



Spectrum Health Zeeland Community Hospital

Community Health Needs Assessment



**Spectrum
Health**

Community Health Needs Assessment for:

Zeeland Community Hospital d/b/a

Spectrum Health Zeeland Community Hospital

Adoption: The Ottawa County 2020 Community Health Needs Assessment was adopted by the Spectrum Health West Michigan Board on August 17, 2021.

About Us

Spectrum Health System, a not-for-profit, integrated health system, is committed to improving the health and wellness of our communities. We live our mission every day with 31,000 compassionate professionals, 4,600 medical staff experts, 3,300 committed volunteers and a health plan serving more than 1 million members. Our talented physicians and caregivers are privileged to offer a full continuum of care and wellness services to our communities through 14 hospitals, including Helen DeVos Children's Hospital, 150 ambulatory sites and telehealth offerings. We pursue health care solutions for today and tomorrow that diversify our offerings. Locally-governed and based in Grand Rapids, Michigan, our health system provided \$550 million in community benefit in calendar year 2019. Thanks to the generosity of our communities, we received \$37 million in philanthropy to support research, academics, innovation and clinical care. Spectrum Health has been recognized as one of the nation's 15 Top Health Systems by Truven Health Analytics®, part of IBM Watson Health™.

Evaluation of Impact of Actions Taken to Address Needs in Previous Community Health Needs Assessment: Exhibit A

Attached in Exhibit A is an evaluation of the impact of any actions that were taken, since the hospital facility finished conducting its immediately preceding Community Health Needs Assessment, to address the significant health needs identified in the hospital facility's prior Community Health Needs Assessment.

Ottawa County 2020 Community Health Needs Assessment Report: Exhibit B

The focus of this Community Health Needs Assessment is to identify the community needs as they exist during the assessment period (2019-2020), understanding fully that they will be continually changing in the months and years to come. For the purposes of this assessment, "community" is defined as the county in which the hospital facility is located, Ottawa County. This definition of community based upon county lines, is similar to the market definition of Primary Service Area.

Spectrum Health Zeeland Community Hospital, along with Ottawa County Department of Public Health, Community Mental Health of Ottawa County, Holland Hospital, North Ottawa Community Health System, Community SPOKE, and the Greater Ottawa County United Way, comprise the Healthy Ottawa County Advisory Council and collaborate to improve health outcomes for individuals in Ottawa County. This collaborative process of collecting health data ensures all partners are informed and involved in decision making related to the process and share in the cost of producing the Community Health Needs Assessment.

The information contained in this report is current as of the date of the Community Health Needs Assessment, with updates to the assessment anticipated every three (3) years in accordance with the Patient Protection and Affordable Care Act and Internal Revenue Code 501(r). This Community Health Needs Assessment complies with the requirements of the Internal Revenue Code 501(r) regulations either implicitly or explicitly.

2020 Behavioral Risk Factor Survey Ottawa County: Exhibit C

The Behavioral Risk Factor Survey findings are integrated in the Ottawa County 2020 Community Health Needs Assessment in aggregate. To transparently share the detailed results and the needs of the community, the 2020 Behavioral Risk Factor Survey findings are included as Exhibit B in the present report.

Exhibit A

Spectrum Health Zeeland Community Hospital **2021 Implementation Strategy Impact Report**



**Spectrum
Health**

Spectrum Health Zeeland Community Hospital Previous Implementation Strategy Impact

This report identifies the impact of actions taken in 2021 to address the significant health needs in the Implementation Strategy created based on information from the 2020 Spectrum Health Zeeland Community Hospital's Community Health Needs Assessment ("CHNA"). The Implementation Strategy was shortened from the traditional three-year coverage to one year, beginning January 1, 2021 and ending December 31, 2021. This change was necessary because a change in year-end by the organization, from a fiscal year to a calendar year, would have created a compliance issue if the organization did not take any action until it completed a collaborative Community Health Needs Assessment with other community partners the following year.

The one-year implementation strategy reporting period was narrowed further for this document and only covers January 1, 2021, to May 31, 2021. This is to ensure the governing board approved in compliance with IRS regulations. As a result of the shortened reporting period, actions with an end date after the May 31, 2021, may not have been met by the time this report was developed. Monitoring of all the 2021 Spectrum Health Zeeland Community Hospital's Implementation Strategies will continue in accordance with the identified action date and the organization will use all resources committed towards these goals to accomplish the desired impacts.

COVID-19

On January 9, 2020, the World Health Organization reported a pneumonia afflicting 54 individuals in Wuhan, China. The infections were traced to a new coronavirus, SARS-CoV-2, which quickly swept the globe in a deadly pandemic. A state of emergency was declared in Michigan on March 10th and by March 23rd all residents were ordered to stay home, and all non-essential businesses closed. The pandemic caused by the SARS-CoV-2 virus has resulted in widespread disruption of daily life, particularly for the most vulnerable individuals and families in communities across West Michigan. Many people are out of work or working from home. Schools are providing either onsite learning, virtual learning, or combination of the two. While it is unwise to calculate the full impact of the pandemic at this time, it is safe to assume that the effects will be felt for years to come.

The Spectrum Health System Command Center started planning for COVID-19 in January of 2020, and opened 24 hours, 7 days per week on March 3, 2020, to help our organization coordinate its response to the COVID-19 pandemic. We had no idea what was ahead but trusted in our talented team members who demonstrated courage, compassion, curiosity, and collaboration as they developed and executed the plans that ultimately would guide us, our patients, our partners, and our communities through this health crisis.

Due to mandated restrictions and guidelines put in place to reduce the spread of COVID-19, the timeline for some strategies may have been impacted.

Mental Health

Blue Envelope for Schools Program

Action 1

By December 31, 2021, Spectrum Health Zeeland Community Hospital and Spectrum Health Medical Group will expand the School Blue Envelope Program by one school district over 2020 baseline.

Measurable impact

Expand the School Blue Envelope Program to one additional school district by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, Holland High School (January 2021), Grand River Prep (February 2021), Grand Haven Public (April 2021) and Hamilton Middle and High School (May 2021), implemented the School Blue Envelope Program.

Action 2

By December 31, 2021, because of participating in the Blue Envelope Program for Schools training, 350 school staff will increase their confidence in responding to a student who expresses suicidal thoughts.

Measurable impact

Increased confidence in responding to a student who expresses suicidal thoughts reported by 350 school staff members by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, 31% of school staff participating in the Blue Envelope Program increased their confidence in responding to a student who expresses suicidal thoughts. Collecting individual identifiers on the pre and post survey were not established during this timeframe. Hence, an increased aggregate percentage is being reported rather than the number of individuals. A total of 413 school staff in Ottawa County completed the pre-survey, and 368 completed the post-survey.

24/7 Inpatient Psychiatric Consultative Services

Action

By December 31, 2021, expand psychiatry consultative services for adult patients within Spectrum Health Zeeland Community Hospital through utilization of 24/7 inpatient consultative services..

Measurable impact

By December 31, 2021, expand psychiatry consultative services for adult patients within Spectrum Health Zeeland Community Hospital through utilization of 24/7 inpatient consultative services.

Impact of implementation plan strategy

As of May 31, 2021, psychiatry consultative services for adult patients within Spectrum Health Zeeland Community Hospital was expanded through utilization of 24/7 inpatient consultative services.

Health Care Access

Ottawa Pathways to Better Health Community Health Worker Program

Action

By December 31, 2021, Spectrum Health Zeeland Community Hospital will increase annual referrals made by primary care providers to the Ottawa Pathway to Better Health Community Health Worker Program by 20% over 2020 baseline.

Measurable impact

Increase annual referrals from primary care providers by 20% by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, referrals to Ottawa Pathway to Better Health were increased by 2%. Referral efforts will continue through the end of 2021 to meet this goal by December 31, 2021.

Virtual Technology

Action

By December 31, 2021, Spectrum Health will increase community ability to access information and services via virtual technology. This will be accomplished by successfully advocating for public policy and resource allocation to provide individuals and families living in the Spectrum Health Zeeland service area with reliable, affordable access to information and services delivered via virtual technology.

Measurable impact

Involvement in advocacy efforts at the regional hospital level by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, Spectrum Health Government Relations/Public Policy Section has advocated for expanding broadband access; supporting the growth of telehealth and tele-psychiatry and extending current telehealth flexibilities allowed by Centers for Medicare & Medicaid Services during the pandemic.

COVID-19

Action 1

By December 31, 2021, Spectrum Health will contribute to reducing the number of COVID-19 infections within the community by providing employers, school administrators, and general community with accurate and timely information on preventing the spread of COVID-19.

Measurable impact

Spectrum Health releases timely and accurate information about COVID-19 and its prevention, targeted to a variety of sectors and population by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, there was a total of 35 community emails and 17 virtual conversations related to COVID-19 and its prevention targeting a variety of sectors and populations. Each community email referenced reached appx 2,000 individuals with an average open rate of 28%. Each community conversation averages approximately 4,500 views throughout the system.

Action 2

By December 31, 2021, Spectrum Health will contribute to reducing COVID-19 infections within the community by providing community-based screening and appropriate testing.

Measurable impact

Spectrum Health provides opportunities for COVID-19 testing that is convenient and meets the needs of the community by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, 2,996 COVID-19 screening tests were administered in SH Zeeland Community Hospital.

Substance Use Disorder

Tobacco/Nicotine Cessation Program for Community Members

Action 1

By December 31, 2021, 20 community members will enroll in a tobacco/nicotine cessation program delivered via virtual technology.

Measurable impact

Enroll 20 community members in a tobacco/nicotine cessation program by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, 2 members of the community were enrolled in the Quit 101 tobacco/nicotine cessation program at Spectrum Health Zeeland Community Hospital. Additional promotion is being done to increase awareness of the Quit 101 opportunities

Action 2

By December 31, 2021, 5 participants enrolled in the tobacco/nicotine cessation program will report being tobacco and/ or nicotine free at the end of the program.

Measurable impact

Of those enrolled in a tobacco/nicotine cessation program, 5 will report being tobacco and/or nicotine free at the end of the program by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, none of the community members enrolled in a tobacco/nicotine cessation program reported being tobacco and/or nicotine free. This will continue to be monitored with all class participants from our region.

Action 3

By December 31, 2021, Spectrum Health Zeeland Community Hospital will aid at least one school to implement a minimum of one anti-vaping policy.

Measurable impact

Aid at least one school to implement a minimum of one anti-vaping policy by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, no schools implemented an anti-vaping policy. This will be measured in late fall 2021 in collaboration with the Ottawa Substance Abuse Prevention Coalition and their "My Life My Quit" task force.

Action 4

By December 31, 2021, at least 8 women will enroll in the Smoking Cessation and Reduction in Pregnancy Treatment program.

Measurable impact

Enroll at least 8 women in the Smoking Cessation and Reduction in Pregnancy Treatment program by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, no pregnant women were enrolled in the Smoking Cessation and Reduction in Pregnancy Treatment program. Program implementation has been delayed and is scheduled to kick off in August of 2021.

Opioid Prescribing Guidelines

Action 1

By December 31, 2021 Spectrum Health Medical Group will implement opioid prescribing guidelines that are procedurally/conditionally based.

Measurable impact

Implementation of opioid prescribing guidelines by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, opioid prescribing guidelines were implemented in Spectrum Health Zeeland Community Hospital.

Action 2

By December 31, 2021, Spectrum Health Medical Group will monitor provider scorecards related to prescribing guidelines for opioids on a monthly basis and report findings/recommendations to the appropriate leadership.

Substance Use, continued

Measurable impact

Continuously monitor opioid prescribing provider scorecards by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, providers' opioid prescribing scorecards are continuously monitored at Spectrum Health Zeeland Community Hospital.

Prescriptions for Opioid Alternatives

Action

By December 31, 2021, the "Go Team" will be activated and provide coaching and mentoring to requested Spectrum Health locations 90% of the time.

Measurable impact

The "Go Team" will provide coaching and mentoring to requested Spectrum Health locations 90% of the time by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, the "Go Team" provided coaching and mentoring 100% of the time the 'Go Team's' services were requested.

Substance Use Disorder Treatment

Action 1

By December 31, 2021 Spectrum Health Medical Group Obstetrics and Gynecology will utilize substance use disorders screening to screen 100% of pregnant patients for substance use disorders and refer them to treatment.

Measurable impact

100% of Spectrum Health Medical Group Obstetrics and Gynecology pregnant patients screened for substance use disorder by December 31, 2021.

Impact of implementation plan strategy

As of May 31st, 2021, 10% of Spectrum Health Medical Group Obstetrics and Gynecology pregnant patients at were screened for substance use disorder. The new screening protocol is not yet in place, the new targeted timeline for this screening is expected in September 2021.

Action 2

By December 31, 2021 Spectrum Health Medical Group Obstetrics and Gynecology will utilize substance use disorders screening to screen 100% of pregnant patients for substance use disorders and refer them to treatment.

Measurable impact

100% of Spectrum Health Medical Group Obstetrics and Gynecology pregnancy patients with substance use disorder referred for treatment by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, the Spectrum Health Obstetrics and Gynecology program has not yet instituted universal screening. We expect to have this operational by late fall 2021. Once this screening is in place, we are then able to monitor the number of referrals coming from this screening protocol.

Obesity

Fit and Healthy Families

Action 1

By December 31, 2021, as a result of participating in the Fit and Healthy Families educational series, 12 families will report increased confidence in implementing and sustaining healthy changes

Measurable impact

Increased confidence in implementing and sustaining healthy changes learned in class reported by 12 families by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, the Fit and Healthy Families educational series had not yet been implemented. Hence, no families reported an increased confidence in implementing and sustaining healthy changes learned in class. This outcome will be measured in the summer and fall of 2021, when classes are implemented.

Action 2

By December 31, 2021, as a result of participating in Fit and Healthy Families, 10 families will increase the number of hours per week (on average) they engage in physical activity as a family.

Measurable impact

Increased number of hours per week reported engaging as a family in physical activity among 10 families by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, the Fit and Healthy Families educational series had not yet been implemented. Hence, no time was logged for engaging as a family during physical activity among participating families. This outcome will be measured in the summer and fall of 2021, when classes are implemented.

Action 3

By December 31, 2021, as a result of participating in Fit and Healthy Families, 10 families will report an increase in the number of daily vegetable servings (average) eaten by their family.

Measurable impact

Reported increased in the number of daily vegetable servings (average) eaten by families among 10 participating families by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, the Fit and Healthy Families educational series had not yet been implemented. Hence, no servings were logged for average daily vegetable servings eaten by participating families. This outcome will be measured in the summer and fall of 2021, when classes are implemented.

Healthy Habits Walking Group

Action 1

By December 31, 2021, as a result of participating in Healthy Habits, 20 individuals will report increased use of county parks for physical activity.

Measurable impact

Increased use of county parks for physical activity reported among 20 participants by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, the Healthy Habits Walking Group was not implemented. Hence, no participants documented an increased use of county parks for physical activity. This will be measured at the end of summer 2021.

Action 2

By December 31, 2021, class facilitator will establish two new community partnerships with organizations that are willing to host indoor walks at their facility to increase engagement during the winter months.

Measurable impact

Establish 2 new community partnerships with organizations that are willing to host indoor walks at their facility to increase engagement during the winter months by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, two new community partnerships, with Gazelle Sports of Holland and Gemmen's Hardware were established.

Access to Fresh Produce and Nutrition Education

Action 1

By December 31, 2021, Spectrum Health Zeeland Community Hospital Community Programs will provide 1,500 community members with access to fresh produce via the YMCA mobile Veggie Van.

Measurable impact

Provide 1,500 community members with access to fresh produce via the YMCA mobile Veggie Van by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, no Veggie Van events had occurred during the measurement period. Hence, no community members were provided access to fresh produce via the YMCA's mobile Veggie Van. This will be measured in summer and fall of 2021.

Action 2

By December 31, 2021, Spectrum Health Zeeland Community Hospital Community Programs will provide nutrition education and applicable recipes to 500 community members in a farmer's market setting.

Measurable impact

Provide nutrition education and applicable recipes to 500 community members in a farmer's market setting by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, no community members were provided nutritional education or recipes at a farmer's market because no farmers markets were active during this time. This will be measured in summer and fall of 2021, when the markets are active.

Action 3

By December 31, 2021, Spectrum Health Zeeland Community Hospital Community Programs will provide nutrition education to 500 community members via virtual technology.

Measurable impact

Provide nutrition education to 500 community members via virtual technology by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, 200 community members received nutritional education via virtual technology.

Coordinated Approach to Child Health (CATCH)

Action 1

By December 31, 2021, each school participating in the Coordinated Approach to Child Health (CATCH) program will implement at least one policy or environmental support designed to improve student nutrition and/or increase physical activity during the school day.

Measurable impact

Implement one policy or environmental support designed to improve student nutrition and/or increase physical activity during the school day per participating school by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, Jamestown Lower Elementary School in Hudsonville implemented "Go, Slow, Whoa" verbiage. Food service staff placed labels on the foods available in the lunchroom to facilitate CATCH discussions and language with the students and distribute positive lunch box messages that are aligned with program strategies.

Obesity, continued

Action 2

By December 31, 2021, 40% of teachers in participating schools will report observing positive changes in student behavior related to nutrition and physical activity.

Measurable impact

Of schools participating in CATCH, 40% teachers reported positive change in student behavior related to nutrition and physical activity by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, at least 40% of teachers, in a school participating in CATCH, reported positive change in student behavior related to nutrition and physical activity.

Action 3

By December 31, 2021, Spectrum Health Zeeland Community Hospital Community Programs will implement the Coordinated Approach to Child Health (CATCH) program in two area public schools.

Measurable impact

Implement CATCH in two area public schools by December 31, 2021.

Impact of implementation plan strategy

As of May 31, 2021, no additional public schools participated in the CATCH program due to school preference to implement at the beginning of the school year, rather than mid-year.

Glossary

Blue Envelope

Spectrum Health implemented a team S.A.F.E response protocol and trained more than 5,000 employees on how to respond at a moment's notice to a patient who may have thoughts of suicide. This protocol included quick patient safety responses and communicating with the code words "Blue Envelope" Ottawa County Suicide Prevention Coalition, under the leadership of Ottawa Public Health, requested a collaboration, and together customized this protocol to create School Blue Envelope to train school personnel.

Coordinated Approach to Child Health (CATCH)

is an evidence-based program based on the CDC Whole School, Whole Community, Whole Child model to combat childhood obesity. Health education, school environment, and family/community involvement work together to support youth in grades K-8 in improving nutrition choices and increasing daily physical activity.

Fit and Healthy Families

Program is for elementary aged students and their families, and the goal is to help families increase number of hours per week they engage in physical activity together as a family unit. Led by a Registered Dietitian, curriculum covers a variety of nutrition and physical activity topics in an interactive way. Held in partnership with the Outdoor Discovery Center in Holland and includes activities such as kayaking, dancing, and trail walking.

Go Team

An at elbow support staff for offices offering medication assisted treatment for opioid use disorder.

Healthy Habits Walking Group

This group meets weekly, and partners with local county parks and other community partners. Group is led by a Registered Dietitian and focuses on increasing participant's physical activity through the use of local parks and rec locations. Nutrition topics also covered weekly.

Opioid Prescribing Guidelines

Safe clinical prescribing guidelines for opioids.

Ottawa Pathways to Better Health Community Health Worker Program

For those 18 years of age or older who live in Ottawa County, have two or more chronic health conditions, and have challenges overcoming barriers to manage health conditions.

Provider Scorecards

An internal dashboard that displays data around opioid prescribing at the department, office, and provider level.

Smoking Cessation and Reduction in Pregnancy Treatment (SCRIPT)

SCRIPT is an evidence-based program shown to be effective in helping thousands of pregnant women quit smoking. The program provides education and counseling support and is designed to be a component of a patient education program for prenatal care providers.

YMCA's mobile Veggie Van

The YMCA Veggie Van is West Michigan's first and only mobile farmer's market. Veggie Van's two vehicles run year-round, making daily stops in urban neighborhoods throughout Grand Rapids and Muskegon, ensuring that fruits and vegetables are available to people who otherwise have limited access to fresh produce. This program grows and sells locally grown, top-quality fruits and vegetables at reduced prices. Additionally, the Veggie Van can accept SNAP, Senior Project Fresh/Market FRESH, and W.I.C. Project Fresh benefits.



**Spectrum
Health**

Spectrum Health complies with applicable Federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex.
[81 FR 31465, May 16, 2016; 81 FR 46613, July 18, 2016]

ATENCIÓN: Si usted habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al 1.844.359.1607 (TTY: 711).

إذا كنت تتحدث اللغة العربية، فيمكنك الحصول على المساعدة اللغوية المتاحة مجانًا. اتصل على الرقم 1.844.359.1607 (TTY: 711).

2020 Community Health Needs Assessment, Ottawa County, MI

Prepared by Martin Hill, Ph.D.,
President of VIP Research and Evaluation



Executive
Summary



Background



Methodology



Findings &
Implications

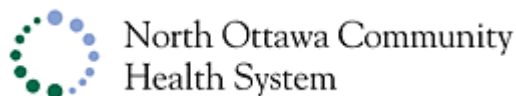
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INTRODUCTION

Financial Contributors

The following community organizations are responsible for primary funding of the 2020 Ottawa County Community Health Needs Assessment:



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



Healthy Ottawa Advisory Council

Patrick Cisler, Community SPOKE

Kim Costello, Holland Hospital

Liz DeLaLuz, Greater Ottawa County United Way

Lynne Doyle, Community Mental Health of Ottawa County

Derel Glashower, Ottawa County Department of Public Health

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Lisa Stefanovsky, Ottawa County Department of Public Health

Amber TerHaar, Spectrum Health Zeeland Community Hospital

Lisa Uganski, Ottawa County Department of Public Health

Jennifer VanSkiver, North Ottawa Community Health System



Background and Objectives

- VIP Research and Evaluation was contracted by the Healthy Ottawa Advisory Council of Ottawa County, Michigan, to conduct a Community Health Needs Assessment, which included a Behavioral Risk Factor Survey (BRFS).
- 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 County 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 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
- The overall objective of the CHNA is to obtain information and feedback from Ottawa County residents, health care professionals, and key community leaders in various industries and capacities about a wide range of health and health care topics to gauge the overall health climate of Ottawa County.



Background and Objectives (Continued)

➤ More specific objectives include measuring:

- ❖ Social indicators, such as crime rates, education, and poverty rates
- ❖ Community characteristics, such as resources, collaboration, and volunteerism
- ❖ Physical health status indicators, such as life expectancy, mortality, physical health, chronic conditions, chronic pain, and weight status
- ❖ Mental health status indicators, such as psychological distress, anxiety disorder, depressive disorder, and suicide
- ❖ Health risk behaviors, such as smoking and tobacco use, drinking, diet, and physical activity
- ❖ Clinical preventative measures, such as cancer screening, oral health, and immunizations
- ❖ Resiliency and social support
- ❖ Adverse childhood experiences (ACEs)
- ❖ Disparities in health
- ❖ Positive and negative health indicators
- ❖ Accessibility of health care
- ❖ Barriers to health care
- ❖ Gaps in health care services or programs
- ❖ Feedback on COVID-19, such as knowledge of, concern about, and its impact on area residents



Methodology

- This research involved the collection of primary and secondary data. The table below shows the breakdown of primary data collected with the target audience, method of data collection, and number of completes:

	Data Collection Methodology	Target Audience	Number Completed
Key Stakeholders	In-Depth Telephone Interviews	Hospital Directors, Clinic Executive Directors	9
Key Informants	Online Survey	Physicians, Nurses, Dentists, Pharmacists, Social Workers	123
Key Informants	Online Survey (COVID)	(Same As Above)	120
Community Residents (Underserved)	<i>Self-Administered (Paper) Survey</i>	Vulnerable and underserved subpopulations	346
Community Residents	Telephone Survey (BRFS)	Ottawa County Adults (18+)	1,200

- Secondary data was derived from various government and health sources such as the U.S. Census, Michigan Department of Health and Human Services, County Health Rankings, Youth Risk Behavior Survey, Youth Assessment Survey, and Kids Count Database.



Methodology (Continued)

- Of the 12 Key Stakeholders invited to participate, 9 completed an in-depth interview. Key Stakeholders were defined as executive-level community leaders who:
 - ❖ Have extensive knowledge and expertise on public health and/or human service issues
 - ❖ Can provide a “50,000-foot perspective”
 - ❖ Are often involved in policy decision-making
 - ❖ Examples include hospital administrators and clinic executive directors
- The number of Key Informants participating in the general online survey (non-COVID) this iteration increased 35.2% from 91 in 2017 to 123 in 2020. Key Informants are also community leaders who:
 - ❖ Have extensive knowledge and expertise on public health issues, or
 - ❖ Have experience with subpopulations impacted most by issues in health/health care
 - ❖ Examples include health care professionals (e.g., physicians, nurses, dentists, pharmacists, social workers) or directors of non-profit organizations



Methodology (Continued)

- There were 346 self-administered surveys completed by targeted subpopulations, such as Hispanics, single mothers with children, senior adults, as well as those who are uninsured, underinsured, or have Medicaid. The following organizations received the surveys, assisted in distributing them to their clientele, and ensured the completed surveys were returned to OCDPH:
- ❖ All Shores Wesleyan Church
 - ❖ Community Action House
 - ❖ Coopersville Cares
 - ❖ Evergreen Commons
 - ❖ Food Navigator (Holland Farmers Market)
 - ❖ Fruitport CRC
 - ❖ Georgetown Senior Center
 - ❖ Harvest Stand Ministries
 - ❖ Head Start
 - ❖ Jehovah Jireh Ministries
 - ❖ Love in Action Food Pantry
 - ❖ Love in Action Free Clinic
 - ❖ Love INC (Allendale, Hudsonville)
 - ❖ Maternal Infant Health Program
 - ❖ Neighbors Plus (Leisure Estates and Pine Creek)
 - ❖ North Ottawa Community Hospital
 - ❖ Ottawa County Community Mental Health
 - ❖ Ottawa County Department of Public Health
 - ❖ Ottawa County Schools Network
 - ❖ Pathways to Better Health
 - ❖ Positive Options
 - ❖ Salvation Army (Holland)
 - ❖ Spectrum Health Zeeland Community Hospital
 - ❖ Spring Lake Presbyterian
 - ❖ St. Anthony's
 - ❖ The People Center



Methodology (Continued)

- 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 or one of the four ZIP codes that partially lie outside county boundaries but are considered a service area of Ottawa County health care systems (49404, 49423, 49448, and 49456). Vacation homes, group homes, institutions, and businesses were excluded.
- Respondents were screened to ensure they were at least 18 years of age.



Methodology (Continued)

- 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.
- 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.



Methodology (Continued)

- Data weighting is an important statistical process that was used to reduce bias from the BRFs 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
- Resiliency was measured using the Connor-Davidson Resiliency Scale, 2-item version (CD-RISC-2).



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



Methodology (Continued)

- 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 a “0” for each “no” or a “1” for each “yes,” and they scored either a “0” for each “never” or 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.
- 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.



Methodology (Continued)

- In the Executive Summary, VIP Research and Evaluation has identified several key findings, or significant health needs, which we have determined to be the most critical areas of need, derived from primary and secondary data. The process for making such determinations involved analyzing quantitative and qualitative feedback from Key Stakeholders, Key Informants, Ottawa County adults, and Ottawa County underserved residents to gain a better understanding of what they deem to be the most important health and health care issues in the community. Information needed to identify and determine the community's significant health needs was obtained by conducting telephone surveys with adult residents, sending out additional community health (paper) surveys to underserved adult residents, and conducting telephone interviews and online surveys with community health care professionals and community leaders. Three of the four respondent groups were explicitly asked what they perceived to be the most important or critical health issues in Ottawa County, and additional information was gleaned from all groups via their responses to various questions throughout the surveys or discussion guides. Secondary data was then used to complement the findings from the primary data analyses. The result is a robust process that we are confident depicts an accurate assessment of the most critical health or health care issues in Ottawa County.

EXECUTIVE SUMMARY & KEY FINDINGS



Executive Summary

For COVID, I still think everybody in the business and education—in all the sectors—have taken this very, very seriously. We—all the partners—if I can say one really, really amazing thing is that the **work we did to build our partnerships over the years has really paid off during COVID**. It's been **amazing**. When you think about the **work of Community SPOKE**, and the **Foundation**, and the **United Way**, and the **nonprofits coming together to create safety nets for the people that lost their jobs and needed food and housing and all the basic needs—they just hit it right out of the park**. They did an amazing, **amazing job supporting our residents**, and they **still are**, but it was an **all-out effort**. It really helped the **health department who had to work in other spaces because they just kind of took it and ran with it**. I think **Community SPOKE really helped to close the gap on some of the inequities**. The COVID cases—we **had significant differences in cases early on in the Hispanic population**, and we **worked with all of our partners to make sure that we got information to them that was very targeted and in their language**. We worked with different organizations to make sure that there was **testing available**, so, yeah, I think **we did a pretty good job**, and we **closed a loop on it a little bit**. I think our **health care has done a fantastic job**. We **never really blew up like Detroit or New York**. But, with the situation that we had, I think **our health-care providers did a great job**. – *Key Stakeholder*



Executive Summary (Continued)

- In 2020, the social, economic, and political impact of the coronavirus (COVID-19) pandemic has been systemic worldwide. Individually there was, and continues to be, an impact on physical and mental health. Because this was such a unique year, the approach to presenting research findings in this Community Health Needs Assessment (2020) report is slightly different than in previous reports. For example, we did not compare local primary data collected in 2020 with state or national data which would have been collected in a non-COVID-19 year. We also limited trending the 2020 primary data collected with data collected in previous CHNAs for the same reason, and when we did we noted any change could be skewed by this pandemic year.
- That said, on many levels the findings from the 2020 Community Health Needs Assessment portray Ottawa County as a community that lives up to its billing as the healthiest county in Michigan, according to the County Health Rankings. With three hospitals, three free medical clinics, and hundreds of health care professionals, health care is accessible to most people, if they can afford it or have decent health insurance.
- Ottawa County continues to be a caring, giving, and philanthropic community with a wealth of excellent resources, programs, and services, a robust volunteer force, and strong collaborative spirit among people and organizations. Collaboration and coordination among and between organizations has expanded and improved over the past decade.



Executive Summary (Continued)

- Moreover, it is a community of faith with strong schools that mirrors the high educational achievement of the residents. It is a very safe community with low levels of violent crime and homicide. Poverty levels are far lower compared to the state and the nation, and, pre-COVID, the solid economy boasted a 2.8% unemployment rate, down from 8.1% in 2011.
- Environmentally, the area is clean and offers a plethora of outdoor spaces such as lakes, beaches, parks, walking/hiking paths, and biking trails that invite activity.
 - ❖ That said, two-thirds (67.0%) of Key Informants are concerned about environmental factors, especially water quality
- Additionally, with the farms nearby and the farmer's markets throughout the warmer months, there is generous access to healthy food for those who can afford it.
- In sum, Ottawa County possesses all of the social and community characteristics that Key Stakeholders say distinguish a community as "healthy." However, there is room for improvement as there are certain subpopulations that struggle to access the many resources that do exist.
- Most area residents have health insurance, have a personal health care provider, and are at least somewhat confident they can navigate the health care system and complete medical forms.



Executive Summary (Continued)

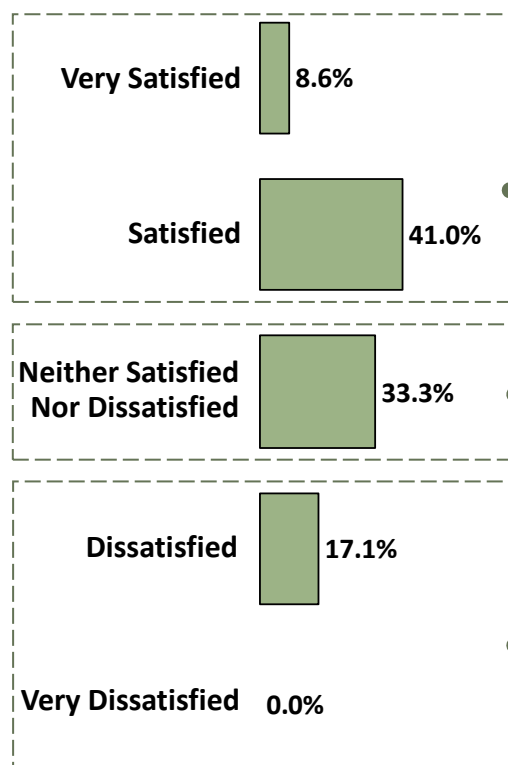
- Ottawa County residents also report good or better health and relatively low levels of psychological distress. They enjoy longer life expectancy and lower adult and infant mortality rates than residents across Michigan or the U.S. Local residents are far less likely to have years of potential life lost compared to residents throughout Michigan.
- The prevalence of chronic conditions is usually low relative to the state and the nation; however, the prevalence of many of the chronic conditions, including diabetes, is up notably from previous CHNA iterations. This could be directly, or indirectly, related to the COVID-19 pandemic.
- Ottawa County performs well when it comes to clinical preventive practices. A sizeable majority of adults age 65 or older have received flu vaccines. The vast majority of children age 19-35 months are fully immunized and almost all children 0-17 have had a routine physical exam in the past year. The vast majority of pregnant women begin prenatal care in the first trimester.
- The prevalence of risk behaviors is also, typically, relatively low compared to the state or nation. The prevalence of cigarette smoking is down in 2020, while heavy drinking and binge drinking are higher this year than in the previous CHNA (2017). This could also be connected to the COVID-19 pandemic.

Executive Summary (Continued)

Satisfaction With Overall Health Climate (Key Informants)

- All of that said, only half (49.6%) of Key Informants – the very people on the ground working in or around the field of health care – are satisfied with the overall health climate of Ottawa County, demonstrating that there is substantial room for improvement, and their comments indicate concerns across several areas.
 - ❖ By and large, the community has many resources, services, and programs to address health and health care needs; however, there are pockets of residents, or groups, that face tremendous barriers to these resources, services, and programs

Overall Satisfaction with Health Climate



Reasons for Rating

The **services offered are outstanding** and we **have many dedicated healthcare professionals who work extremely well together on behalf of patients and the community.**

Ottawa County is **fortunate to have the resources and leadership** to achieve a healthy climate. An **important next step is to coordinate the abundant services that are available to promote efficiency and reduce duplication.**

Because of the **work of the community health needs assessment** in the past and the **information it provides to the health systems within the community.** Because of the **collaboration among the Holland Physician Hospital Organization and Holland Hospital and the reach of all those involved** in those systems.

Statistically, I believe Ottawa County is **considered among the healthiest in Michigan.** But I think we **have a sizable underserved population.**

Many people and subpopulations are doing well, but for others we have major gaps.

Healthcare is **difficult to navigate.** **Coordination of care and support for working class is minimal** and it is assumed by many healthcare providers that this population is "doing fine". **ALICE population is lost in the system.** Oftentimes, **deductibles and copays are high** and therefore **people avoid going to the doctor.** **Wealthy can afford care.** **Poor people have multiple resources** but they **may have difficulty navigating the paperwork and complex medical system.** There is **nothing in between for those who are caught in the middle.**

The **systems are overwhelmed, trauma informed care is lacking, specialist doctors are not available** and **patients are waiting weeks to see them or having to go to Grand Rapids.**



Executive Summary (Continued) – Comparison of Ottawa County BRFs 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



Executive Summary (Continued) – Comparison of Ottawa County BRFs 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



Executive Summary (Continued) – 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



Executive Summary (Continued) – 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



Executive Summary (Continued) – Comparison of Ottawa County BRFs 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



KEY FINDINGS

➤ What follows are nine key findings and discussions of each:

- ❖ KEY FINDING [Significant Health Need] #1: The COVID-19 pandemic had a broad and deep impact on the well-being of Ottawa County residents, especially the underserved
- ❖ KEY FINDING [Significant Health Need] #2: Mental health continues to be a critical issue and hasn't improved much from 2011
- ❖ KEY FINDING [Significant Health Need] #3: Addressing certain social determinants of health, especially the lack of affordable housing, will improve the overall health and health care climate of the region
- ❖ KEY FINDING [Significant Health Need] #4: Access to care can still be summed up as a case of those who have and those who have not
- ❖ KEY FINDING [Significant Health Need] #5: Obesity (and being overweight): a sizeable majority of adults are either overweight or obese and this proportion is higher than in 2017
- ❖ KEY FINDING [Significant Health Need] #6: Substance abuse has been an issue since 2011, although certain aspects of it have improved (e.g., opioid addiction, over-prescription)
- ❖ KEY FINDING [Significant Health Need] #7: Chronic disease rates are relatively low, but some conditions merit watching since prevalence increased in this pandemic year
- ❖ KEY FINDING [Significant Health Need] #8: Certain risk behaviors, such as lack of exercise, lack of adequate fruit/vegetable consumption, and binge drinking remain issues worth addressing
- ❖ KEY FINDING [Significant Health Need] #9: The most appropriate way to address health and health care issues is from an integrated, holistic, or biopsychosocial perspective
- ❖ KEY FINDING [Significant Health Need] #10: Health disparities exist across several demographic groups



KEY FINDING [Significant Health Need] #1: The COVID-19 pandemic had a broad and deep impact on the well-being of Ottawa County residents, especially the underserved

- Very few adults surveyed report having, or living with someone who has, the coronavirus, although underserved adults report a much higher prevalence (5.3%) than BRFS adults (0.8%)
- The vast majority of adults say they know a fair amount or a great deal about COVID-19 and the vast majority are at least somewhat concerned about getting the virus.
 - ❖ A small proportion (roughly 20.0%) of adults became more concerned about the getting the virus over time, and underserved adults were less concerned than the BRFS adults
- Half of all adults report that their lives became worse because of the COVID-19 pandemic, while 91.0% of Key Informants believe the life of the average Ottawa County resident worsened during the pandemic.
 - ❖ The few Key Informants who take a “silver lining” approach and say lives were actually better, cite things like a slower pace to life or families reconnecting, having dinner together, etc.
- Some of the ways COVID-19 made adults’ (both underserved and BRFS) lives worse include being confined to their homes, unable to socialize with others or go out and do things like shop, visit restaurants, bars, museums, and other cultural events, or attend church, and this contributed to a feeling of isolation.



KEY FINDING [Significant Health Need] #1: The COVID-19 pandemic had a broad and deep impact on the well-being of Ottawa County residents, especially the underserved (Continued)

- Both underserved and BRFs adults also mention the inconvenience of having to wear masks and gloves, washing hands, and following proper protocol also contributed to making their lives worse.
- According to Key Informants, the top reasons the average Ottawa County resident's life became worse are:
 - ❖ Increased stress levels
 - ❖ Disruption of family (e.g., children at home, parents supervising schooling)
 - ❖ Increased anxiety
 - ❖ Less socialization with family/friends
 - ❖ Increased depression
- Area adults also mention that the COVID-19 pandemic impacted their mental health by increasing their stress levels, anxiety, and depression.
 - ❖ **52.4% of BRFs adults who report “poor mental health” say it is related to the pandemic**
 - ❖ Additionally, 19.0% of BRFs adults with “poor physical health” say it is related to the pandemic
 - ❖ 43.8% of homemakers report depression, up from 24.0% in 2017
 - This increase may be partially explained by COVID, in that, many parents found themselves confined at home with their children and juggling tasks (e.g., working and home schooling)



KEY FINDING [Significant Health Need] #1: The COVID-19 pandemic had a broad and deep impact on the well-being of Ottawa County residents, especially the underserved (Continued)

- Key Stakeholders and Key Informants point out that the pandemic has been, and continues to be, negatively impactful in the following ways:
 - ❖ Increased domestic violence/abuse as home confinement prevented some from being able to move to safer environments
 - ❖ Exacerbation of mental health, physical health, substance abuse, and overall well-being as health and human service programs and services were closed or had limited hours
 - ❖ Highlighted social and political divides among and between community members
 - ❖ Turned a robust economy with 2.8% unemployment into one with business closures and job losses
- Because they have experienced many of the worst things to come out of the pandemic, area residents most negatively impacted are the vulnerable, or underserved, especially the Hispanic community.
- Most concerning might be the unknown longer-term impact of COVID-19, on many levels, that the future holds, especially as more variants of the virus are discovered.
- On a more positive note, the vast majority of Key Informants, Key Stakeholders, and underserved residents think that, based on the response to the current pandemic, local health professionals are at least somewhat well prepared to deal with a future communicable disease outbreak.



KEY FINDING [Significant Health Need] #1: The COVID-19 pandemic had a broad and deep impact on the well-being of Ottawa County residents, especially the underserved (Continued)

- Strategies and actions that worked well during the COVID pandemic include:
 - ❖ Relying on science, health, and healthcare expertise to guide decision-making
 - ❖ The coordination and collaboration of numerous health and human service organizations coming together working on the same goal
 - ❖ Consistent and timely communication
 - ❖ Use of several media to disperse communication, especially websites
- Areas or opportunity include:
 - ❖ Having everyone buy into the use of science in medical and policy decision-making
 - ❖ Finding ways to make the crisis and response to it apolitical
 - ❖ Rolling out PPE, equipment, and testing sooner and to a greater extent
 - ❖ Ensuring that communication is consistent at all levels (national, state, local)
- Although numerous organizations were at least somewhat prepared for dealing with the COVID pandemic, not surprisingly the hospitals, county health department, and providers were believed to be the most prepared.
- Slightly less than half (48.0%) of BRFS adults say they are very likely or extremely likely to get a coronavirus vaccine once it becomes available.
 - ❖ **This drops to 29.9% for underserved adults**



KEY FINDING [Significant Health Need] #2: Mental health continues to be a critical issue and hasn't improved much from 2011

➤ Prevalence data demonstrates:

- ❖ 19.8% of Ottawa County adults are considered to have mild to severe psychological distress
- ❖ **22.9% of area adults have anxiety disorder, up significantly from 2017**
- ❖ **21.8% of adults have depressive disorder and three in ten (31.0%) area youth report depression in the past year, both up from 2017**
- ❖ 28.1% of adults say that growing up they lived with someone who was depressed, mentally ill, or suicidal, up significantly from 2017

➤ Key Stakeholders and Key Informants consider issues surrounding mental health to be the most pressing or concerning health issues currently in Ottawa County and cite four major reasons for their concern:

- ❖ It is prevalent in both adults and youth
- ❖ Often comorbid with other social, behavioral, or physical problems
- ❖ Continued stigma that may prevent some people from seeking and receiving needed treatment
- ❖ Lack of programs, services, and resources to address the issue, especially therapists and psychiatrists
- ❖ Perpetually a lack of funding for programs and services



KEY FINDING [Significant Health Need] #2: Mental health continues to be a critical issue and hasn't improved much from 2011 (continued)

- It is concerning that **sizeable proportions of people who currently suffer from some form of mental illness are not undergoing treatment or taking medication.** For example, the following groups are not taking medication or receiving treatment for their condition:
 - ❖ 66.4% of those classified as having “mild to moderate psychological distress”
 - ❖ 56.5% of those classified as having “poor mental health”
 - ❖ 49.2% of those with anxiety
 - ❖ 38.9% of those with depression
 - ❖ 26.7% of those classified as having “severe psychological distress”
 - ❖ **All of these proportions are higher than they were in 2017**
- If the vast majority of adults believe that treatment can help people with mental illness lead normal lives, raises the question why are so many people not seeking treatment that would benefit them?
 - ❖ The answer may partly lie in the continued stigma concerning mental health conditions: just six in ten (60.9%) adults think people are caring and sympathetic to people with mental illness
- In absolute terms, the suicide rates for both adults and youth are low; however, **three times as many youth think about committing suicide, and twice as many attempt suicide, compared to adults.**



KEY FINDING [Significant Health Need] #3: Addressing certain social determinants of health, especially the lack of affordable housing, will improve the overall health and health care climate of the region

- Negative social indicators, such as lack of affordable housing, lack of affordable healthy food, and adverse childhood experiences can cultivate negative health outcomes.
 - ❖ Despite this knowledge, over half (52.6%) of Key Informants say that social determinants of health are only sometimes or rarely considered in developing treatment or care plans
- Lack of affordable housing is a top concern (#3) of Key Informants because it permeates and impacts many other aspects of life.
- Although poverty levels are relatively low in Ottawa County compared to neighboring counties, the state, or the nation, there are pockets of poverty (e.g., single mothers with children under age 5) that negatively impact the health of residents experiencing it.
- That said, an overarching problem such as poverty is hard to ameliorate. Some of the issues that are connected to poverty, however, can be addressed, such as:
 - ❖ Finding ways to provide more affordable housing
 - ❖ Providing more healthy food options to residents at lower costs in order to improve the nutrition of those who would not otherwise be able to afford healthy food
 - ❖ Strengthening social service programs to offset the negative outcomes that can accompany poverty (e.g., broken homes, abusive relationships, household challenges)
 - ❖ Addressing the economic disparity by ensuring that underserved and vulnerable groups have access to services that will move them closer to participating on a level playing field



KEY FINDING [Significant Health Need] #3: Addressing certain social determinants of health, especially the lack of affordable housing, will improve the overall health and health care climate of the region (Continued)

- This research has shown the adverse effects of negative social conditions. For example, adults who experienced four or more adverse childhood experiences (ACEs) as children have a far greater chance of experiencing negative outcomes, such as:
 - ❖ Poor physical health, including chronic pain and obesity
 - ❖ Poor mental health, including significantly higher rates of anxiety, depression, and suicidal thoughts
 - ❖ Engaging in risk behaviors, such as smoking, marijuana use, heavy drinking, and binge drinking
- 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.
 - ❖ Both of these proportions are higher than in 2017 but may actually be a more accurate reflection of the prevalence of ACEs in Ottawa County residents since research has shown that people can more easily recall adverse childhood events during a traumatic time, such as the COVID-19 pandemic
- **Despite the fact that ACEs are considered important as predictors of adult outcomes, only half (48.4%) of Key Informants can confirm that they, or their organizations, screen patients/clients for adverse childhood experiences.**



KEY FINDING [Significant Health Need] #3: Addressing certain social determinants of health, especially the lack of affordable housing, will improve the overall health and health care climate of the region (Continued)

- An opportunity exists to educate the public on the importance of ACEs research since **two-thirds (67.6%) of BRFs adults have never heard of the term/phrase.**
 - ❖ Moreover, among those who know at least a little about ACEs, roughly half (56.0%) apply these findings to their life or work
- Although three-fourths (76.9%) of BRFs adults receive the social and emotional support they need often or all of the time, those most likely to lack needed social and emotional support are adults with lower levels of education and incomes.
 - ❖ 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**
- Additionally, studying resiliency sheds important light on people’s ability to cope with life circumstances, and it is clear that **resiliency plays a critical role in preventing some people from enduring negative outcomes in adulthood despite adverse childhood experiences.**
 - ❖ Adults who show an ability to adapt when changes occur, or bounce back from illness, injury, or other hardships, are less likely to experience negative outcomes in adulthood despite having four or more ACEs, than adults who are less able to adapt or bounce back (e.g., have lower/less resiliency)



KEY FINDING [Significant Health Need] #4: Access to care can be summed up as a case of those who have and those who have not

- Those with insurance and the ability to afford out-of-pocket expenses such as copays and deductibles have access to almost any kind of service imaginable. Those without insurance, or with insurance but the inability to afford copays/deductibles, have trouble accessing needed services and this is most problematic for certain vulnerable or underserved subpopulations and this has not improved over time.
- Prevalence data demonstrates:
 - ❖ 8.2% of all adults age 18-64 have no health insurance and this proportion rises to 12.0% for underserved adults
 - ❖ 6.5% of BRFS adults have Medicaid for their health insurance, compared to 36.8% of underserved adults
 - ❖ Nearly one-fourth (23.6%) of children age 0-18 have Medicaid
 - ❖ Almost four in ten (38.1%) underserved adults have had trouble meeting health care needs in the past two years, and this is down slightly from 42.1% in 2017
 - ❖ Almost one in five (18.1%) underserved adults have had to skip or stretch their medication in order to save on costs
 - ❖ Four in ten (39.1%) underserved adults report they visited the ER/ED at least once in the past year, and 19.0% visited two or more times; these rates are down from 2017
 - ❖ **66.1% of Key Informants report that the inability to afford out-of-pocket expenses, such as copays and deductibles, is the most common barrier to health care in Ottawa County**



KEY FINDING [Significant Health Need] #4: Access to care can be summed up as a case of those who have vs. those who have not (continued)

- Underserved adults are less health literate than other adults; for example, they are:
 - ❖ Less confident when it comes to navigating the health care system
 - ❖ Less confident in completing medical forms
 - ❖ More likely to have problems learning about their health condition
- Key Stakeholders and Key Informants recognize that certain subpopulations are underserved when it comes to accessing health care, especially those who are uninsured, underinsured, undocumented immigrants and/or non-English speaking (ESL) for three primary reasons:
 - ❖ Even if they have insurance, it may not be accepted by some providers; an unwillingness to accept Medicaid patients is still a critical problem, especially for mental health treatment
 - ❖ These groups often have multiple barriers to overcome (e.g., cost, transportation, hours of operation, cultural, system distrust, language)
 - ❖ There is a lack of treatment options for these groups, such as primary care, mental health, substance abuse, and dental care
- Key Informants report the programs and services most lacking include:
 - ❖ Primary care and mental health treatment for the uninsured
 - ❖ Residential mental health treatment and/or substance use disorder treatment
 - ❖ Care coordination services



KEY FINDING [Significant Health Need] #4: Access to care can be summed up as a case of those who have vs. those who have not (continued)

- Underserved residents report the programs and services most lacking include:
 - ❖ Better or more accessible transportation services, especially for senior adults
 - ❖ Nutrition classes or programs that teach low-income families how to: (1) build healthy relationships with food, (2) stretch their resources to obtain healthy food, (3) teach ways to prepare and cook healthy food
 - ❖ Free or reduced-cost exercise/fitness options, especially in winter months
 - ❖ More affordable mental health treatment options
- Seven in ten (70.8%) Key Informants are aware of Pathways to Better Health as a referral source to assist them in connecting their clientele to needed programs and services.
 - ❖ Several Key Stakeholders and Key Informants say that Pathways to Better Health is the best thing to come out of the research conducted for the CHNAs
 - ❖ **Still, 29.2% of Key Informants are not aware of Pathways, so one goal should be to move that proportion aware as close to 100% as possible**
 - ❖ Additionally, one-fourth (24.7%) of Key Informants say they are not equipped to help people access needed programs and services



KEY FINDING [Significant Health Need] #5: Obesity (and being overweight): a sizeable majority of adults are either overweight or obese and this proportion is higher than in 2017

- Prevalence data demonstrates:
 - ❖ 66.4% of adults are either overweight (31.9%) or obese (34.5%), the latter up from 2017
 - ❖ 12.5% of youth (grades 8-12) are obese, also up from 2017
- Although not mentioned as much this iteration (probably because COVID-19 was such a major topic), Key Stakeholders and Key Informants still consider obesity to be a pressing or concerning health issue in Ottawa County today primarily because:
 - ❖ Prevalence is high and becoming worse
 - ❖ Obesity is comorbid with other chronic conditions or negative outcomes such as diabetes, heart disease, and stroke
- Key Informants perceive obesity to be a concerning health issue in the county, but behind mental health, affordable housing, and health care costs.
- Area adults believe that obesity is the most important health problem in their community today, only behind COVID-19.



KEY FINDING [Significant Health Need] #6: Substance abuse has been an issue since 2011, although certain aspects of it have improved (e.g., opioid addiction, over-prescription)

- Substance abuse, which is often comorbid with mental illness, is still considered to be a concerning issue among area professionals; however, it receives fewer mentions these days behind COVID-19 (this iteration), mental health, access to health care, and social determinants of health (e.g., affordable housing, ACEs).
- Prevalence data demonstrates:
 - ❖ 14.3% of adults and 3.6% of youth (grades 8-12) currently smoke cigarettes; both of these proportions are down from 2017
 - ❖ **8.5% of adults are heavy drinkers, up from 2017**
 - ❖ **17.5% of adults** and 7.6% of youth are **binge drinkers**; the adult rate is **up from 2017**
 - ❖ 24.0% of underserved adults say that alcohol has had a negative impact on their life
 - ❖ 13.8% of area adults and 13.3% of youth have used marijuana in the past 30 days
 - ❖ Although the proportion of area adults who use E-cigarette or vaping products is relatively low (6.1%), the prevalence among area youth is substantial (18.5% among all students grades 8-12, but 31.1% among 12th graders specifically)
- Key Stakeholders and Key Informants continue to report a lack of treatment options for substance use disorder, especially for those with Medicaid.
- **Both area adults and youth believe there is far less harm in using marijuana once or twice a week compared to vaping once or twice a week.**



KEY FINDING [Significant Health Need] #7: Chronic disease rates are relatively low, but some conditions merit watching

➤ Prevalence data demonstrates:

- ❖ Cancer and heart disease death rates are far lower than the state or national rates, but they are still, by far, higher than rates for other causes of death
- ❖ According to area adults, cancer is the fourth most important health problem in their community today, behind COVID-19, obesity, and mental illness
- ❖ The death rate from Alzheimer's disease in Ottawa County is far higher than the rate in Michigan, and this hasn't improved from 2014
- ❖ One in eight adults (12.3%) have diabetes and 7.3% have pre-diabetes; prevalence of diabetes is the highest since BRFSS data collection began in 2011
- ❖ One-third (32.5%) of area adults suffer from chronic pain, and this is also up significantly from 2017
- ❖ The prevalence of arthritis is also much greater (30.1%) than in 2017 (19.4%)

➤ Despite the fact that eight in ten (79.4%) adults who suffer from chronic pain say their pain is managed well, almost half (46.9%) have never taken any pain medication and only 9.3% have taken any in the past month.

- ❖ It would be interesting to determine if the reluctance to take medication to treat chronic pain is the result of fewer providers prescribing pain medication because of past over-prescribing practices and/or a possible fear of becoming addicted on the part of consumers



KEY FINDING [Significant Health Need] #7: Chronic disease rates are relatively low, but some conditions merit watching (Continued)

- The prevalence of the following chronic diseases are found to be notably higher among adults **without** health insurance compared to adults with health insurance:
 - ❖ Lifetime asthma (30.6% uninsured; 14.2% insured)
 - ❖ Current asthma (16.5% uninsured; 7.3% insured)
 - ❖ Anxiety disorder (34.0% uninsured; 22.3% insured)
 - ❖ Depression (29.4% uninsured; 21.4% insured)
- Additionally, the prevalence of the following chronic diseases are found to be notably higher among adults living below the poverty level compared to adults living above the poverty level:
 - ❖ Anxiety disorder (30.6% < poverty line; 22.0% > poverty line)
 - ❖ Depression (28.7% < poverty line; 21.4% > poverty line)
 - ❖ Chronic pain (45.8% < poverty line; 31.7% > poverty line)
- The difference in the prevalence of chronic diseases between non-White adults and White adults can be found in the companion Behavioral Risk Factor Survey report in the section on chronic diseases (pages 95-107).



KEY FINDING [Significant Health Need] #8: Certain risk behaviors, such as lack of exercise and lack of adequate fruit and vegetable consumption, remain issues worth addressing

➤ Prevalence data demonstrates:

- ❖ Almost one in six (16.4%) area adults engage in no leisure-time physical activity, and half (50.1%) of area youth engage in inadequate amounts of physical activity
- ❖ The adult rate improved significantly from 2017 probably as a result of people doing things outdoors more often than usual due to the pandemic leaving them with fewer alternatives
- ❖ Adequate fruit and vegetable consumption is still an issue for both area adults and youth, and for the latter it is trending in the wrong direction

➤ There are a couple of pressing issues regarding weight and weight loss that need to be addressed. First, only three in ten (31.9%) area adults say they are receiving advice from a health professional regarding their weight, which is distressing since two-thirds of the adult population is either overweight or obese.

- ❖ Only half (56.5%) of obese adults and 25.3% of overweight adults are getting advice from a health professional about their weight

➤ Further, many overweight and obese people see themselves in a better light (not as heavy) than what their current BMI indicates. This skewed perception could be a result of the lack of health professional feedback regarding their weight.



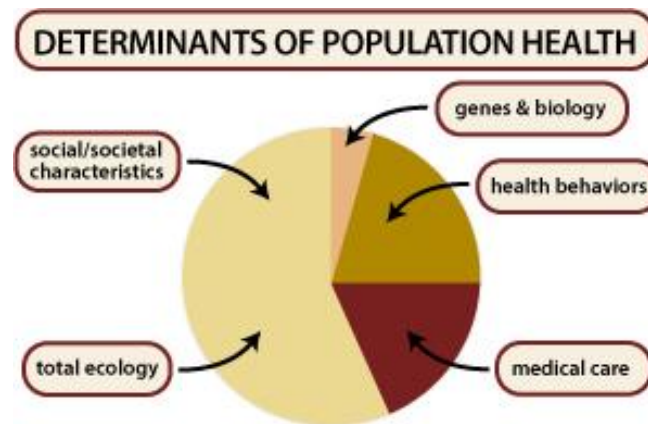
KEY FINDING [Significant Health Need] #9: The most appropriate way to address health and health care issues is from an integrated, holistic, or biopsychosocial perspective

- We recommend adopting the tenets of the World Health Organization:
 - ❖ Health is a state of complete **physical, mental, and social** well-being and **not merely the absence of disease or infirmity**
 - ❖ The enjoyment of the highest attainable standard of health is one of the **fundamental rights of every human being** without distinction of race, religion, political belief, economic, or social condition
 - ❖ The health of all peoples is **fundamental to the attainment of peace and security** and is dependent upon the **fullest cooperation of individuals and states**
 - ❖ The achievement of any state in the **promotion and protection of health is of value to all**
 - ❖ Unequal development in different countries in the promotion of health and control of disease, especially communicable disease, is a common danger
 - ❖ **Healthy development of the child is of basic importance**; the ability to live harmoniously in a changing total environment is essential to such development
 - ❖ The **extension to all peoples of the benefits of medical, psychological, and related knowledge** is essential to the fullest attainment of health
 - ❖ **Informed opinion and active cooperation on the part of the public** are of the utmost importance in the **improvement of the health of the people**
 - ❖ Governments have a **responsibility for the health of their peoples which can be fulfilled only by the provision of adequate health and social measures**



KEY FINDING [Significant Health Need] #9: The most appropriate way to address health and health care issues is from an integrated, holistic, or biopsychosocial perspective (Continued)

- Further, the determinants of health that contribute to each person's well-being are biological, socioeconomic, psychosocial, behavioral, and social. The determinants of health include*:
 - ❖ Biological (genes) (e.g., sex and age)
 - ❖ Health behaviors (e.g., drug use, alcohol use, diet, exercise)
 - ❖ Social/environmental characteristics (e.g., discrimination, income)
 - ❖ Physical environment/total ecology (e.g., where a person lives, crowding conditions)
 - ❖ Health services/medical care (e.g., access to quality care)
- The chart below estimates how each of the five major determinants influence population health (**note the significant influences of the social and physical environments**):





KEY FINDING [Significant Health Need] #10: Health Disparities Exist Across Several Demographic Groups

- 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
 - ❖ 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, and being health literate
- The link between both education and income and positive health outcomes goes beyond the direct relationship. Those occupying the very bottom groups, for example, having no high school diploma and/or having household income less than \$20K (or living below the poverty line), are most likely to experience the worst health outcomes.



KEY FINDING [Significant Health Need] #10: Health Disparities Exist Across Several Demographic Groups (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, and 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



KEY FINDING [Significant Health Need] #10: Health Disparities Exist Across Several Demographic Groups (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, and eating fewer fruits and vegetables
- 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
- Report 4 or more ACEs

➤ There are also links between race and health 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



KEY FINDING [Significant Health Need] #10: Health Disparities Exist Across Several Demographic Groups (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 getting the 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.

DETAILED FINDINGS

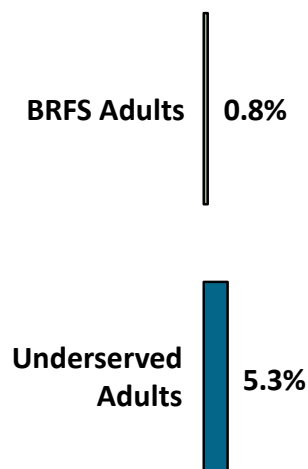
Coronavirus (COVID-19)



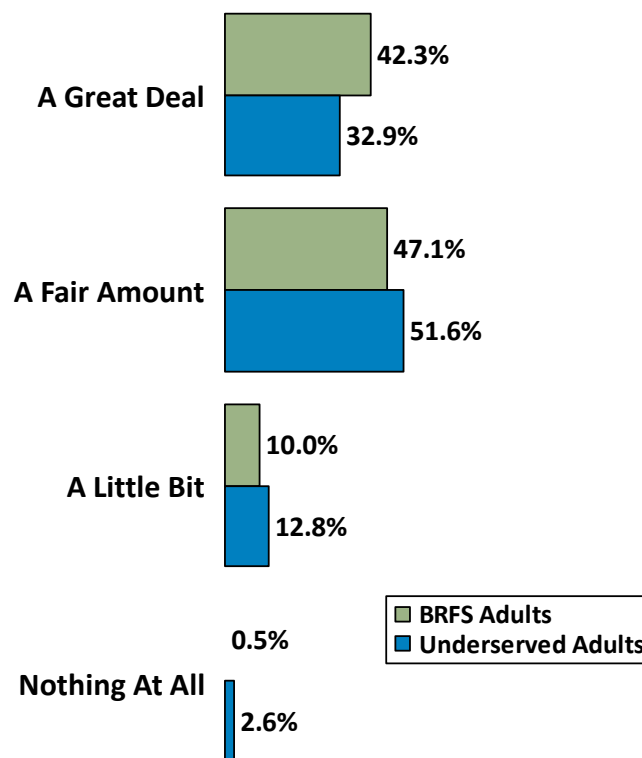
Prevalence and Knowledge of COVID-19

- A very small percentage of Ottawa County adults report that they, or someone they live with, tested positive for the coronavirus.
 - ❖ The proportion of underserved adults reporting this is higher than BRFs adults
- The vast majority of all Ottawa County adults say they know a fair amount or a great deal about the coronavirus.

You or Someone in Household Has Been Diagnosed with COVID-19 (% Yes)



Understanding of COVID-19

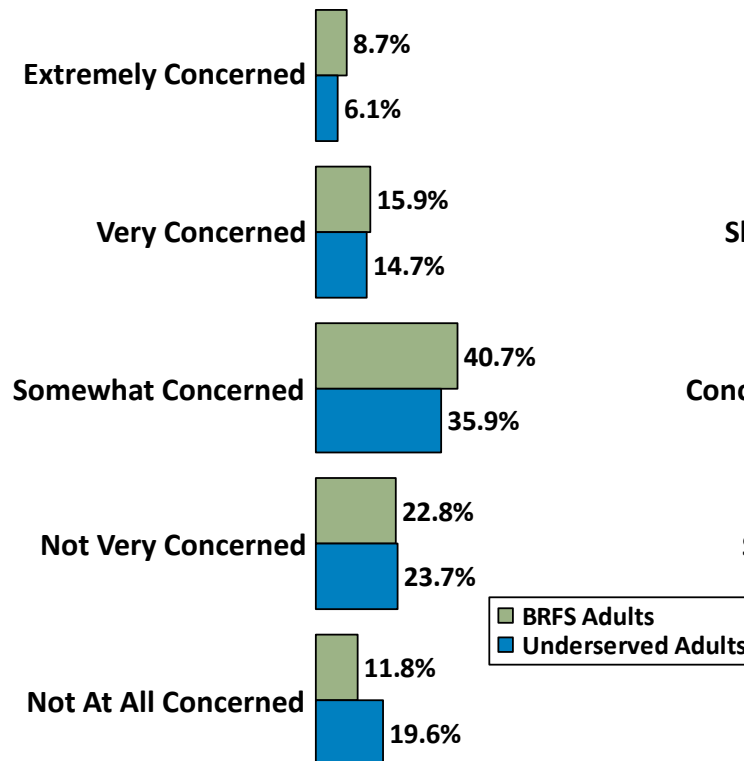




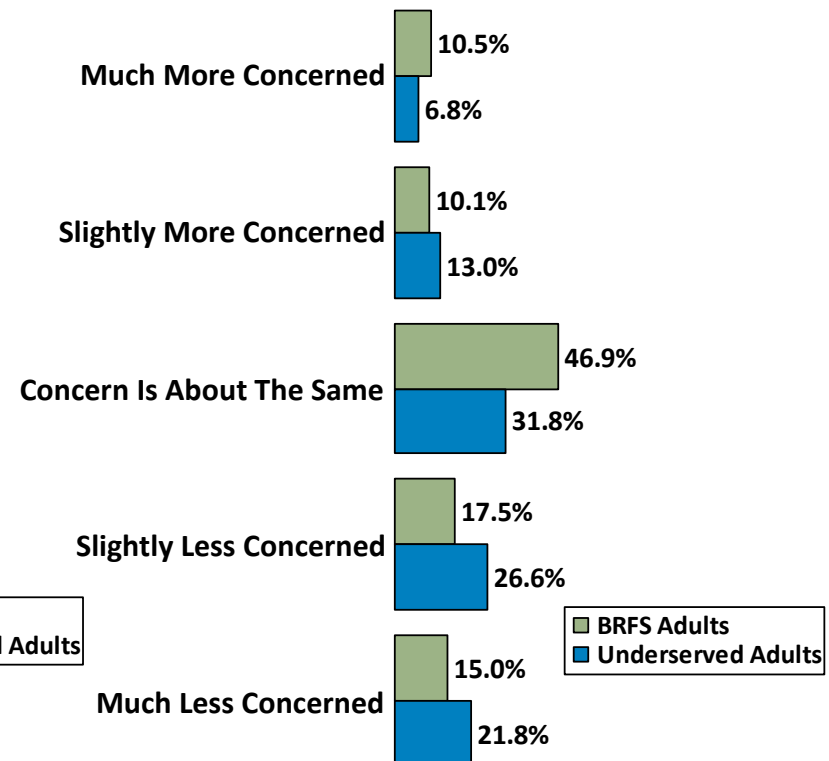
Concern About Getting COVID-19

- At the time of this survey, 65.3% of BRFs adults and 56.7% of underserved adults were at least somewhat concerned about getting, or being exposed to, the coronavirus.
- The vast majority of BRFs adults reported their concern stayed the same (46.9%) or they became less concerned (32.5%) over time.
- A greater proportion of underserved adults became less concerned (48.4%) over time compared to BRFs adults.

