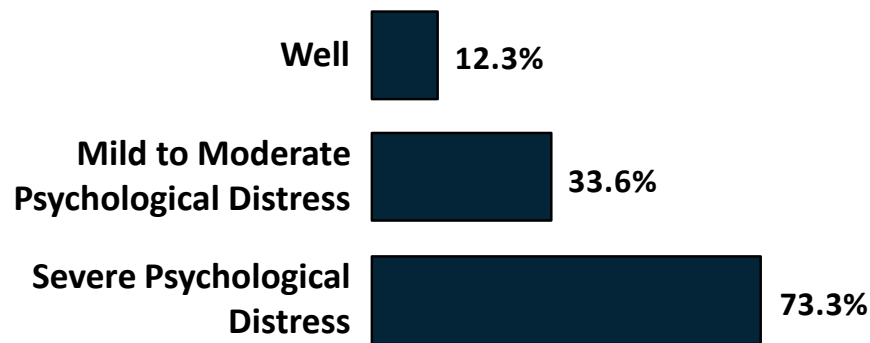
# Medication and Treatment for Psychological Distress

- Of all Ottawa County adults, 17.8% currently take medication or receive treatment for a mental health condition or emotional problem.
  - ❖ However, many of those who could benefit most from medication or treatment are not receiving either: only one-third (33.6%) of those classified as having “mild to moderate psychological distress” and 73.3% of those classified as having “severe psychological distress” currently take medication or receive treatment for their mental health issues
  - ❖ Further, only 43.4% of those who report “poor mental health” currently take medication or receive treatment

## Taking Medication or Receiving Treatment for Mental Health Condition or Emotional Problem



## Percent Taking Medication/Receiving Treatment by Psychological Distress Category



## Percent Taking Medication/Receiving Treatment by “Poor Mental Health” Classification



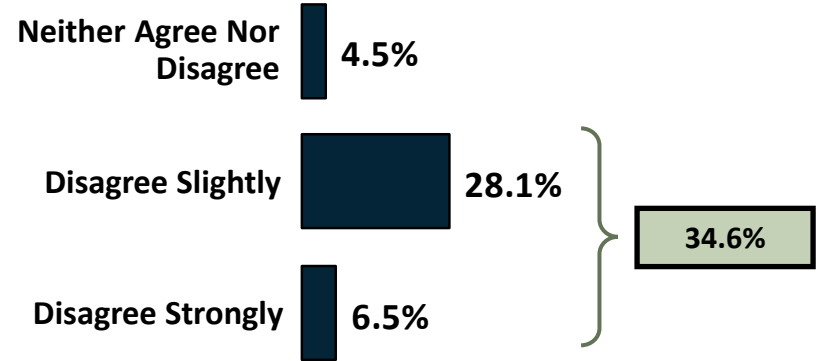
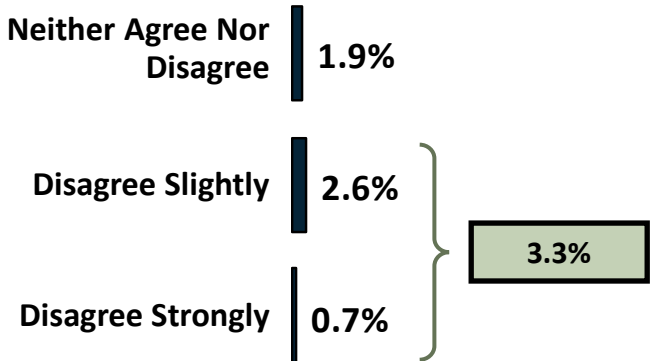
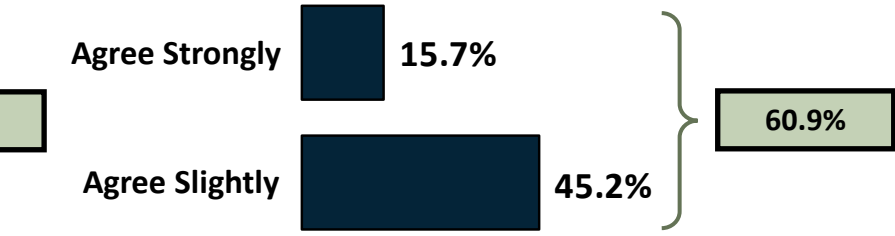
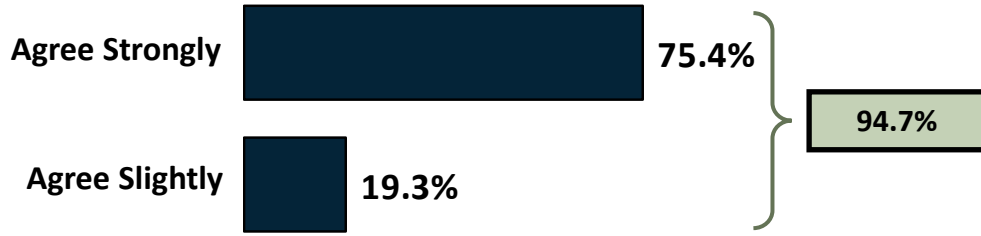
# Perceptions of Mental Health Treatment and Mental Illness

➤ Even though almost all (94.7%) Ottawa County adults believe treatment can help people with mental illness lead normal lives, six in ten (60.9%) view people are generally caring and sympathetic to people with mental illness, and this drops to 33.2% among those with severe psychological distress.

❖ This continued stigma could be the reason more people don't seek treatment even though they could benefit from it

## "Treatment Can Help People With Mental Illness Lead Normal Lives"

## "People Are Generally Caring and Sympathetic to People With Mental Illness"



**Agree by Psychological Distress Category**  
 Well (95.1%)  
 Mild to Moderate (93.0%)  
 Severe (98.8%)

**Agree by Psychological Distress Category**  
 Well (64.5%)  
 Mild to Moderate (50.0%)  
 Severe (33.2%)

18.8 What is your level of agreement with the following statement? "Treatment can help people with mental illness lead normal lives." Do you – agree slightly or strongly, or disagree slightly or strongly? (n=1,164)

18.9 What is your level of agreement with the following statement? "People are generally caring and sympathetic to people with mental illness." Do you – agree slightly or strongly, or disagree slightly or strongly? (n=1,170)

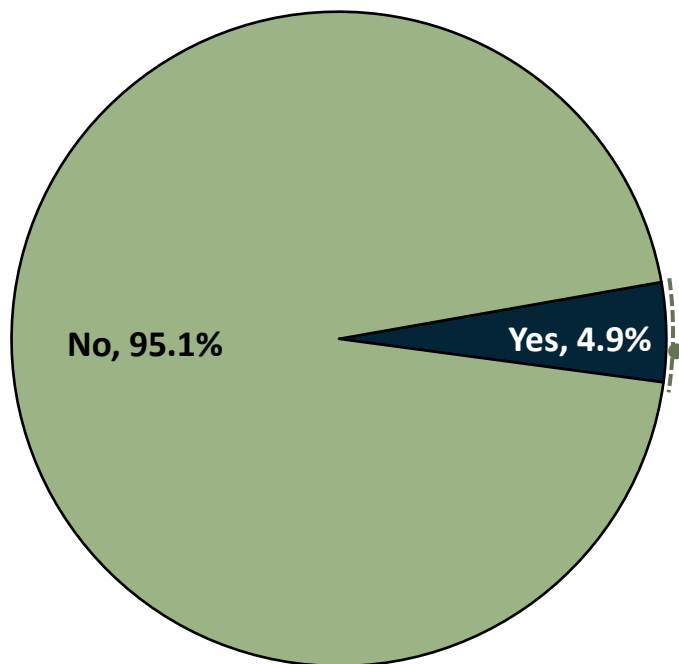




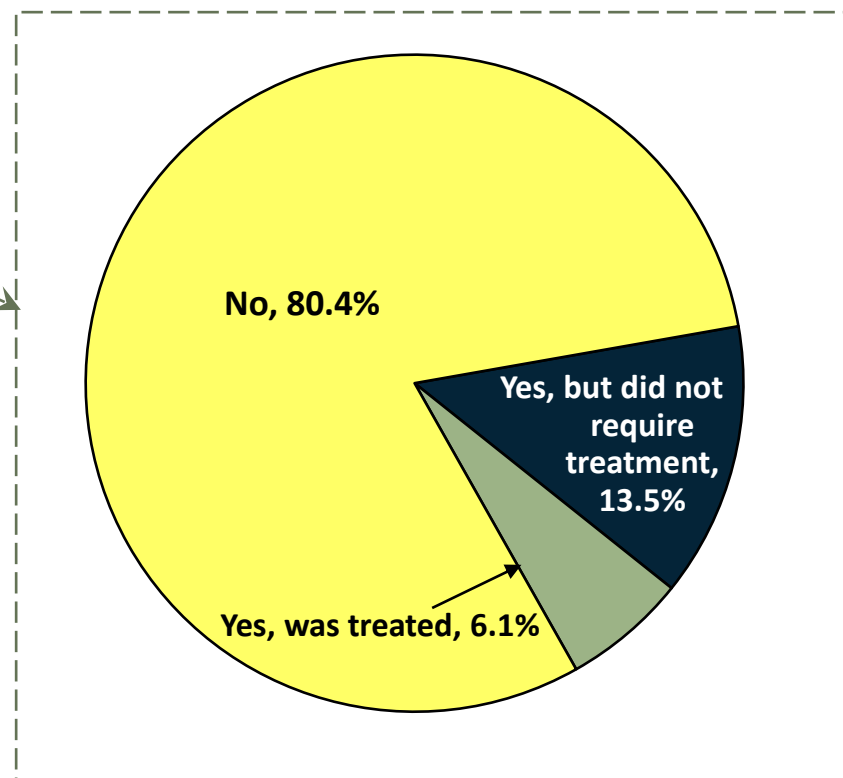
# Suicide

- One in twenty (4.9%) area adults has thought about committing suicide in the past year.
  - ❖ Of these, one in five (19.6%) actually attempted suicide in the past year

**Thought of Taking Own Life  
in Past 12 Months**



**Attempted Suicide in Past 12 Months  
(Among Those Who Thought About Taking Their Own Life)**

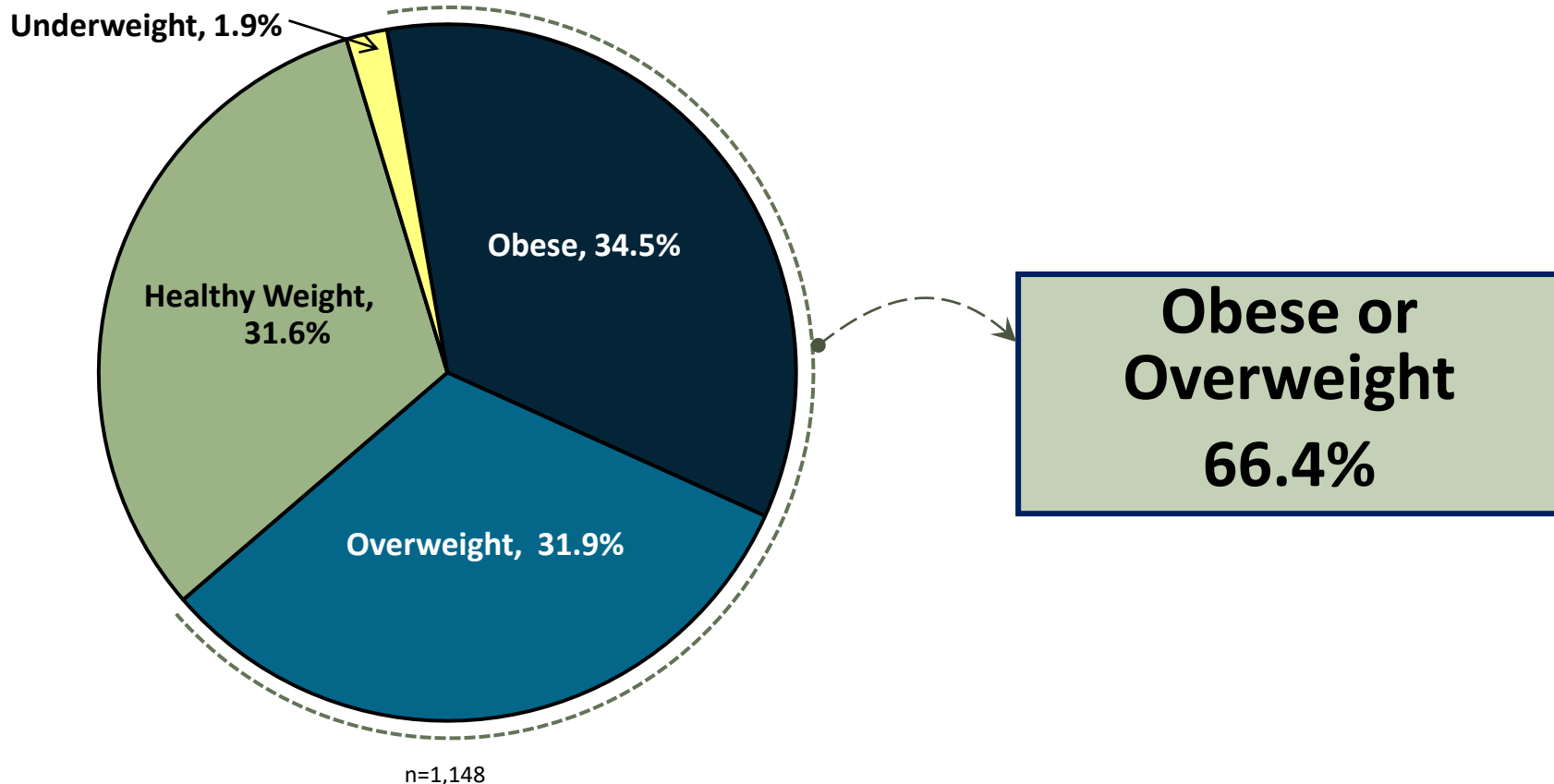


Q20.1: Has there been a time in the past 12 months when you thought of taking your own life? (n=1,194)  
Q20.2: During the past 12 months, did you attempt to commit suicide (take your own life)? Would you say... (n=42)



# Weight Status

- Almost two-thirds (66.4%) of Ottawa County adults are considered to be either overweight or obese per their BMI; this is up slightly (63.2%) from 2017.
- The proportion of obese adults increased 4.6% from 2017 (29.9%).
- Three in ten (31.6%) are at a healthy weight and this is down from 2017 (35.9%).



Obese = among all adults, the proportion of respondents whose BMI was greater than or equal to 30.0.  
Overweight = among all adults, the proportion of respondents whose BMI was greater than or equal to 25.0, but less than 30.0.  
Healthy weight = among all adults, the proportion of respondents whose BMI was greater than or equal to 18.5 but less than 25.0.  
Underweight = among all adults, the proportion of respondents whose BMI was less than 18.5



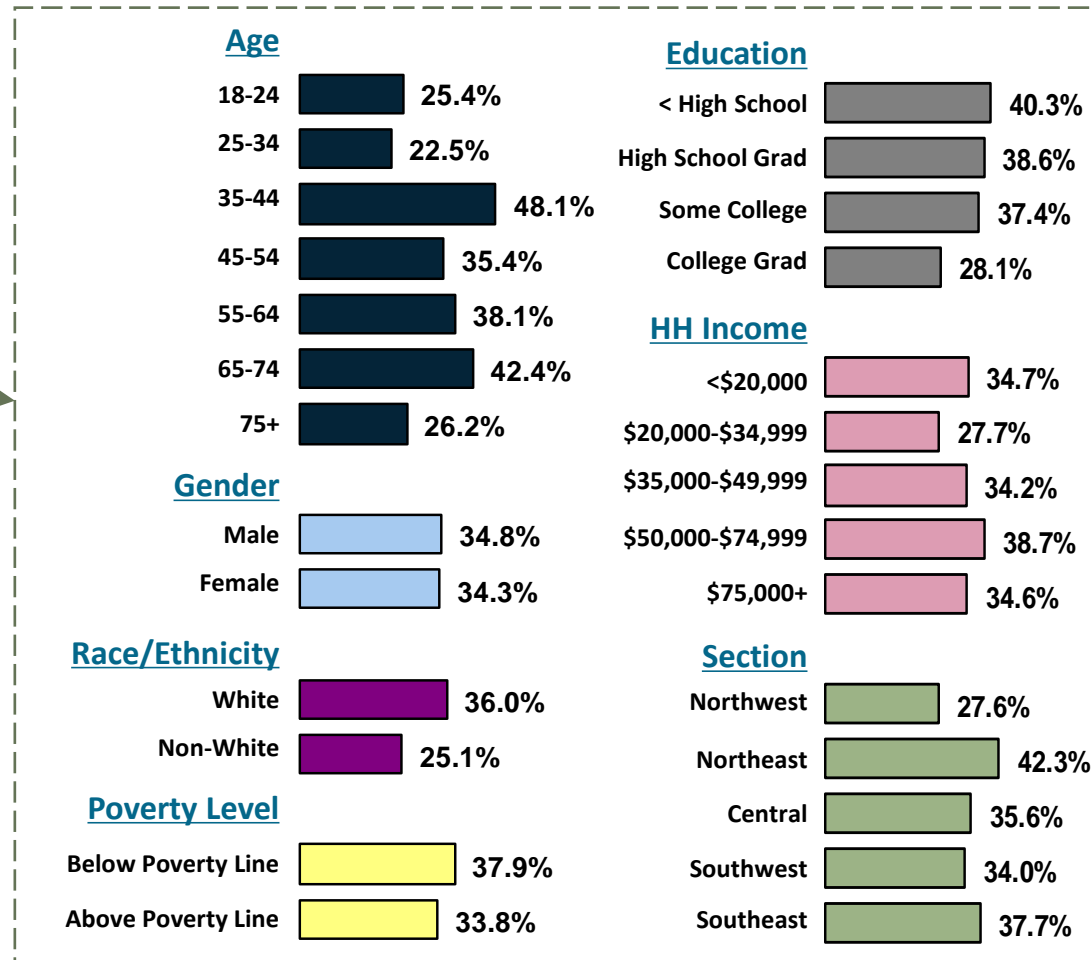
# Obesity

- More than one-third (34.5%) of area adults are obese per their BMI, and it's fairly universal among demographics.
  - ❖ That said, obesity rates are higher in White adults than non-White adults, higher in adults aged 35-74 compared to those younger or older, and lower in adults with college degrees compared to adults with less education

## Obese\* (Total Sample)

34.5%

## Obese by Demographics



\*Among all adults, the proportion of respondents whose BMI was greater than or equal to 30.0.



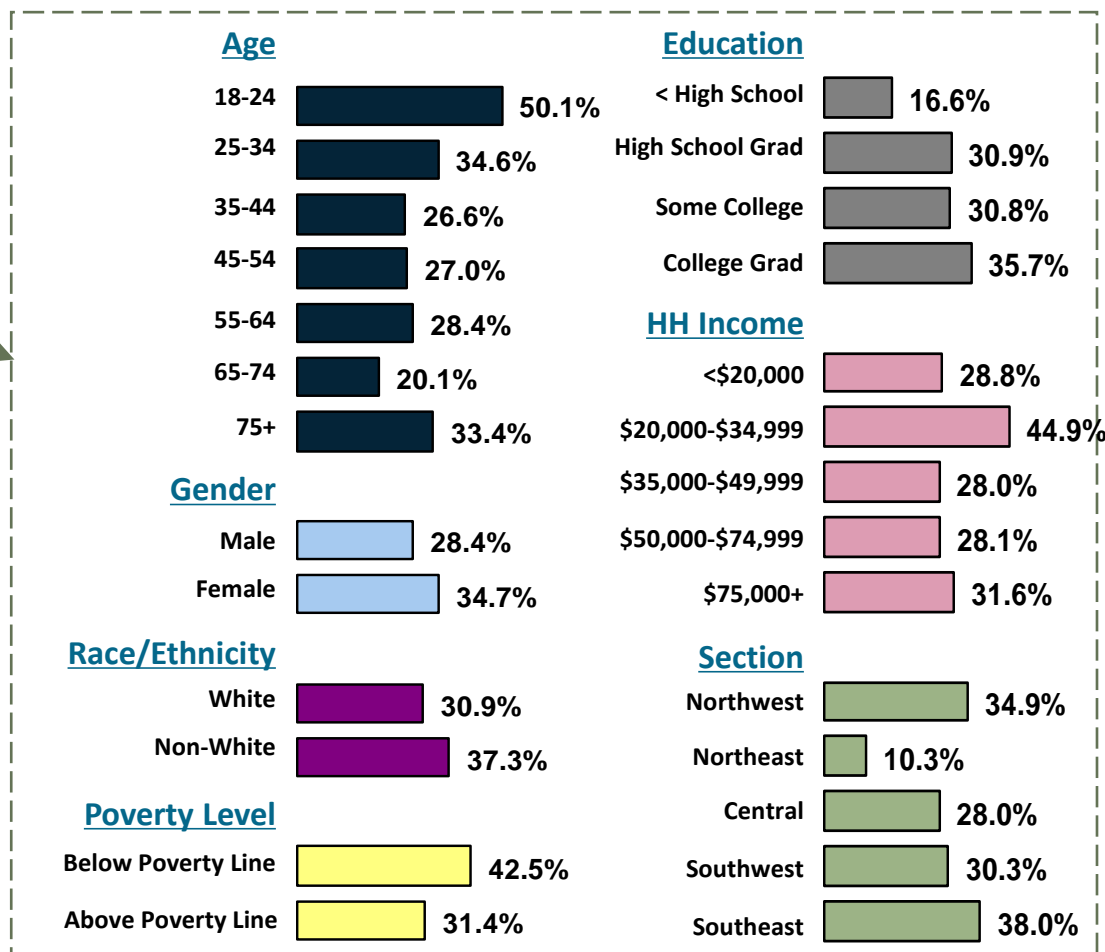
# Healthy Weight

- More than three in ten (31.6%) Ottawa County adults are at a healthy weight per their BMI.
  - ❖ Women tend to be at a healthy weight more than men, and the youngest (18-24) and oldest (75+) adults tend to be at healthy weights more than adults ages 25-74
  - ❖ Conversely, the prevalence of healthy weight is lower in adults with less than a high school diploma compared to adults with more education

## Healthy Weight\* (Total Sample)

## Healthy Weight by Demographics

31.6%



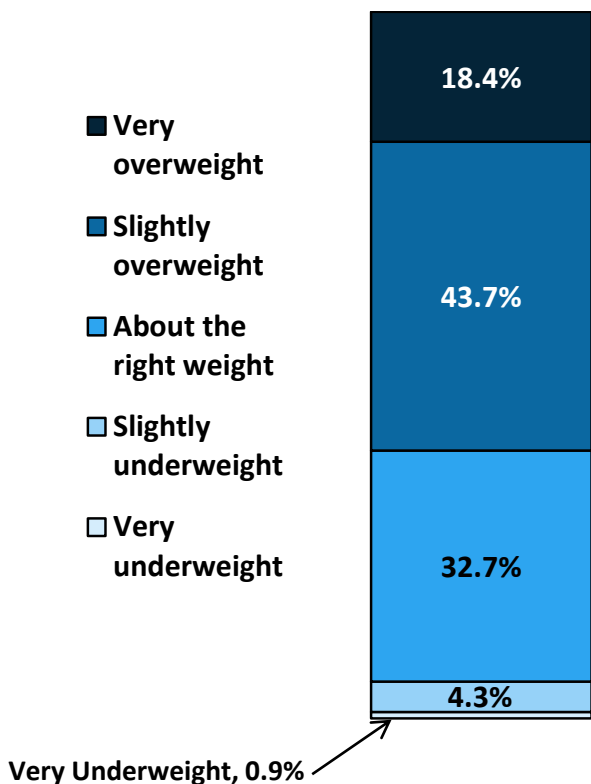
\*Among all adults, the proportion of respondents whose BMI was greater than or equal to 18.5 but less than 25.0.



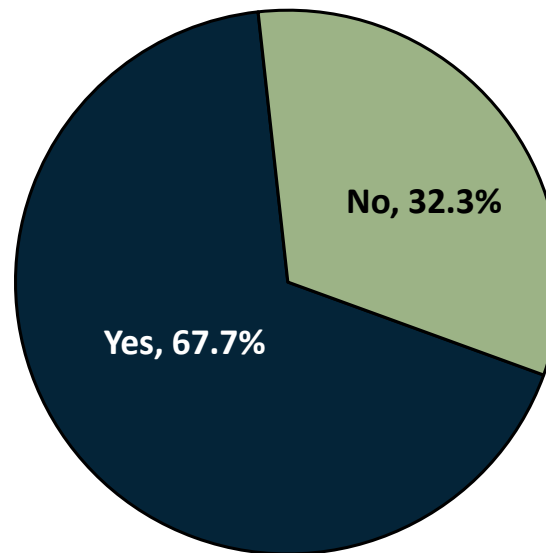
# Weight Control

- One-third (32.7%) of adults perceive themselves to be at the right weight, while 43.7% see themselves as slightly overweight and 18.4% think of themselves as very overweight. These proportions more accurately reflect actual weight status than in 2017.
- Two-thirds (67.7%) of adults are currently trying to lose or maintain their current weight, which is a similar proportion to adults who are overweight or obese.

## Self-Described Weight Status



## Currently Trying to Lose or Maintain Weight

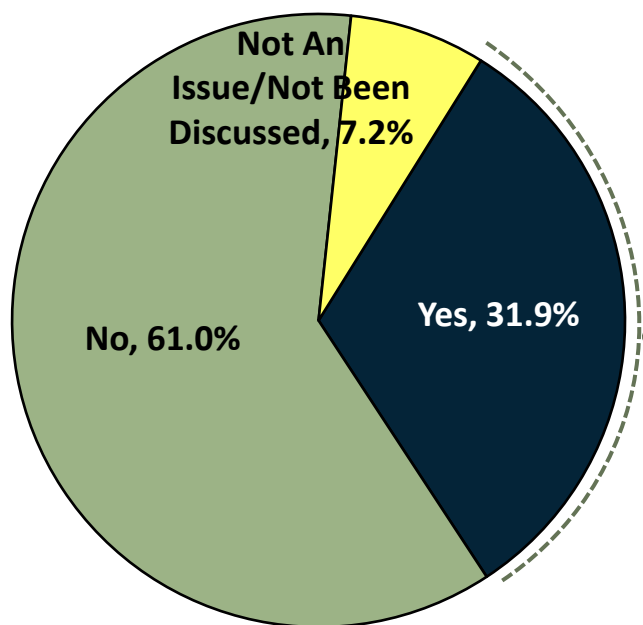




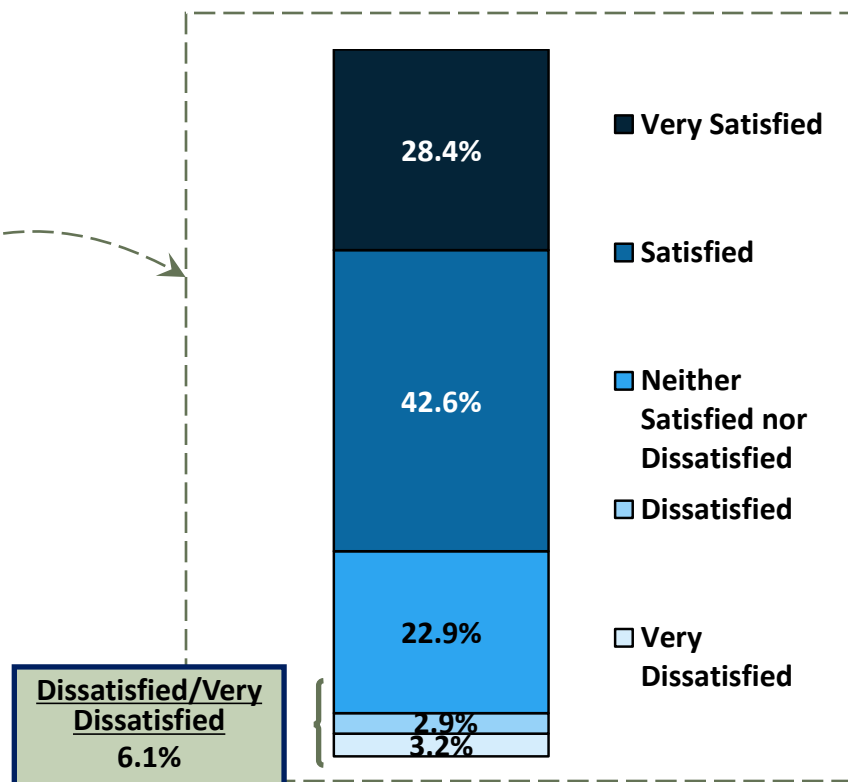
# Weight Control (Continued)

- Three in ten adults have received advice from a healthcare professional regarding their weight.
  - ❖ Of these, 71.0% are satisfied with that advice

Received Advice Regarding Weight from Health Professional



Satisfaction with Advice Regarding Weight



Q11.3: Has a doctor, nurse, or other health professional given you advice about your weight? (n=1,194)

Q11.4: How satisfied were you with that advice? (n=400)



# Weight Control (Continued)

- Since two-thirds of adults in Ottawa County are either overweight or obese, it is encouraging to see that the vast majority of overweight and obese adults report trying to lose weight.
- On the other hand, many of these adults are not receiving needed advice from health care professionals regarding their weight; only 25.3% of overweight and 56.5% of obese adults have received advice from a health care professional regarding their weight.
- Further, many of these overweight or obese adults perceive themselves in a more favorable light; for example, 48.6% of adults considered obese per their BMI see themselves as slightly overweight, and 30.3% of adults who are overweight view themselves to be at the right weight.

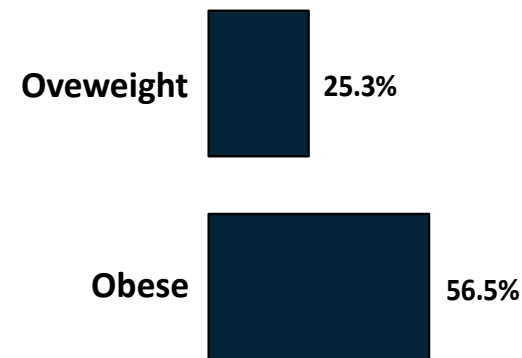
Trying to Lose/Maintain Weight by BMI Category “Overweight” or “Obese”



Self-Described Weight Status by BMI Category “Overweight” or “Obese”

Self-Described Weight	BMI Category	
	Overweight (n=424)	Obese (n=397)
Underweight	0.0%	1.3%
About the right weight	30.3%	2.2%
Slightly Overweight	63.4%	48.6%
Very Overweight	6.3%	47.9%

Received Advice Regarding Weight from Health Professional by BMI Category “Overweight” or “Obese”



# Health Care Access

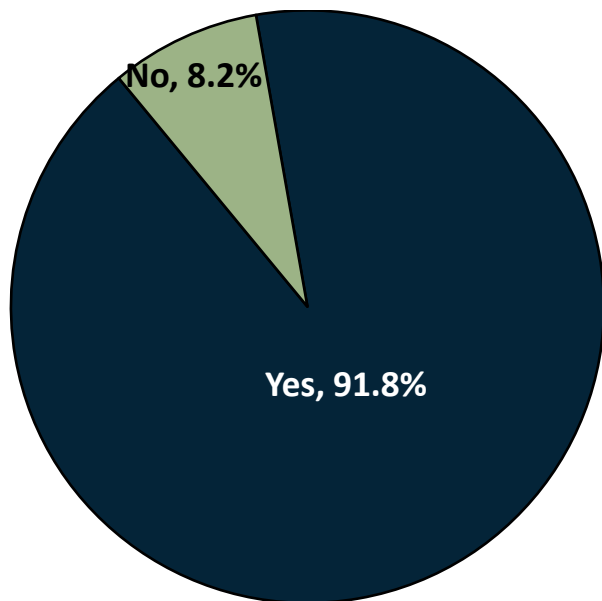




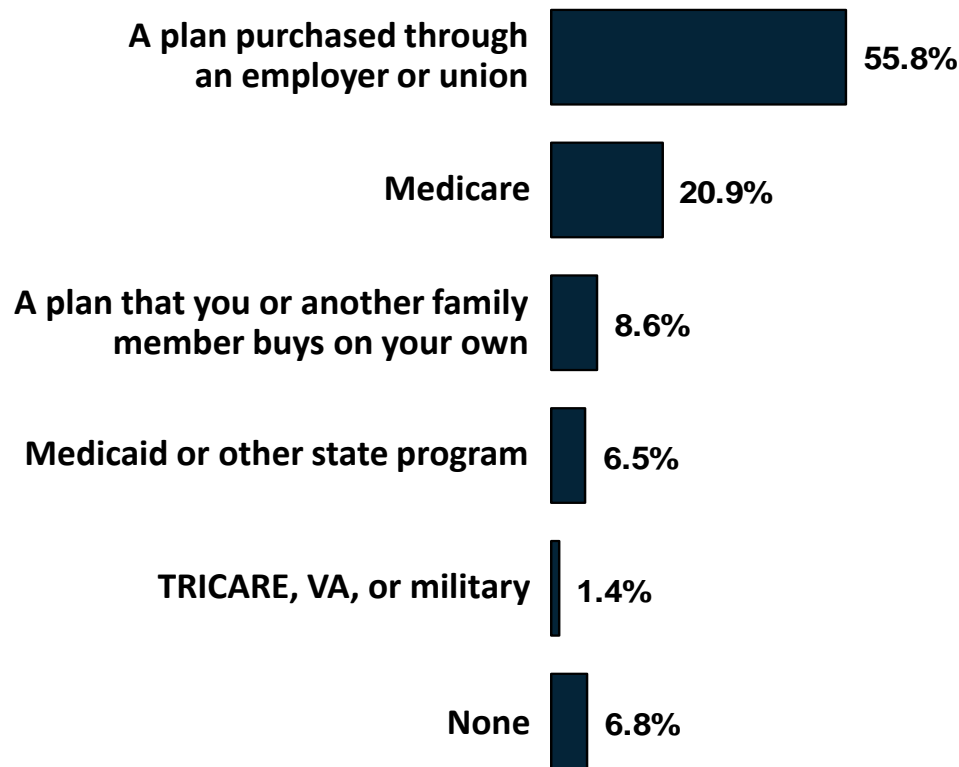
# Health Care Coverage

- More than nine in ten (91.8%) adults under age 65 have health care coverage.
- For all area adults, the most common, by far, source of health coverage is a plan purchased through an employer or union.
- Approximately one in twelve (8.6%) purchase health care coverage on their own.

## Currently Have Health Care Coverage (Among Adults 18-64)



## Primary Source of Health Coverage (All Adults)



Q3.1: Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare or Indian Health Services? (n=648)

Q3.2: What is the primary source of your health coverage? Is it....? (n=1,173)



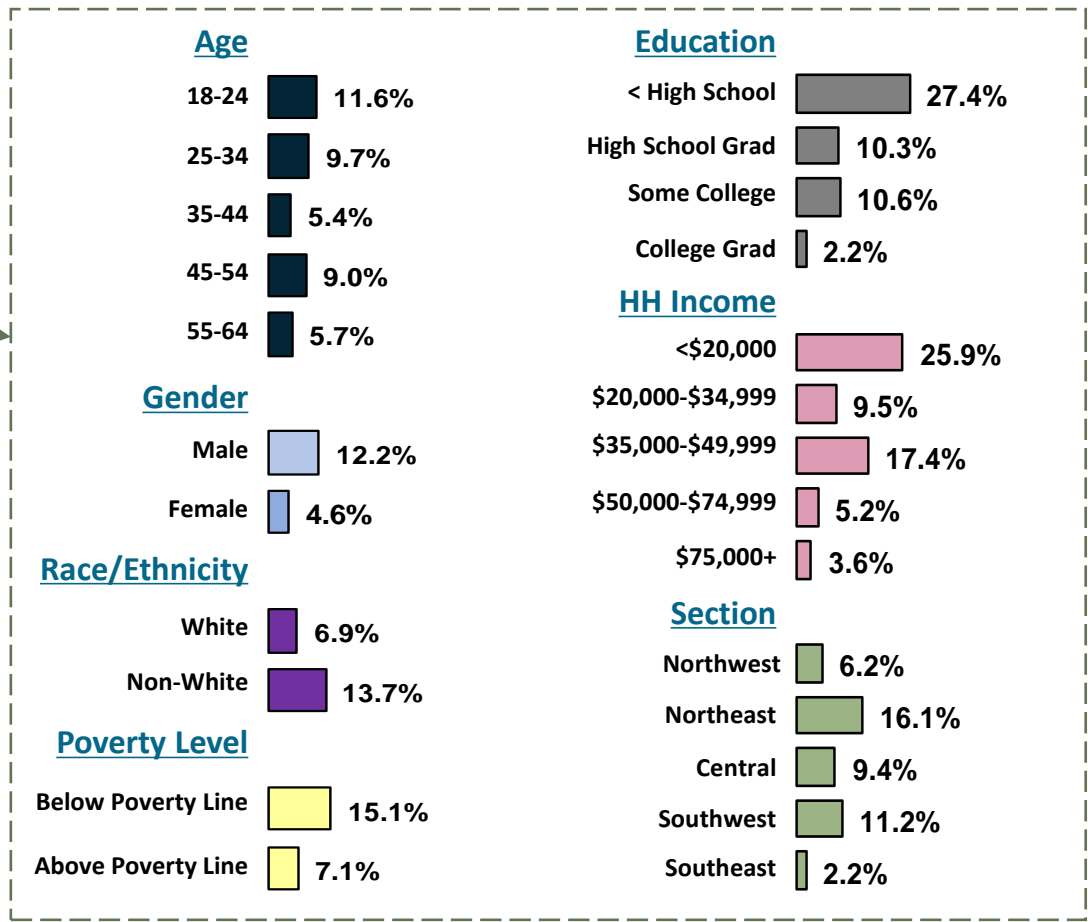
# Lack of Health Care Coverage

- The prevalence of no health care coverage is higher among men than women and higher among non-White adults than White adults.
- The prevalence of no health care coverage is highest among adults with the lowest incomes (<\$20K) and the least education.

## No Health Care Coverage\* (Among Adults 18-64)

8.2%

## No Health Care Coverage by Demographics



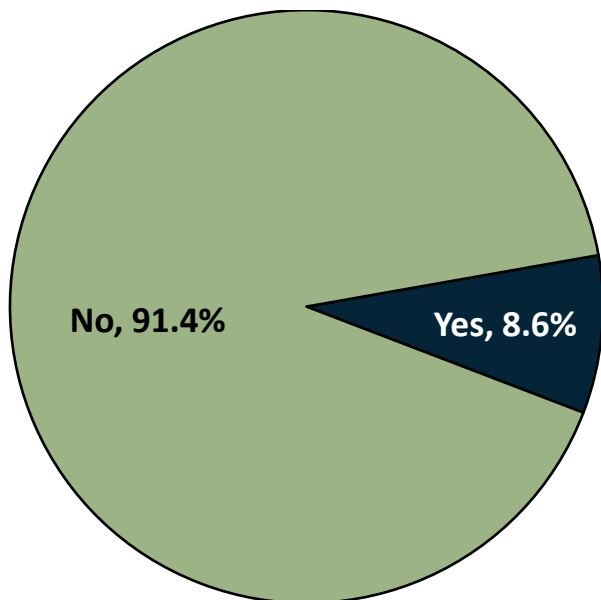
\*Among adults aged 18-64, the proportion who reported having no health care coverage, including health insurance, prepaid plans such as HMOs, or government plans, such as Medicare.



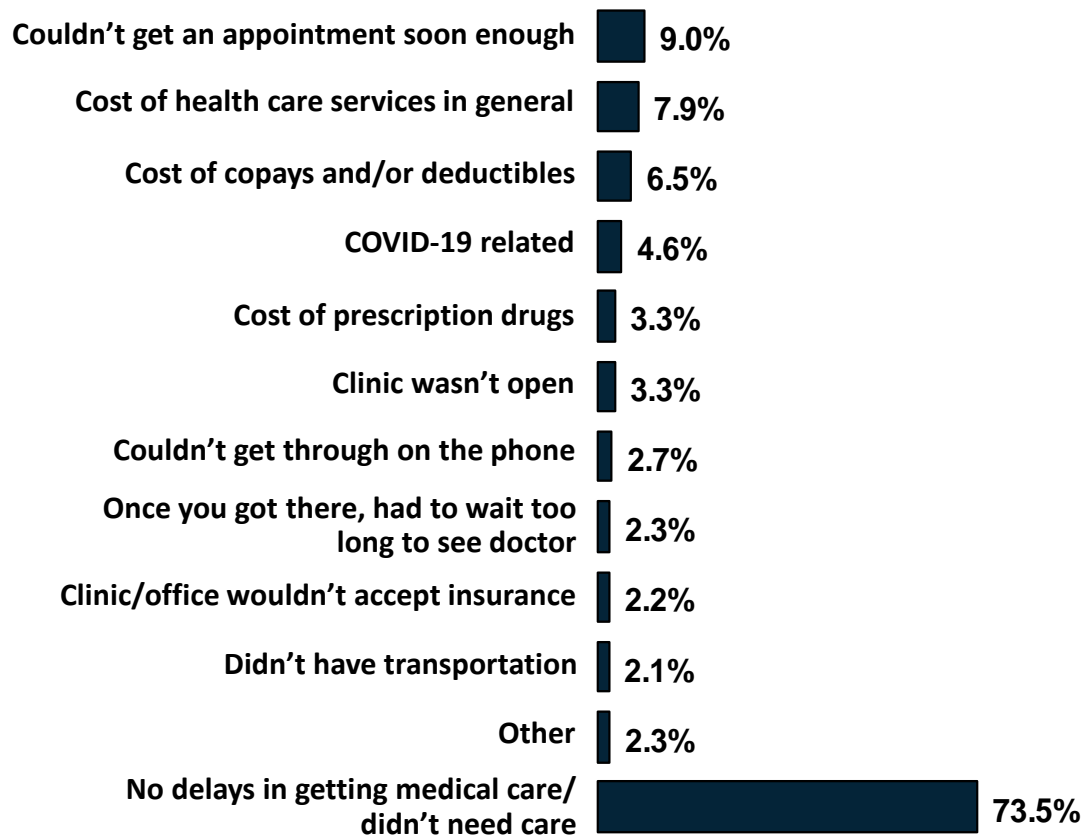
# Problems Receiving Health Care

- Among all Ottawa County adults, 8.6% have forgone needed health care in the past year due to cost.
  - ❖ One in twenty (4.6%) confirmed they could not receive needed care due to the COVID-19 pandemic
  - ❖ However, the top reason cited – couldn't get an appointment soon enough – could also be COVID-19 related since only 2.2% reported this as a reason in 2017

## Could Not Receive Needed Medical Care in Past 12 Months Due to Cost



## Reasons for Delays in Getting Needed Medical Care



Q3.4: Was there a time in the past 12 months that you needed to see a doctor but could not because of cost? (n=1,198)

Q3.5: There are many reasons why people delay getting needed medical care. Have you delayed getting needed medical care for any of the following reasons in the past 12 months? (n=1,166)



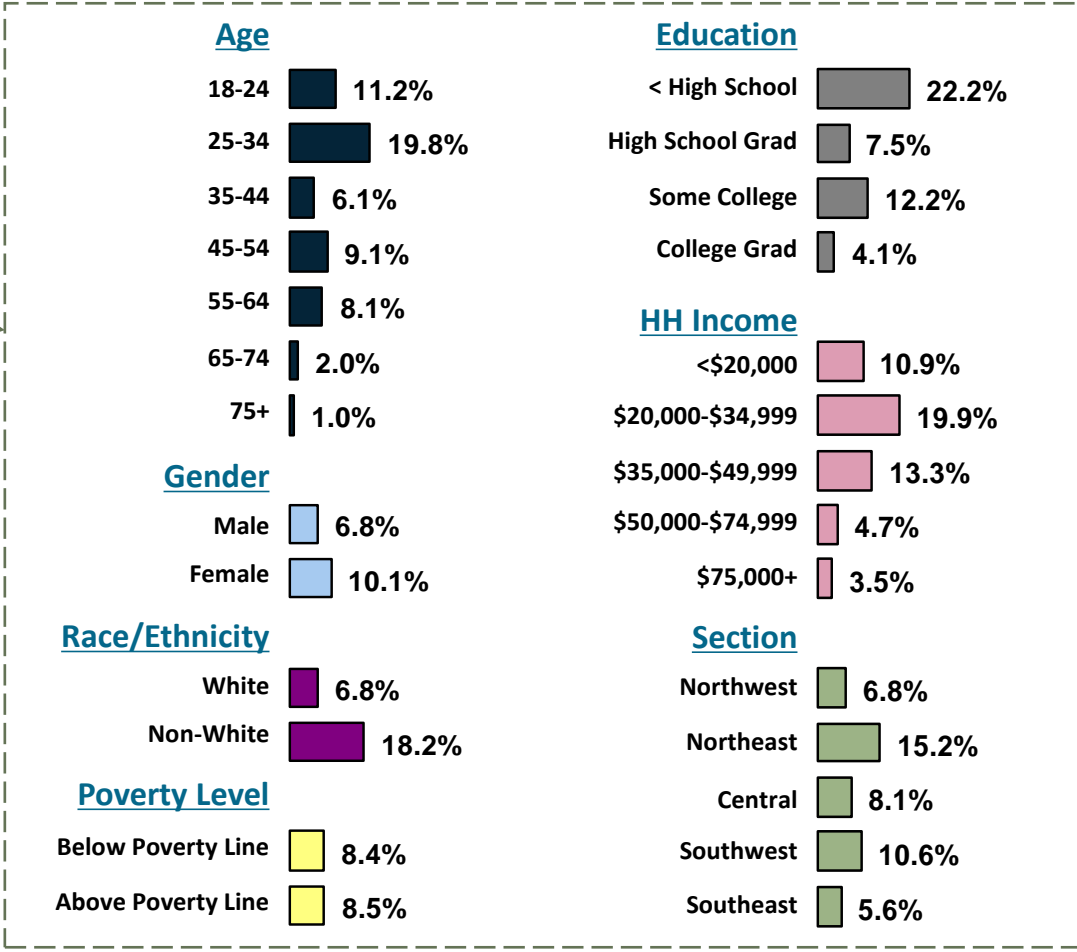
# Problems Receiving Health Care (Continued)

- The cost barrier to health care prevents certain subpopulations from seeking needed care more than others. For example, costs are more likely to be a barrier for younger adults (25-34), non-White adults, those with less than a high school degree, and those with incomes below \$50,000.

## No Health Care Access During Past 12 Months Due to Cost\* (Total Sample)

8.6%

## No Health Care Access Due to Cost by Demographics



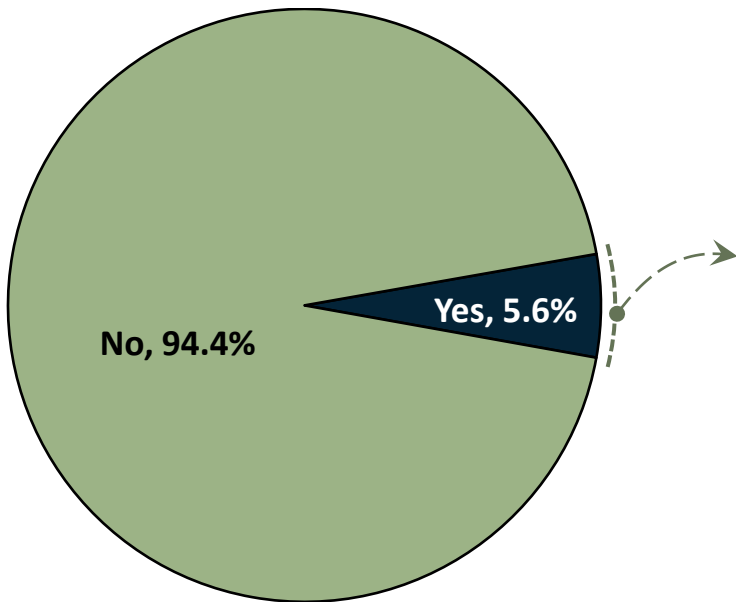
\*Among all adults, the proportion who reported that in the past 12 months, they could not see a doctor when they needed to due to the cost.



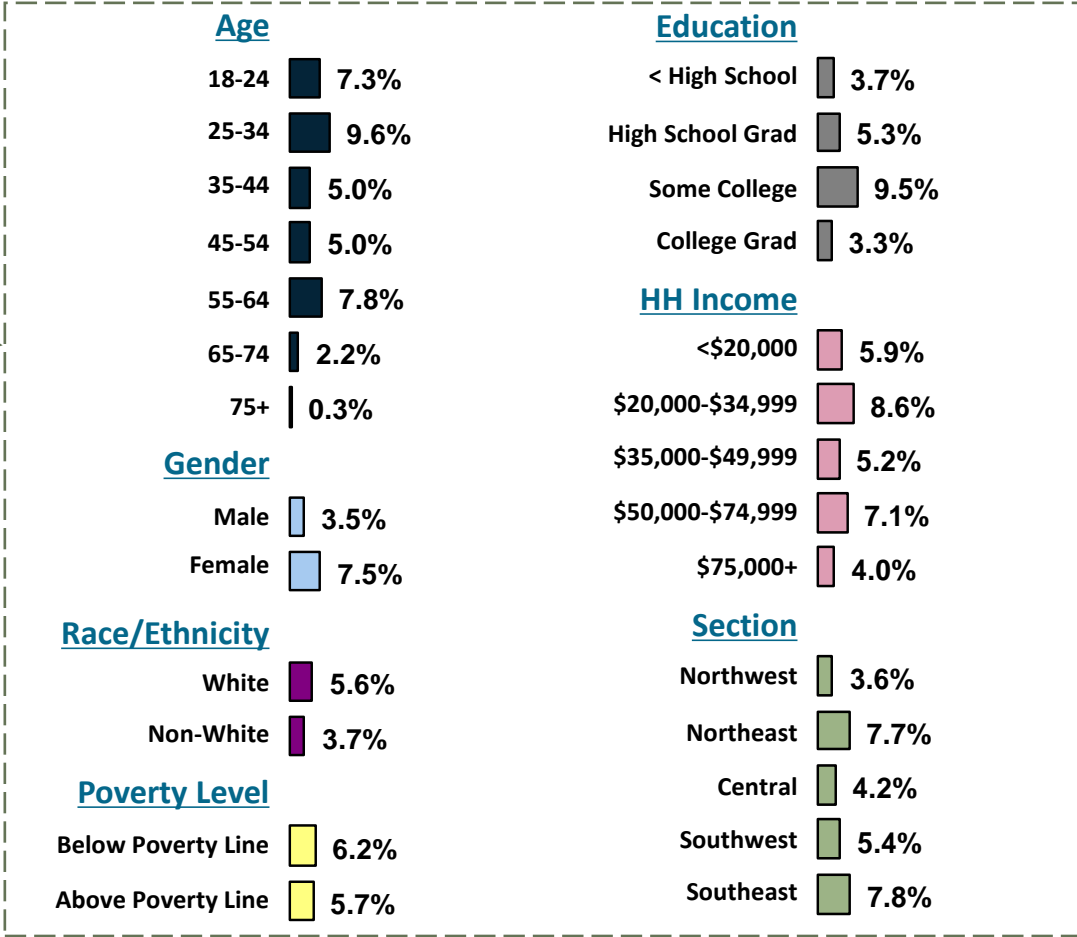
# Problems Affording Medication

- Among all Ottawa County adults who take some form of medication, 5.6% did not take their medication as prescribed due to costs; this is down from 8.0% in 2017.
  - ❖ Prescription costs tend to impact adults under age 65 more than those who are older (those with Medicare insurance)

## In Past 12 Months, Did Not Take Medication Due to Cost (Among Those Who Took Medication)



## Did Not Take Medication Due to Cost by Demographics

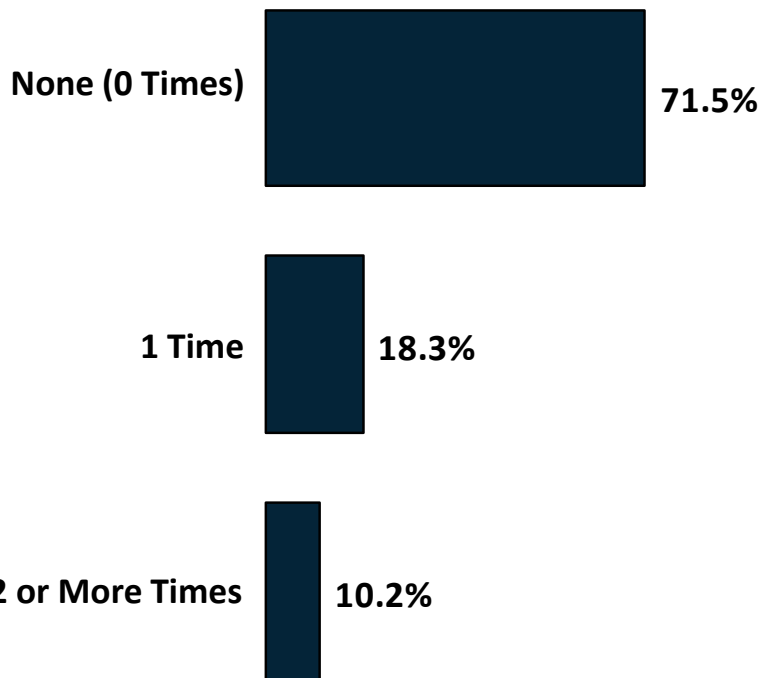




# Use of Urgent Care and ER/ED

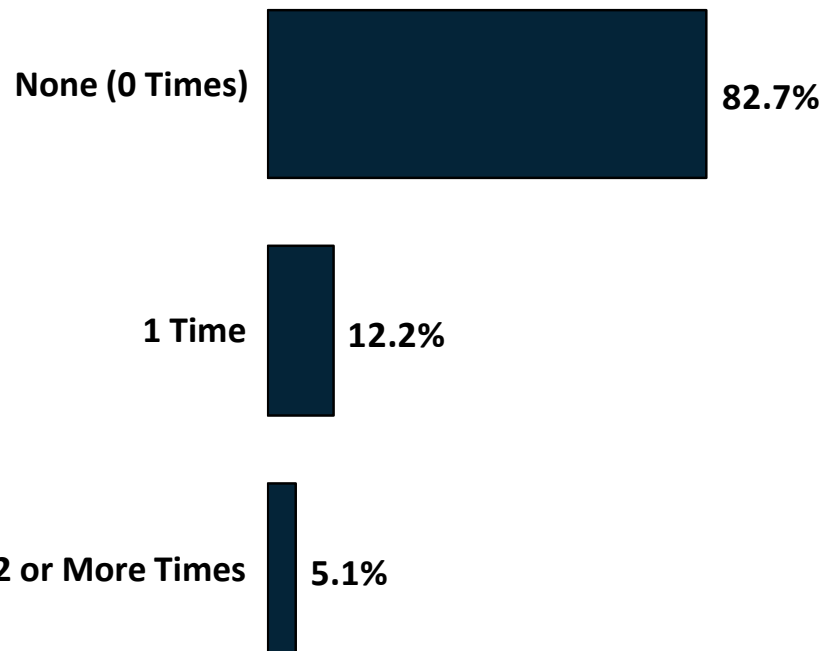
- Among Ottawa County adults, 28.5% and 17.3% have visited an urgent care center and the emergency room in the past 12 months, respectively.
  - ❖ One in ten (10.2%) area adults have visited an urgent care two or more time in the past year

## Number of Times Visited Urgent Care Center in Past 12 Months



Mean Days (Including Zero) = 0.5  
 Mean Days (Without Zero) = 1.7

## Number of Times Visited ED/ER in Past 12 Months



Mean Days (Including Zero) = 0.3  
 Mean Days (Without Zero) = 1.6

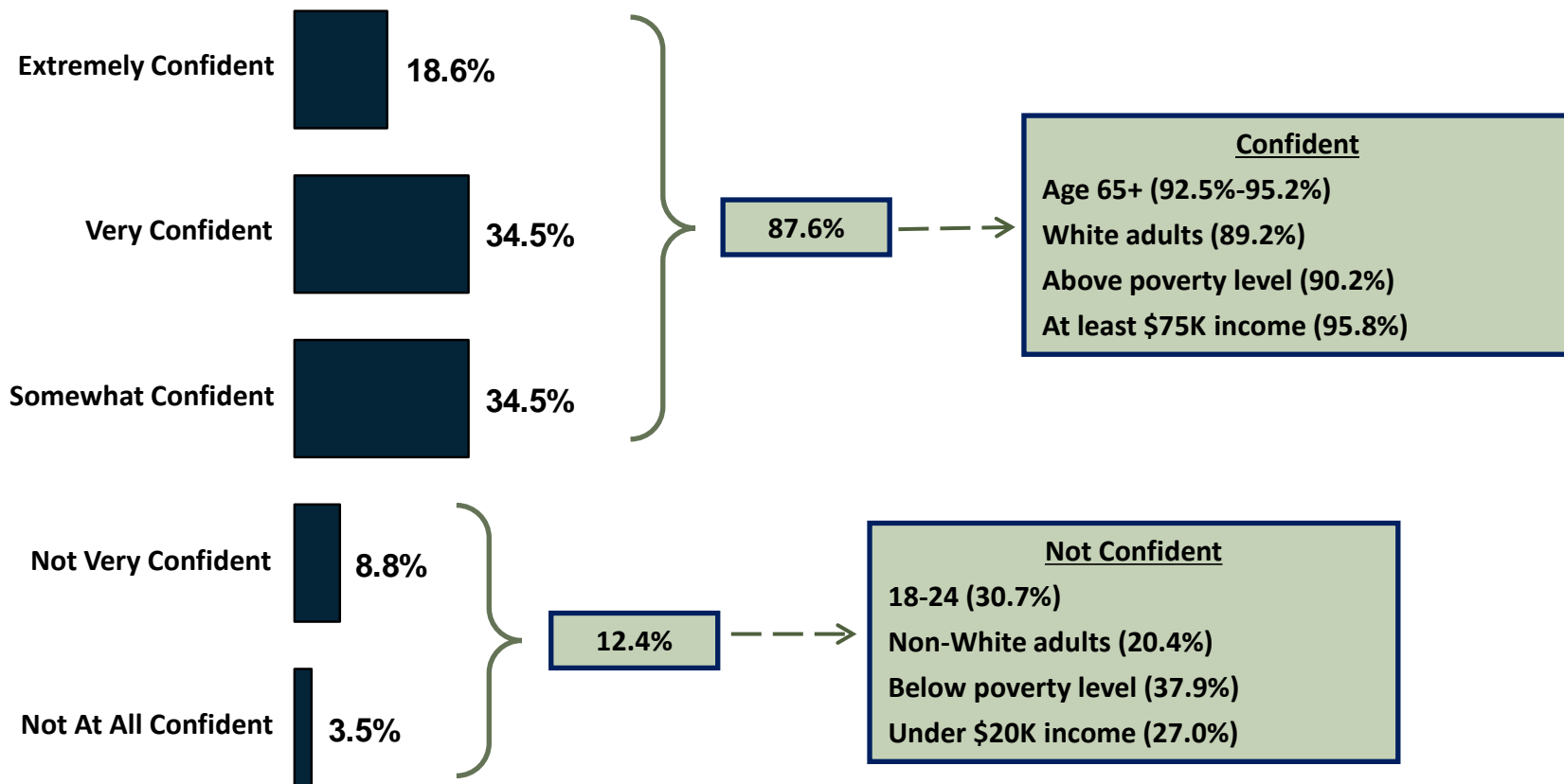
Q3.6: How many times have you been to an Urgent Care Center in the past 12 months? (n=1,187)

Q3.7: How many times have you been to an Emergency Department/Room in the past 12 months? (n=1,195)



# Confidence in Navigating the Healthcare System

- A large majority (87.6%) of adults are at least somewhat confident they can successfully navigate the health care system; however, 12.4% are not very or not at all confident.
  - ❖ The most confident groups are those that are at least 65 years old, White, and/or have incomes of \$75K or more
  - ❖ Conversely, those least confident are young adults under age 25, those who are non-White, and/or those with incomes under \$20K

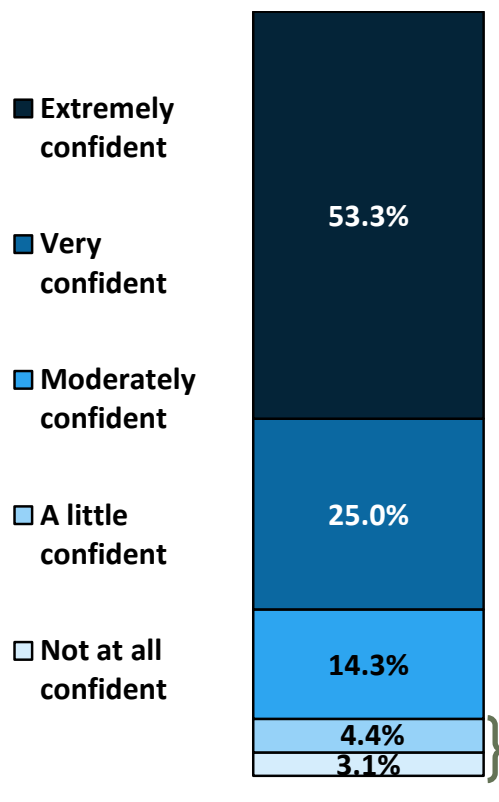




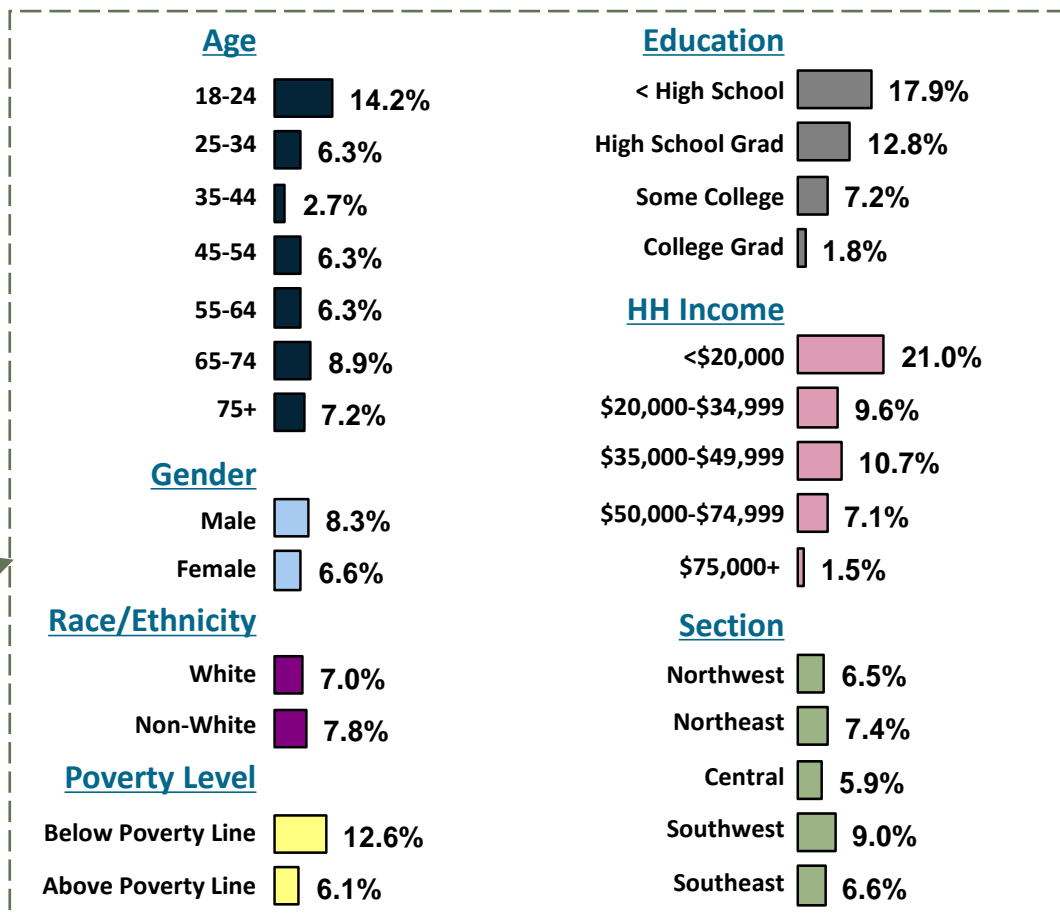
# Health Literacy

- Almost eight in ten (78.3%) Ottawa County adults are highly confident they can complete medical forms.
  - ❖ Those who are least confident are the youngest (age 18-24), have the lowest incomes (under \$20K), and/or lack a college education

## Level of Confidence in Completing Medical Forms



## Low Confidence in Completing Medical Forms by Demographics



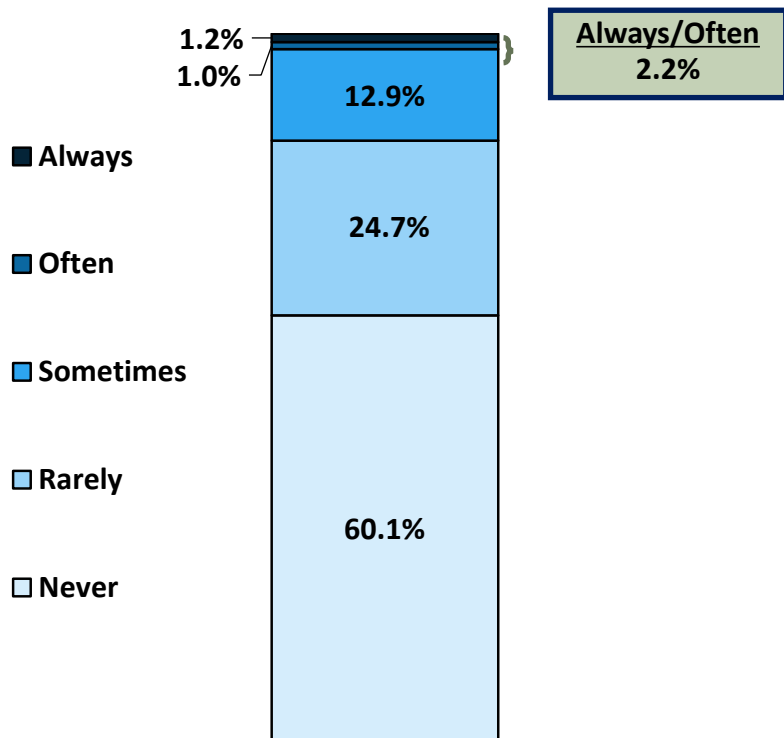




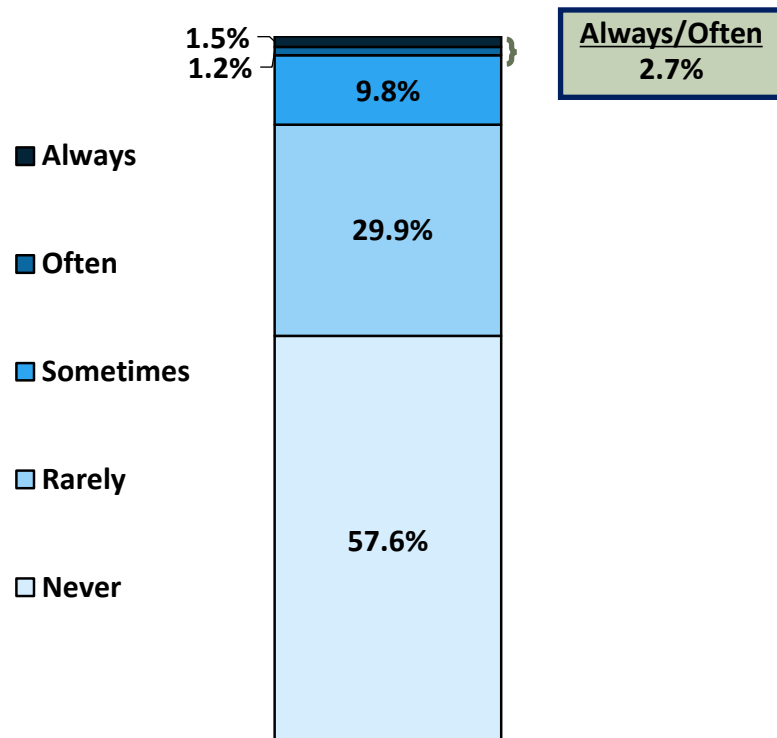
# Health Literacy (Continued)

- The vast majority of Ottawa County adults rarely or never have problems either (1) learning about their health condition because of difficulty understanding written information, or (2) understanding written or verbal information provided by their health care provider.
  - ❖ Still, roughly one in ten area adults do have these problems at least some of the time

### Frequency of Problems Learning About Health Condition



### Frequency of Difficulty Understanding Written/Verbal Information from Provider



Q7.2: How often do you have problems learning about your health condition because of difficulty in understanding written information? Would you say... (n=1,193)  
 Q7.3: How often do you have difficulty understanding written or verbal information your health care provider (doctor, nurse, nurse practitioner) gives you? (n=1,198)

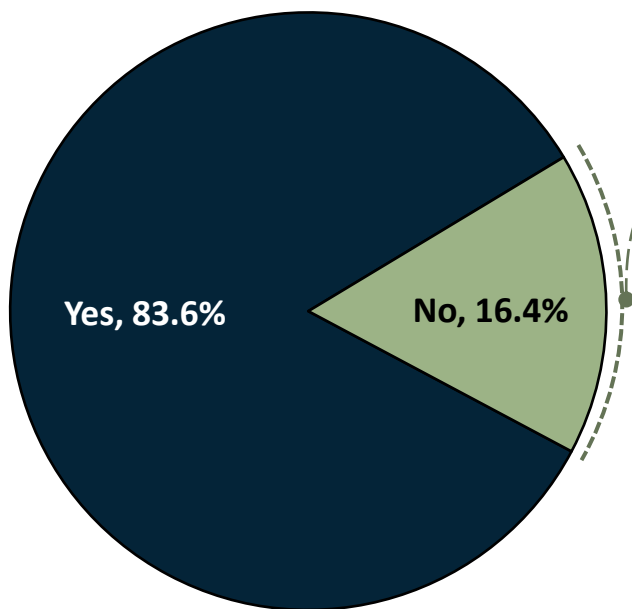
# Risk Behavior Indicators



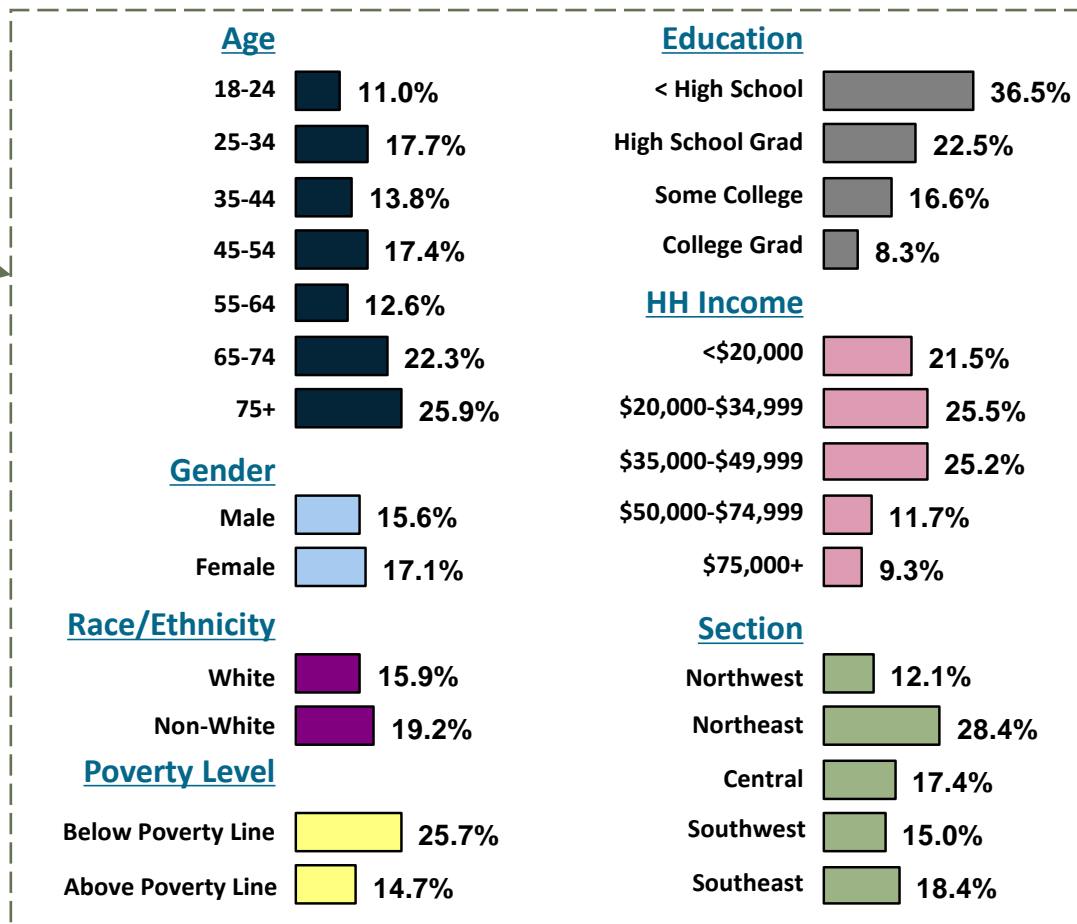
# Physical Activity

- More than eight in ten (83.6%) area adults participate in leisure physical activity outside of their job, while 16.4% do not participate in any leisure time physical activity.
- Being active is directly related to education and income and inversely related to age; those most active tend to be under age 65, have college degrees, and/or have incomes of \$50K or more.

## No Leisure Time Physical Activity\* (Total Sample)



## No Leisure Time Physical Activity by Demographics



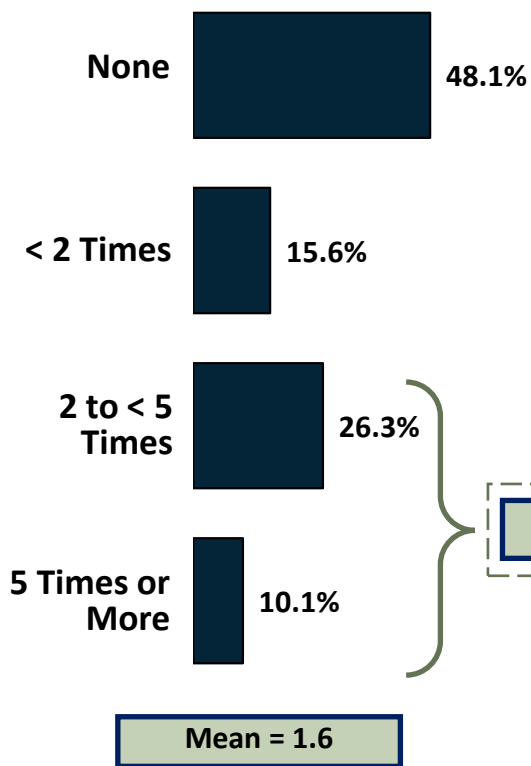
\*Among all adults, the proportion who reported not participating in any leisure-time physical activities or exercises, such as running, calisthenics, golf, gardening, or walking, during the past month.