Concern About Getting COVID-19*



How Concern Changed Over Time



*Based on those who had not been diagnosed with, nor lived with anyone who'd been diagnosed with, COVID.



Concern About COVID-19 (Continued)

- Over time, Ottawa County adults' concern with getting the coronavirus did not shift much 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 (BRFS Adults)				
<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%

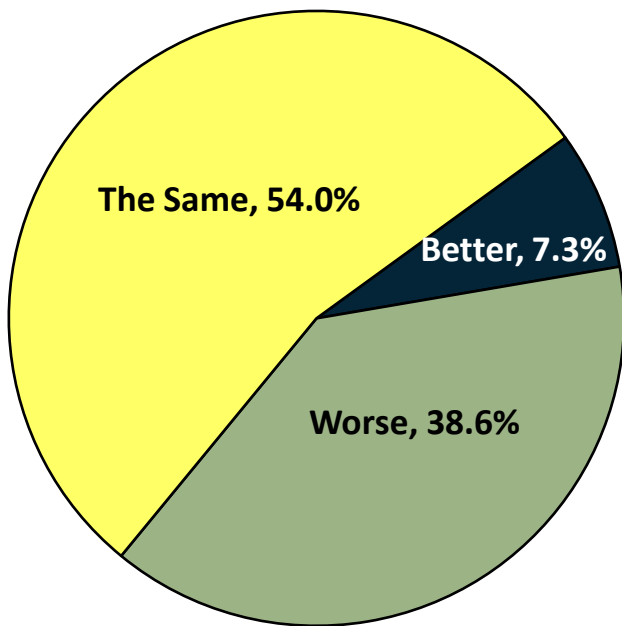


COVID-19 Impact on Life

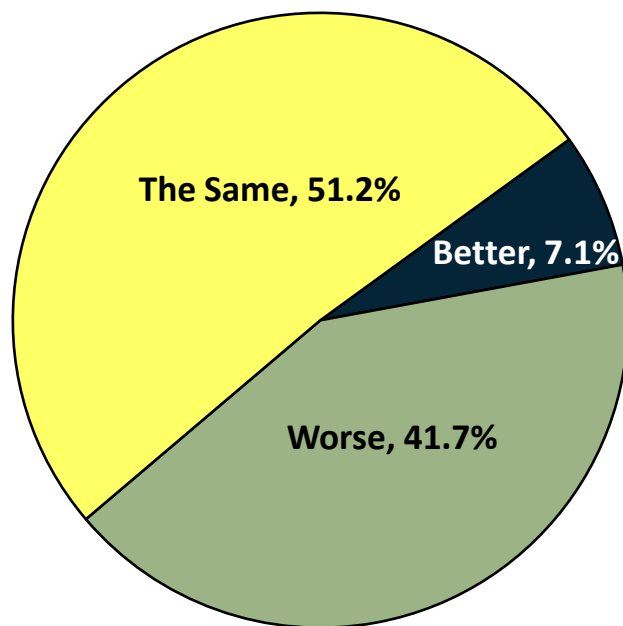
- Roughly half (54.0%/51.2%) of area adults (even those underserved) say their lives are about the same now as they were pre-COVID pandemic, while nearly four in ten (38.6/41.7%) say their lives are worse.

Life Now Compared to Pre-COVID

BRFS Adults



Underserved Adults

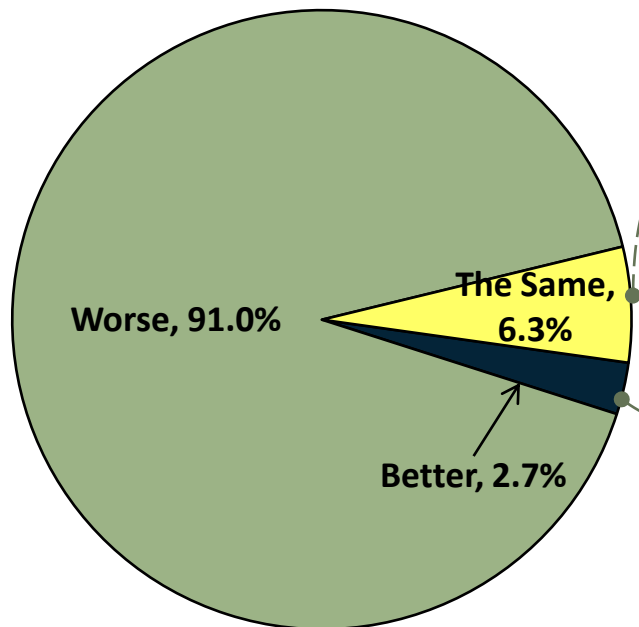




COVID-19 Impact on Life (Continued)

- More than nine in ten (91.0%) Key Informants believe that the life of the average Ottawa County resident became worse during the COVID pandemic.
 - ❖ The few who say lives remained unchanged spoke specifically about the “average” resident, noting that for some people (e.g., lower income) their lives were negatively impacted
 - ❖ Those who said life improved focused on the slowed pace of life and families reconnecting

Life Now Compared to Pre-COVID (Key Informants)



Reasons for Rating

For the majority of middle class families life remained pretty intact. I am **MOST** concerned about lower income households. Life was largely affected for them while a number of people saw life get easier.

In general, there were **financial incentives and unemployment benefits** that occurred and a lot of **assistance from Community Foundations** to financially support those providing Human Services. The **average resident was most likely inconvenienced** as a result of the stay at home order, **but generally life went on the way it did before the pandemic hit.**

Physically, overall the **average resident is doing the same as before**; there are some people that may be having difficulty with handling the stress, but I don't think this has become worse.

I noticed **many more individuals and families spending time together outdoors recreating, dining together more as families at home, couples reconnecting, etc.**

People slowed down and stopped feeling like they had to do everything all the time. I enjoyed the **slower pace**. As a health care worker, it was nice knowing people who didn't have to be out, so I didn't have to worry so much about my exposure since I had to go to work. That's all out the window now. I don't feel safe in my community at all.

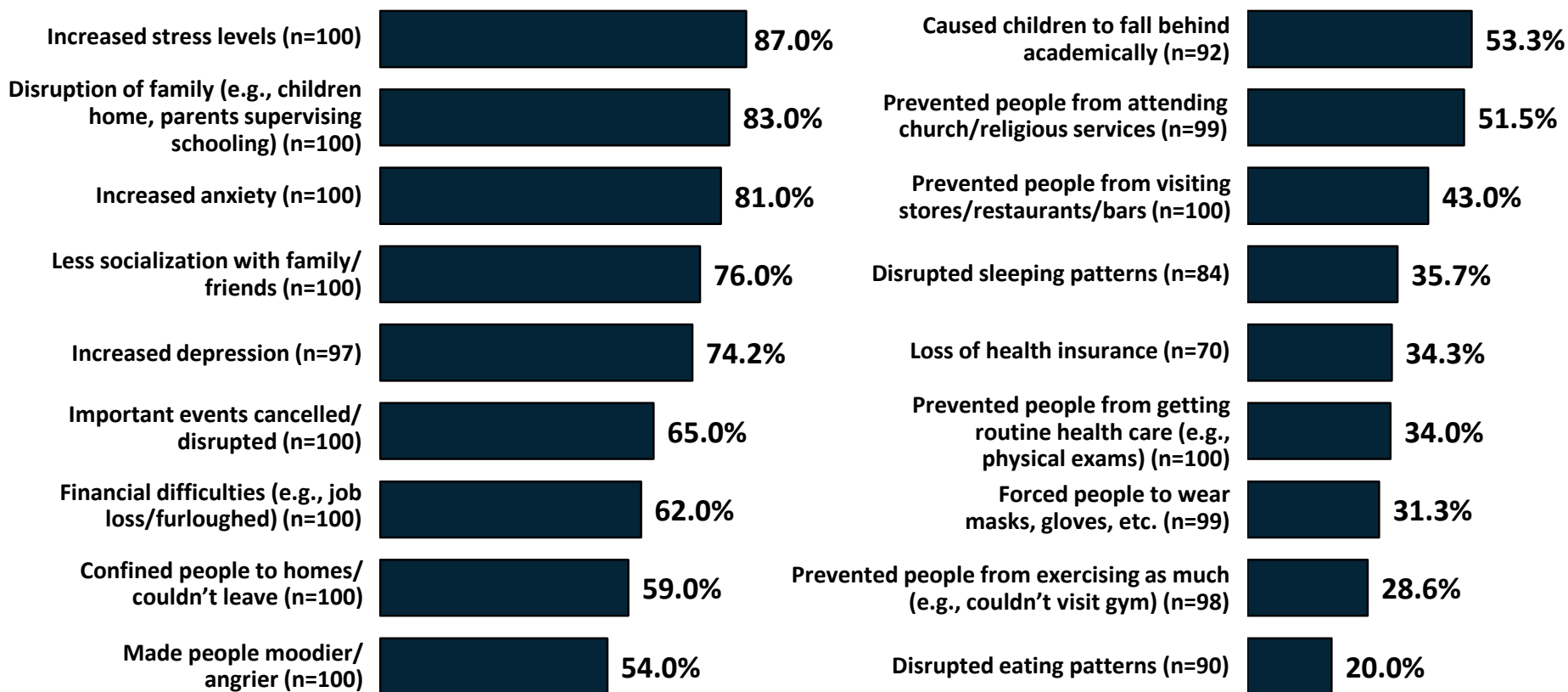
Forced people to slow down and spend time with family, reevaluate what is important in life.



Negative Impact of COVID-19 on Area Resident Lives

- Key Informants say there are myriad reasons why COVID-19 made the average Ottawa County resident's life "significantly" worse, but at the top are that it increased stress levels, disrupted family life, increased anxiety and depression, and resulted in less socialization.
 - ❖ There was less negative impact on eating and sleeping patterns, exercise routines, receiving routine health care, inconveniencing people by requiring them to wear masks and gloves, and loss of health insurance

Made Significantly Worse by the COVID Pandemic

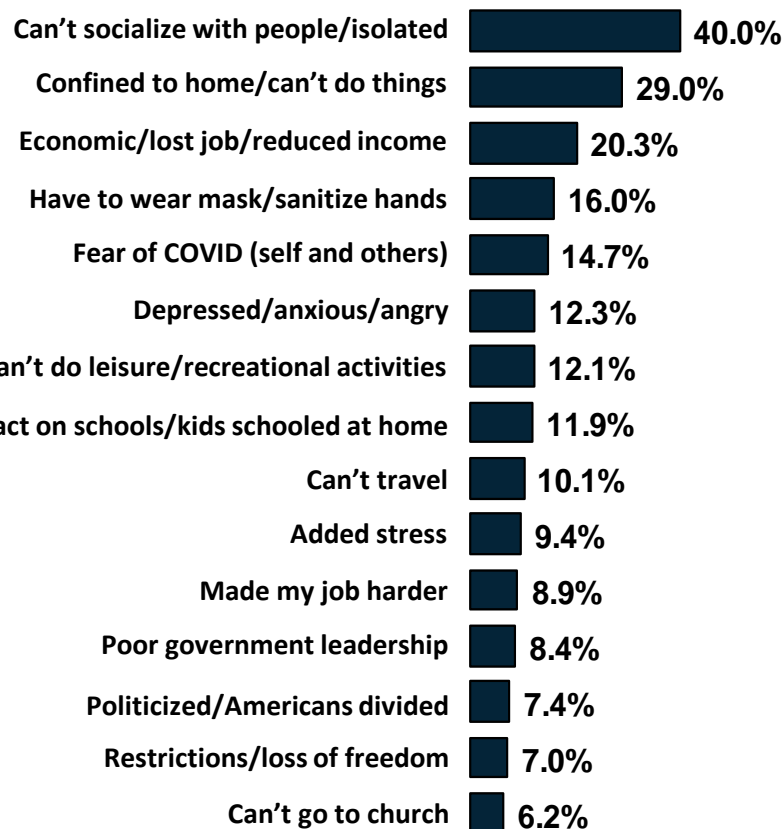


Negative Impact of COVID-19 on Area Resident Lives (Continued)

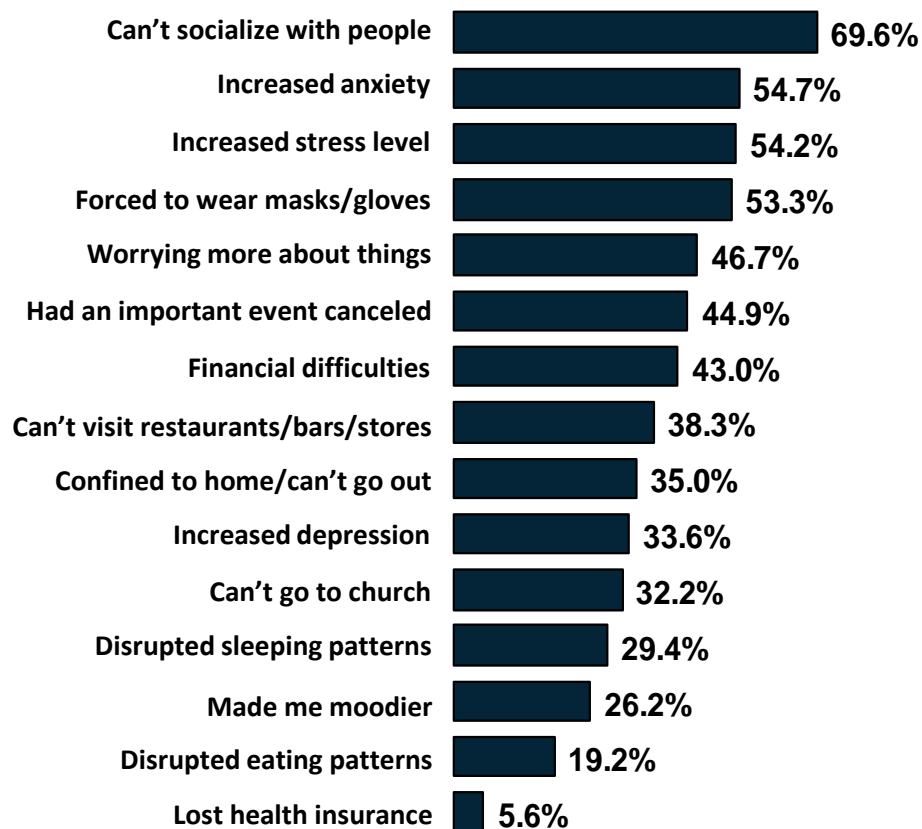
- Area adults also provided myriad reasons for how their lives were made worse by COVID but the top reason is the inability to socialize with people, especially family and friends, like they could pre-COVID; this contributed to a feeling of isolation.
 - ❖ Underserved adults were more likely than BRFS adults to mention increased anxiety and stress, whereas BRFS adults were more likely to mention the economic impact of COVID

Reasons Lives Made Worse by COVID

BRFS Adults



Underserved Adults





Additional Ways COVID Negatively Impacted the Lives of Area Residents (Key Stakeholders and Key Informants)

- Key Stakeholders and Key Informants point out the less obvious negative impacts of the COVID pandemic such as an increase in domestic violence/abuse, exacerbation of mental health and substance abuse issues, and the decline in overall well-being as people could not, or did not, utilize needed services.
- More concerning is the longer-term impact on many levels, or the unknown impacts, that the future holds.

We have seen a decline in requests for services since COVID started, and it's scary because I think common sense would tell you people's mental health is probably not better during COVID. It's probably worse given all the anxiety and the stress and the frustration and the confusion, and yet people are not necessarily calling us for service. In fact, that went down. And I think part of that is people were really truly paying attention to the Stay Home, Stay Safe, and I don't think anyone wanted to put themselves in a situation where they were not necessarily doing therapy in a small room with somebody else. I think **this is going to have some longer-term effects on people's mental health whether they know it or not.** For example, some of these kids who are just being put through the ringer as far as "Oh, you're starting school. You're not starting school. You're going part-time, and now you're not going part-time. You're going to have to do all these things totally differently." Even if they are rolling with the punches, there **likely will be some residual impact from the chaos that's currently going on**, so that's foremost in my mind, obviously. – *Key Stakeholder*

I am **not sure we know the full impact.** Certainly, **mental health issues, isolation, potential child abuse/neglect, domestic abuse**, as well as the **adverse nature of a world pandemic on one's wellbeing.** I am not sure we really have the data/full picture as it continues to unfold in the months to come yet. Also, **stress of front-line workers, teachers, childcare providers, social workers**, as this pandemic and its effects continue to wear on our population. – *Key Informant*

Overall, I **think it just made people less tolerant of each other.** There are so many differing opinions about the right and wrong way to handle things and **people just don't seem willing to see value in others' opinions.** – *Key Informant*

When it comes to **domestic violence**, isolation is already a common tactic abusive people use. **Social distancing measures make it easier for abusers to use and feel more justified in using this as a tactic.** Also, when home isn't safe, sometimes the only sanctuary survivors and their children have is when they are able to go to work, school, school activities, church, friends' homes or any other safe physical space in their community. Social distancing measures, while necessary, made it **more challenging to reach out and find community help.** We are also witnessing domestic violence victims who are now at an increased risk of severe physical violence or becoming victims of homicide during this pandemic. **Rates of domestic violence have increased globally.** The Ottawa County Sheriff's Department reported a **41% increase in 911 calls for domestic abuse** within a few weeks of the Stay Home, Stay Safe directive. **Since March, we have experienced a dramatic increase in requests for emergency shelter.** Because of the economic fallout of the pandemic, many survivors and their children needed to stay in shelter for longer before moving to safe, stable housing. – *Key Informant*

Lack of daily services and support groups for persons with mental illness and substance use disorders. There has been a big spike in return to use issues for people with substance use disorders because they no longer have their routine of support meetings. – *Key Informant*

Politicalized residents - maybe it was timing with regard to the election? Polarized residents - "**us vs. them**" not just along political party lines, but **along mask-wearers, homeschoolers, etc.** **Decreased trust in our institutions.** **More domestic violence** (women, child abuse) - **increased risk of ACEs** - Adverse Childhood Experiences. **Increased substance use issues** - alcohol, tobacco, illicit drugs. – *Key Informant*



Additional Ways COVID Negatively Impacted the Lives of Area Residents (Key Stakeholders and Key Informants) (Continued)

- Moreover, residents most negatively impacted by COVID tend to be the most vulnerable or the underserved, especially the Hispanic community.
- The pandemic has also highlighted, or exacerbated, the social and political divides that already existed between community members.

Unfortunately, **due to COVID, there have just been so many barriers that have been put up systemically for safety of a lot of people** or for most people, **but it's actually hurting those that really need the help** because, if they **don't have the internet to apply**, if they **don't have the phone**, if the **bus isn't running**, all those things, then we run into those barriers. – *Key Stakeholder*

It's the same story in our area as has been true across the country is that the **underserved have suffered from COVID more intensely**, both **more infections and more serious infections**. I'm not close enough to the statistics to know what the death rates are, but **I have heard reports that the Hispanic community in our area had been much more intensely affected by COVID**. -- *Key Stakeholder*

That would have to keep in mind the pandemic situation that has unfolded over these last several months. We have a measure of that through the work we do through our community health center, which we jointly operate with Spectrum Health. **The unknown is how much access there is not met with folks that may not be seeking care or delaying until they feel it's more safe to do so, so I'm not registering that as a concern that I can measure**. We have that as a concern. It remains the case that **access to behavioral health at an acute-care level or an ambulatory level**—those are among the most pressing concerns in our region. – *Key Stakeholder*

Part of the issue is that **COVID is complicating things and people just aren't seeking care**, so I feel like, under normal circumstances, I wouldn't even throw that out there, but it doesn't matter what the diagnosis is or the common ailment, it's—**people are forgoing any sort of care**, and that's **detrimental**. – *Key Stakeholder*

It has to do with a little bit of **COVID**, and it has to do with **some of the racial protests and inequity**. The foundation of it is, for me, **health inequity and inequity across the board**. [COVID] is making people on the **far-right** side of the issue, I think, dig in deeper. So, **people might have been racially motivated or against people of different races, ethnicities before, but now it seems like they're more motivated**, and it's **getting so much uglier**, and I really **feel that it will have an impact on the health and mental health of many of our already underserved people because they're going even farther underground** because it's so ugly. So, that would be one thing. I think **COVID is also shining a light on a lot of the health disparity**, but I also think **COVID has had such a significant impact on so many things: health, mental health, the economy**, which **contributes to people's ability to access services**, and it **affects their mental health and so many things**. It's **created a really significant divide**, and so it's **fractured our communities** in ways I don't think we really realized could happen. – *Key Stakeholder*

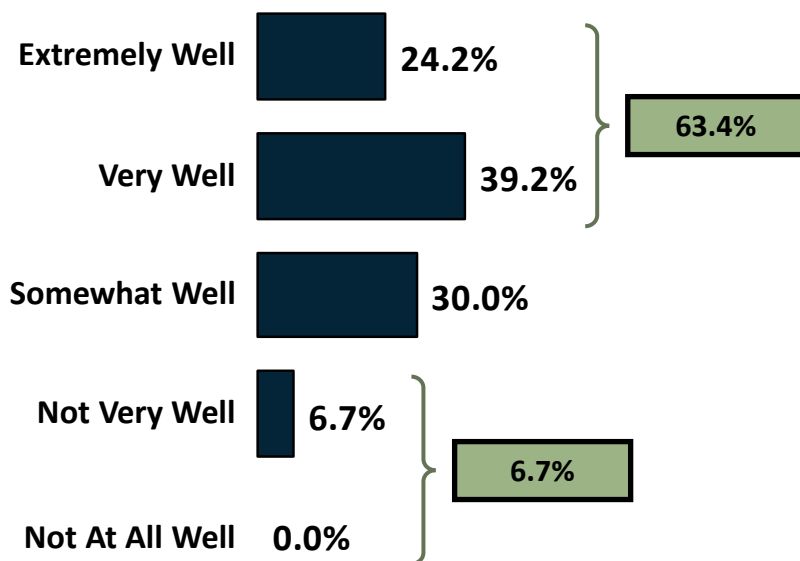


Preparedness of Local Health Professionals

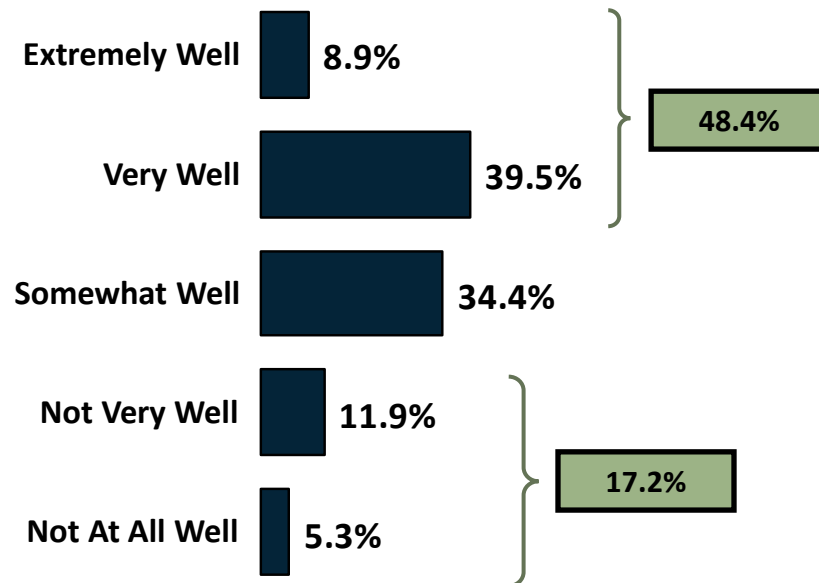
- Compared to underserved residents, Key Informants hold a more optimistic view about the preparedness of local health professionals in dealing with future communicable disease outbreaks; 63.4% of Key Informants say local health professionals are very or extremely well prepared compared to 48.4% of underserved residents.
- Key Stakeholders hold a view similar to Key Informants, where six of the nine (66.7%) report they believe local health professionals are “very well” prepared to handle a future pandemic.

How Well Prepared Local Health Care Professional Are to Deal With Future Communicable Disease Outbreaks

Key Informants



Underserved Residents





COVID Preparedness(Key Stakeholders and Key Informants)

- Key leaders who consider local health professionals to be very prepared for communicable disease outbreaks say the foundation was in place to assist people to learn and adjust as necessary, communication was consistent and on topic, and the collaboration of area professionals and organizations, facilitated by SPOKE and Lakeshore Nonprofit Alliance, was key to preparing them even more to address the issues at hand.

I think we're **much better than we were**. I think we're not to extremely well yet, but very well. I'm sure you've heard this from health systems, but this **has been a blessing and a curse**, and the **blessing is that we have a common goal**. When you have a common goal, **you can really rally around it and make things happen**, and that's what **COVID allowed us to do**. It **allowed us to set our individual priorities aside**, and that kind of gets back to my point from the beginning that, COVID aside, **we all have our different priorities, but we're not really aligned and committed to something like diabetes, hypertension, obesity**. If we really were, then we could **have a significant increased impact**, so I think **COVID has taught us that**. – *Key Stakeholder*

They have demonstrated the ability to learn and pivot throughout this pandemic. – *Key Informant*

I mean, **they had to totally upend everything they knew about protocols**. They put, I think, **so many good practices in place**, and, again, **being on these daily calls with so many folks**, I think the **rubric is there for the future in terms of the professionals**. If you ask me how well is our community prepared to respond, just given how people can't follow directions and instructions, I'd say not very well, but, I think, **for our health-care system—I think they're well prepared**. – *Key Stakeholder*

The **local and regional hospitals have actively been preparing** for this pandemic and **have solid incident command centers, policies and procedures** to address a surge. – *Key Informant*

Some of the Ottawa County human services **organizations came together**. **SPOKE and Lakeshore Nonprofit Alliance** basically **got everybody on Zoom calls and started thinking about, "Okay, where are the problems? What can we do? How can we coordinate?"** It was **pretty amazing how quickly organizations came together with tangible stuff like food, and even the foundations kicked in with some money to help in emergencies**—that type of thing—so that was pretty amazing. We will probably be better even equipped for the next one. – *Key Stakeholder*

DHHS has been proactive in sharing information and the **website dashboard is quite helpful**. **Conversations and coordination of information and resources were excellent**. Health providers were ready. – *Key Informant*

From my vantage point, the **local health care response** to the COVID-19 pandemic appears to have been **extremely well-prepared** and organized. I'm **particularly impressed with our local Department of Public Health and their consistent, regular communications throughout the pandemic**. – *Key Informant*

This **crisis has created a lot of new tools, tactics and strategies to make us even stronger in the future**. – *Key Informant*

They are thinking deeply, collaborating widely and demonstrating reasonable care for our community. – *Key Informant*



What Was Done Well (Key Stakeholders and Key Informants)

- Strategies and actions that worked well during the COVID pandemic included: (1) relying on science, health, and healthcare expertise to guide decision-making, (2) the coordination and collaboration of numerous health and human service organizations coming together working on the same goal, (3) consistent and timely communication, and (4) use of several media to disperse communication, especially websites.

I think there was a lot of **leaning on expertise**. I think our **health care professionals really leaned on expert guidance in terms of putting their protocols in place**. The **response was very quick**. I think **communication was very good**; whether people listened or not is another matter, but I think **communication was done very well particularly from the health department**. I think **they were quick to respond and communicate in several different ways what they knew, what they understood, what people should do**. – Key Stakeholder

A **calm response** versus a reactive response was essential. **Relying on experts to guide our practices and being prepared to pivot quickly** became key to being able to continue business and keep the community safe. – Key Informant

A **large group of human service agencies met virtually on a regular basis to discuss community needs and to find ways to address them**. This was incredibly helpful for **making sure that community members had access to food, shelter, childcare, medical services, etc**. Also, **www.careottawacounty.com was very helpful for getting information out about what was needed in the county** (food donations, etc.) and for **accepting financial donations**. Then this **funding was distributed back into the community** to help address the human service needs that resulted from COVID. The **health department's website was updated regularly** with updated recommendations, data, resources, etc. – Key Informant

Hospitals had a number of contingencies, COVID testing site, call in nurses. – Key Informant

One, we were all kind of **focused on the same thing**, and **we looked to each other for answers**, and we **collaborated**. There are **no barriers in communication or willingness to talk**. We **were all learning at the same time**, and I think we just **built a lot more relationships through that process**. So, I think that's what really, **really went well**, and, because of that, **we were able to make a lot of decisions**, we were **able to communicate**, we were **able to rally as a community**, not just the **not-for-profits**, but also the **churches, the businesses, the schools**. **We all worked together, integrated**. It was **amazing**. Usually, you have to schedule a meeting out fourteen times. – Key Stakeholder

The **public information campaign (daily briefings)** during the opening weeks of the pandemic were **very helpful**. – Key Informant

Shutting everything down and setting limits on the number of people in a certain area together. The **use of PPE, collaboration** among departments and other health care entities within the community to **ensure appropriate care and transfer of people** among various settings. – Key Informant

The **organization getting everyone at the table was pretty good**. It was **pretty amazing** how they **had one meeting**, and, **after that meeting, a website was developed**. I mean, it was **cool that people who could make things happen actually did make them happen**. It **wasn't a lot of talking about and planning and plotting**; it was a time where we were like, **"This has to happen now,"** and they were like, **"I'll make it happen,"** and it happened. – Key Stakeholder



Lack of Preparedness(Key Stakeholders and Key Informants)

- Very few Key Stakeholders or Key Informants believe local health professionals weren't at least somewhat prepared for the COVID pandemic, but those who do cite the virus being new and different forcing reactive behavior and causing some anxiety, the rollout of testing and PPE being slower than hoped, and the biggest hurdle was getting the entire public to buy into the science and act appropriately (wearing masks, etc.).

We know how to take care of sick people. The **issue becomes access in a supply chain**. Do I **have the medication** that I need, do I **have the testing** that I need, and **do I have the PPE that I need**? All of those things **are outside of my control**. – *Key Stakeholder*

I feel that **most decisions are made after the fact and are a reaction**. It **would be nice if the decisions could be made ahead of outbreaks**. Our community seems to think masks are a good decision, but **nothing gets enforced when people do not want to wear masks in public**. **Schools change their minds every week** on who they allow in and if fans can watch games. It started with parents, then added fans as communities began to complain. **Now we have higher numbers** than ever. It's not a coincidence. **Make a rule and enforce it**. Other countries do this and it works. – *Key Informant*

I **do not think the mass quarantining of High School and Junior High students is beneficial to their emotional or physical health**, very few of these repeatedly quarantined kids ever developed the virus. **They did develop fatigue with dealing with the same 'contact' issues** over and over again. I do not think that the health department is set up to deal with problems on the scale of the coronavirus. – *Key Informant*

The **initial information about COVID-19 in the spring caused a lot of anxiety due to the unknown nature of this virus**. We did not know how to protect ourselves or our community. As the **second wave** hit (fall of 2020) I do feel we are **much better prepared**. – *Key Informant*

There's **too much variability in governmental responses**, both locally and federally. Also, **misinformation on social media makes it challenging** as many **people believe what they're seeing and don't trust information from doctors and health departments**. – *Key Informant*

We have an **ignorant public who won't listen to medical professionals, won't mask**, we have **local religious schools and churches refusing to mask** and we **don't have enough proper PPE to protect those on the frontlines (N95)**. – *Key Informant*

COVID was new; COVID was different. There is **still so much we don't know about COVID**, and it **changes every day**, so it's really **difficult from everybody's perspective to plan around a moving target**, so that's been a challenge. – *Key Stakeholder*

The **lack of availability for testing continues to be a challenge**. There was **no strategic plan on how to take care of patients**. – *Key Informant*

Recommendations continue to change and keeping abreast of those changes is difficult. Additionally, it **seems every area has different recommendations and algorithms which makes it even more difficult to practice with consistency**. – *Key Informant*

The **cases continue to rise**, and there is a **max capacity for medical spaces, hospitals, testing sites, etc.** – *Key Informant*



What Could Have Been Done Better (Key Stakeholders and Key Informants)

- Key Stakeholders and Key Informants say that improvements could have made in the following areas: (1) using science in medical and policy decision-making, and having everyone buy into the science, (2) finding ways to make the crisis and response to it apolitical, (3) rolling out PPE, equipment, and testing sooner and to a greater extent, and (4) ensuring that communication was consistent at all levels (national, state, local).

I can think of a million things in my own organization; I just can't think of outside agencies. I always think that **public health and health care should be working in tandem all the time**, and there's **still a bit of a great divide between what happens in health care and what happens in public health**. – *Key Stakeholder*

Communication is always the key, right? There was a **lot of fear in the very beginning**. So, right now, I think they're all rock stars; they're all doing quite well. But it **took a long time to make sure PPE was distributed**, and it **took a long time to get an adequate number of tests** that they wanted. – *Key Stakeholder*

Reaching the **homeless population, uninsured** and **providing more clear information about who can get tested, and how much it costs**. Especially for those that do have insurance, **there is not clear information about who can get tested and how much it will cost**. – *Key Informant*

More PPE and equipment. The **public at large seems to not be taking this seriously** and given that a large majority seems to be **putting the rest of us at risk** there should be consequences for people who don't follow health care recommendations. – *Key Informant*

We need **better enforcement of things that HELP our community**. **Such as wearing masks**. It **became so political**, and even now remains so. It **should not be political**. It **should be a community caring action**. – *Key Informant*

The **general availability of testing supplies has been the limiting factor throughout the crisis**, as has been true across the nation, and there was **not good coordination across the various sites of care**. So, for instance, the **governor states that "We're going to have a testing center thing that you can find online of where a testing center is near you and get access to it, and we're increasing the level of testing,"** and of course at the national level of government they said early on that **everyone can get a test who wanted it**, and that leaves us **very confused** out in the town of Holland because **that is just not the case**. **There was no availability of testing**. We **didn't know how to access that**. Even when the governor stated that they're going to increase testing, but I called **the county health department, and they had no idea**, and that they learned about it when the press release was released, so it seemed like **there was poor communication along the chain of command going from national all the way down to county and local**. – *Key Stakeholder*

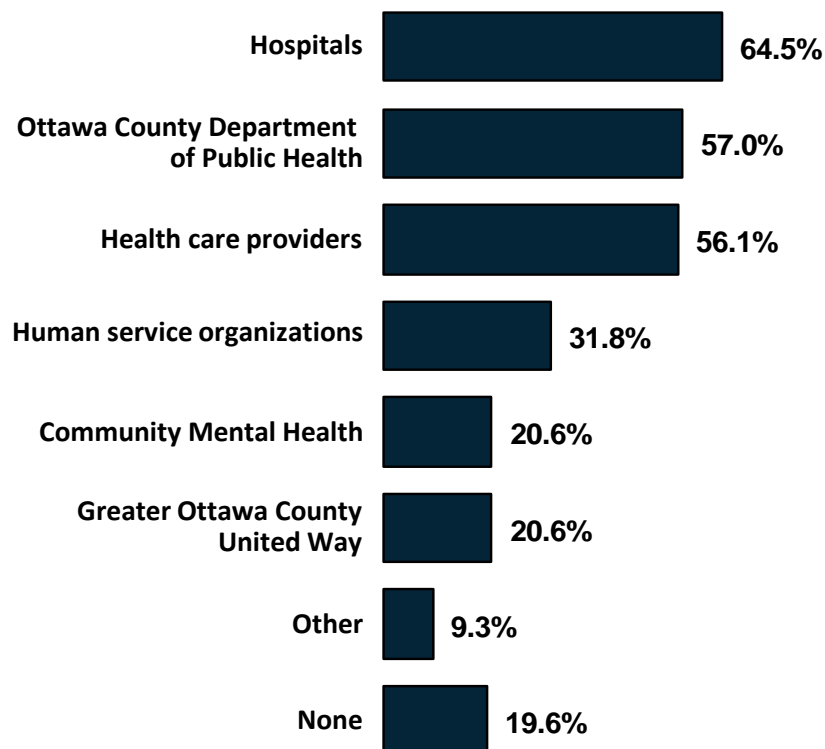
Use science to make decisions. For example, I agree that masks and social distancing can help to reduce and slow spread, but this didn't seem to matter with the kids in school. **Despite wearing masks and socially distancing, kids were sent home for 14 days to quarantine when they didn't meet the CDC description for exposure**. Wearing a mask didn't seem to make a difference in your decision. **Everyone was sent home regardless of masks and distance**. This actually **discouraged people from reporting symptoms and getting tested for fear of how that would disrupt kids and family for 2 weeks**. – *Key Informant*



Organizations Best Prepared for the COVID Pandemic

- Although numerous organizations were at least somewhat prepared for dealing with the COVID pandemic, not surprisingly the hospitals, county health department, and providers were believed to be the most prepared.
- The COVID pandemic was so new and overwhelming that it really required the effort of numerous organizations working together in order to effectively address the problems the pandemic would create (on multiple levels).

Organizations Best Prepared for the COVID Pandemic (Key Informants)



Key Stakeholder Comments on Organizational Preparedness

The health department in Ottawa County did a really nice job. We're painfully connected because we're part of the EOC, so we're part of the emergency operations center, so **we were there hour one**, and I was **impressed with the response of the county**. I would have to say that the **nonprofit response through that thing that we called Care Ottawa County**, which was **United Way** and the **two foundations and SPOKE**, got together and **did everything together**, and so that was **brilliant**, and I pat myself on the back for that. And **we created**—all of the funders, United Way and the two foundations—**within twenty-four hours**, had a **website** out for how to give and volunteer all at one, **so you didn't have to go to the three separate places**. We actually **raised funds**, raised **volunteers**, and **distributed funds** as a single unit. We **raised almost a million bucks** in ten weeks—and **four hundred volunteers** that spent a long time doing the magic. — *Key Stakeholder*

I think the **hospitals have, under one roof, the broadest array of resources to organize, and bring together disparate teams around a particular clinical challenge**. So, it's a **model that we are better accustomed to broadly**, so we didn't have to learn that. **We've practiced that, and we triage every day**. This was multiple times more broad than what we normally face day to day, but, again, **just the framework and the infrastructure of triaging and pulling together resources and essentially, if you will, assembling new teams**—that's the breadth and depth of what we have on the bench. — *Key Stakeholder*

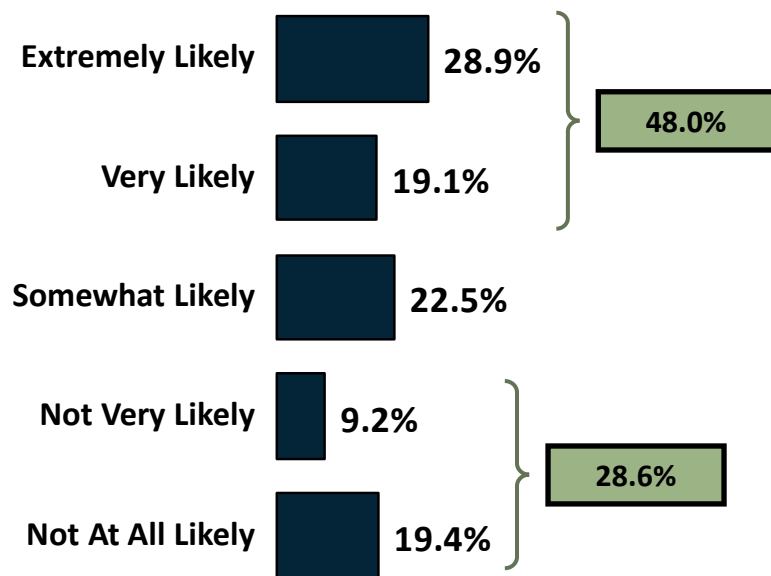


Likelihood to Get Coronavirus (COVID-19) Vaccine

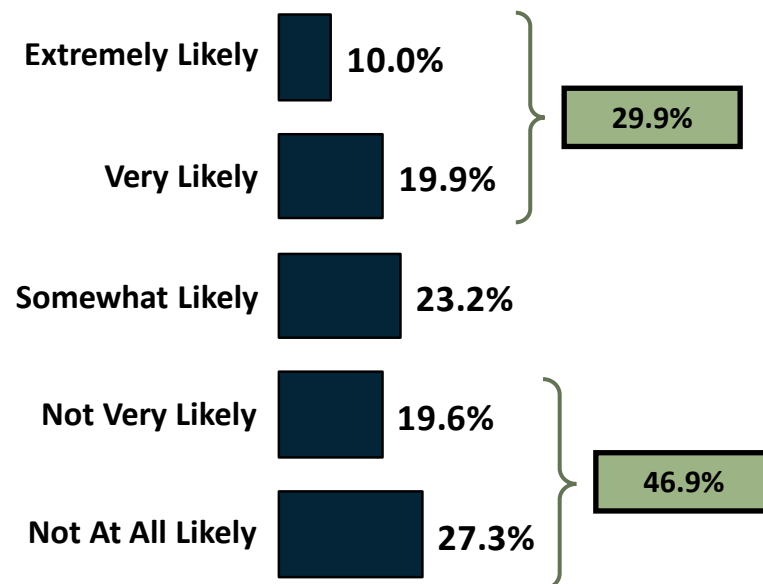
- Ottawa County adults were asked about their likelihood to get a COVID-19 vaccine – if it were available – prior to the vaccine being launched (e.g., July-September, 2020).
- Thus, without any knowledge of the vaccine's success, slightly less than half (48.0%) of BRFs adults said they were very likely or extremely likely to get a coronavirus vaccine once it became available, while 28.6% said they were unlikely to get the vaccine.
- For underserved adults, the likelihood was almost the complete opposite, where 46.9% reported they were unlikely to get the vaccine; 27.3% said they were “not at all likely.”

Likelihood of Getting a Coronavirus (COVID-19) Vaccine if Available

BRFS Adults



Underserved Adults



Social Indicators



Demographics of Ottawa County

- Ottawa County is predominantly an urban area, where 84.0% of its residents are White and half (49.7%) of the population is under age 35. The median household income is \$69,314, higher than the nation (\$62,843).

Ottawa County Demographic Characteristics				
	N	%		%
Total Population	286,558	100.0	<u>Household Income</u>	
<u>Gender</u>			Less than \$10,000	3.4%
Male	141,600	49.4%	\$10,000 to \$14,999	2.2%
Female	144,958	50.6%	\$15,000 to \$24,999	8.5%
<u>Age</u>			\$25,000 to \$34,999	7.4%
Under 5	17,863	6.3%	\$35,000 to \$49,999	12.2%
5 to 14	39,287	13.7%	\$50,000 to \$74,999	20.4%
15 to 24	51,065	17.8%	\$75,000 to \$99,999	15.2%
25 to 34	34,231	11.9%	\$100,000 to \$149,999	18.5%
35 to 44	33,629	11.7%	\$150,000 to \$199,999	6.8%
45 to 54	34,376	12.0%	\$200,000 or more	5.3%
55 to 64	34,214	11.9%	<u>Urban/Rural Population</u>	
65 to 74	24,007	8.4%	Urban	79.7%
75 to 84	11,883	4.1%	Rural	20.3%
85 and over	6,003	2.2%		
<u>Race/Ethnicity</u>				
White/Caucasian	240,269	83.8%		
Black/African American	4,089	1.4%		
Hispanic/Latino	28,112	9.8%		
American Indian/Alaskan Native	661	0.2%		
Asian	7,549	2.6%		
Native Hawaiian/Other Pacific Islander	56	<0.1%		
Some Other Race	146	0.1%		
Two or More Races	5676	2.0%		

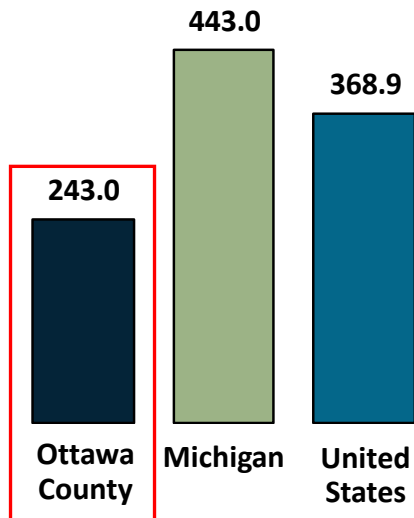
Source: U.S. Census Bureau, American Community Survey, 2015-2019.
Urban/Rural data from U.S. Census Bureau, Decennial Census, 2010.



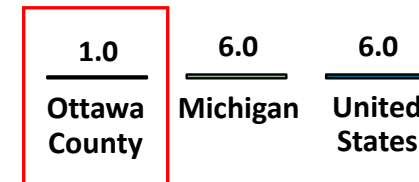
Crime Rates

- Ottawa County residents enjoy the safety of their community. In fact, Ottawa County has far lower violent crime and homicide rates compared to Michigan or the U.S.
- Although child abuse/neglect rates in Ottawa County are also lower than in the state, there is room for improvement as this rate is higher than the national rate and has almost tripled from 2011 (rate = 3.6).

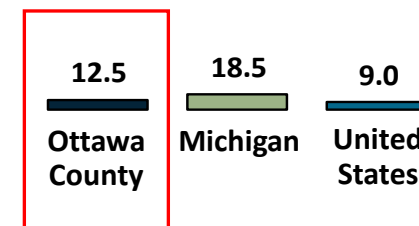
Violent Crime Rate
Per 100,000 Population



Homicide Rate
Per 100,000 Population



Confirmed Victims of Child Abuse/Neglect
Per 1,000 Children <18

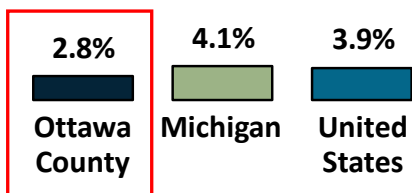




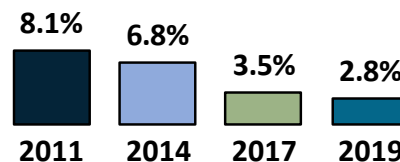
Unemployment

- The pre-COVID unemployment rate in Ottawa County was extremely low and this rate had been steadily declining since 2011.
- However, once the COVID pandemic began, unemployment was once again considered to be a societal issue and to have a negative impact on the health of area residents.
 - ❖ That said, some area residents benefited from financial incentives and unemployment benefits that helped alleviate the negative impact, albeit temporarily, of job loss or furlough

Population Aged 16+ Unemployed and Looking for Work



Unemployment Rate for Ottawa County Residents Over the Past Four CHNAs



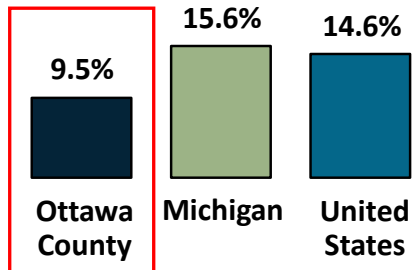
We're **losing businesses and such because of COVID**, and I'll be **interested to see long-term what kind of economic impact** that has for our community because the places that were open were places like grocery stores and fast food and stuff like that, and those are obviously the lower income jobs, and most of those people—a lot of them don't live in the county because they can't afford to live there. So, they're driving from their communities. I'll **just be interested to see how much it impacts people that had to close their businesses.** – *Key Stakeholder*



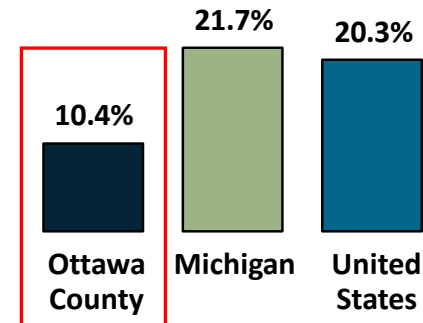
Poverty

- One in ten Ottawa County residents lives in poverty, a rate lower than state or national rates.
- A slightly higher proportion of Ottawa County children live in poverty; however, the rate is far lower than the rate in MI or the U.S.

Percentage of People in Poverty



Percentage of Children (<Age 18) in Poverty





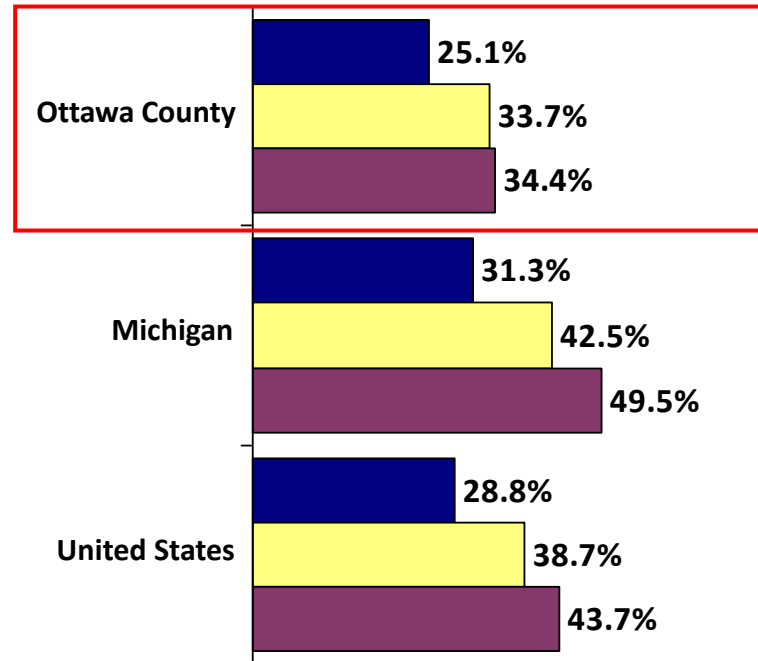
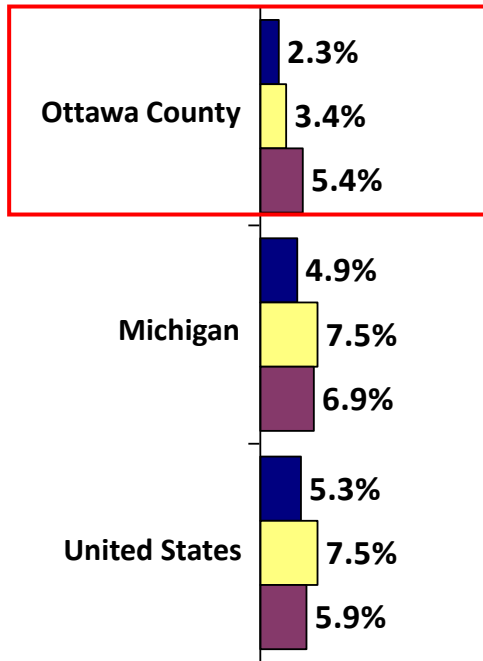
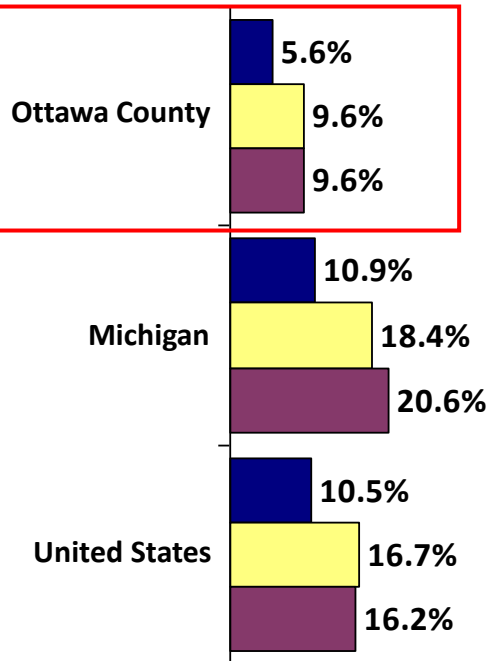
Families in Poverty

- The proportion of Ottawa County families living in poverty is lower than in the state or the nation.
 - ❖ Yet one in ten Ottawa County families with children (10.9%) lives in poverty
- Married couples are far less likely to be living in poverty than single female households.
 - ❖ Roughly one in four single female households in Ottawa County live in poverty, but this proportion rises to more than one-third for those with children under the age of five years

All Families
(% Below Poverty)

Married Couple Families
(% Below Poverty)

Single Female Families
(% Below Poverty)



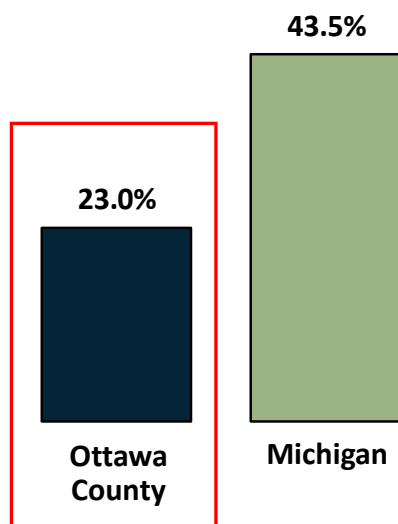
■ Total ■ With Children <18 Years ■ With Children <5 Years



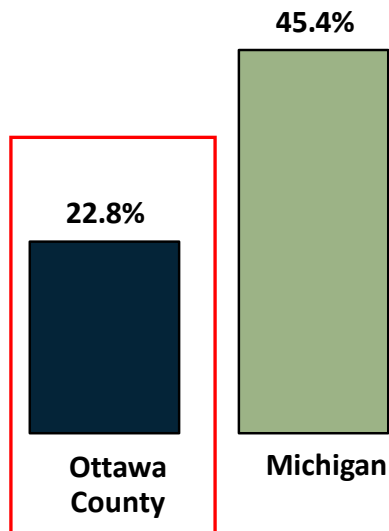
Children in Poverty

- The proportions of Medicaid paid births, children receiving WIC, and students eligible for free or reduced school lunches are all much lower in Ottawa County compared to the proportions in Michigan as a whole.
- Still, there is room for improvement as almost one-fourth of births are Medicaid paid and a similar proportion of children ages 1 to 4 receive WIC assistance.
- Further, more than one-third of students are eligible for free or reduced-price school lunches.

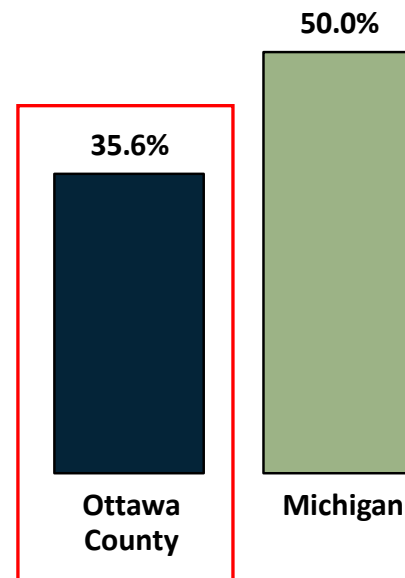
Medicaid Paid Births



Children Ages 1-4 Receiving WIC



Percentage of Students Eligible for Free/Reduced-Price School Lunches





Education

- For both men and women, more Ottawa County residents graduate high school and get college degrees compared to residents across the state or the nation.
- The graduation rate among those who begin 9th grade is higher for Ottawa County youth compared to youth in Michigan or the U.S.

Educational Level (Among Adults Age 25+)						
	Men			Women		
	Ottawa County	Michigan	U.S.	Ottawa County	Michigan	U.S.
No Schooling Completed	0.8%	1.1%	1.4%	0.9%	1.0%	1.4%
Did Not Graduate High School	7.3%	9.4%	11.9%	6.7%	8.1%	10.6%
High School Graduate, GED, or Alternative	28.5%	30.0%	28.1%	28.5%	28.6%	26.6%
Some College, No Degree	21.8%	23.6%	20.5%	21.8%	23.6%	21.0%
Associate's Degree	8.3%	8.0%	7.4%	10.3%	10.5%	9.1%
Bachelor's Degree	22.2%	16.9%	18.9%	21.5%	17.2%	19.4%
Master's Degree	7.9%	7.2%	7.7%	8.4%	8.8%	9.1%
Professional School Degree	1.8%	2.1%	2.4%	1.0%	1.3%	1.7%
Doctorate Degree	1.3%	1.5%	1.7%	0.9%	0.9%	1.1%

Freshman Graduation Rate

Ottawa County – 92.0%

Michigan – 80.0%

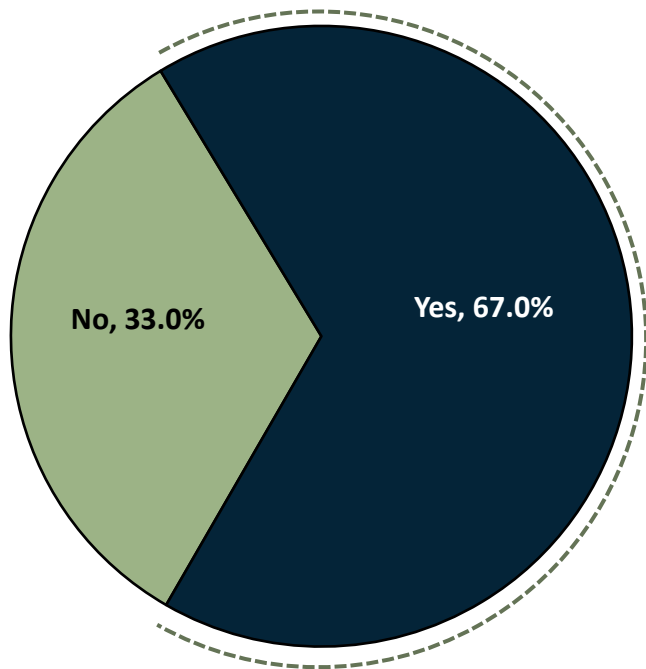
United States – 83%



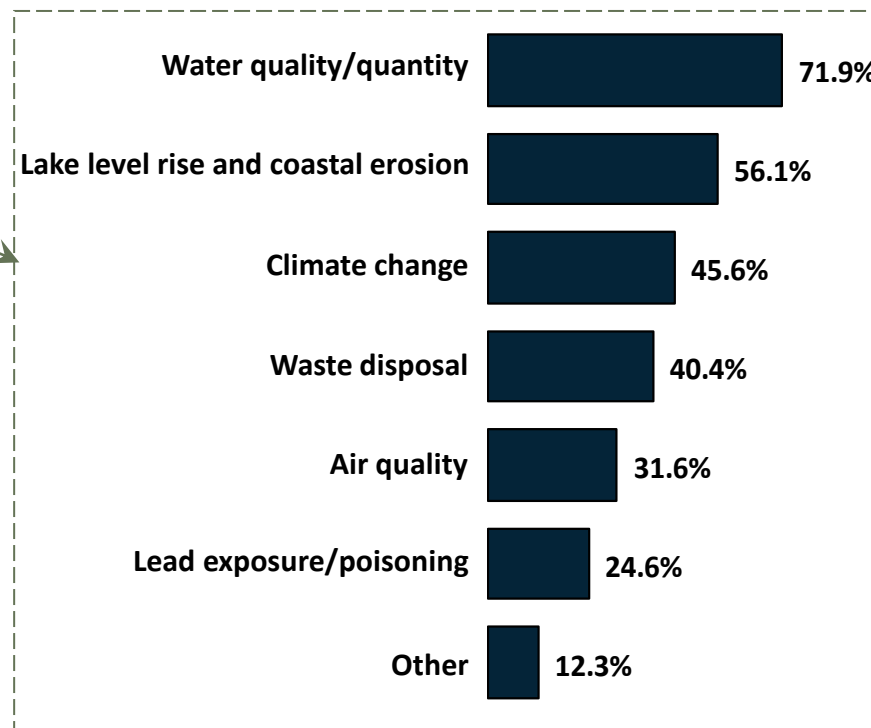
Environmental Factors

- Two-thirds (67.0%) of Key Informants surveyed indicate they are concerned about environmental factors that could impact the health of area residents in the next few years.
- Of those who are concerned, seven in ten (71.9%) cite water quality/quantity as the top environmental concern, followed by coastal erosion due to rising lake water levels.