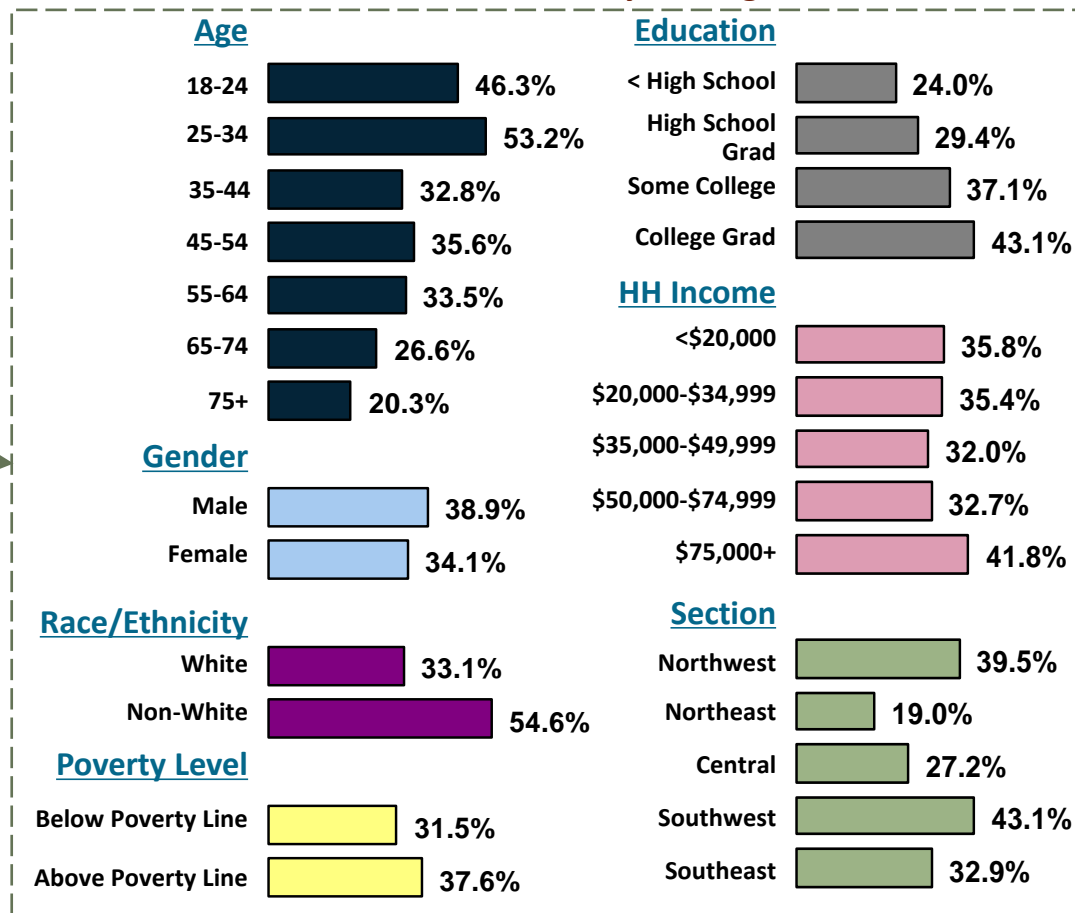
# Muscle Strengthening Activities

- Among Ottawa County adults, about half (51.9%) engage in some form of muscle strengthening activities, and 36.4% engage in these activities at least twice a week.
  - ❖ The latter group is more likely to be younger (under 35), White, college educated, and/or from high income households (\$75K+)

## Number of Times Performed Physical Activities to Strengthen Muscles Per Week in Past Month



## Performed Muscle Strengthening Activities At Least 2x Per Week by Demographics



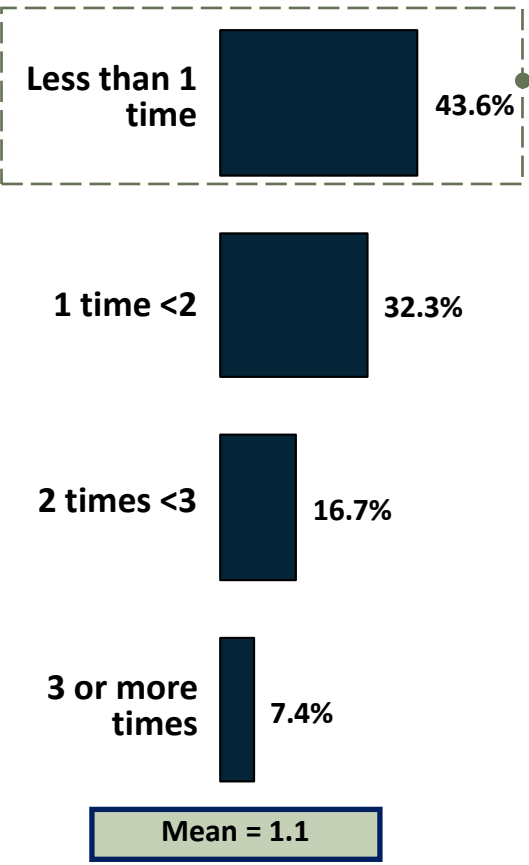
Q14.2: During the past month, how many times per week, or per month, did you do physical activities or exercises to STRENGTHEN your muscles? DO NOT count aerobic activities like walking, running, or bicycling. Count activities using your own body weight like yoga, sit-ups or push-ups and those using weight machines, free weights, or elastic bands. (n=1,187)



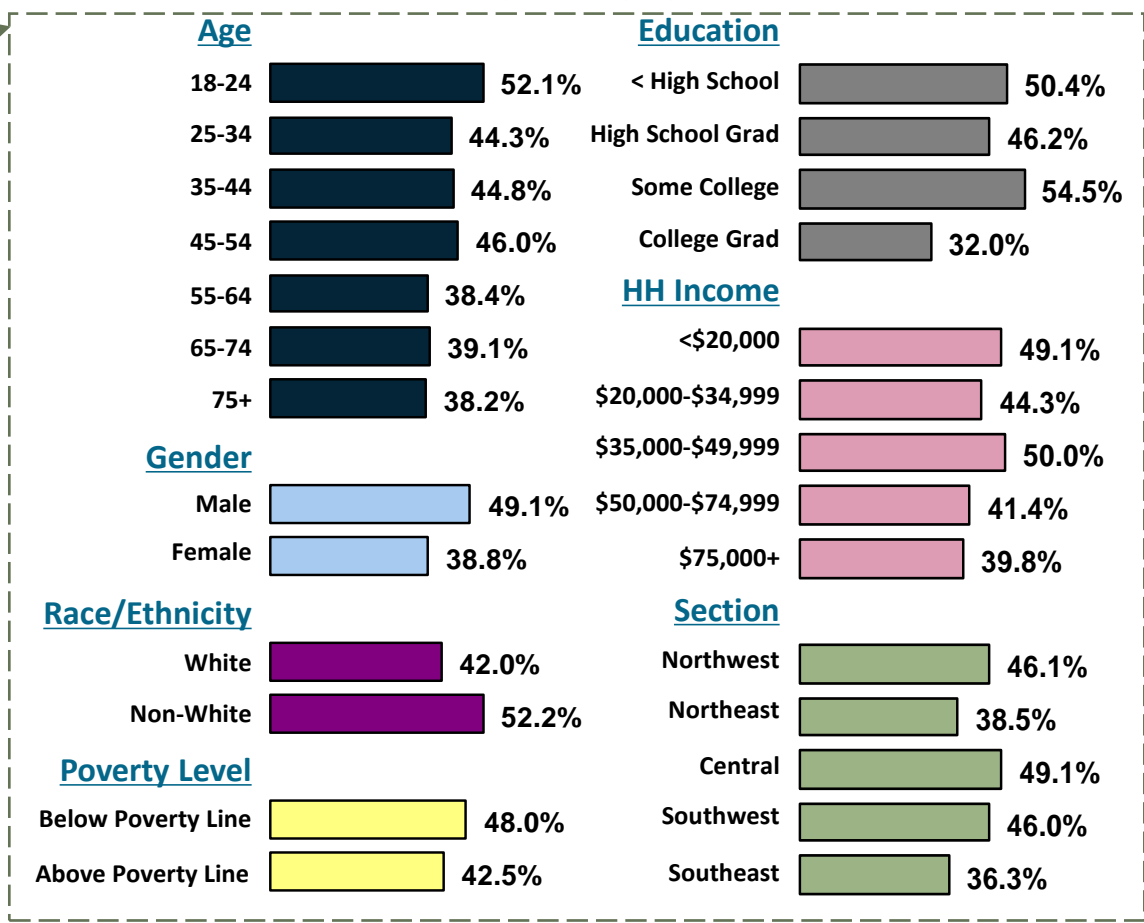
# Fruit Consumption

- Four in ten (43.6%) adults consume fruit less than one time per day.
  - ❖ Adults likely to eat fruit less than once a day are from groups that are under age 55, have less than a college degree, and have incomes less than \$50,000
  - ❖ Women and White adults consume fruit more often than men and non-White adults, respectively

## Number of Times Consumed Fruit/Fruit Juice Per Day



## Consumed Fruits <1 Time Per Day by Demographics

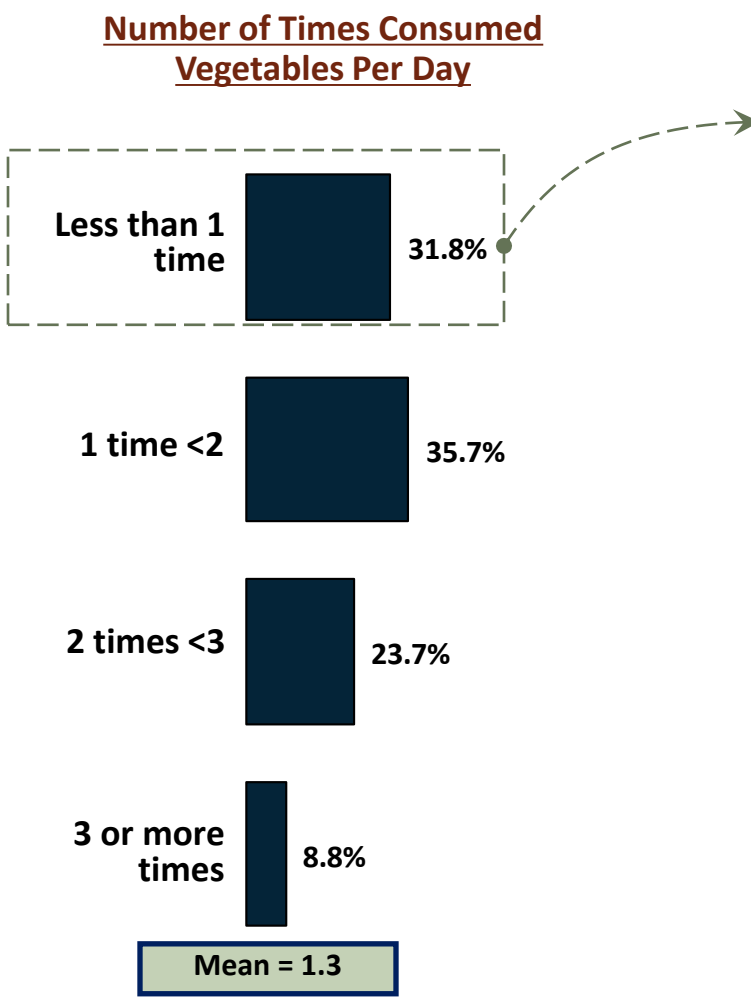


Q12.1: During the past month, how many times per day, week, or month did you eat fruit or drink 100% PURE fruit juices? Do not include fruit flavored drinks with added sugar or fruit juice you made at home and added sugar to. Only include 100% juice. (n=1,176)

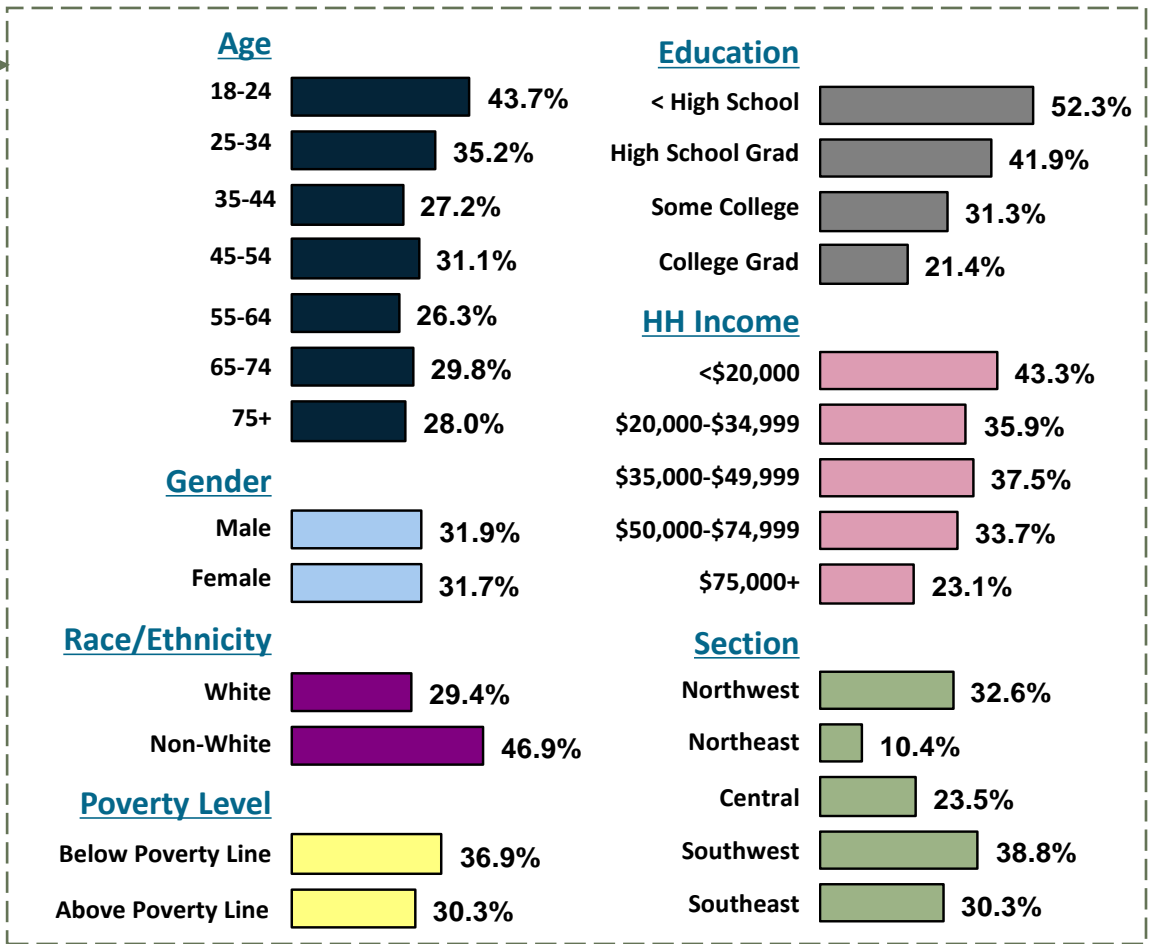


# Vegetable Consumption

- Three in ten (31.8%) adults consume vegetables less than one time per day.
  - ❖ Adults most likely to consume vegetables less than once a day are the youngest (age 18-34), non-White, have less than a college education, and/or have incomes under \$20,000



### Consumed Vegetables <1 Time Per Day by Demographics



Q12.2: During the past month, how many times per day, week, or month did you eat vegetables, for example broccoli, sweet potatoes, carrots, tomatoes, V-8 juice, corn, cooked or fresh leafy greens including romaine, chard, collard greens, or spinach? (n=1,185)

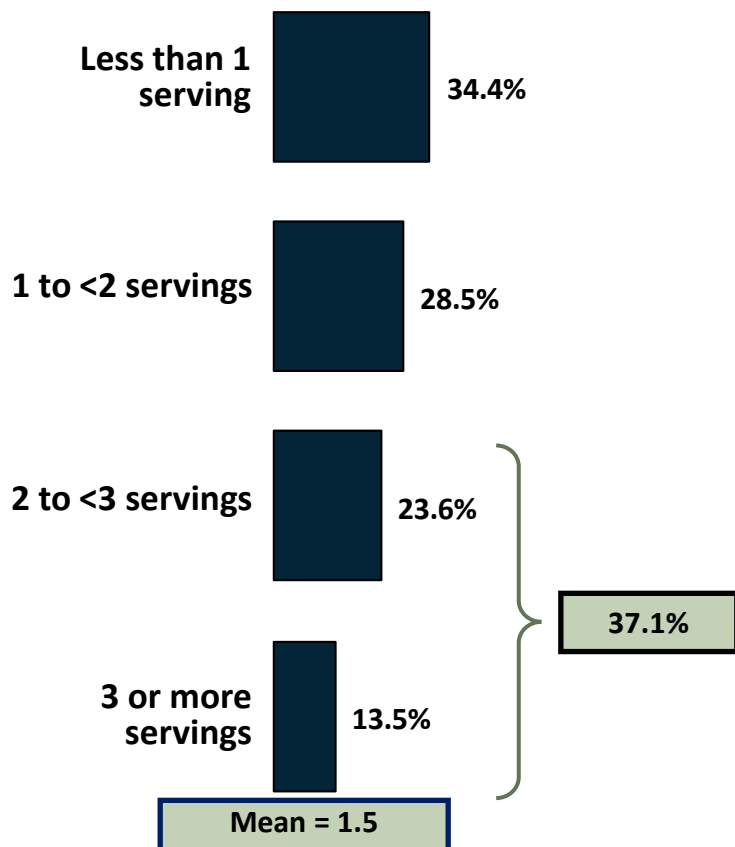


# Fruit and Vegetable Consumption (Servings)

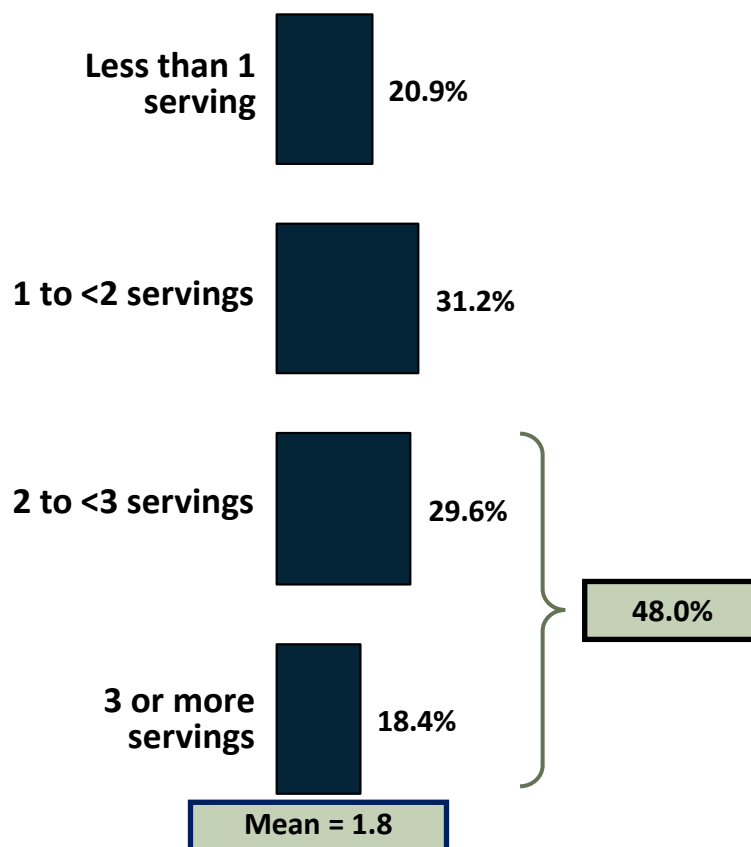
➤ When asked about servings per day as opposed to times per day, area adults report consuming more fruits and vegetables.

❖ In fact, 37.1% and 48.0% report eating two or more servings daily of fruit and vegetables, respectively

**Number of Servings of Fruit/  
Fruit Juice Per Day**



**Number of Servings of  
Vegetables Per Day**



Q12.2: Now I'm going to ask you about servings. During the past month, how many servings per day, week or month did you eat fruit or drink 100% PURE fruit juices? (n=1,162)

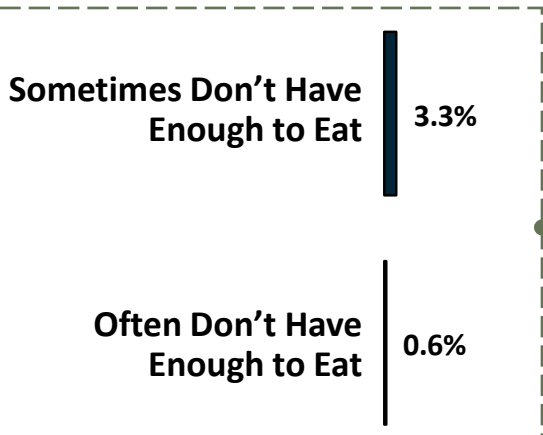
Q12.4: Now I'm going to ask you about servings. During the past month, how many servings per day, week, or month did you eat vegetables for example broccoli, sweet potatoes, carrots, tomatoes, V-8 juice, corn, cooked or fresh leafy greens including romaine, chard, collard greens or spinach? (n=1,167)



# Food Sufficiency

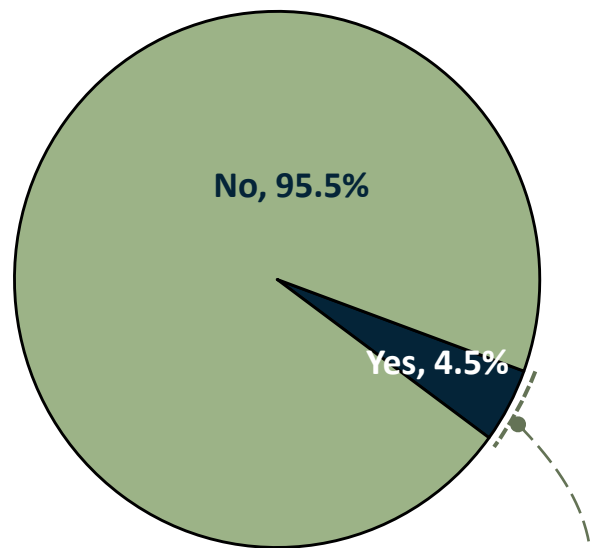
- A very small proportion (3.9%) of area adults report they sometimes or often don't have enough food to eat, and a similar proportion say they have had to cut the size of meals or skip meals due to lack of money.
- This rate is half of what it was in 2017 (7.6%-7.7%).
  - ❖ Not surprisingly, those who are more likely to experience food insufficiency have the lowest incomes

## Food Sufficiency



**Most Likely**  
 Below poverty level – 13.7%  
 Less than \$20K income – 19.2%

## Ever Cut Size of Meals/Skipped Meals Due to Lack of Money to Buy Food



**Most Likely**  
 Below poverty level – 17.2%  
 Less than \$20K income – 14.0%

Q13.1: Which of the following statements best describes the food eaten in your household within the last 12 months? Would you say that you... (n=1,199)

Q13.2: In the past 12 months, did you or others in your household ever cut the size of your meals or skip meals because there wasn't enough money for food? (n=1,198)

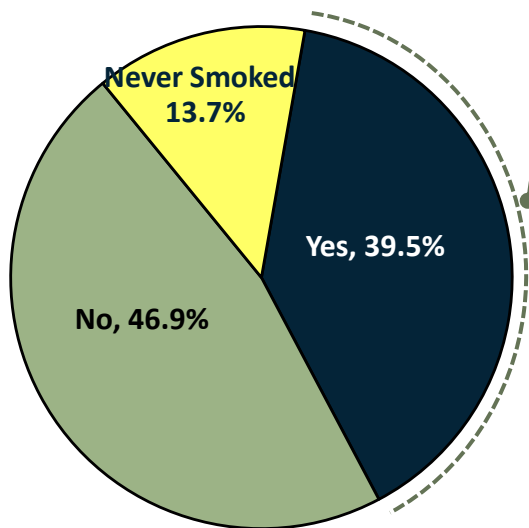




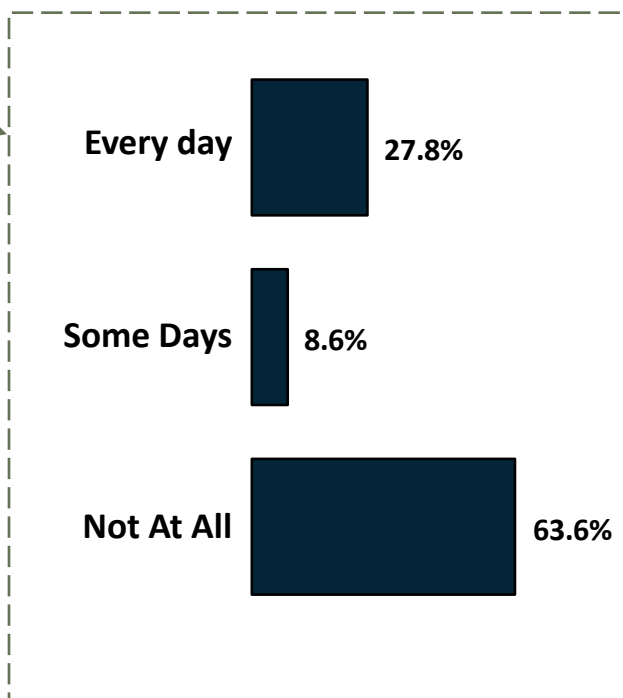
# Cigarette Smoking

- Almost four in ten (39.5%) Ottawa County adults have smoked at least 100 cigarettes in their lifetime. Of these, 27.8% currently smoke every day and 8.6% smoke some days.
  - ❖ Using 100 cigarettes as the minimum to be classified as a current or former smoker, 14.3% of Ottawa County adults are considered to be current smokers, 25.0% are former smokers, and 60.7% of adults are non-smokers or never smoked

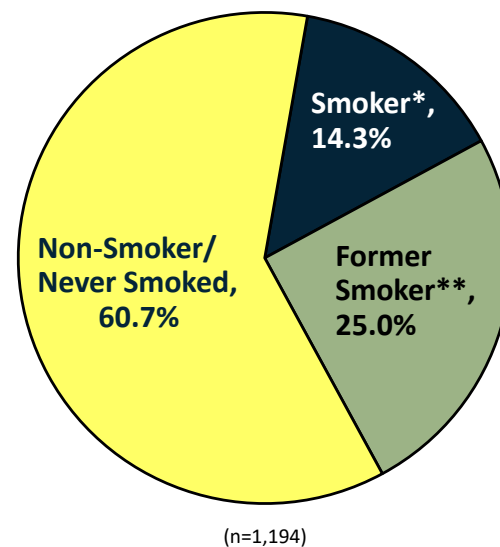
**Smoked 100 Cigarettes in Lifetime**



**Frequency of Current Use  
(Among Those Who Smoked at Least 100 Cigarettes in Their Lifetime)**



**Smoking Status**



\*Among all adults, the proportion who reported that they had ever smoked at least 100 cigarettes (5 packs) in their life and that they smoke cigarettes now, either every day or on some days.

\*\*Among all adults, the proportion who reported that they had ever smoked at least 100 cigarettes (5 packs) in their life but they do not smoke now.



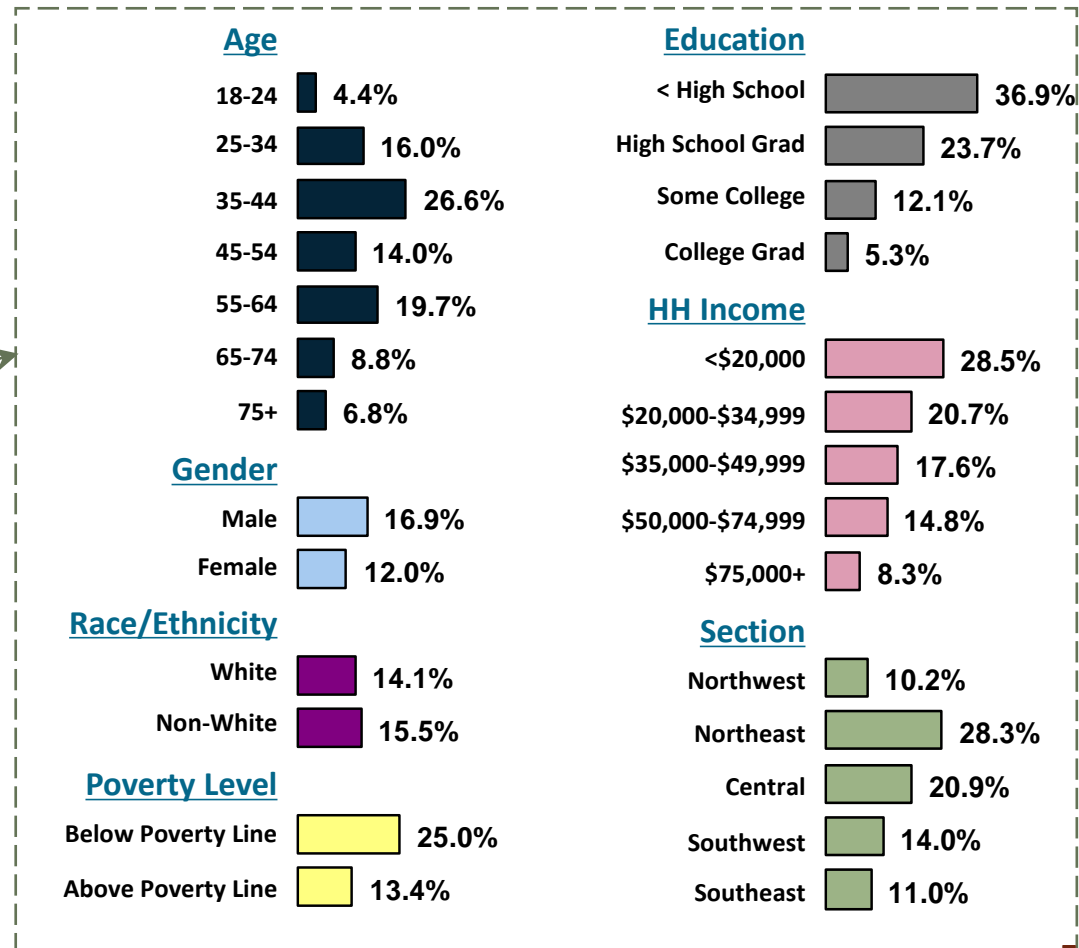
# Cigarette Smoking (Continued)

- Cigarette smoking is inversely related to education and income, and it is also most common among adults aged 25-64.
- The prevalence of smoking is higher in men than women, and higher in adults from the northeast or central sections of Ottawa County compared to adults who live in other sections.

## Current Cigarette Smoking\* (Total Sample)

14.3%

## Current Cigarette Smoking by Demographics



\*Among all adults, the proportion who reported that they had ever smoked at least 100 cigarettes (5 packs) in their life and that they smoke cigarettes now, either every day or on some days.



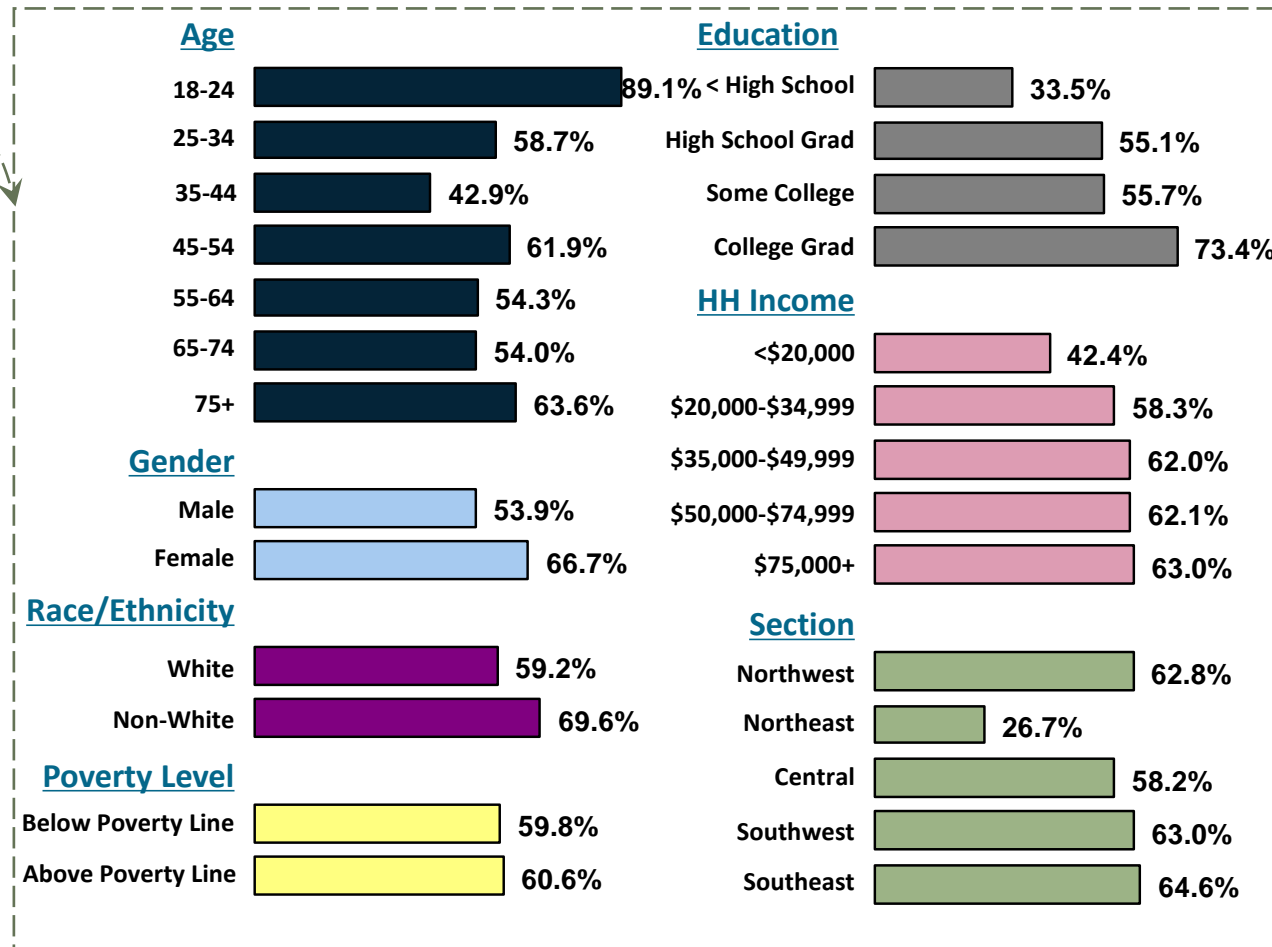
# Cigarette Smoking (Continued)

- On the other hand, adults most likely to be non-smokers or to have never smoked are women, young (18-24), non-White, and/or college graduates.

## Non-Smoker/Never Smoked Cigarettes\* (Total Sample)

60.7%

## Never Smoked Cigarettes by Demographics



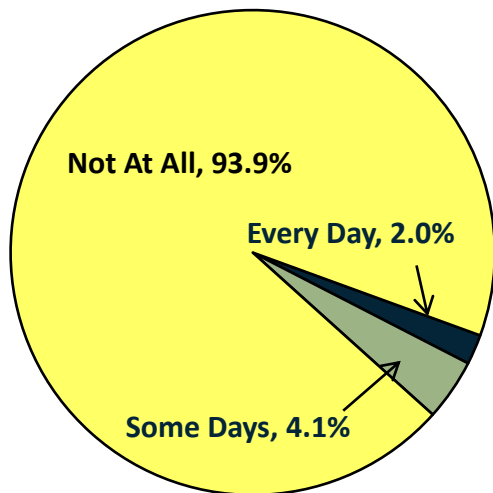
\*Among all adults, the proportion who reported that they had had never smoked at all, or had never smoked at least 100 cigarettes (5 packs) in their life.



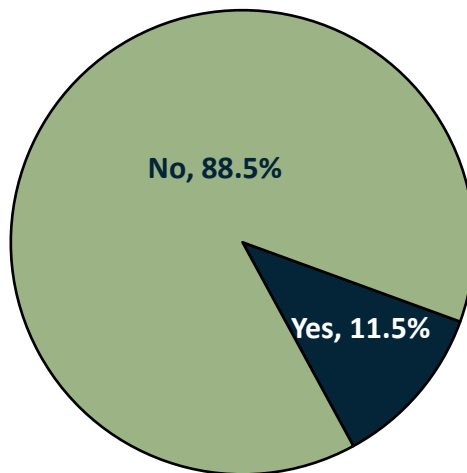
# e-Cigarette/Vaping Device Use

- Extremely small proportions of area adults currently use e-cigarettes or other vaping devices.
- Slightly more than one in ten (11.5%) adults have used e-cigarettes or other vaping devices for products other than tobacco or nicotine.
- More than three-fourths (77.2%) of area adults think using e-cigarettes or vaping devices once or twice a week is at least moderately risky; 40% consider it to be a great risk.

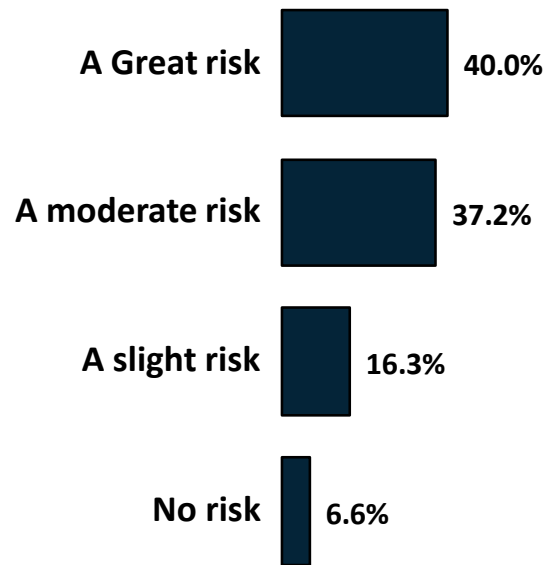
**Current Use of e-Cigarettes or Other Electronic Vaping Products**



**Used e-Cigarettes/Vaping Devices for Products Other Than Tobacco**



**Perception of Harm Caused by Using e-Cigarettes/Vaping Devices Once or Twice a Week**



Q8.3: Do you now use e-cigarettes or other electronic “vaping” products every day, some days, or not at all? (n=1,199)

Q8.4: Have you ever used e-cigarettes or other electronic “vaping” devices for a product other than tobacco or nicotine? (n=1,200)

Q8.5: How much do you think people risk harming themselves (physically or in other ways) if they use e-cigarettes or other electronic “vaping” devices once or twice a week? Would you say...? (n=1,101)



# Alcohol Consumption

- Alcohol consumption is up in 2020; whereas in 2017, half (51.0%) of area adults were non-drinkers, this year that dropped to 36.9%.
- Further, heavy drinking rose from 5.4% in 2017 to 8.5% in 2020.

## Number of Days Drank Alcohol in Past 30 Days

None 36.8%

1 to 2 days 14.9%

3 to 5 days 15.7%

6 to 10 days 13.3%

More than 10 days 19.3%

Mean (All) = 6.1  
Mean (Drinkers) = 9.6

## Average Number of Drinks When Drinking

1 drink 43.0%

2 drinks 28.8%

3 drinks 15.8%

4 to 5 drinks 5.7%

More than 5 drinks 6.7%

Mean = 2.4

## Drinking Status

Non-Drinker	36.9%
Light/Moderate Drinker	54.5%
Heavy Drinker*	8.5%

\*Heavy drinking is defined as adult consuming an average of more than seven (if female) or fourteen drinks (if male) per week.

Q17.1: During the past 30 days, how many days per week or per month did you have at least one drink of any alcoholic beverage such as beer, wine, a malt beverage, or liquor? (n=1,195)

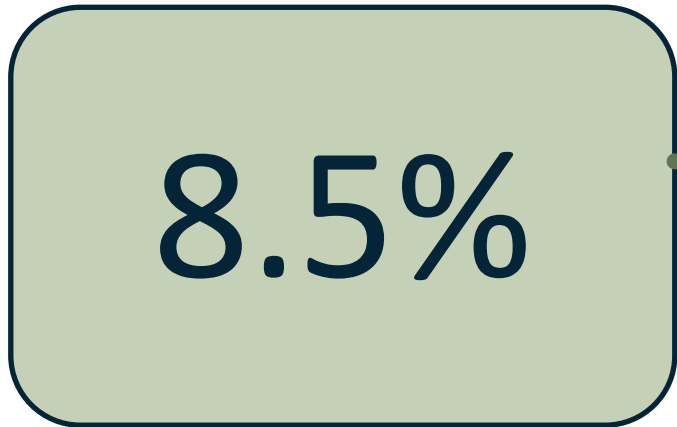
Q17.2: One drink is equivalent to a 12-ounce beer, a 5-ounce glass of wine, or a drink with one shot of liquor. During the past 30 days, on the days when you drank, about how many drinks did you drink on the average? (n=715)



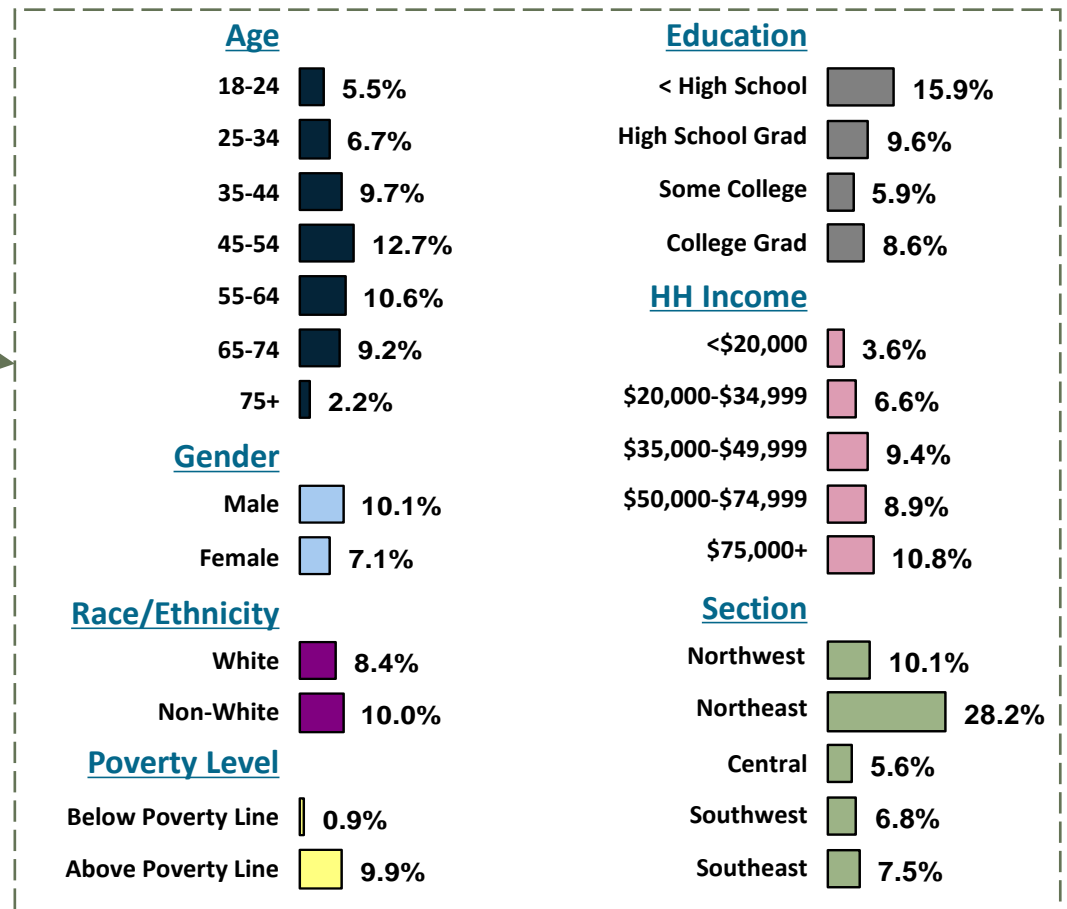
# Alcohol Consumption (Continued)

- Among Ottawa County adults, heavy drinking is more prevalent in men than women and more prevalent in adults with less than a high school degree compared to those with more education.
- The likelihood of heavy drinking increases with household income.
- As in 2017, the largest proportion of heavy drinkers is found in the northeast section of Ottawa County.

## Heavy Drinking\* (Total Sample)



## Heavy Drinking by Demographics



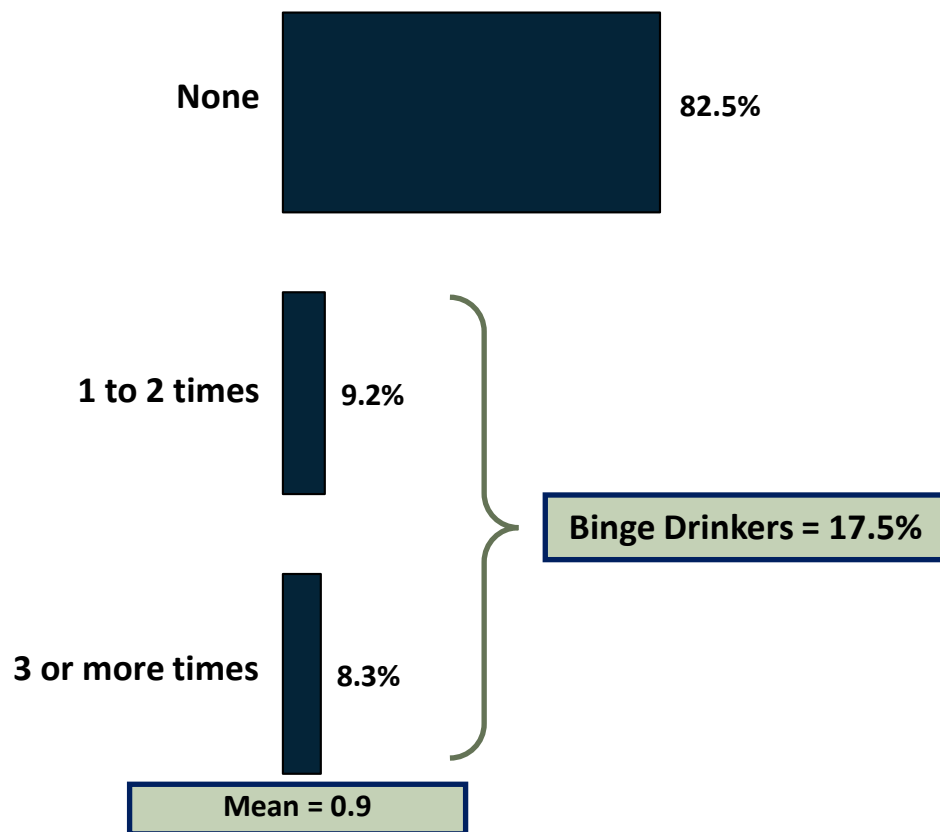
\*Among all adults, the proportion who reported consuming an average of more than two alcoholic drinks per day for men and one per day for women in the previous month.



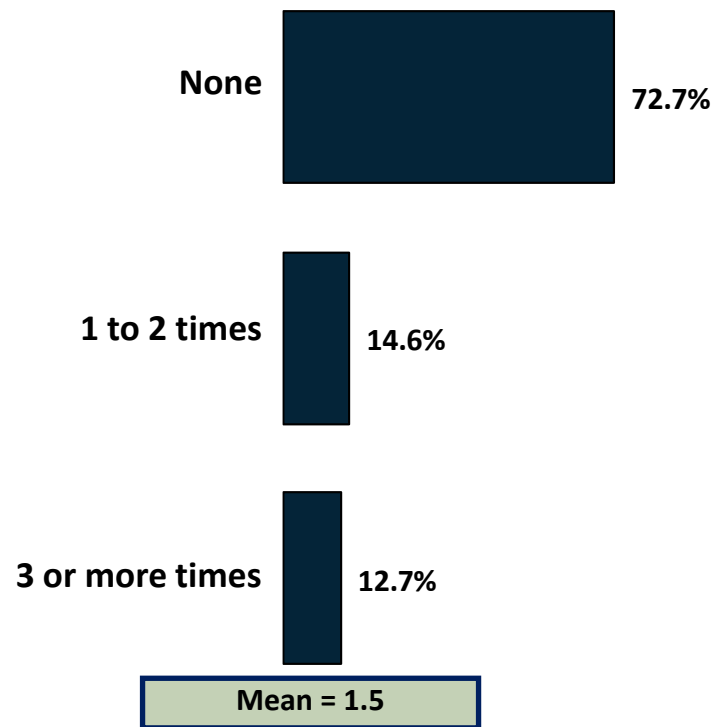
# Binge Drinking

- Among all adults, 17.5% have engaged in binge drinking in the past 30 days; among those who drink, this proportion rises to 27.3%.
- Binge drinking is up from 2017 (14.1%).

**Number of Times Consumed 5 or More (Men)/4 or More (Women) Drinks on an Occasion in Past 30 Days (All Adults)**



**Number of Times Consumed 5 or More (Men)/4 or More (Women) Drinks on an Occasion in Past 30 Days (Drinkers)**



Q17.3: Considering all types of alcoholic beverages, how many times during the past 30 days did you have X (x=5 for men, x=4 for women) or more drinks on an occasion? (n=1,193)



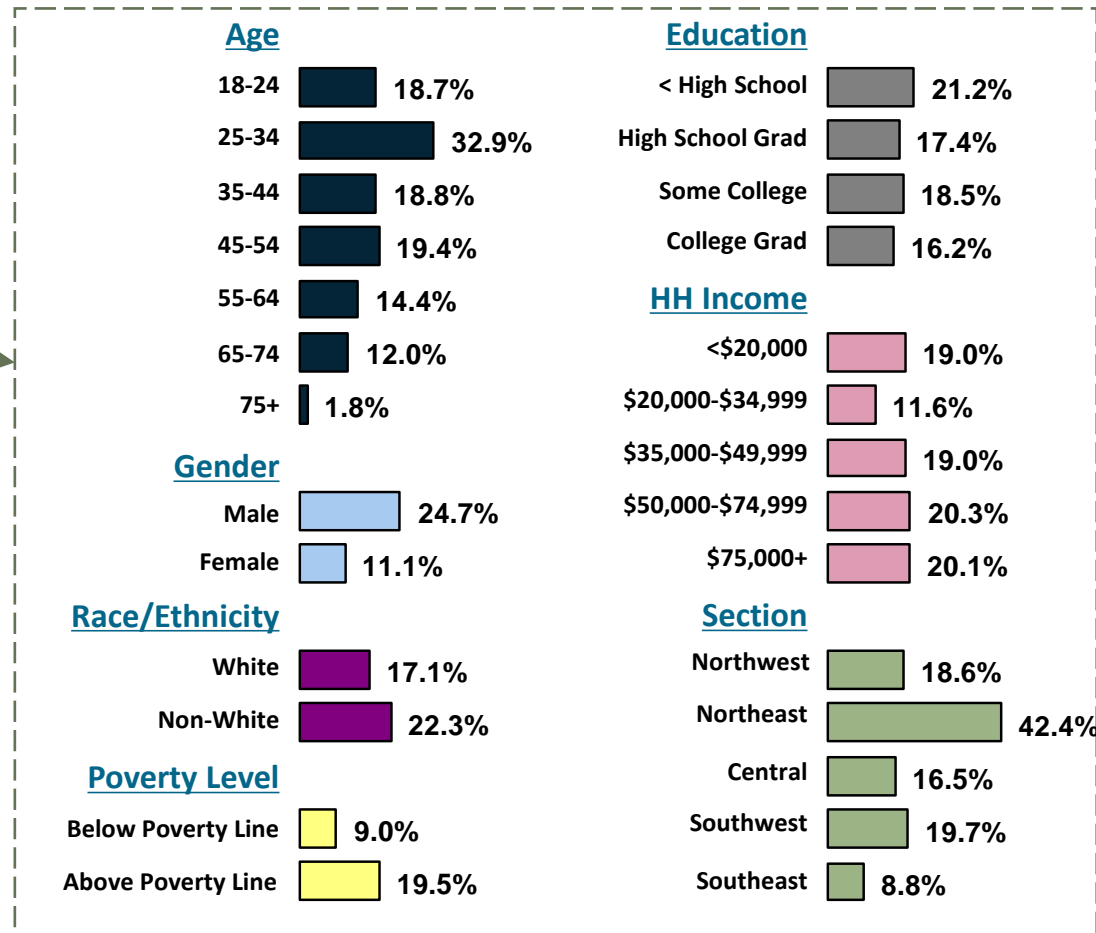
# Binge Drinking (Continued)

- The prevalence of binge drinking is highest, by far, among adults age 25-34. It is also much higher among men than women and higher among non-White adults compared to White adults.
- As with heavy drinking, the largest proportions of binge drinkers reside in the northeast section of the county.

## Binge Drinking\* (Total Sample)

17.5%

## Binge Drinking by Demographics



\*Among all adults, the proportion who reported consuming five or more drinks per occasion (for men) or four or more drinks per occasion (for women) at least once in the previous month.

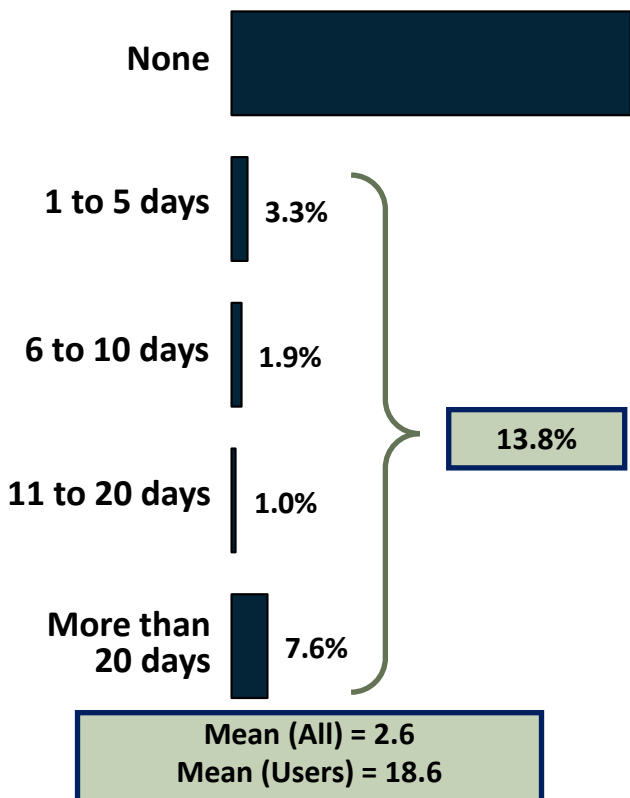




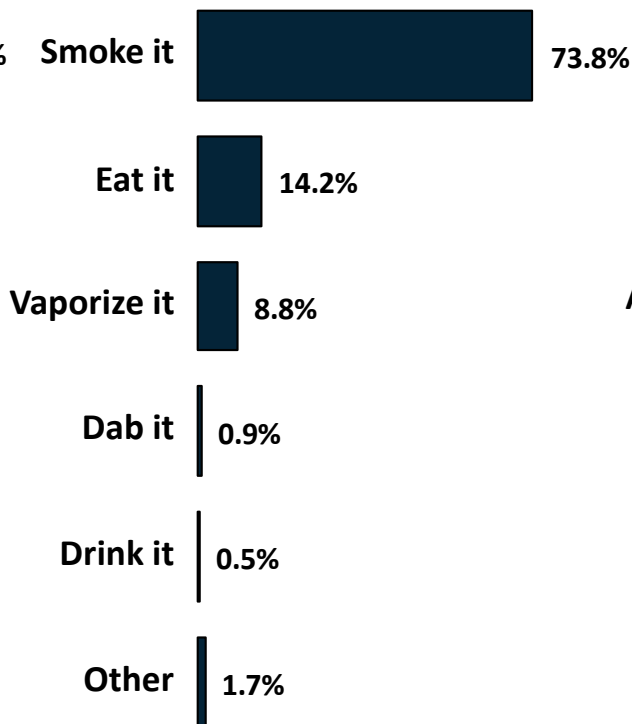
# Marijuana Use

- One in seven (13.8%) Ottawa County adults have used marijuana or cannabis at least once in the past 30 days.
  - ❖ Those who use marijuana most often smoke it and use it a lot – users averaged 19 days in the past 30, and 36.9% of them used it every day in the past month
- Nearly two-thirds (64.7%) of area adults see very little or no risk to using marijuana once or twice a week.

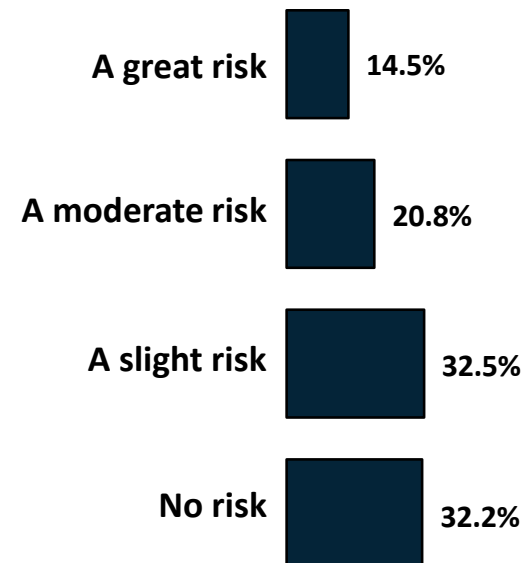
## Number of Days Used Marijuana or Cannabis in Past 30 Days



## Most Popular Methods of Marijuana Use



## Perception of Harm Caused by Using Marijuana/Cannabis Once or Twice a Week



Q5.1: During the past 30 days, on how many days did you use marijuana or cannabis? (n=1,190)

Q5.2: (IF Q5.1>0) During the past 30 days, which one of the following ways did you use marijuana most often? Did you usually...? (n=94)

Q5.3: How much do you think people risk harming themselves (physically or in other ways) if they use marijuana or cannabis once or twice a week? Would you say there is...? (n=1,044)



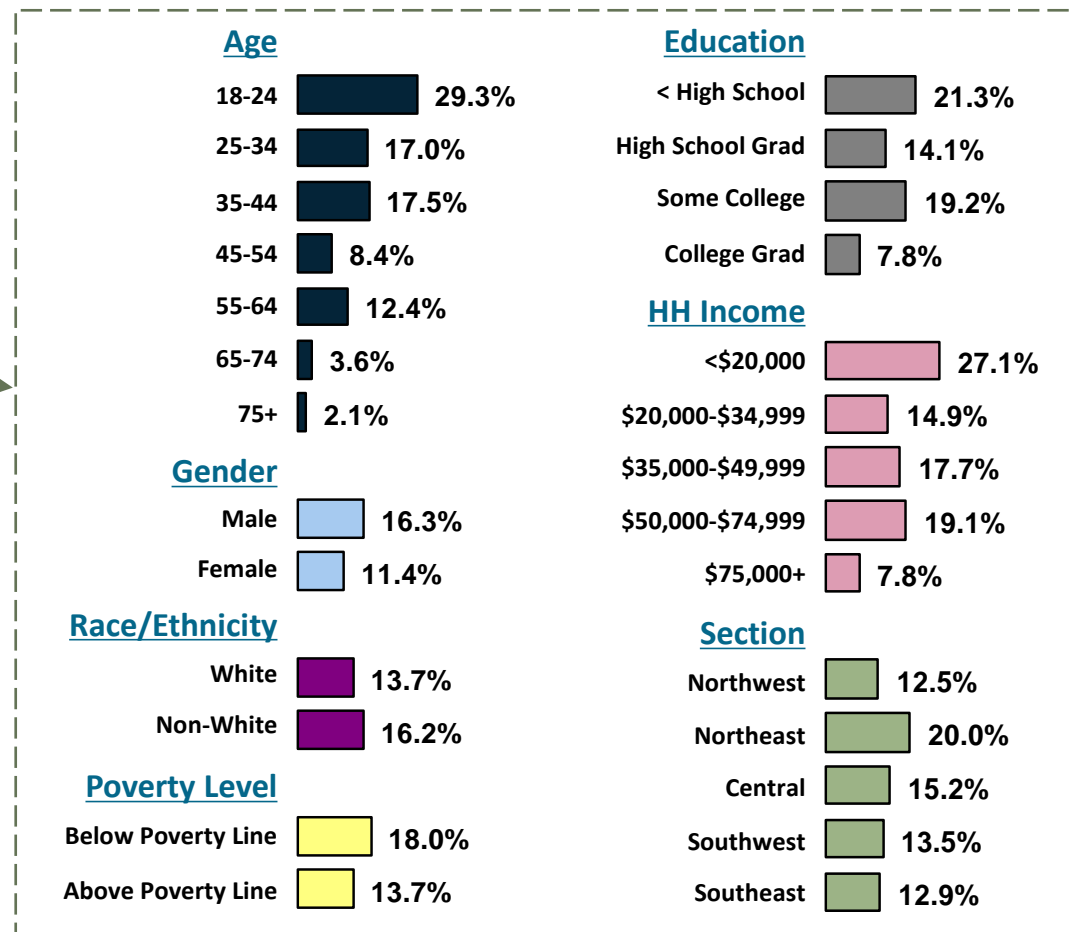
# Marijuana Use (Continued)

- Marijuana use is more prevalent among adults aged 18-44 than adults who are older, and it's also more prevalent among men than women.
- Marijuana use is most prevalent in adults who are 18-24, those who have less than a high school degree, and those who have annual incomes less than \$20,000.

## Used Marijuana or Cannabis In Past 30 Days\* (Total Sample)

13.8%

## Marijuana/Cannabis Use in Past 30 Days by Demographics



\*Among all adults, the proportion who reported that they had used marijuana or cannabis at least one day in the past 30 days.

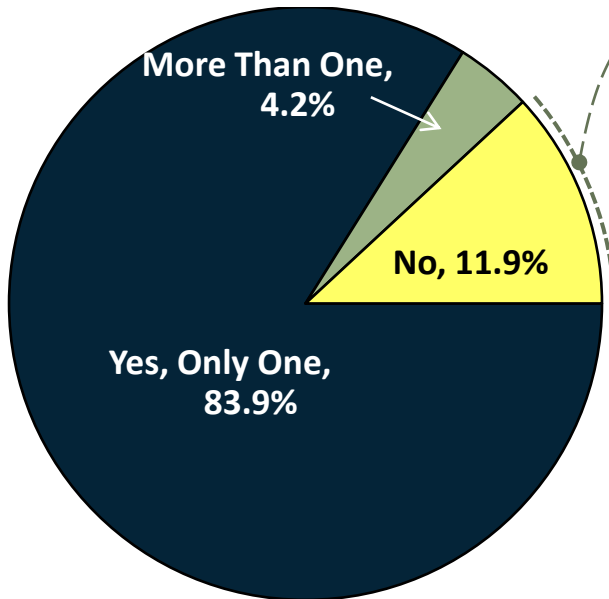
# Clinical Preventive Practices



# Personal Health Care Provider

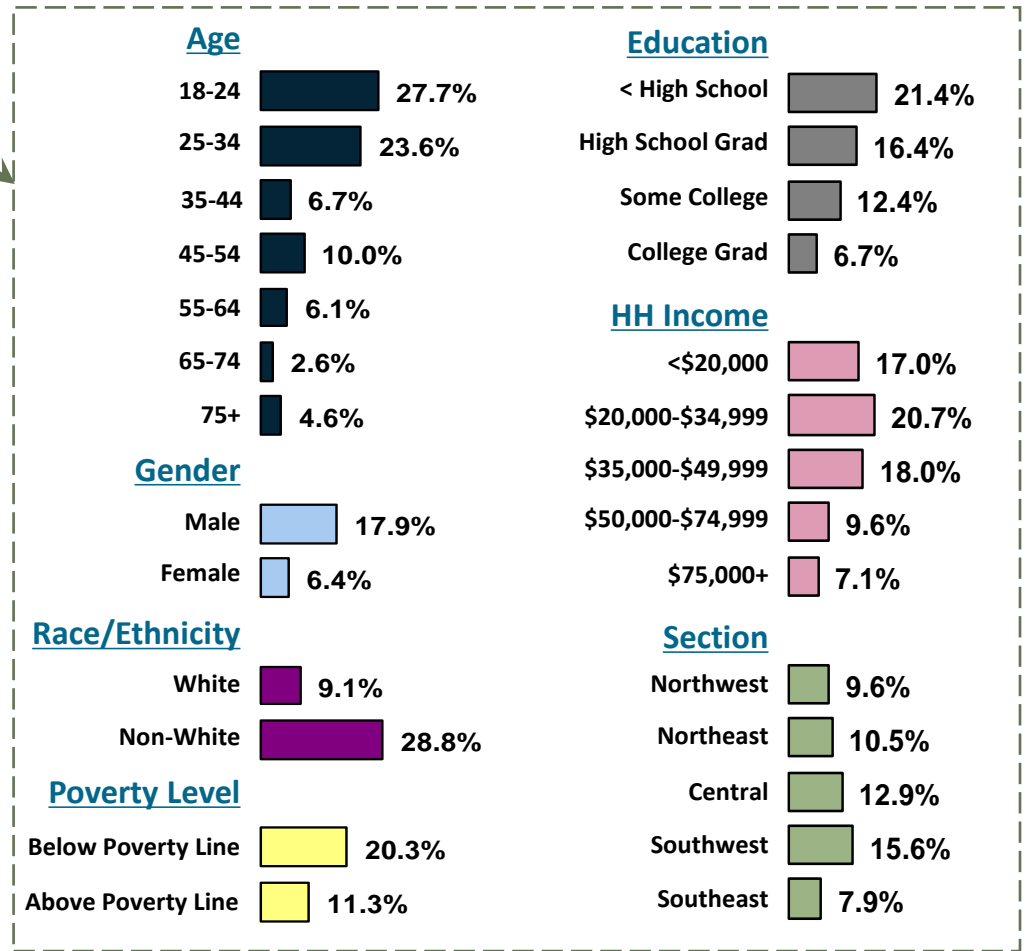
- Nearly nine in ten adults (88.1%) have a personal health care provider.
  - ❖ Those who don't tend to be represented by groups that are younger (< age 35), male, non-White, have incomes below \$50,000, and have less than a college education

## Currently Have Personal Doctor/Health Care Provider



**88.1%** have a medical home

## No Provider by Demographics

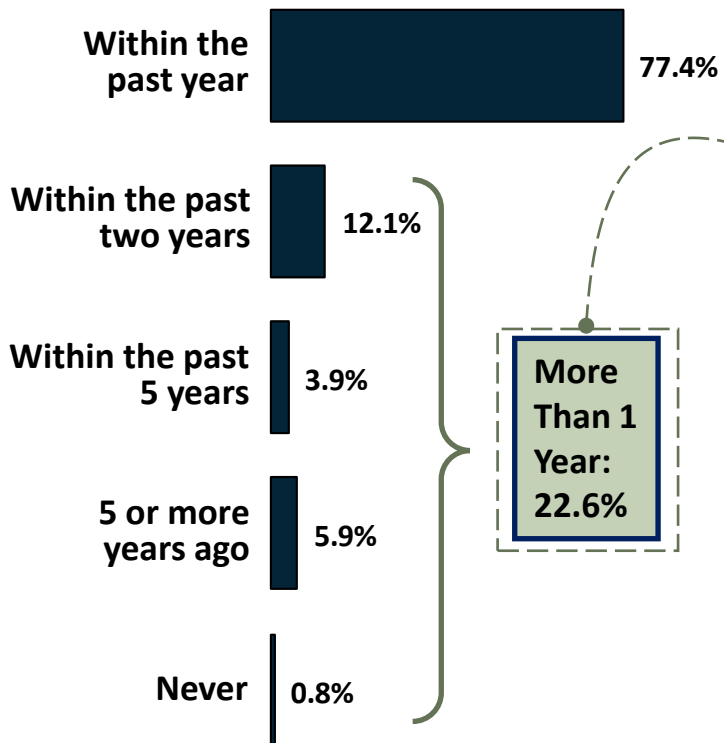




# Oral Health (Continued)

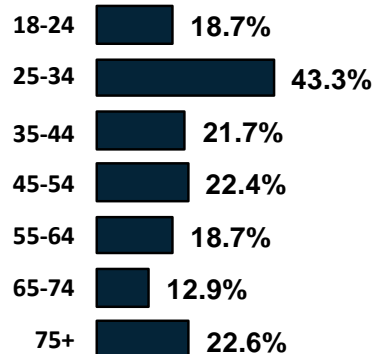
- More than one in five (22.6%) adults have not had a teeth cleaning in the past year.
- Visiting the dentist in a timely manner is directly related to education and income.
- White adults are more likely than non-White adults to have visited a dentist in the past year.

## When Last Visited Dentist for Teeth Cleaning



## No Teeth Cleaning in Past Year by Demographics

### Age



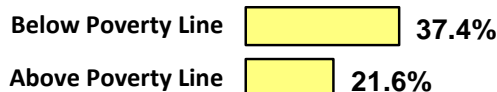
### Gender



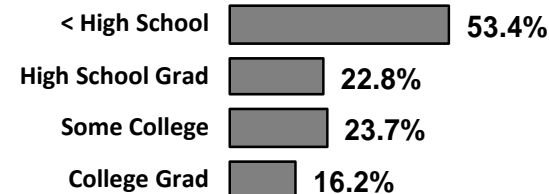
### Race/Ethnicity



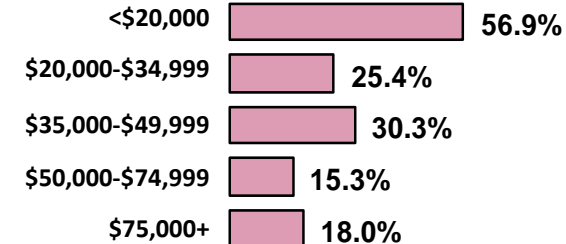
### Poverty Level



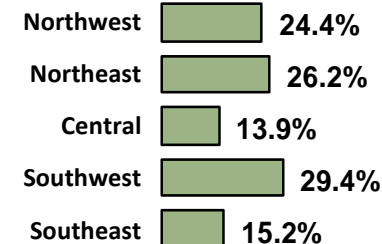
### Education



### HH Income



### Section

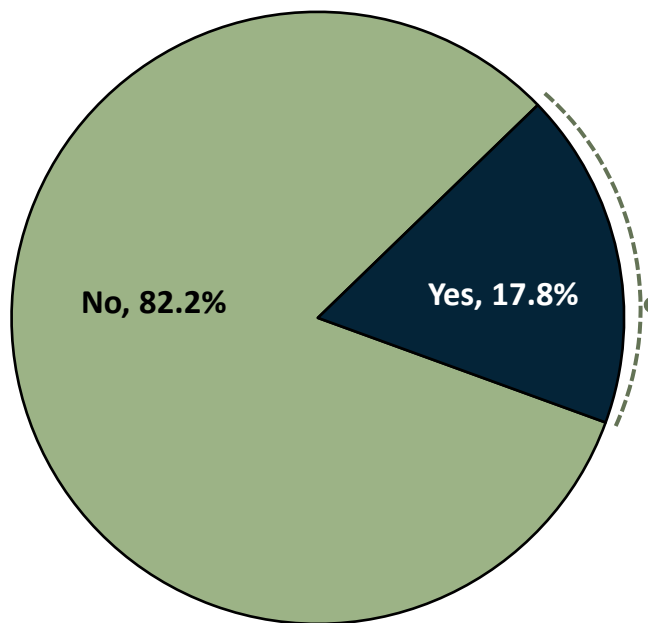




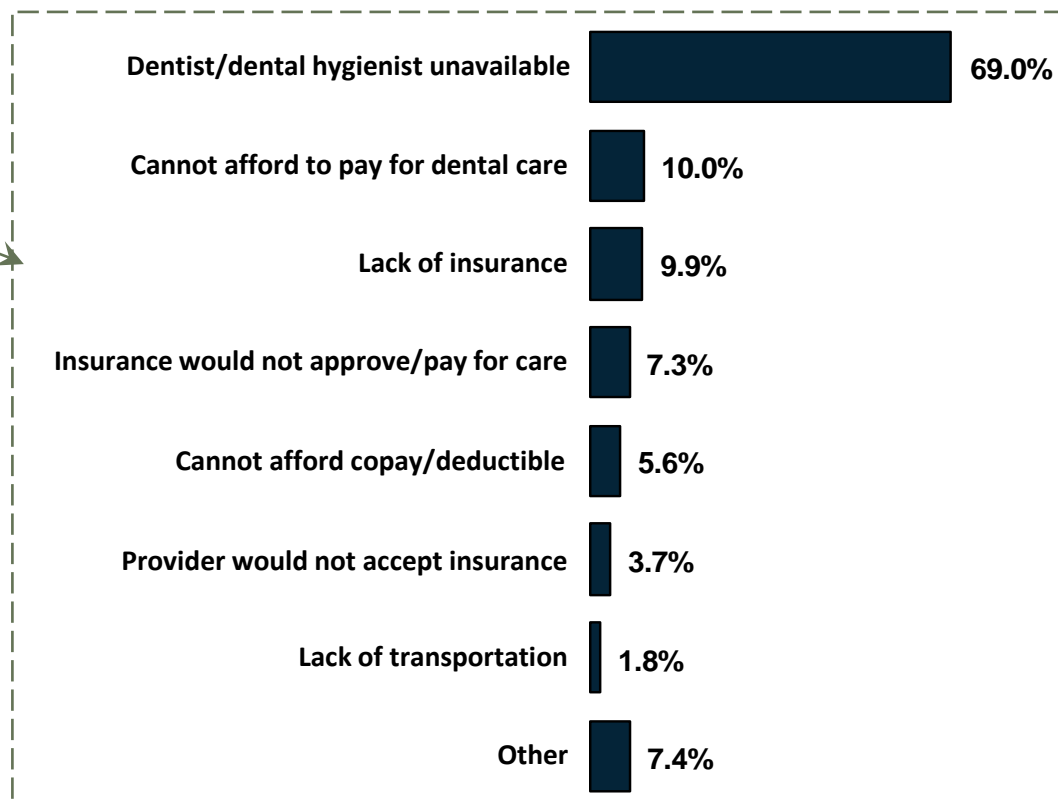
# Barriers to Dental Care

- Almost one in six (17.8%) Ottawa County adults had problems getting needed dental care in the past year.
  - ❖ This was much more of an issue in 2020 than it was in 2017 when 6.5% reported having problems getting needed dental care
  - ❖ The biggest barrier to getting dental care was the dentists or dental hygienists being unavailable and this could have been largely due to the COVID-19 pandemic

## Problems Getting Needed Dental Care



## Reasons for Difficulty in Getting Dental Care (Among Those Who Reported Problems Getting Care)



Q19.2: In the past 12 months, have you had problems getting needed dental care? (n=1,196)

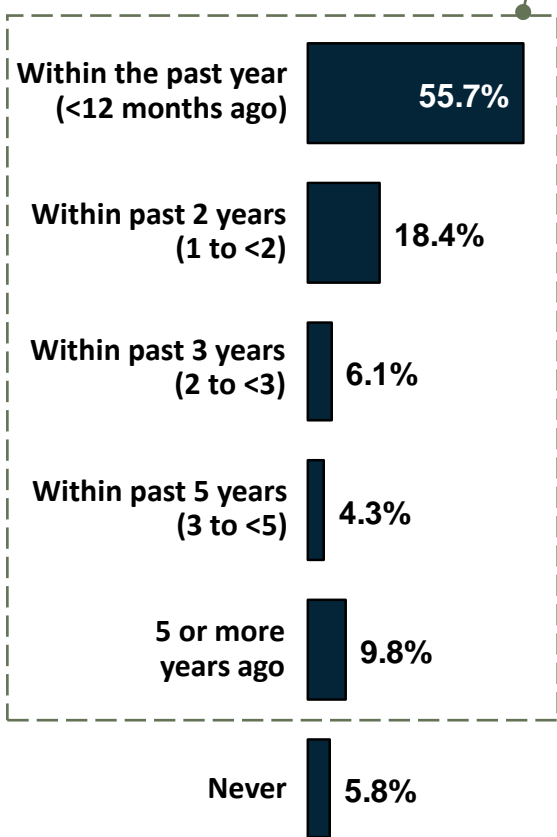
Q19.3: Please provide the reason(s) for the difficulty in getting dental care. (Multiple responses allowed) (n=175)



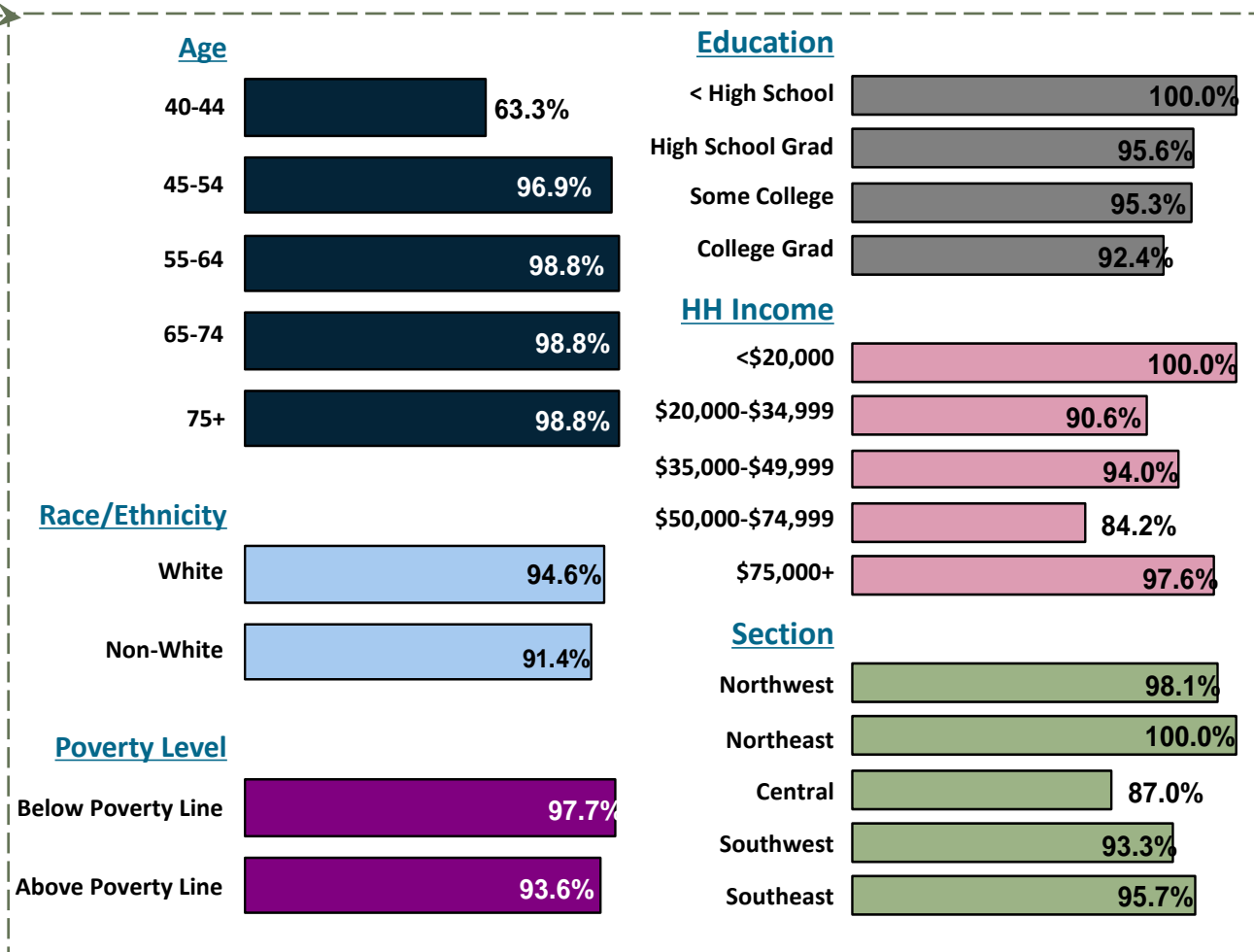
# Cancer Screening – Mammogram

- Almost all (94.2%) area women age 40 or older have had a mammogram at one time.
  - ❖ Women aged 40-45 are least likely to have had a mammogram