Concerned About Environmental Factors That Could Impact the Health of Area Residents



Environmental Factors That Could Impact the Health of Area Residents

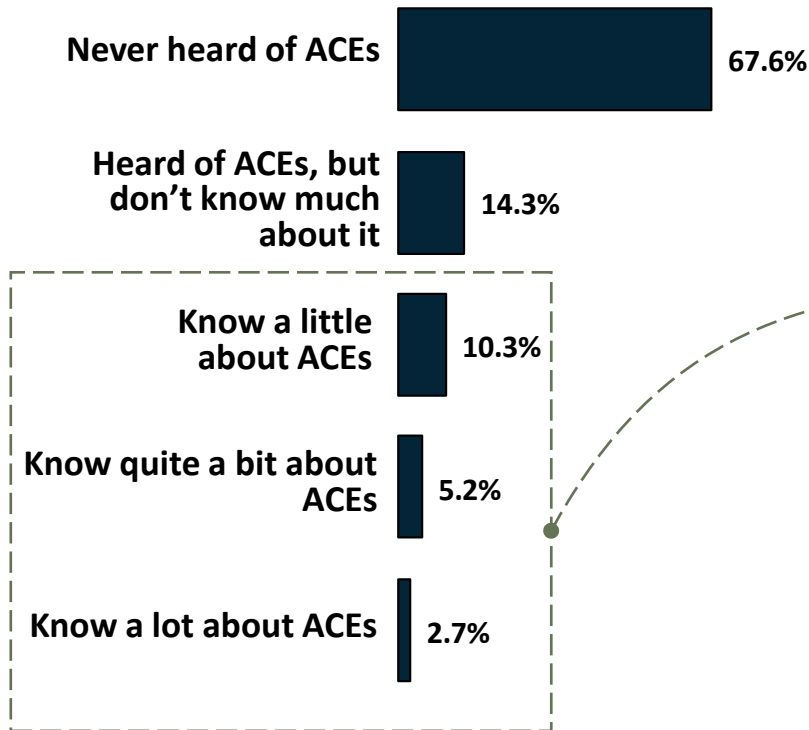




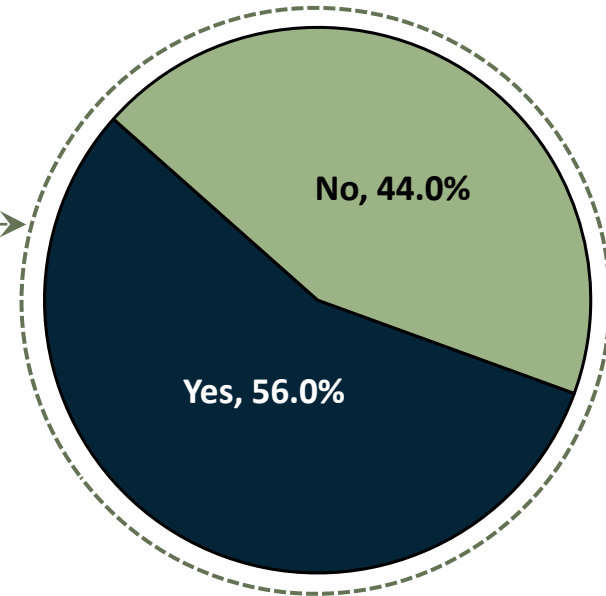
Familiarity and Application of ACEs

- 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





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)	40.2%
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)	21.9%
How often did anyone at least five years older than you or an adult, ever touch you sexually? (n=1,186)	11.7%
How often did anyone at least five years older than you or an adult, try to make you touch them sexually? (n=1,186)	8.4%
How often did anyone at least five years older than you or an adult, force you to have sex? (n=1,185)	3.8%
Did you live with anyone who was depressed, mentally ill, or suicidal? (n=1,188)	28.1%
Did you live with anyone who was a problem drinker or alcoholic? (n=1,196)	23.9%
Were your parents separated or divorced? (n=1,195)	23.7%
How often did your parents or adults in your home ever slap, hit, kick, punch, or beat each other up? (n=1,184)	17.6%
Did you live with anyone who used illegal street drugs or abused prescription medication? (n=1,188)	14.6%
Did you live with anyone who served time, or was sentenced to serve time, in prison, jail, or other correctional facility? (n=1,193)	10.6%

ABUSE

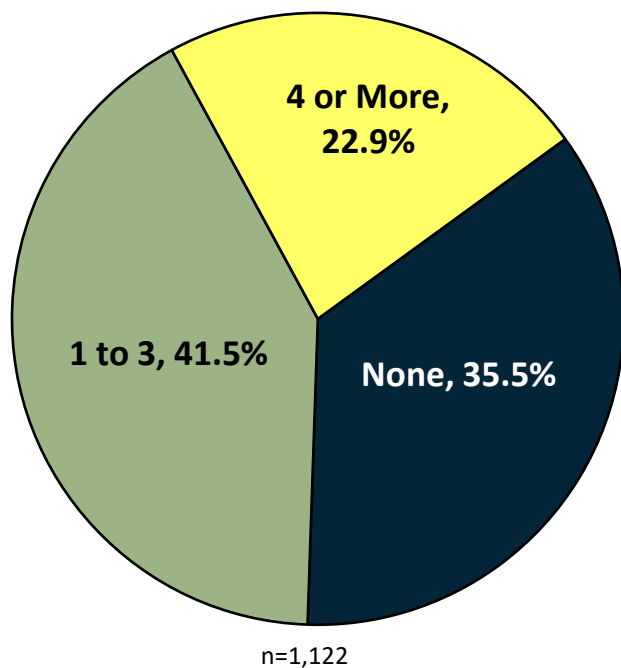
HOUSEHOLD CHALLENGES



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



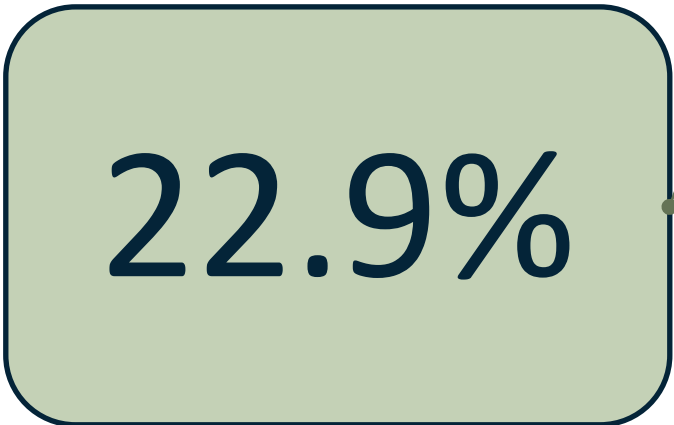
	Number of ACEs		
	None	1-3	4 or More
Health status fair/poor	8.0%	12.0%	22.9%
Poor physical health	5.1%	9.0%	15.7%
Poor mental health	5.7%	15.2%	29.3%
Activity limitation	3.2%	6.1%	13.8%
Anxiety	9.4%	25.1%	41.2%
Depression	8.5%	20.6%	44.5%
Suffer from chronic pain	25.3%	31.9%	43.3%
Marijuana use (past 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%



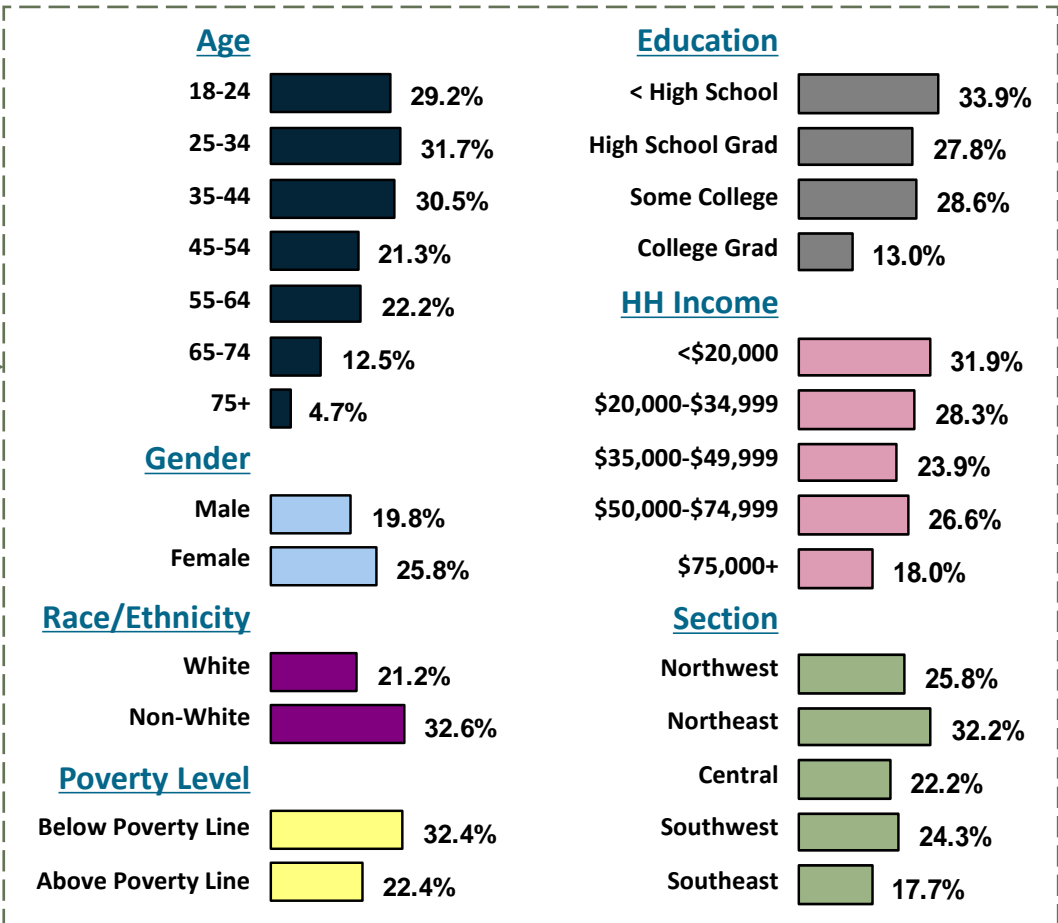
Prevalence of 4+ ACEs

- 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)



4 or More ACEs by Demographics



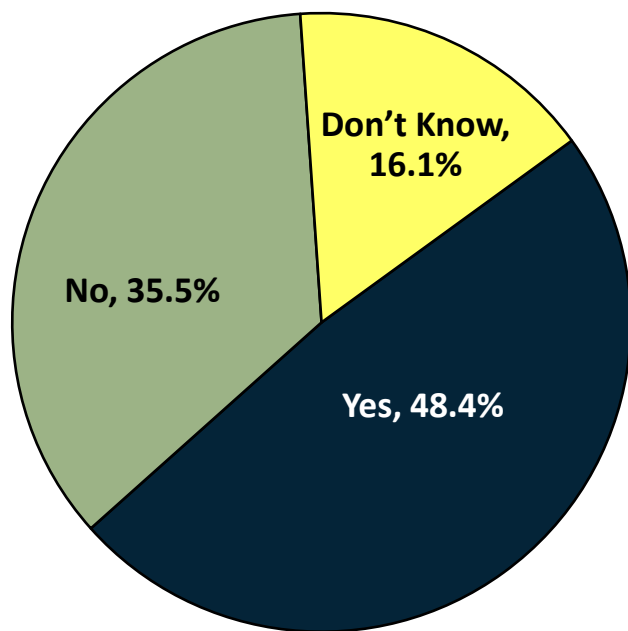
*Among all adults, the proportion who reported ever experiencing four or more of the eleven adverse childhood experiences by age 18.



Screening for ACEs

- Despite the fact that ACEs are considered important as predictors of adult outcomes, only half (48.4%) of Key Informants can confirm that they, or their organization, screen patients/clients for adverse childhood experiences.
- Key Stakeholders and Key Informants talk about the critical need to study and address ACEs and the steps already taken to do this (e.g., Pathways to Better Health's community health workers).

Currently Screening for ACEs



There's two things that I was heavily involved in. So, the **community health worker project [Pathways to Better Health]** I think is an amazing thing that I'd love to see grow. I think at **one point in everyone's life, they need a case manager**, and that was obviously a **direct result of some of the stuff we uncovered as far as access to care and navigating the healthcare system**. And then, **more recently, the ACEs stuff** that we're still working on rolling out—but that was **definitely driven by the data that we obtained**. – *Key Stakeholder*

Mental illness affects everyone in one way or another. Our young people are experiencing unprecedented levels of stress and anxiety. Adults are dealing with the effects of ACEs. People are struggling and stigma continues to be a barrier to seeking much needed help. Individuals with mental illness who do NOT have an advocate are most likely to end up homeless, incarcerated, or dead. – *Key Informant*

The **community is seeing an increase in mental health issues** in our residents, and this has a **growing and negative impact on the larger community**. It also has a **long-lasting impact** as it **impacts families and causes future issues as children have negative impacts (ACES)**. So many other system issues can be traced back to mental health issues. – *Key Informant*

The **more we learn about ACEs the more it seems like we need to build better community relations with emotional intelligence, and helping people deal with mental health problems, which, untreated, end up creating physical problems, poverty, and drug abuse problems.** – *Key Informant*

Community Characteristics



Community Strengths (Key Stakeholders)

- Key Stakeholders list many community strengths or resources upon which to build programs or initiatives to address health needs or issues but clearly the community foundations are most top of mind. Additionally, there is a **strong collaborative spirit among people and organizations, a robust and dedicated volunteer force, highly philanthropic people and businesses**, and organizations like **United Way** and **SPOKE** are enormous assets.

You have a **lot of committed people**, you have **people that very much want to see positive continued growth and changes**. We're fortunate that we live in an area where, if we have to reach out to the **community foundation** or some other potential donors to say, "We really identified a very specific need, and we think we can move the ball down the field by this amount if we could just do X; would you help us with that?"

The philanthropic organizations you referred to; I agree that is a strength of this area—things like the **Holland community foundation—Holland/Zeeland foundation**. And then also the **business-development center**, or **Lakeshore Advantage**. It's underwritten by the large companies in town that **helps smaller businesses get going**, but that's a strength. I would say Ottawa County is probably in the top 10 percent of the country as far as a place to **start a business and the amount of support you get locally to get businesses started**, so that and the **community foundations**, and then the **businesses** recognize the importance of community health and well-being and are helping to promote that, and then also from **philanthropic donations**. I wish there was more influence of the many churches that are in this area.

The **Holland/Zeeland community foundation** has been **working with a variety of partners and philanthropists and businesses on affordable housing**. I would say that has become, if not the number one issue, it's certainly one of them. It takes a **variety of different stakeholders to mobilize from identifying where real estate can be set aside, to create opportunities to be in healthier housing environments** that address **transportation needs**, being **close to the bus stop**, what **school districts** are they in, and even **health care resources** within such communities.

United Way mobilizes just shy of ten thousand volunteers a year. That's an **army of help to our agencies and their clients**. I do believe that Ottawa County **SPOKE** was the brainchild of **United Way** and the **county** together and the **Lakeshore Nonprofit Alliance**—we kind of created that. **We funded it**, and then **we were able to shove over to his group**, "Go **make these collaborative things happen in a neutral space**." We do some **pooling of funds**, and, when we do it, it **works really well**.

In Ottawa County, you had some **major corporations' funds bringing key businesspeople together, not-for-profits**—to do **strategy** to do—I think it's **2025** now—on **how we can strategize to be a better, stronger community**. I think this is the third iteration of this, done every five years, and **most communities never have this opportunity**, and it is very purposeful, very significant. It pulls together **schools, hospitals, businesses, churches**, to try and **continue to drive the economic and social strength of the community**. So, you have **great funding for the community, Lakeshore Advantage focusing on all of Ottawa County and growth**. You have the **Zeeland/Holland education foundation**.

We have **amazing community foundations**. They've been fabulous. Our **United Way—fabulous**. They're coming to the table. They want to know. They want to use the data. They want to put money to things that are **real problems**. They're not clinically driven; they're **compassion-driven**, and they have a **real desire to have better health outcomes**. So, yes, capital—**financial capital**. We have **Community SPOKE**. We have **incredible philanthropy**. I mean beyond; it's **really quite amazing**. We have **community business leaders who get in the game and want to make an impact** and want to learn.



Resource Limitations (Key Stakeholders)

- Conversely, Key Stakeholders report fewer resource limitations; however, the most pressing limitations appear to be **lack of money (especially unrestricted funds), time, and finding minority leadership who can represent minority groups that are often underserved.**

I think the only limitation is actually the opposite—too much. I think **some clients just get overwhelmed by the amount of resources and have a hard time navigating which one is going to work best** for them and their family, so we sometimes have that issue with clients where they'll say, "Oh, I liked this one and then this one and this one and this one," and they sometimes get overwhelmed with the things that are available.

I think **finances are always limiting**. I think it's **less limiting than a lot of other places**. And then just the culture of—**impoverished communities are maybe not as networked**. I think there is a **desire of this community to reach into the clusters of poverty and minority populations**, and so I think **we are making headway in that direction**, but that is **still a need**.


We still don't have enough unrestricted revenue to fulfill the work. By unrestricted, I mean we spend it how the collaborative thinks we should spend it, as opposed to how the grant or the feds think we should spend it. My federal grants are as big as my campaign, but they're so restricted.

Funding. There's never enough, and oftentimes what is available is grant-based or short-term-based.

I would say **behavioral health is still an issue because there is no real funding for it.**

Time and funding limitations. We started a conversation, especially in the mental-health world but even in the world that I live in, there are **all kinds of funding limitations**. Take OB, and you're trying to make sure the new moms, from a nutrition standpoint, get their children/babies off to the right start. **Education about postpartum depression and all of that takes money and resources and, as reimbursement continues to be ratcheted down for all the services that I provide, there is no excess, and those type of services were never paid for by people; it was just expected that we find a way to fund the nurses and the specialists to be able to provide that education.** Everything is at risk right now when we have less and less resource coming in.

To be honest with you, one of the greatest challenges we have found is **identifying minority leadership that will participate in things like governing boards and other participation in economic planning forums**—those are the ones I'm most familiar with. Just finding adequate numbers of **leaders that can represent those minority groups**—that is a **huge challenge**. It's actually one of the biggest challenges of anything that we've talked about this morning. That's one that belongs on a list and that belongs in—being talked about, and I've interacted with a number of other not-for-profits, and **we've all got the same problem, and that's just a big gap**—that we need to do better and, frankly, they need to do better.



What A Healthy Community Looks Like (Key Stakeholders)

- When asked to describe what a healthy community looks like, Key Stakeholders continue to go beyond common physical metrics (e.g., lifestyle choices, chronic conditions), although these are certainly important. Their responses, which focus on things such as **employment, commerce, schools, safety-net programs, access to care, collaboration, social justice, and goals**, demonstrate a **focus on health from a biopsychosocial lens**.

It's **more than the physical health**, so it's **job availability**, it's a **good, strong infrastructure** of both **schools, safety-net providers**, whether that's **food, shelter, counseling**, and, obviously, a **local health-care system**, and it's a **community that understands the needs and embraces any challenges** that their community might have, **whether that's diversity issues, religious issues, educational issues; it's the whole being**; it's not just—we always tend to think of "health equals physical health."

A healthy community is one that—I think about this in different phases. It **starts by having an environmental-health impact**, so **people have access to safe drinking water and safe quality air**. They're **able to access outdoors for healthy living** and things like that. Another chunk of a healthy community is where **people actually have access to health care and everything that goes with that**, whether that's **quality insurance**—it's having a **quality health-care system in place where they can reach primary care doctors and specialists** and all the things that requires **for all your medical needs**, where it's **affordable**, so your **health insurance is affordable**. It is a **place where you are able to make easy decisions about healthy lifestyles**, so you have **access to healthy affordable foods**. And **decisions about those are made easy**, so it **means that you have markets or grocery stores** or things that are close to you that **make it easy for you to make healthy food choices** as well as **healthy exercise choices** as well, whether that's getting outdoors, low-cost exercise opportunities, gyms—just ways that you are able to care for your overall health.

I think it's truly **around issues as a whole community**, so kind of a feeling of **like-mindedness, supporting one another**, having **agencies that are all aligned to work together**, not against one another, **being collaborative**.

At the broadest level, I would say that, ideally, there's a **clear understanding of what good health looks like**, and, in the best of all worlds, **that's a focus on prevention versus on the other extreme—on acute episodes that are requiring multiple resources and even at the hospitalization level**. **Good health is when prevention is routinely practiced and a relentless kind of focus across various organizations** in the community. It's in the **education system**; it's in the **industry**, regardless of the type of industry we're talking about; it could be manufacturing or service, and it can be **health care partnering with those various entities**, staying **focused on prevention and collaborating together to bring those resources to bear** because all of it shouldn't have to fall on the hospital.

A healthy community to me is a community that's **united on some common goals around health, education, and jobs** and, including that, you can never take away that responsibility to what I'll say **social justice**, or another way to say it is **health disparities**.



Is Ottawa County A Healthy Community?

(Key Stakeholders)

- Key Stakeholders are in agreement that **Ottawa County is a healthy community**, at least relatively speaking. As a county, it is certainly healthier than almost all, or all, other counties in Michigan based on important key metrics. Further, it is probably healthier than most counties in the U.S.
- However, there is absolutely room for improvement as **not everyone is healthy**; there are **segments of the population that struggle** with **physical and mental health issues, access to care, lifestyle choices**, and having **access to resources** that would alleviate many of their problems.
- It appears the county certainly has the resources to get to where they want to be.


Relatively speaking, I would say the answer to that is **yes**, but **there are large gaps where access to care is significant**, and we've touched on a couple of those things already, and there's a few more that I can elaborate a little bit more on here, again in this chronic-condition situation, but I think, in this county, **there are in place resources or efforts to define and create new avenues to try to fill those gaps**, so I would say **overall it's doing fairly well** in that regard, yes.

I think **we are healthy compared to most**, but **we have a long ways to go**. We are **poised to be healthier**, and, **if we set our minds do it, we can do it**, but **we're not there yet**.

I'm going to tell you what I genuinely say out in public. **We are the first or second healthiest county in Michigan**, which means **we're slowly getting thicker slower than everyone else**. So, I would say **there's enormous room for improvement**, but at least **we're the healthiest of a non-healthy bunch**.

The **statistics would say no**. If **we're doing the comparison game**, you could say **yes because we consistently rank towards the top at least in the state** of Michigan, but, by and large, **too many people are not healthy**. Now I'm going to probably butcher the statistics, but **two-thirds of the community's overweight or obese**, and that would **indicate that we're not on the right track**. **Statistics pointing to poor mental-health days and people dealing with psychological stress**. I'll say that we're not necessarily living in a healthy community, but some—and, again, back to the **access**; we know **not everyone has affordable health care insurance**, so many of those are no. **From an environmental standpoint, I think we're probably better off than most**. I think we **have quality air**; I think we have **quality water**. **Low lead, outdoor access**—things like that make it **better than most**.


Yes. Well, let me tell you something that I heard [our county epidemiologist] say several years ago, she said, "We are getting sicker slower; so are we healthy?" I **don't know that we're optimally healthy yet**. I'm not sure any more than the United States is, but **we're better than many**, but it **doesn't mean that we're where we should be**. **We don't eat healthy**; it's **too expensive**.



Characteristics That Make Ottawa County Healthy (Key Stakeholders)

- Characteristics that make Ottawa County a healthy community are its **collaborative spirit**, having a large **faith-based** sector that has a lot of good will, **access to natural resources**, **access to education**, and a **plethora of health and human service programs and services**, for those who can afford them.

Collaborative spirit	That we do collaborate and we do work together . It's just still in parts and pieces, but it's far better than a lot . It's still better than a lot , but it's still fragmented , so our willingness to work together , at least our opportunity . I think culturally trying to do the right thing as a cultural fabric of the community I think leads us to be a healthier community . There's not a contentment with where we're at. There's a passion to continue to get better . I think that's an underlying cultural theme in this county , especially the closer you get to the lake shore.
Programs/services	If you can afford health care here locally, I think we have phenomenal health care from hospitals, doctors, specialists . I think we have that in place here if you can access it , so I think that certainly helps us be a healthy community . I guess I'll put it this way: I think if you're in a position—it's not always equitable , but if you're in a position that you can make healthy lifestyle choices, if you can access it, it's here , so if you can afford it . Affordability and access come into play as a challenge.
Natural resources	We're active . I think we make use of the natural resources that we're privileged to have in Ottawa County, so you see people outside and active , whether it's the walking trails , the bike trails . In the summertime people are swimming and at the beach . It's just physical activity and it's pretty significant around here . You have the local YMCA that embraces all through the summer getting kids into their summer programs , and they're out doing things , and they try to make that affordable for families .
Education	There is broad participation and opportunity in education on multiple levels : preschool, kindergarten, elementary on up through high school and beyond, and Ottawa County has a very rich supply of all sorts of different avenues in that whole arena from private schools to charter schools to private schools and technical programs.
Faith-based	There's a pretty robust faith environment here in Ottawa. I don't think you'd ever be lacking for a church if you wanted one. There are those kind of fundamentalist churches, but, for the most part, it's more of a goodwill and be-a-good-person kind of mentality . You may get some pushback on that if you ask certain people, but the faith-based organizations usually are pretty positive and proactive here as well.



Characteristics That Make Ottawa County Unhealthy (Key Stakeholders)

- Conversely, characteristics that make Ottawa County an unhealthy community are that discrimination is perceived to be systemic and broad, and there is a tendency for the community to perpetuate it via segregation (whether conscious or not).
- There is also a **lack of access to affordable and healthy food, lack of access to health care programs and services for all residents, and economic disparities** that contribute to negative health outcomes.

Discrimination	Unfortunately, this is something that's sad to say but there's a lot of racism in the community , and it all tends to [come from] religion , but religious positions that are based on old past history that really get in the way of social justice . It's broad , including gay, lesbian. We just had a ten-hour meeting in the city to give rights to lesbians, gay, LGBTQ, and it passed under greater cultural community pressure not because people really wanted it . Also, the community has segregated itself , and so you have a lot of Hispanics that live in Holland. If you don't have transportation, you're going to go to the school closest to you, so school choice. Those people that have transportation would take their kids from Holland and move them to Zeeland. Those would be your white kids, but Hispanic kids or other kids with some limitations they all end up in Holland. And then, in Holland, all the people with money, with Christian faith go to private schools, so they segregate their kids out of the inner schools .
Access issues	Many of the same problems as is true of the rest of the country; not every patient has health care insurance , and not every patient with health care insurance knows how to access care or understands the benefits of healthy nutrition and healthy education .
Lack of access to healthy food.	The cost of healthy food is a barrier . We don't have a food access problem, but we have a healthy food access problem . On the technical term, there are food deserts in the county , on that definition of it. But the real problem is a lack of healthy food access in the county.
Economic disparity	I could point to high percentages in some of those schools in free and reduced lunch programs that students participate in—that those percentages are high in some of those schools , so it's very uneven on the economic side , and there are significant portions where there are all kinds of socioeconomic factors at play that contribute to poorer health than would otherwise be.



Collaboration and Coordination

- All Key Stakeholders believe that area organizations and agencies in Ottawa County continue to collaborate and coordinate services well in order to increase accessibility to programs and services for area residents, and this had steadily improved over the last several years.
- This impressive collaboration was highlighted during the COVID-19 pandemic where numerous agencies and organizations worked together and many people made themselves especially accessible.

Yes. It is **getting better and better**, and, as they get to know each other, that gets better. An example is that **during the COVID testing problems, I knew who to call over at the county health department, and I had her cell phone and her email to touch base with her** and ask what more could be done and how do we communicate better, so I think **those relationships have been fostered in the last five to eight years**, and I think when you have a **crisis like COVID that requires you to take advantage of those relationships**, it becomes apparent why it was **valuable**.

Yes. I have **seen that improve even in the last two years**, and I thought it **was good originally**.

Yep. I would tell you, though, that **COVID brought them together, and they realized, even though they do a great job, how much more they could be doing, but they came together—all the not-for-profits came together extremely well under COVID and partnered and tried to solve these problems together, and they moved in very quickly, but they learned a lot through that process—that they can continue to do more**.

I do, and I think **this is an area where we're doing well**. It **doesn't mean we've arrived; we can always do better**, but I think **Community SPOKE is doing a really good job of bringing people together and having the conversations around what's more important** and can we change the way we do things to **be more effective collaboratively**, so I think we're good, but we still have to work on it.

I do, and I would say, if anything, **area institutions are—and leadership in the community—are being intentional about having strategic plans and objectives that are commonly defined** and then **bringing those parties together to review, agree on what appropriate metrics should be looked at, and how progress is against those metrics**, and programs like **Ready for School—and there are others—have advanced that platform** quite a bit.



Collaboration and Coordination (Continued)

- Key Stakeholders are in agreement that all, or most, of the various health and human organizations – including the hospitals, free health clinics, CMH, OCDPH, and United Way – not only collaborate well with each other but also collaborate well with the school system, businesses, and the legal system (including the Sheriff's department).
- The collaboration is strengthened through the involvement of SPOKE and the Lakeshore Nonprofit Alliance.

I think **SPOKE served a very important role**, and that was **highlighted through COVID**. That's where we saw a **lot of not-for-profits come together** and get their information. **Hospitals worked better together through COVID than they ever have before**. We have **been building more relationships with the schools and the health department**. So, for instance, if you want to think about how I'm **changing a board here at [my hospital]**, if you'd asked me ten years ago what the board looked like, I would have told you, "Well, I've got a couple attorneys, a doctor, the county, a couple business owners, etc. If you ask me what my board looks like today, I'll tell you, "I've got the superintendent for the school district, leaders from SPOKE (because I really want to understand what's going on with the not-for-profits), leaders from the health department because I really want to make sure we're partnering with them, and Lakeshore Advantage so we know what the businesses are struggling with." **You see how different that is?** And that's what our board is today, and then we're asked **how do we partner and communicate with the broader community around health and wellness**, so you've seen a **huge pivot right here**. I think you'll see some massive changes over the next five years because of that type of movement.

I would say the **hospitals, health department, CMH**. When it comes to solving a **very specific problem, even the hospitals work well together**, so **we're fortunate that mental health has a seat at the table**. Our **schools have a seat at the table**. Some of our **churches, our chamber of commerce, the community foundation, the wellness coalition, a couple of our industries** who really want a **social-justice-type involvement**, the **United Way**. Anybody we ask, honestly, and **if we find there's some component missing, and any one of those members reach out to someone** and say, "We need your help; we'd like your voice," I've never known anyone that has ever said no.

Certainly, the **hospitals can always work better together**, but, as far as being competing systems, I would say **they work pretty well together here**, and I think they **all work well with the health department and Community Mental Health**. I think our **health clinics—our free health clinics—so, like City on a Hill, Holland Free Health Clinic, Love in Action, Tri Cities**. I mean, I think the **connection and the collaboration is there with hospitals, health departments, CMH, etc., and is a positive collaboration**.

I think **we all do**. The **larger government-based organizations for sure work well together**. The **hospitals**, weirdly enough, even though they hated each other years ago, **seem like they're way better**. At least they'll sit in a room and talk to each other. I don't really think they're coordinating care, but they're at least sitting in rooms where we're talking about the same things. And then there's that **whole network of social-service agencies** in Ottawa County that have some anchor programs, like **Lakeshore Nonprofit Alliance** and **SPOKE**, that **try to get us to all work in the same direction**.



Collaboration and Coordination (Continued)

- As far as opportunities for improvement, Key Stakeholders think that area organizations and agencies should continue to collaborate with an even greater focus on addressing problems and finding solutions outside of a pandemic.
- Since there are always funding issues, it would benefit all organizations to become even more effective and efficient through the increased use of telehealth, for example.

I think **there should be a growing overlap between the health department, CMH, and the network of medical providers through the PHO**. I think that **that should continue to improve**, and **we should be addressing problems and solutions together**. I think it happens, but I think **we can continue to bolster that**.

I still think that there is **room for improvement in aligning services so that individuals receiving those services don't have to go ten places**. We really work together, but sometimes it still makes the client do that.

There's **always a funding problem**. Our foundations are really superb here, but they tend to, like most foundations, want to do short-term pilot types of stuff, so **sustainable funding for some of these programs would be lovely**.

I think we **still need to work on housing and social determinants of health**. We have to accept it.

Let's stay with the **telehealth** piece. Let's give a **specific example**. If you're **getting feedback in a community health assessment that pediatric specialty services on the lake shore would be desirable**, the **easiest mechanism for creating that access is telehealth**, so that can be multiplied out across a network of providers, and **instead of**, for example—I'm overstating this to make a point—**each of three hospitals all trying to recruit the same resource**—to be concentrated and based in one or two with telehealth access for pediatric subspecialty care or even intensive care—then that's just **leveraging scarce resources and expensive resources**, so I think **that could be better**, in answer to that question.

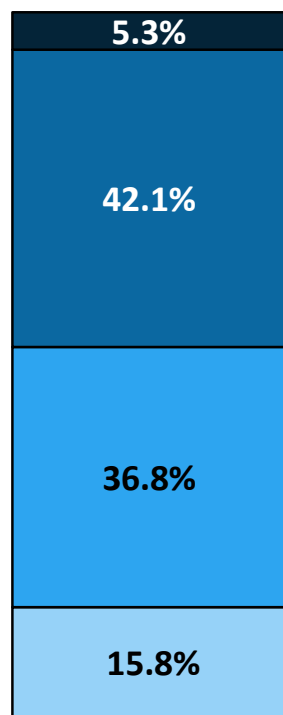
Everybody's so busy, and people are functioning with tight resources. Given the pandemic, now you have almost scarce resources because you're protecting what little bit of reserves you might have. So, we just **have to be more effective and efficient with our time and resources**. I don't know exactly what that looks like, whether it's **using technology in a better way to not only help us track and trend where the needs are and who's serving what/who**. We were trying to figure out what's going to happen if people need housing because they got sick and they can't live in the shelter—what other alternatives are there, so a way to **be able to in real-time let all of the individual organizations convey what they're up against**. I just think the **more that we can really function like a hub together instead of all be silos** of everybody being an expert in their own field and solving the problem within their field, I think we can go a long way if we can figure out how to do that.



Social Determinants of Health

- According to Key Informants, opportunity exists for more inclusion of social determinants of health when developing treatment or care plans. One in three (36.8%) say that social determinants of health are considered only sometimes and another 15.8% say they are considered rarely, when developing treatment/care plans for area residents.
- Two-thirds (66.7%) of Key Stakeholders say that the social determinants of health are considered when developing treatment plans and that this has improved over the years because of the CHNAs being conducted.

Frequency that Social Determinants of Health are Considered When Developing Treatment Plans (Key Informants)



Key Stakeholder Feedback

I think there's a **lot of work done with the stuff about healthy food**, for example. They try to provide information about **Double Up Food Bucks** and go the farmer's market because otherwise those things would be really expensive for people to go and get healthy food. Overall, I think the **county really tries to market all of that to the individual**, so I would say there's attempts made.

I think we're **just scratching the surface**. We're **getting better**. I think the investment in **Pathways to Better Health was a great first step**. All of a sudden, everybody's talking about social determinants of health as if it's some new thing. And I think the **partnerships have helped that awareness of social determinants**. The **community health needs assessment that we do jointly really helps move the needle on the social determinants of health**. We have been able to drill down to some to the root causes, and we're getting there; we're making progress. I like it. If I haven't said—**one of the positive things is the fact that we do the community health assessment together as a collaborative**, and we're trying to do more in the planning phase together too.

I think it **certainly gets better every time we do this [CHNA]**. I think **more and more health-care providers understand and are understanding at a deeper level its importance**.

I think **they are at some level**, but I **don't know that there's a full braiding of all of those areas** in order to always impact people. So your healthcare provider is going to be interested in your health, the people who are responsible for helping you find housing typically help you find housing, etc. **We're still a little bit siloed** in some ways, but I think **we're more and more looking at a whole person and integrated care**. People look at you like, "Oh, that's a good idea." I think more and more people are getting it.



Lack of Affordable Housing – A Top Concern Of Key Informants and Key Stakeholders

- Key leaders, especially Key Informants, consider the lack of affordable housing to be one of the most critical health issues or concerns in Ottawa County because it permeates and impacts many other aspects of life.
- Many of the affordable housing options may not be safe and can be havens for physical and emotional abuse, and when residents have to spend large proportions of their income on housing they have little left for other basic needs.

I see individuals I work with feel **stuck in situations that are physically and emotionally unsafe** because of the financial barriers of independent living. – *Key Informant*

There is a **lack of housing and affordable housing** due to the **increase in jobs** in the area/population which has **increased the demand for housing and raised rents** but **not necessarily income**. This has led to **vulnerable populations** and **Asset Limited Income Constrained Employed populations** being **unable to afford the rent or one step away from eviction**. -- *Key Informant*

I think it's interesting because with housing right now there's so much available because of COVID money-wise that our county put together a **eviction-diversion program**, and this was a probably about two months ago, when we realized that **CARES Act funding was going to be coming to assist with evictions**, and so our **community quickly rallied together with our Lake Shore Housing Alliance and our HARA or Good Samaritan Ministries, the court. Everyone came together very quickly and created this eviction-diversion program** so that when the eviction diversion moratorium was lifted and landlords were able to start evicting individuals, **we were ready right away to assist and step in to provide funding to both the landlords and the tenants to assist with eliminating possible evictions**. There's **still the need**, but, because of COVID, people weren't allowed to be affected. Now, I don't know what's going to happen in December when the money runs out. – *Key Stakeholder*

We have a **very diverse base of people** who **do not earn enough as a starting wage** to afford our starting housing prices. – *Key Informant*

People are paying such a huge percentage of their income to housing, not the 30% recommended amount, but more like 70+% and there is no way the rest of their budget will work if this is such an unbalanced equation. It means that there is **so little left to address all of the other basic needs**; something has to be done. – *Key Informant*

Housing is always **discussed** as one of Ottawa County's major issues **but that is all that is done**. A discussion happens. The End. – *Key Informant*

This **impacts the ability to hire staff** as they are unable to find housing. It **impacts the consumers we serve** as they are **more likely to have other medical issues** when they are sharing spaces with others and **living in areas that are not meant for habitation**. – *Key Informant*

I believe lack of affordable housing **has the least systemic option** available to Ottawa County residents. **The other areas have better support mechanisms** that can meet crisis and long-term community needs. **Lack of affordable housing impacts many of the other critical health issues along with the economic health of the area**. – *Key Informant*

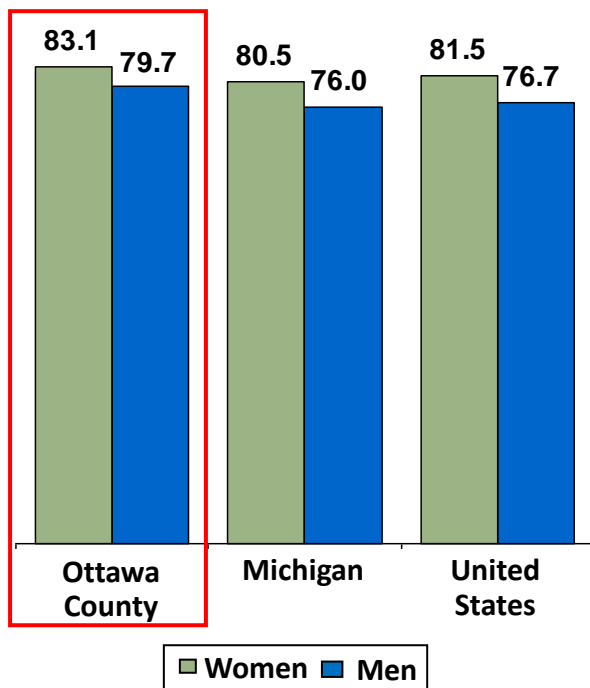
Health Status Indicators



Life Expectancy and Years of Potential Life Lost

- Both men and women in Ottawa County have longer life expectancies (when adjusted for age) compared to men and women across Michigan or the U.S.
- With regard to rates for years of potential life lost, Ottawa County is better on all 15 conditions listed, compared to the state.
- Ottawa County residents are most likely to have years of potential life lost due to malignant neoplasms, accidents, drug-induced death, or heart disease.

Life Expectancy (Average Age)



Rates of Years of Potential Life Lost (YPLL) (Below Age 75)

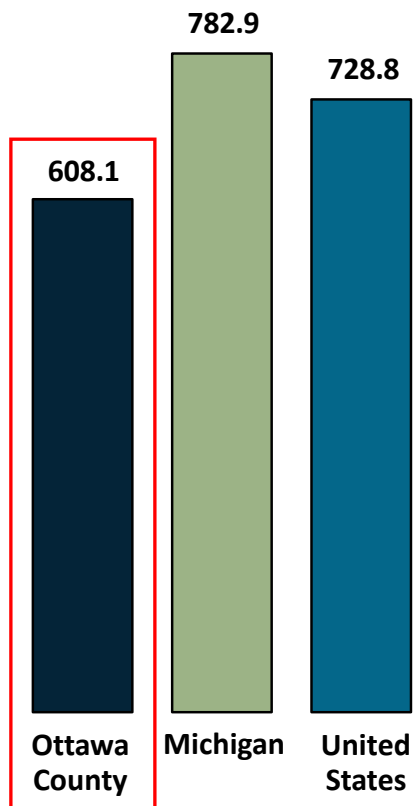
	Ottawa County		Michigan	
	RANK	Rate	RANK	Rate
Malignant Neoplasms (All)	1	1236.1	1	1571.6
Accidents	2	970.7	2	1434.6
Drug-Induced Deaths	3	562.0	4	1031.2
Diseases of the Heart	4	549.0	3	1283.9
Intentional Self-Harm (Suicide)	5	265.0	5	431.5
Malignant Neoplasm of Trachea/Bronchus/Lung	6	195.4	6	387.3
Chronic Liver Disease and Cirrhosis	7	191.7	9	213.6
Malignant Neoplasm of Lymphoid	8	130.3	13	122.6
Malignant Neoplasm of Breast	9	117.2	12	130.8
Chronic Lower Respiratory Disease	10	104.2	7	243.3
Malignant Neoplasm of Colon/Rectum/Anus	11	83.7	11	147.2
Cerebrovascular diseases	12	80.1	10	187.9
Diabetes Mellitus	12	80.1	8	217.1
Nephritis, nephrotic syndrome, and nephrosis	14	26.1	15	86.2
Influenza and Pneumonia	15	22.3	14	91.8



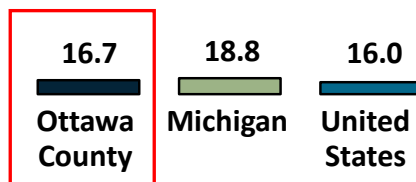
Mortality Rates

- Ottawa County's age adjusted mortality rate is far better than the state or the national rates and the infant mortality rate is better than the rates in MI or the U.S.
- On the other hand, **Ottawa County's child mortality rate for children aged 1-14 is higher than the national rate.**

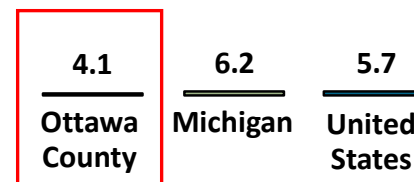
Age Adjusted Mortality Rate
Per 100,000 Population



Child Mortality Rate (Age 1-14)
Per 100,000 Population



Infant Mortality Rate
Per 1,000 Live Births





Top 10 Leading Causes Of Death

- **Heart disease** and **cancer** are the leading causes of death in Ottawa County, Michigan, and the U.S.
 - ❖ Ottawa County's rate for each is much lower than the state or the nation
- **Alzheimer's disease as a cause of death continues to be more prevalent in Ottawa County compared to the state and the nation.** Conversely, chronic lower respiratory disease and diabetes tend to be causes of death more in the state and the nation than in Ottawa County.

Age Adjusted, Rates Per 100,000

	Ottawa County		Michigan		United States	
	RANK	Rate	RANK	Rate	RANK	Rate
Heart Disease	1	143.3	1	195.9	1	165.5
Cancer	2	134.4	2	161.1	2	155.8
Alzheimer's Disease	3	49.7	6	34.5	6	30.3
Unintentional Injuries	4	44.0	3	53.9	3	47.4
Stroke	5	33.0	5	39.2	5	37.3
Chronic Lower Respiratory Diseases	6	26.0	4	44.3	4	40.6
Pneumonia/Influenza	7	11.9	9	14.1	8	13.5
Diabetes Mellitus	8	8.9	7	22.1	7	21.0
Intentional Self-Harm (Suicide)	9	8.6	10	13.6	8	13.5
Kidney Disease	10	6.9	8	14.7	10	13.1
All Other Causes		141.3		189.6		190.8



Top 10 Leading Causes Of Preventable Hospitalizations

- Preventable hospitalizations are 15.3% of all hospitalizations in Ottawa County, a rate lower than the state's rate. **Diabetes** is the leading cause of preventable hospitalizations in both Ottawa County and the state. **Congestive heart failure** and **COPD** are the next two leading causes of preventable hospitalization in Ottawa County and Michigan, **but the proportion for congestive heart failure is higher in Ottawa County** compared to the state. Hospitalization for COPD is more common throughout Michigan compared to Ottawa County.

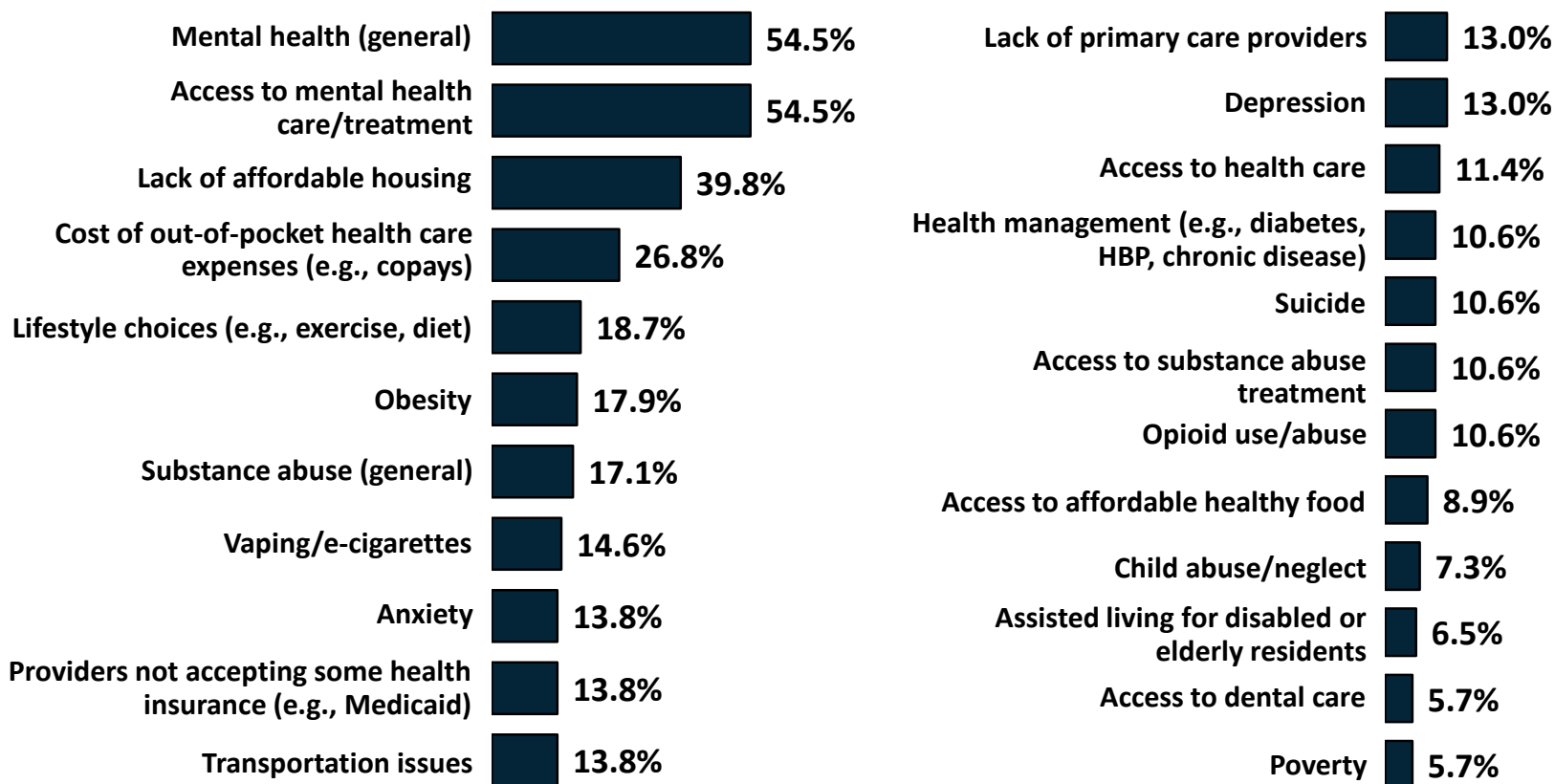
	Ottawa County		Michigan	
	RANK	% of All Preventable Hospitalizations	RANK	% of All Preventable Hospitalizations
Diabetes	1	16.1%	1	15.4%
Congestive Heart Failure	2	9.4%	3	7.0%
Chronic Obstructive Pulmonary Disease	3	7.3%	2	11.0%
Bacterial Pneumonia	4	7.1%	4	5.7%
Grand Mal and Other Epileptic Conditions	5	5.6%	6	3.4%
Cellulitis	6	4.2%	5	3.8%
Dehydration	7	1.9%	8	1.5%
Asthma	8	1.8%	7	2.1%
Gastroenteritis	9	1.0%	9	1.3%
Kidney/Urinary Infections	10	0.9%	10	1.0%
All Other Ambulatory Care Sensitive Conditions		44.6%		47.9%
Preventable Hospitalizations as a % of All Hospitalizations		<u>15.3%</u>		<u>22.8%</u>



Top 5 Most Important Health Problems in the Community Today (Key Informants)

- Key Informants cite a number of pressing health issues or concerns in Ottawa County. Most often cited are **mental health** and **access to treatment**, followed by **lack of affordable housing**, **cost of out-of-pocket health care expenses**, **lifestyle choices (diet, exercise)**, **obesity**, and **substance abuse**.

Top 5 Most Pressing Health Issues or Concerns in Ottawa County

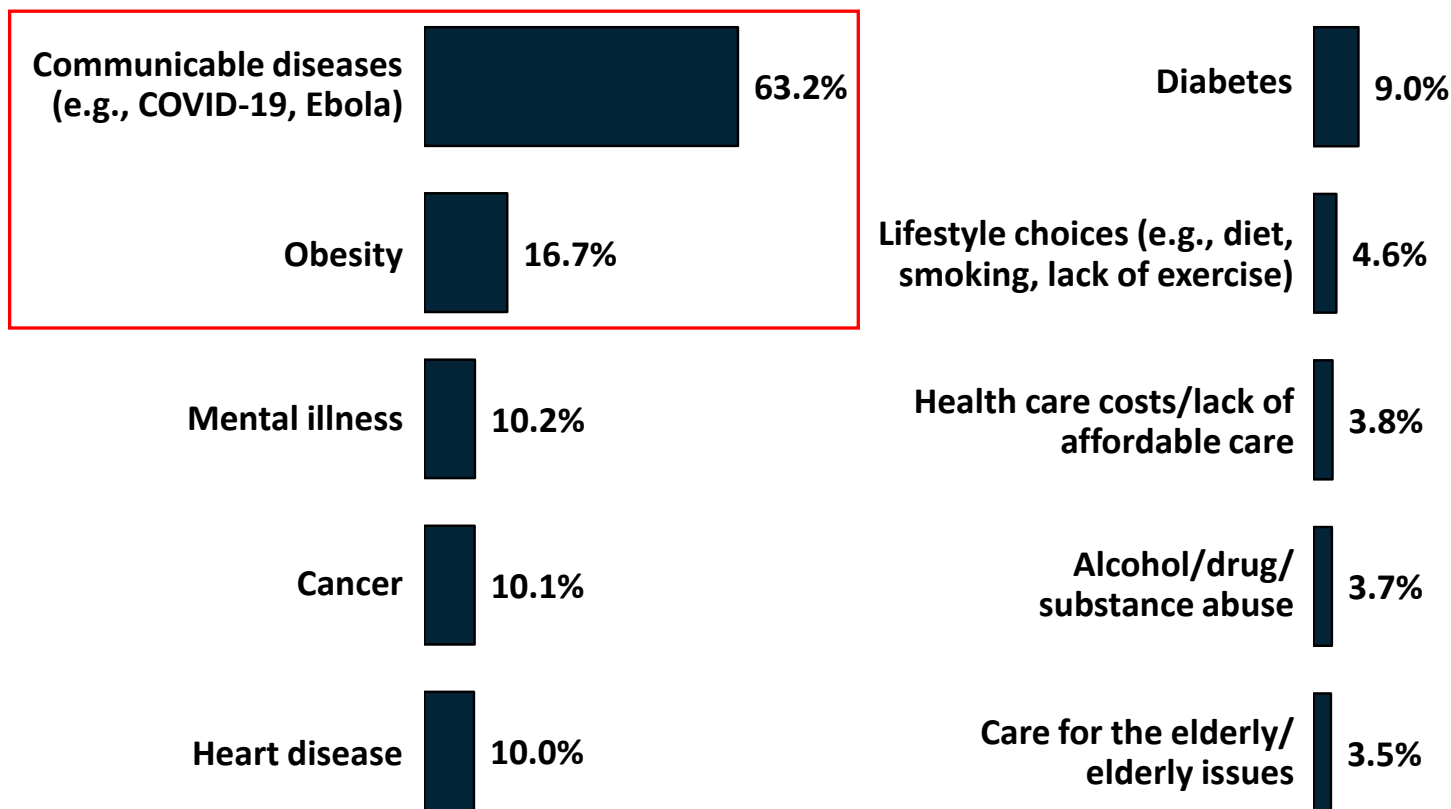




Top 10 Most Important Health Problems in the Community Today (BRFS Adults)

- 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.

Top 10 Most Important Health Problems in the Community Today

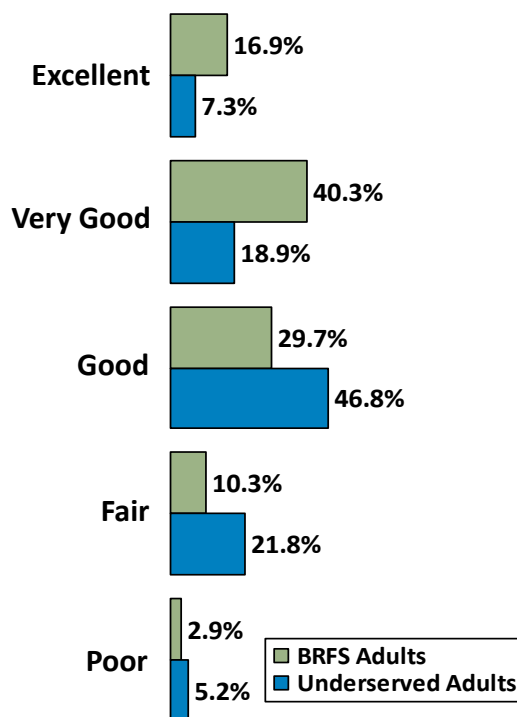




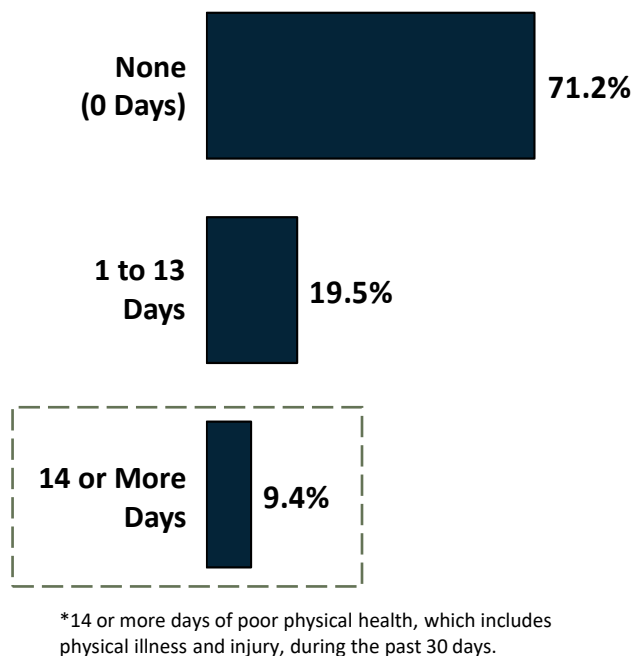
Health Status, Physical Health, and Mental Health

- Although over half of Ottawa County BRFs adults report very good or excellent health, 13.2% report fair or poor health; this proportion rises to 27.0% for underserved adults.
- Nearly one in ten (9.4%) Ottawa County adults report poor physical health*.
- Roughly one in six (15.3%) area adults report poor mental health**; this is almost twice the proportion in 2017.
- Overall, 7.0% of area adults are prevented from doing their usual activities (e.g., self-care, work, recreation) due to poor physical or mental health.

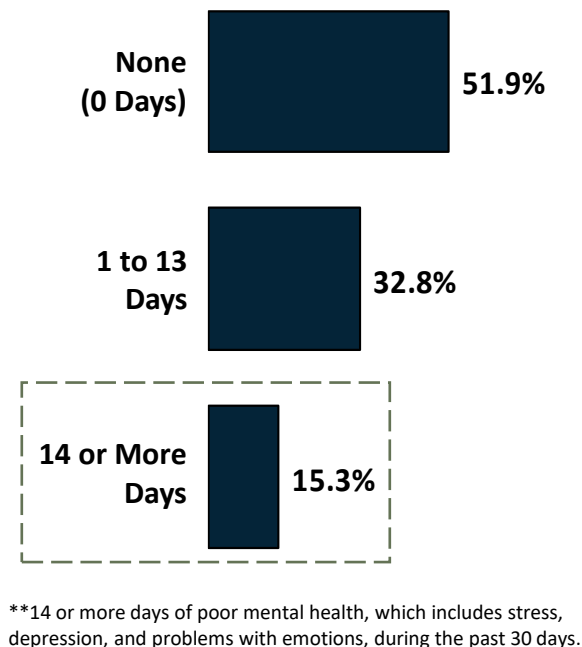
Perception of General Health



Physical Health Status



Mental Health Status



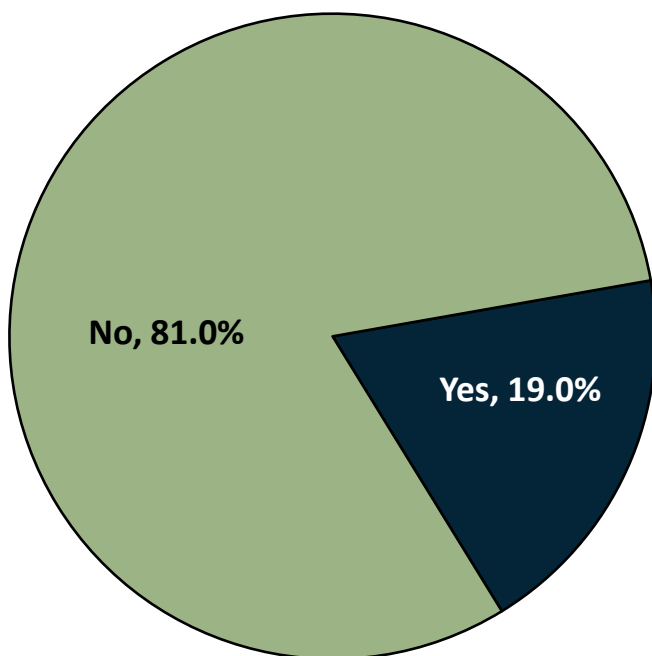
Source: BRFs – Q2.1/URS – Q1: Would you say that in general your health is... (n=1,194/n=344); URS – Q1: To begin, would you say your general health is...? BRFs – Q2.1: Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good? (n=1,160); BRFs – Q2.2: Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good? (n=1,172); BRFs – Q2.3: During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation? (n=1,178)



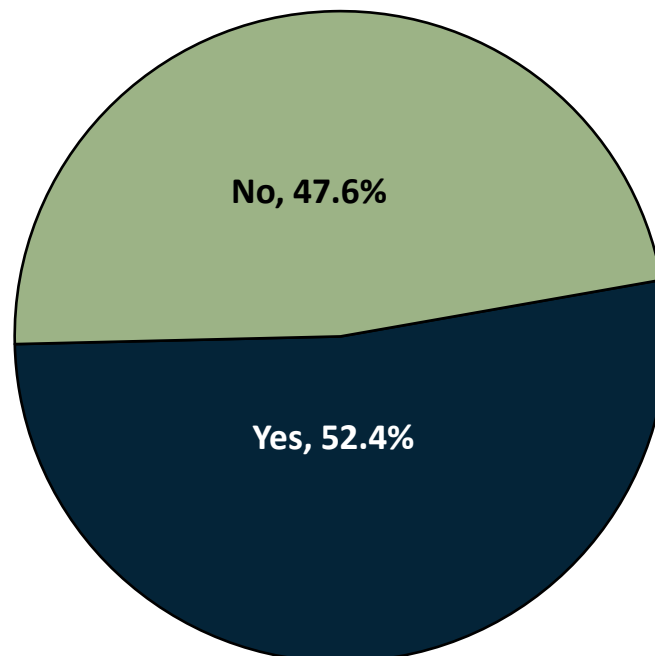
Impact of COVID-19 on Physical and Mental Health

- 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





Mental Health – A Top Concern Of Key Informants and Key Stakeholders

- Key Stakeholders and Key Informants offer myriad reasons (aside from access to treatment which will be discussed in the section on health care access) why mental/behavioral health is their top concern. First, mental illness, or distress, continues to be **prevalent in both youth and adult** subpopulations. Second, mental illness is **often comorbid with other social, behavioral, or physical problems**. Third, there continues to be **stigma** attached to having mental illness which **prevents many from seeking needed care**, and fourth, there is **perpetually a lack of funding** for such programs/services, which makes it appear to be a lower priority.

I work primarily with the **college age student population** and this **continues to be an area of rising concern**. When individuals are experiencing mental health challenges it often results in other negative health behaviors. – *Key Informant*

More people than ever seem to be struggling. There **continues to be a high level of stigma** related to mental health. **Lack of resources and coverage for mental health support**. – *Key Informant*

I think **mental health continues to be** probably **one of the more difficult things**, and there's **multiple barriers** there. There's **patient willingness** to partake in it, there's **provider availability**, and then there's **payment issues**, so I think in my experience that **continues to be a difficult area to provide**, for **underserved especially**. We've had **difficulty getting and recruiting new psychiatrists**. I think we **do better than a lot of small towns** across America, but it is **still a problem**. – *Key Stakeholder*

I think the **top priorities continue to be the top priorities**. So, COVID-19 notwithstanding—I think it's obvious—certainly, COVID's having an impact, but I think the ongoing health priorities for residents in Ottawa County **continue to be mental health**, and **that affects all walks of life—all demographics**, but **certainly** we know it **impacts the underserved populations** specifically, and so **continuing to see high call volumes, crisis volumes, suicide ideations among youth and adults**, and all those things are pointing to mental health continuing to be a challenge. – *Key Stakeholder*

I would say that **people seeking services when they need it is still an issue**. I think **there's a stigma still around seeking mental health treatment and substance use disorder treatment**. I do think there's a **stigma with both**. I think a lot of times **people wait until it's really bad before they look for help, which is not the best time to look for it**. It's always **better to catch things when they're manageable** and a small issue, not when they're severe. I think people also were hoping to do a lot more work with integrated health, and we're **pretty good at that at CMH as far as really looking at the whole person**. For example, you have to control your diabetes as well as your depression, and you have to have a safe place to live. – *Key Stakeholder*

Because it is an **underlying condition for a lot of other diseases and societal problems**. – *Key Informant*

We are living in **major transition beyond industrial age to digital tech era**. **Middle class workers' knowledge and skills struggle to earn living wage, leading to depression, substance and physical abuse**. Children living in households that are struggling financially and with **high emotional trauma** face serious **learning inhibitors** unless they are provided with counseling support. This **disproportionately impacts middle class families and minorities**. – *Key Informant*

As a community and as a country **we do not accept mental health on par with physical disease**. There remains **huge stigma and marginalization, isolation** of those with mental illness. – *Key Informant*

Source: KSI – Q1: What do you feel are the two or three most pressing or concerning health issues facing residents in Ottawa County, especially the underserved? (n=9); KSI – Q1a: Why do you feel that these issues are the most important to discuss? (n=9); KIOS – Q1: To begin, what are the most pressing health issues or concerns in Ottawa County? (n=123); KIOS – Q1c: Why do you think [insert issue] is the most critical health issue or concern in in Ottawa County? Please be as detailed as possible (n=123)



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)
None of the time	43.9%	75.8%	52.9%	84.4%	60.6%	84.3%
A Little	33.2%	13.7%	22.8%	9.3%	18.9%	9.2%
Some of the time	16.4%	8.3%	16.2%	4.6%	15.4%	4.0%
Most of the time	4.8%	1.4%	5.1%	1.2%	3.1%	1.3%
All of the time	1.7%	0.8%	3.0%	0.5%	2.0%	1.2%

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+).

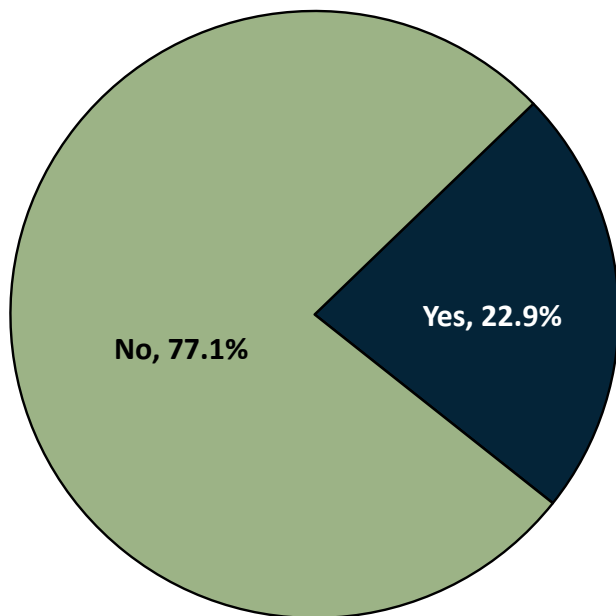
Q18.1-Q18.6 During the past 30 days, about how often did you feel....



Prevalence of Anxiety Disorder and Depression (All Adults)

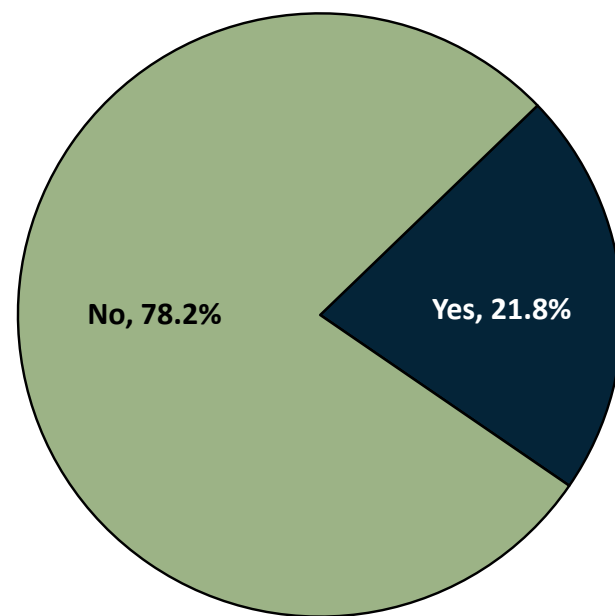
- More than one in five (22.9%) Ottawa County adults has an anxiety disorder.
- Roughly one in five (21.8%) Ottawa County adults has a depressive disorder.
 - ❖ One in eight (12.7%) women who had been diagnosed with depression reported it was during pregnancy

Ever Told Have Anxiety Disorder*



*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)

Ever Told Have Depressive Disorder**



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

**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)

Sources: BRFs – Q4.8: Has a doctor or other healthcare provider EVER told you that you have an anxiety disorder (including acute stress disorder, anxiety, generalized anxiety disorder, obsessive-compulsive disorder, panic disorder, phobia, posttraumatic stress disorder, or social anxiety disorder)? (n=1,189); BRFs – 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); BRFs – Q 4.9: (IF FEMALE AND Q4.8= YES) Was this following the birth of a child or related to pregnancy? (n=173)

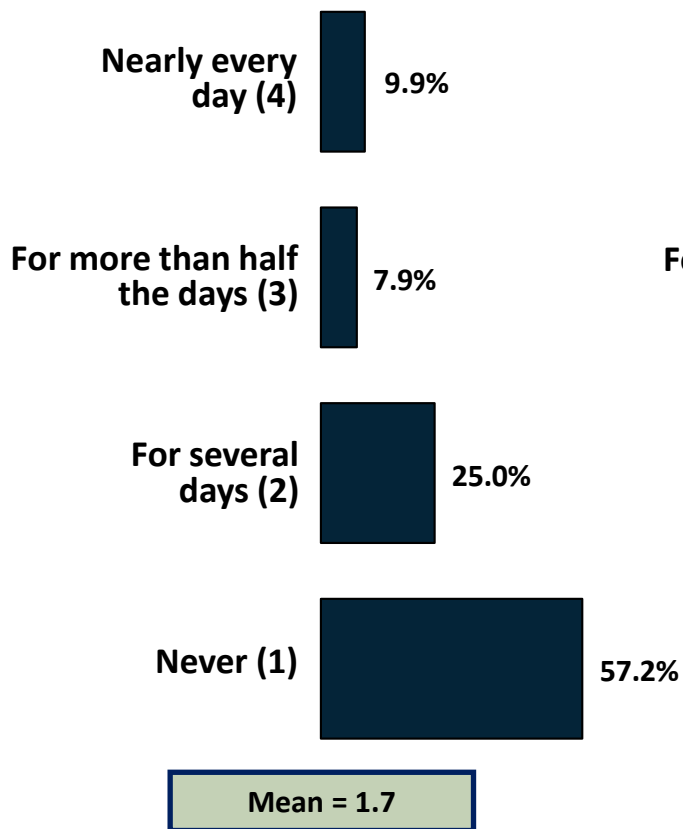


Depressive Symptoms (Underserved Residents)

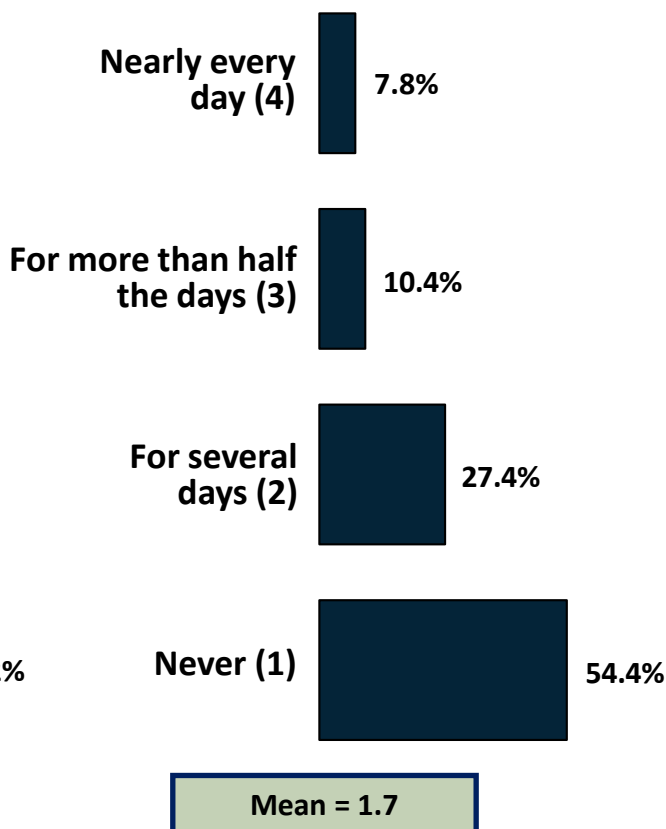
- For at least half the days over the past two weeks, roughly one in six underserved adults were bothered by having little interest or pleasure in doing things and/or bothered by feeling down, depressed, or hopeless.
 - ❖ 6.6% of underserved adults experienced both feelings every day

In the Past Two Weeks, How Often Were You....?

Bothered By Having Little Interest/Pleasure in Doing Things



Bothered by Feeling Down, Depressed, or Hopeless



Total	
8	6.6%
7	3.7%
6	7.3%
5	6.3%
4	18.3%
3	10.3%
2	47.5%

Mean = 3.5

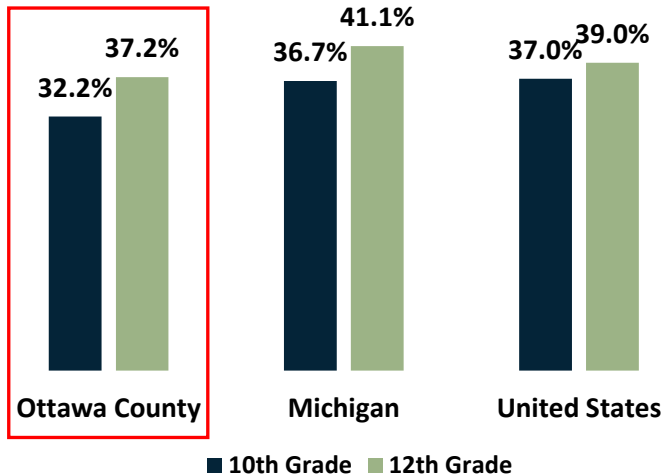


Depression Among Area Teens

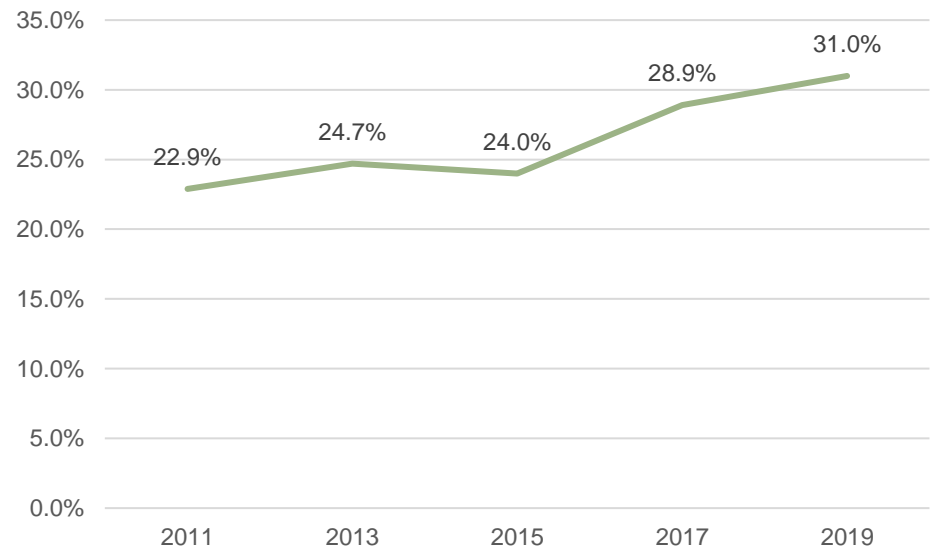
- The proportion of Ottawa County teens who stopped doing some usual activities over the past year because they felt so sad and hopeless almost every day for two weeks or more, is lower than the proportions for Michigan and the U.S.
- Still, at least three in ten teens report feeling sad and hopeless and this **proportion has steadily increased since 2011**.

Felt So Sad and Hopeless Almost Every Day for Two Weeks or More

10th and 12th Grade Students by Region



8th, 10th, and 12th Grade Students Over Time





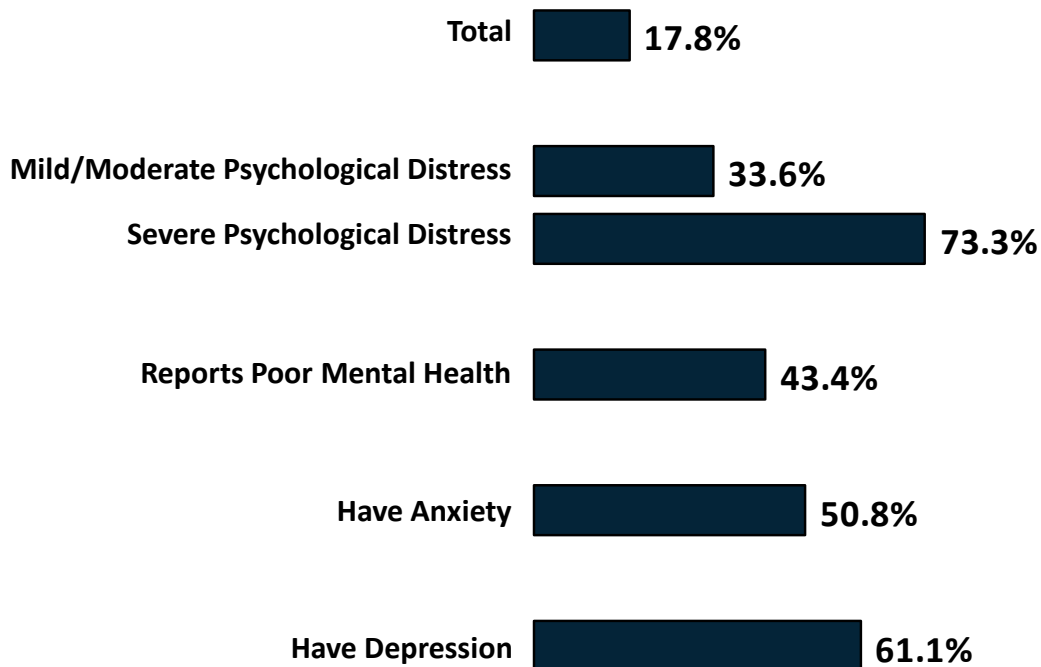
Medication and Treatment for Psychological Distress

- 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 the most from medication/treatment are not receiving it:**

- 66.4% of those classified as having “mild to moderate psychological distress”
- 26.7% of those classified as having “severe psychological distress”
- 56.6% of those classified as having “poor mental health”
- 49.2% of those with anxiety
- 38.9% of those with depression
- All of the above proportions are higher than in 2017

Taking Medication or Receiving Treatment for Mental Health Condition or Emotional Problem (Among Adults, % Yes)

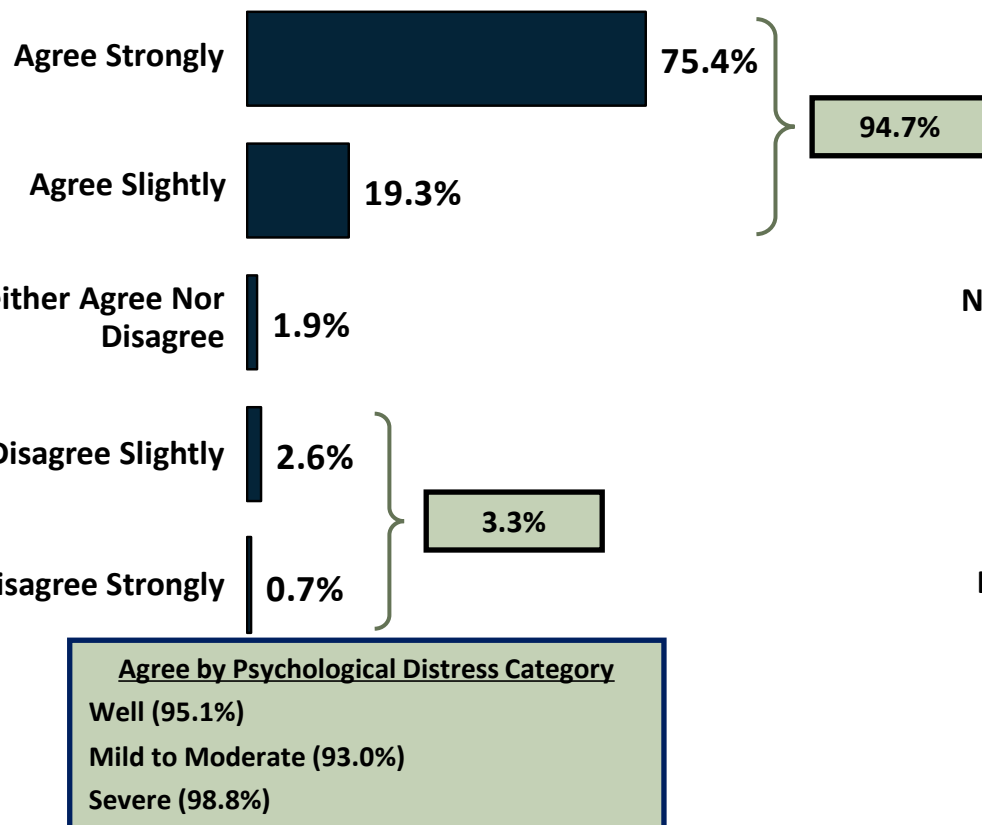


Perceptions of Mental Health Treatment and Mental Illness

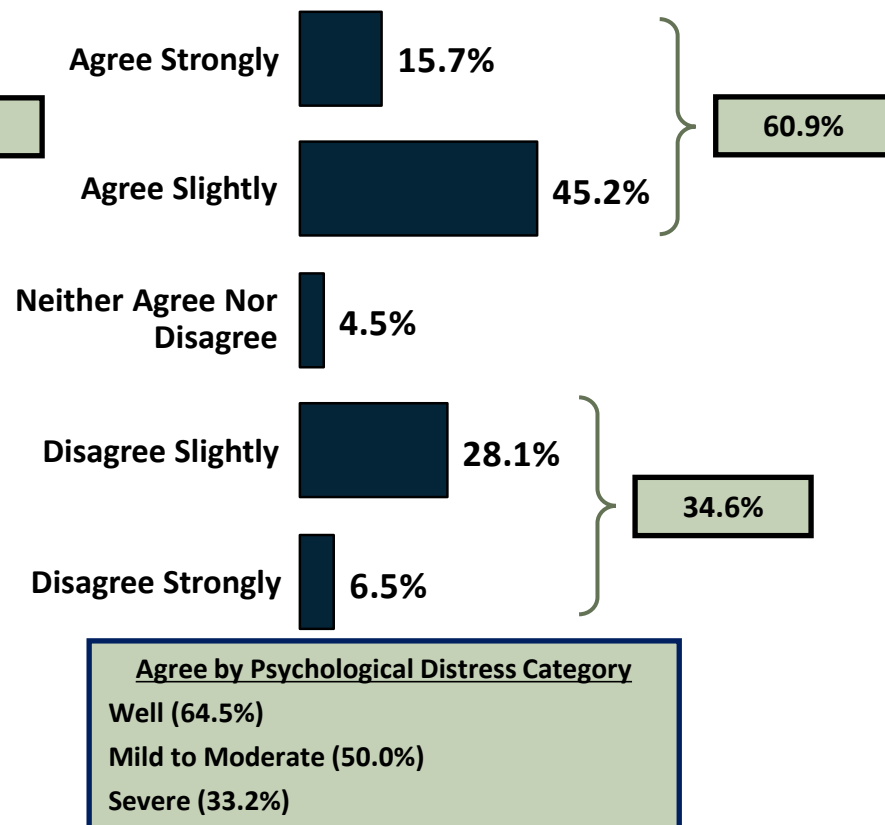
- Even though almost all (94.7%) Ottawa County adults believe treatment can help people with mental illness lead normal lives, six in ten (60.9%) view people as generally caring and sympathetic to people with mental illness, and this drops to 33.2% among those with severe psychological distress.

❖ 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"



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)



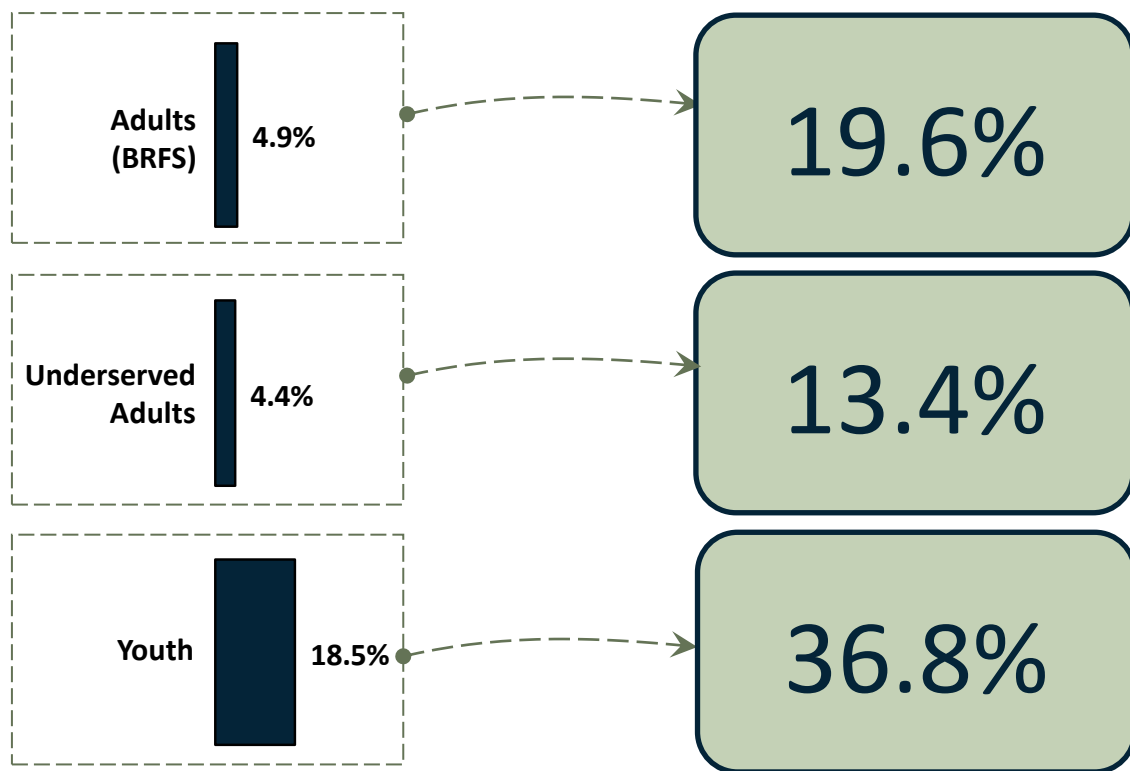
Suicide

- One in twenty (4.9%) area adults have thought about taking their own life in the past year.
 - ❖ Of these, one in five have actually attempted suicide in the past year
- Compared to adults, more than three times as many youth (18.5%) have thought about suicide and nearly twice as many (36.8%) have attempted it in the past year; these rates have not improved from 2017.

Thought of Taking Own Life in Past 12 Months

Attempted Suicide in Past 12 Months (Among Those Who Thought About Suicide)

Verbatim Comments on Suicide



There is **too high a number of people committing suicide** or turning to food, entertainment, or substances for relief of pain. Many people do not know how to cope with life. – *Key Informant*

Related to suicide, I **don't think we yet know how to effectively treat kids and adults at risk for suicide.**
– *Key Informant*

With the **increases in anxiety, depression, and suicide**, it's hard not to believe that its a pressing issue in our community. – *Key Informant*

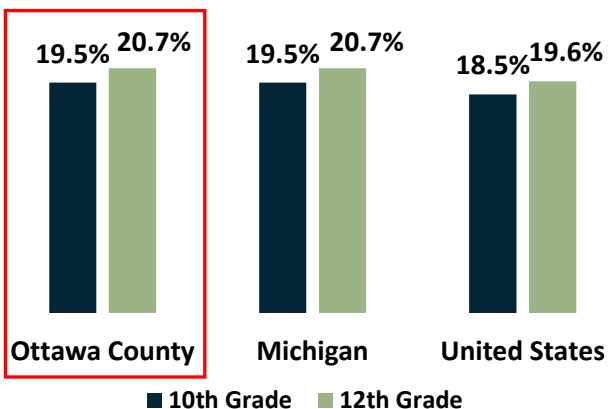
Teen depression, suicidal ideation, and suicide rates in many age groups continue to rise. – *Key Informant*



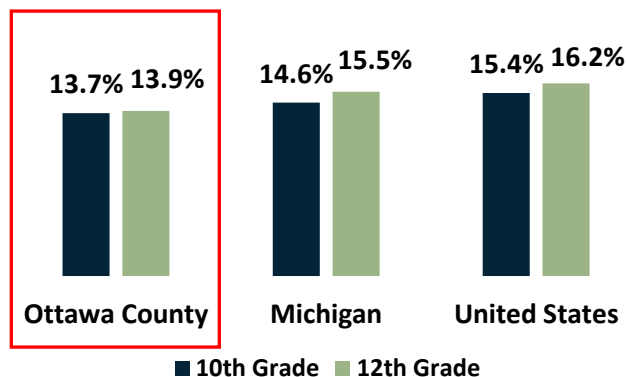
Suicide Among Area Teens

- The proportion of Ottawa County teens who have seriously considered attempting suicide is identical to the state proportion and slightly higher than the U.S.'s, while the proportion of teens who make a plan about how to attempt suicide is slightly lower than the proportions across the state or nation.
- **The prevalence of attempted suicides by Ottawa County teens is slightly higher than the prevalence in the state and slightly lower than the national prevalence.**

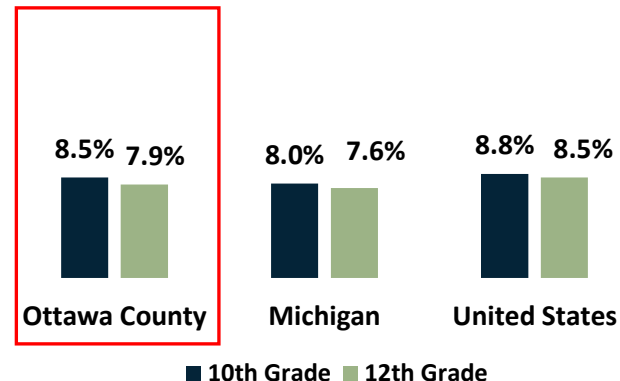
Seriously Considered Attempting Suicide in Past 12 Months



Made a Plan About How to Attempt Suicide in Past 12 Months



Attempted Suicide 1 or More Times in Past 12 Months

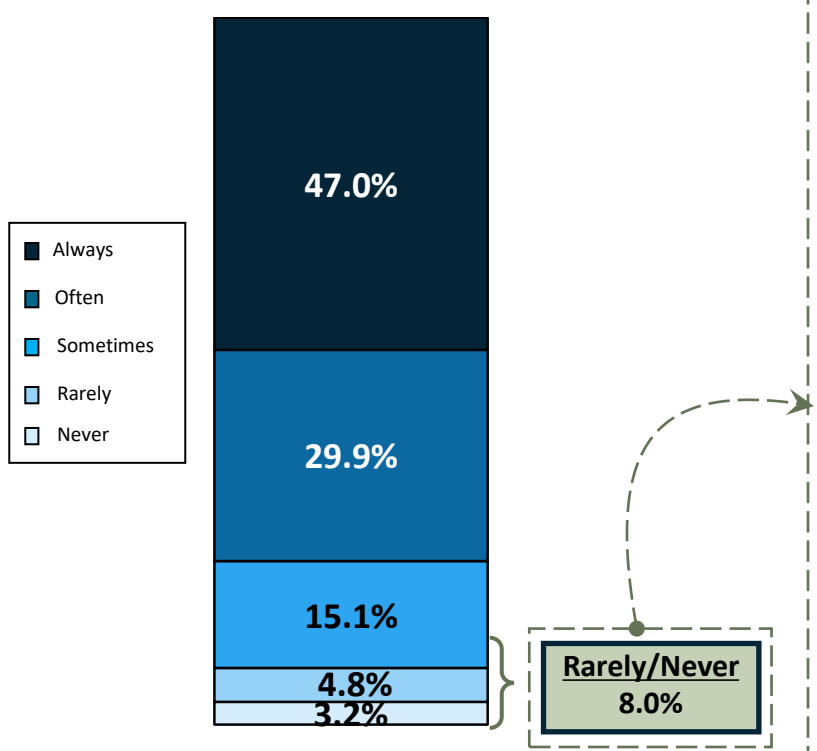




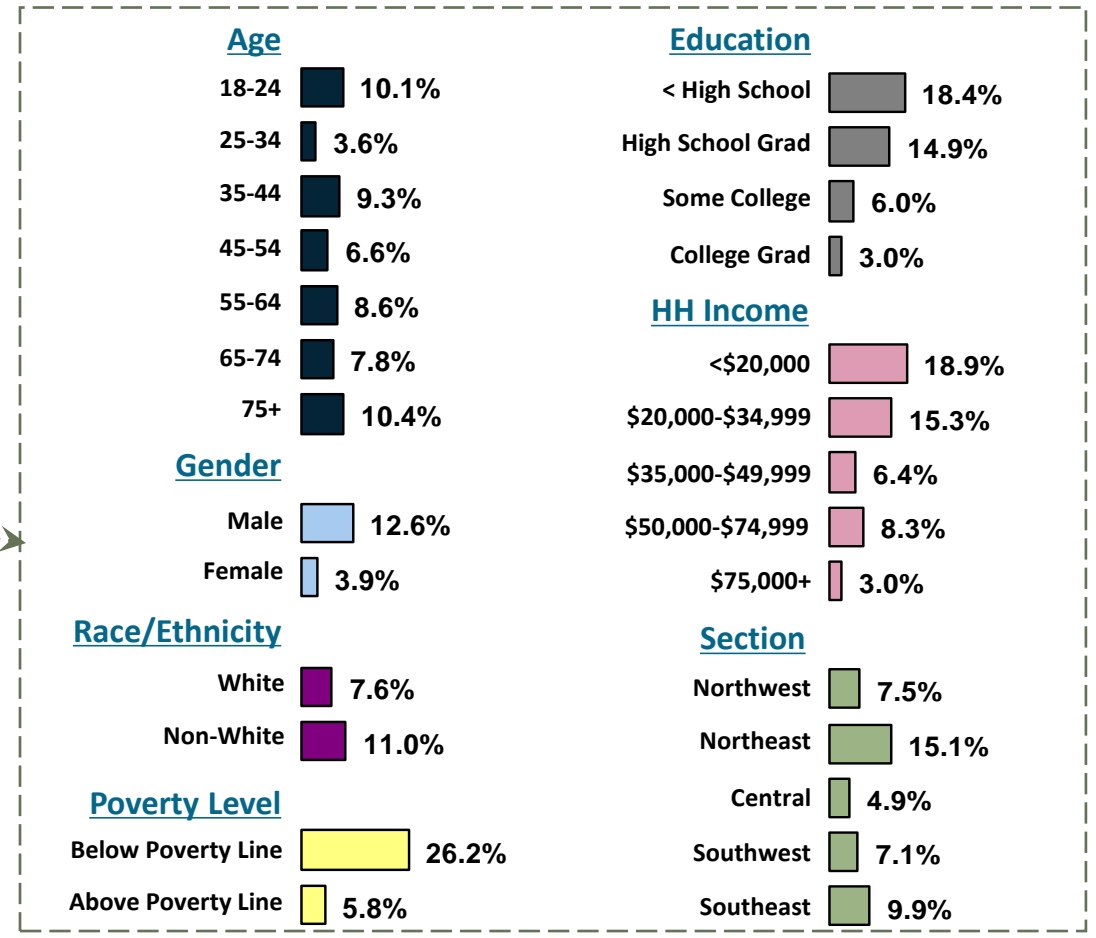
Social and Emotional Support

- 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.

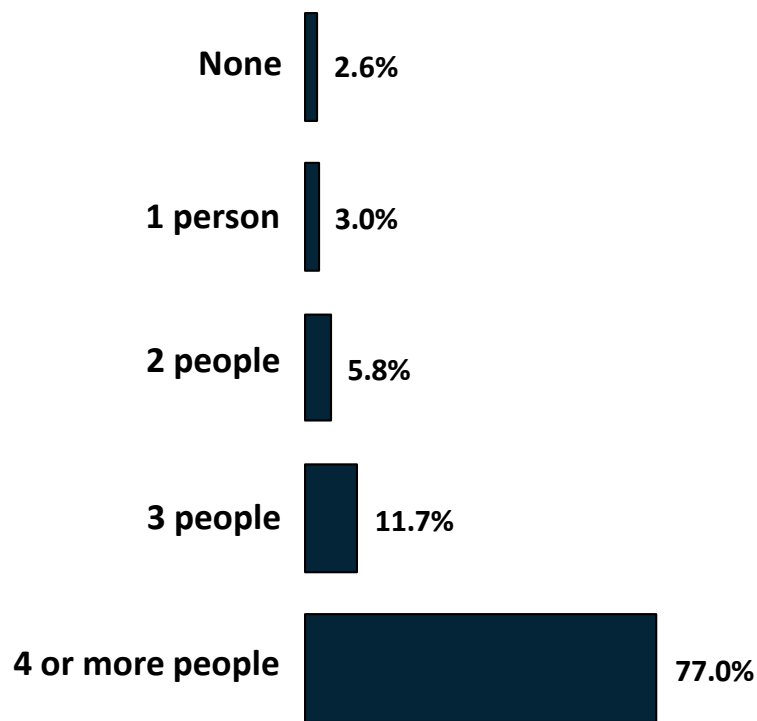
	Frequency of Needed Social and Emotional Support	
	Always/Often	Sometimes/Rarely/Never
Health status fair/poor	9.2%	24.0%
Poor physical health	6.7%	18.4%
Poor mental health	9.5%	35.7%
Activity limitation	5.2%	13.8%
Anxiety	20.1%	33.1%
Depression	18.3%	34.9%
Suffer from chronic pain	29.0%	44.4%
Marijuana 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%



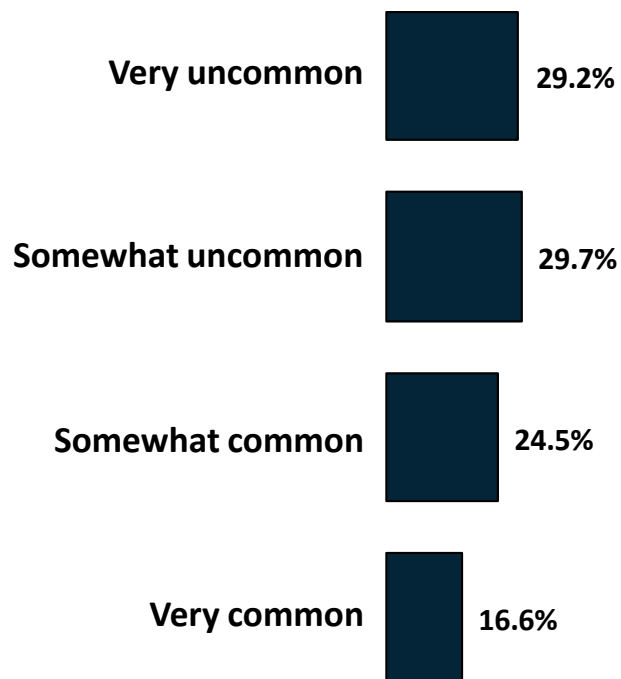
Social and Emotional Support (Continued)

- 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**

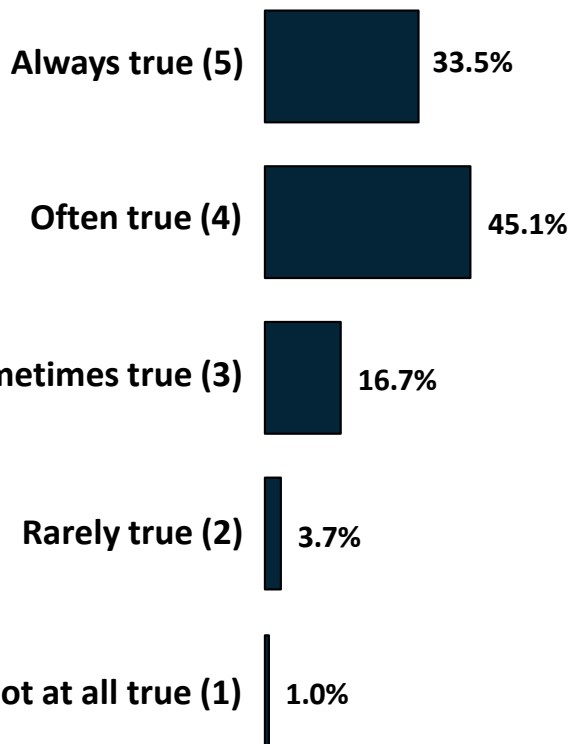




Resiliency

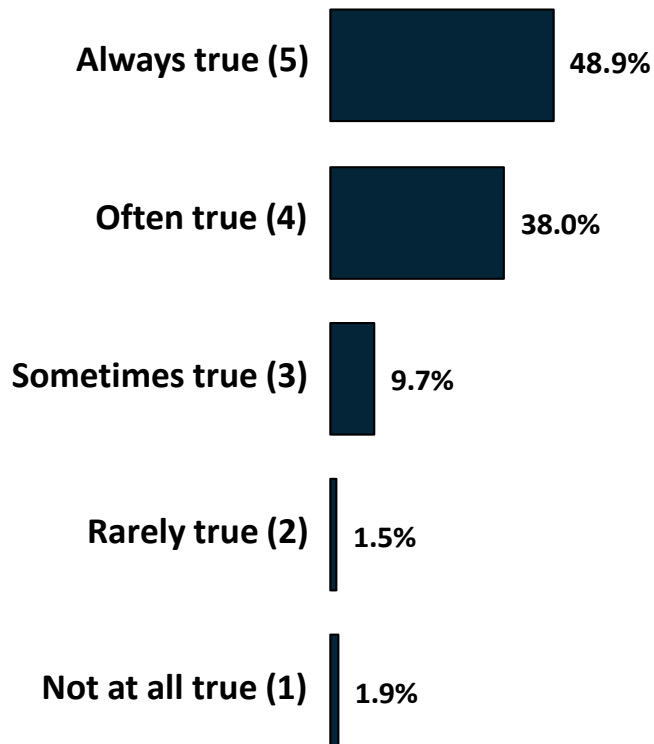
- The two item Connor-Davidson Resiliency Scale (CD-RISC-2) was used to measure “adaptability” and ability to “bounce-back.”
- The vast majority of area adults see themselves as able to adapt when change occurs, and able to bounce back after illness, injury, or other hardships.

“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



Resiliency (Continued)

- Resiliency is a useful tool for studying people who have endured adverse experiences 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

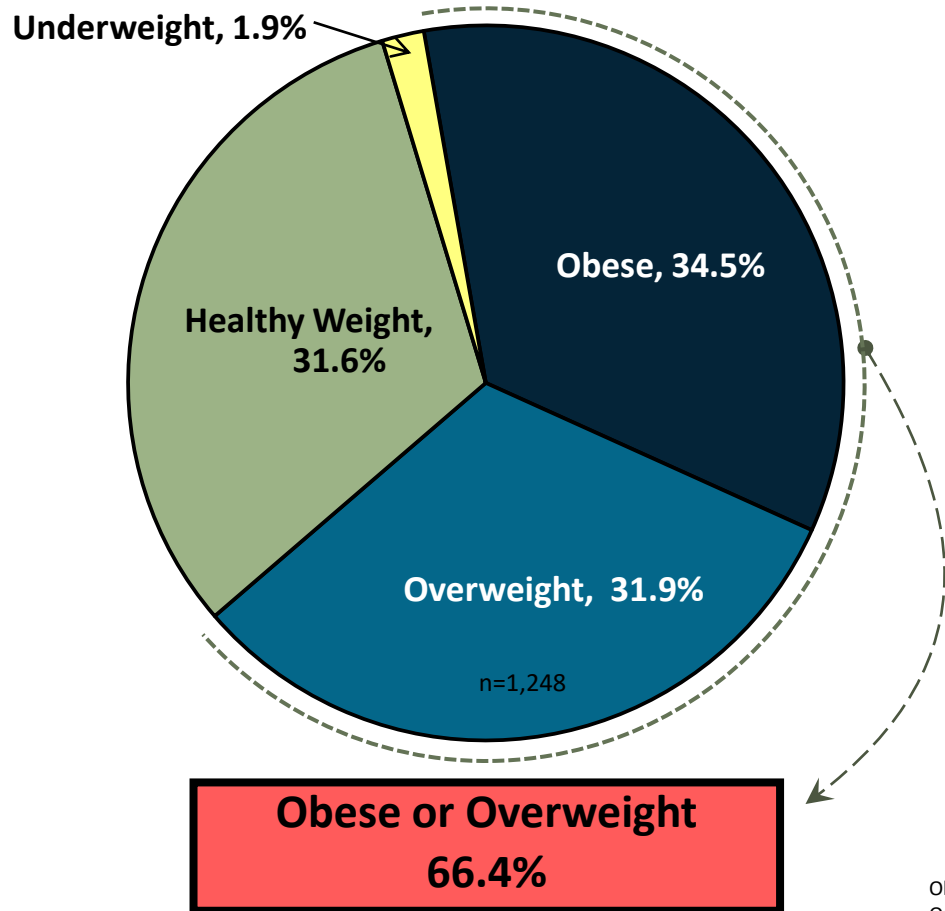
*Among respondents who reported 4+ ACEs, independent sample t-tests were used to compare the resiliency between those who experienced a negative outcome in adulthood with those who did not. P values lower than .05 are considered to be statistically significant.



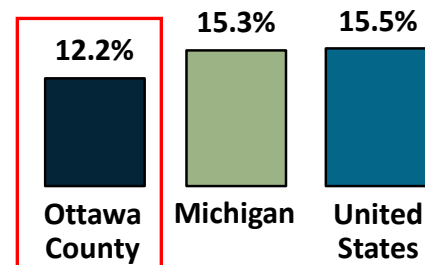
Weight Status Among Adults and Youth

- **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.
- In addition to **one-third (34.5%) of area adults being obese**, one in seven high school seniors are as well.

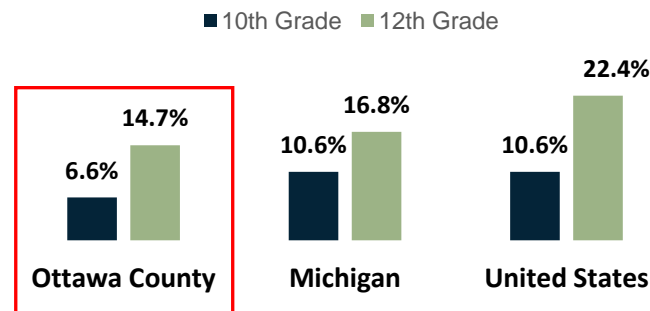
Weight Status Among Area Adults



Obese Youth



Obese Youth by Grade



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.

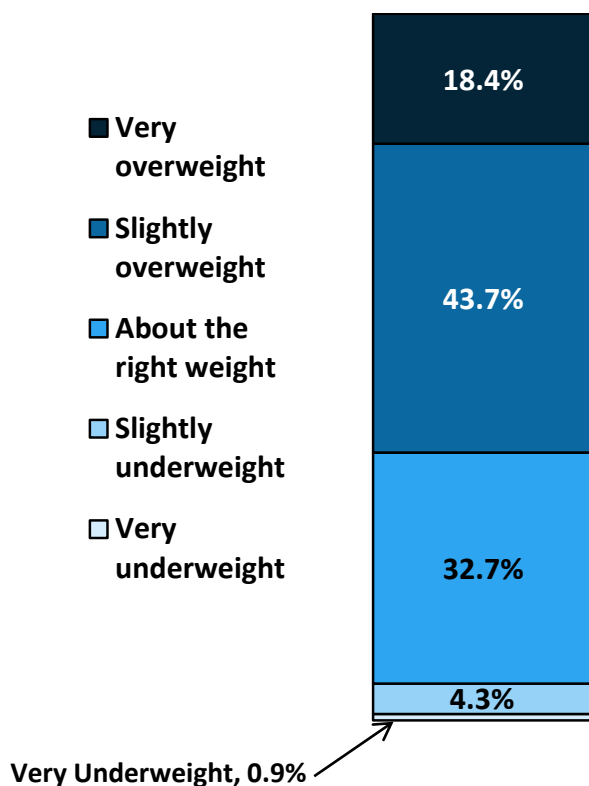
Underweight = among all adults, the proportion of respondents whose BMI was less than 18.5



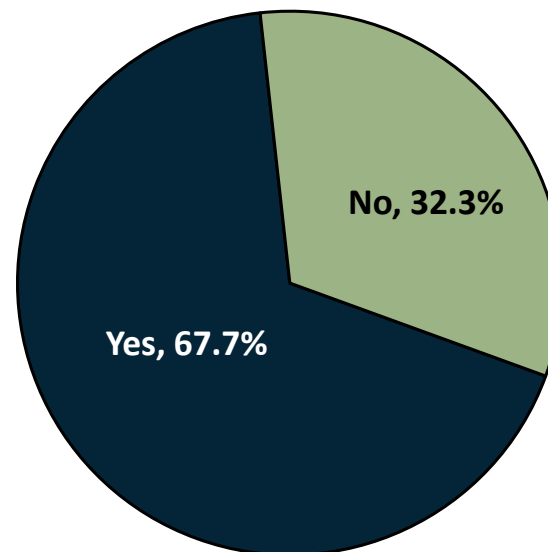
Weight Control

- One-third (32.7%) of adults perceive themselves to be at the right weight, while a 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



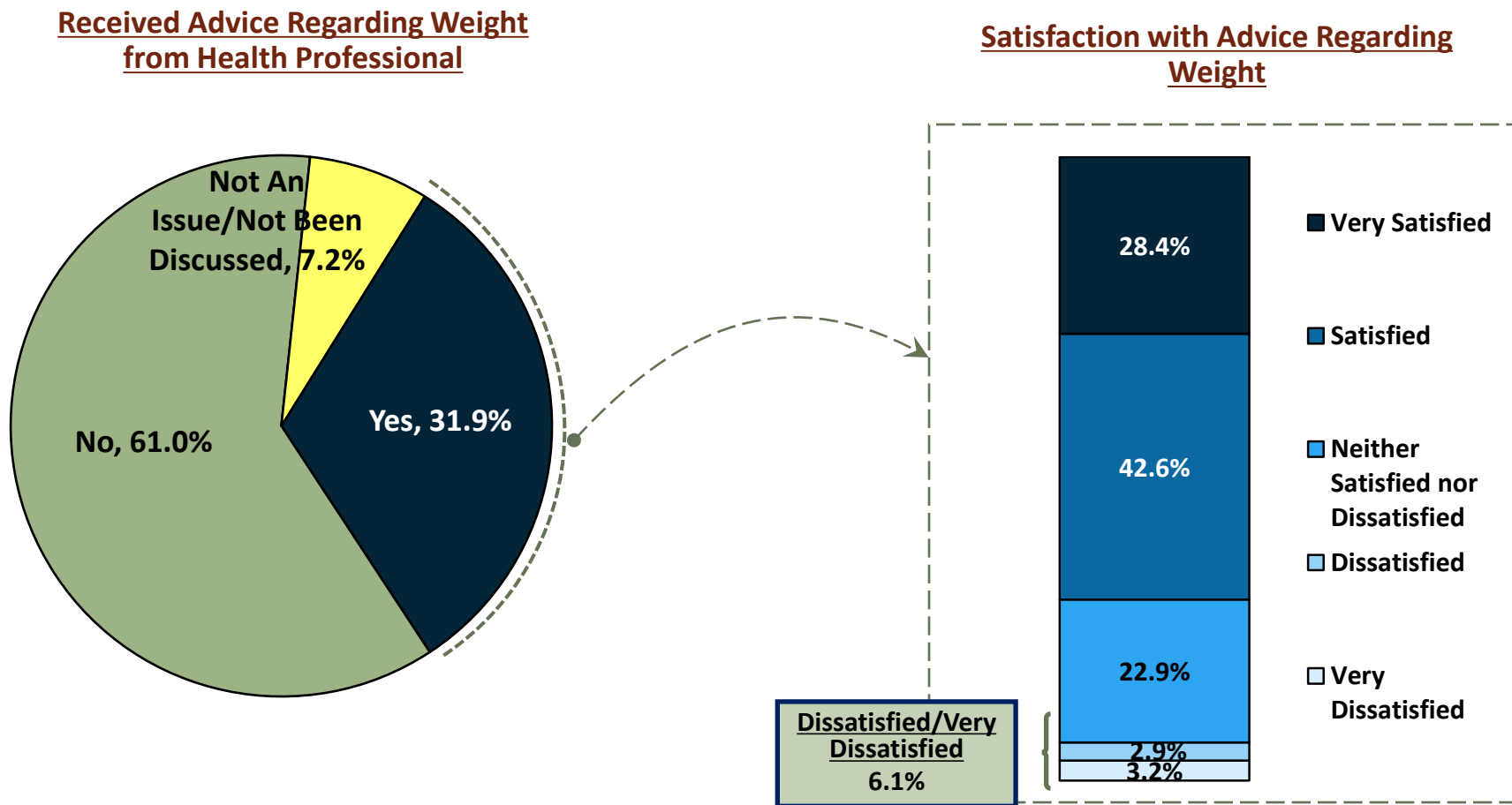
Currently Trying to Lose or Maintain Weight





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





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”

Overweight



74.8%

Obese



86.6%

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

	BMI Category	
	Overweight (n=424)	Obese (n=397)
Self-Described Weight		
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”

Overweight



25.3%

Obese



56.5%

Health Care Access



Overall State Of Health Care Access for Underserved Groups (Key Stakeholders)

- According to Key Stakeholders, the overall state of health care access in Ottawa County can be characterized as a case of those who **have** vs. those who **have not**. Those with insurance and the ability to afford out-of-pocket expenses such as copays and deductibles have access to almost any kind of service imaginable. Those without insurance, or with insurance but unable to afford copays/deductibles, have trouble accessing needed services.
- There are two underserved groups on which the community should focus: (1) the ALICE population that earns just enough income to be disqualified from Medicaid insurance but earn too little to provide them with excellent employer sponsored insurance, and (2) minorities who may avoid seeking care for a variety of reasons (e.g., trust, complexity, lack of awareness).

Two groups; one is a subset of the other. As a community, we should be **focusing on the ALICE population**. People below that ALICE threshold of the livable wage are **definitely**, by a function of mathematics, **deferring health**. And then there's a subset of that: we're showing that **we have some racial inequity inside of the financial inequity**. It **would be mostly Hispanics for Ottawa County**. It **would also be true for the black households in Ottawa County; they're just a super-minority; they're not a large group of numbers**. It's true for them; there's just a lot less households.

From a mental-health perspective, we are **not seeing proportionately the folks we should be seeing from the Hispanic population**—the **Latino population**. **We have theories that it's a stigma issue**. There's **definitely a fear out there of "I'm not going to go and provide my personal information to a government agency."** That's probably the biggest one that we're concerned about in our organization.

I still think the sort of **disenfranchised folks**—people that are in **minority populations that may not have insurance or may have kind of not great insurance**, so probably a—definitely our **migrant community**. It's a **subculture where there's still a ton of fear and lack of trust**.

I guess the largest group would be this **ALICE population**, so **folks who are already living on the margins** here—they're **one car payment away from economic turmoil**, one medical bill away from economic turmoil—that are **most likely to be forgoing health care because of the expense**. And then, certainly, from a **race and ethnicity standpoint**, and the **last couple months have really highlighted this**—once again, things that we know, but there's **racial disparities in terms of health outcomes**, and I don't think we're a stranger to that here locally. I think there's a **need to focus on different races and ethnicities** and how **they're experiencing the health-care system**, and **are they being treated differently?** Is **communication a barrier?** Are **cultural differences the barrier?**

Certainly, those **folks who have Medicaid**. If you look at our **migrant workers**, we think we give them access, but I **don't see utilization** of it. I'll give a perfect example. In my pediatrics physician practice, one of our lead physicians is himself Hispanic. I thought, "Holy cow, that's wonderful because his practice is going to fill right up with people who don't speak much English." No, I had a few families, but I believe the fact is **they're just not taking advantage of any of the resources that exist**, and we **have to try to figure out why** that is.



Overall State Of Health Care Access for Underserved Groups (Key Stakeholders) (Continued)

- The importance of focusing on underserved subpopulations can come from a practical position: by assisting underserved groups with some of the challenges (e.g., assistance in navigating the complex health system, understanding the benefits of health care and prevention, providing hope when they may not see any), will ultimately benefit all residents and society as a whole.
- A more philosophical stance is that it's the right thing to do and communities should care about all of their residents and want everyone to thrive. Further, people should be moved to address the inequities in health and health care access and should seek a more equitable community on many levels, not just with regard to health.

They're part of our community. If we believe in equity, which is another question you could ask, then we have data that shows us that we have inequitable access to health care. So, as a community, if we care about that, then we should care about it and do something about it. The other night I had an epiphany. Everywhere I go, I bump into large groups, **hundreds of people, who are working on equity, caring about equity**, and then we have a pledge from Lakeshore Ethnic Diversity Alliance; two hundred people took it. And we **had the summit; hundreds of people went**. And I have an **equity challenge**, and hundreds of people sign up, but **I wonder if it's the same two to five hundred people every time, and nobody else really cares?** So, if I've got 280,000 people; I've got 120,000 households in Ottawa County, and I've got **the same two hundred people caring, can we really say we care about equity as a community?**

As a community, it's the right thing to do, right? I think, **if we're truly concerned about everybody thriving in our community**, which is—**that's the stance that is my organization's ultimate goal**, then I think **we have to focus extra hard on specific populations**, and, **if we improve the health care system for specific populations, it's just going to get better for everybody else**. It's **proven, and I've seen study after study** where a large health clinic or something will say, "Hey, we're going to target our Asian-American experience in our clinic, and, when we improve their experience and their outcomes, all of a sudden, we see outcomes rise for everyone else," and I think that's where the value-add is.

Because **I think they have the least understanding of benefits of health care and prevention** and the **least capacity to access them based on finances and transportation**.

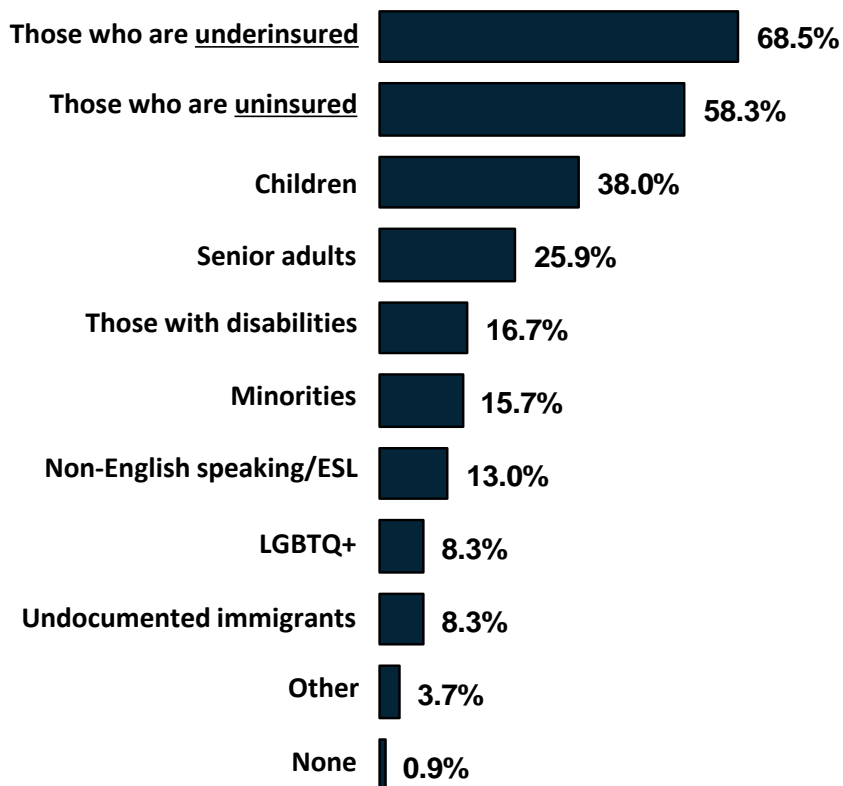
I think a lot of people are **stuck in a mindset of they have what they have, and that's the lot they're stuck with, and they need people to help guide them sometimes or motivate them or to give them hope**, and I think that's been **one of the services that we can do for them**.



Underserved Residents

- According to Key Informants, underserved groups most deserving of the community's focus are those who are underinsured or uninsured, children, and senior adults.
- Further, according to both Key Informants and Key Stakeholders, there is sizeable underserved subpopulation that is diverse and certainly in need of assistance.

Specific Subpopulations Underserved on Which to Focus



Key Informant and Stakeholder Comments on Underserved Residents

Statistically, I believe Ottawa County is considered among the healthiest in Michigan. But **I think we have a sizable underserved population.** – *Key Informant*

As a community, **we could be doing more to support the health of the underserved. Accepting Medicaid/Medicare coverage, volunteering time as a healthcare provider, and investing in organizations that provide healthcare to the undeserved** are several ways that we could improve the overall health of our community. – *Key Informant*

Continued advocacy at the township and city hall meetings. More **education that vulnerable populations are not "trouble" populations** as there is a lot of "we don't want those people in our town/neighborhoods" still circling throughout Ottawa County. – *Key Informant*

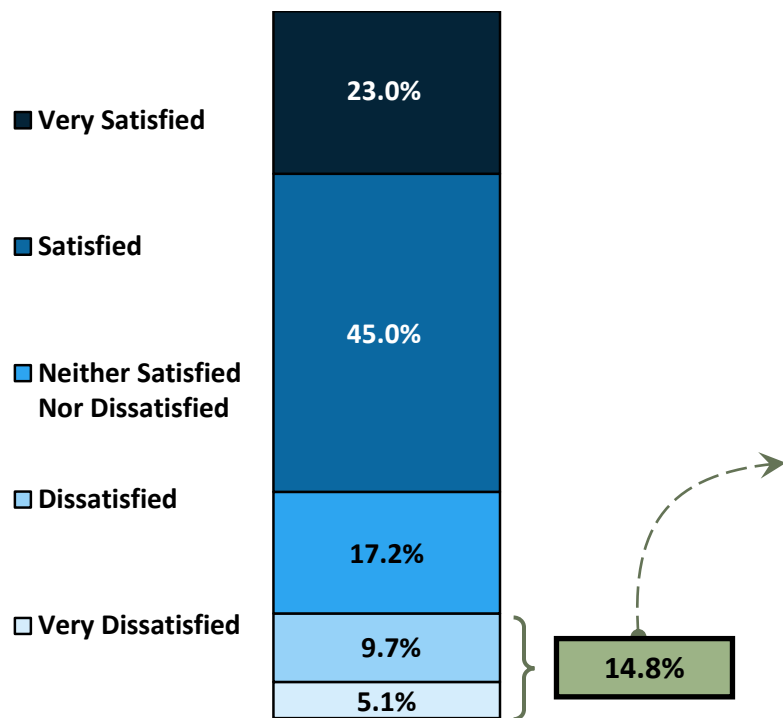
The **underserved would be people who don't have internet, don't have phone access, and don't have a vehicle.** Those are the **three things that you must have.** So, like, if for some reason you weren't on Medicaid before this crisis, you have to have one of those three in order to be able to be able to apply, and I honestly don't know how you could fix that. – *Key Stakeholder*



Satisfaction With Health Care (Underserved Adults)

- Two-thirds (68.0%) of underserved residents are satisfied with the health care system overall, but 14.8% are dissatisfied.
- Reasons for dissatisfaction are cost, impersonal care, the tendency to overprescribe or think of medication as the first/best treatment option, a complex system to navigate, lack of providers, and lack of resources in general.

Satisfaction With Health Care System Overall



Reasons for Dissatisfaction

Care that I have received has been **very impersonal and almost cold**. On the access side, I am lucky to not have issues with access due to my family insurance and their combined income, but **if I were on my own, I may forgo medical care due to cost and not have proper access to services**.

Doctors "throw" medicine at you.

Have to **go through so many hoops** to get anything accomplished.

No longer have health insurance. Medications are **over \$600.00 a month**.

Not enough providers, not enough resources, health-care workers are **overworked/overstressed**.

Private insurance **premiums and deductibles are too high** and create **societal inequities** and **lack of preventative care**.

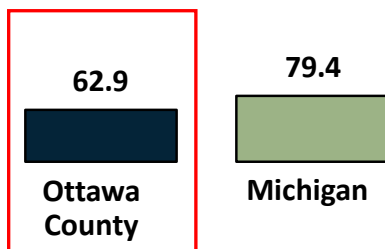
Too many appointments are needed for things that could be done in one, **too high copay/deductibles**, **too many referrals** needed, **too long of a waitlist** to be seen.



Primary Care Providers

- There are fewer primary care physicians (PCP) per capita in Ottawa County compared to the state.
- Among Key Stakeholders and Key Informants, there is a fairly consistent theme that the shortage of primary care has improved but there is still an access issue due to providers not accepting Medicaid and long wait times to see a physician.
- The importance of addressing this issue cannot be overstated since lack of preventive or maintenance care can lead to other serious health problems.

Primary Care Physicians* (MDs and DOs) Per 100,000 Population



Key Stakeholder and Key Informant Comments on the State of Primary Care Physicians

I think we **just recently hired multiple primary care physicians**. There **was a primary-care physician shortage**. If there wasn't, there was pending one. So, in the **last twelve to eighteen months, we've had a significant shortage of access to primary care due to retirement** and other **turnover**. As of this summer, we now have about **five or six new primary-care providers** joining the community, that has suddenly been some relief, but all of the last eighteen months, **we've had a significant shortage of primary care**, so that, I would say, **has been a need that is being corrected**. – Key Stakeholder

Patients cannot find PCPs in the area that are accepting new patients and the ones who are seem to have **long waits**. We have **so many unnecessary urgent care/ED visits** due to this reason. – Key Informant

It's not so much access to primary care because **we have more than we had in the past**, but **not all primary care providers take all of the insurance products**, especially the **Medicaid** programs, so, if **folks are in a managed Medicaid plan**, they may still have difficulty finding a **primary care physician**. – Key Stakeholder

I think **primary care is still an opportunity**. We **still see a backlog to get into primary care**. – Key Stakeholder

Lack of preventative medicine and health maintenance will **lead to an increase in chronic disease** and other **health issues**. – Key Informant

*Physicians defined as general or family practice, internal medicine, pediatrics, obstetrics or gynecology

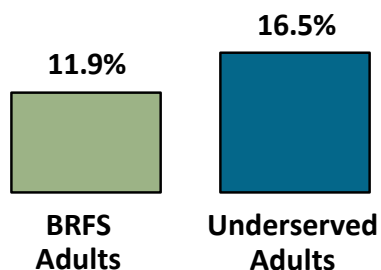
Source: PCP: County Health Rankings, 2019; KSI – Q1: What do you feel are the two or three most pressing or concerning health issues facing residents in Ottawa County, especially the underserved? (n=9); KIOS – Q1c: Why do you think [insert most pressing health concern from Q1b] is the most critical health issue or concern in Ottawa County? Please be as detailed as possible. (n=123)



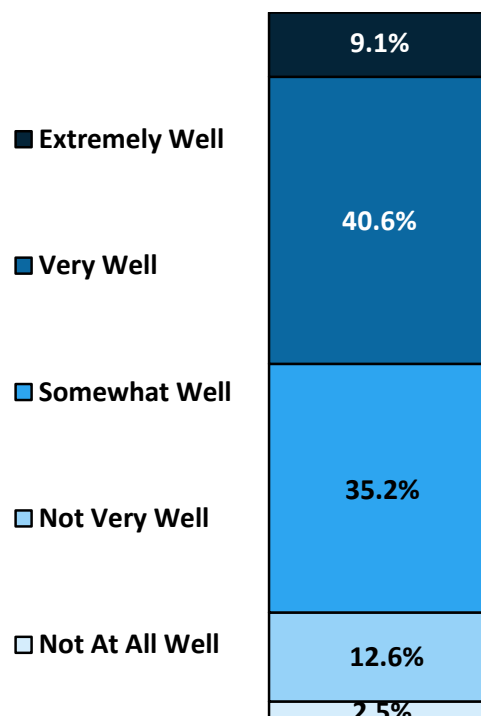
Personal Health Care Provider

- Nearly one in eight (11.9%) BRFs adults have no personal health care provider – or **medical home** – and this proportion is larger for underserved adults (16.5%).
- The vast majority (84.9%) of underserved adults believe health care providers communicate with each other about their health care at least slightly well, although only 9.1% say “extremely” well, so there is definitely room for improvement.

Have No Personal Health Care Provider



How Well Do Health Care Providers Communicate With Each Other? (Underserved Adults)

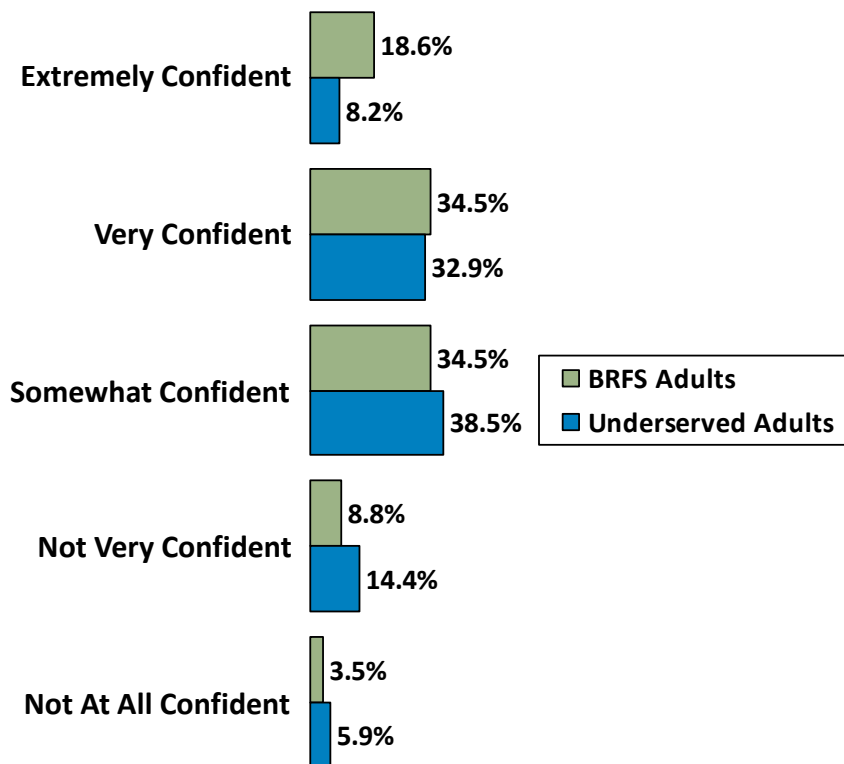




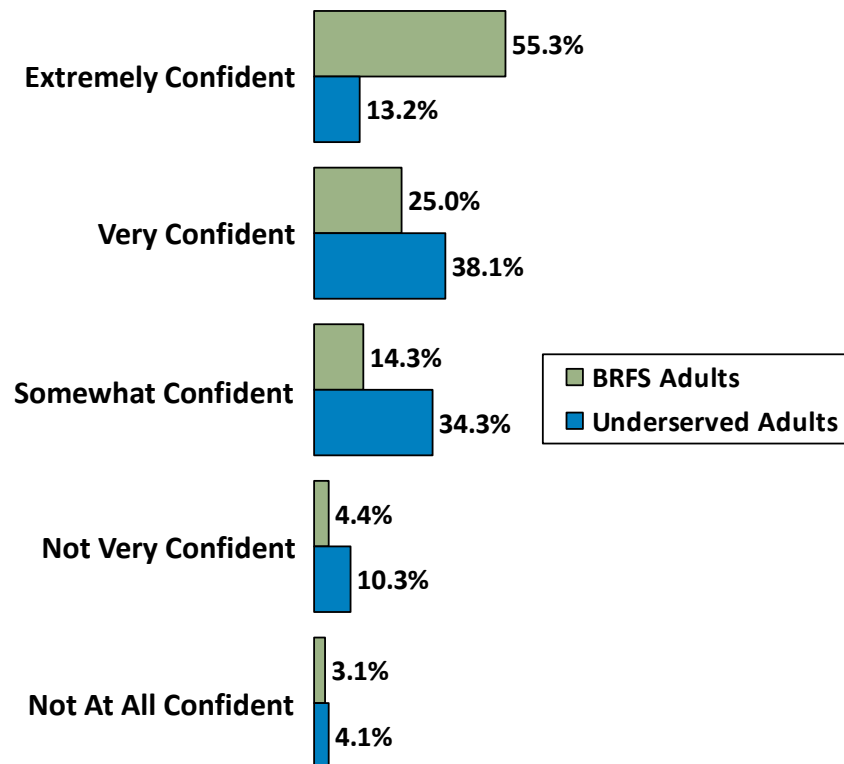
Health Literacy

- A large majority (87.6%) of BRFs adults are at least somewhat confident they can successfully navigate the health care system.
 - ❖ Underserved adults are less confident; 20.3% are not very or not at all confident
- Underserved adults are also far less confident in completing medical forms compared to BRFs adults; 51.3% are very or extremely confident, compared to 80.3%, respectively.