## Ever Had Mammogram (Among Women Age 40+)



## Ever Had Mammogram by Demographics

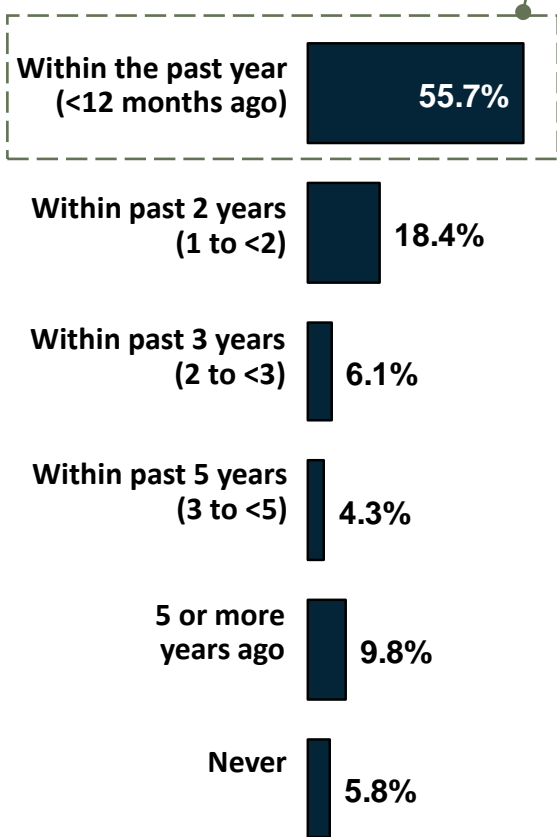




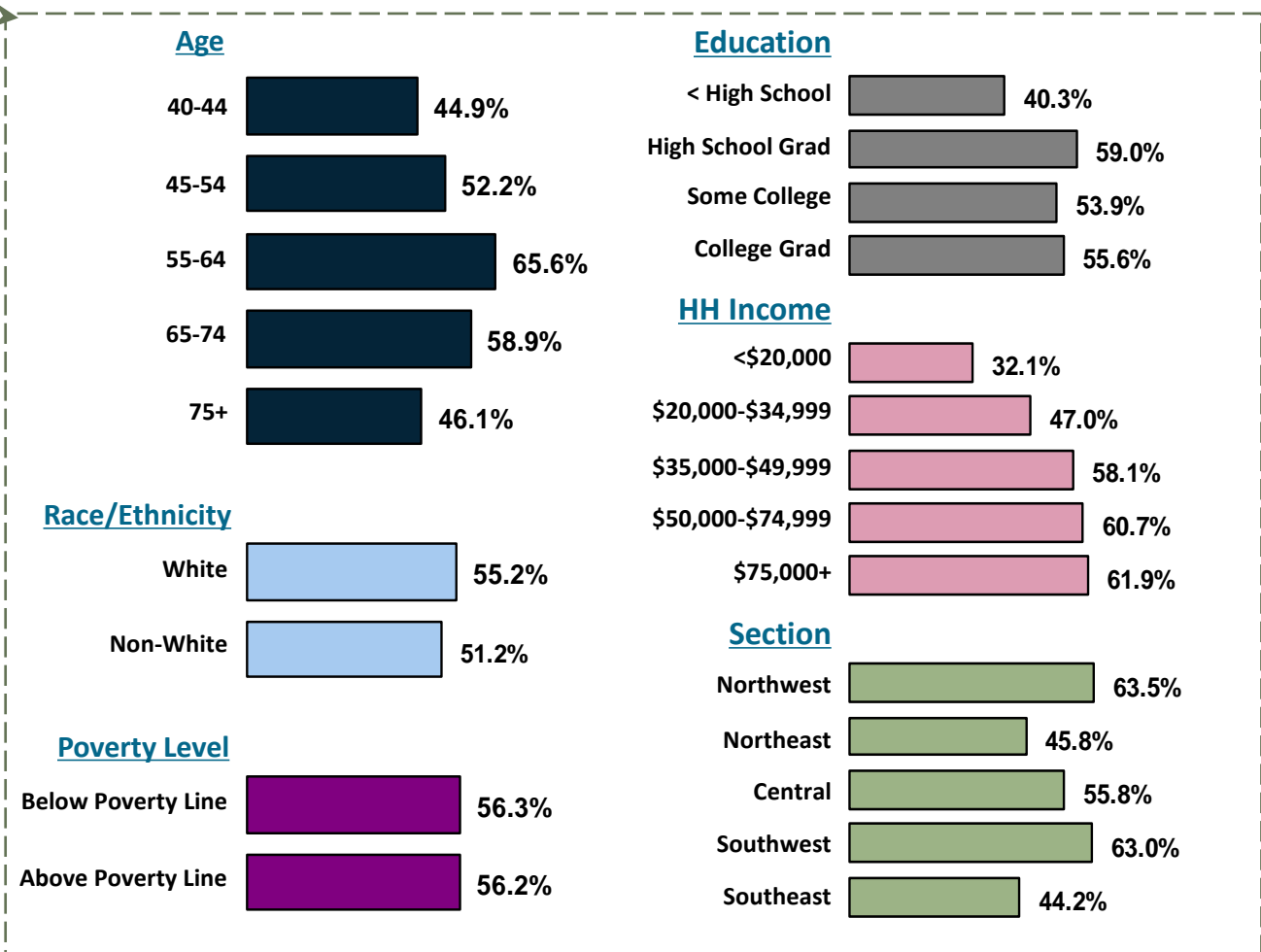
# Cancer Screening – Mammogram (Continued)

- Over half (55.7%) of area women age 40 or older have had a mammogram in the past year.
  - ❖ Women who are less likely to have had a mammogram in the past year come from the youngest (40-45) and oldest age groups (75+), have less than a high school degree, and have income below \$35,000

## Had Mammogram in Past Year (Among Women Age 40+)



## Had Mammogram in Past Year by Demographics



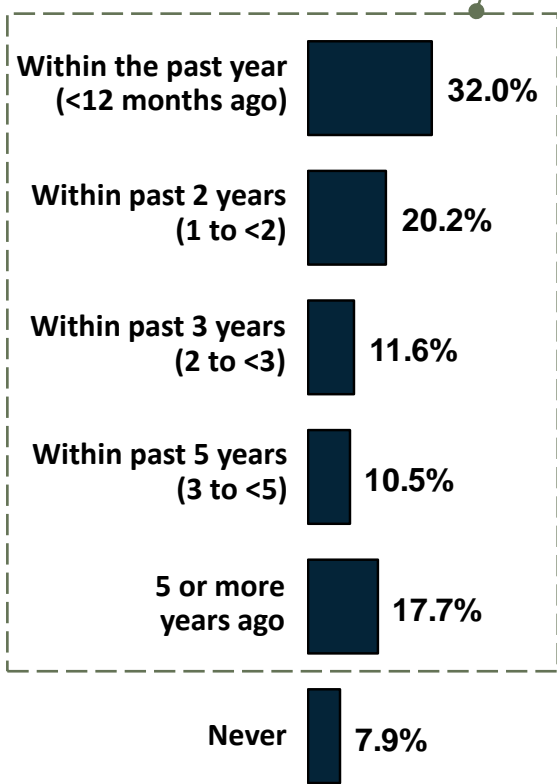




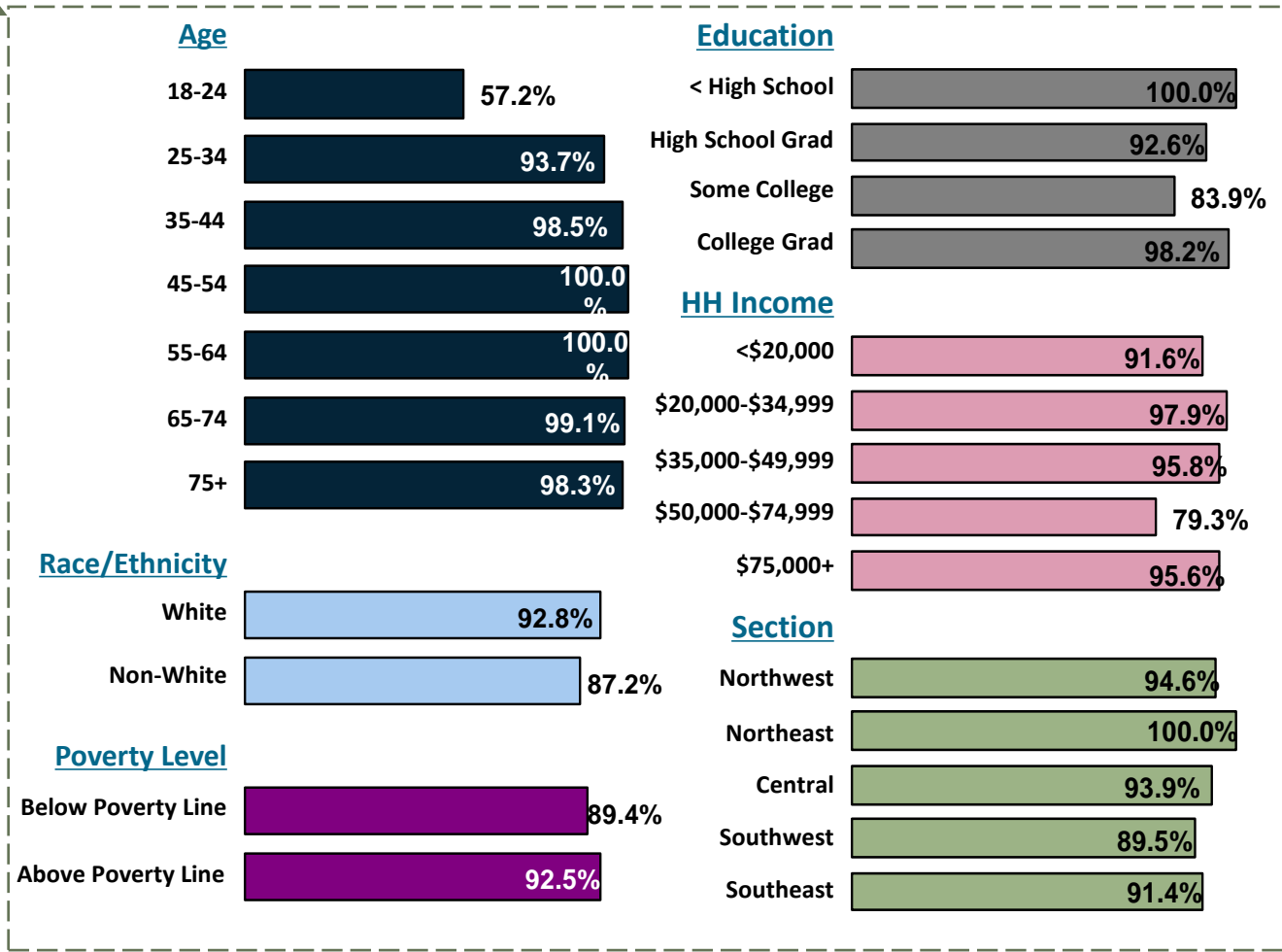
# Cancer Screening – Pap Test

- More than nine in ten (92.1%) Ottawa County women have had a Pap test at one time.
  - ❖ The only notable difference demographically is that women in the youngest age range (< age 25) are far less likely to have had a Pap test compared to older women

## Ever Had Pap Test (Among All Women)



## Ever Had Pap Test by Demographics

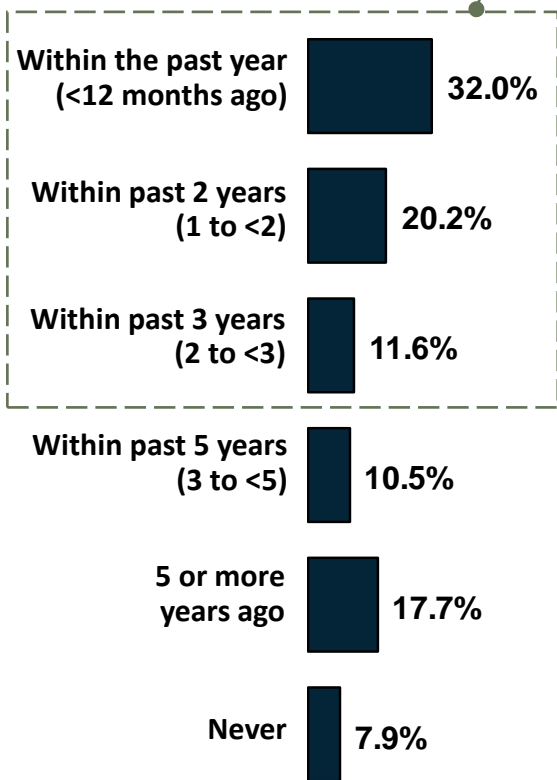




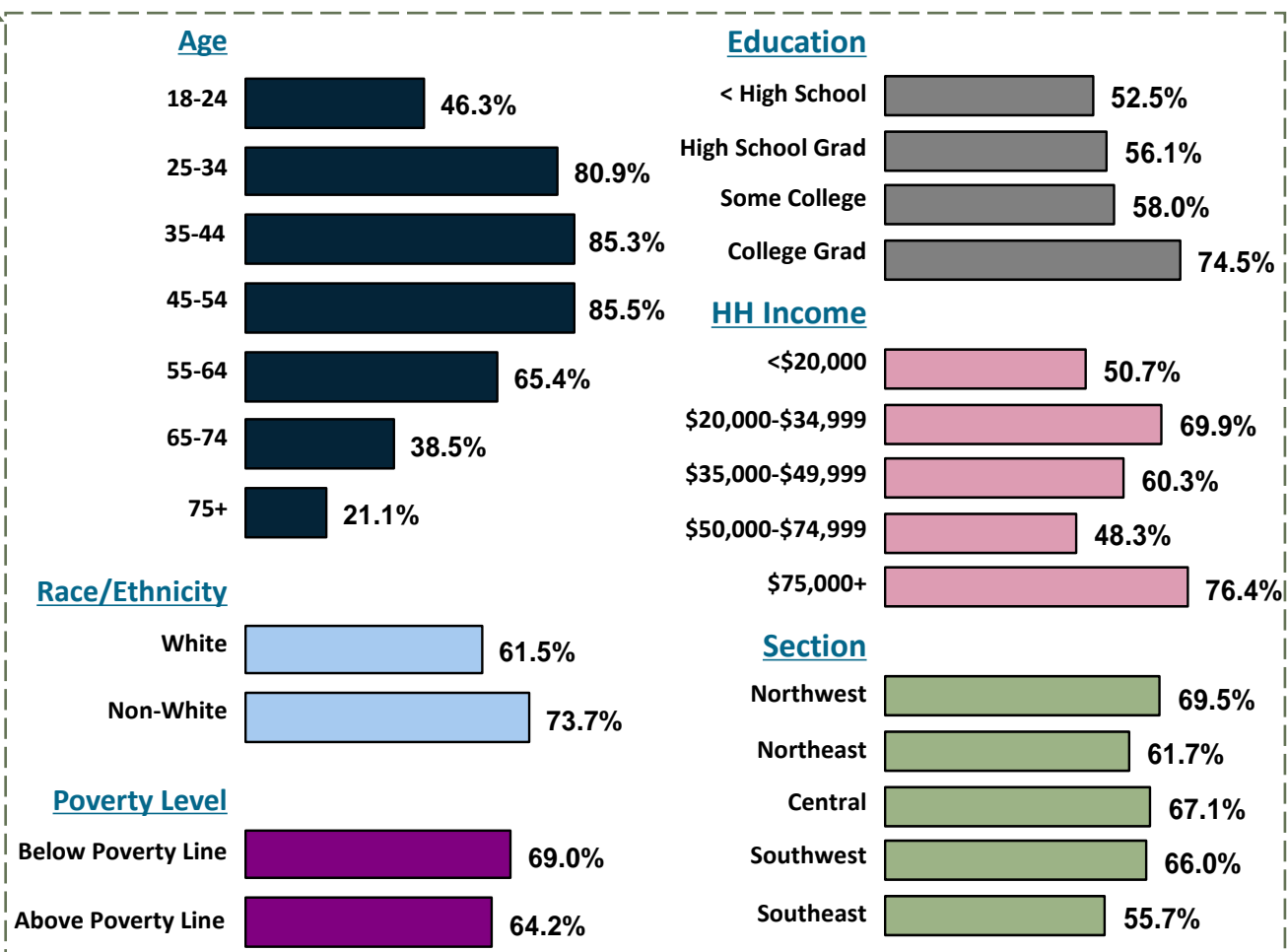
# Cancer Screening – Pap Test (Continued)

- Approximately six in ten (63.8%) Ottawa County women have had an appropriately timed Pap test (within the past three years).
  - ❖ Women with the highest rates of appropriately timed Pap tests come from groups that are aged 25-54, college graduates, and have incomes of \$75K+

## Appropriately Timed Pap Test (Among All Women)



## Appropriately Timed Pap Test by Demographics

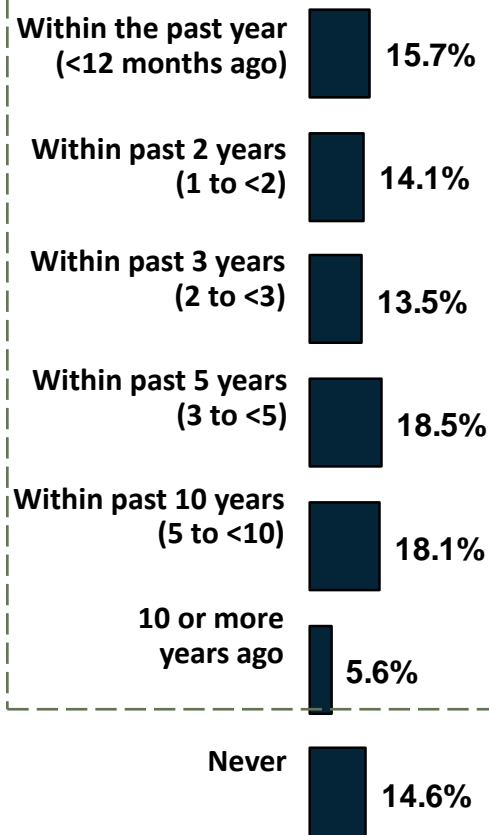




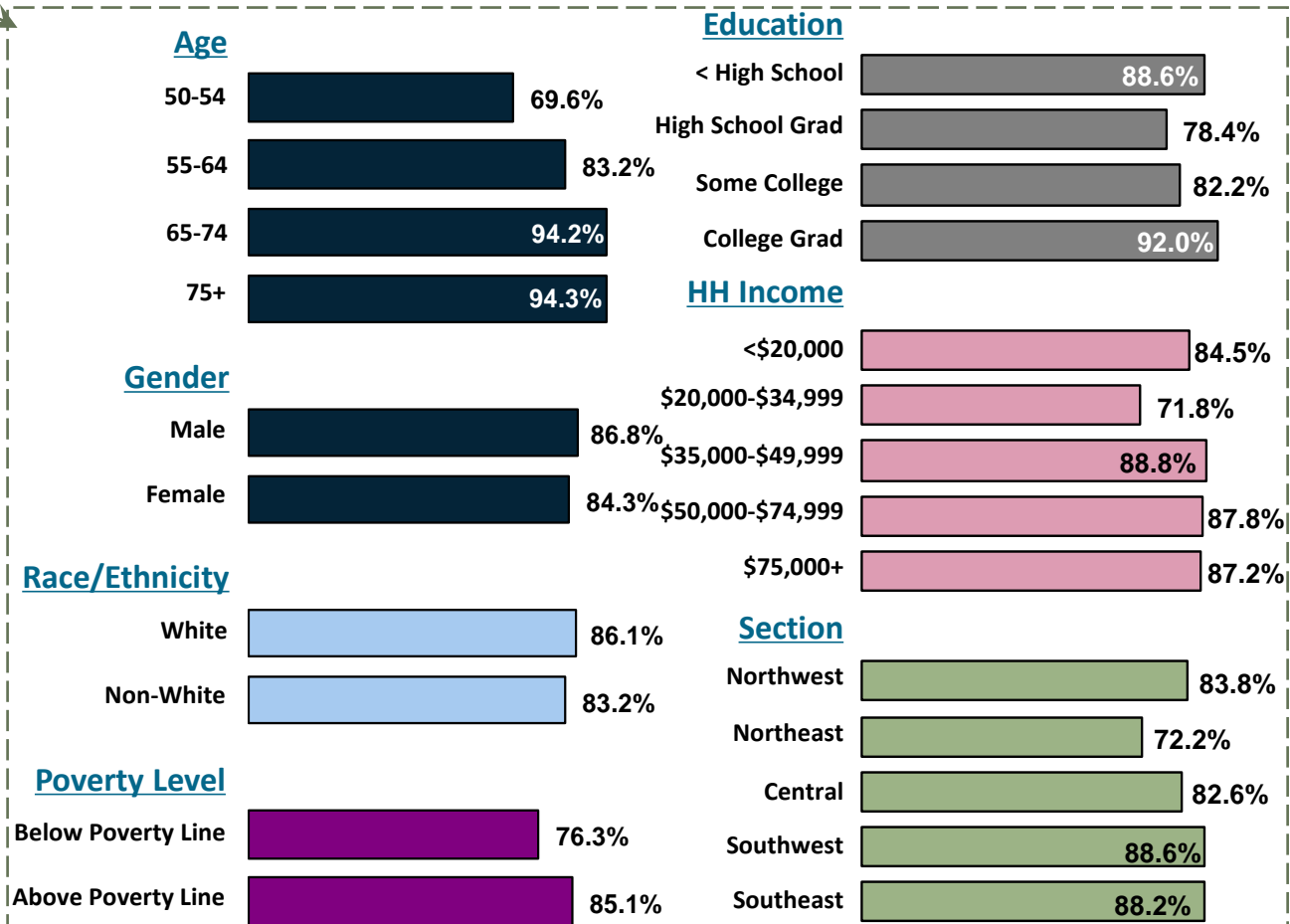
# Cancer Screening – Sigmoidoscopy and Colonoscopy

- Among Ottawa County adults age 50 or older, 85.4% have had a sigmoidoscopy or colonoscopy at one point to screen for colon cancer.
  - ❖ Rates are lowest among adults age 50-54 and/or those living below the poverty line

## Ever Had Sigmoidoscopy or Colonoscopy (Among Adults Age 50+)



## Had Sigmoidoscopy/Colonoscopy by Demographics

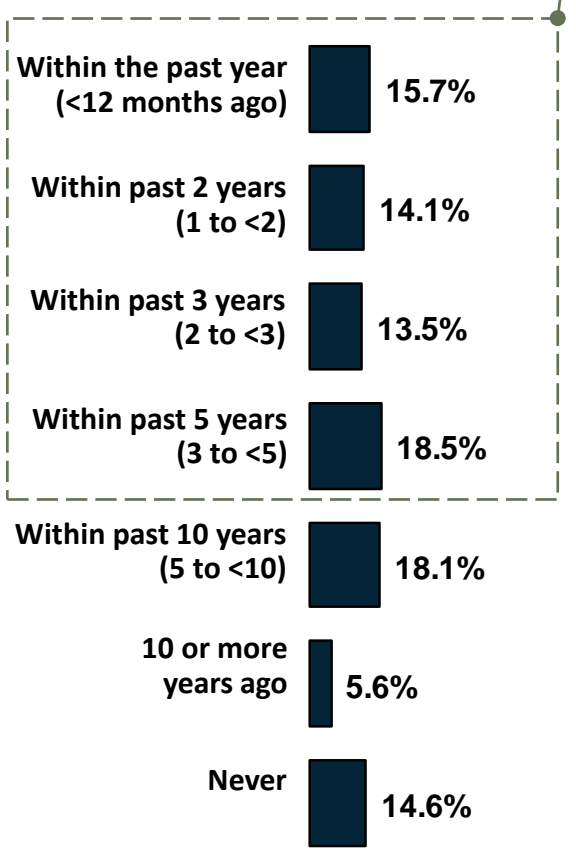


Q15.3: Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems. How long has it been since you had your last sigmoidoscopy or colonoscopy? (n=871)

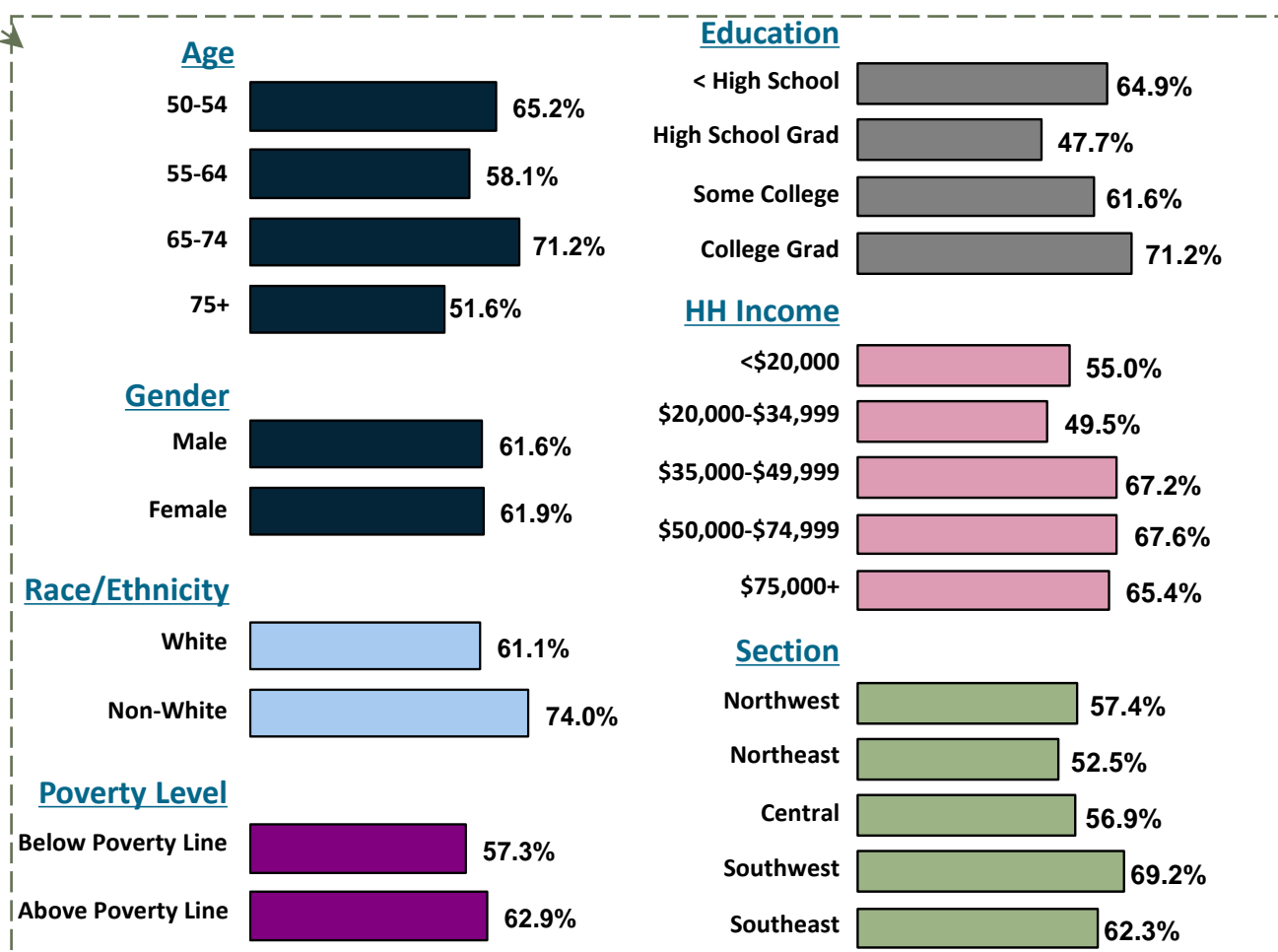
# Cancer Screening – Sigmoidoscopy and Colonoscopy (Continued)

- Six in ten (61.8%) Ottawa County adults age 50 or older have had a sigmoidoscopy or colonoscopy within the past 5 years.
  - ❖ Rates are lowest among adults with incomes below \$35,000

## Had Sigmoidoscopy or Colonoscopy in Past 5 Years (Among Adults Age 50+)



## Had Sigmoidoscopy/Colonoscopy In Past 5 Years by Demographics



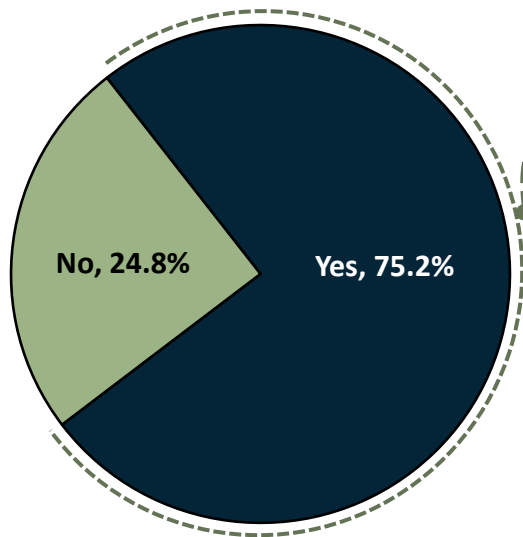
Q15.3: Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems. How long has it been since you had your last sigmoidoscopy or colonoscopy? (n=871)



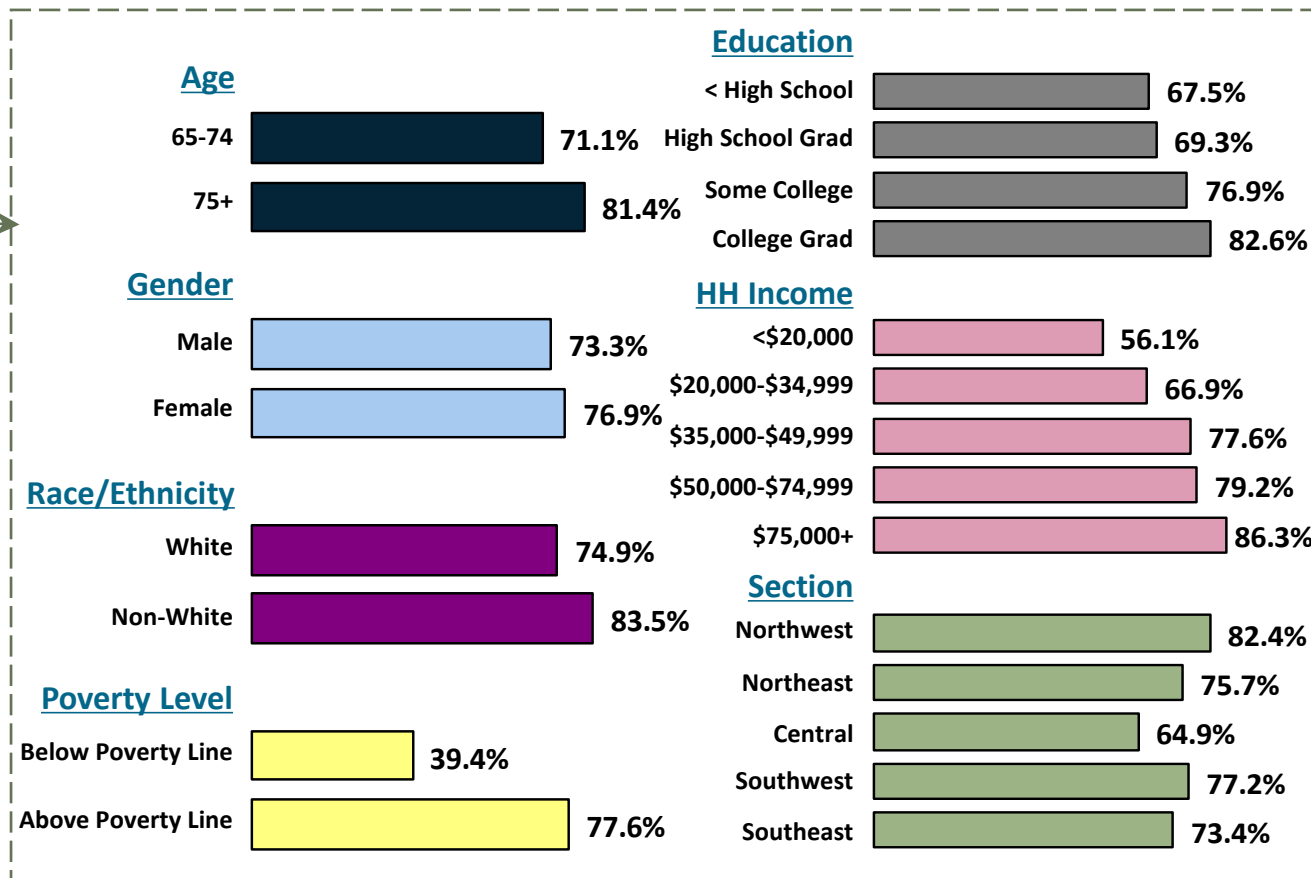
# Flu Vaccination

- Three-fourths (75.2%) of Ottawa County adults age 65 or older have had a seasonal flu shot within the past year.
  - ❖ Among this age group, being vaccinated against the flu is directly related to level of education and income
  - ❖ Adults living below the poverty line are most at risk
  - ❖ Adults living in the central section of the county are less likely to have received a flu shot than adults from other sections

## Had Flu Vaccine in Past 12 Months (Among Adults Age 65+)



## Had Flu Vaccine in Past 12 Months by Demographics (Among Adults Age 65+)



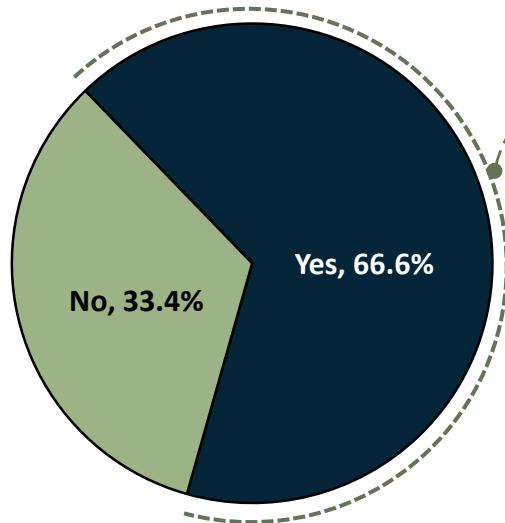
Q16.1: Now I will ask you a question about the seasonal flu. During the past 12 months, have you had either a flu vaccine that was sprayed in your nose or a flu shot that was injected into your arm? (n=541)



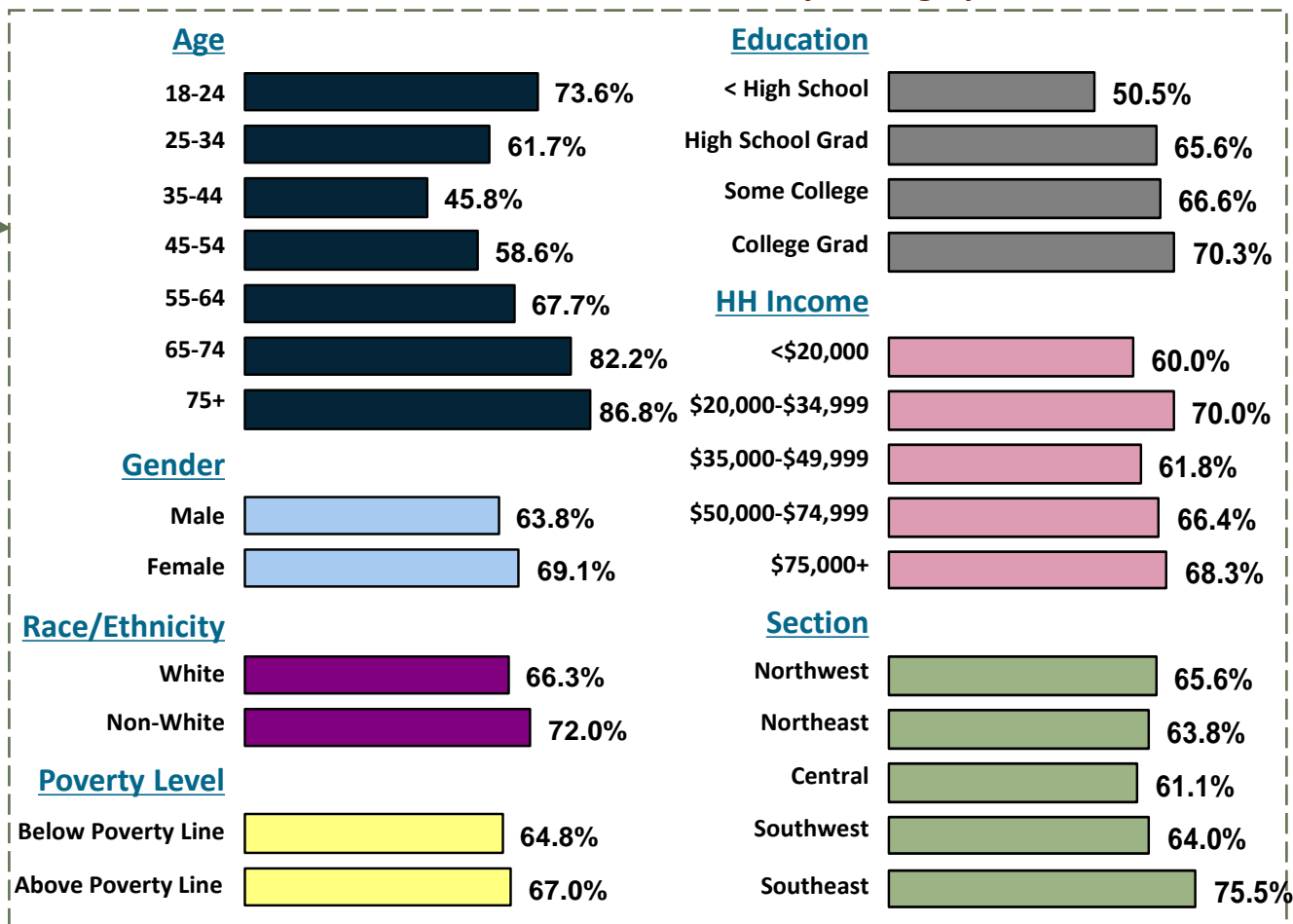
# Flu Vaccination (Continued)