Level of Confidence in Navigating the Health Care System



Level of Confidence in Filling out Medical Forms



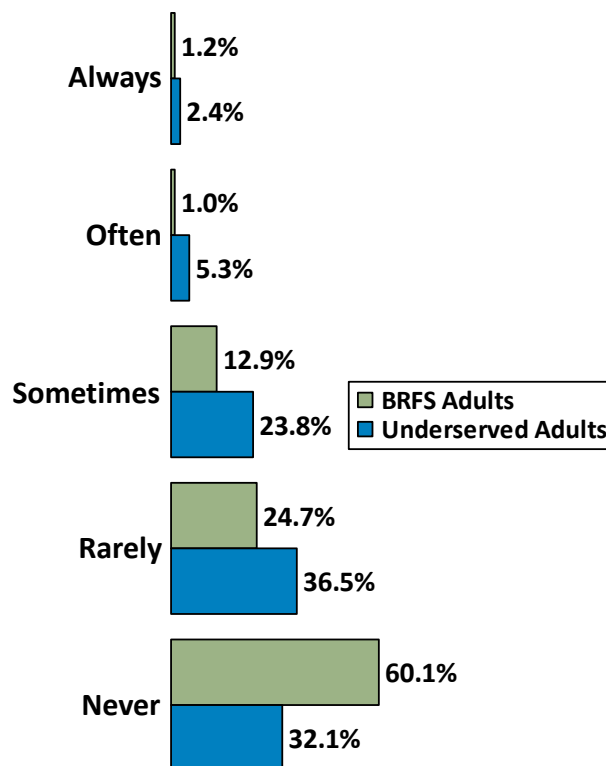
Source: BRFs – Q3.9/URS – Q14: How confident are you that you can successfully navigate the health care system? By navigating the health care system, we mean knowing: how to use your health plan or insurance, what your plan covers, how to read your statements, where to go for services, how to find a primary care provider, what your options are for treatment, etc. Would you say...? (n=1,185/n=340); BRFs – Q7.1/URS – Q15: How confident are you in filling out medical forms by yourself? For example, insurance forms, questionnaires, and doctor's office forms. Would you say... (n=1,192/n=341)



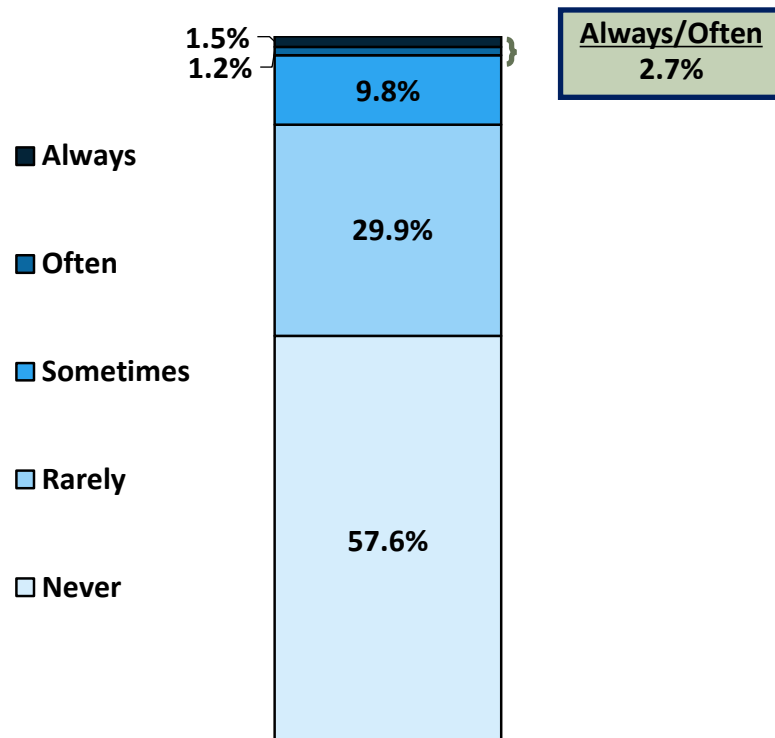
Health Literacy (Continued)

- The vast majority of all 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.
 - ❖ However, three in ten (31.5%) underserved adults at least sometimes experience problems learning about their health condition because of difficulty understanding written information

Frequency of Problems Learning About Health Condition



Frequency of Difficulty Understanding Written/Verbal Information from Provider (BRFs Adults)



Always/Often
2.7%

■ Always

■ Often

■ Sometimes

■ Rarely

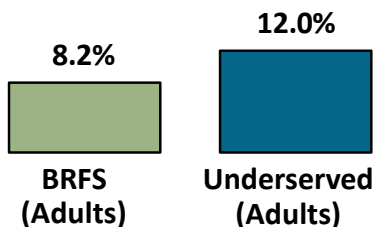
■ Never



Health Care Coverage

- Almost one in twelve (8.2%) area adults under age 65 have no health care coverage, a rate slightly better than in 2017.
 - ❖ However, **this rate increases slightly to 12.0% for residents considered to be underserved**
- The most widespread primary source of health coverage for BRFS adults, by far, is a plan purchased through an employer or union.
 - ❖ This differs markedly from **underserved** adults, who are **more likely to have Medicaid or Medicare** than any other coverage
 - ❖ Nearly **one-fourth of children aged 0-18 are covered by Medicaid**

No Health Coverage (Among Adults 18-64)



Primary Source of Health Coverage (All Adults)

	Ottawa County	
	Adults (BRFS)	Adults (Underserved)*
A plan purchased through an employer or union	55.8%	26.1%
Medicare	20.9%	33.2%
A plan that you or another family member buys on your own	8.6%	7.4%
Medicaid or other state program	6.5%	36.8%
Tricare, VA, or military	1.4%	0.9%
Medicare supplement	NA	11.9%
None	6.8%	9.5%

Children Age 0-18 Covered

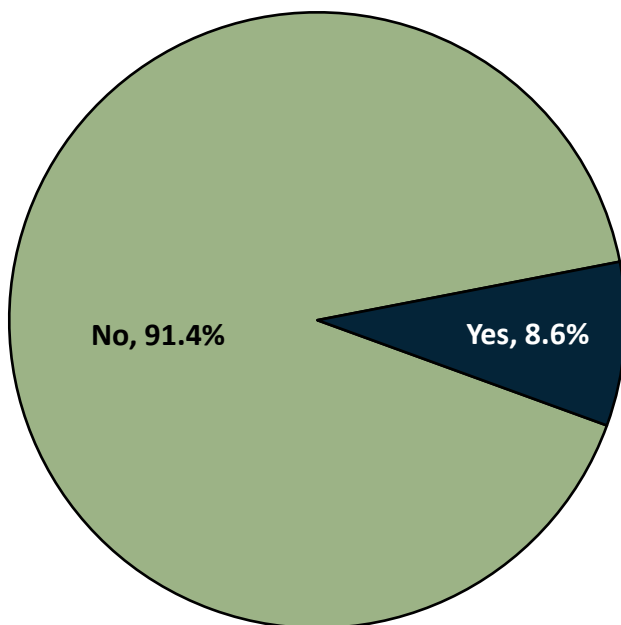
With Insurance = 97.1%
With **Medicaid** = 23.6%



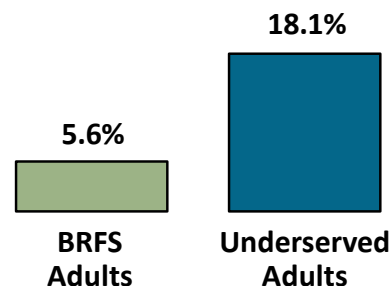
Problems Receiving Health Care

- Among all Ottawa County adults, 8.6% have foregone health care in the past year due to cost, a rate slightly higher than in 2017 (7.4%).
- Among all Ottawa County BRFs 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.
 - ❖ The prevalence of underserved adults going without needed medication because of costs is even greater (18.1%)

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



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

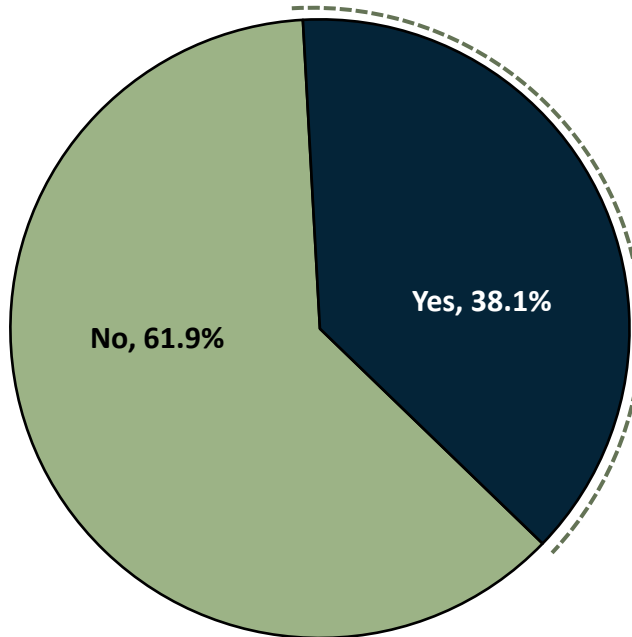




Problems Receiving Health Care (Underserved Adults)

- Almost four in ten (38.1%) underserved adults have had trouble meeting their own health care needs in the past two years; this is down slightly from 2017 (42.1%).
- For those who had trouble meeting their health care needs, the greatest barriers were **costs**, **lack of health insurance**, an **inability to afford out-of-pocket costs** such as deductibles, copays, and prescription drugs for those who have insurance, and **providers not accepting some or all insurance plans**.

Had Trouble Meeting Health Care Needs in Past 2 Years



Reasons Had Trouble Meeting Health Care Needs in Past 2 Years

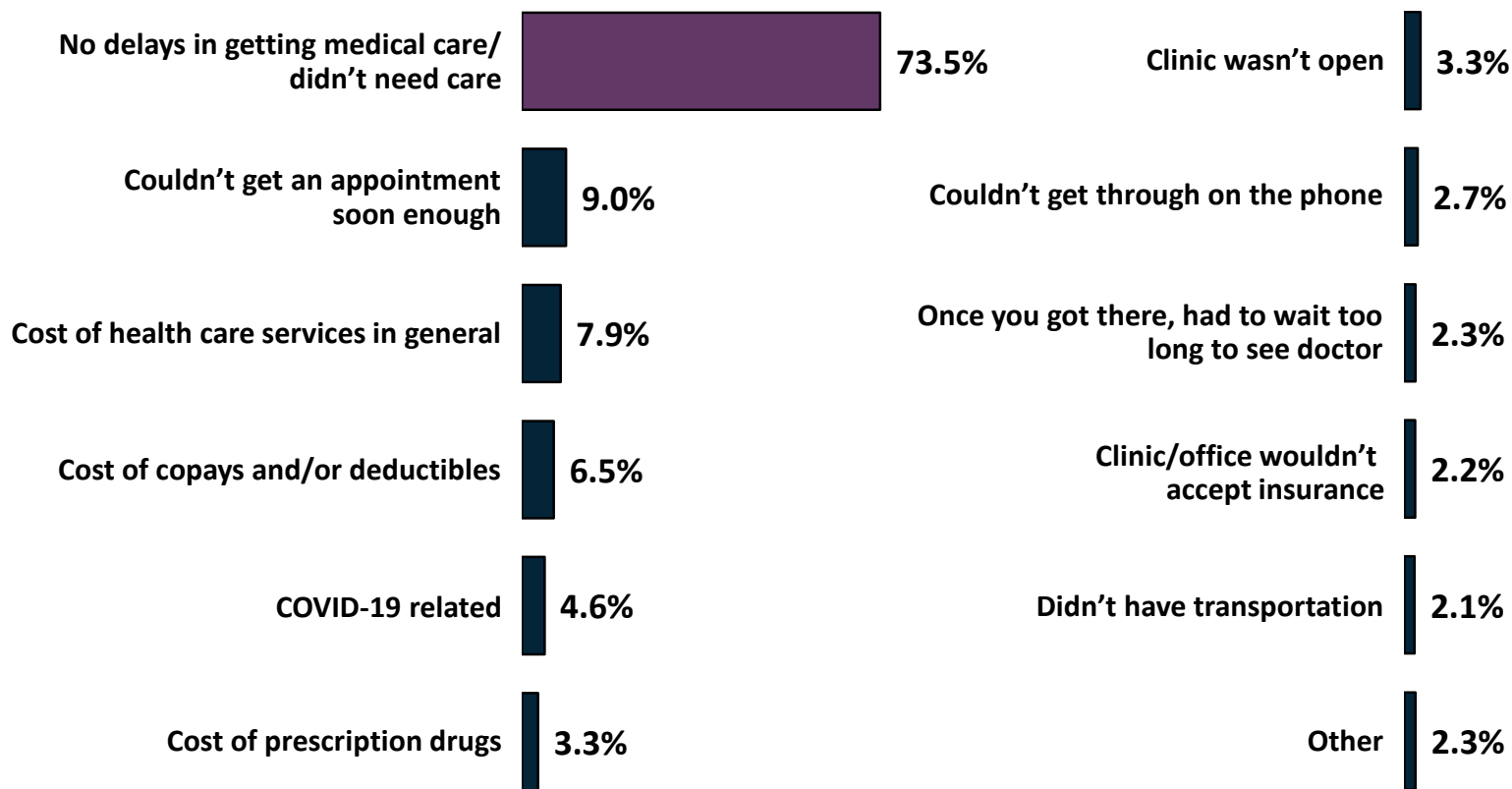




Delays in Receiving Health Care (BRFS Adults)

- Over the past year, one-fourth (26.5%) of area adults have had to delay needed health care for myriad reasons.
 - ❖ 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

Reasons for Delays in Receiving Needed Medical Care

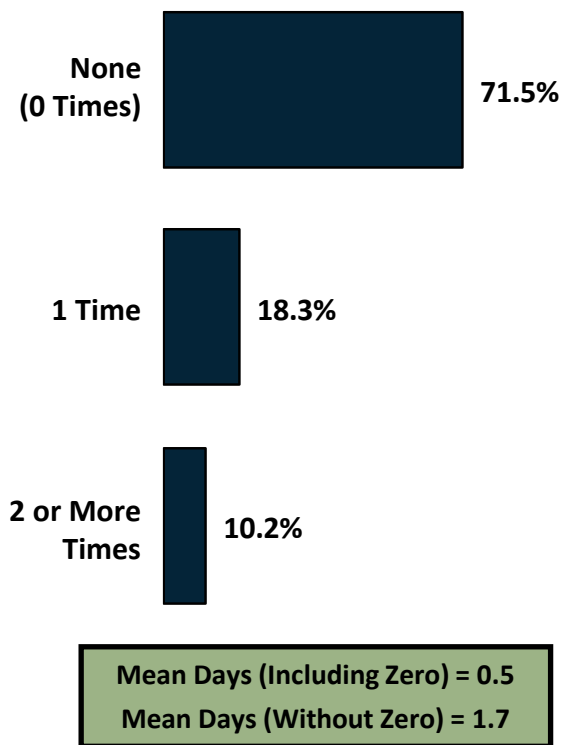




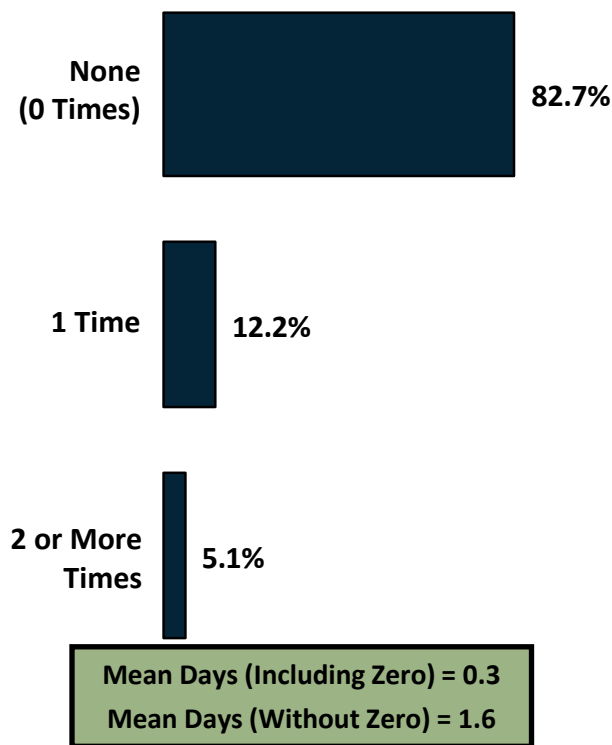
Use of Urgent Care and ER/ED

- In the past 12 months, 28.5% and 17.3% of Ottawa County BRFs adults have visited an urgent care center and the emergency room, respectively.
- Among underserved adults, four in ten (39.1%) report they have visited the ER at least once in the past year.

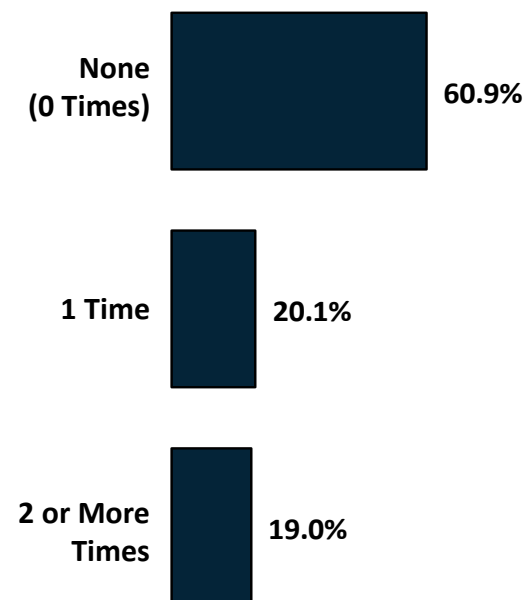
Number of Times Visited Urgent Care Center in Past 12 Months (BRFS Adults)



Number of Times Visited ED/ER in Past 12 Months (BRFS Adults)



Number of Times You Visited ER in Past 12 Months (Underserved Adults)

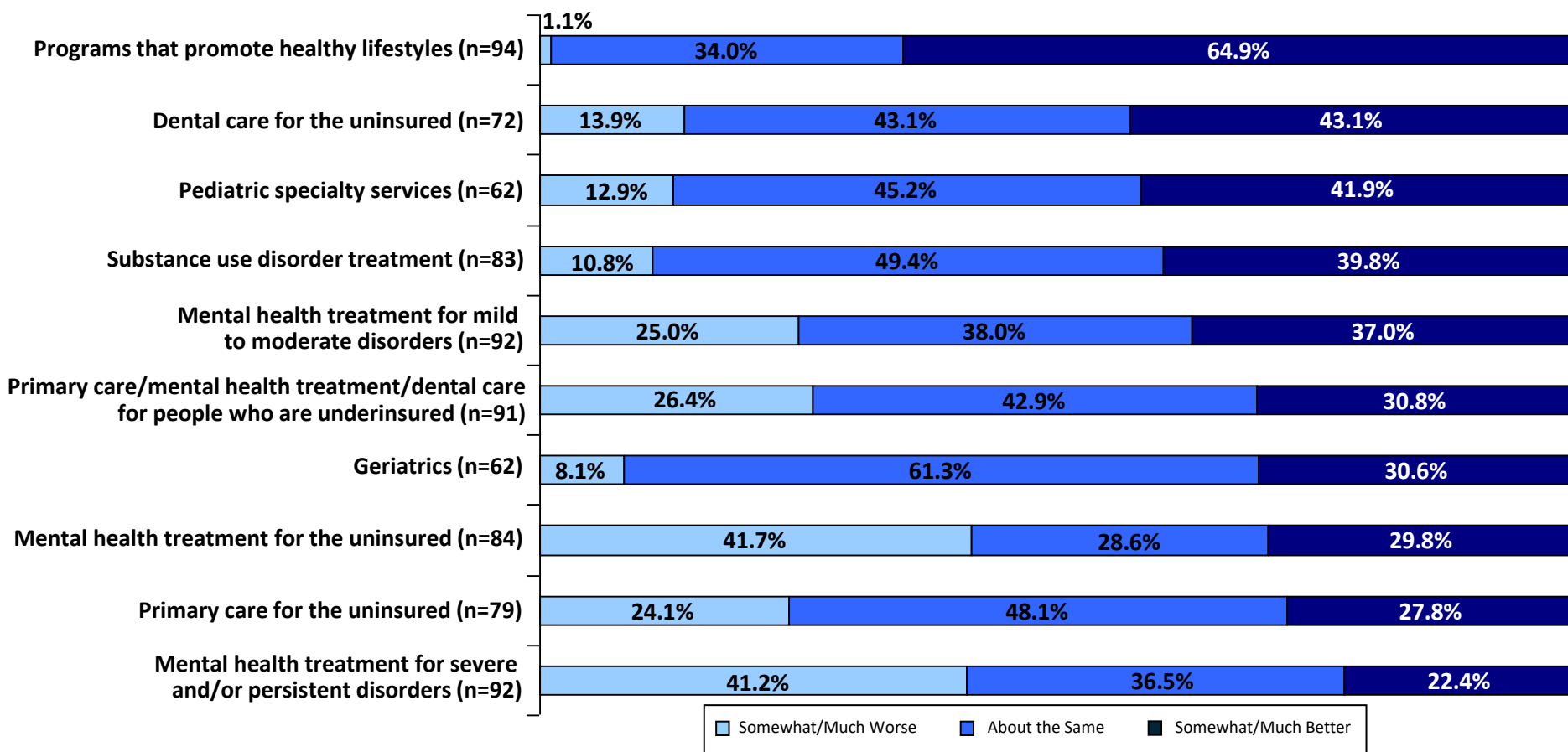




Improvement in Health Care Access

- Key Informants were presented with a list of programs and services that were deemed (by Key Informants and Key Stakeholders) to be lacking and not meeting the needs and demands of area residents over the past 5-6 years, and asked if access has become better, worse, or remained the same.
- Although they feel that access has improved most for programs that promote healthy lifestyles, Key Informants clearly think access to mental health treatment for many has become worse over the past several years.

Extent to Which Access Has Improved Over the Past 5-6 Years



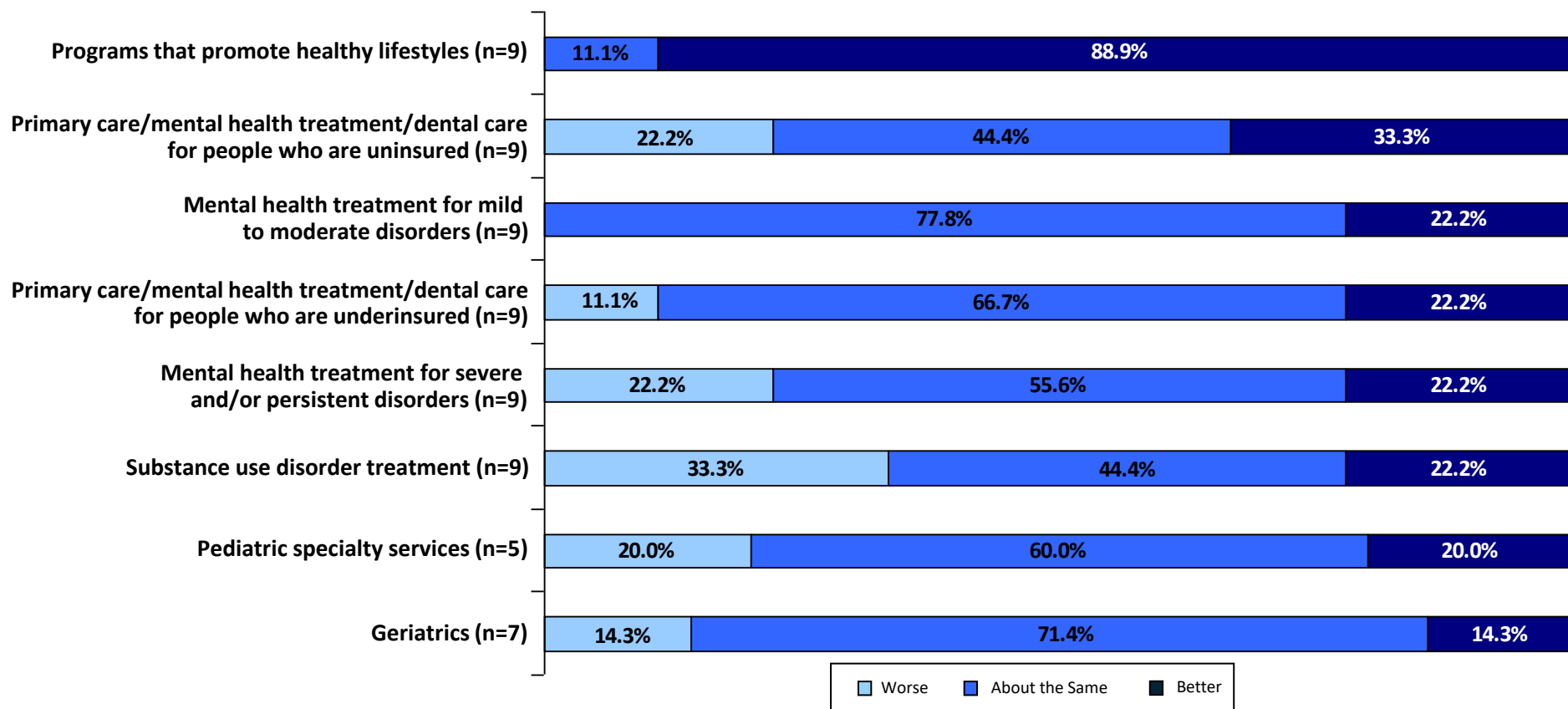
Source: KIOS – Q6: Below is a list of programs and services from the past two Community Health Needs Assessments that Key Informants reported did not meet the needs and demands of Ottawa County residents well. In your opinion, over the past 5-6 years, to what degree has access to each improved (or not) for Ottawa County residents?



Improvement in Health Care Access (Key Stakeholders)

- Similarly, Key Stakeholders say access has improved the most with regard to programs that promote healthy lifestyles, and although only 22.2% say access to mental health treatment for mild to moderate disorders has improved, not one of them said it had become worse.
- One third (33.3%) believe access to substance use disorder treatment has worsened over the past several years.

Extent to Which Access Has Improved Over the Past 5-6 Years



Source: KSI – Q5: Over the past two CHNA iterations, so going back 6 years, there have been certain programs and services that Key Stakeholders and Key Informants reported did not meet the needs of all Ottawa County residents well. I am going to read you a list of these programs and services and want you to tell me if access to them now is better, worse, or about the same as it was six years ago. Of course, you can also say you “don’t know.”



Programs And Services That Meet Residents' Needs Very Well

- According to Key Stakeholders, programs and services that meet area residents' needs very well include emergency or urgent care and general health services (e.g., x-ray, labs). There are at least adequate numbers of physicians, nurses, and PAs, and an abundance of hospital beds.
- There are mixed opinions on the supply of primary care providers and whether or not it is adequate, but it's clear that a consistent theme is that access is not available to all county residents and one major reason is providers not accepting Medicaid insurance.

I think the **emergency room in the hospital** itself is adequate for the population size. There's **probably one stable one** and two not as much. **They've been bought by larger organizations that are using them as front doors for their larger systems.**

I would say **our ER is one that pops in my head.** The **ER is available; we've got ERs in many places, so urgent care is available,** but outside of that, I don't know.

I think if you have an elective surgery, something that you want to get done, like joint replacement or dental care, it's there, but you have **people that don't have insurance, or they don't know how to access it.** It's there, but **we set limits: how many people we want on Medicaid.** [Private practices] say "Hey, we're not going to take more than 15 percent of this insurance, so, if we have another person call in, somebody has to leave," and they do that because **it doesn't pay them enough to keep the lights on.** If they let more in, they would close, so you close your program and give no one access? You have to limit it and manage it; they limit it and manage it.

I would generally say, **outside of behavioral health, specialty care, medical and surgical specialty care, there isn't anything,** broadly speaking, that **I would say this community should expect to have that it doesn't have.** **Primary care,** I would say is **acceptable;** I wouldn't describe it in abundance.

Access in northern Ottawa County to general health services, whether it might be access to x-ray or lab or things of that nature, therapy—all of that **is very easily accessible** in this community, **probably more than we need in some cases.** **Primary care is okay;** it's still not exactly where it needs to be, but it's much improved over five years ago.

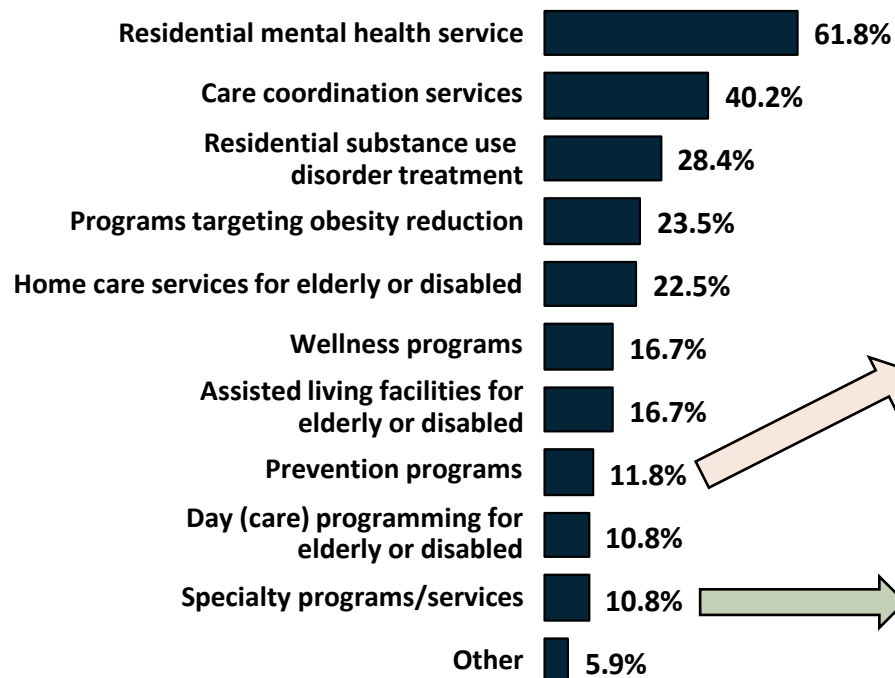
You look at the statistics; **we definitely have enough hospital beds,** and **we're not in a service-shortage area,** so we have an **adequate number of physicians and PAs and NPs** and all of those folks. I do talk with some of the **primary care providers** and **they're pretty overwhelmed with the numbers** that they're seeing and the complexity of the problem that the primary care providers see in their practices.



Health Care Programs, Services, or Classes Lacking in the Community (Key Informants)

- Key Informants believe a number of programs and services are lacking in the community and top priority should be programs such as residential treatment for both mental health and substance abuse, care coordination services, programs targeting obesity reduction, and home care services for the elderly and disabled.
- Suggestions for specialty and prevention programs include those with a focus on children and how to ensure they have the most solid foundation.

Programs/Services Lacking That Should Be Greatest Priorities



- ❖ Access to Long-Acting Reversible Contraceptives
- ❖ Chronic disease prevention
- ❖ Drug abuse
- ❖ Early mental health screenings for young children prior to their entry in preschool and continued support for those identified as at risk
- ❖ Exercise, wellness, healthy eating education
- ❖ Financial planning as it relates to health care
- ❖ Hypertension, heart disease, diabetes
- ❖ Mental health
- ❖ Parenting classes
- ❖ Prenatal information, postpartum information, early childhood resources and supports, importance of early childhood development, ACEs, very early literacy, importance of well-child and prenatal doctor's appointments
- ❖ Resilience education
- ❖ Vaping

- ❖ ACEs - how do we limit the traumatic experiences for children?
- ❖ Affordable breastfeeding support
- ❖ Child mental health programs
- ❖ Diabetes and nutrition education
- ❖ General Dentistry
- ❖ Parenting support
- ❖ Psychiatric care
- ❖ Quality child care
- ❖ Respite services
- ❖ Transportation to medical appointments



Health Care Programs, Services, or Classes Lacking in the Community (Underserved Residents)

- Underserved adults report numerous programs, services, or classes that are lacking in the community; however, the **top areas** of need are **public transportation** that is more abundant and/or affordable, **nutrition** (focused on cooking classes, developing healthy relationships with food), **access to fitness or exercise options** (free or low cost), and more abundant and affordable **access to mental health services**.

Transportation	<p>Public transportation, especially for seniors, is available but costly for some.</p> <p>Public transportation; affordable transportation to doctor/dental appointments.</p> <p>Rides to appointments or procedures that may require sedation, anesthesia, etc. Rides for many people to medical care period.</p> <p>A public transportation system (Harbor Transit not an option due to COVID)</p>
Nutrition/healthy eating	<p>Community education involving nutrition could be very beneficial. Cooking classes, general information on nutrition, etc. If these are available, messaging is not getting through.</p> <p>Healthy eating habits for children/building a healthy relationship with food rather than a specific "diet."</p> <p>I would love to attend community cooking classes, exercise classes, or events. If these happen, I wish they marketed better.</p>
Fitness/exercise	<p>Free community exercise programs.</p> <p>Free exercise facilities or classes.</p>
Mental health	<p>Mental health services, specifically affordable counseling for adults and teens.</p> <p>Not enough support for mental health in this county.</p>



Access to Mental Health Treatment – A Top Concern Of Key Informants and Key Stakeholders

- Key Stakeholders and Key Informants cite many problems with accessing mental health treatment, but two major obstacles stand out: (1) there is a **lack of providers, which results in long wait times** to be screened, referred, and evaluated by a mental health specialist, and (2) many mental health **providers do not accept all forms of insurance, including Medicaid**, and this will disproportionately have a negative impact on the vulnerable or underserved subpopulations.

The **partial-hospitalization program** is aimed at patients who do not **require intensive inpatient treatment** but, on the other hand, a brief, meaning thirty-minute plus or minus patient visit, **is inadequate to manage their mental-health needs**, so **this can provide up to five-day-a-week, all-day therapy and services**, and it's intended to **plug the gap between those two extremes** that I described, so that is the clearest answer in Ottawa County on what's been done to address that. – *Key Stakeholder*

It is **happening to our children** and there is a **big waitlist for help**. – *Key Informant*

Almost everyone has some type of mental health issue ranging from stress/situational anxiety to severe substance abuse/psychotic breaks. Primary care has become comfortable handling the routine depression and anxiety issues on a daily basis (several times a day) but those resistant to treatment or those with more significant diagnoses are **having to wait weeks to months to be seen by a psychiatrist or even therapist in many cases**. Even then **type of insurance** they have (or do not have) **significantly limits the number of mental health providers they can see/afford**. – *Key Informant*

Referrals for individuals identified and screened for additional services **can take upwards of 6 months for an appointment**. – *Key Informant*

The combination of **continuing stigma**, along with **too few health care providers** has created a "**health care desert**" in much of the county. **Especially in psychiatry**, we need more providers. – *Key Informant*

Because **those who have Medicaid have limited access to prescribers and therapists** and **those who are underinsured can't afford these services at all**. **Too many providers do not accept Medicaid** and certainly **don't have a sliding scale for the underinsured**. – *Key Informant*

We **have gone for months at a time with no prescribing provider for those in the care of CMH**. **People cannot choose their provider** and then are left with none. The **wait to see a provider is unacceptable**. The **cost** of mental health care and insurance coverage does not make it accessible to many residents. – *Key Informant*

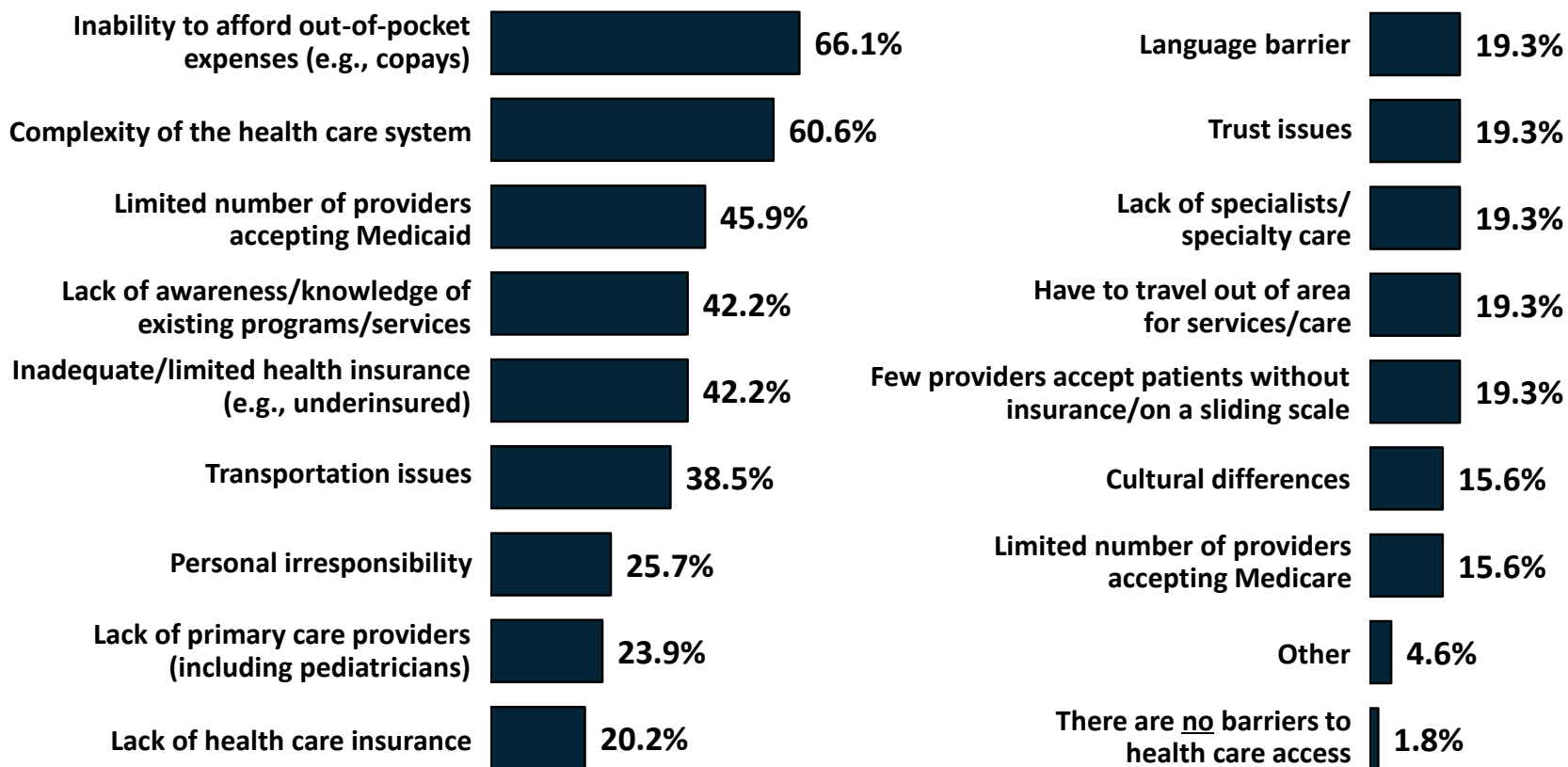
Our **mental health care providers (specialists)** are **inundated with referrals**, which leads to **long waits for psychiatric evaluations** and **sub-optimal care attempted by primary care providers** who are not sufficiently trained to handle some of these conditions. **Due to lack of results**, patients at times **refuse to take medications or pursue treatment as recommended**. **Poor mental health is then perpetuated through families resulting in adverse childhood experiences which will impact our community in the present and future**. – *Key Informant*



Barriers to Accessing Health Care (Key Informants)

- Key Informants report the two greatest barriers to accessing health care are the **inability to afford out-of-pocket expenses** (e.g., copays) and the **complexity of the health care system** (e.g., difficulty of navigation).
- More than four in ten Key Informants view **limited numbers of providers accepting Medicaid, inadequate or limited health insurance**, and **lack of awareness of existing programs and services** as additional barriers to health care access.

Most Common Barriers to Accessing Health Care in Ottawa County





Barriers to Health Care Access (Key Stakeholders)

- Key Stakeholders say that many of the same barriers to health care continue to exist, such as cost, access issues, cultural trust issues, and education in terms of the ability to navigate the system.
- Perhaps a greater barrier has been emerging lack of affordable housing, which forces many residents to spend such large proportions of their income on housing that they have to forego things like health care and food.
- Transportation continues to be a barrier for some but is hard to address when it impacts so few.

Money and education. So, money **including transportation**, and knowledge of, or **awareness** of, the program itself.

I think **access, transportation, cost, language** are still present.

[**Transportation**] has been a **problem for probably longer than two decades**, more than you realize. I think that there **have been some solutions**.

Medicaid, for instance, **will pay for transportation to and from a doctor's office if it is scheduled far enough in advance**. So, I think there's a **growing understanding of how to navigate that process** on the **providers' end**. I think providers used to expect patients to show up and ignore if they didn't show up. I think **now we are more proactive as a network and trying to help solve those transportation issues**.

Housing is our issue. There are some language barriers, but we have all sorts of resources to help get over those, from interpreters to people that are embedded within the respective communities that are bilingual. For transportation, we are fortunate that we have what we call Harbor Transit up here, so it's kind of a mini-bus system that will take people at a fairly low cost, whether it's to their job, to grocery shopping, physician appointments, etc. It's housing; we don't have affordable housing. There's still a need.

Transportation, for some people is absolutely [a barrier] **but not all**, and it might not even be a real huge portion of our population. However, it could be those folks that are the most unwell. I think **housing is huge barrier**. **People are chewing up half of their income in housing**, and they **don't have anything leftover for healthy food or doctor's copays or anything**. That's a huge one.

On both sides of the coin, resources. **Transportation is still a barrier**. We have a bus route now to Zeeland; we didn't have that a couple years ago. People use it to get care, so **it's improved** in that respect. I **don't think this is something that goes away**. **Cost** is still an issue, in terms of **out-of-pocket expenses**. There's so much software in phone calls that you can have an interpreter around that—over your phone. It certainly just gets smaller and smaller, that barrier [language barrier].

At some level, transportation, cost, and culture still remain issues. SPOKE did a **study on transportation**, and it was for the elderly population. And really, nothing much came out of it because the **data suggested that there really wasn't an issue**. I think it was **worth every penny to prove that because we've been talking about transportation since I've been here professionally, which is going on thirty years**. **People want to blame it on transportation**, and, **for those few people** who have a transportation issue, **it is life-altering**. They can't do what they need to do. But, **for what—98 percent of the population—it isn't a problem**. I think sometimes people want to use this as an excuse. First of all, [the transportation issue] **is unfixable**, quite honestly. In a world where we already developed roads and cars and no public transportation, it's not fixable **without billions and billions of dollars**. I thought that was worth every penny because it showed 1.5—2 percent of the people can't get anywhere.

Cost is an issue. Transportation? Yes. Is it the overwhelming issue? **Probably not**. If I could fix transportation or if I could lower the cost of health care, I'd probably lower the cost of health care.



Effectiveness of Existing Programs And Services

- Key Stakeholders say the existing programs and services meet Ottawa County residents' needs and demands at least somewhat well because, although there are numerous programs and services available, not all residents are being served for various reasons (e.g., lack of awareness, access issues such as cost or transportation issues, personal choice, lack of trust, or language/cultural barriers, etc.)

I think **for some it's very well**, and **for others it might not be so well**, and it might not be because the service isn't available to them; it **might be that it's not provided in a way that meets their culture or language**. It **might be that there's fear of accessing it**, so I think there are some barriers that we still need to figure out. I still think **health navigation is a huge thing**.

I would say **overall it would be very well** for a community of this size to **have access to what is available**, in terms of its presence in the community. That **doesn't mean that they can get to it**, for the reasons we've been talking about, **but it's here**, and there are other areas where it doesn't even exist. So, **the challenge is getting people to it when they need it**, but the availability in the community on **expertise** and on **technology** and actually just **the number of providers**. I would put those back to where I ranked us originally as **quite strong**.

I can't own your health, right? You have to own some of it, too, so I think that's where the rub is. **There is actually a lot of access in the community**. I mean, you could walk to a clinic, right, somewhere, regardless of where you are. You could get in, and somebody's going to see you. They're probably not going to throw you away. A church will help you; a school will help you; the hospital will help you, but **some people don't know how to access. We need to help them**. Even when people have the information and they have access, they have to own it.

For the people who are coming and seeking the services, I think it meets it well, but I'm expecting that **there's this undercurrent of folks who are still not engaging, and none of us have figured out how to tap into that yet**, so, **for them, the answer would have to be not good at all**. We've tried reaching out. We have one of our local churches here downtown that have a special service just for our Hispanic community. I have to believe it's not because they're all healthy and well. **Either they're suffering in silence**, so to speak, or **they're self-treating**. I don't know; **we haven't nailed that down yet**.

The people that we serve, we serve exceptionally well, but we're not serving at scale everybody that we need to serve, so I think the offerings we have are very good, but the offerings we have are **not getting to specific populations** that are my daily work.

I think we actually do have the resources. I think we work well together. I think, **where we can, we try to find solutions**, and, again, it goes back to sort of that "You can lead a horse to water, but you can't make him drink" kind of thing. **Transportation's always a problem for certain people**; for some people, it isn't a problem. It **could be that there isn't a full understanding of "I don't even know I need help."**

I'll say somewhat well, because **it depends on if you can afford and have access**. I think **we have an incredible health care system here**, **but**, if you **don't have access or can't afford**, then I **don't think we're meeting the needs of our community**.



Programs And Services That Are Lacking (Continued)

- Key Stakeholders report Ottawa County **lacks programs and services related to behavioral health**, including **mental health and substance abuse treatment**. Other needs include **specialty services, or higher-end procedures** that require some residents to drive to Grand Rapids.

Adult psychiatrists. Ironically, they've been able to cover [adolescent psychiatry] decently. You can add that. You **can say adult and child psychiatrist**. It's a matter of relativism, but that is an area that is **continuing to be difficult and especially depending on the patient's insurance**, so **especially Medicaid or Medicare patients**; it is **hard to get them the mental health they need**. So, both for psychiatrist and therapy. I would say those are difficult, and **then substance-use treatment**.

Mental health, no-brainer. We **know data-wise that we don't have enough primary-care physicians**, so we know that for a fact. We know what **our ratios are compared to the state**, and what that **leads me to think is that it is the lower income population, or potentially those underinsured (poor insurance) who are not accessing that primary care**. As I remember, the actual number of people accessing primary care is that the **percentage got better**.

Some specialists, but Grand Rapids is not far, and that tends to meet most needs. I think **low-cost prevention programs** would be something I would identify. A lot of the health care systems put on prevention programs, but **they're pricey**, and **they don't always reach people where they're at**. And then, certainly, I would say **Medicaid access for primary care and other**. I've been with health care providers who behind the scenes will say, "Yeah, we've got to regulate this because, if we only take Medicaid, we're not going to make a profit." I think the number of them that limit it and what percentage they limit to, keeps a lot of people from getting the health care they need.

I think that, in Ottawa County specifically, it **would be great if we had an urgent behavioral-health center**. They have one in Kent County. I think that **would be a great access point**. So, **behavioral health, 24/7, where you could be screened and cared**. You don't need all the inpatient services there or the outpatient services there. That can be done in Kent County, but, **if the screening was more locally**, I think it **would get used more**.

In the area of health care, the **higher-end procedures**. So, if I'm going to have to have **heart surgery**, I'm leaving the county. If I'm going to have to have a **transplant**, I'm leaving the county. But, again, those are the **minor numbers of things**. You've got—generally, **80 to 90 percent of what people are going to need from a health-care standpoint, they've got fairly easy access to**. For **substance abuse**, I don't know that there's anything significant right here, especially in the northern part of the county.

I know that we do have some clients that have to leave the county for certain services. I know that there's some that have to drive to Grand Rapids, like for **specialty appointments** for things. I think stuff with **cancer, dialysis**, some things like that. I just know that we have an issue with that because we're required to provide Medicaid transportation.

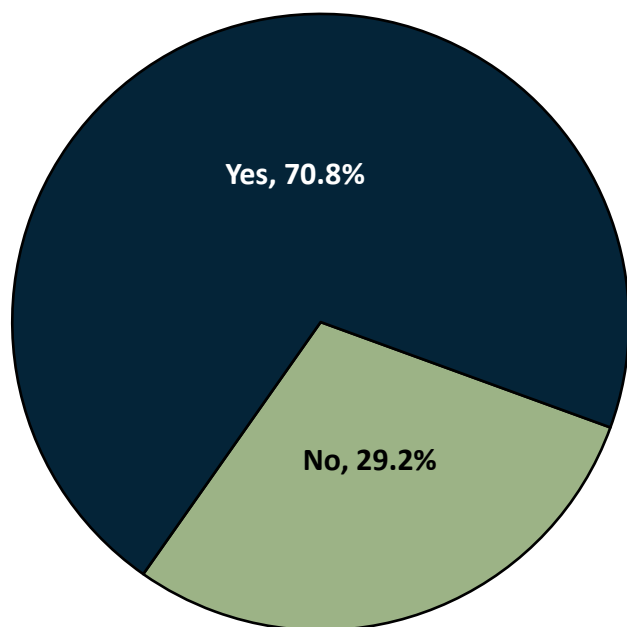
Lots of specialty care—you'll to Grand Rapids. We have Children's Special Health Care Services, and kids that have really complex health issues do have to go out of the county. Grand Rapids is about thirty minutes, but we still do have folks that have transportation issues to get to specialists in Grand Rapids or in the northern part of the county.



Pathways to Better Health

- Seven in ten (70.8%) Key Informants are aware of Pathways to Better Health as a referral source to assist health and human service professionals in accessing needed programs and services for their clientele.
- Going forward, the goal for the Healthy Ottawa Advisory Council should be to improve awareness as close to 100% as possible since those who are aware of Pathways see how critical it is in connecting residents, especially children, to needed programs and services.

Awareness of Pathways to Better Health



Verbatim Comments on Pathways to Better Health

I still think the best thing we did was related to **Pathways to Better Health**, really **connecting people that were overwhelmed with the health-care system**, but it was because of **all the social determinants that were impacting their ability to navigate the health-care system**, so probably that is probably, I would say, our number-one success. – *Key Stakeholder*

Pathways to Better Health has shone, in my humble opinion, that it **really works to have a community-oriented care management**. What we need to do is get it to pay for itself. – *Key Stakeholder*

I still think **health navigation is a huge thing**. Our **Pathways workers have been really going places that we've never been before and linking people to care**, and, in general—this is outside of COVID—**people have a difficult time understanding the health-care system**. It's complicated. It's really complicated, and **they don't always know what services are available to them and how to access the services**, so I think the **community health workers continue to play a really critical role in linking individuals to appropriate care**. – *Key Stakeholder*

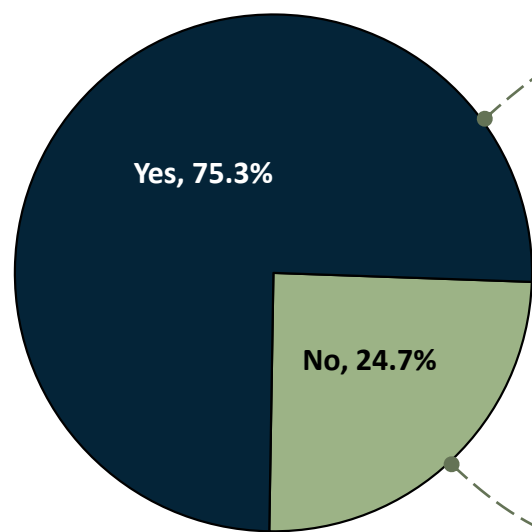
There **continue to be children and families who are difficult to locate and care for**. I don't have a solution, but **I'd like to see increased pathways to supporting these families**. Mental health in schools is a growing need and having better supports for schools would be helpful. – *Key Informant*



Ability to Refer People to Programs and Services

- Three-fourths (75.3%) of Key Informants believe they are equipped to assist their clientele in accessing needed programs and services.
 - ❖ For those who don't feel equipped, it would help to have instant access to information or a list of available resources or services. There is also a need for better ways to access this information through websites, apps, or a centralized location. Better collaboration among and between area agencies is also viewed as a need
 - ❖ Resources currently used include Pathways to Better Health, 211, various free or sliding scale clinics, social workers and care managers to connect patients to services, Ottawa County Department of Public Health, Community Mental Health, and the local hospitals

Believe to Be Equipped to Help People Access Needed Programs and Services



Resources Used Most Often

- | | |
|---|---|
| <ul style="list-style-type: none">• Connect them with 211, Ottawa Pathways, Good Sam, CAA, CAH, Arbor Circle, Health Dept, CMH. | <ul style="list-style-type: none">• Prescription assistance programs, Holland Community Health Center, City on a Hill. |
| <ul style="list-style-type: none">• Pathways, 211, Momentum Center, Pine Rest, Community Mental Health, Mosaic. | <ul style="list-style-type: none">• Senior Resources, Holland Free Health Clinic, Community Action House, Disability Network. |
| <ul style="list-style-type: none">• Pathways, Holland Free Clinic, City on a Hill, Intercare, Love INC. | <ul style="list-style-type: none">• Social workers and care managers to help our patients with access programs and services. |

Suggestions to Be Better Equipped

- | | |
|---|--|
| <ul style="list-style-type: none">• A central source of updated information that is available to reference with enough information to know who qualifies and how. | <ul style="list-style-type: none">• Collaborate and partner on a much deeper level, beyond giving families a stack of brochures. |
| <ul style="list-style-type: none">• An interactive website to search for program descriptions based on topic. | <ul style="list-style-type: none">• Easy access to a health care navigator. A larger Pathways program. PrEP provider in our community. |
| <ul style="list-style-type: none">• Better education to the public so they can get help before they end up in my office. | <ul style="list-style-type: none">• More information provided to the case managers and/or social workers to be able to help the patients access services and programs. |

Source: KIOS – Q5: Do you feel you are equipped to help people/clients/patients access needed programs and services? (n=97); KIOS – Q5a: (IF NO) What would better equip you to help people/clients/patients access needed programs and services? Please be as detailed as possible? (n=24); KIOS – Q5b: (IF YES) What is the resource you use most often to help people/clients/patients access needed programs and services? (n=73)

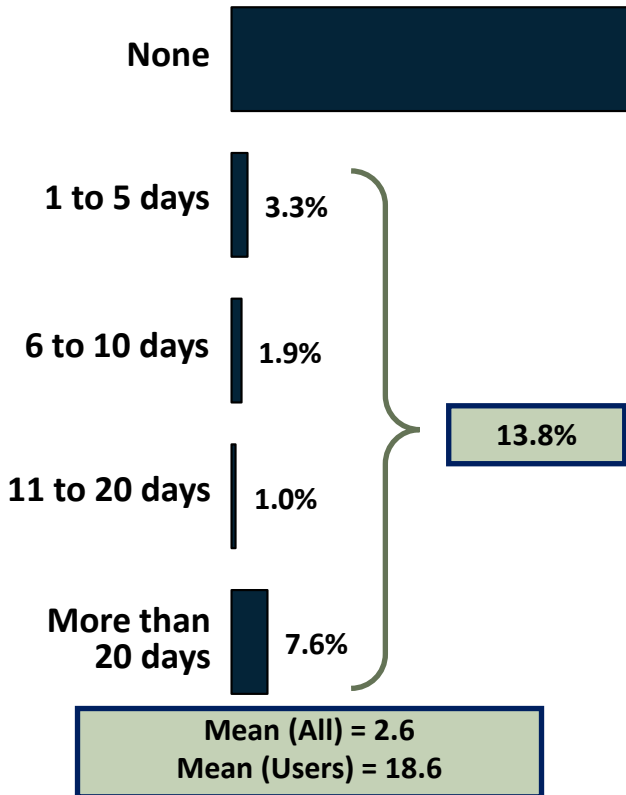
Risk Behavior Indicators



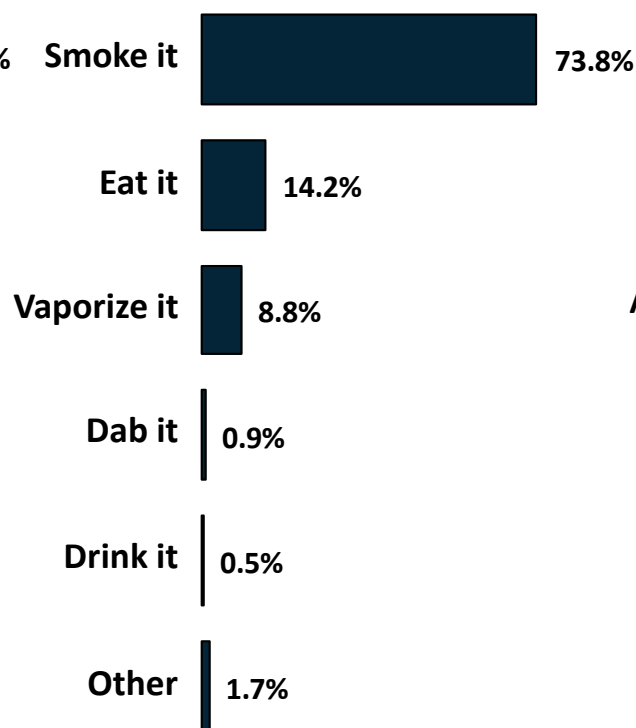
Marijuana Use

- 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, and over half (54.9%) of area youths, see very little or no risk to using marijuana once or twice a week.

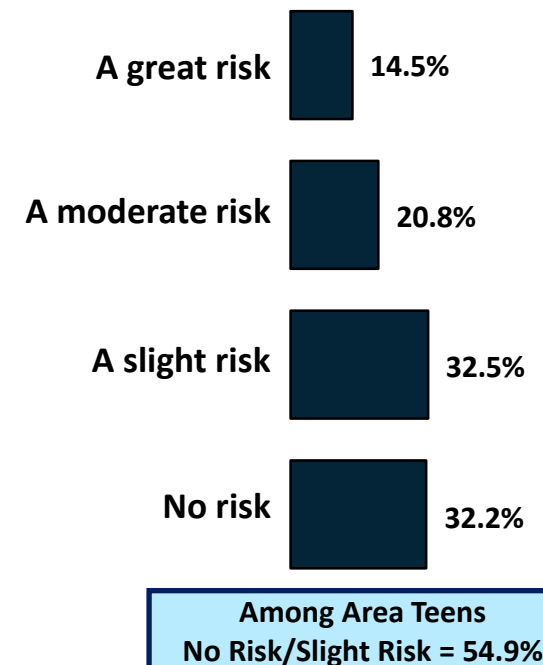
Number of Days Used Marijuana or Cannabis in Past 30 Days



Most Popular Methods of Marijuana Use



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



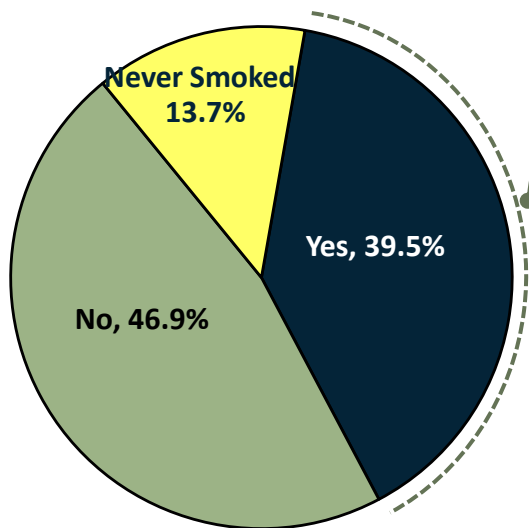
Source: BRFs – Q5.1: During the past 30 days, on how many days did you use marijuana or cannabis? (n=1,190); BRFs – Q5.2: (IF Q5.1>0) During the past 30 days, which one of the following ways did you use marijuana most often? Did you usually...? (n=94); BRFs – Q5.3: How much do you think people risk harming 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); Ottawa County Youth Assessment Survey, 2019



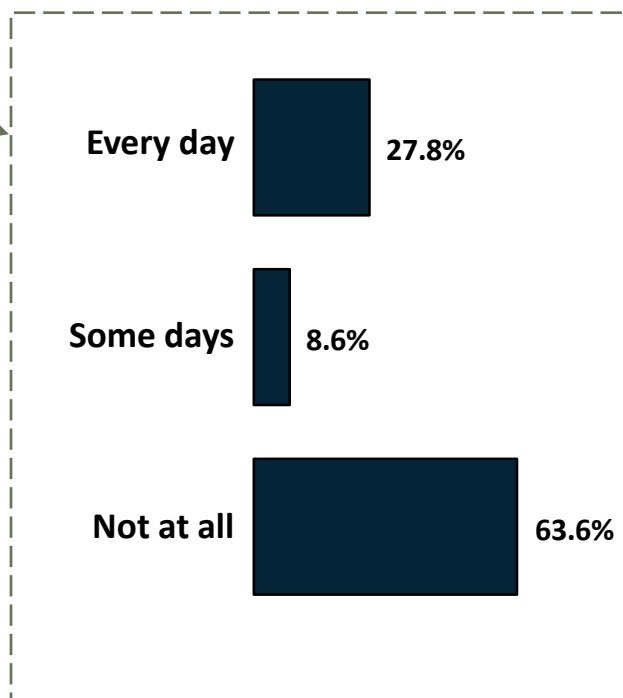
Cigarette Smoking

- 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

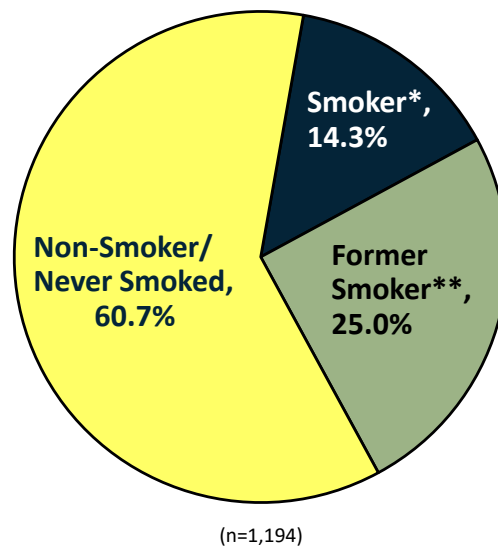
Smoked 100 Cigarettes in Lifetime



**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.

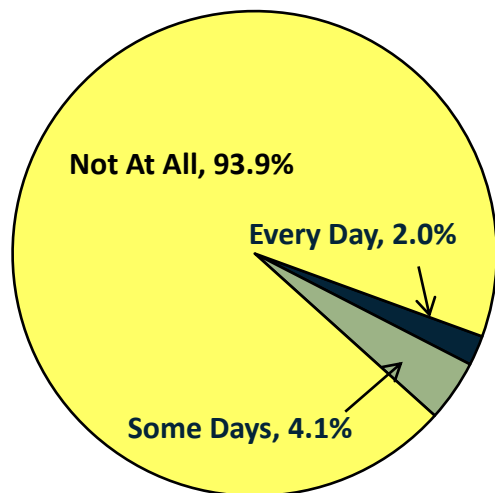
**Among all adults, the proportion who reported that they had ever smoked at least 100 cigarettes (5 packs) in their life but they do not smoke now.



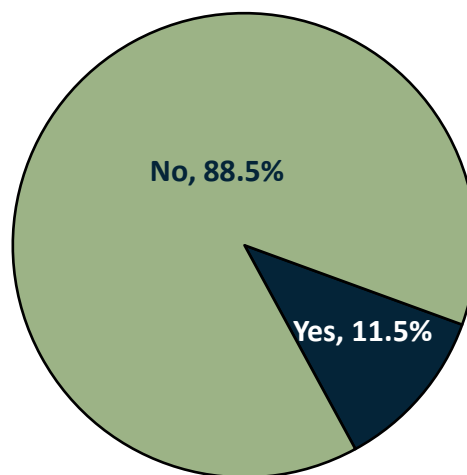
E-cigarette/Vaping Device Use

- An extremely small proportion 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 (77.5% among area teens); 40% consider it to be a great risk.

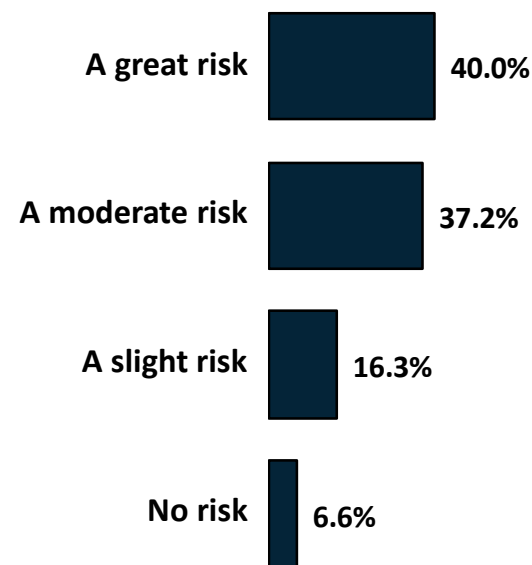
Current Use of E-cigarettes or Other Electronic Vaping Products



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



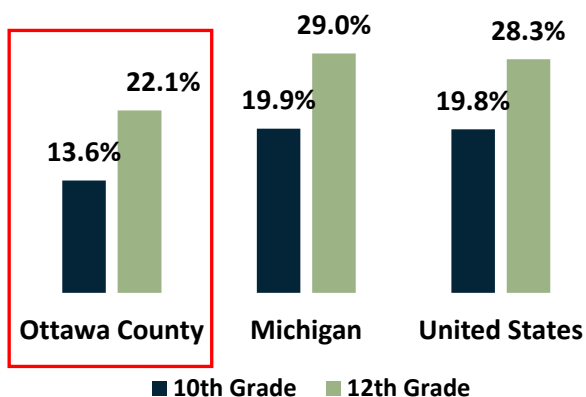
Among Area Teens
No Risk/Slight Risk = 22.5%



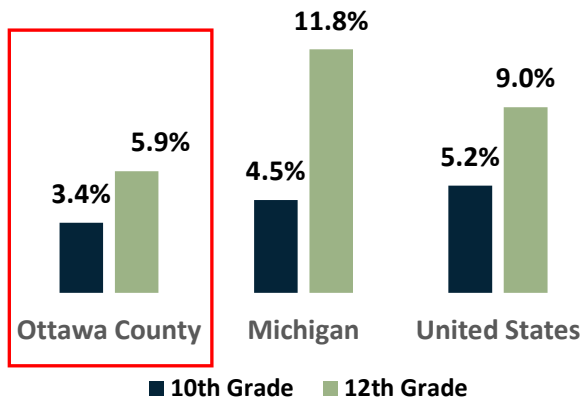
Marijuana Use, Smoking, and Vaping Among Area Teens

- Among Ottawa County teens, the prevalence of marijuana use, smoking cigarettes, and use of vaping products are all lower than the prevalence among teens across Michigan or the U.S.
- Still, one in five Ottawa County 10th graders and three in ten 12th graders use vaping products and these rates are on par with the rates for Michigan.
- Moreover, one in five Ottawa County 12th graders is a current marijuana user.