- Among all Ottawa County adults, two-thirds (66.6%) report that they plan to get a flu vaccine in the fall of 2020.
  - ❖ Those least likely to get the vaccine are aged 35-54 and/or have less than a high school degree

## Plan to Get Flu Vaccine This Fall (All Adults)



## Plan to Get Flu Vaccine This Fall by Demographics



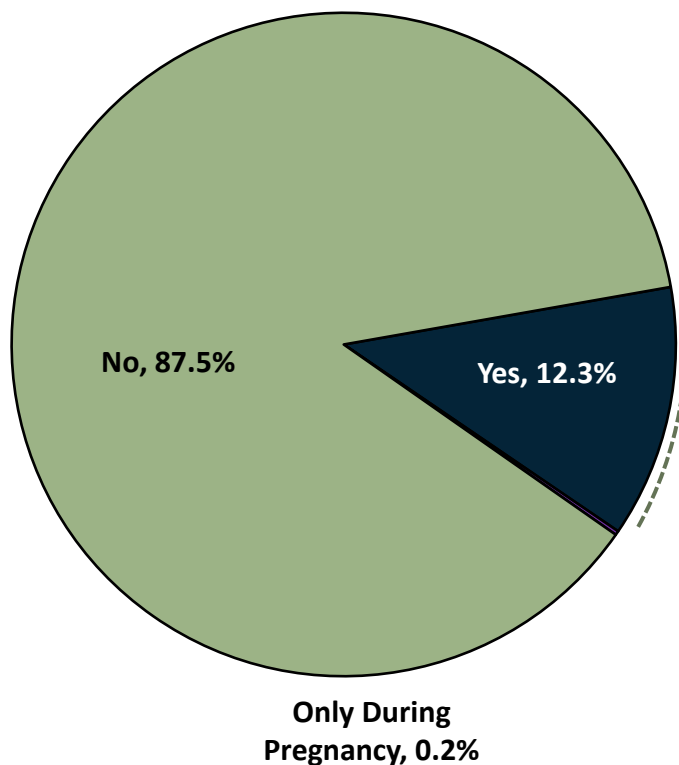
# Chronic Conditions



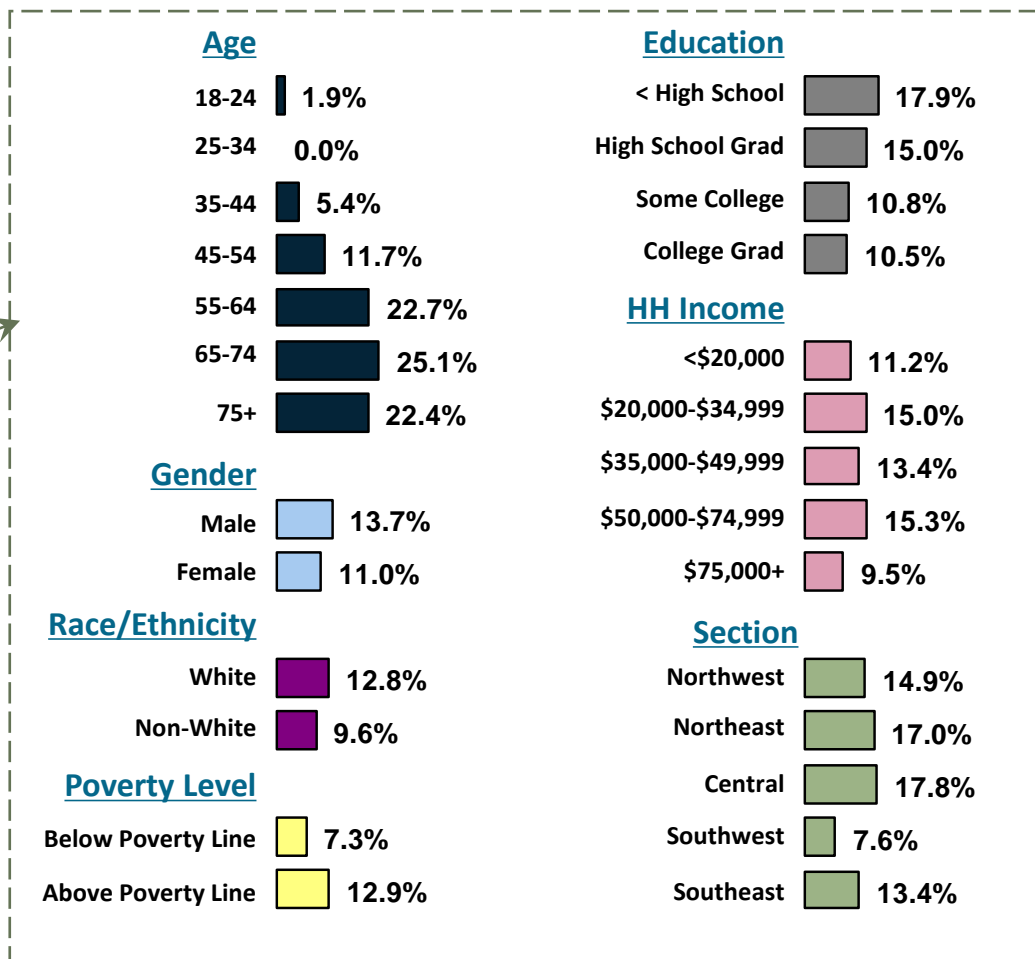
# Prevalence of Diabetes

- One in eight area adults has been told by a health care professional that they have diabetes.
  - ❖ The prevalence of diabetes is greater for older adults (55+), White adults, those with incomes less than \$75K, and those with less than a college education

## Ever Told Have Diabetes



## Told Have Diabetes by Demographics



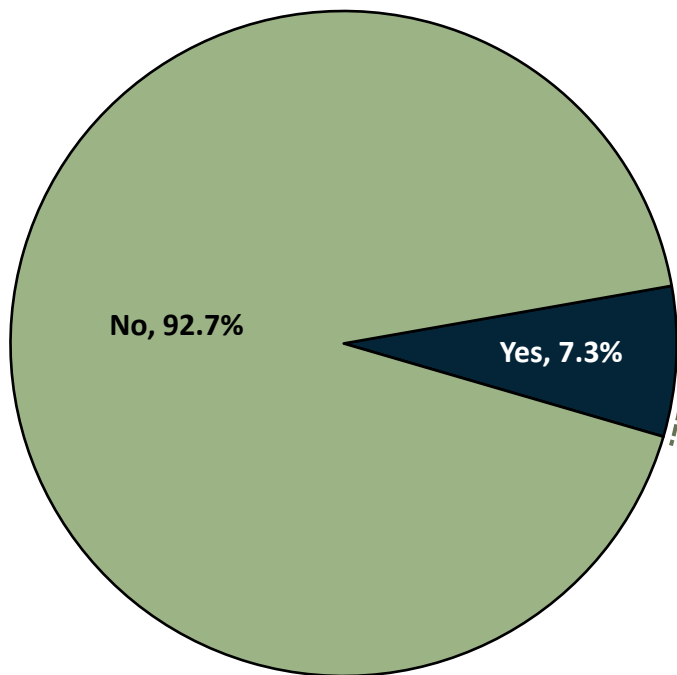




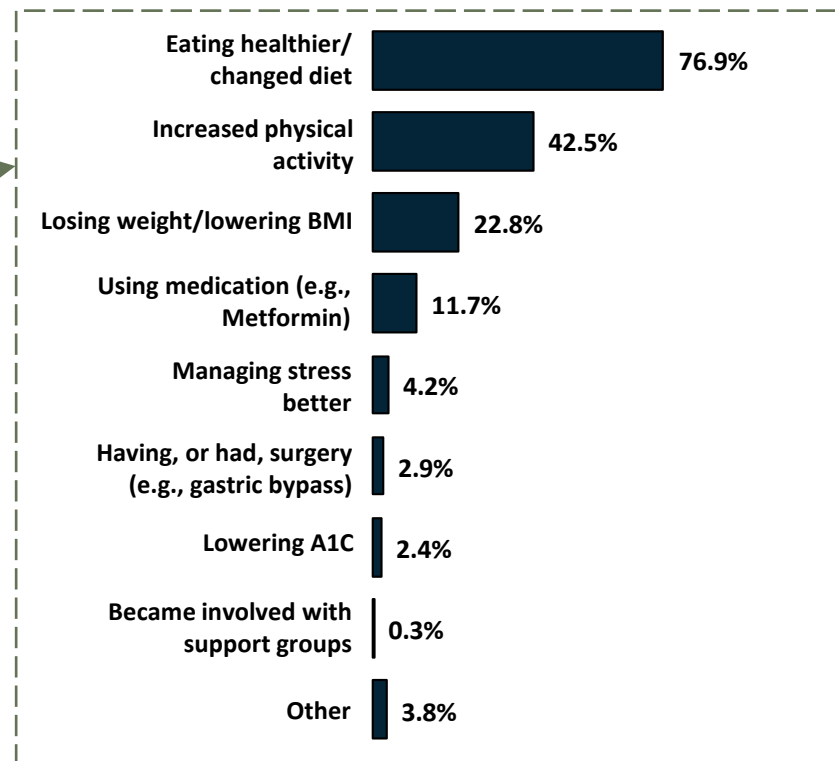
# Prevalence of Pre-Diabetes/Borderline Diabetes

- Among area adults who have not been diagnosed with diabetes, 7.3% have been told by a health care professional that they have pre-diabetes or borderline diabetes.
- For those diagnosed with pre-diabetes, the most common step they have taken in order to prevent developing full diabetes is to eat healthier foods, followed by increasing their physical activity.

## Ever Told Have Pre-Diabetes or Borderline Diabetes (Among Those Without Diabetes)\*



## Steps Taken to Prevent Pre-Diabetes from Developing Into Diabetes



\*Among adults without diabetes, the proportion who reported ever being told by a health care professional that they had pre-diabetes or borderline diabetes

Q4.4: Has a doctor, nurse, or other health professional EVER told you that you had pre-diabetes or borderline diabetes? (n=998)

Q4.5: (If diagnosed with pre-diabetes) What steps are you taking, if any, to prevent your prediabetes from developing into diabetes? (n=95)



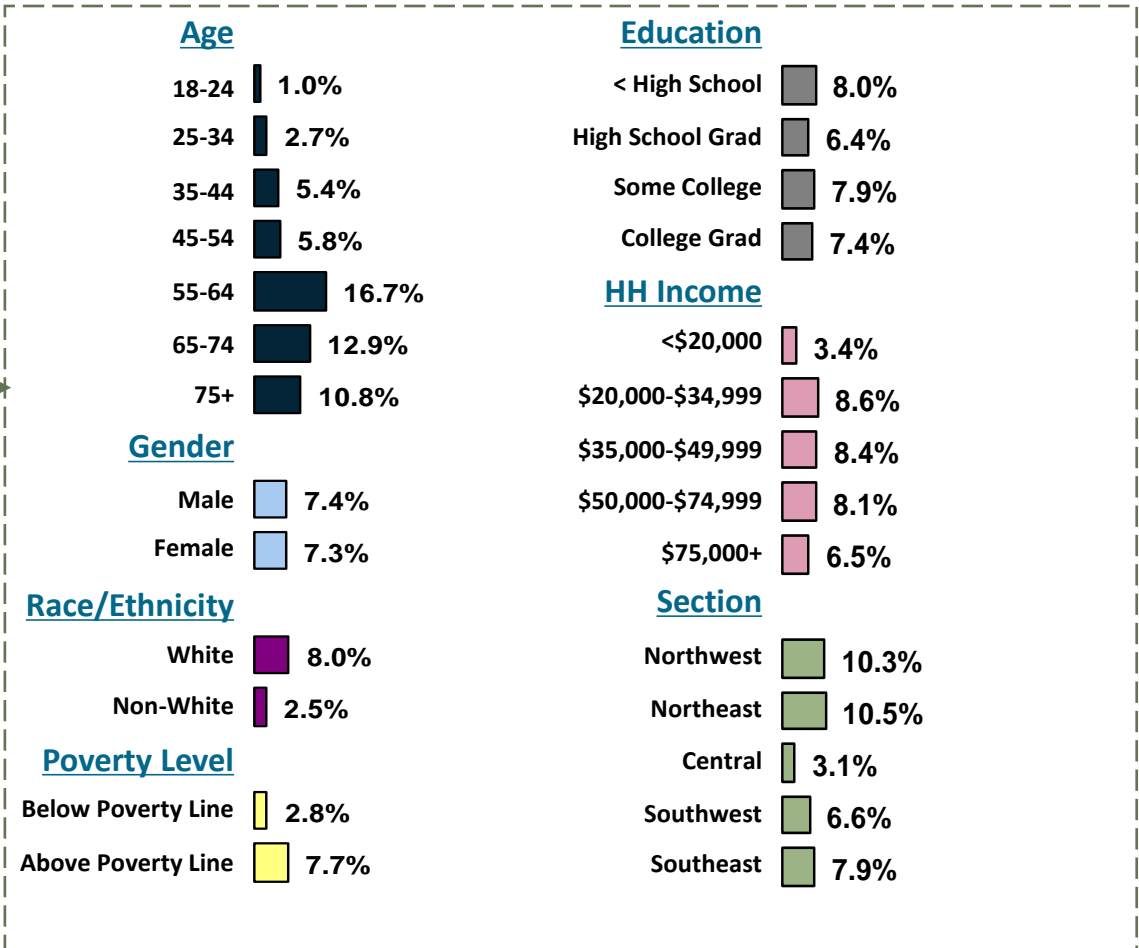
# Prevalence of Pre-Diabetes/Borderline Diabetes

- The prevalence of pre-diabetes is greater for adults aged 55+ compared to younger adults.
- Also, the proportion of White adults that has been diagnosed with pre-diabetes is greater than the proportion of non-White adults.

**Ever Told Have Pre-Diabetes or Borderline Diabetes\***  
**(Among Those Without Diabetes)**

**Told Have Pre-Diabetes/Borderline Diabetes by Demographics**

**7.3%**



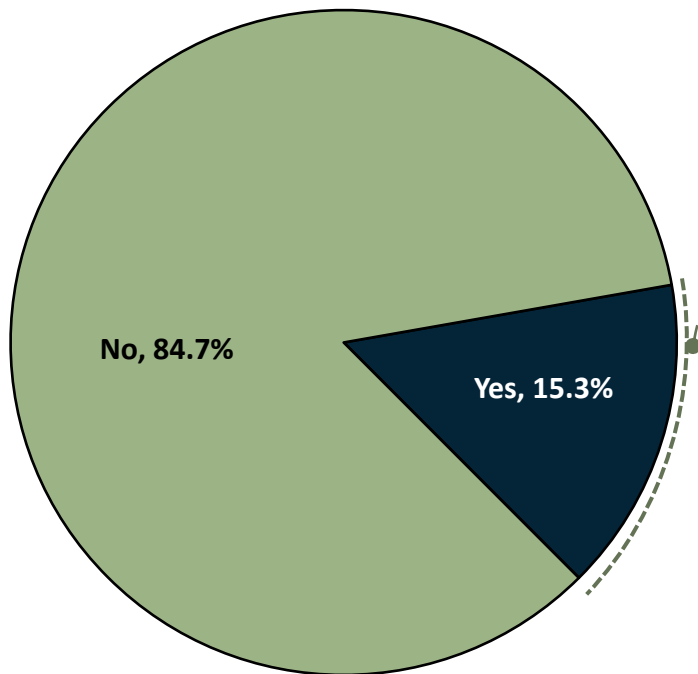
\*Among adults without diabetes, the proportion who reported ever being told by a health care professional that they had pre-diabetes or borderline diabetes



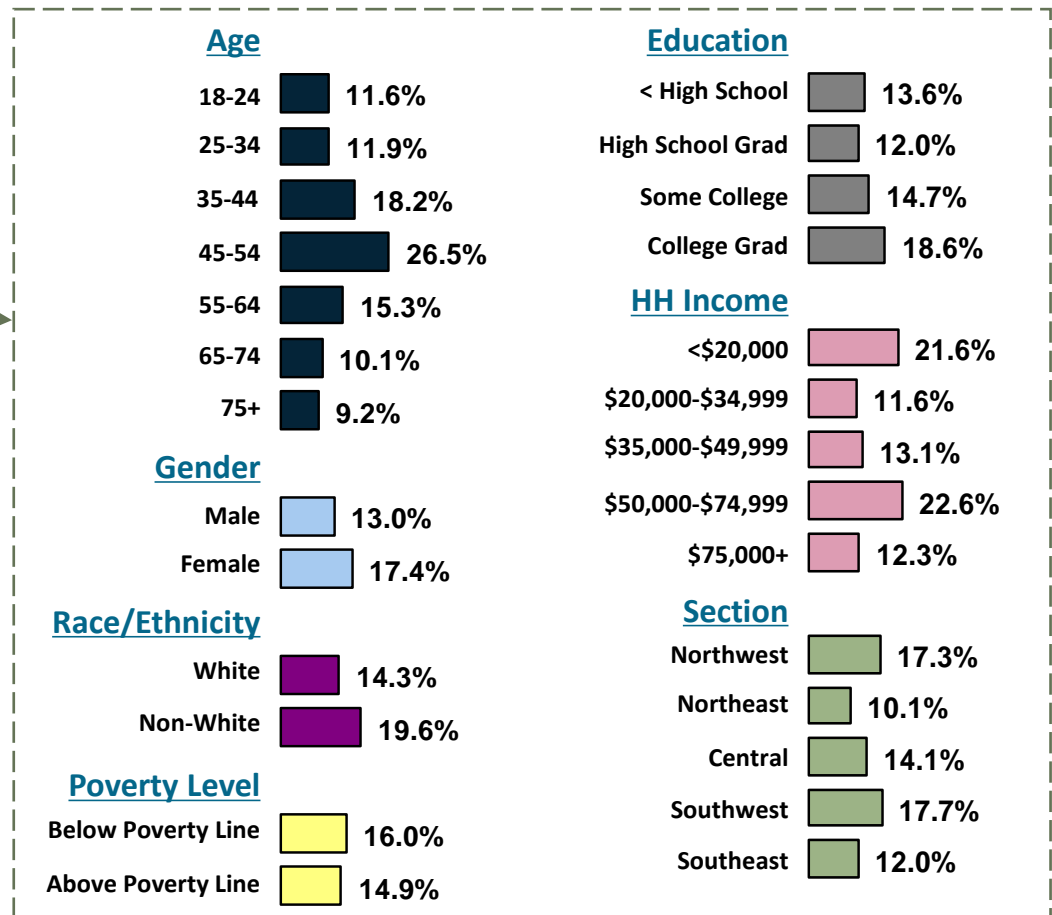
# Lifetime Asthma

- Roughly one in seven (15.3%) area adults has been told by a health care professional at some point in their life that they had asthma.
  - ❖ The prevalence of lifetime asthma is greater for women than men, and greater for non-White adults than White adults

## Lifetime Asthma Prevalence\* (Total Sample)



## Lifetime Asthma by Demographics



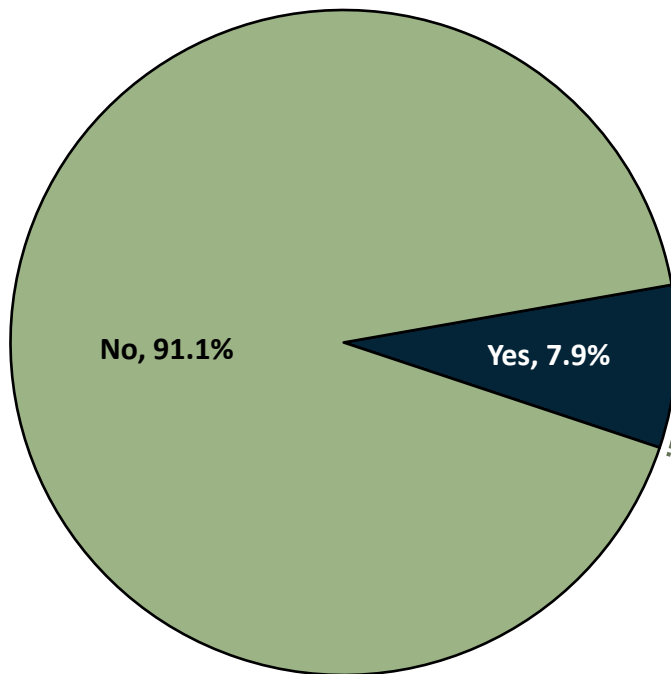
\*Among all adults, the proportion who reported that they were ever told by a doctor, nurse, or other health care professional that they had asthma



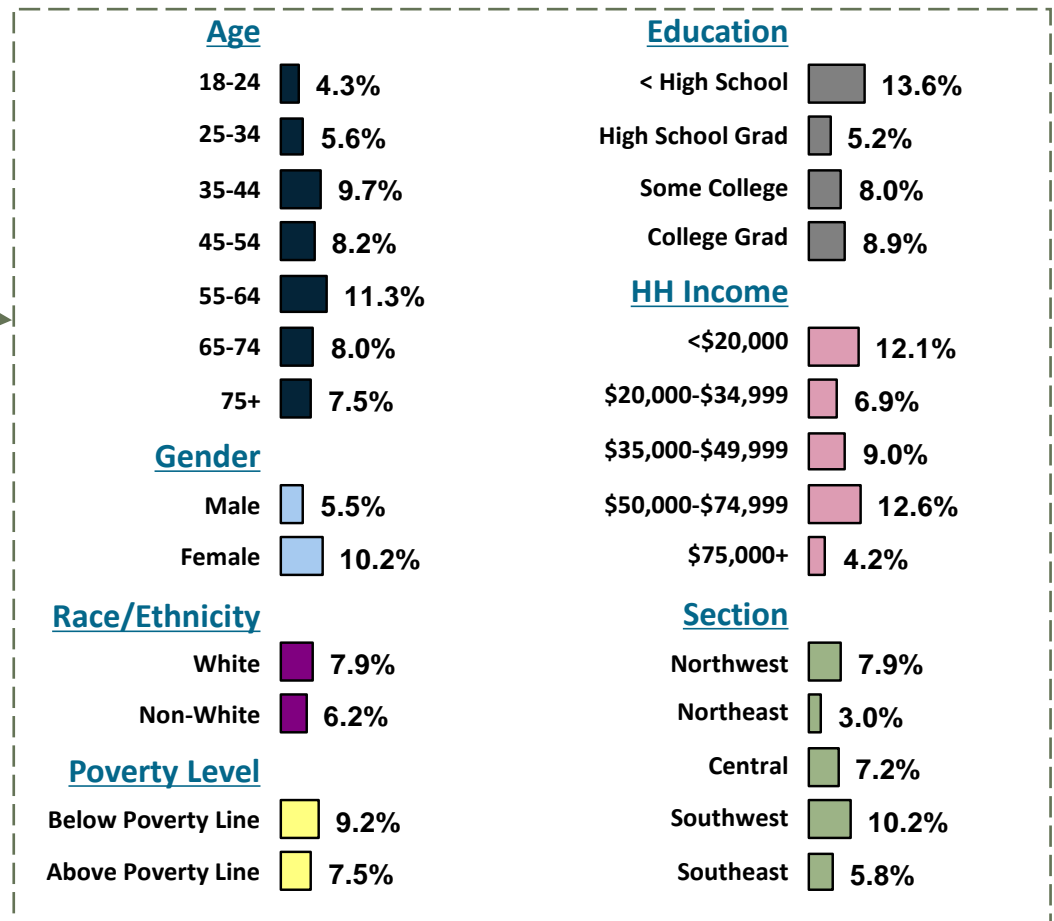
# Current Asthma

- Roughly one in thirteen (7.9%) area adults currently has asthma.
  - ❖ Women are more likely to have asthma than men, and it is more prevalent in adults with less than a high school education compared to those with more education
  - ❖ It is also more prevalent in adults living in the southwest section of the county than adults living in other sections

## Current Asthma Prevalence\* (Total Sample)



## Current Asthma by Demographics



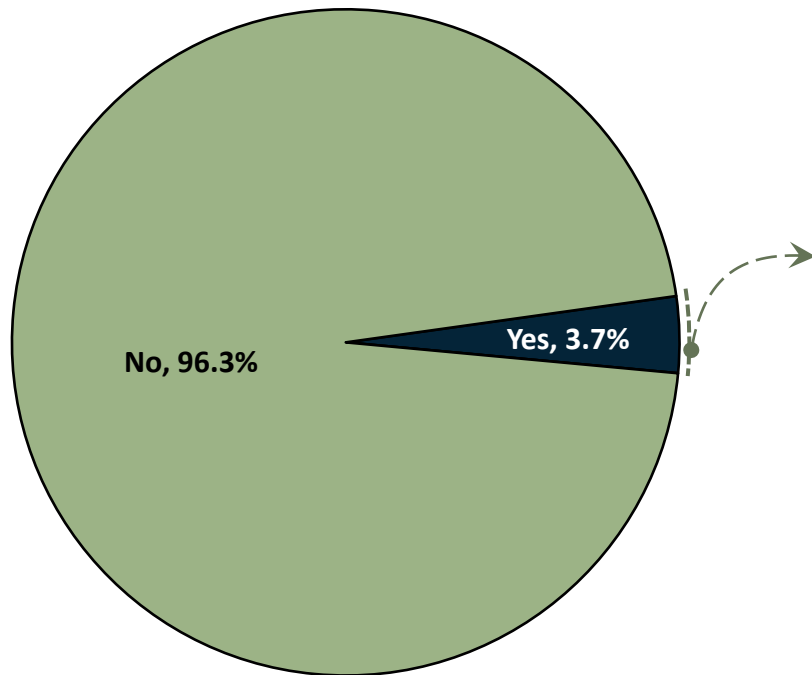
\*Among all adults, the proportion who reported that they still had asthma



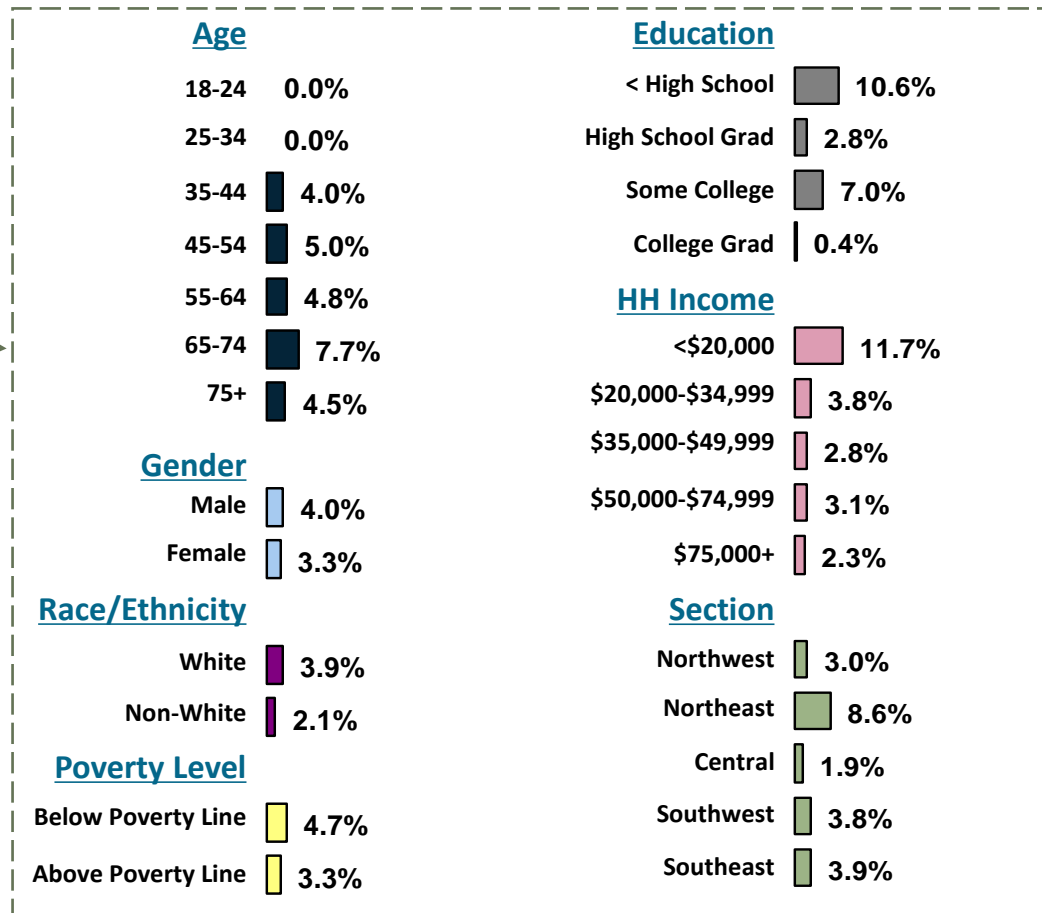
# Prevalence of COPD

- A small proportion (3.7%) of Ottawa County adults have chronic obstructive pulmonary disease (COPD).
  - ❖ The disease is more common in adults who are older (45+), have the lowest incomes, and/or have less than a high school degree

## Ever Told Have COPD\* (Total Sample)



## Told Have COPD by Demographics



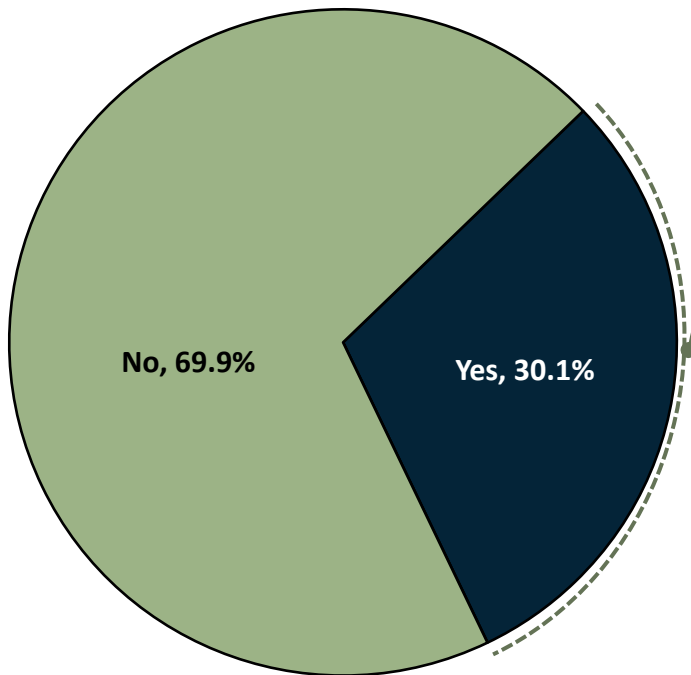
\*Among all adults, the proportion who reported that they were ever told by a doctor that they have chronic obstructive pulmonary disease (COPD), emphysema, or chronic bronchitis



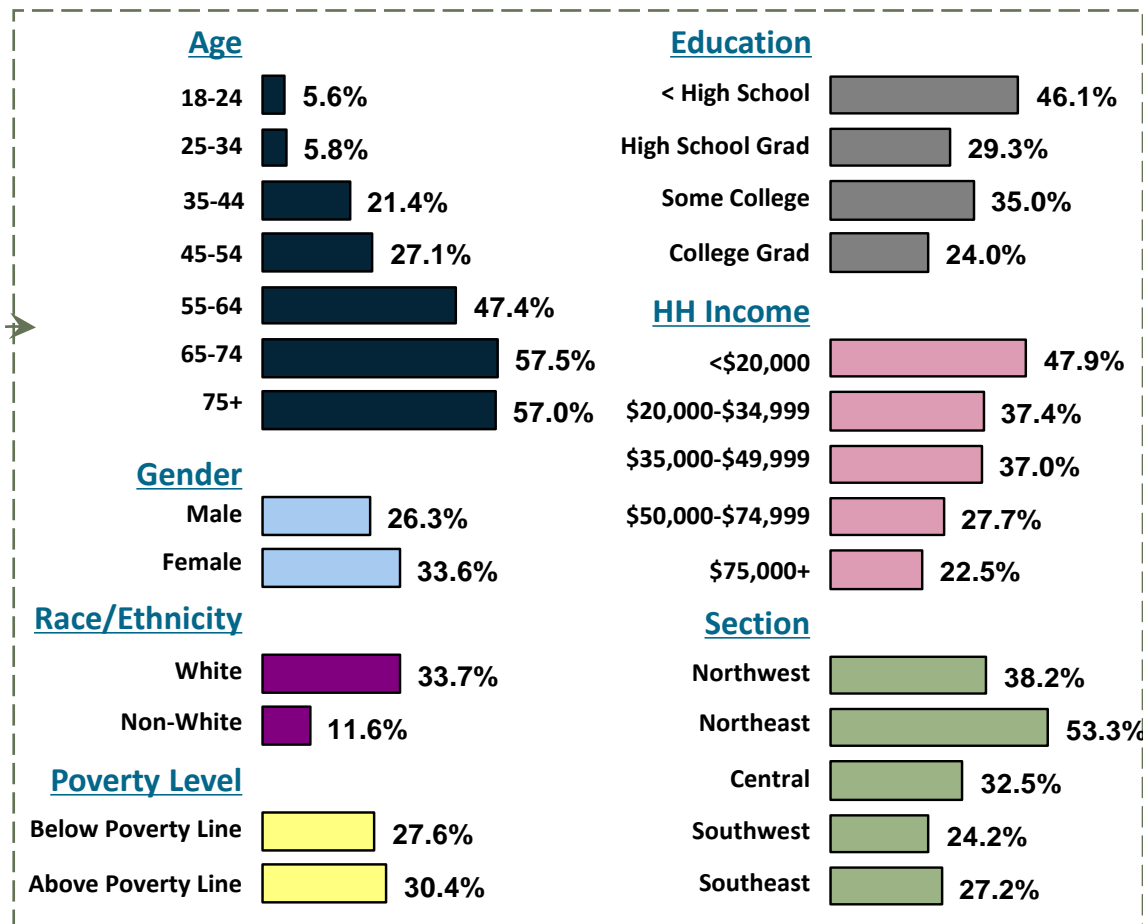
# Prevalence of Arthritis

- Three in ten (30.1%) area adults have arthritis, and this is largely a condition that comes with age.
  - ❖ The disease is also more common in women than men and more common in White adults compared to non-White adults
  - ❖ It is most common in adults with the lowest education and/or the lowest annual incomes
  - ❖ Arthritis is less common in the southern sections of Ottawa County

## Ever Told Have Arthritis\* (Total Sample)



## Told Have Arthritis by Demographics



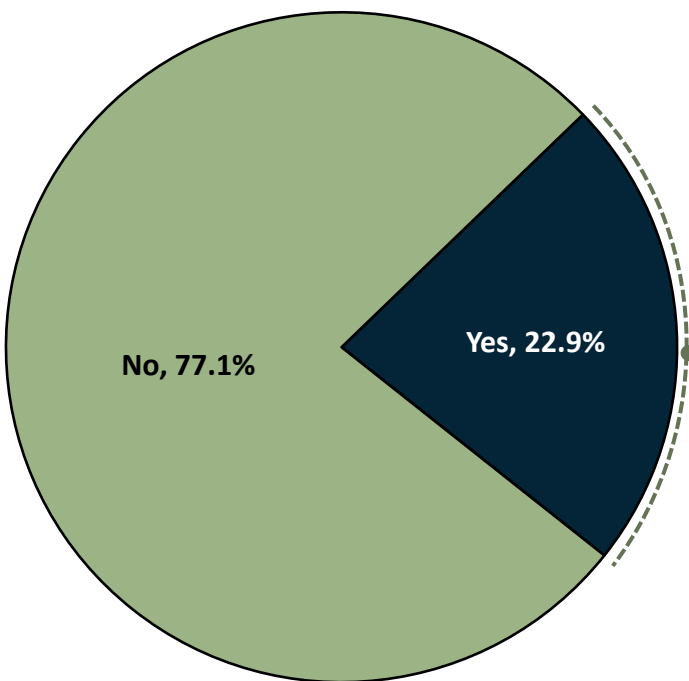
\*Among all adults, the proportion who reported ever being told by a health care professional that they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia



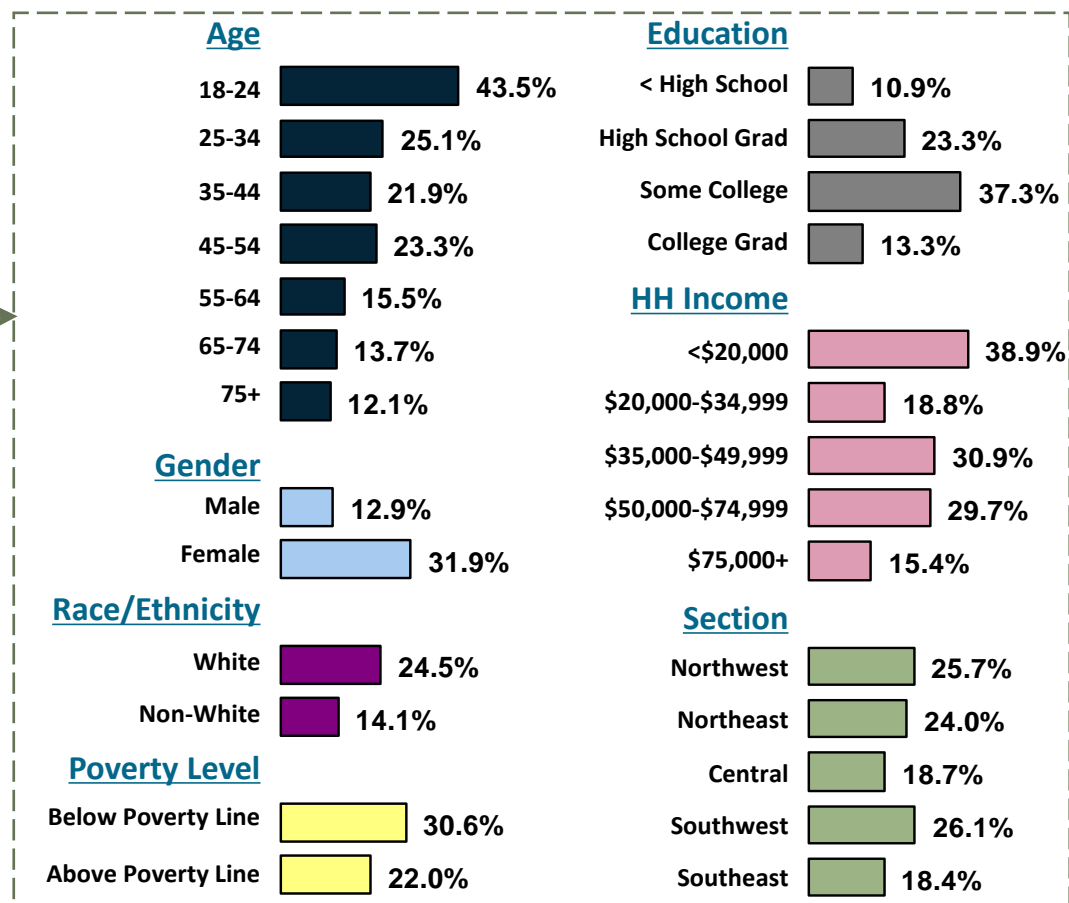
# Prevalence of Anxiety Disorder

- More than one in five (22.9%) Ottawa County adults has an anxiety disorder.
- Anxiety is more common in women than men, and more common in White adults than non-White adults
- The disorder is most common in the youngest adults (aged 18-24) and those with the lowest incomes (<\$20K).