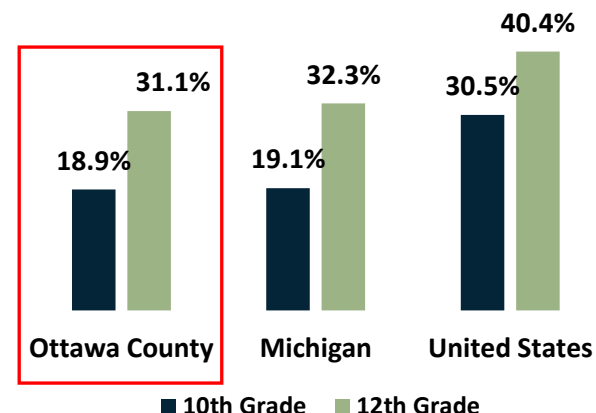
Currently Use Marijuana



Currently Smoke Cigarettes



Currently Use Vaping Products





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%

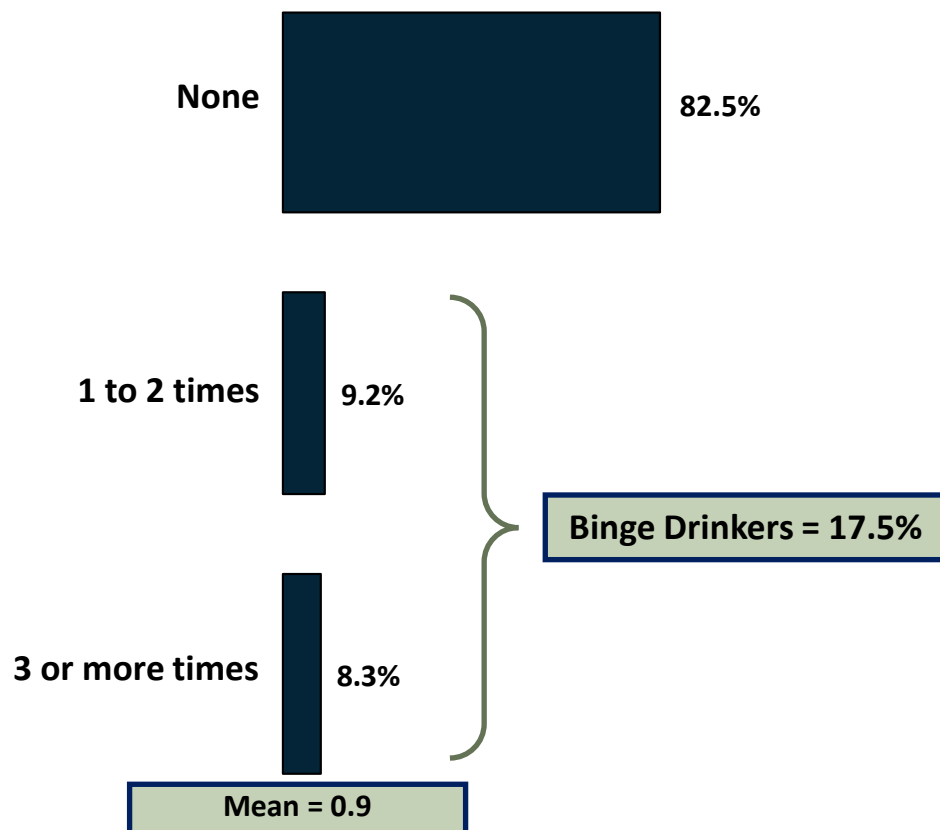
*Heavy drinking is defined as adult consuming an average of more than seven (if female) or fourteen drinks (if male) per week.



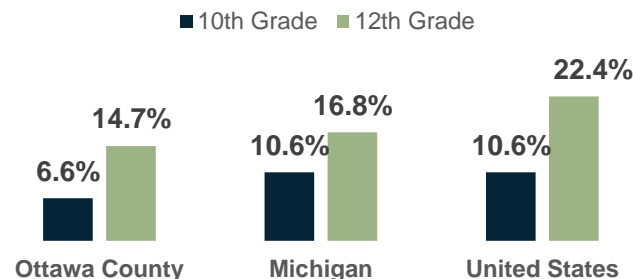
Binge Drinking

- Among all adults, 17.5% have engaged in binge drinking in the past 30 days; this is up from 2017 (14.1%).
- Far fewer Ottawa County youths report binge drinking compared to youth across Michigan or the U.S.
 - ❖ Among youth, 12th graders are more likely to engage in binge drinking than 10th graders

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



Binge Drinking (Youth)

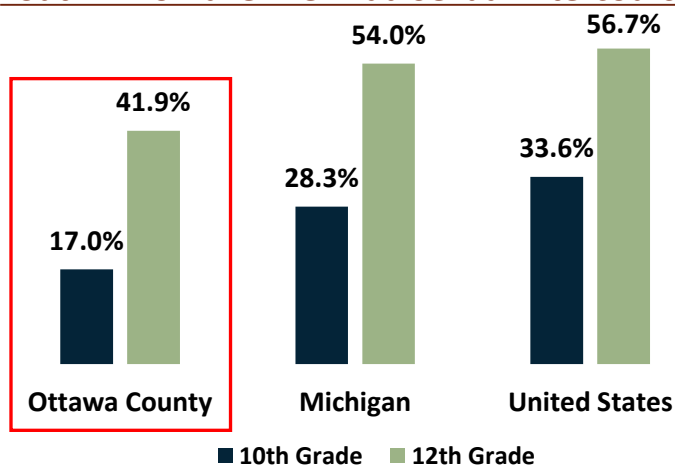




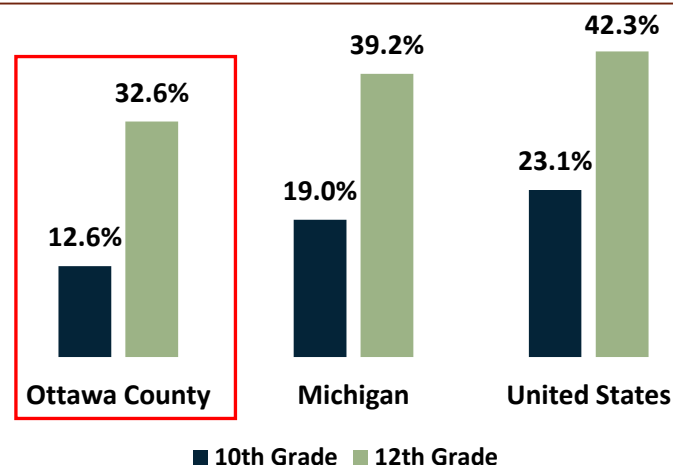
Teenage Sexual Activity and Teen Pregnancy

- Ottawa County teens are far less likely to have ever engaged in sexual intercourse compared to teens across Michigan or the U.S.
- Teenage sexual activity is far more prevalent among 12th graders compared to 10th graders.
- Teen births and repeat teen births are lower in Ottawa County than in Michigan or the U.S, although not substantially.

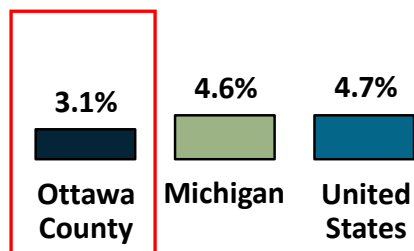
Youth Who Have Ever Had Sexual Intercourse



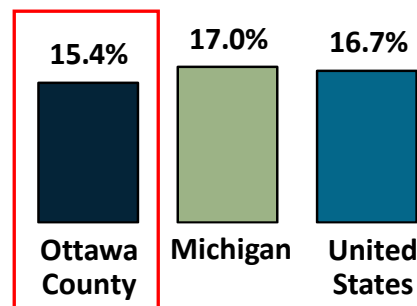
Youth Who Have Had Intercourse in Past 3 Months



Teen Births, Ages 15-19 (% of All Births)



Repeat Teen Births (% of All Births to Mothers Aged 15-19)





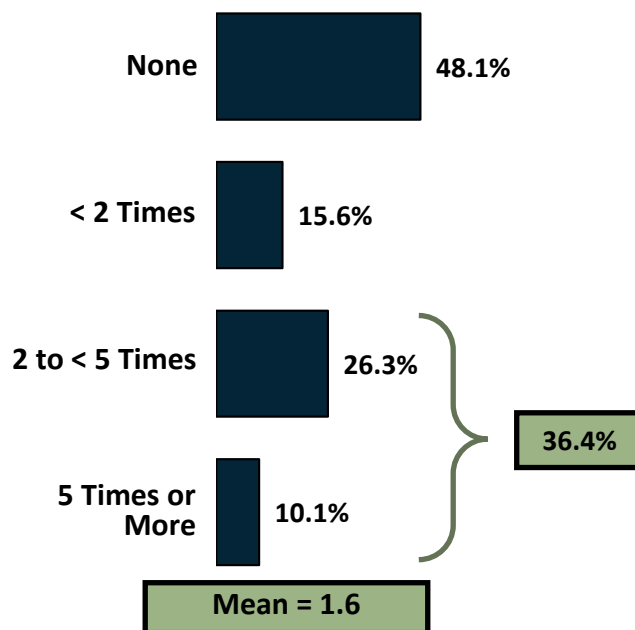
Physical Activity

- More than eight in ten (83.6%) area adults participate in leisure physical activity outside of their job and more than half (51.9%) engage in muscle-strengthening activities.
 - ❖ Both of these rates are better than the rates in 2017
- Roughly half of Ottawa County youths engage in inadequate amounts of physical activity, which means they fall below the threshold of being active for 60 minutes or more at least five days per week.
 - ❖ That said, the rates of inadequate physical activity for local 10th and 12th graders are better than MI or U.S. rates

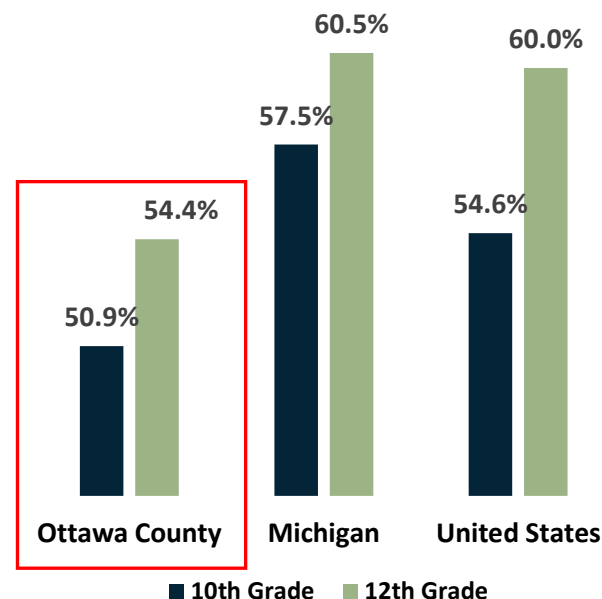
No Leisure Time Physical Activity (Adults)

16.4%

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



Inadequate Physical Activity (Youth)



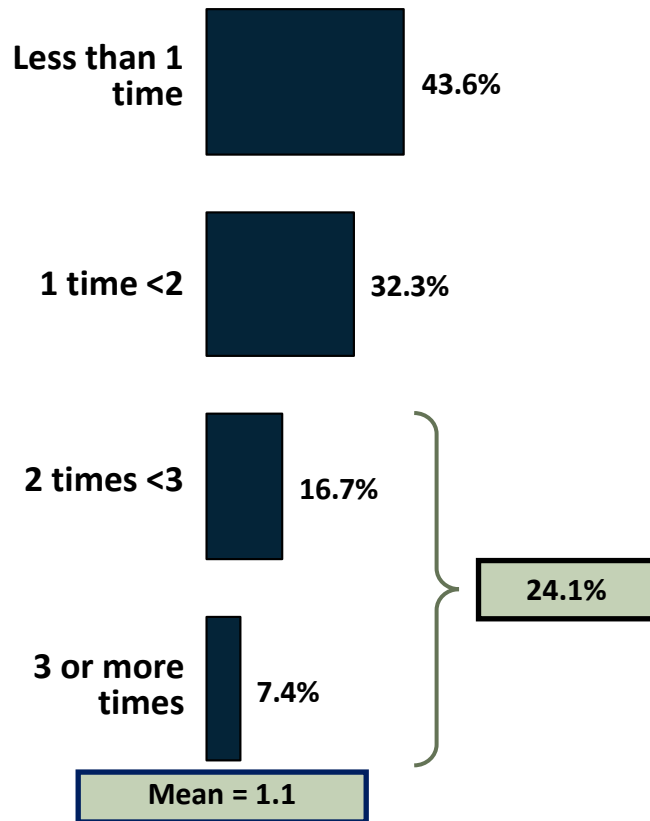
Source: BRFS – Q14.1: During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise? (n=1,195); BRFS – Q14.2: During the past month, how many times per week, or per month, did you do physical activities or exercises to STRENGTHEN your muscles? (n=1,187); Ottawa County Youth Assessment Survey, 2019, Michigan YRBS, 2019, U.S. YRBS, 2019.



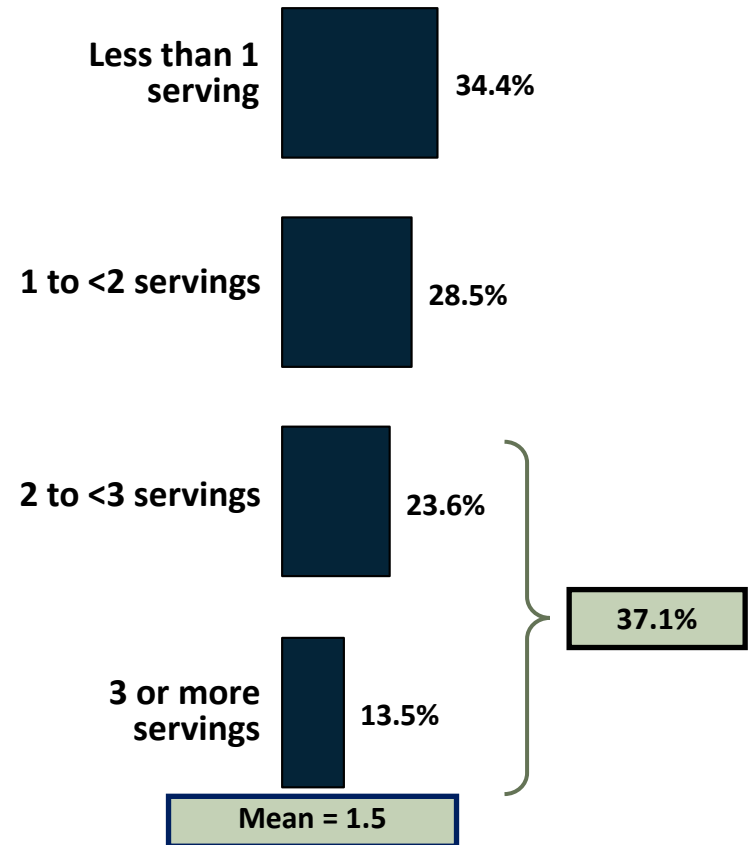
Fruit Consumption

- Four in ten (43.6%) adults consume fruit less than one time per day.
- When asked about servings per day as opposed to times per day, 37.1% of area adults report consuming two or more servings of fruit daily.

Number of Times Consumed Fruit/Fruit Juice Per Day



Number of Servings of Fruit/Fruit Juice Per Day



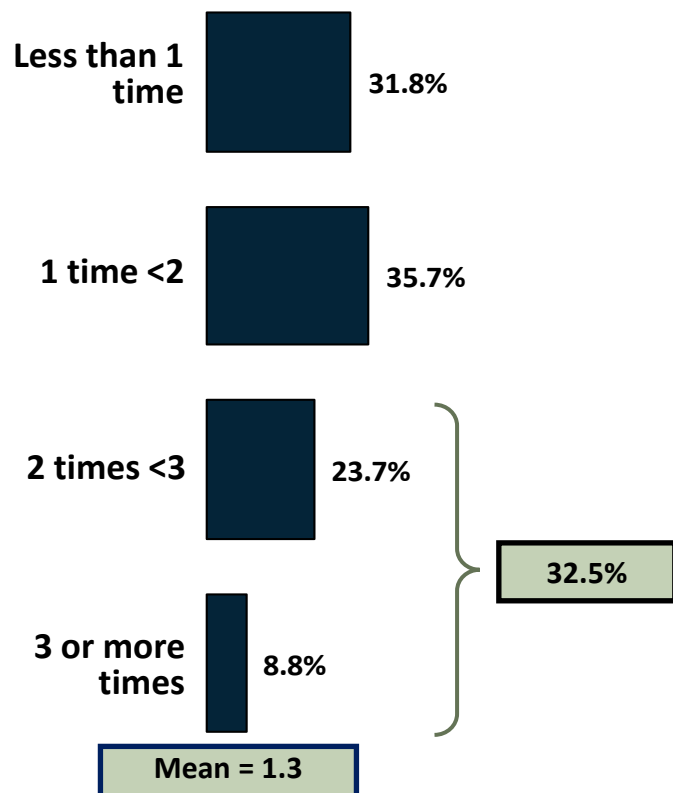
Sourced: BRFSS -- Q12.1: During the past month, how many times per day, week, or month did you eat fruit or drink 100% PURE fruit juices? Do not include fruit flavored drinks with added sugar or fruit juice you made at home and added sugar to. Only include 100% juice. (n=1,176); BRFSS -- Q12.2: Now I'm 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)



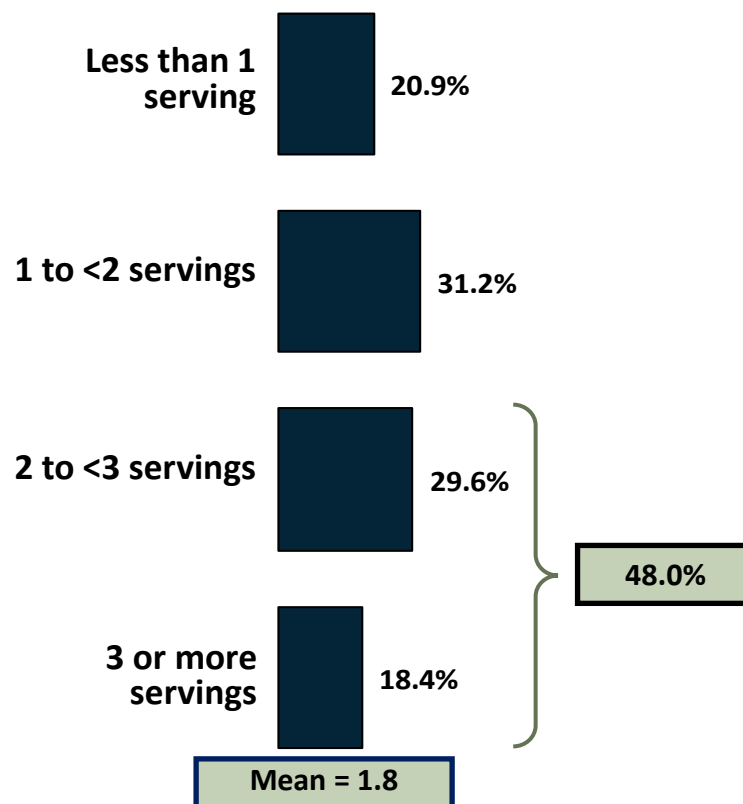
Vegetable Consumption

- Three in ten (31.8%) adults consume vegetables less than one time per day.
- When asked about servings per day as opposed to times per day, 48.0% of area adults report consuming two or more servings of vegetables daily.

Number of Times Consumed Vegetables Per Day



Number of Servings of Vegetables Per Day



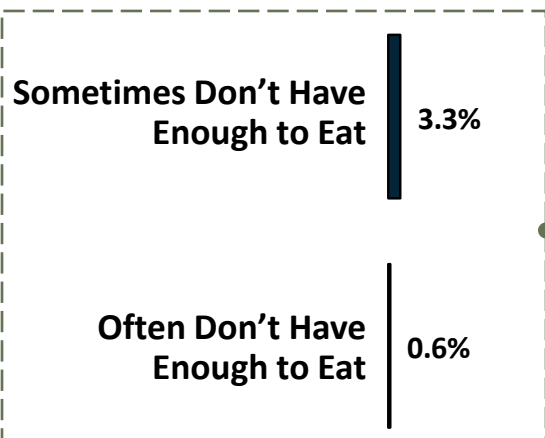
Source: BRFSS – Q12.2: During the past month, how many times per day, week, or month did you eat vegetables, for example broccoli, sweet potatoes, carrots, tomatoes, V-8 juice, corn, cooked or fresh leafy greens including romaine, chard, collard greens, or spinach? (n=1,185); Q12.4: Now I'm going to 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

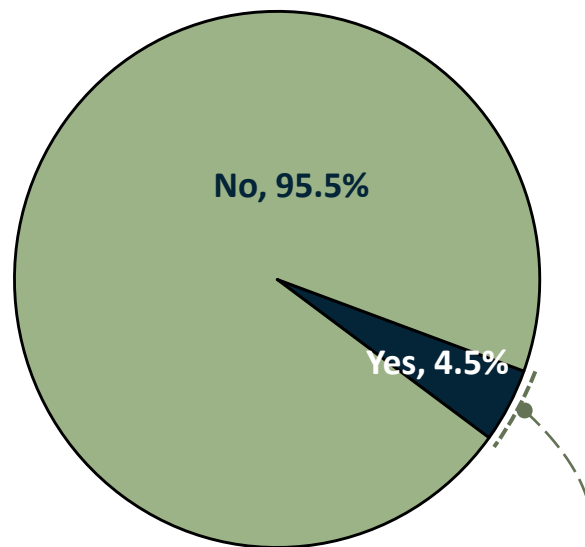
- A very small proportion (3.9%) of area adults report they sometimes or often don't have enough food to eat, and a similar proportion say they have had to cut the size of meals or skip meals due to lack of money.
- The latter rate is half of what it was in 2017 (7.6%).
 - ❖ Not surprisingly, those who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

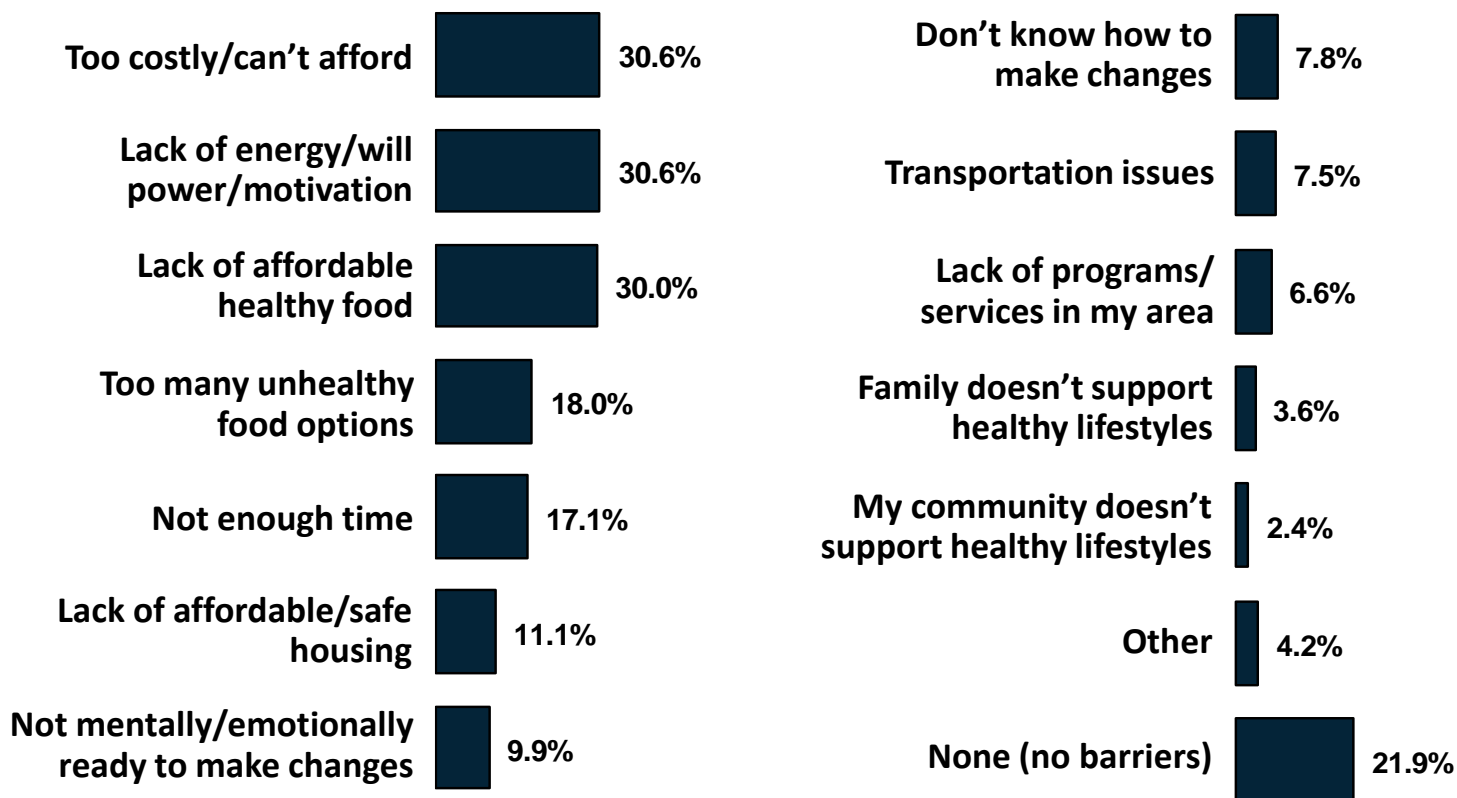



Most Likely
Below poverty level – 17.2%
Less than \$20K income – 14.0%



Barriers to Living a Healthier Lifestyle (Underserved Residents)

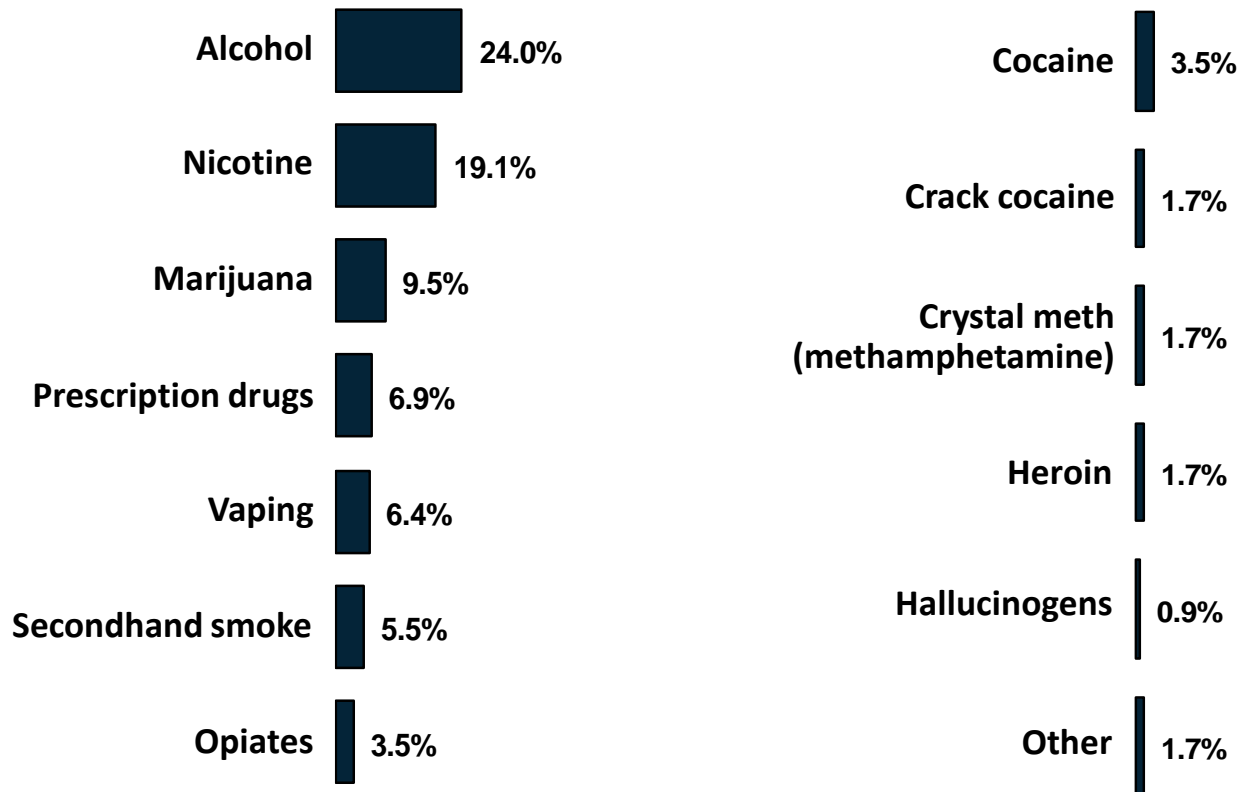
- **Underserved adults face many barriers** when trying to live a healthier lifestyle, especially **cost**, lack of energy, will-power, or motivation, and lack of affordable healthy food.
- One in five (21.9%) say they face no barriers to living a healthy lifestyle.





Impact of Substance Abuse and Addiction (Underserved Residents)

- Underserved residents most often cite alcohol and nicotine as the substances that have a negative impact on them or their families.
- One in ten (9.5%) say marijuana has had a negative impact on them or their families.



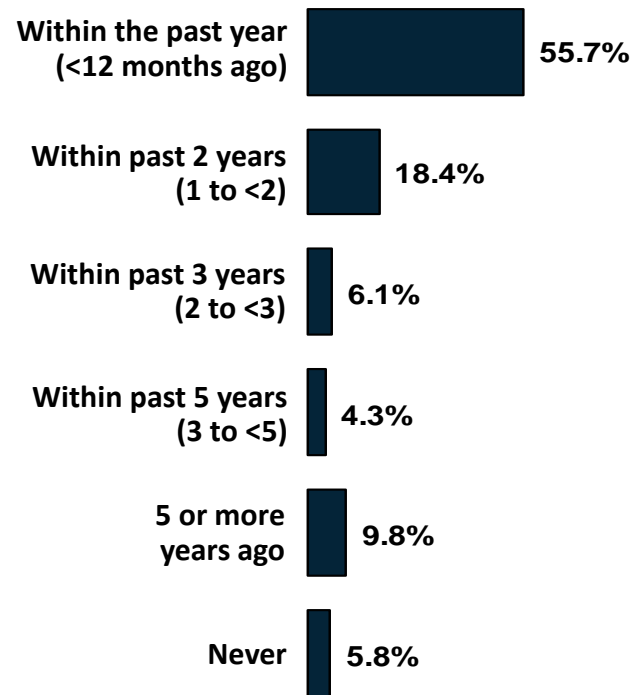
Clinical Preventive Practices



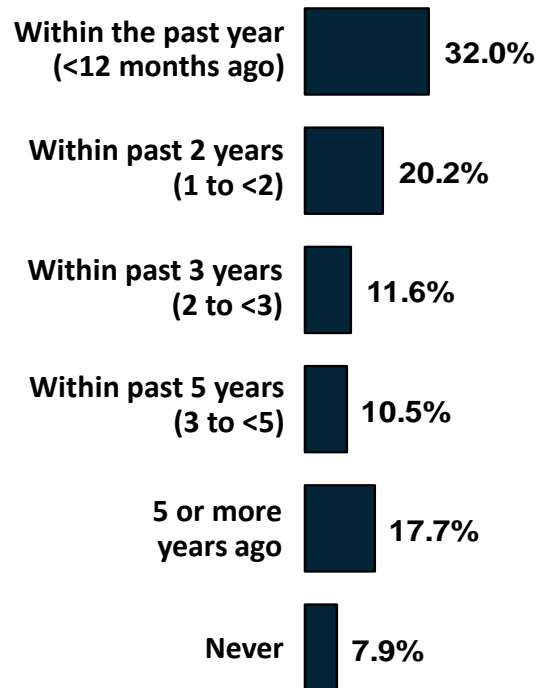
Cancer Screening

- Almost all (94.2%) area women age 40 or older have had a mammogram at one time and over half (55.7%) of have had one in the past year.
- More than nine in ten (92.1%) Ottawa County women have had a Pap test at one time and approximately six in ten (63.8%) have had an appropriately timed Pap test (within the past three years).
- Among Ottawa County adults age 50 or older, 85.4% have had a sigmoidoscopy or colonoscopy at one point to screen for colon cancer and six in ten (61.8%) have had one within the past 5 years.

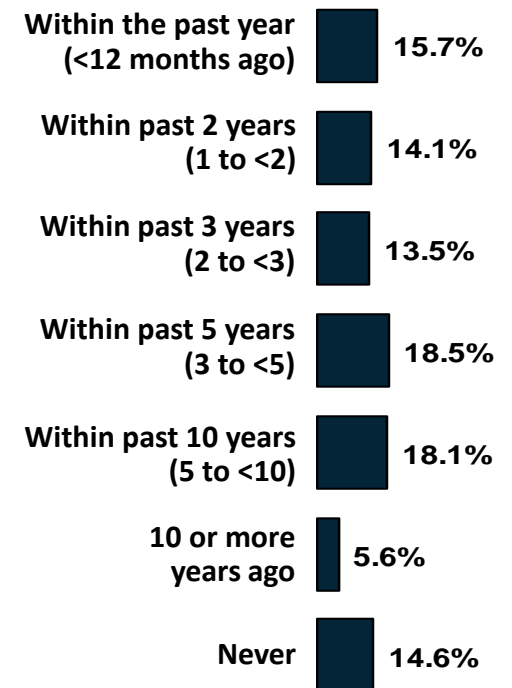
Ever Had Mammogram (Among Women Age 40+)



Ever Had Pap Test (Among All Women)



Ever Have Sigmoidoscopy or Colonoscopy (Among Adults Age 50+)

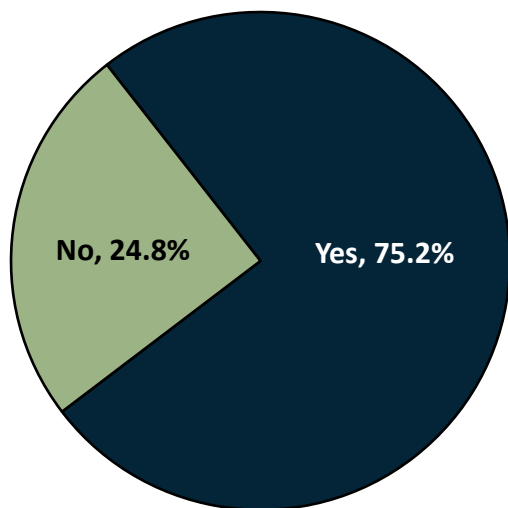




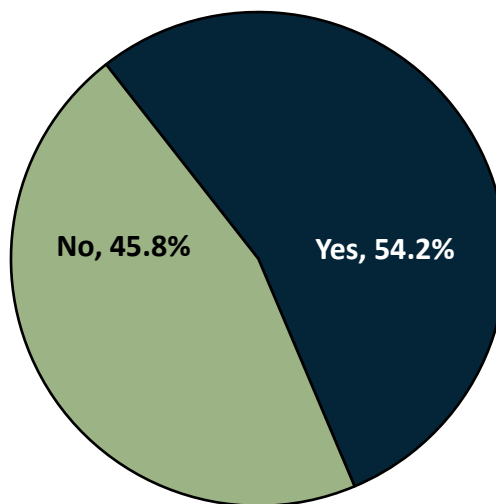
Flu Vaccination

- Three-fourths (75.2%) of Ottawa County adults age 65 or older had a seasonal flu shot within the past year, while over half (54.3%) of all adults received one.
- Among all Ottawa County BRFS adults, two-thirds (66.6%) report that they planned to get a flu vaccine in the fall of 2020.

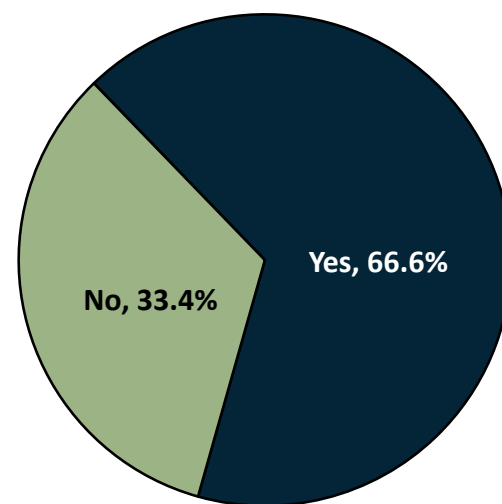
Had Flu Vaccine in Past 12 Months
(Among Adults Age 65+)



Had Flu Vaccine in Past 12 Months
(Among All BRFS Adults)



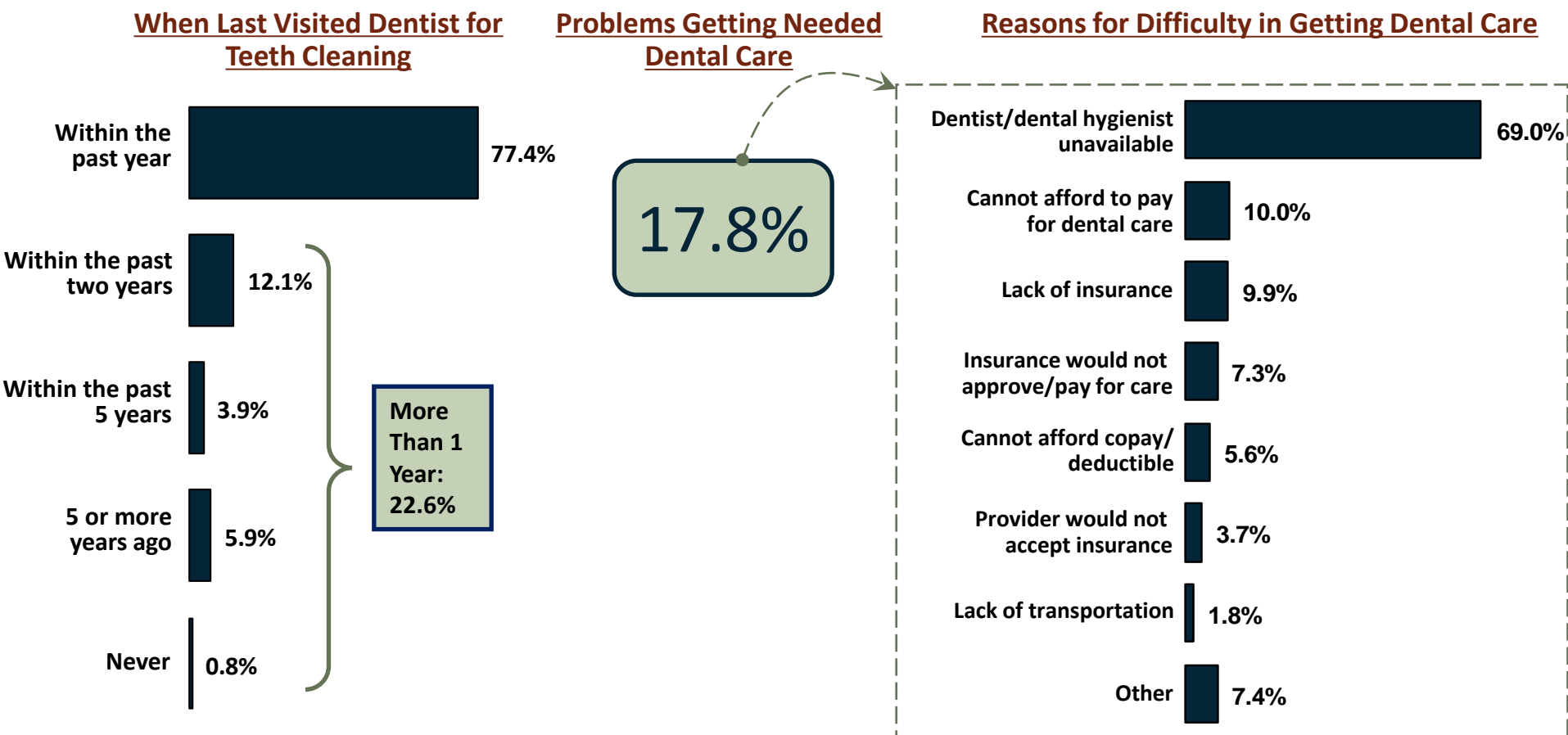
Plan to Get Flu Vaccine This Fall
(Among All BRFS Adults)





Oral Health

- More than one in five (22.6%) adults have not had a teeth cleaning in the past year.
- 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 compared to 2017 when 6.5% reported having problems getting 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



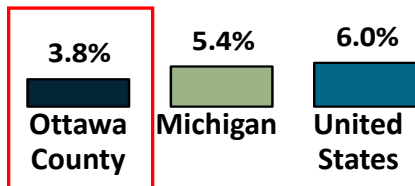
Source: BRFS – Q19.1: How long has it been since you had your teeth cleaned by a dentist or dental hygienist? (n=1,187); BRFS – Q19.2: In the past 12 months, have you had problems getting needed dental care? (n=1,196); BRFS – Q19.3: Please provide the reason(s) for the difficulty in getting dental care. (Multiple responses allowed) (n=175)



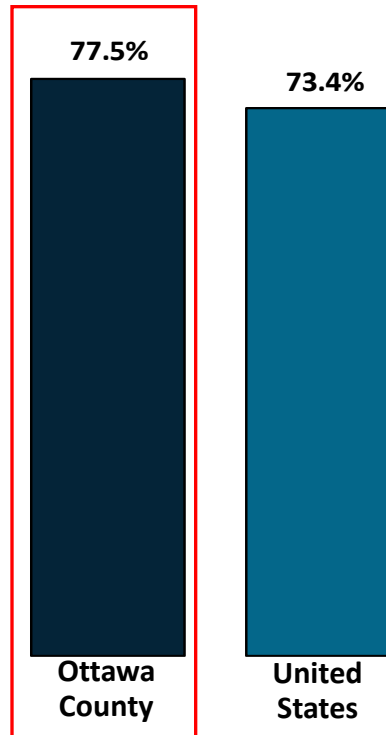
Prenatal Care and Child Immunizations

- Almost all Ottawa County women receive prenatal care at one point and more than three-fourths (77.5%) of pregnant women begin prenatal care in the first trimester.
- More than eight in ten (83.8%) children aged 19-35 months are fully immunized.
- All of these rates for Ottawa County are better than state or national rates.

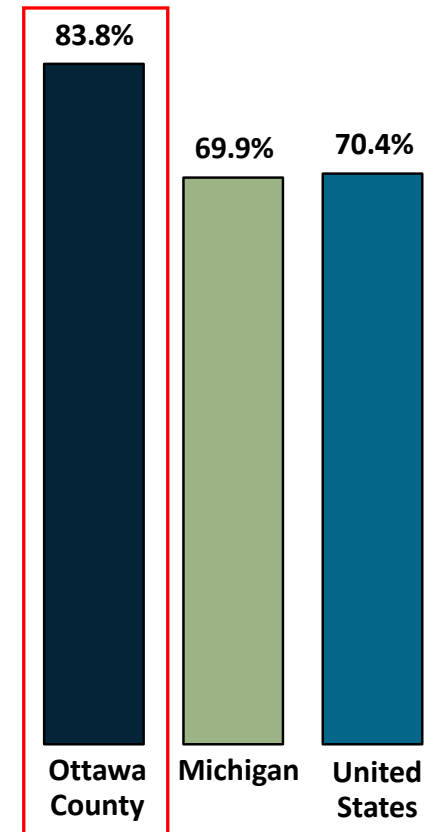
Proportion of Births to Women Who Receive Late or No Prenatal Care



Proportion of Women Who Begin Prenatal Care in First Trimester



Proportion of Children Aged 19-35 Months Fully Immunized



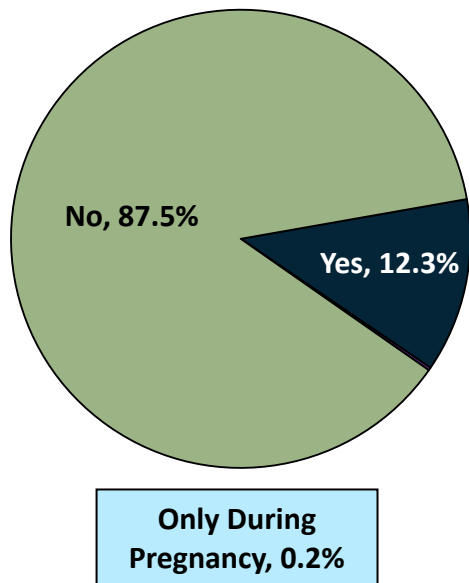
Chronic Conditions



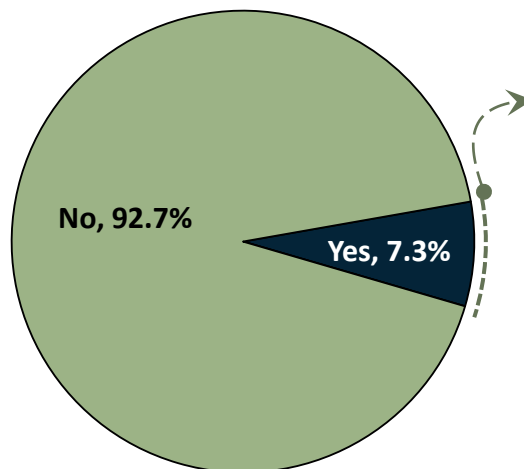
Prevalence of Diabetes and Pre-Diabetes

- One in eight (12.3%) area adults has been told by a health care professional that they have diabetes, while an additional 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 eating healthier foods, followed by increasing their physical activity.

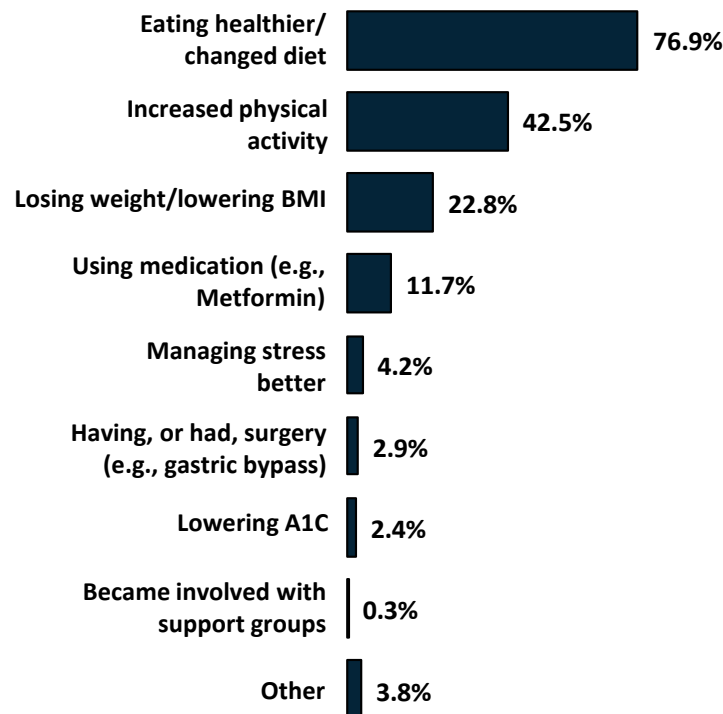
Have Diabetes



Have Pre-Diabetes (Among Those Without Diabetes)



Steps Taken to Prevent Pre-Diabetes from Developing Into Diabetes



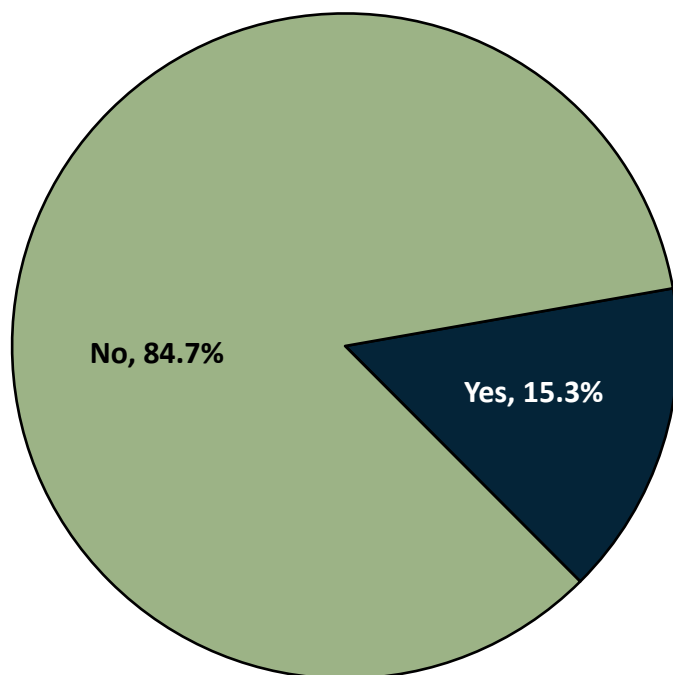
Source: BRFs – Q4.3: Has a doctor, nurse, or other health professional EVER told you that you had diabetes? (n=1,195); BRFs – Q4.4: Has a doctor, nurse, or other health professional EVER told you that you had pre-diabetes or borderline diabetes? (n=998); BRFs – Q4.5: (If diagnosed with pre-diabetes) What steps are you taking, if any, to prevent your pre-diabetes from developing into diabetes? (n=95)



Asthma

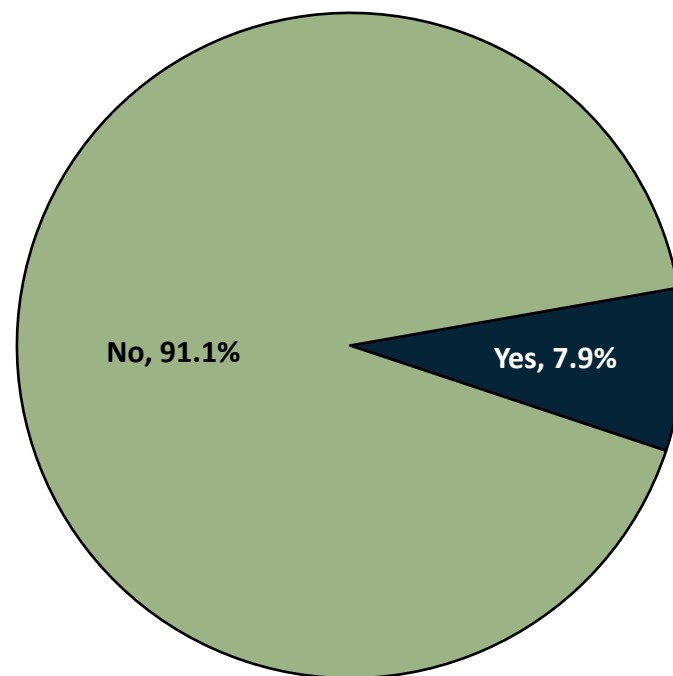
- Roughly one in seven (15.3%) area adults has been told by a health care professional at some point in their life that they had asthma.
- One in thirteen (7.9%) area adults currently has asthma.

Lifetime Asthma Prevalence*
(Total Sample)



*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 Prevalence**
(Total Sample)



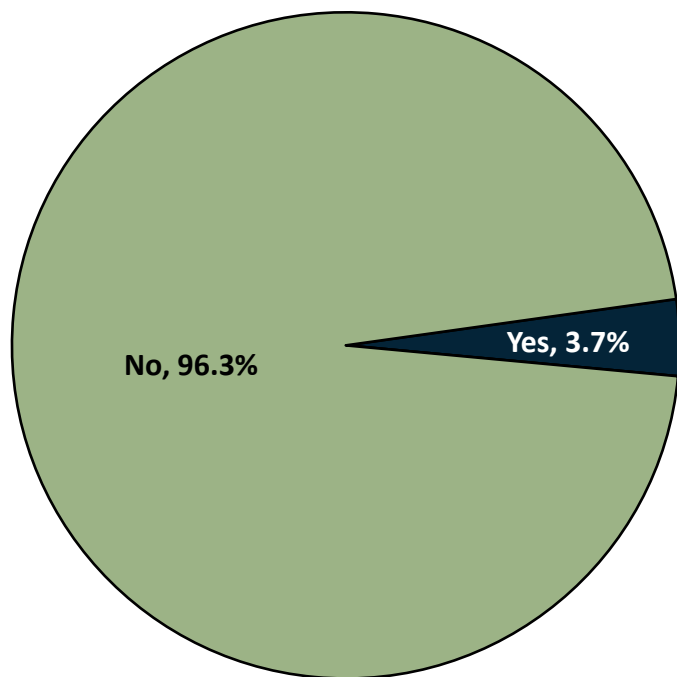
**Among all adults, the proportion who reported that they still had asthma



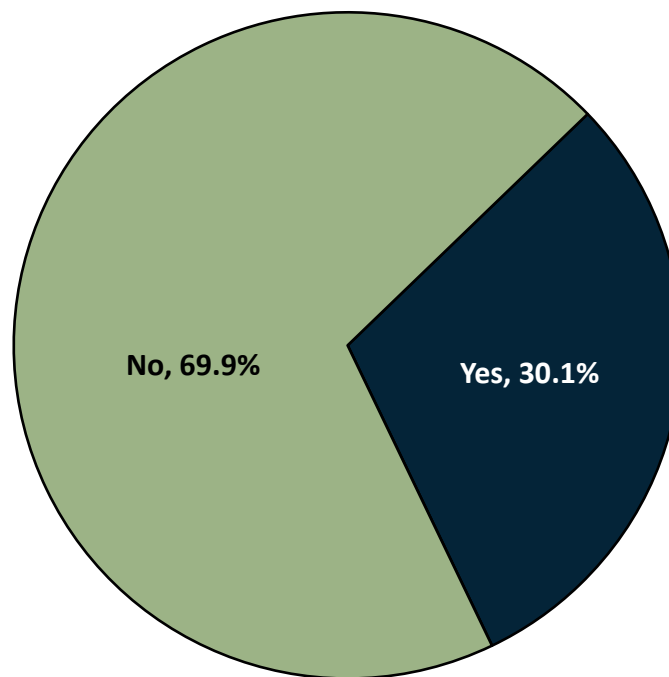
Prevalence of COPD and Arthritis

- A small proportion (3.7%) of Ottawa County adults have chronic obstructive pulmonary disease (COPD).
- Three in ten (30.1%) area adults have arthritis, and this is largely a condition that comes with age.

Ever Told Have COPD*
(Total Sample)



Ever Told Have Arthritis*
(Total Sample)



*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

*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

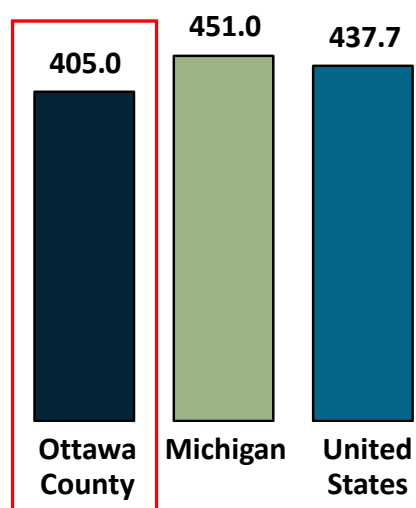
Source: BRFs – Q4.6: Has a doctor, nurse, or other health professional EVER told you that you have COPD (chronic obstructive pulmonary disease, emphysema, or chronic bronchitis) (n=1,195); BRFs – Q4.7: Has a doctor, nurse, or other health professional EVER told you that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia? (n=1,190)



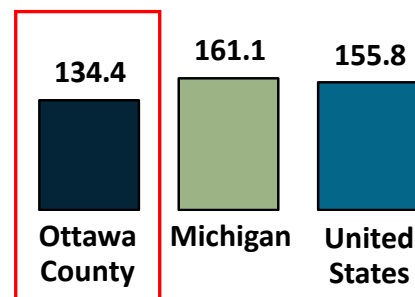
Cancer Diagnosis and Death Rates

- Compared to state and national rates, cancer diagnosis and death rates are lower for Ottawa County residents.

Cancer Diagnosis Rate (Age Adjusted)
Per 100,000 Population



Overall Cancer Death Rate
Per 100,000 Population

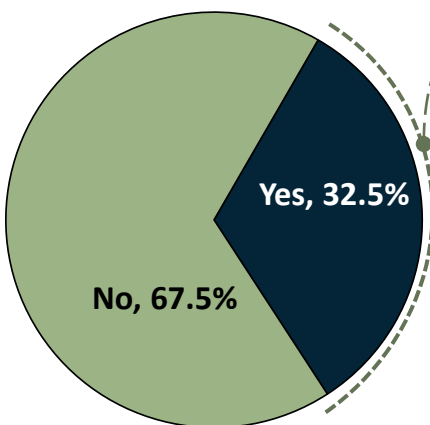




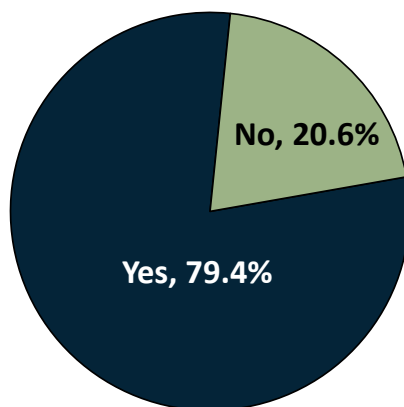
Chronic Pain And Its Management

- One-third (32.5%) of Ottawa County adults suffer from chronic pain, and of those 20.6% say their pain is not managed well.
- Roughly half (49.1%) of those with chronic pain report myriad barriers to treating their pain, including inadequate programs and services and cost.
- One in five (19.8%) say they do not seek treatment for their pain.

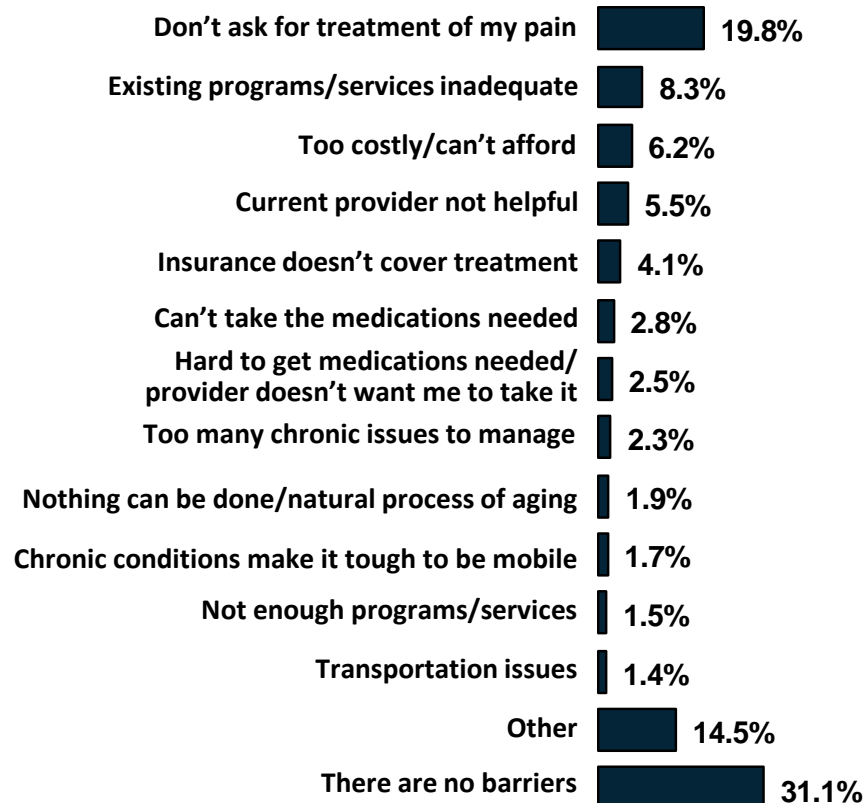
Suffer from Chronic Pain



Pain is Well Managed



Barriers to Treating Pain

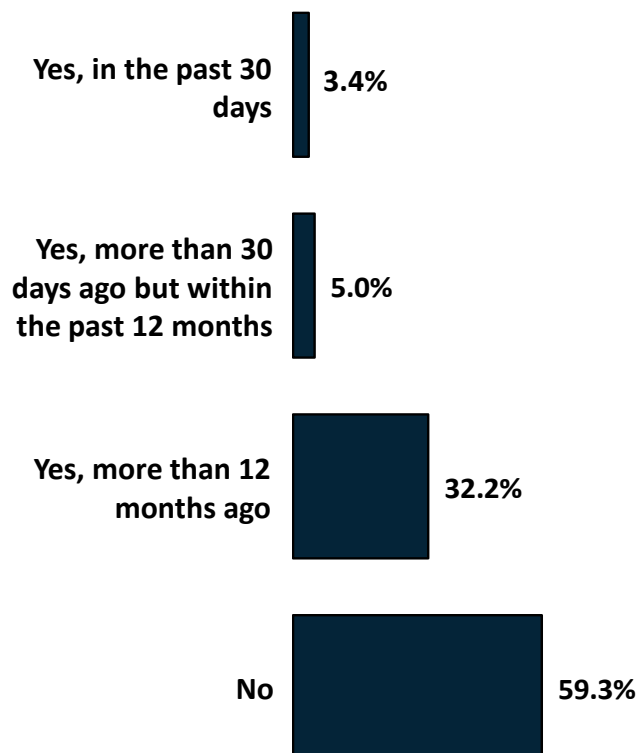




Pain Medication

- Six in ten (59.3%) Ottawa County adults have never taken pain medication.
- Of those who had 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.**

Have 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%

Solutions and Strategies



Resources Available To Address Critical Issues (Key Stakeholders)

- Almost all Key Stakeholders believe that Ottawa County has the resources available to address most of the critical areas of need discussed.
- The challenge is to get more organizations and agencies to collaborate together and focus on the same issues that impact the entire community instead of continuing to work solely on the issues that are important to their organization.

I think **we have resources; we're not aligned**. So, in other words, if I ask businesses what are they focusing on, if I ask the schools in their lunch meal what they're focused on, if I ask not-for-profits what they focus on, we all have so many priorities, but we sometimes **lack consistent focus and effort** in a county that actually does it better than most counties. We **still have a long ways to go and we have to rally up together and narrow our focus even more**. I would consider us still poor at it. I hate to say it. I think sometimes we look at county rankings and someone says, "Well, it's the number-one or number-two county in the state and top ten the Midwest; it must be great!" I'm like, "Only because you're comparing to everyone who's lower." People really should be asking, "Are the programs supporting our biggest mission and have we narrowed tight enough and are we really holding ourselves accountable to it?" And I'll tell you no. **We're all busy meeting our own objectives while doing this on the side.**

It's **funding that's not available**. So, I think all the people who are in this space, so to speak, whether they are your counselors, your social workers, your community health workers—so, we have things that we didn't have in the past, but we have it at a **very limited quantity**. Sometimes we're expending resources in ineffective ways. We are spending—we're obtaining the resources with **whoever happens to be good enough at asking for the money**. Sometimes the people are trying so hard to just do their day job that those who's organizations have the real need, and have a wonderful program, has **nobody speaking on their behalf to try to help them secure some additional resources**


Communicating about their availability, having it be **consistent across providers**, having **coordination across care sites**—so, jails, ERs, **primary-care offices, specialty offices**—part of my job is to **try and connect all of the sites of care with the providers of care**, and so that is something that we've identified that we need to be better at, so we're working on that.

Yes, in that I think we do have—**we're pretty lucky here in Ottawa County**. We **do have resources available to people**, be it **physical health** or **behavioral health**. It's really more "**Will people access it?**" as opposed to "**Is it available?**" And if **you're low-income/no-income**, it's less available.