## Ever Told Have Anxiety Disorder\* (Total Sample)



## Told Have Anxiety Disorder by Demographics



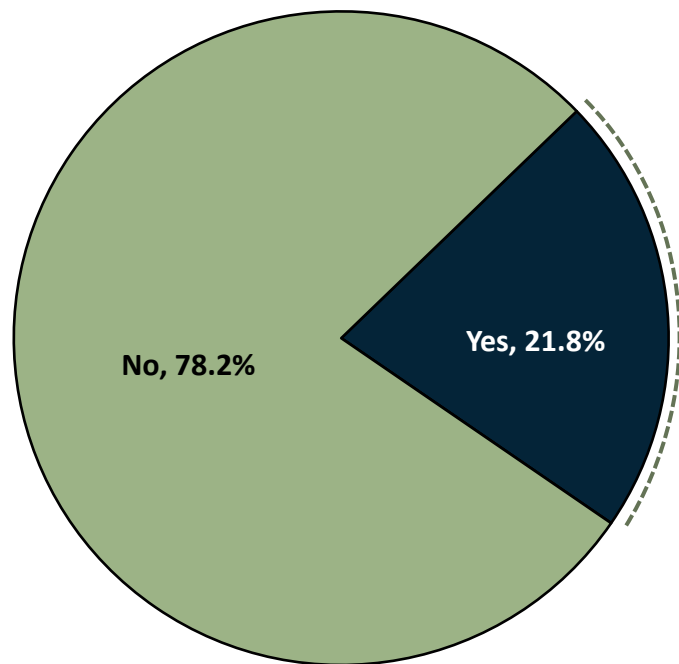
\*Among all adults, the proportion who reported ever being told by a health care professional that they had an anxiety disorder (including acute stress disorder, anxiety, generalized anxiety disorder, obsessive-compulsive disorder, panic disorder, phobia, posttraumatic stress disorder, or social anxiety disorder)



# Prevalence of Depressive Disorder

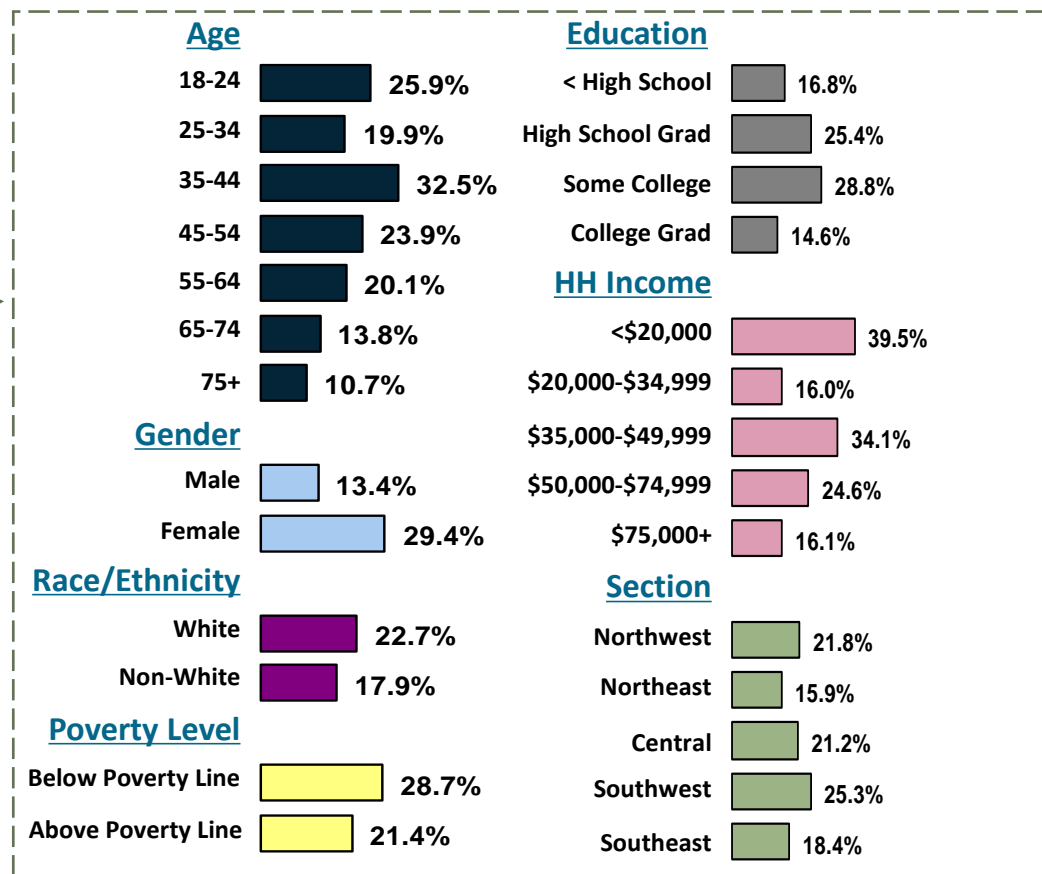
- Roughly one in five (21.8%) Ottawa County adults has a depressive disorder.
  - ❖ Like anxiety, depression is more common in women than men, and more common in White adults than non-White adults
  - ❖ Depression is least common in adults with college degrees, with annual incomes of \$75K+, and/or those aged 65+
  - ❖ One in eight women who had been diagnosed with depression reported it was during pregnancy

## Ever Told Have Depressive Disorder\* (Total Sample)



**Depressive Disorder Related to Pregnancy/Childbirth = 12.7%  
(Among Women Who Had Been Diagnosed With Depression)**

## Told Have Depressive Disorder by Demographics



\*Among all adults, the proportion who reported ever being told by a health care professional that they had a depressive disorder (including depression, major depression, dysthymia, or minor depression)

Q4.8: Has a doctor or other healthcare provider EVER told you that you have a depressive disorder (including depression, major depression, dysthymia, or minor depression)? (n=1,190)

Q4.9: (IF FEMALE AND Q4.8= YES) Was this following the birth of a child or related to pregnancy? (n=173)

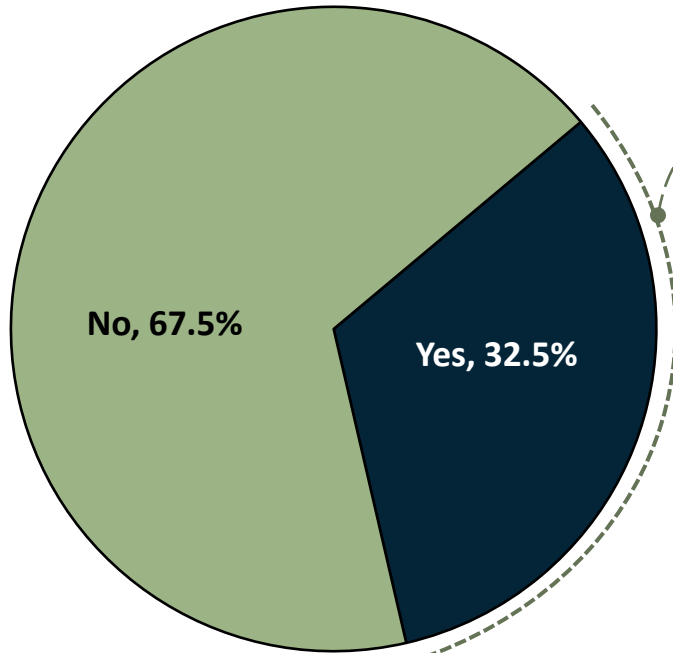




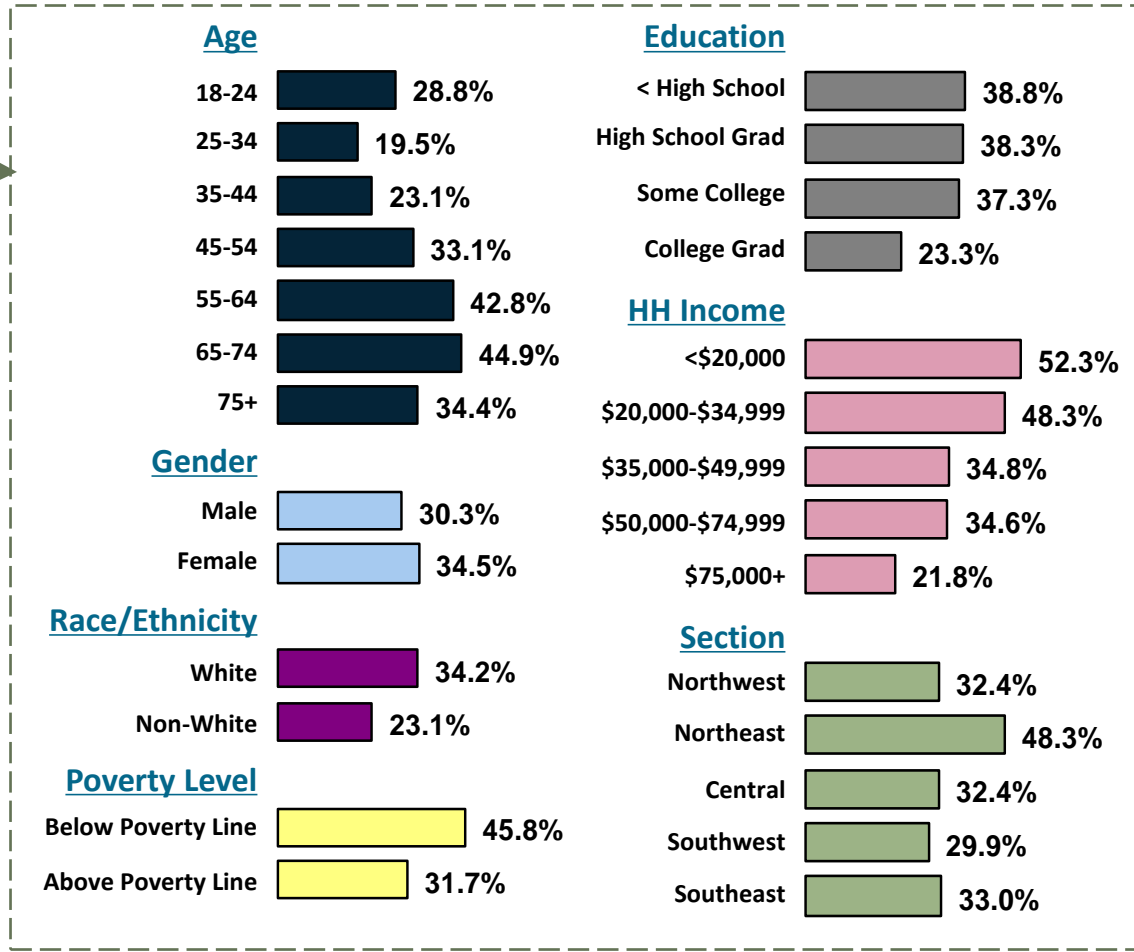
# Chronic Pain

- One-third (32.5%) of Ottawa County adults suffer from chronic pain.
  - ❖ Chronic pain is more prevalent among White adults, those age 55 or older, and those who have incomes less than \$35K
  - ❖ Conversely, it is less prevalent among adults age 25-44, those with college degrees, and those with the highest incomes

## Suffer from Chronic Pain



## Suffer from Chronic Pain by Demographics

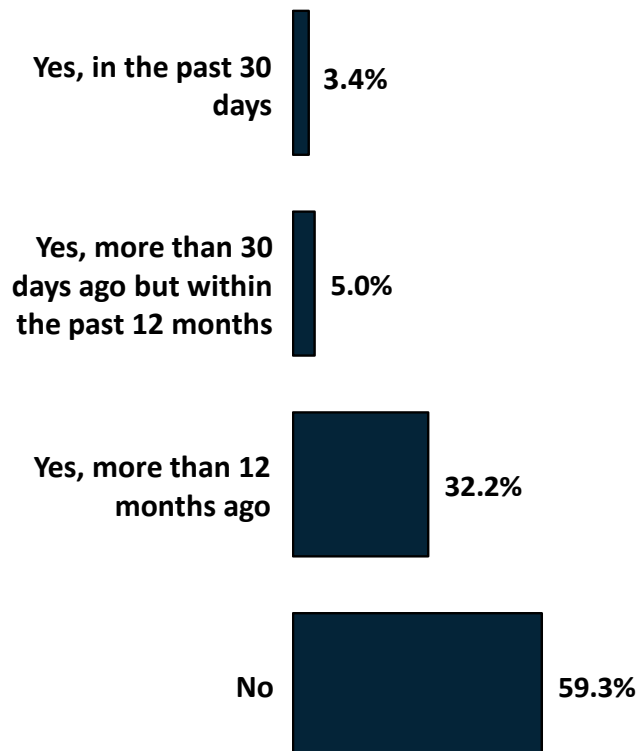




# Chronic Pain (Continued)

- Six in ten (59.3%) Ottawa County adults have never taken pain medication.
- Of those who have taken medication, most have done so more than 12 months ago.
- Even those who suffer from chronic pain use pain medication sparingly – 18.3% have used pain medication in the past year, and 46.9% have never used it.

## Had Taken Prescription Pain Medication



## Use of Pain Medication by Pain Designation

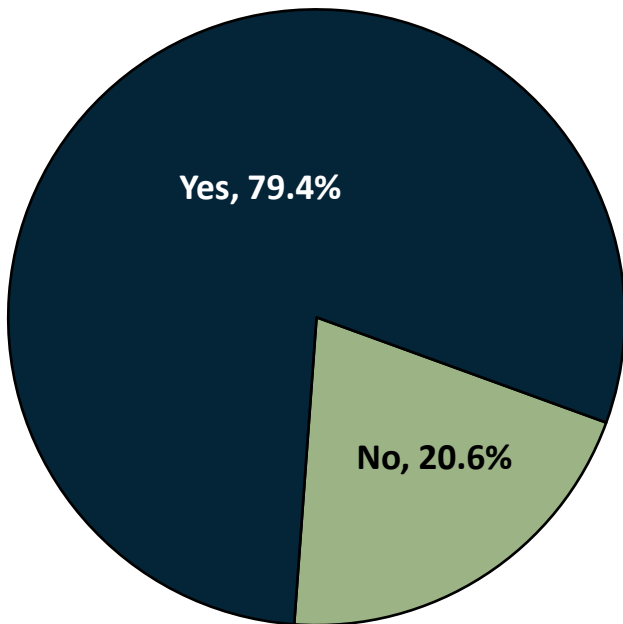
	Suffer From Chronic Pain	No Chronic Pain
In past 30 days	9.3%	0.6%
More than 30 days but within past 12 months	9.0%	3.2%
More than 12 months ago	34.8%	31.0%
Have not taken pain medication	46.9%	65.2%



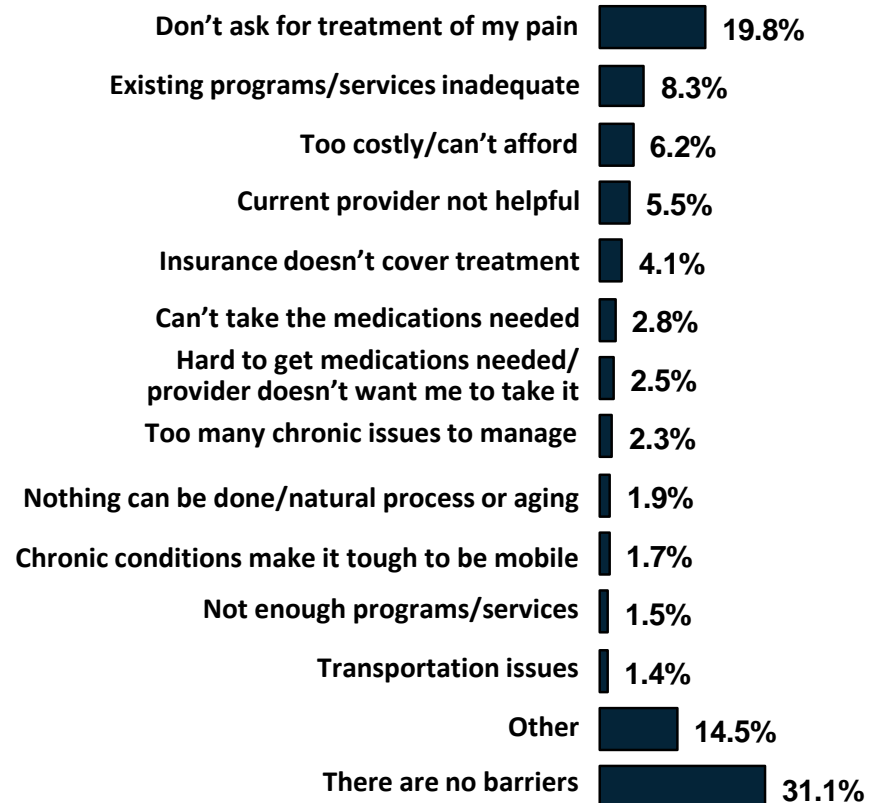
# Chronic Pain Management

- One in five (20.6%) Ottawa County adults who suffer from chronic pain say their pain is not well managed.
- Roughly half (49.1%) of those with chronic pain report myriad barriers to treating their pain, including inadequate programs and services, cost, providers who are unhelpful and don't know how to treat their pain, and insurance that doesn't cover their pain management needs.
- One in five (19.8%) say they do not seek treatment for their pain.

## Pain is Well Managed



## Barriers to Treating Pain



Q6.3: Do you feel your pain is well managed? (n=410)

Q6.4: What are some of the barriers to treating your pain? (n=357)

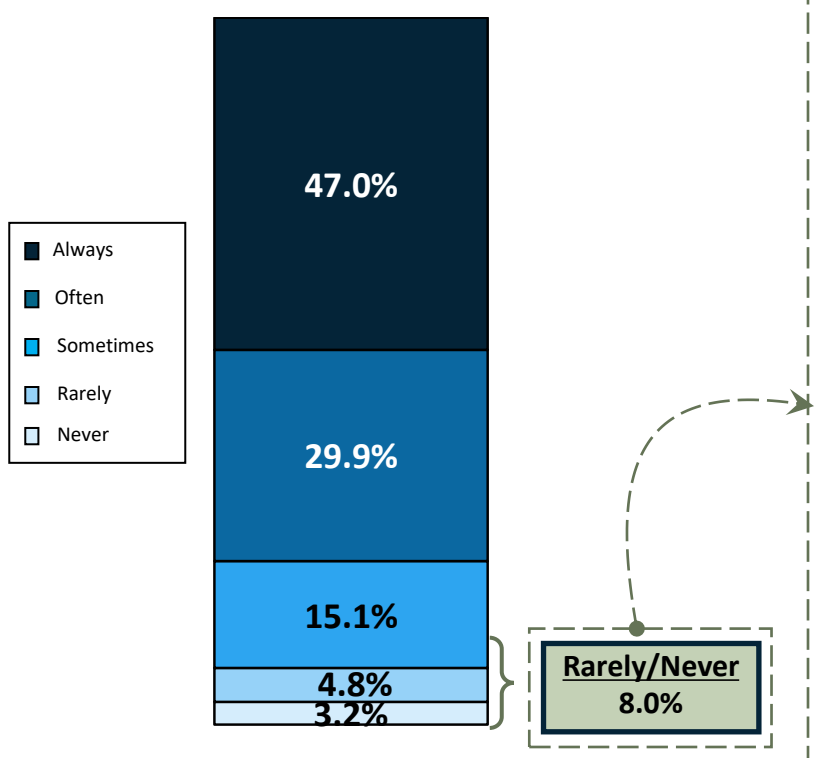
# Resiliency and Social Support



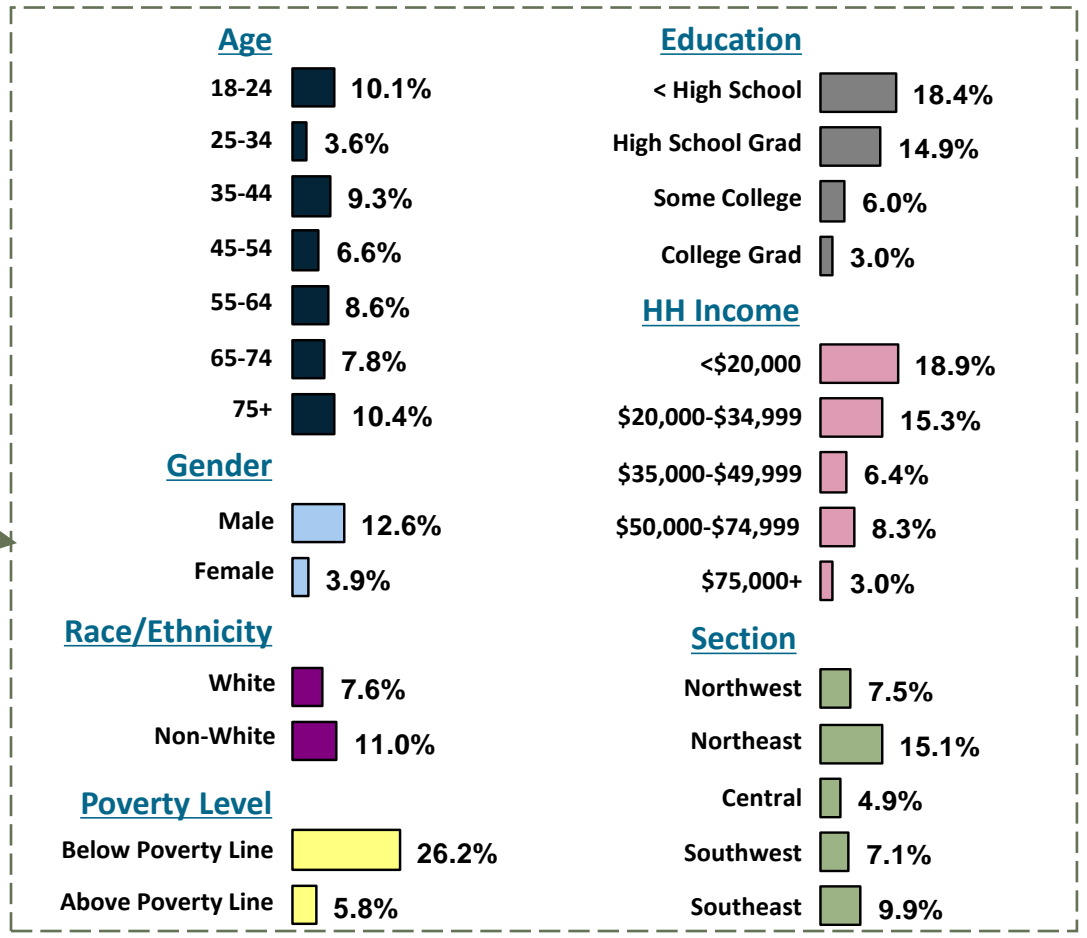
# Social and Emotional Support

- Three-fourths (76.9%) of Ottawa County adults receive the social and emotional support they need often or all the time, while 8.0% rarely or never receive it.
  - ❖ Adults most likely to lack needed social and emotional support have less than a college education and/or have lower incomes
  - ❖ Men are more likely to report a lack of needed social and emotional support than women

## Frequency of Needed Social and Emotional Support (Total Sample)



## Rarely/Never Get Needed Support by Demographics





# Social and Emotional Support (Continued)

- Receiving needed social and emotional support clearly has an impact on outcomes; adults who report receiving needed social and emotional support “often” or “always” are far less likely to experience negative outcomes compared to adults who receive social and emotional support less often.

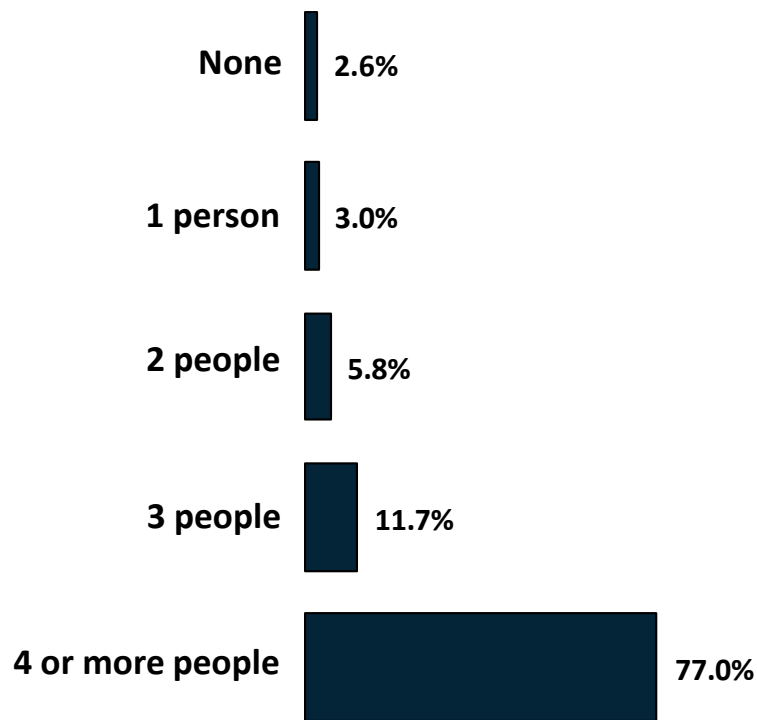
	Frequency of Needed Social and Emotional Support	
	Always/Often	Sometimes/Rarely/Never
Health status fair/poor	9.2%	24.0%
Poor physical health	6.7%	18.4%
Poor mental health	9.5%	35.7%
Activity limitation	5.2%	13.8%
Anxiety	20.1%	33.1%
Depression	18.3%	34.9%
Suffer from chronic pain	29.0%	44.4%
Marijuana use (past 30 days)	11.9%	21.0%
Current smoker	12.1%	20.0%
Obesity	32.7%	40.7%
Mild to severe mental illness (Kessler 6)	11.5%	47.6%
Suicidal thoughts	2.7%	12.4%



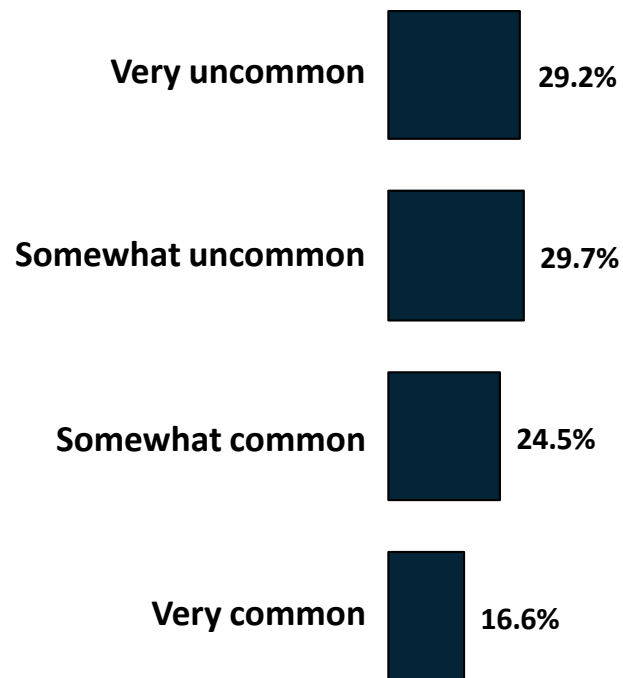
# Social and Emotional Support (Continued)

- Three-fourths of Ottawa County adults report they can rely on four or more people if they needed practical help such as picking up groceries, talking about problems, or providing care.
- Further, they rely on this core group: almost six in ten (58.9%) say it would be uncommon for them to reach outside this circle of people to receive practical help or social and emotional support.

**Number of People Can Count on for Practical Help**



**Commonness of Reaching Outside Circle of Family and Friends to Receive Help or Support**



Q9.2: How many people could you count on to come help you if you called for practical help, like someone to pick up groceries, talk to about a problem, or provide you or a household member with care? (n=1,197)

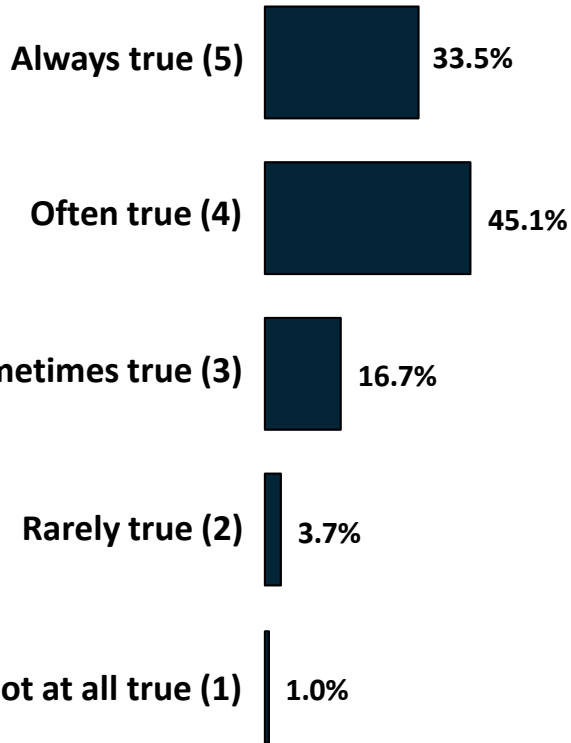
Q9.3: Think about people you rely on for help and support. How common is it for you to reach outside this circle of people to give or receive practical help or social and emotional support? (n=1,174)



# Resiliency

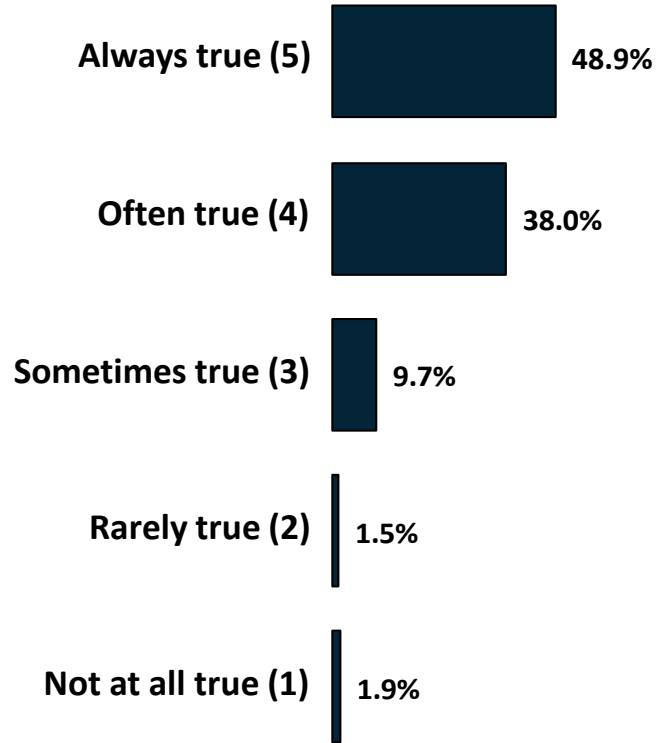
- The two item Connor-Davidson Resiliency Scale (CD-RISC-2) was used to measure “adaptability” and “bounce-back.”
- The vast majority of area adults see themselves as being able to adapt when change occurs and being able to bounce back after illness, injury, or other hardships.

## “You Are Able To Adapt When Change Occurs”



Mean = 4.1

## “You Tend To Bounce Back After Illness, Injury Or Other Hardships”



Mean = 4.3

Total Resiliency	
10	25.8%
9	22.2%
8	30.5%
7	9.5%
6	9.7%
5	2.1%
4	0.2%
3	0.0%
2	0.0%

Mean = 6.4

Q9.4: Next, I am going to read you two statements and I want you to tell me how accurate the statements are using the scale I will provide you. The first statement is.... (n=1,187)

Q9.5: The second statement is.... (n=1,185)





# Resiliency (Continued)

- Resiliency is a useful tool for studying people who have endured adverse events in life.
- When focusing on Ottawa County adults who report 4+ ACEs, it is clear that being resilient allows some people to avoid negative outcomes in adult life.
- The table to the right shows several negative outcomes and compares the resiliency scores of people who experienced the negative outcome with people who did not experience the outcome.
- Those who did not experience the negative outcome in adulthood had significantly higher resiliency scores – meaning they were more resilient and were better able to adapt and bounce back – than those who did experience the negative outcome in adulthood.
- In sum, adults who possess the resilient qualities of being able to adapt and bounce back are less likely to experience negative outcomes later in life despite enduring adverse experiences in childhood.

	Mean Resiliency Scores of Respondents with 4+ ACEs		
	No	Yes	p-value*
Health status fair/poor	6.14	5.74	.000
Poor physical health	6.10	5.67	.000
Poor mental health	6.28	5.53	.000
Activity limitation	6.12	5.56	.000
Anxiety	6.24	5.81	.000
Depression	6.27	5.79	.000
Current smoker	6.22	5.52	.000
Heavy drinker	6.10	5.57	.000
Binge drinker	6.13	5.76	.000
Obesity	6.17	5.88	.000
Mild to severe mental illness (Kessler 6)	6.32	5.65	.000
Suicidal thoughts	6.18	5.24	.000
Suicide attempts (among those who thought about suicide)	5.30	4.76	.002

\*Among respondents who reported 4+ ACEs, independent sample t-tests were used to compare the resiliency between those who experienced a negative outcome in adulthood with those who did not. P values lower than .05 are considered to be statistically significant.

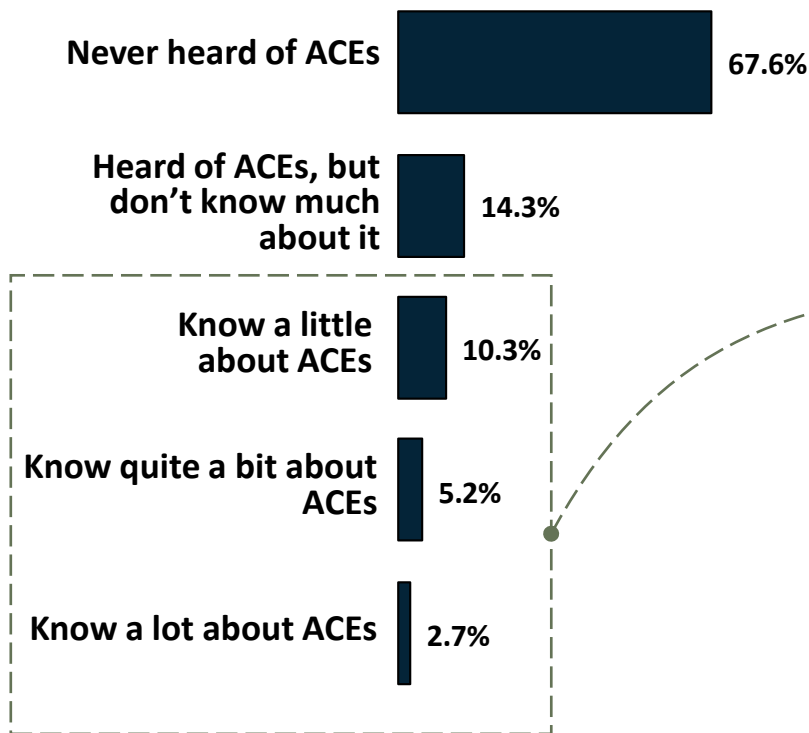
# Adverse Childhood Experiences



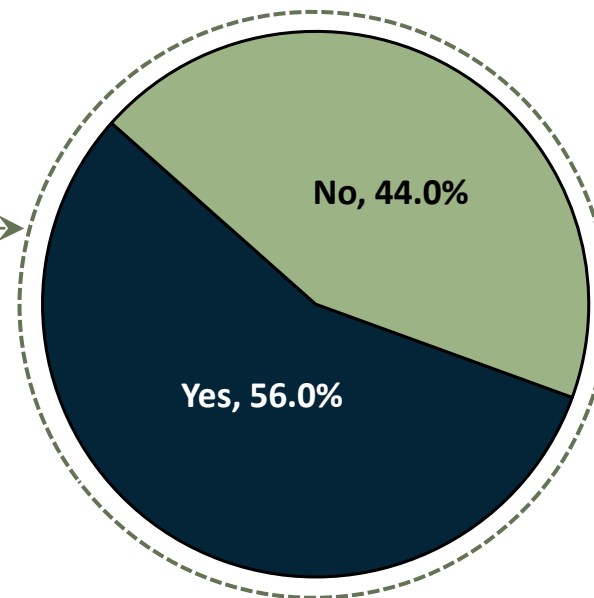
# Familiarity and Application of ACEs

- Two-thirds (67.6%) of Ottawa County adults have never heard of ACEs or the ACEs study, while 18.2% know at least a little about ACEs.
- Of those who know at least a little, more than half (56.0%) apply findings or information from the ACEs study to their life or work.

## Familiarity with ACEs



## Application of ACEs to Life or Work



Q1.2: There is a large public health study about how experiences during childhood affects life-long health. When these are negative, they are known as Adverse Childhood Experiences or ACEs for short. How familiar are you with the term ACEs? Would you say...? (n=1,185)

Q1.3: (ASK IF 1.2=3-5) Do you apply findings from the ACEs study to your life or work? (n=201)



# Adverse Childhood Experiences (All 11 Items)

- Four in ten (40.2%) Ottawa County adults report living with parents who insulted them or put them down and one in five (21.9%) say they were physically hurt by a parent.
- Roughly one in four adults report living with household challenges such as mental illness, alcoholism, and/or separation or divorce.

ACE Questions	Percent of Adults With Each ACE in Ottawa County
How often did a parent or adult in your home ever swear at you, insult you, or put you down? (n=1,183)	<b>40.2%</b>
Before age 18, how often did a parent or adult in your home ever hit, beat, kick, or physically hurt you in any way? Do not include spanking. Would you say... (n=1,191)	<b>21.9%</b>
How often did anyone at least five years older than you or an adult, ever touch you sexually? (n=1,186)	<b>11.7%</b>
How often did anyone at least five years older than you or an adult, try to make you touch them sexually? (n=1,186)	<b>8.4%</b>
How often did anyone at least five years older than you or an adult, force you to have sex? (n=1,185)	<b>3.8%</b>
Did you live with anyone who was depressed, mentally ill, or suicidal? (n=1,188)	<b>28.1%</b>
Did you live with anyone who was a problem drinker or alcoholic? (n=1,196)	<b>23.9%</b>
Were your parents separated or divorced? (n=1,195)	<b>23.7%</b>
How often did your parents or adults in your home ever slap, hit, kick, punch, or beat each other up? (n=1,184)	<b>17.6%</b>
Did you live with anyone who used illegal street drugs or abused prescription medication? (n=1,188)	<b>14.6%</b>
Did you live with anyone who served time, or was sentenced to serve time, in prison, jail, or other correctional facility? (n=1,193)	<b>10.6%</b>

ABUSE

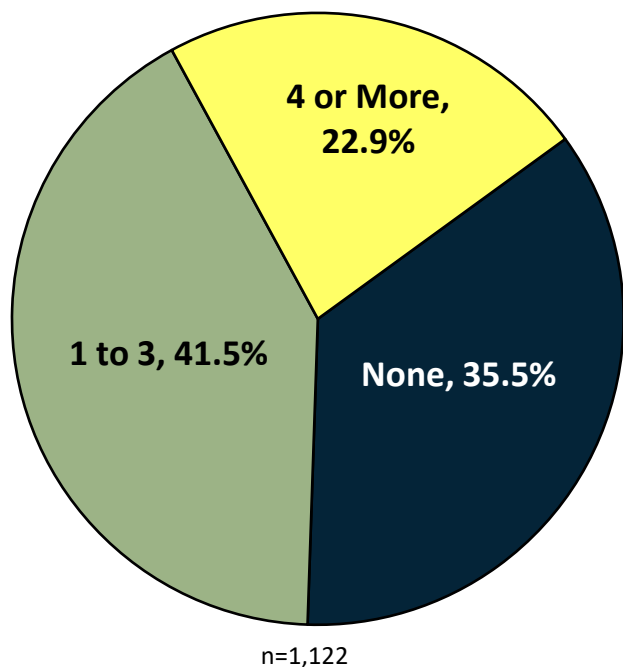
HOUSEHOLD CHALLENGES



# Adverse Childhood Experiences (Continued)

- Almost two-thirds (64.5%) of Ottawa County adults have experienced at least one adverse childhood event, and 22.9% have experienced four or more.
- There is a direct and linear relationship between the number of ACEs one experiences and negative outcomes later in life.
- Particularly noticeable is the impact ACEs have on adult mental health.

**Number of Adverse Childhood Events**



	Number of ACEs		
	None	1-3	4 or More
Health status fair/poor	8.0%	12.0%	22.9%
Poor physical health	5.1%	9.0%	15.7%
Poor mental health	5.7%	15.2%	29.3%
Activity limitation	3.2%	6.1%	13.8%
Anxiety	9.4%	25.1%	41.2%
Depression	8.5%	20.6%	44.5%
Suffer from chronic pain	25.3%	31.9%	43.3%
Marijuana use (past 30 days)	4.2%	17.9%	19.2%
Current smoker	8.4%	14.5%	23.8%
Heavy drinker	8.0%	7.4%	8.8%
Binge drinker	13.4%	17.4%	21.1%
Obesity	29.0%	36.9%	39.7%
Mild to severe mental illness (Kessler 6)	6.6%	17.9%	39.6%
Suicidal thoughts	0.5%	4.1%	13.6%



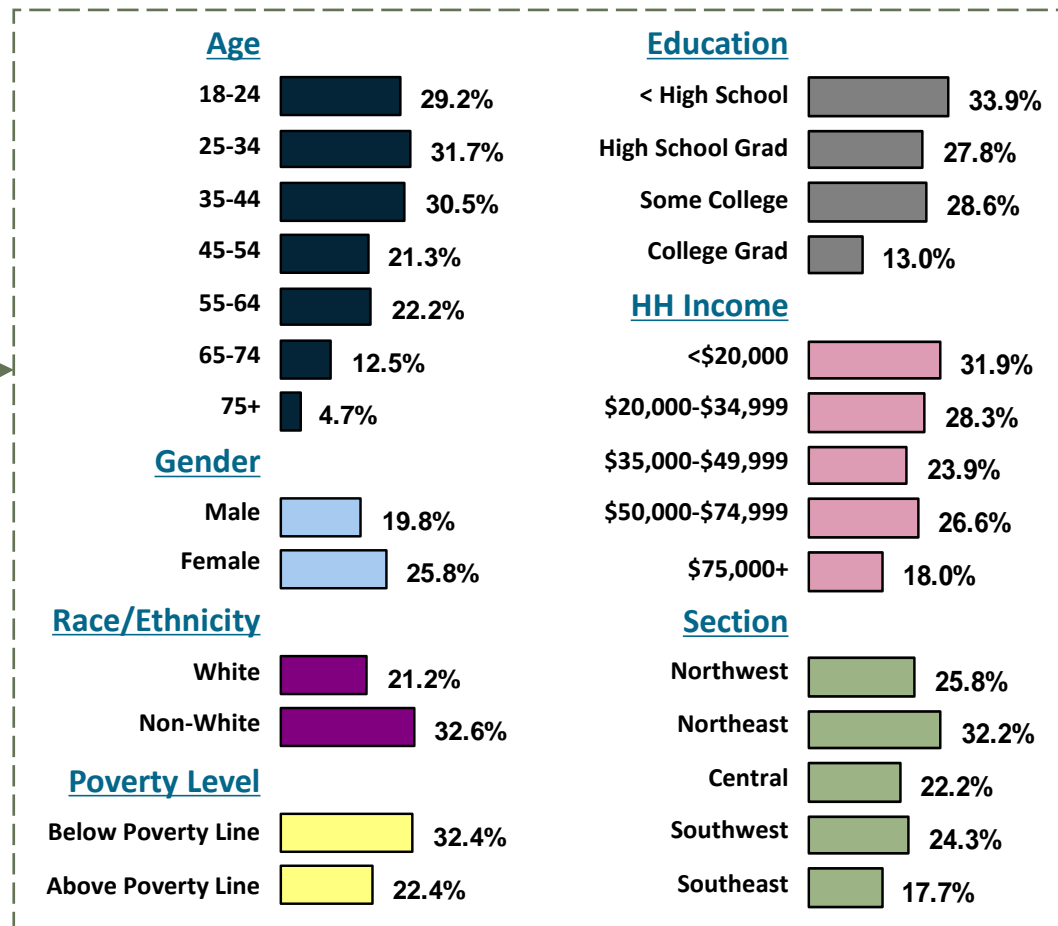
# Prevalence of 4+ ACEs

- Adults reporting four or more adverse childhood experiences tend to be under age 65 (especially under age 45), have less than a college degree, and/or have incomes below \$75,000.
- Women and non-White adults are more likely to report four or more ACEs than men and White adults, respectively.

## 4 or More Adverse Childhood Experiences\* (Total Sample)

22.9%

## 4 or More ACEs by Demographics



\*Among all adults, the proportion who reported ever experiencing four or more of the eleven adverse childhood experiences by age 18.

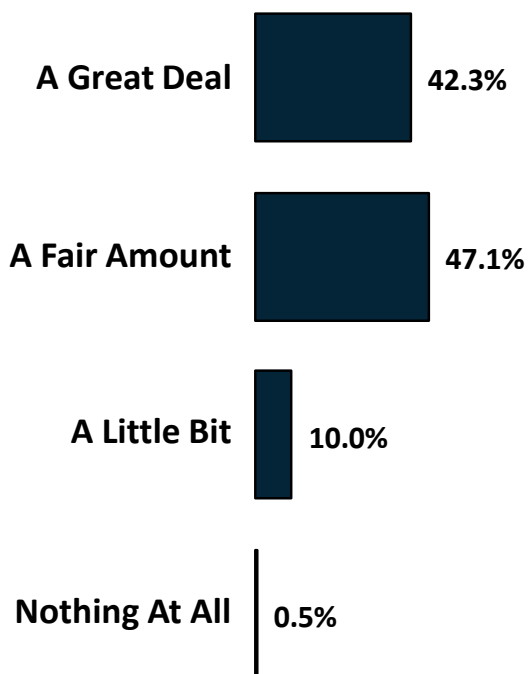
# Coronavirus (COVID-19)



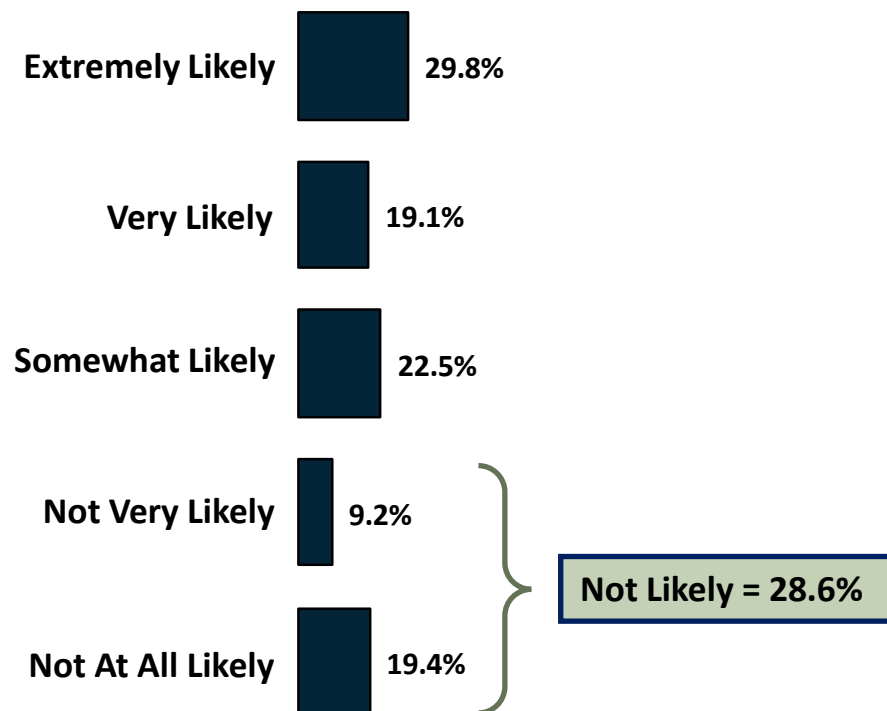
# Knowledge of COVID-19 and Likelihood to Get Vaccine

- Nine in ten (89.4%) Ottawa County adults report they understand a fair amount or a great deal about the coronavirus.
- There is less certainty on their likelihood to get a vaccine for the coronavirus if one were available; more than one-fourth (28.6%) say they would be unlikely to get it.

## Knowledge of Coronavirus



## Likelihood to Get Vaccine if it Were Available



Q22.1: How much do you understand about the coronavirus? Would you say you understand...? (n=1,191)

Q16.3: If a vaccine were currently available for the coronavirus (COVID-19) how likely would you be to get the vaccine? Would you say...? (n=1,164)





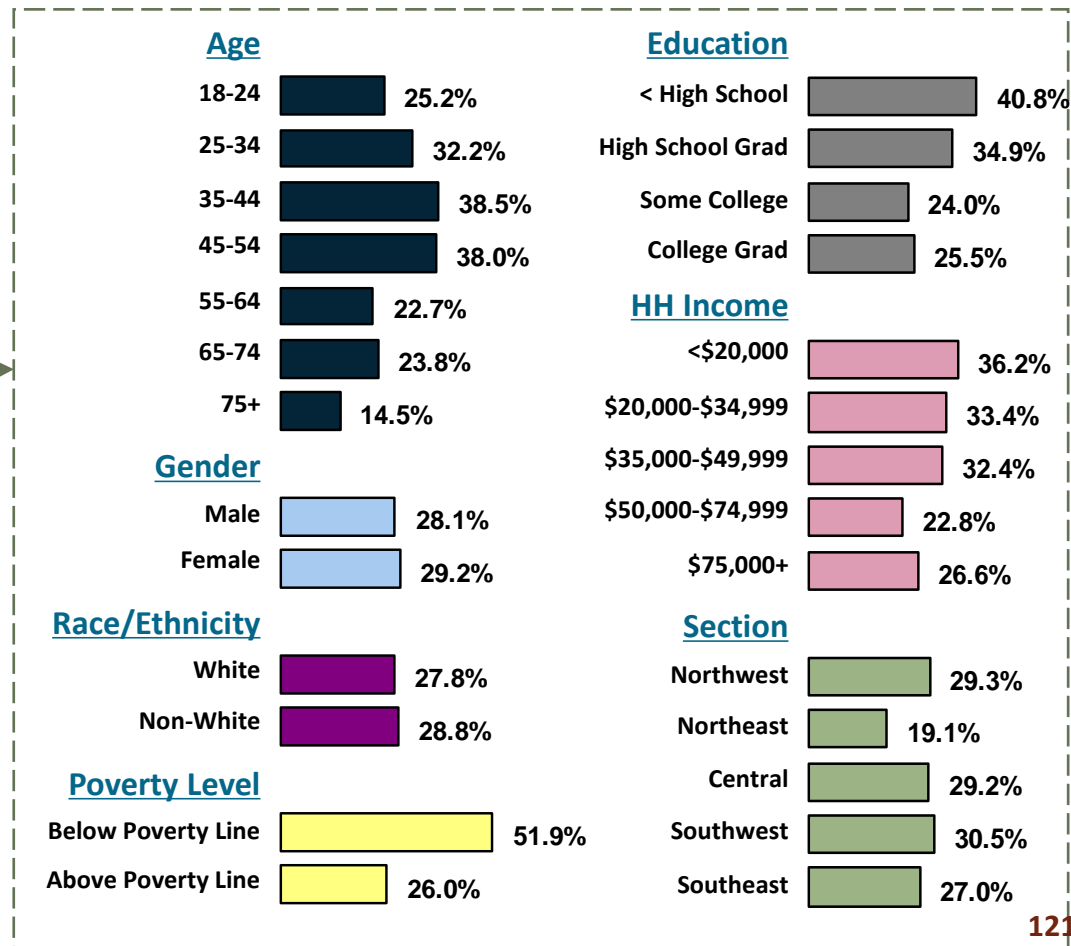
# Likelihood to Get COVID-19 Vaccine

- The likelihood of not getting the coronavirus vaccine is inversely related to education and income: adults with less than a college education and/or with incomes less than \$50,000 are less likely to get the vaccine compared to adults with more education or higher incomes, respectively.
  - ❖ Adults living below the poverty line are twice as likely to report they won't get the vaccine vs. adults above the poverty line
  - ❖ Adults between the ages of 25-54 are also less likely to get the COVID vaccine than adults who are younger or older

## Not At All/Not Very Likely to Get COVID-19 Vaccine (Total Sample)

28.6%

## Not At All/Not Very Likely to Get Vaccine by Demographics



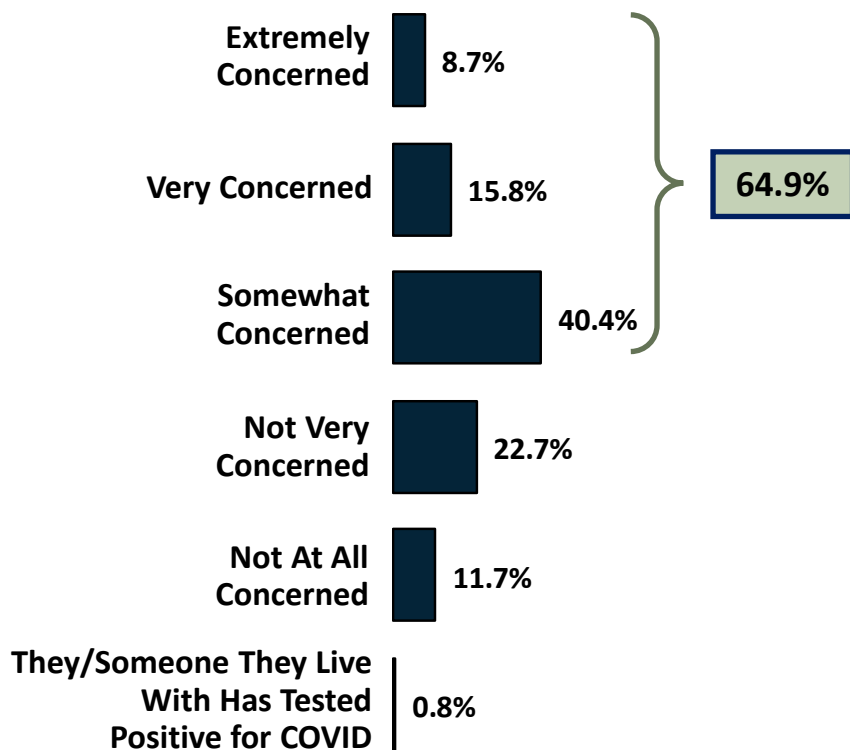
\*Among all adults, the proportion who reported they were "not at all likely" or "not very likely" to get the vaccine for coronavirus if it were available.



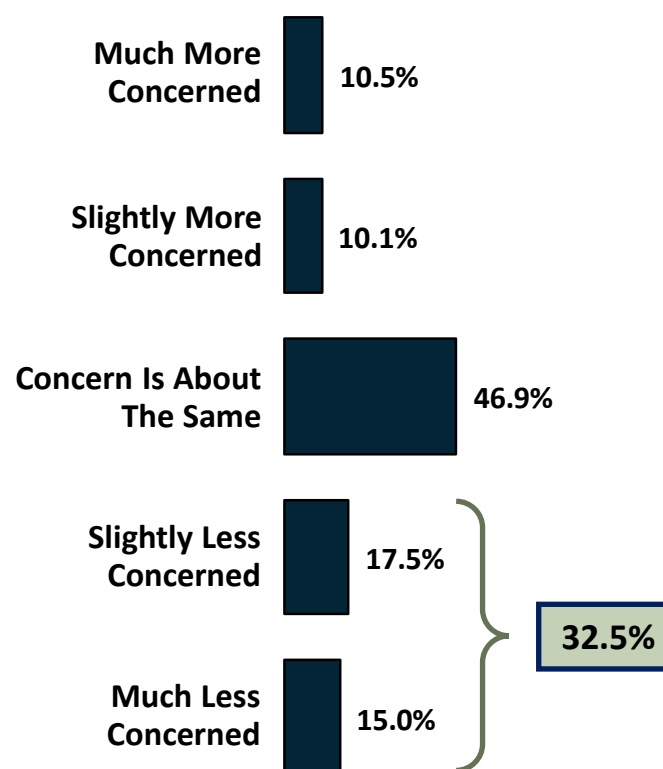
# Concern About COVID-19

- At the time of this survey, nearly two-thirds (64.9%) of Ottawa County adults were at least somewhat concerned about getting, or being exposed to, the coronavirus.
- Their concern did not change much from the beginning of the pandemic, and in fact only one-third (32.5%) were less concerned five to six months after the pandemic began.

## Concern About COVID Exposure



## Change in Concern About COVID Exposure



Q22.2: How concerned are you, that you or someone you live with, will get the coronavirus? Would you say you are...? (n=1,191)

Q22.3: How has your concern about possibly getting the coronavirus changed since the pandemic first began, if at all? Would you say you are...? (n=1,172)



# Concern About COVID-19 (Continued)

- Over time, Ottawa County adults' concern with getting the coronavirus did not shift much differently from their original perceptions of the virus:
  - ❖ The vast majority of adults who reported they were not very or not at all concerned about getting the virus at the time of the survey said their concern was the same or had lessened over time
  - ❖ Conversely, the vast majority of adults who reported they were very or extremely concerned about getting the virus at the time of the survey said their concern was the same or had grown since the beginning of the pandemic

Concern About Getting or Being Exposed to Coronavirus					
<i>Change In Concern From Beginning of Pandemic</i>	Not At All Concerned	Not Very Concerned	Somewhat Concerned	Very Concerned	Extremely Concerned
Much Less Concerned	54.9%	28.0%	4.1%	2.1%	2.8%
Slightly Less Concerned	5.5%	21.8%	25.6%	6.4%	4.8%
Concern Is About The Same	38.1%	43.4%	48.7%	53.4%	46.7%
Slightly More Concerned	1.4%	6.6%	15.8%	9.2%	7.0%
Much More Concerned	0.2%	0.2%	5.8%	28.9%	38.7%

Q22.2: How concerned are you, that you or someone you live with, will get the coronavirus? Would you say you are...? (n=1,191)

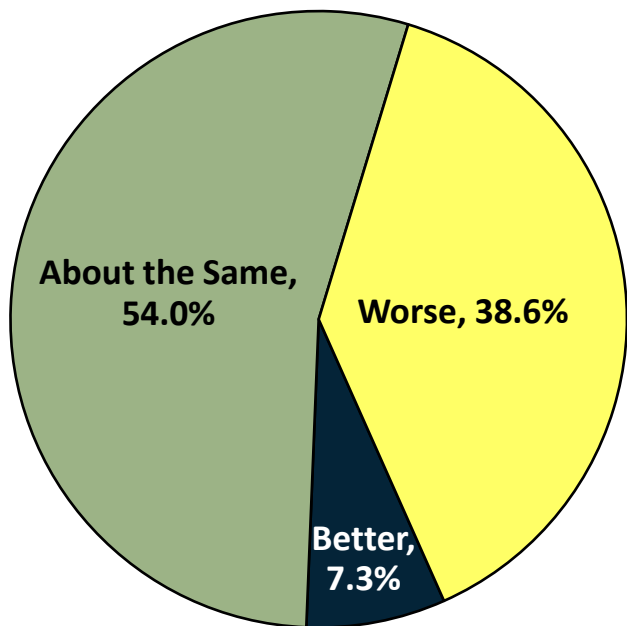
Q22.3: How has your concern about possibly getting the coronavirus changed since the pandemic first began, if at all? Would you say you are...? (n=1,172)



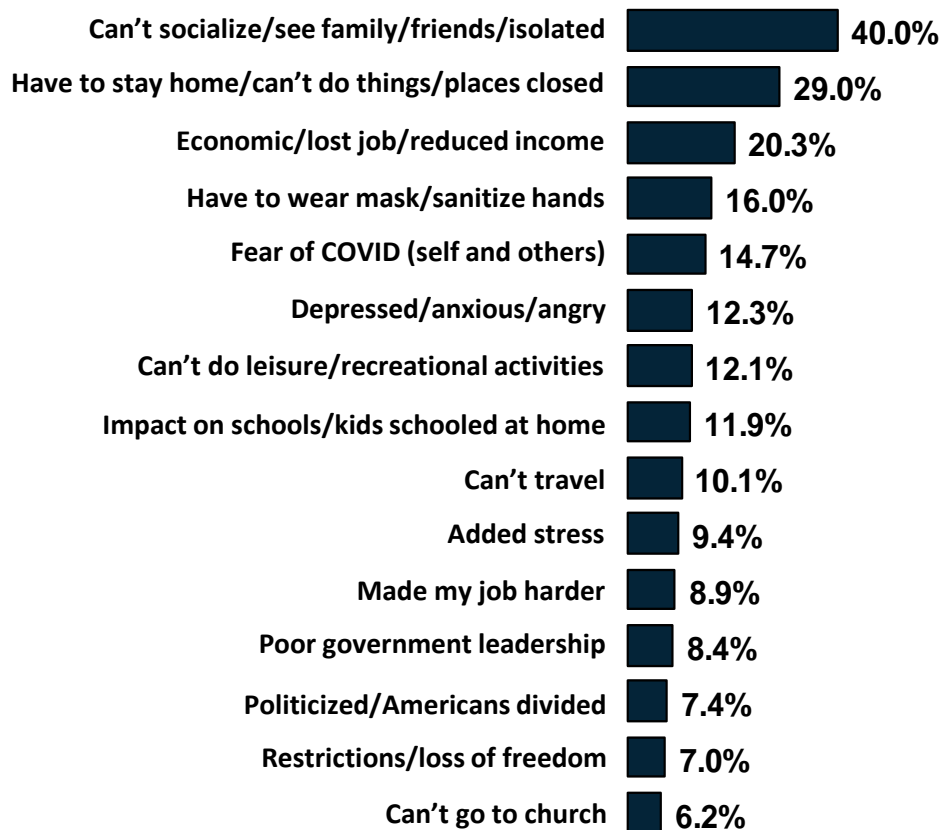
# Life Changes During COVID-19 Pandemic

- Roughly half (54.%) of area adults say their lives are about the same now as they were pre-COVID pandemic, while over one-third (38.3%) say their lives are worse.
  - ❖ There are myriad reasons provided for why the pandemic has made their lives worse, but most often cited are aspects revolving around social isolation and the inability to see people and do the things they used to do, while 20.3% mention economic or financial reasons

## Life Change During COVID-19 Pandemic



## Top Reasons COVID-19 Made Life Worse



Q22.4: Lastly, I want to ask you how your life has changed since the coronavirus (COVID-19) pandemic, or outbreak, began in early March. How would you compare your life overall now with how your life was before the coronavirus pandemic started? Would you say that overall, your life now is better, worse, or about the same as it was before the coronavirus pandemic began? (n=1,168)

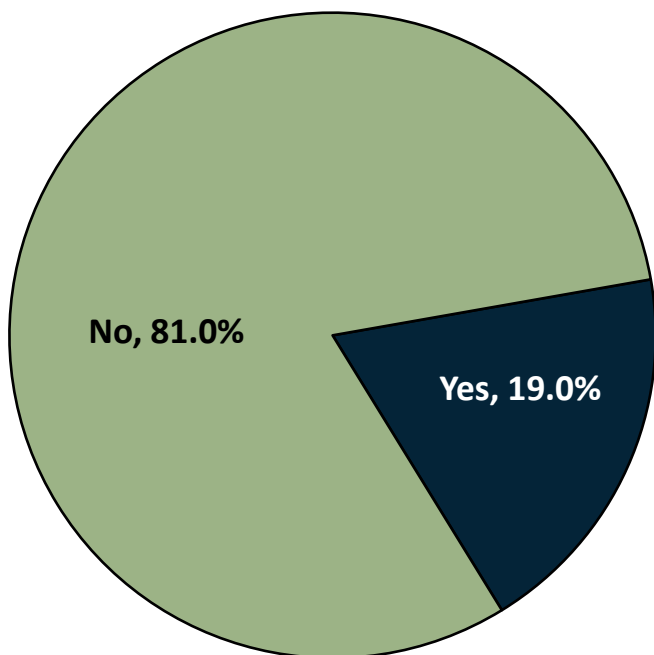
Q22.5: Why do you say that? Please be as detailed as possible. (n=491)



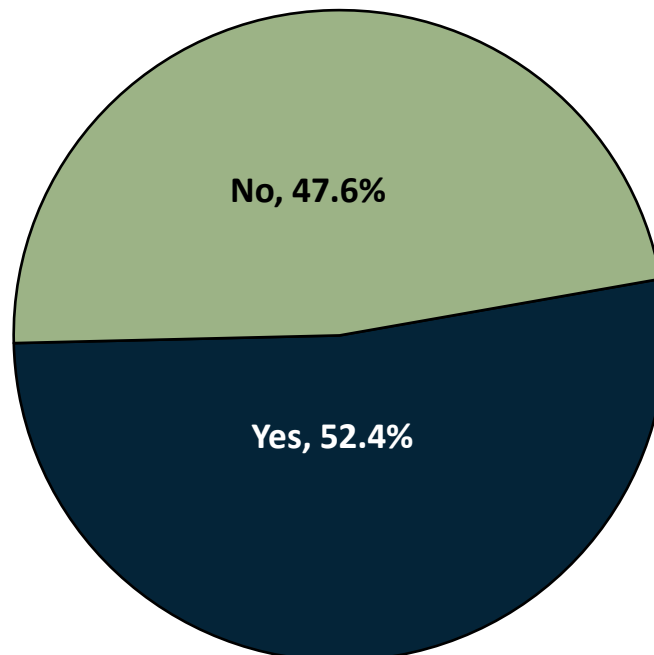
# Impact of COVID-19 on Physical and Mental Health

- Among Ottawa County adults with at least one day of poor physical health in the past month, 19.0% say their poor physical health is related to the COVID-19 pandemic.
- Among area adults with at least one day of poor mental health, over half (52.4%) say their poor mental health is due to the COVID-19 pandemic.

**Poor Physical Health Related to COVID-19 Pandemic**



**Poor Mental Health Related to COVID-19 Pandemic**



Q2.5: (ASK IF 2.2=1-30) Thinking about the days in the past month when your physical health was not good, do you think it was at all related to the COVID-19, or coronavirus, pandemic? (n=331)

Q2.6: (ASK IF 2.3=1-30) Thinking about the days in the past month when your mental health was not good, do you think it was at all related to the COVID-19, or coronavirus, pandemic? (n=470)

# APPENDIX

# Respondent Profile

# Gender, Age, Race/Ethnicity and Section of Residence

	TOTAL	A. Northwest	B. Northeast	C. Central	D. Southeast	D. Southwest
<b>Gender</b>	(n=1200)	(n=303)	(n=33)	(n=92)	(n=154)	(n=618)
Male	47.5%	47.6%	55.0%	43.4%	43.4%	50.7%
Female	52.5%	52.4%	45.0%	56.6%	56.6%	49.3%
<b>Age</b>	(n=1200)	(n=303)	(n=33)	(n=92)	(n=154)	(n=618)
18 to 24	15.9%	12.4%	0.0%	8.3%	19.0%	20.6%
25 to 34	13.2%	14.4%	7.3%	14.5%	8.4%	16.1%
35 to 44	14.9%	9.8%	15.4%	17.8%	10.5%	19.1%
45 to 54	16.4%	17.5%	24.0%	16.0%	14.7%	16.0%
55 to 64	17.8%	21.9%	18.5%	22.4%	20.3%	12.5%
65 to 74	12.9%	14.0%	22.6%	14.4%	15.1%	9.0%
75 or Older	8.8%	10.1%	12.1%	6.6%	11.9%	6.6%
<b>Race/Ethnicity</b>	(n=1175)	(n=296)	(n=32)	(n=91)	(n=153)	(n=603)
White, non-Hispanic	84.4%	88.4%	94.2%	83.4%	93.5%	75.4%
Other, non-Hispanic	6.0%	5.4%	0.0%	13.7%	0.0%	8.2%
Hispanic	9.6%	6.2%	5.8%	2.9%	6.5%	16.4%
<b>Section of Ottawa County</b>	(n=1200)	(n=303)	(n=33)	(n=92)	(n=154)	(n=618)
Northwest	17.9%	100%				
Northeast	5.5%		100%			
Central	14.0%			100%		
Southeast	24.9%				100%	
Southwest	37.7%					100%



# Marital Status and Number of Household Members

	TOTAL	A. Northwest	B. Northeast	C. Central	D. Southeast	D. Southwest
<b>Marital Status</b>	<b>(n=1194)</b>	<b>(n=301)</b>	<b>(n=33)</b>	<b>(n=92)</b>	<b>(n=154)</b>	<b>(n=614)</b>
Married	60.2%	60.0%	79.9%	73.7%	59.8%	52.5%
Divorced	6.9%	6.1%	4.9%	1.8%	5.6%	10.3%
Widowed	4.9%	8.4%	8.3%	3.4%	4.2%	3.9%
Separated	1.2%	0.2%	2.6%	2.0%	1.2%	1.1%
Never married	24.0%	24.5%	4.3%	19.0%	25.6%	27.4%
A member of an unmarried couple	2.9%	0.8%	0.0%	0.0%	3.7%	4.9%
<b>Number of Children Less Than Age 18 At Home</b>	<b>(n=1198)</b>	<b>(n=302)</b>	<b>(n=33)</b>	<b>(n=92)</b>	<b>(n=154)</b>	<b>(n=617)</b>
None	61.8%	58.4%	90.3%	72.1%	63.0%	54.6%
One	14.6%	13.6%	1.2%	13.8%	11.4%	19.4%
Two	14.4%	18.4%	0.0%	7.4%	17.1%	15.4%
Three or more	9.2%	9.6%	8.5%	6.7%	8.5%	10.6%
<b>Number of Adults and Children in Household</b>	<b>(n=1198)</b>	<b>(n=302)</b>	<b>(n=33)</b>	<b>(n=92)</b>	<b>(n=154)</b>	<b>(n=617)</b>
One	9.9%	36.4%	57.2%	37.6%	20.7%	37.3%
Two	31.9%	24.8%	34.4%	41.0%	29.3%	23.3%
Three	16.9%	15.2%	0.0%	9.1%	16.3%	18.6%
Four	18.1%	11.9%	8.4%	8.6%	8.3%	12.5%
Five	16.8%	8.4%	0.0%	3.7%	25.1%	5.6%
More than five	6.3%	3.2%	0.0%	0.0%	0.2%	2.8%

# Education and Employment Status

	TOTAL	A. Northwest	B. Northeast	C. Central	D. Southeast	D. Southwest
<b>Education</b>	<b>(n=1198)</b>	<b>(n=303)</b>	<b>(n=33)</b>	<b>(n=92)</b>	<b>(n=154)</b>	<b>(n=616)</b>
Never attended school, or only Kindergarten	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grades 1-8 (Elementary)	1.3%	0.7%	2.2%	1.9%	0.0%	2.1%
Grades 9-11 (Some high school)	5.2%	2.8%	8.2%	5.7%	0.9%	8.4%
Grade 12 or GED (High school graduate)	27.3%	25.3%	40.6%	20.1%	29.7%	27.4%
College 1 year to 3 years (Some college)	29.4%	28.2%	27.2%	33.0%	30.2%	28.3%
College 4 years or more (College graduate)	36.9%	43.1%	21.8%	39.4%	39.2%	33.7%
<b>Employment Status</b>	<b>(n=1198)</b>	<b>(n=302)</b>	<b>(n=33)</b>	<b>(n=92)</b>	<b>(n=154)</b>	<b>(n=617)</b>
Employed for wages	49.2%	43.0%	39.5%	50.6%	48.0%	53.9%
Self-employed	7.3%	5.4%	13.2%	9.6%	4.9%	8.1%
Out of work for a year or more	2.1%	1.8%	0.0%	0.4%	4.6%	1.4%
Out of work for less than a year	6.2%	5.4%	4.5%	10.2%	5.2%	6.0%
A homemaker	5.7%	3.5%	6.5%	8.7%	5.2%	6.0%
A student	3.7%	7.0%	0.0%	0.0%	1.7%	5.4%
Retired	20.3%	26.0%	31.7%	16.4%	25.6%	13.9%
Unable to work	5.5%	7.8%	4.5%	4.1%	4.9%	5.4%

# Household Income, Poverty Status, Home Ownership, and Gender Identifier

	TOTAL	A. Northwest	B. Northeast	C. Central	D. Southeast	D. Southwest
<b>Household Income</b>	(n=1119)	(n=288)	(n=30)	(n=83)	(n=145)	(n=573)
Less than \$10,000	1.7%	1.5%	0.0%	0.8%	1.3%	2.5%
\$10,000 to less than \$15,000	1.4%	0.3%	2.8%	2.4%	0.0%	2.4%
\$15,000 to less than \$20,000	3.8%	4.3%	11.0%	0.8%	1.6%	5.3%
\$20,000 to less than \$25,000	6.8%	5.1%	4.0%	2.4%	12.7%	5.5%
\$25,000 to less than \$35,000	10.7%	12.7%	5.2%	11.6%	10.4%	10.3%
\$35,000 to less than \$50,000	14.4%	17.1%	19.2%	15.7%	9.5%	15.3%
\$50,000 to less than \$75,000	20.5%	18.9%	11.8%	24.7%	23.6%	18.8%
\$75,000 or more	40.7%	40.1%	45.9%	41.8%	40.9%	39.9%
<b>Poverty Status</b>	(n=1117)	(n=287)	(n=30)	(n=83)	(n=145)	(n=572)
Income under poverty line	9.6%	5.9%	8.2%	3.5%	10.0%	8.6%
Income over poverty line	90.4%	94.1%	91.8%	96.5%	90.0%	91.4%
<b>Home Ownership</b>	(n=1189)	(n=300)	(n=32)	(n=92)	(n=153)	(n=612)
Own	80.9%	81.1%	83.9%	88.4%	77.8%	79.5%
Rent	13.4%	14.0%	16.1%	5.9%	13.2%	15.6%
Other Arrangement	5.8%	4.9%	0.0%	5.7%	9.0%	4.8%
<b>Transgender</b>	(n=1177)					
Transgender, male to female	0.4%	1.0%	0.0%	0.0%	0.0%	0.5%
Transgender, female to male	0.5%	0.0%	0.0%	0.0%	0.0%	1.2%
Transgender, gender nonconforming	0.2%	0.0%	0.0%	0.0%	0.1%	0.4%
Not transgender	99.0%	99.0%	100.0%	100.0%	99.9%	97.8%