Resources Available To Address Critical Issues (Continued)

- A summary of area resources available to address health and health care needs are as follows:
 - ✓ American Red Cross of West Michigan
 - ✓ Be Nice Campaign
 - ✓ City on a Hill
 - ✓ Community Health Improvement Plan (CHIP)
 - ✓ Community Mental Health Services
 - ✓ Evergreen Commons
 - ✓ Farmers markets
 - ✓ Greater Ottawa County United Way
 - ✓ Holland Free Health Clinic
 - ✓ Holland Hospital
 - ✓ Holland Physician Health Organization
 - ✓ Intercare Community Health Network
 - ✓ Love INC
 - ✓ North Ottawa Community Health System
 - ✓ Ottawa County Food Policy Council
 - ✓ Ottawa County Health and Human Services
 - ✓ Ottawa County Department of Public Health
 - ✓ Pathways to Better Health
 - ✓ Pine Rest Holland Clinic
 - ✓ Priority Health
 - ✓ Ready for School
 - ✓ Spectrum Health Zeeland Community Hospital



Strategies Implemented to Address Gaps in Services (Key Stakeholders)

- According to Key Stakeholders, three key strategies that emerged out of the results of the past two CNHAs and their corresponding implementation plans are: (1) **Pathways to Better Health**, which is a program that takes a holistic approach to health and designs ways to **increase access to services needed**, (2) the **collection of ACEs data** to address adverse childhood experiences, and (3) the **mental health millage** which focuses on mental health issues such as **increasing awareness of services**, **increasing access to services**, and **reducing stigma**.

Pathways to Better Health

I still think the best thing we did was related to **Pathways to Better Health**, really **connecting people that were overwhelmed with the health care system**, but it was because of all the **social determinants** that were **impacting their ability to navigate the health care system**. I would say that is our number-one success.

The **community-health-worker project (Pathways)** I think is an amazing thing that I'd love to see grow. I think **at one point in everyone's life, they need a case manager**, and that was obviously a **direct result of some of the stuff we uncovered as far as access to care and navigating the health-care system**.

I think **Pathways is probably the shining example of a program that has come out of our efforts**, so that would certainly be my **number one**.

ACEs

More recently, the **ACEs** stuff that we're still working on rolling out, but that was **definitely driven by the data that we obtained**.

I mean, the **ACEs/resilience stuff** is too early to tell, but I will say **just collecting that data was a huge win in and of itself**. I'm salivating waiting for that data because I very much had my hands all over that project. So, I think that data in and of itself was a **monumental understanding for us locally**.

Mental health millage

I think the **mental-health millage can never be understated—or overstated**, I mean. I think that was a **huge win**, and that **goes back to some of our efforts** as well.

There was a **millage** passed for **mental health**, and there is some communication to physicians about how to **access mental-health services**. There's been a couple of **other programs to support mental health**, so I think there's been **efforts and progress around the issues of mental health**, which continues to be an area of need.



Strategies Implemented to Address Gaps in Services (Key Stakeholders) (Continued)

- Additional strategies include: (1) formulation of the **Community Health Improvement Plan (CHIP)**, which spawned the **Pathways** and **Be Nice** campaign, **added health care workers on the ground**, but most importantly connected various organizations to approach health and health care holistically or in an integrated way, and (2) **continued collaboration between organizations and agencies** to improve access to services.

CHIP

The **Community Health Improvement Plan**. That **could have gone a very different way** than it went in Ottawa County. It could have been that everybody took their own data and just crafted their own piece of the puzzle in isolation from everyone else, and we didn't. **We came together**, and we came together **for real, not just on paper**. So, I was in the first two, I think, and it was real. **We actually tried to create community-level outcomes that everybody puts their piece of the puzzle into**. It was **impressive**.

I think it **pulls us together better as a community because we come up with a CHIP**, and we do **have a plan**, so I think that's important. I think we **need to disseminate that more**, unfortunately. I would send it to people, and they'd say, "Oh, I've never seen this before." I think that's a **real strength because it helps to pull us together**, and I think, because we have been consistent with this, **because we are committed** and we **do have interest in making things better**.

Increased collaboration

The **collaboration has still continued to improve** and trying to **break down different silos**. We're **constantly reevaluating**, "Hey, **how can we work together better?**" or how my participation at one meeting sharing helps someone else. We also **created a group to be looking at chronically homeless individuals**, and we've seen some success there with finding people that—one guy was homeless for thirty years, and now he's been successfully housed and maintained it for a period of time. So, things like that—**trying to find even the small successes**.

I would go with the **Health Department and PHO overlapping better, increased collaboration** between the **school district**, the **county health department**, and the **PHO**. I think some of the **responses to the previous community needs assessments have been heading in the right direction**.

Ten years ago, I don't think your mental-health providers and your physical-health providers ever thought about being in the same room. We used to affectionately say we dealt with the neck down and they just dealt with the head issues, and what **we've all found is you cannot separate it like that effectively**. You maybe **have to work in tandem** if we're going to see the individual get better. So, I think **we see different players at the table who are working more jointly on a holistic solution** than each one of just doing it in our area of expertise.



Suggested Strategies to Address Specific Issues (Key Informants)

- Of note, two Key Informants consider issues outside of the list presented to them to be the most pressing health issue or concern and offer reasons to support their choice, as well as potential solutions to address the issues.
- Lack of health literacy has an enormous cost on the overall system in terms of resources and Adverse Childhood Experiences (ACEs) can result in numerous negative health outcomes in adolescence and adulthood.

Health literacy/ navigation

Patient's lack of general understanding of health care terminology and how to navigate not only the **healthcare system** but **health insurance costs our local system greatly** in terms of **resources**. This spans from dedicated staff within provider offices and the local emergency departments, but also community resources that are in place to assist patients in navigating, such as the community health workers with the county. [One solution is] **broad local public education campaigns in partnership with the hospitals and provider offices to teach patients how to be better patients.** – *Key Informant*

ACEs/resiliency

Focus on pregnant moms (b/c trauma and toxic stress affects the developing child in utero) as well as **families with newborns**, is the **most critical health issue**. By going furthest "upstream" we can address why children/parents are falling in the stream (child abuse, neglect, drug abuse, mental health, toxic stress, trauma) in the first place. By **supporting families to develop and create resilience** we can **prevent these issues from happening in the first place well before children reach kindergarten**. As we work in our community, **we see a gap between when a woman is pregnant and when the child arrives at preschool/ kindergarten**. In **Ottawa County there is a no man's land for families with newborns and infants**--when stress, postpartum depression, lack of sleep, developmental concerns are at their highest. **All these factors make it hard to reach this population, as they do not go to events and are isolated**. Our **home visitors (MIHP, Help Me Grow with Parents as Teachers)** are **underfunded** and **sometimes rejected by the family due to stigma (only for bad parents), fears of judgement, and CPS**. If **every family who is pregnant/gives birth in Ottawa County could have a coach/home visitor (meet at a park or playland) and supported with all the wealth of resources that Ottawa County has to offer--parent groups, coaches, mentors, play n learn, developmental support, etc. --and connected right away to avoid the gap/no man's land it would make a world of difference for parents and their infants**. [Solutions are] **whole family support provided to ALL families who are pregnant/have a newborn in a diverse, culturally sensitive and in family's preferred language. DO NOT reinvent the wheel--instead, utilize and fund MIHP, Help Me Grow care coordinated navigation, OAISD Parents as Teachers, fund Pathways Community Health Workers to serve and connect families with children under 5, Community Mental Health-infant mental health, pediatric social workers, etc. Strengthening Families 5 Protective Factors (strength-based, evidence-based, mitigates ACEs) taught and built into all systems that support parents**. Must include parents in designing this connected funded universal support so it meets the needs of the families it is serving. – *Key Informant*



Suggested Strategies to Address Specific Issues (Key Informants) (Continued)

- Key Informants offer suggested strategies on a number of issues such as **building transparency into the cost structure of health care** so that patients can shop around, **focusing on chronic diseases from a multidisciplinary perspective** while considering the **advances in medical technology**, and providing **earlier and better education for obesity** and provide **free or low-cost education for diabetes**.

Out-of-pocket health care costs	Patients should have access to more information about the cost of services they need up-front from health care providers, so they can "shop" for the best price and value. More transparency would help. We also need to shift the focus and put more funding into preventing the chronic diseases that are so costly to treat once they occur. – <i>Key Informant</i>
Health management (e.g., diabetes, HBP, chronic disease)	An interdisciplinary, community-wide response (and funding) is needed to solve the issue, as opposed to leaving it up to the silos of medical entities and technology companies. That said, there are incredible advances being made in the telemedicine and wearable device spaces that are helping people manage chronic disease better, paired with PCP and hospital collaboration to reduce unnecessary ER visits and hospitalizations . But that just manages what's already happened. To truly reduce mortality and cost, root-cause interventions that educate and steer the population toward healthier lifestyles need to be implemented with omnipresence, so unhealthy choices are less available and more healthy choices are promoted , socially encouraged. – <i>Key Informant</i>
Providers not accepting Medicaid	There has to be action on a federal and state level to change the reimbursement rates to something that is sustainable for providers. – <i>Key Informant</i>
Obesity	Earlier emphasis on education in school for healthy eating and activity. Parental education. Early intervention in obese children. – <i>Key Informant</i>
Diabetes	Soliciting payers to 1) cover diabetes education as a preventative benefit without copays 2) cover a higher number of hours of education each year 3) allow healthcare providers to provide this education outside of the hospital system , such as at community centers or churches. – <i>Key Informant</i>



Strategies Specific To Mental Health

- Area professionals offer a number of recommendations specific to addressing the issue of mental health, such as: (1) offering **more opportunities for healthy lifestyle practices that can prevent mental distress** (e.g., self-care, meditation, exercise, mindfulness, stress management), (2) finding ways to add **providers that will accept Medicaid**, or encourage existing providers to do so, and (3) **increase education efforts to reduce stigmatization**.

The **mental health millage made a difference**; I'm really impressed. I also think we **need to be innovative**. If **COVID has told us anything**, it's that **telehealth is better than no health**, so I think there probably is more we can do in that classic, old-fashioned phrase of **thinking out of the box**. If the millage helped but didn't cover it, what else can we do to make those resources stretch further? – *Key Stakeholder*

Encourage help seeking behaviors. Promote programs and strategies that help to promote positive mental health behaviors, such as **mindfulness, staying active, and stress management strategies**. Making these **accessible. Identify causes** of poor mental health. – *Key Informant*

I believe that the **THRIVE effort is significant and valuable. Trauma-informed education is beginning**, and we need to **continue to educate people**, make **treatment accessible and keep supporting schools and teachers**. – *Key Informant*

More inpatient options. Expand the PMU at Holland Hospital. Create more facilities like Pine Rest. Getting treatment for mental health issues is just as important as treatment for cardiac issues. – *Key Informant*

We need more access to psychiatrists and psychologists and they need to accept Medicaid. – *Key Informant*

We need more Medicaid providers for mental health. Poor mental health affects not only the person but their family. This can in turn affect jobs, etc. It is a big **domino effect**. – *Key Informant*

Certainly, the **expansion of the mental-health millage** has allowed local Community Mental Health to **expand its services and reach**, which is great. The last few years, we've seen **exponential growth in terms of the nonprofit arena in terms of what they're providing in mental health**. I mean more **hiring of therapists and growing geographically in terms of reach. More and more programming the schools for mental health**, so, when I look at all of that, certainly, more and more people are being reached, which I think is a positive thing in many ways. – *Key Stakeholder*

Additional community services--**increased support and funding of community mental health agencies so patients can access (and keep) services. Patients need therapy and medication management services, social work services, case management services**. – *Key Informant*

More opportunities for people to involve themselves in **healthy lifestyle practices--meditation, prayer, nature walks, self-care practices**, and opportunities that give them **access and time for these practices. Information, awareness and education on resilience practices and how adverse childhood experiences and trauma are playing out in lives**. – *Key Informant*

Increase community education and efforts toward de-stigmatization of mental illness (billboards, campaigns, etc.). Improve the competence of primary care physicians in identifying and responding to mental illness. Decrease the wait time for people to initiate treatment for mental illness. – *Key Informant*



Strategies Specific To Lack of Affordable Housing

- Key Informants recommend renewed and serious efforts to address the issues of affordable housing in Ottawa County. The solution needs to come from a collaboration of area businesses, nonprofit, human service organizations, and the local government.
- Specific suggestions include looking into tiny houses, exploring trust fund options, continuing work with Housing Next, and increase education to the public that vulnerable subpopulations can be good neighbors.

Having an **area-wide solution that involves local businesses, city council, and local nonprofits. Someone needs to initiate an area wide plan.** – *Key Informant*

Continuing efforts with Housing Next and exploring opportunities for Housing Trust Funds. – *Key Informant*

Continued advocacy at the township and city hall meetings. More education that vulnerable populations are not "trouble" populations as there is a lot of "we don't want those people in our town/neighborhoods" still circling throughout Ottawa County. **Continuing to work for zoning changes, renovations vs. new developments,** transportation, and looking into **lean manufacturing** for new complexes or houses. – *Key Informant*

Instead of building hotels for a major event that happens in May here in Holland, **build something that can benefit the whole community.** Sure it brings in money to Holland and surrounding areas but **what about OUR people?** – *Key Informant*

We've **been talking about it for so many years; I want to see some action!** It feels like **it's become such a huge issue that it's overwhelming** and people think that anything they'd do would just be a drop in the bucket, but even if it's little, it's something! **ADUs, co-housing opportunities, tiny homes that actually are affordable** (not like the ones built several years ago on 16th and Central that were going to be affordable and then the price was escalated significantly and unattainable for our clientele). **Tiny homes could really go a long way** to meet the need. People aren't looking for massive spaces, just something to keep them from sleeping on the streets. – *Key Informant*

APPENDIX

Respondent Profile

Key Stakeholder Interviews

Chief Executive Officer/President of Holland Hospital

Chief Executive Officer/President of North Ottawa Community Health Systems

Chief Executive Officer/President of Spectrum Health Zeeland Community Hospital

Director, Ottawa County Department of Health and Human Services

Executive Director, Community Mental Health of Ottawa County

Executive Director, Community SPOKE and Lakeshore Nonprofit Alliance

Executive Director, Greater Ottawa County United Way

Health Officer, Ottawa County Department of Public Health

President/Medical Director, Holland Physician Health Organization (PHO)

Key Informant Online Survey

Executive Director (9)	Community Health and Wellness Professional	Ophthalmologist
Director (4)	Community Health Worker	Oral Health Team Supervisor
Physician (4)	Consultant	Oral/Maxillofacial Surgeon
Registered Nurse (4)	Controller	Orthopedic Surgeon & Holland PHO Board Member
Health Care Administrator (3)	Coordinator	Orthopedic Surgeon
Superintendent (3)	Diabetes Care & Education Specialist	Physician & Medical Director
Clinic Director (2)	Director of Counseling	Physician & Psychiatrist
County Commissioner (2)	Director of Relational Ministries	Physician Assistant
Doctor of Medicine (2)	Doctor of Osteopathic Medicine	President
Manager (2)	Emergency Physician & County EMS Medical Director	Program Coordinator
Pastor (2)	Epidemiologist	Program Coordinator for DV
Pediatrician (2)	Family Medicine Physician	Program Supervisor
President & CEO (2)	Family Practice Physician	Quality Analyst
Supervisor (2)	Food and Connection Program Director & Social Worker	Registered Dietitian
Agency Director	Health Care Finance	Registered Dietitian Nutritionist and Board-Certified Lactation Consultant
Assistant Director, Federally Funded Early Childhood Agency	Health Care Leader	Registered Nurse Care Manager
Associate Director	Human Resources	School Counselor
Center Director, Positive Options	Information Technology	School Nurse
Chairman, Family Office and Community Leadership Planning Effort	Licensed Professional Counselor & Executive Director	School Nurse Program Manager
Chief Financial Officer	Marketing	Sexuality Educator
Clinic Manager, Behavioral Health Services	Nonprofit Administrator	Therapist
Clinical Lead/Compliance Manager	Nurse Supervisor	Treasurer
Clinical Manager	Nursing Supervisor	

Key Informant Online Survey (COVID)

Physician (18)	Commissioner	NP in Internal Medicine
Executive Director (8)	Coordinator	Nurse
MD (8)	Counselor	Nursing Director
Director (4)	County Treasurer	Office Worker
Physician Assistant (4)	DO	Ottawa Food Coordinator
Education/Educator (3)	DO, FP	Pastor
Nurse Practitioner (3)	Dentist, small business owner	Pediatrician
RN (3)	Director, Positive Options, Grand Haven	Physician/Hospitalist
Social Worker (3)	Economic Development	Podiatrist
Community Health Worker (2)	Epidemiologist	President of a nonprofit organization
Hospitalist (2)	Family Nurse Practitioner	President, Ready For School
PA-C (2)	Government Manager	Program Coordinator and Counselor
President (2)	Health Consultant	Program Manager
Program Director (2)	Health Educator	Program Manager, Holland Free Health Clinic
Vice President (2)	Hospitalist, Physician Assistant	Public Health Official
Assistant Director of a nonprofit	Lead Pastor	Quality Manager, Holland PHO
Associate Vice President, HR and Support Services	Licensed Professional Counselor	Recovery Court Coordinator
Business Owner	Manager	Registered Dietician
Clinical Health Manager, OCDPH	MD, OBGYN	Registered Dietician, Manager
Clinical Lead/Compliance Manager	Medical Director	Registered Nurse (retired), volunteer at Holland Free Health Clinic
Clinical Manager	Nonprofit Executive Director	

Underserved Resident Survey

	TOTAL
<u>Gender</u>	(n=342)
Male	25.4%
Female	74.6%
<u>Age</u>	(n=343)
18 to 24	6.4%
25 to 34	20.4%
35 to 44	22.7%
45 to 54	15.5%
55 to 64	14.9%
65 to 74	9.0%
75 or Older	11.1%
<u>Race/Ethnicity</u>	(n=335)
White/Caucasian	76.7%
Black/African American	3.0%
Hispanic/Latino	16.1%
Asian	2.1%
Native American	0.6%
Other	1.5%
<u>Adults in Household</u>	(n=332)
One	31.9%
Two	43.7%
Three	14.5%
Four	4.8%
Five or more	5.1%

	TOTAL
<u>Children in Household 6-17</u>	(n=318)
None	54.7%
One	22.6%
Two	13.8%
Three	5.7%
Four	2.8%
Five or more	0.3%
<u>Children in Household ≤5</u>	(n=310)
None	64.5%
One	22.3%
Two	6.8%
Three or more	6.4%
<u>Marital Status</u>	(n=341)
Married	42.8%
Divorced	22.3%
Widowed	7.9%
Separated	3.2%
Never married	21.1%
Member of an unmarried couple	2.6%
<u>Own or Rent</u>	(n=306)
Own	53.3%
Rent	36.6%
Other	10.1%

	TOTAL
<u>Education</u>	(n=337)
Never attended school or only Kindergarten	0.6%
Less than a 9 th grade education	4.2%
Grades 9-11 (some high school)	8.0%
Grade 1 or GED (high school grad)	35.9%
College 1 to 3 years (some college)	34.7%
College 4 years or more (college grad)	16.6%
<u>Employment Status</u>	(n=338)
Employed for wages	35.8%
Self-employed	3.6%
Out of work less than 1 year	11.8%
Out of work 1 year or more	4.1%
Homemaker	7.7%
Student	2.7%
Retired	20.4%
Unable to work/disabled	13.9%
<u>Household Income</u>	(n=330)
Less than \$10K	21.2%
\$10K to less than \$15K	16.1%
\$15K to less than \$20K	7.6%
\$20K to less than \$25K	11.2%
\$25K to less than \$35K	13.0%
\$35K to less than \$50K	14.5%
\$50K or more	16.4%

Behavioral Risk Factor Survey

	TOTAL	A. Northwest	B. Northeast	C. Central	D. Southeast	D. Southwest
Gender	(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%
Age	(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%
Race/Ethnicity	(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%
Section of Ottawa County	(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%

Behavioral Risk Factor Survey (Continued)

	TOTAL	A. Northwest	B. Northeast	C. Central	D. Southeast	D. Southwest
Marital Status	(n=1194)	(n=301)	(n=33)	(n=92)	(n=154)	(n=614)
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%
Number of Children Less Than Age 18 At Home	(n=1198)	(n=302)	(n=33)	(n=92)	(n=154)	(n=617)
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%
Number of Adults and Children in Household	(n=1198)	(n=302)	(n=33)	(n=92)	(n=154)	(n=617)
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%

Behavioral Risk Factor Survey (Continued)

	TOTAL	A. Northwest	B. Northeast	C. Central	D. Southeast	D. Southwest
Education	(n=1198)	(n=303)	(n=33)	(n=92)	(n=154)	(n=616)
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%
Employment Status	(n=1198)	(n=302)	(n=33)	(n=92)	(n=154)	(n=617)
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%

Behavioral Risk Factor Survey (Continued)

	TOTAL	A. Northwest	B. Northeast	C. Central	D. Southeast	D. Southwest
Household Income	(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%
Poverty Status	(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%
Home Ownership	(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%
Transgender	(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%

2020 Behavioral Risk Factor Survey, Ottawa County, MI

Prepared by Martin Hill, Ph.D.,
President of VIP Research and Evaluation



Executive
Summary



Background



Methodology



Findings &
Implications

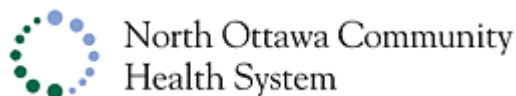
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INTRODUCTION

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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Kim Costello, Holland Hospital

Liz DeLaLuz, Greater Ottawa County United Way

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Jennifer VanSkiver, North Ottawa Community Health System



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 BRFs, 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 BRFs 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)

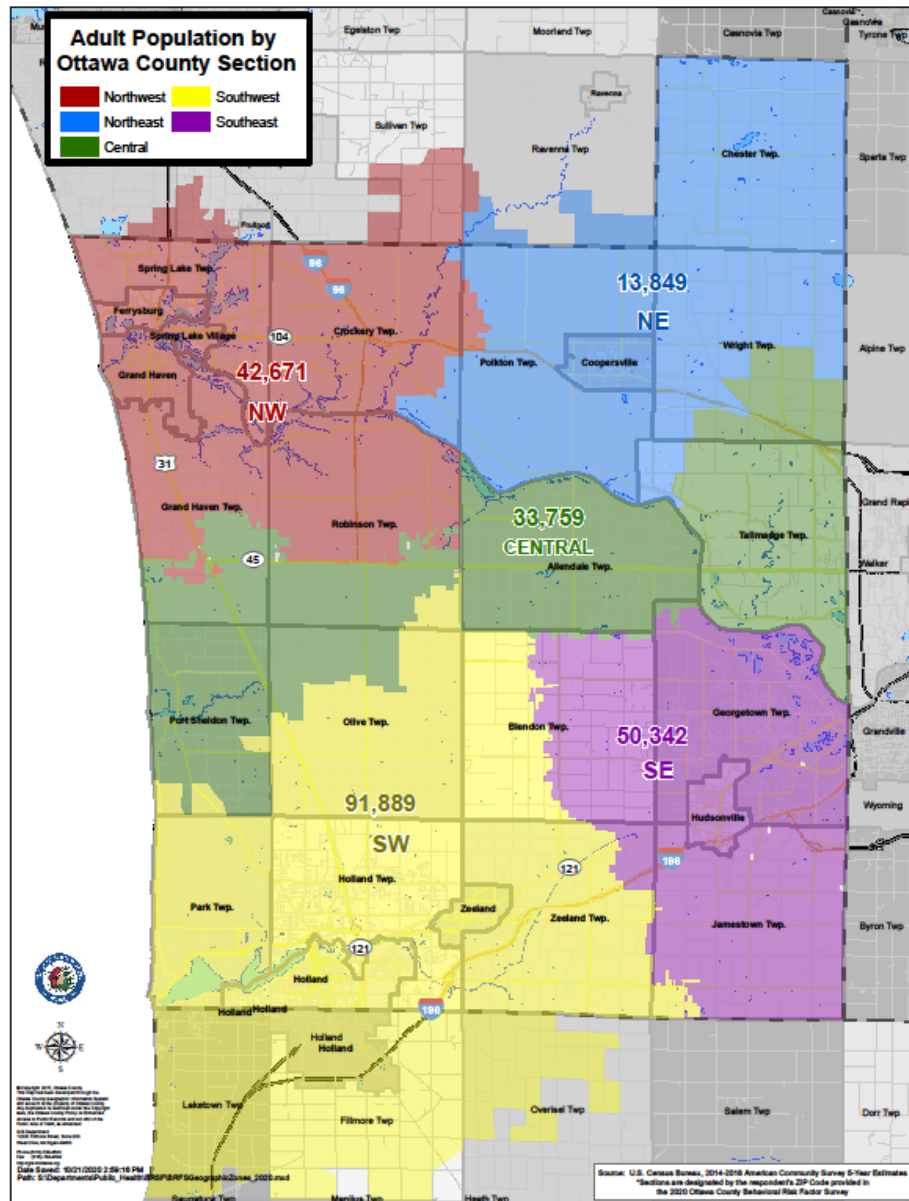
- Adverse childhood experiences (ACEs) data were collected using the BRFSS 11-item version. The 11 items measure the following adverse groups and subgroups:
 - ❖ Abuse:
 - Emotional Abuse
 - Physical Abuse
 - Sexual Abuse
 - ❖ Household challenges:
 - Intimate Partner Violence
 - Household Substance 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.

GIS Section Map



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 BRFs 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 BRFs 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 BRFs 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

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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 BRFs 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

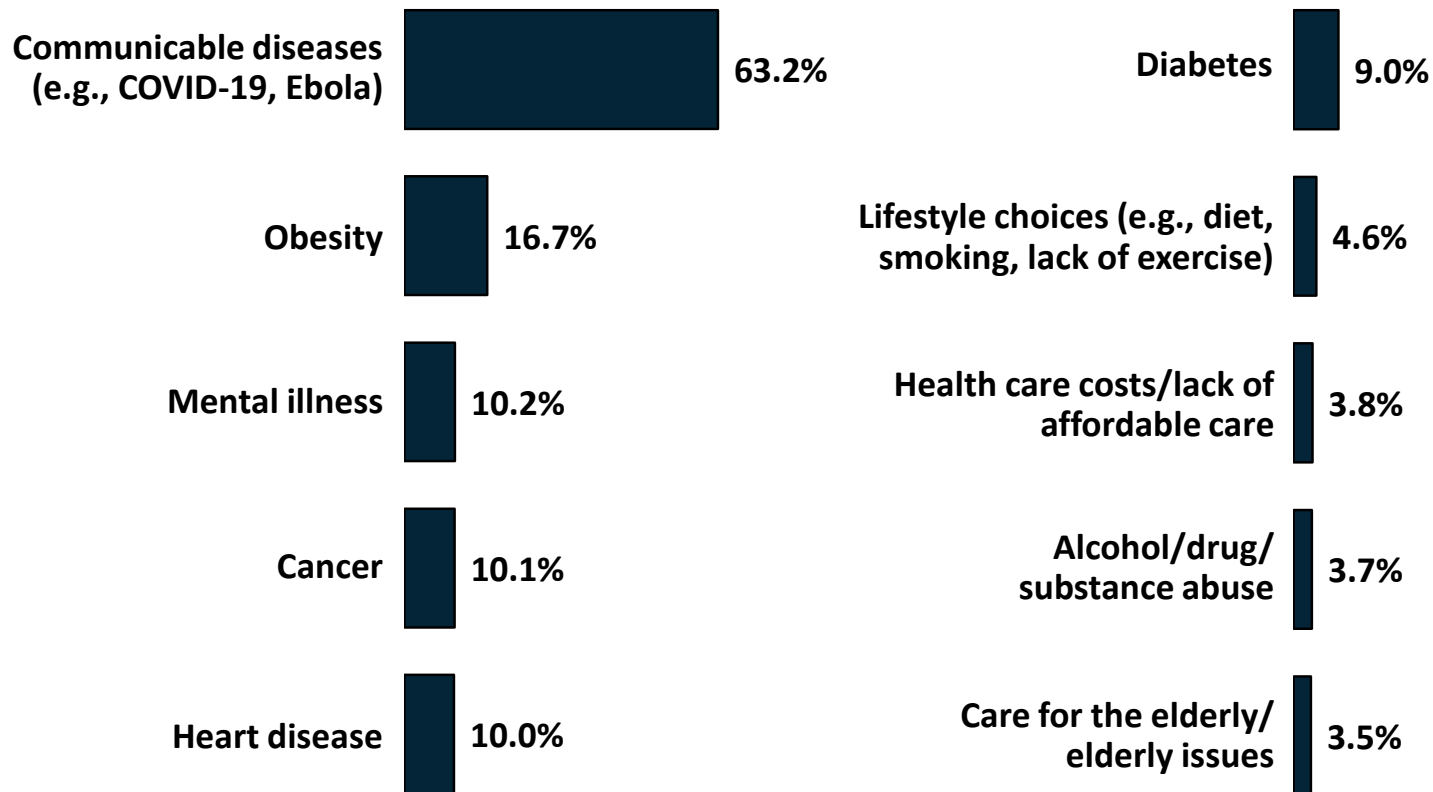
DETAILED FINDINGS

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.



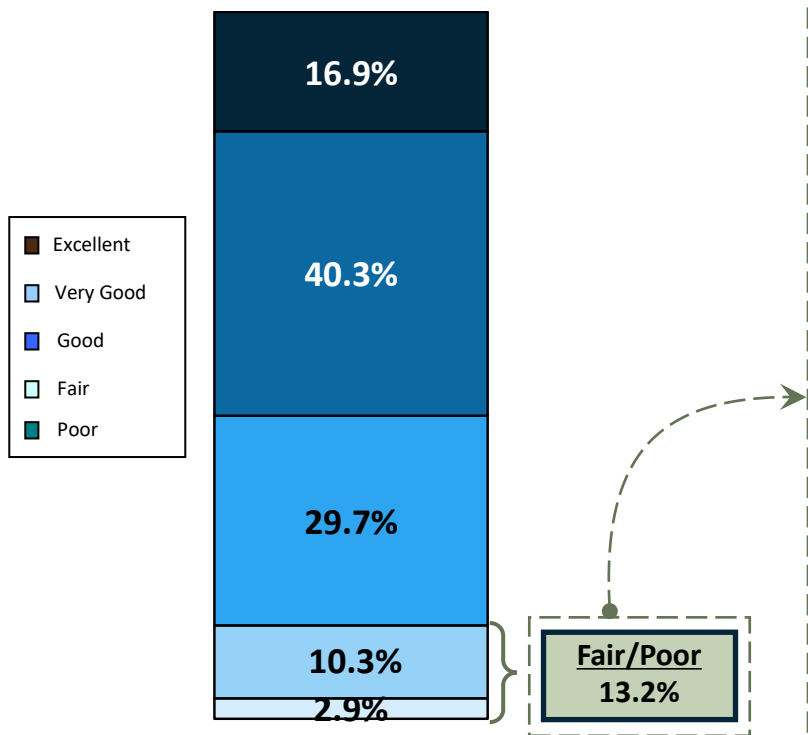
Health Status Indicators



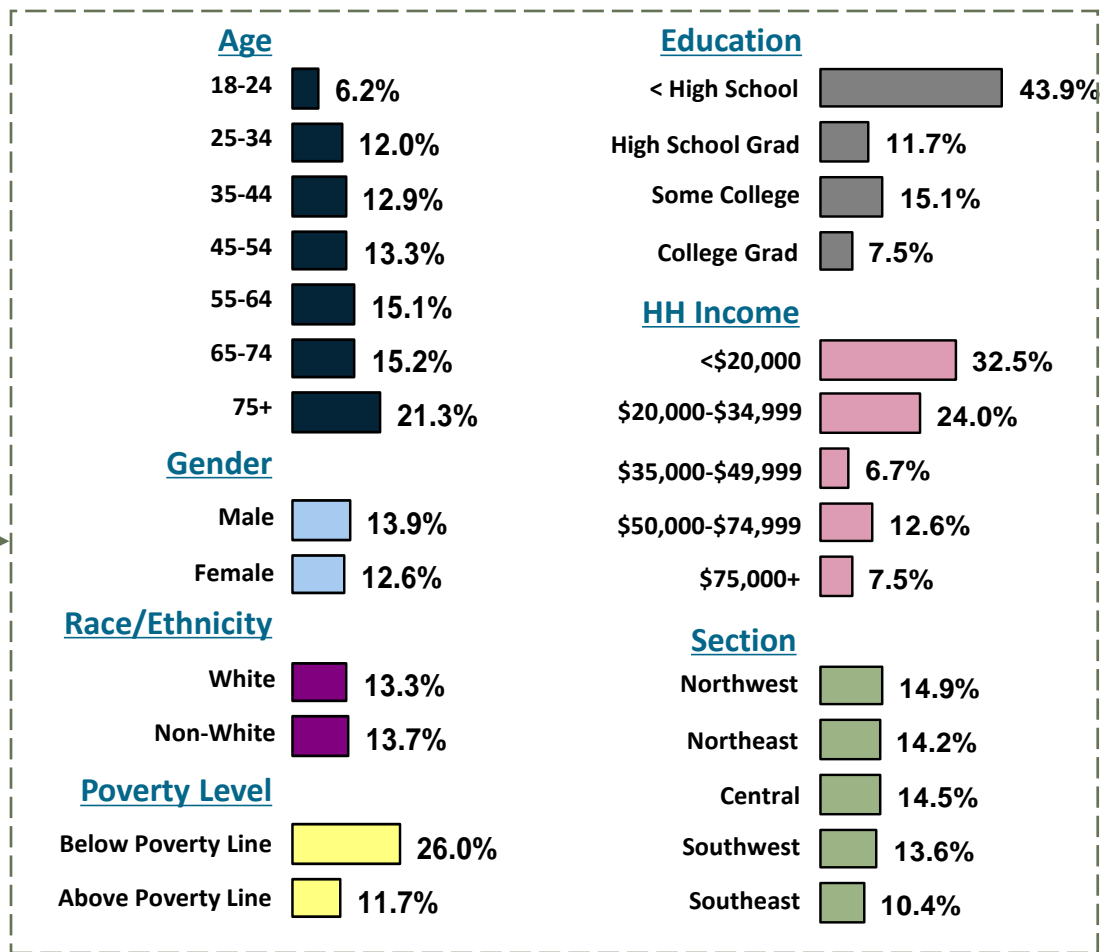
General Health Status


- 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

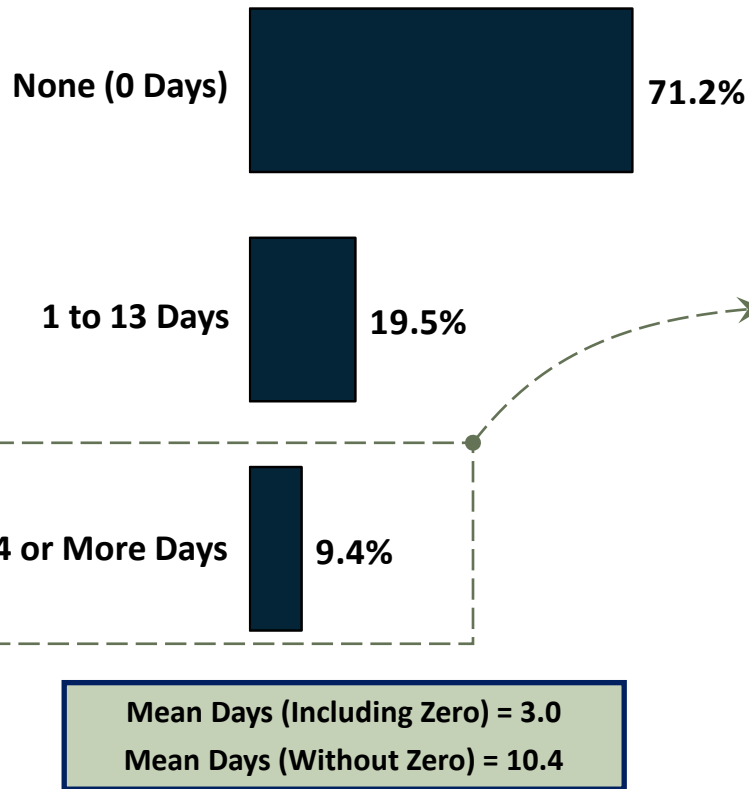




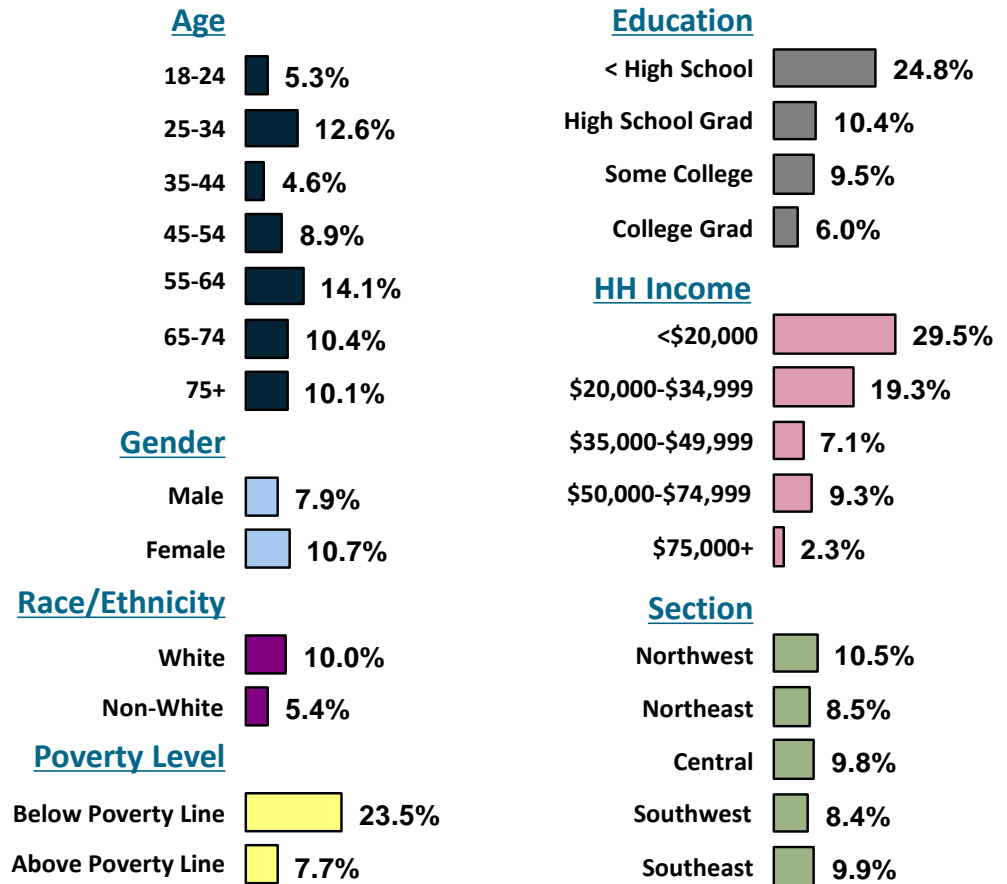
Quality of Life – Physical Health Status

- 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



Poor Physical Health* by Demographics



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

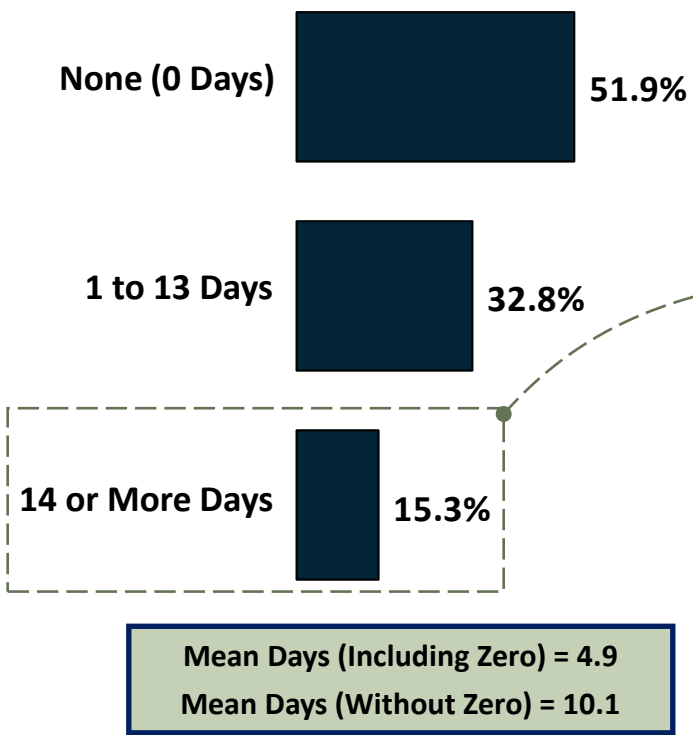
Q2.2: Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good? (n=1,160)



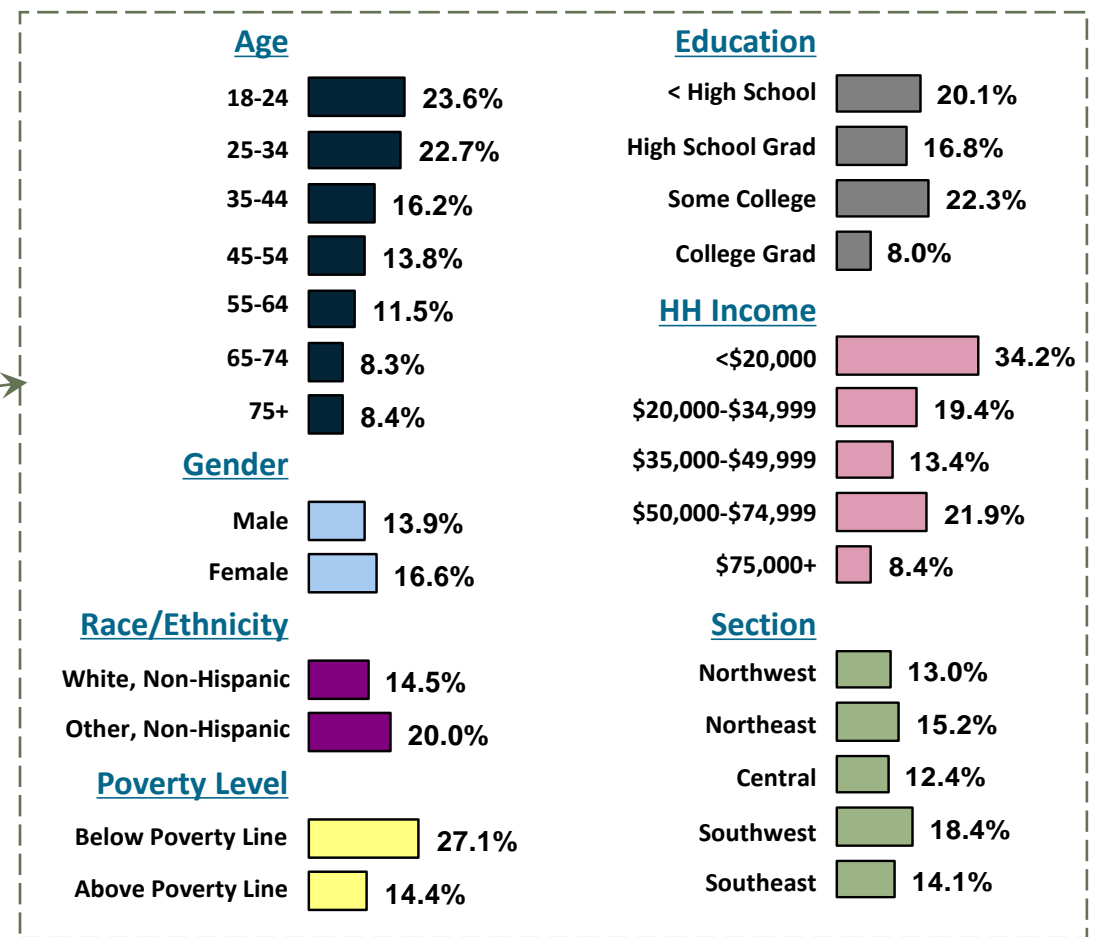
Quality of Life – Mental Health Status

- 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



Poor Mental Health* by Demographics



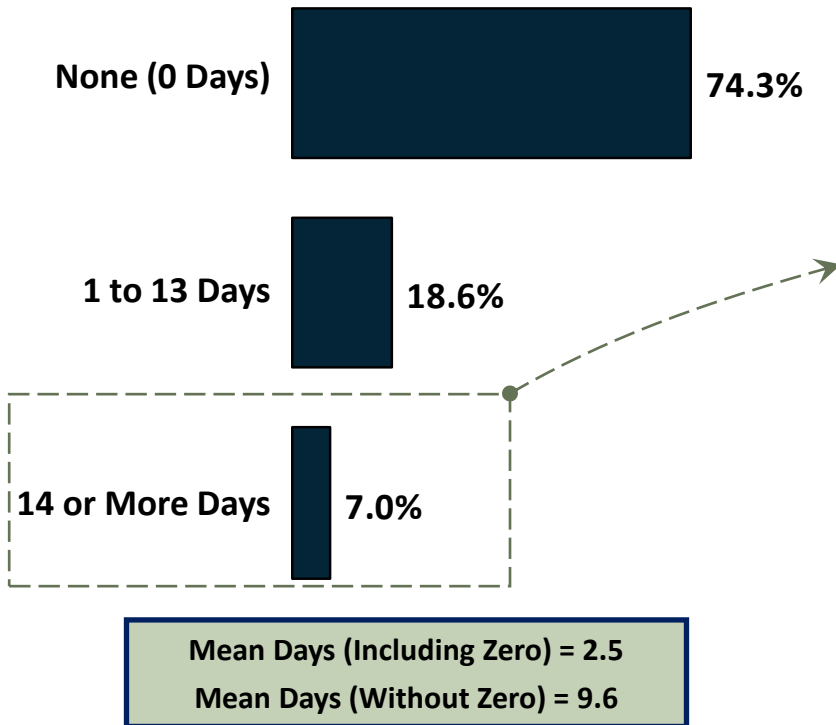
*14 or more days of poor mental health, which includes stress, depression, and problems with emotions, during the past 30 days.



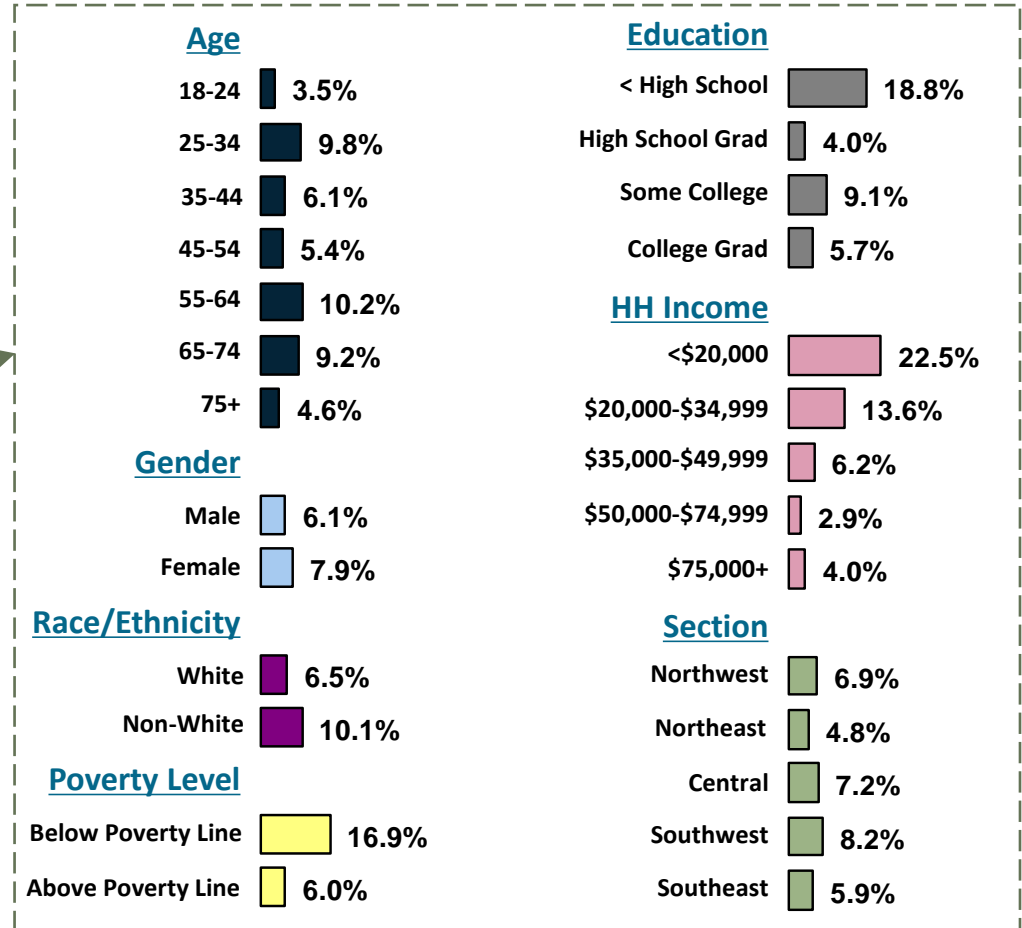
Activity Limitation

- 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)
None of the time	43.9%	75.8%	52.9%	84.4%	60.6%	84.3%
A Little	33.2%	13.7%	22.8%	9.3%	18.9%	9.2%
Some of the time	16.4%	8.3%	16.2%	4.6%	15.4%	4.0%
Most of the time	4.8%	1.4%	5.1%	1.2%	3.1%	1.3%
All of the time	1.7%	0.8%	3.0%	0.5%	2.0%	1.2%

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+).

Q18.1-Q18.6 During the past 30 days, about how often did you feel....



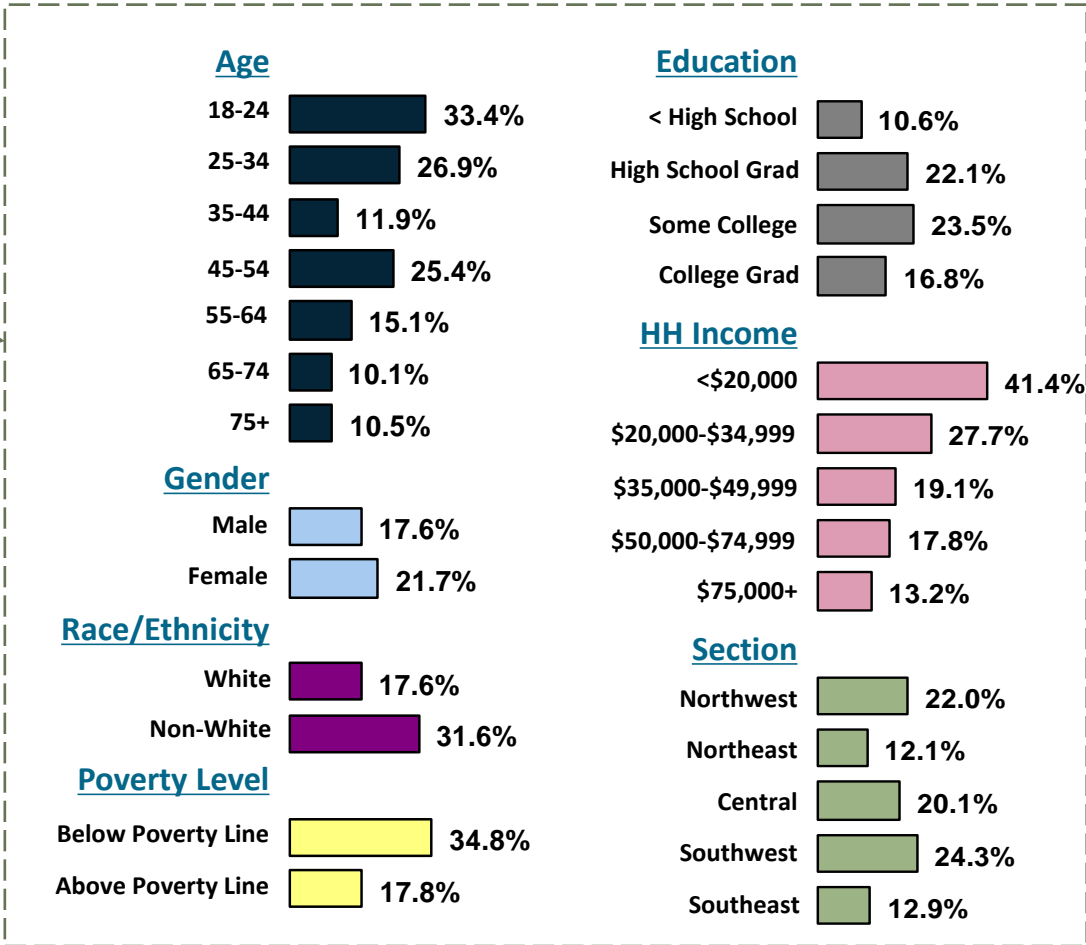
Psychological Distress (Continued)

- 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)



Mild to Severe Psychological Distress by Demographics



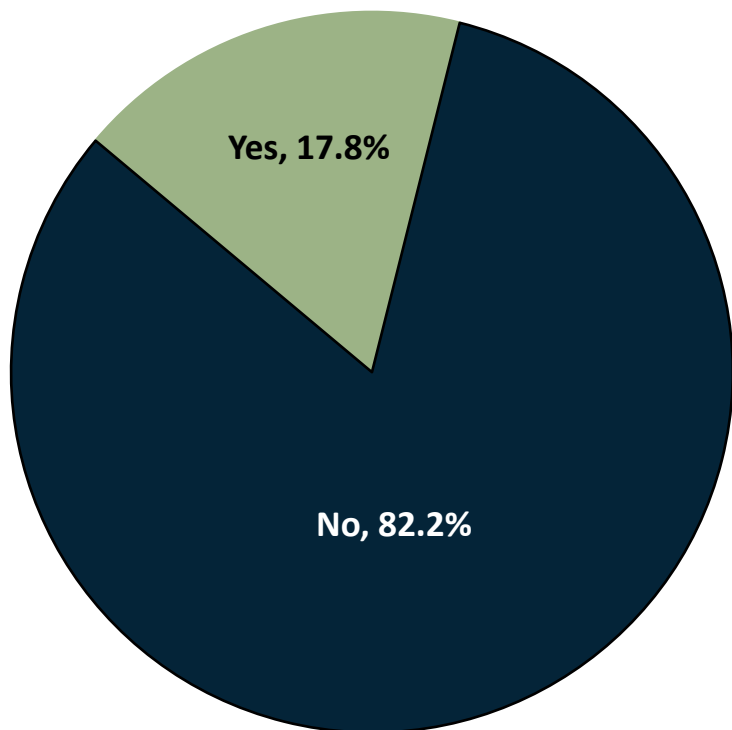
*Calculated from responses to Q. 18.1- 18.6 where respondents scored 12 or more across the six items on the Kessler 6 scale. (n=204)



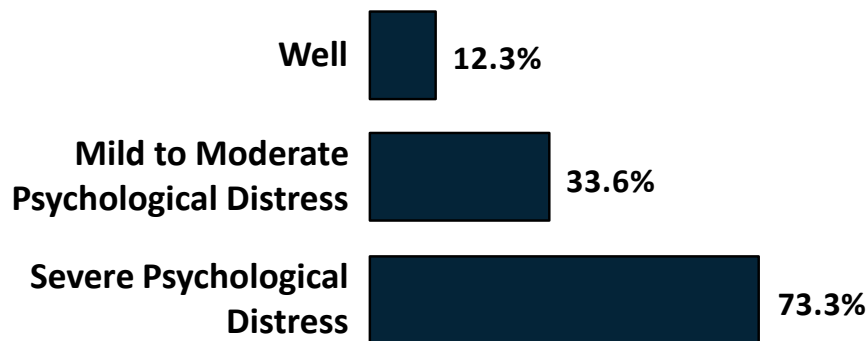
Medication and Treatment for Psychological Distress

- 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

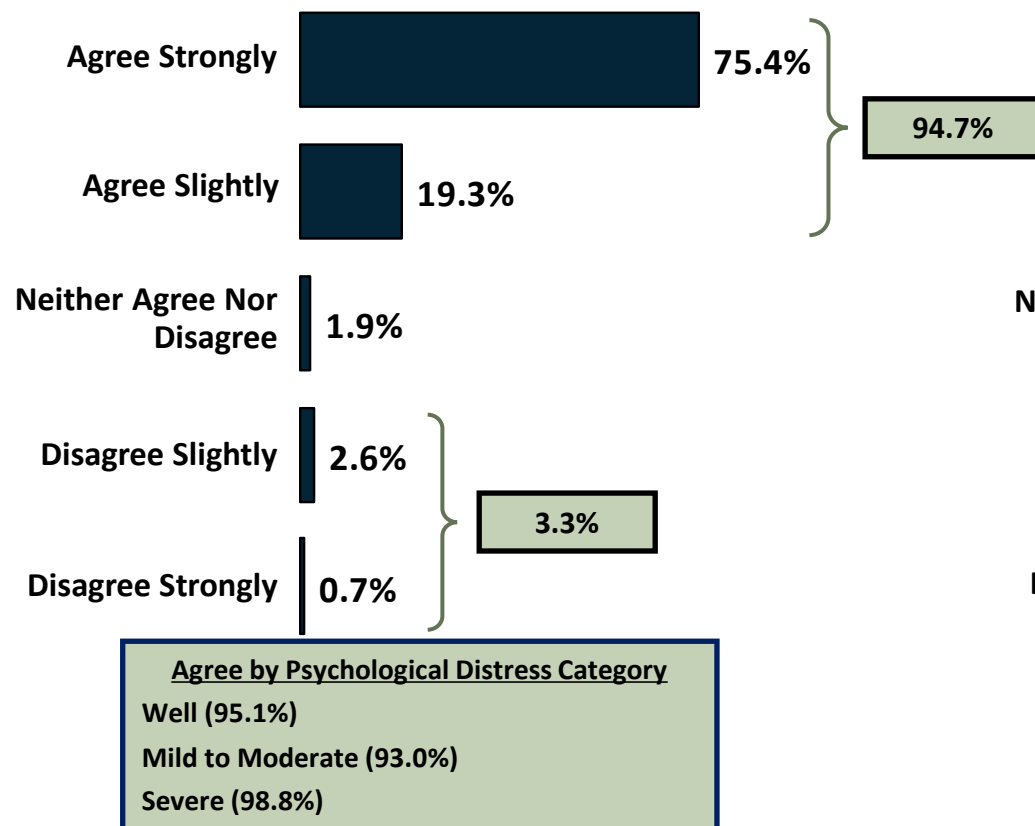


Perceptions of Mental Health Treatment and Mental Illness

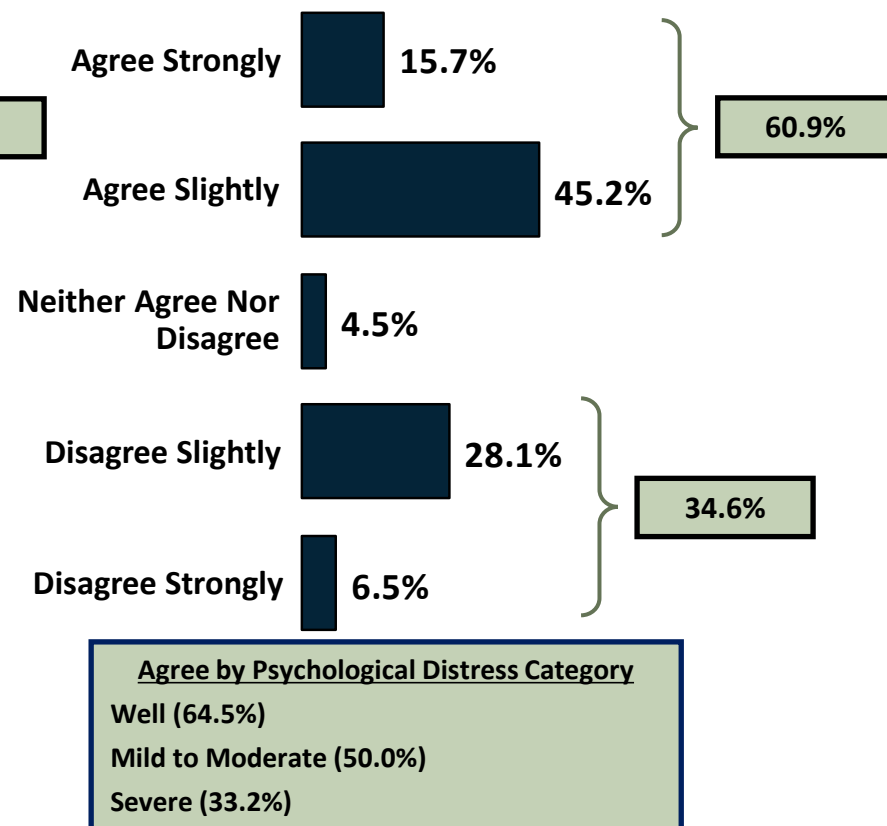
- Even though almost all (94.7%) Ottawa County adults believe treatment can help people with mental illness lead normal lives, six in ten (60.9%) view people are generally caring and sympathetic to people with mental illness, and this drops to 33.2% among those with severe psychological distress.

❖ 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"



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)

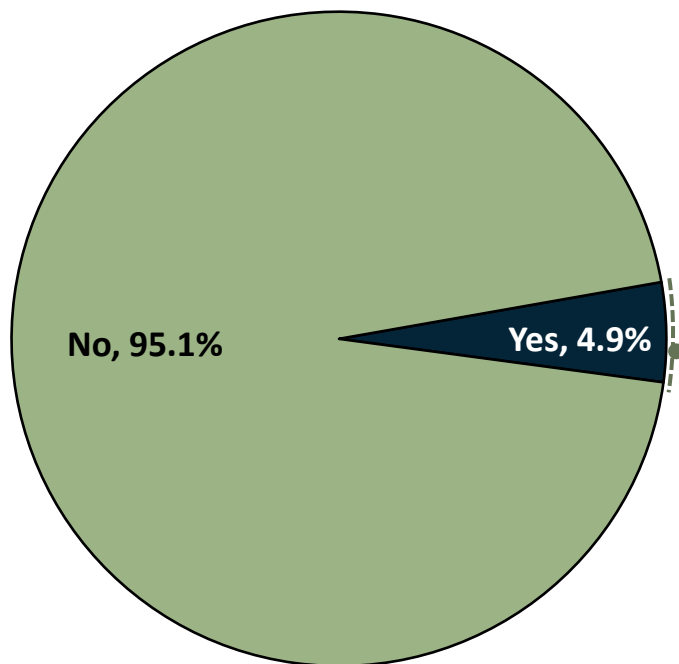
18.9 What is your level of agreement with the following statement? "People are generally caring and sympathetic to people with mental illness." Do you – agree slightly or strongly, or disagree slightly or strongly? (n=1,170)



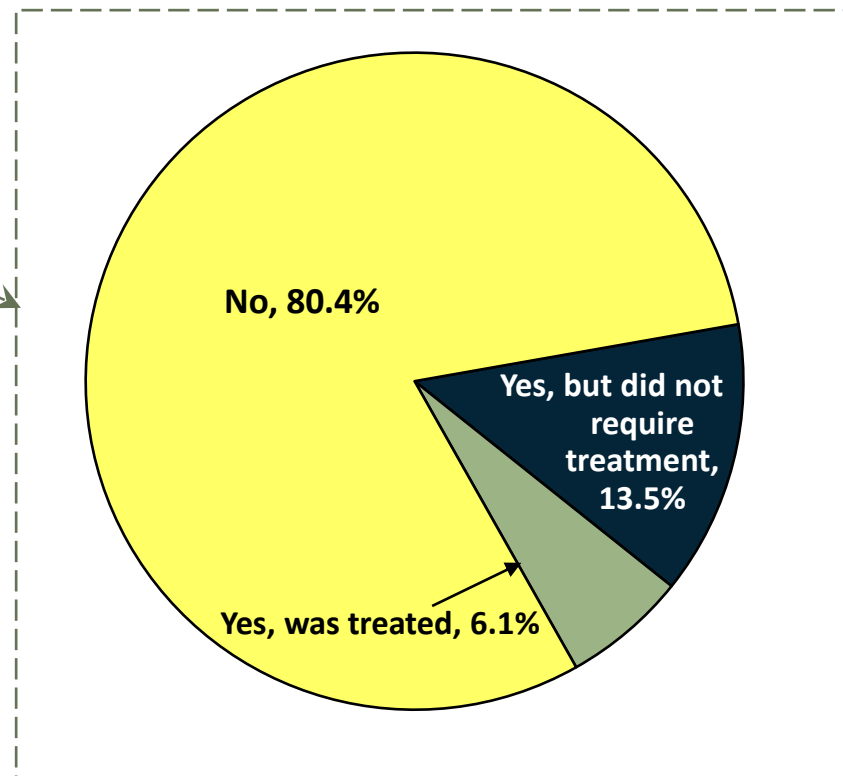
Suicide

- 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)**



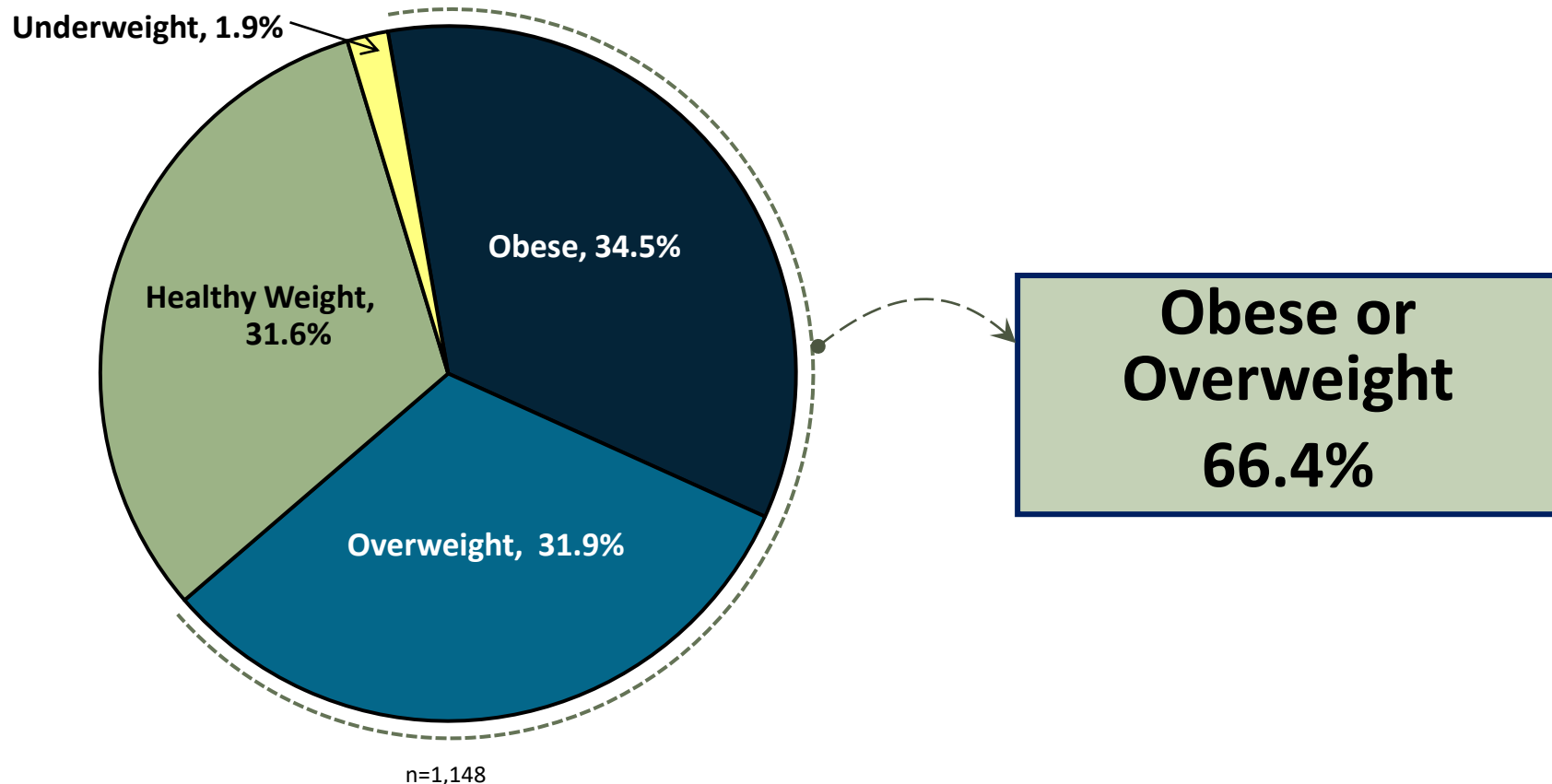
Q20.1: Has there been a time in the past 12 months when you thought of taking your own life? (n=1,194)

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

Q10.11: About how much do you weigh without shoes? (n=1,152)

Q10.12: About how tall are you without shoes? (n=1,190)



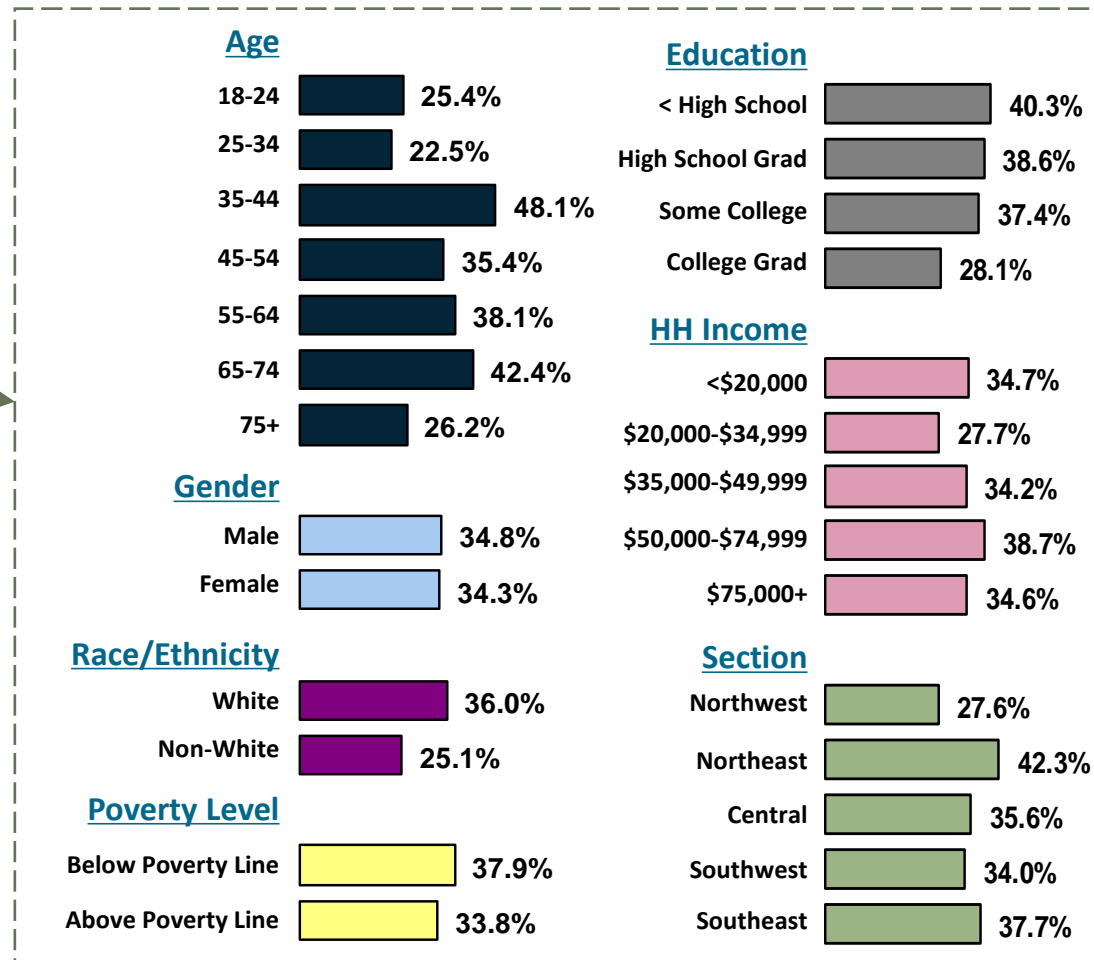
Obesity

- 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



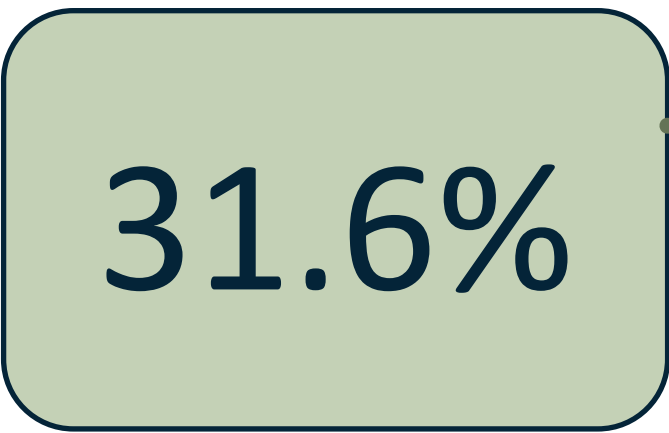
*Among all adults, the proportion of respondents whose BMI was greater than or equal to 30.0.



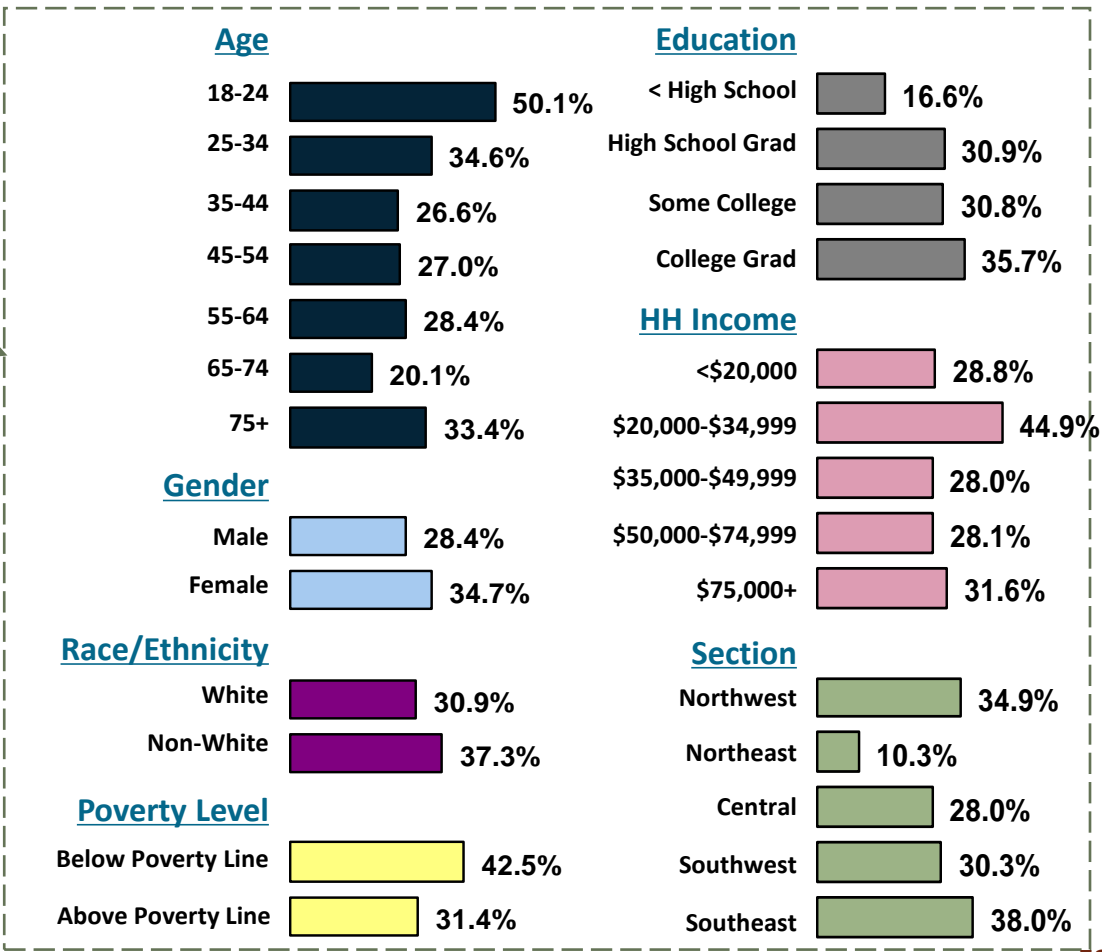
Healthy Weight

- 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



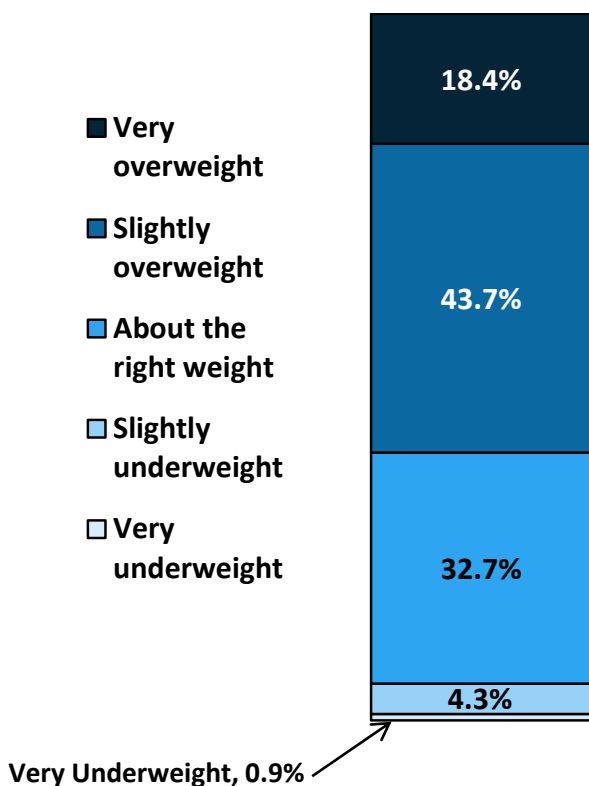
*Among all adults, the proportion of respondents whose BMI was greater than or equal to 18.5 but less than 25.0.



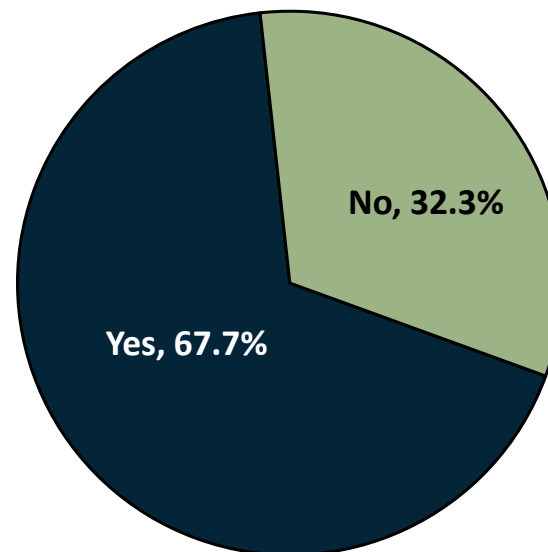
Weight Control

- 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

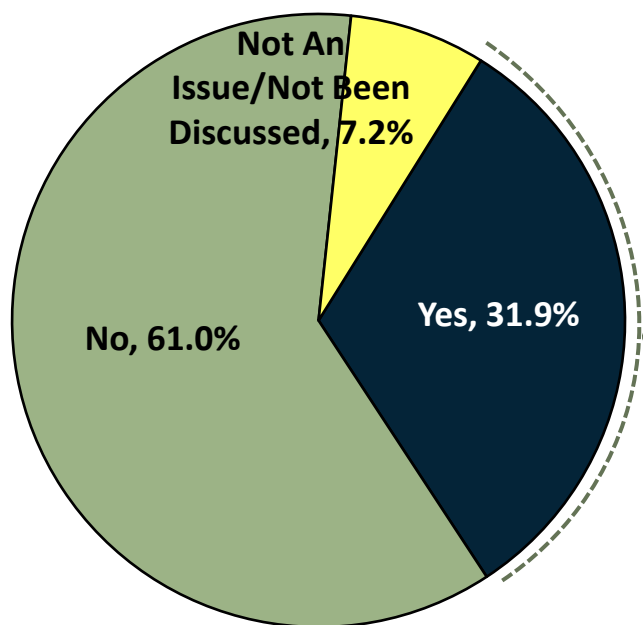




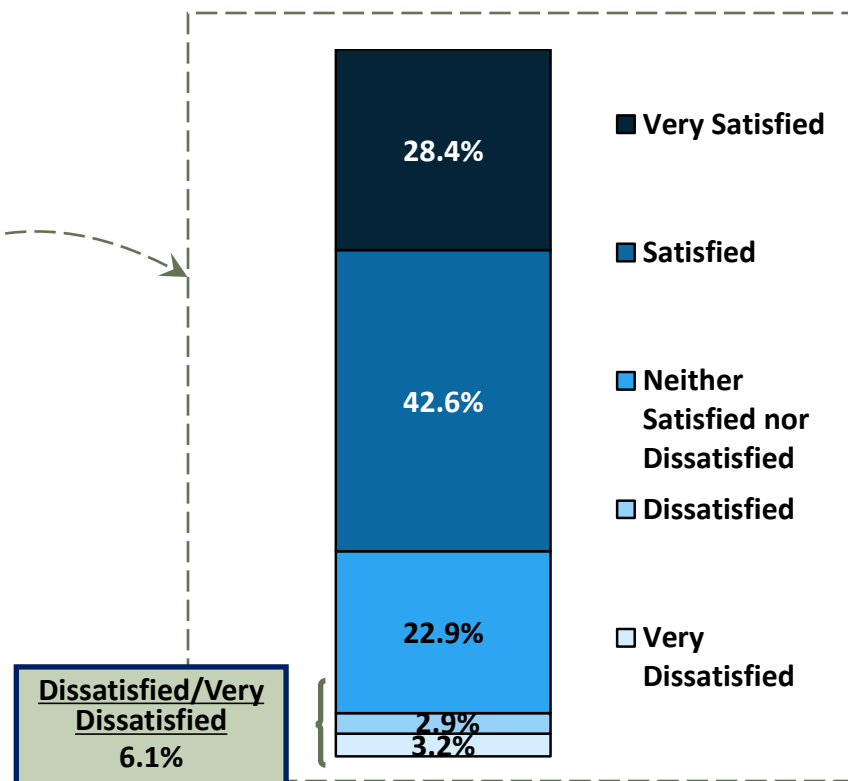
Weight Control (Continued)

- 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”

Overweight



74.8%

Obese



86.6%

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”

Overweight



25.3%

Obese



56.5%

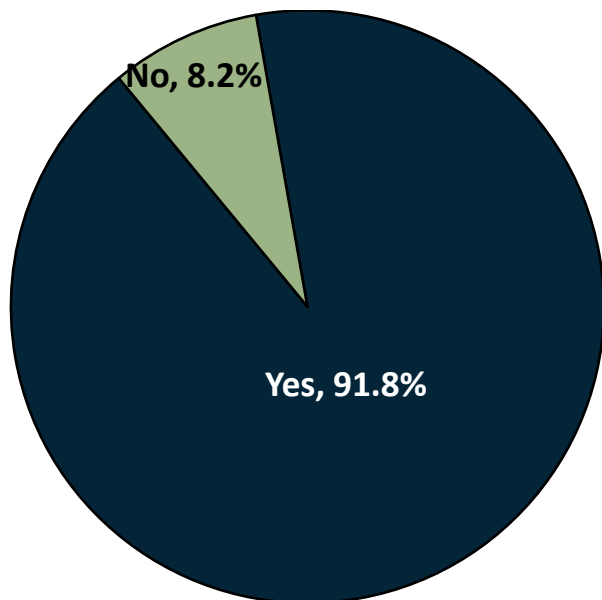
Health Care Access



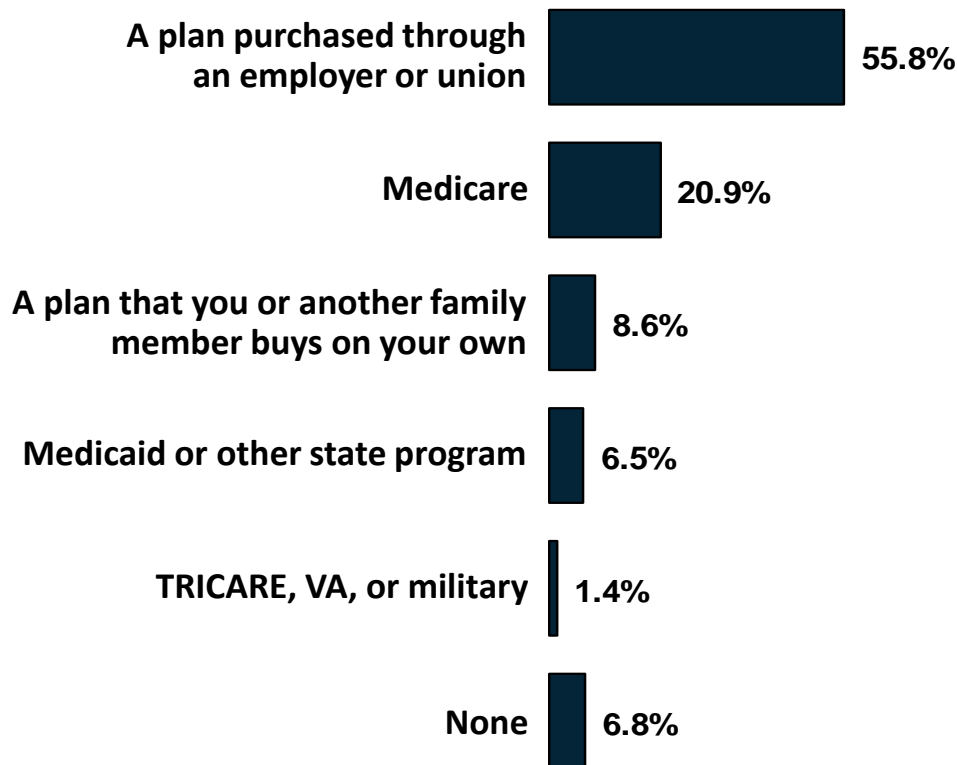
Health Care Coverage

- 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)



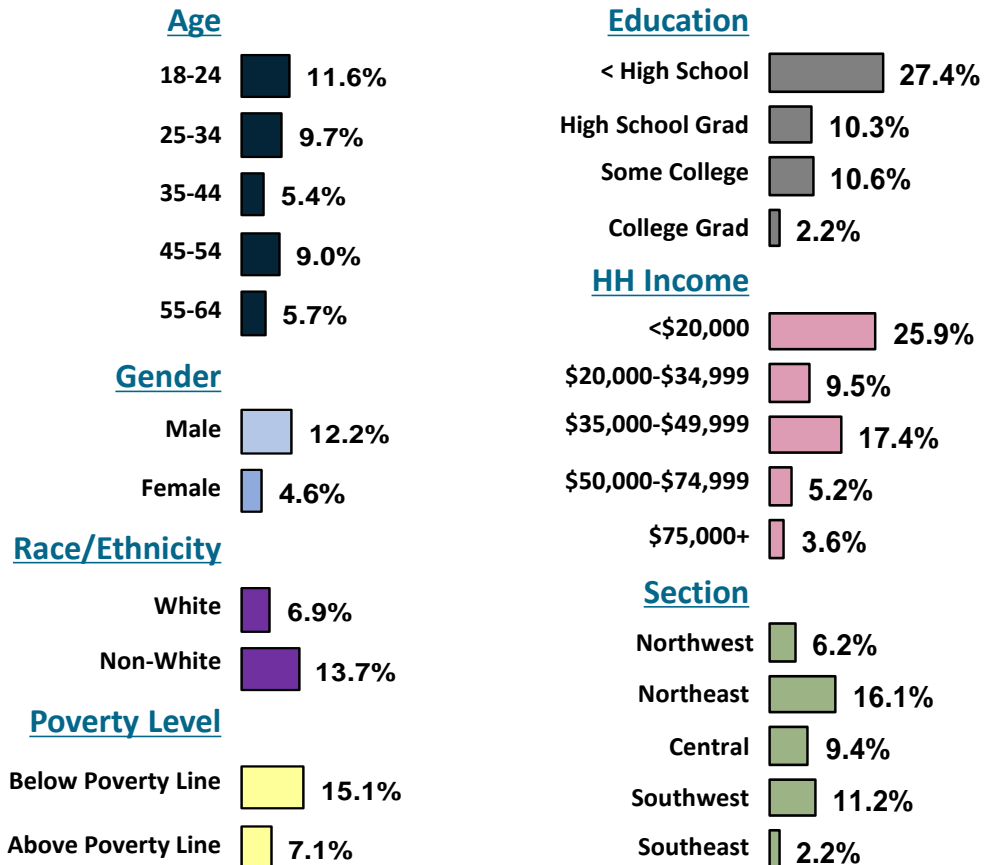
Lack of Health Care Coverage

- 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



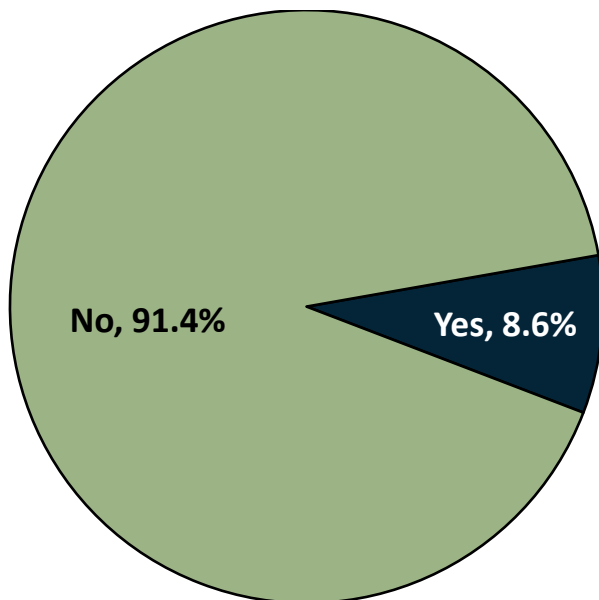
*Among adults aged 18-64, the proportion who reported having no health care coverage, including health insurance, prepaid plans such as HMOs, or government plans, such as Medicare.



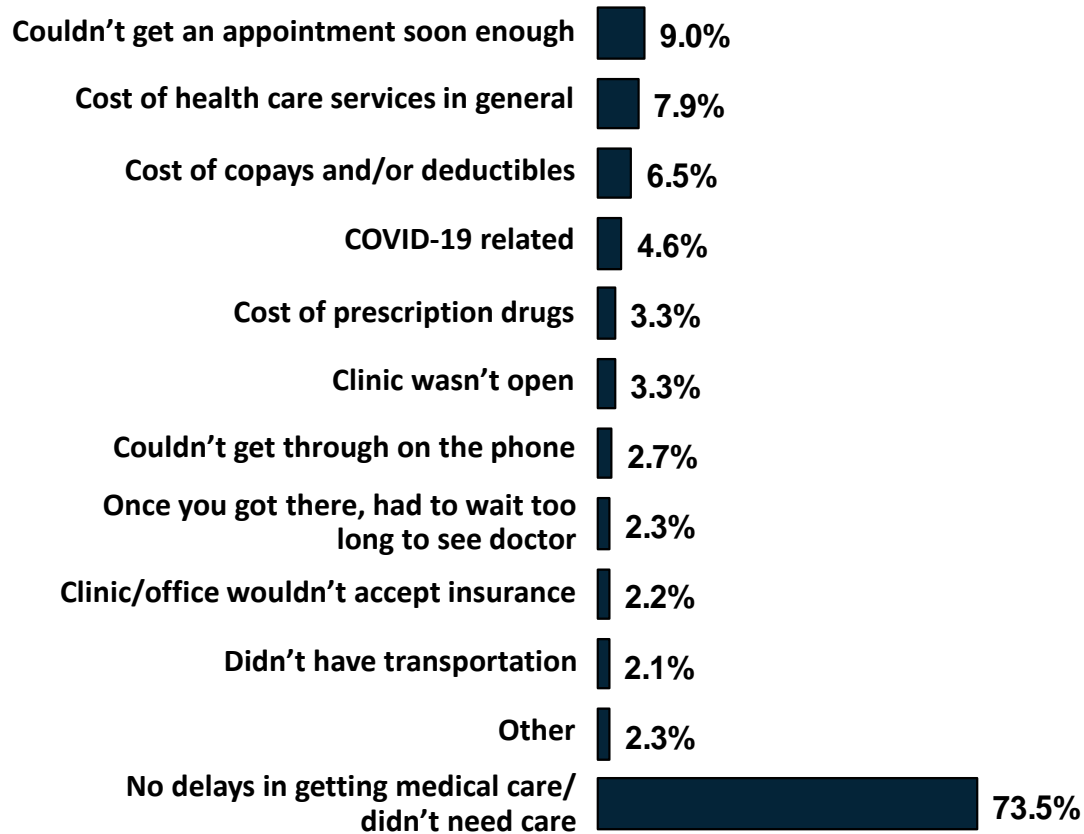
Problems Receiving Health Care

- 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)

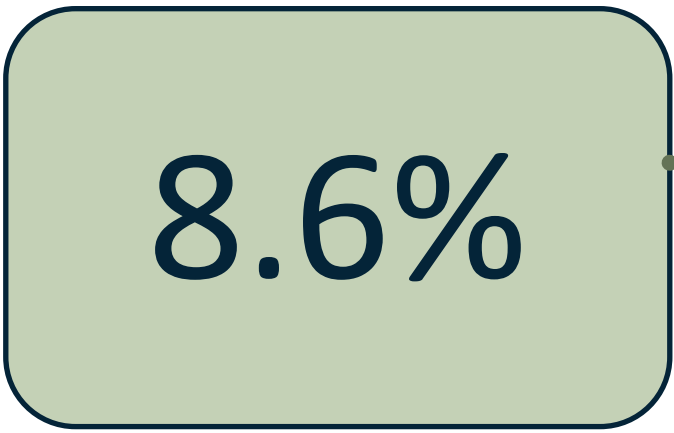
Q3.5: There are many reasons why people delay getting needed medical care. Have you delayed getting needed medical care for any of the following reasons in the past 12 months? (n=1,166)



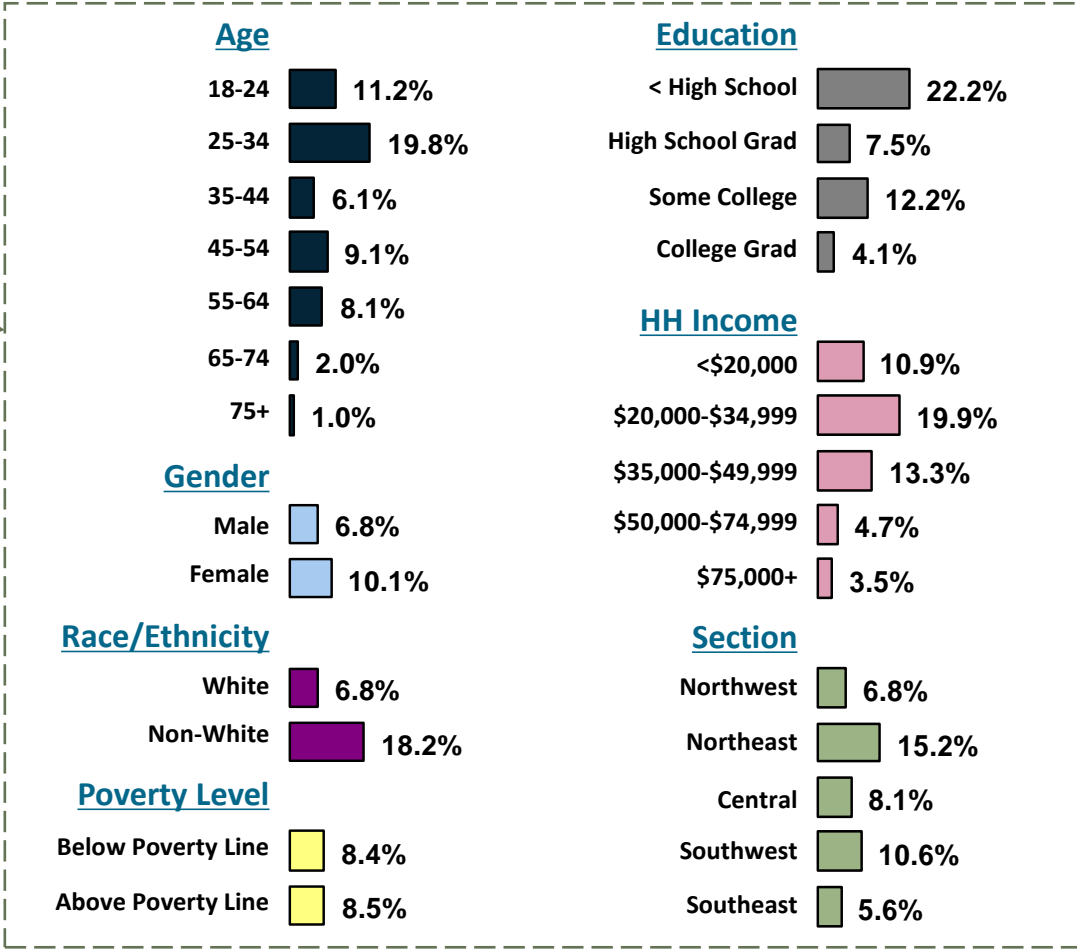
Problems Receiving Health Care (Continued)

- 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)**



No Health Care Access Due to Cost by Demographics



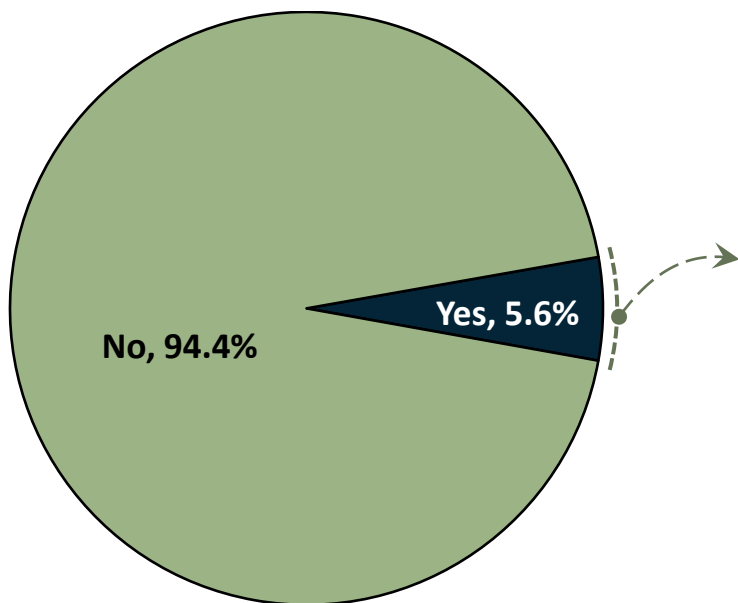
*Among all adults, the proportion who reported that in the past 12 months, they could not see a doctor when they needed to due to the cost.



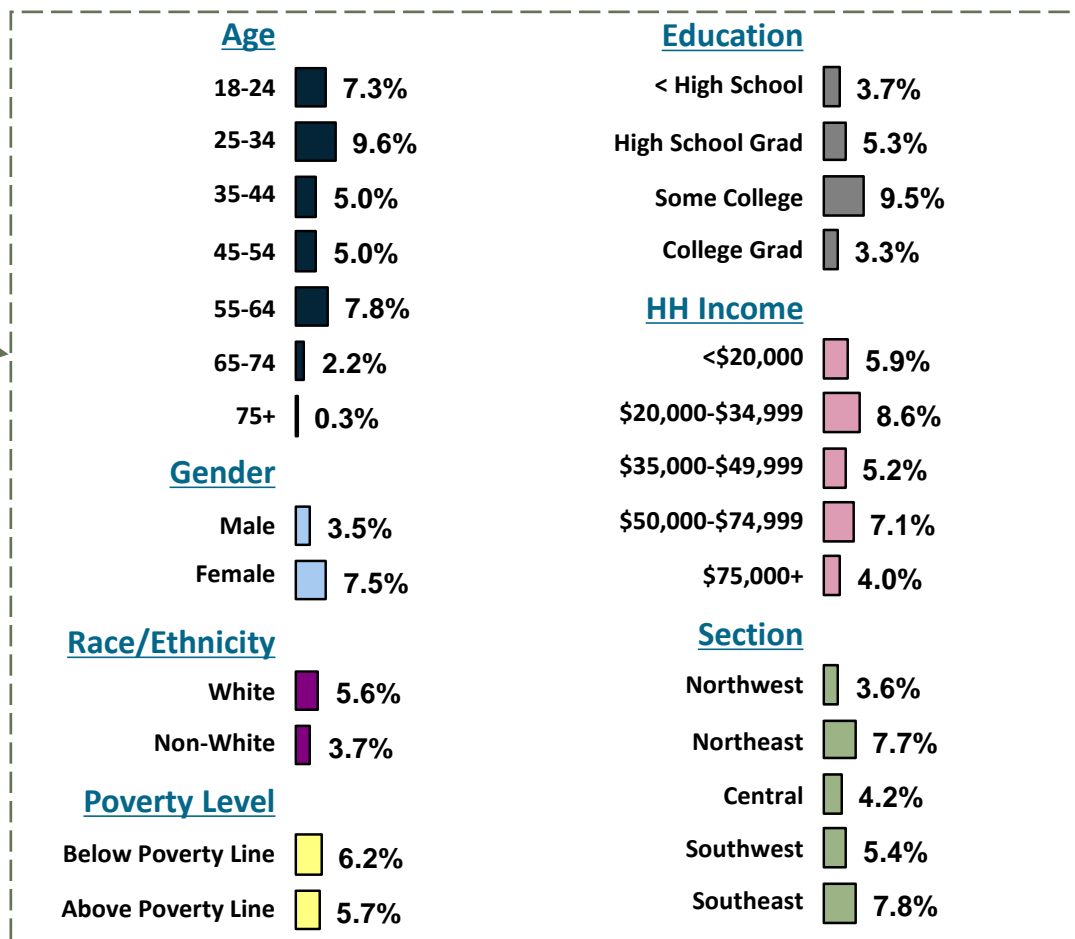
Problems Affording Medication

- 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

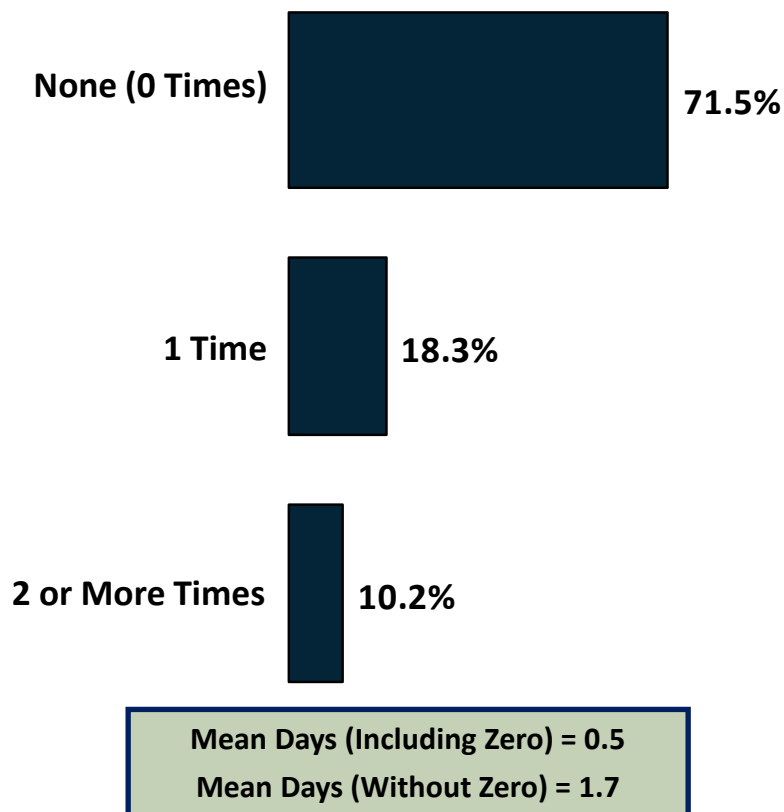




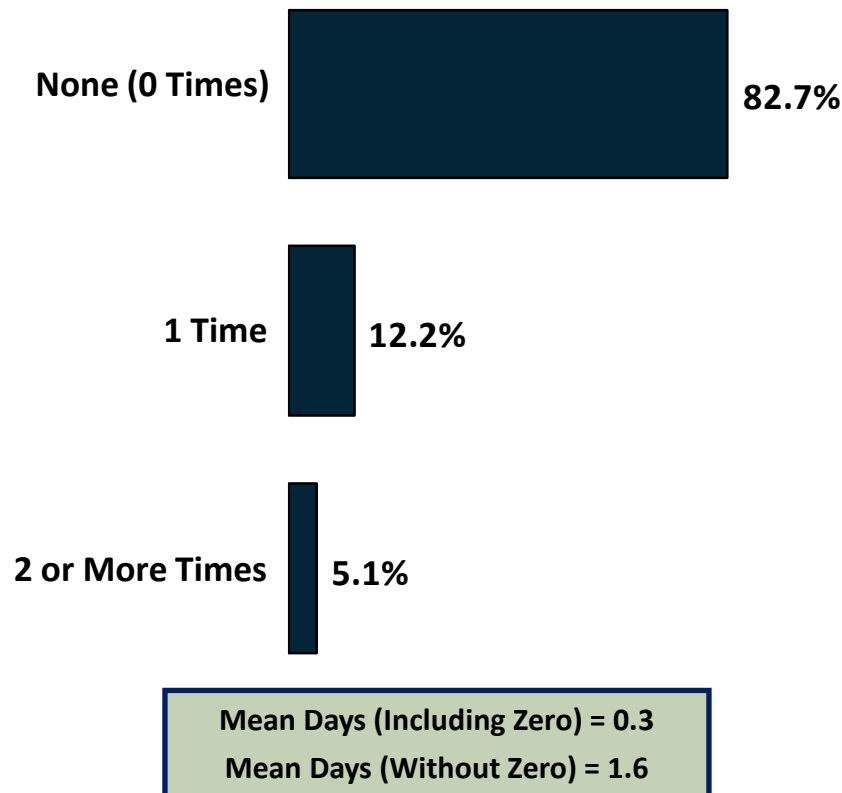
Use of Urgent Care and ER/ED

- 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



Number of Times Visited ED/ER In Past 12 Months



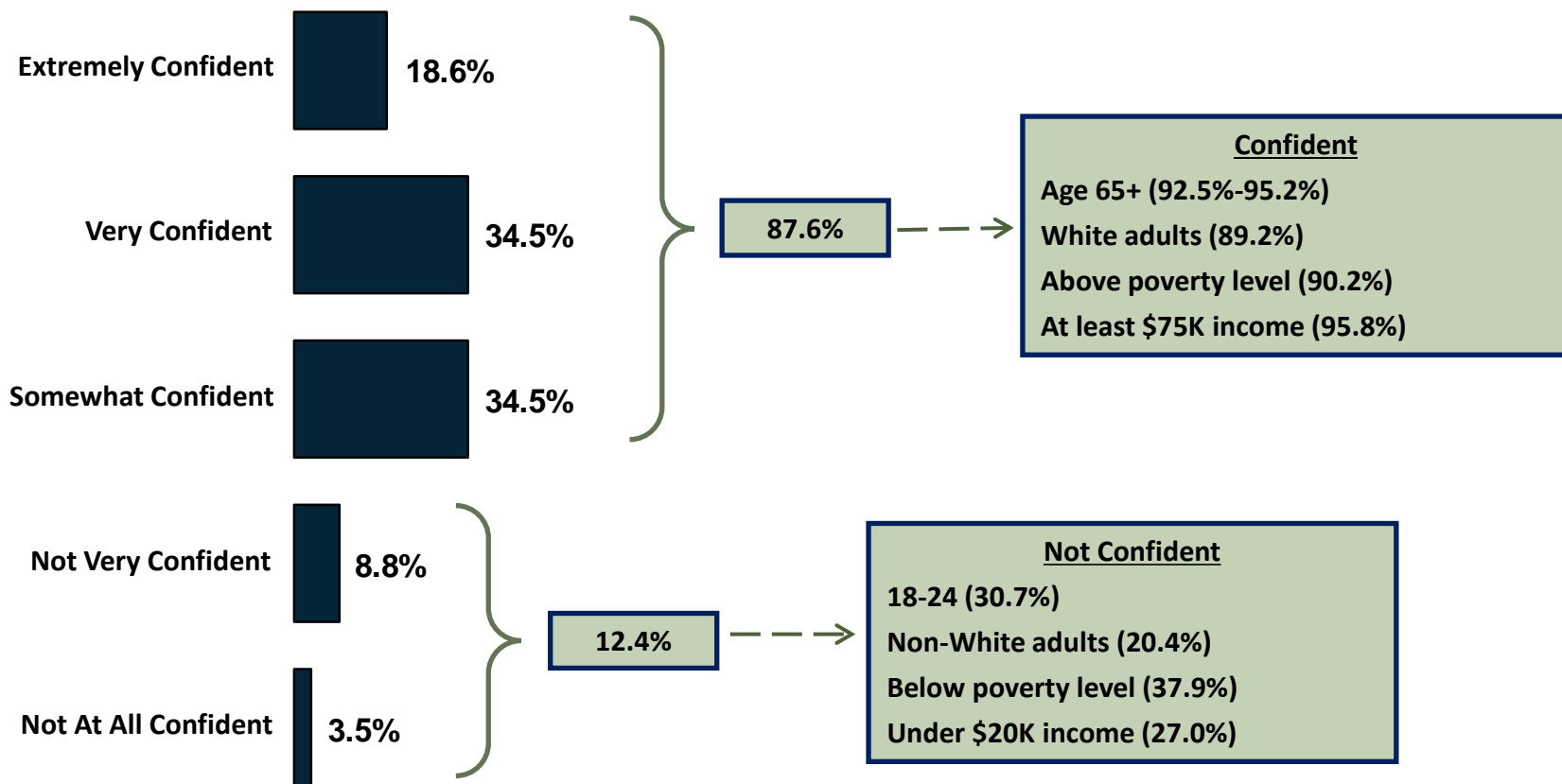
Q3.6: How many times have you been to an Urgent Care Center in the past 12 months? (n=1,187)

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

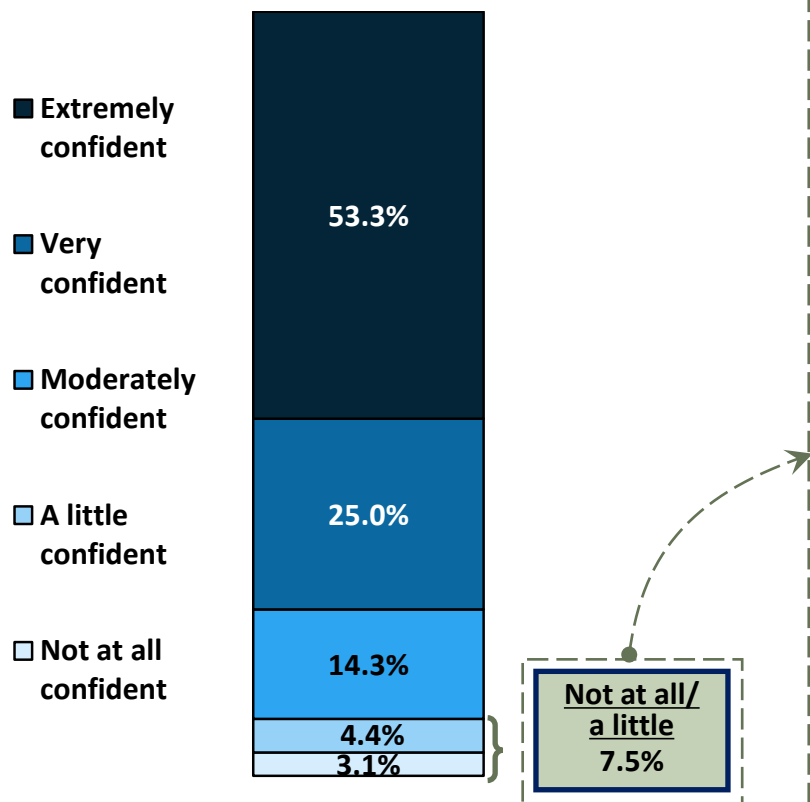




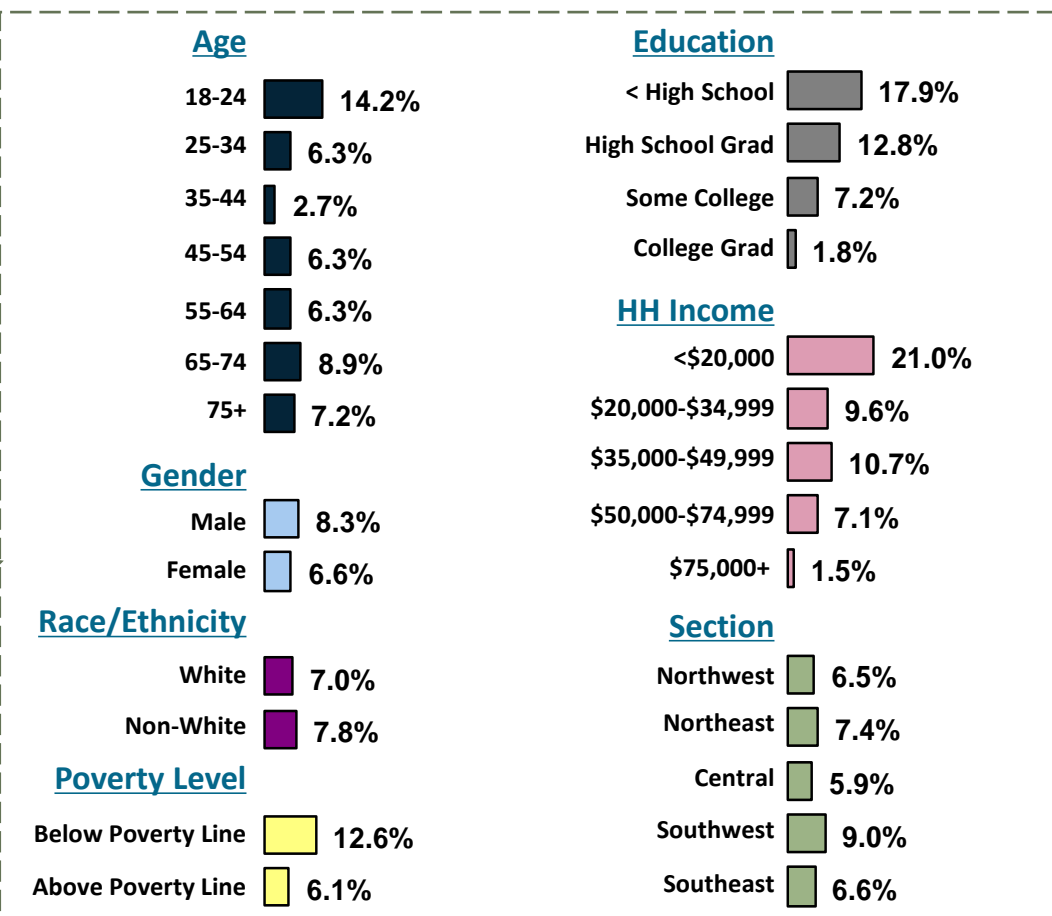
Health Literacy

- 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

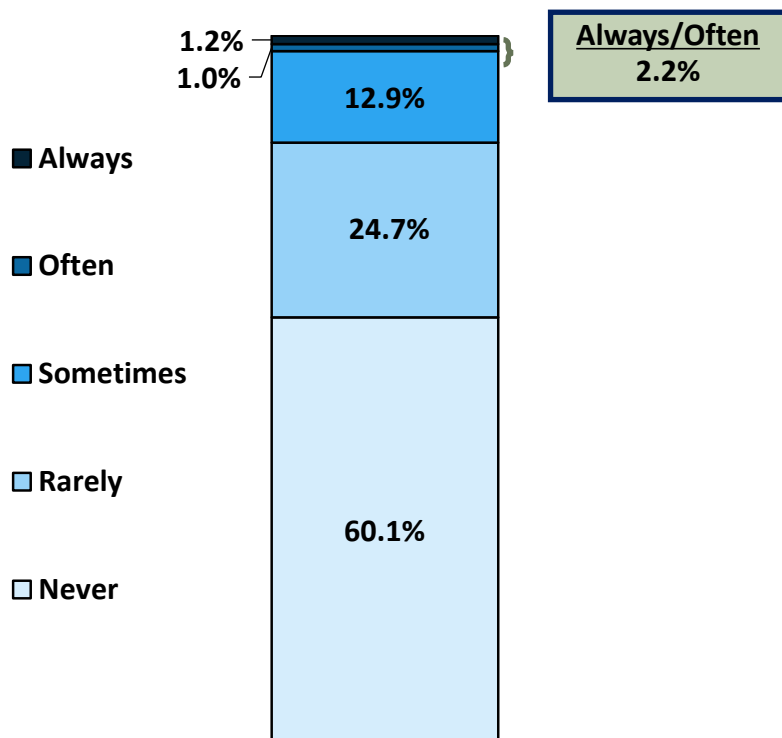




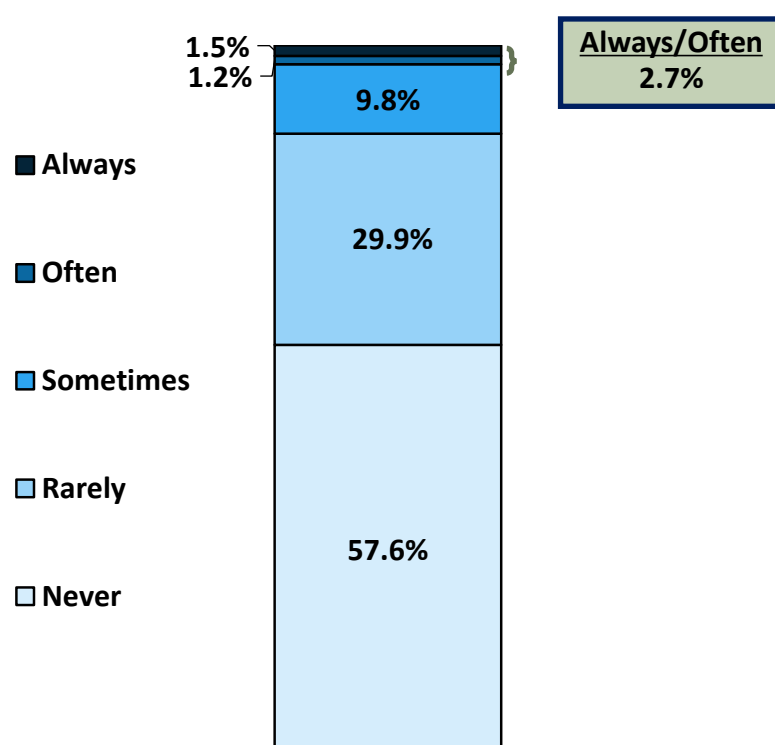
Health Literacy (Continued)

- 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



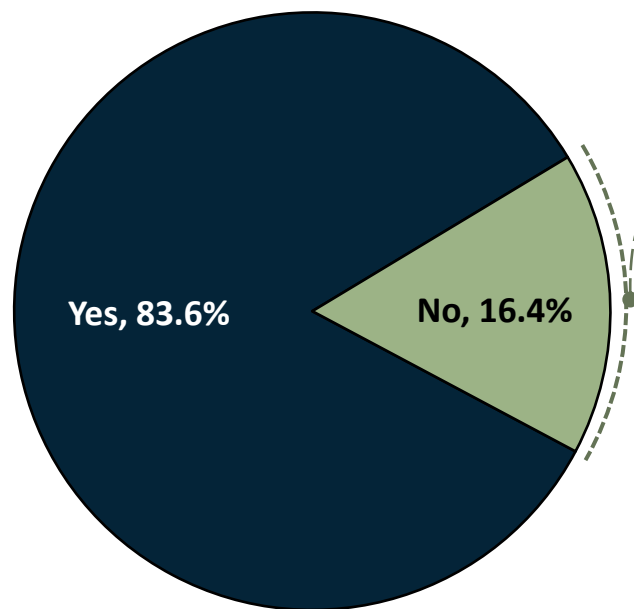
Risk Behavior Indicators



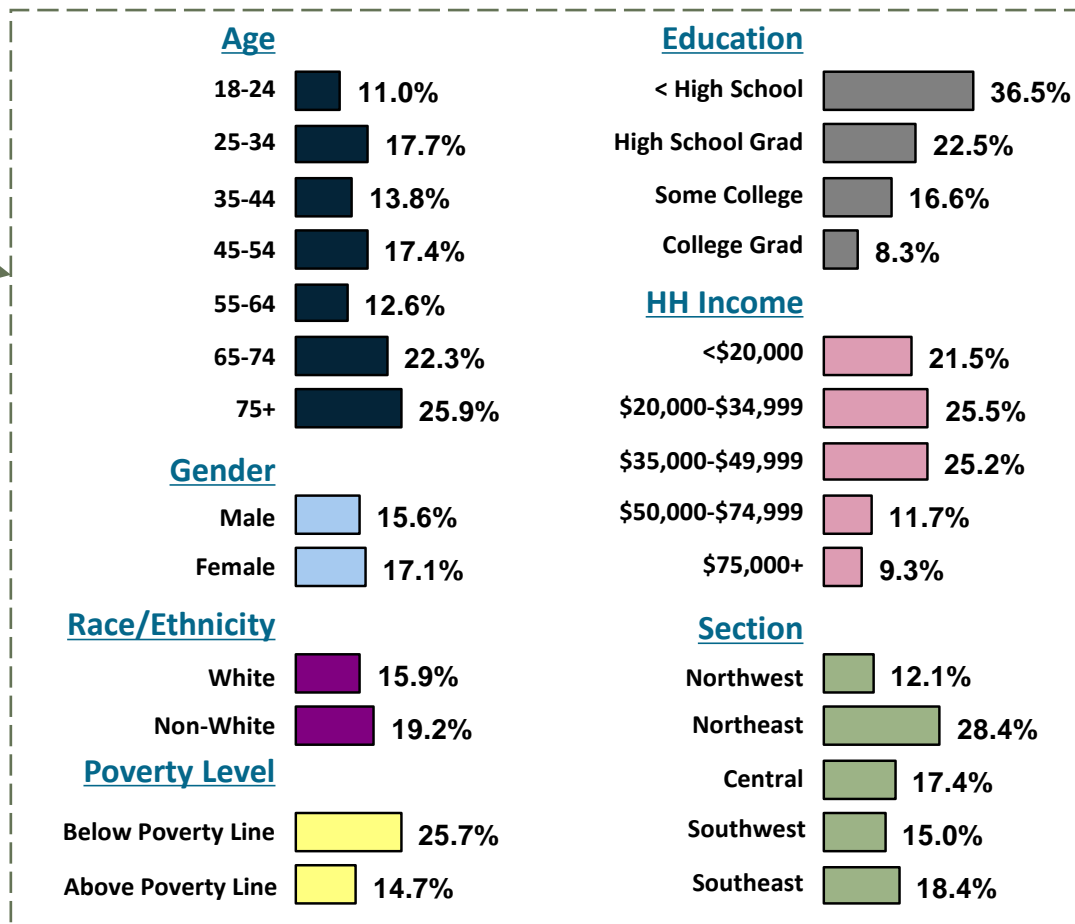
Physical Activity

- 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



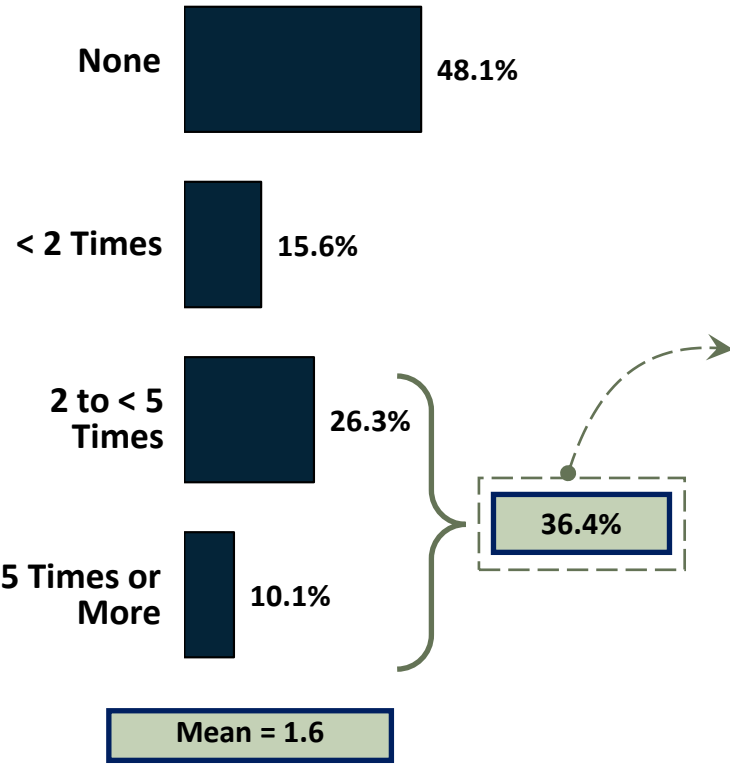
*Among all adults, the proportion who reported not participating in any leisure-time physical activities or exercises, such as running, calisthenics, golf, gardening, or walking, during the past month.



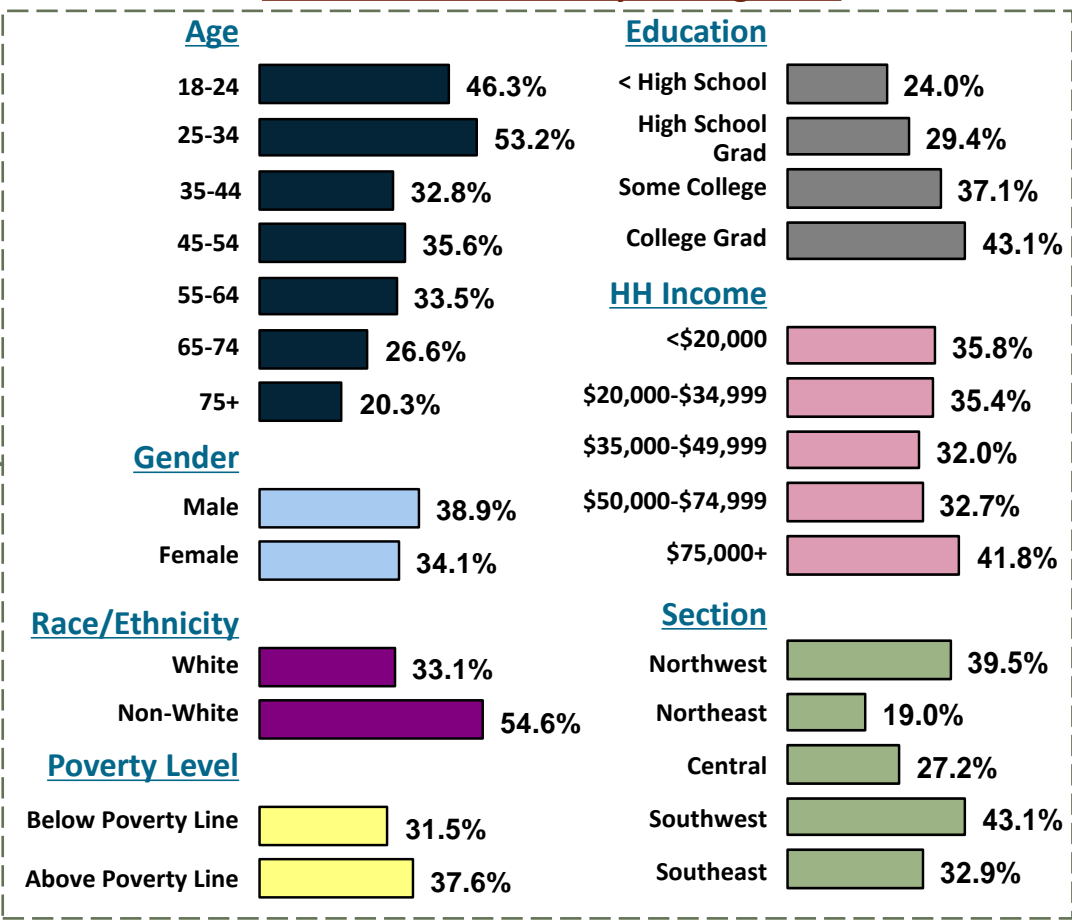
Muscle Strengthening Activities

- 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

Less than 1 time 43.6%

1 time <2 32.3%

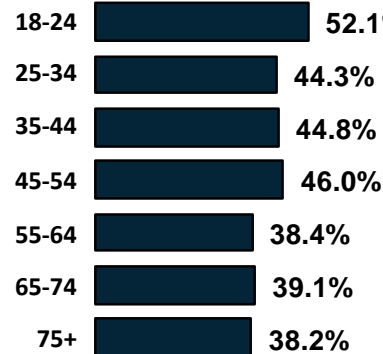
2 times <3 16.7%

3 or more times 7.4%

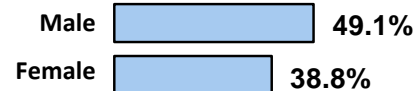
Mean = 1.1

Consumed Fruits <1 Time Per Day by Demographics

Age



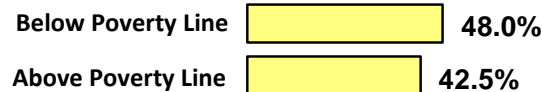
Gender



Race/Ethnicity



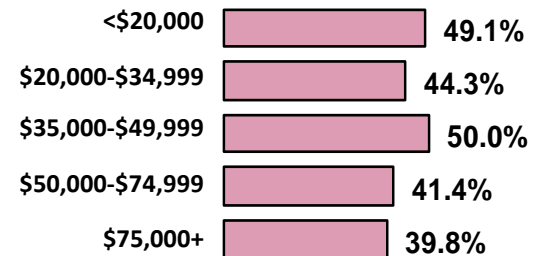
Poverty Level



Education



HH Income



Section

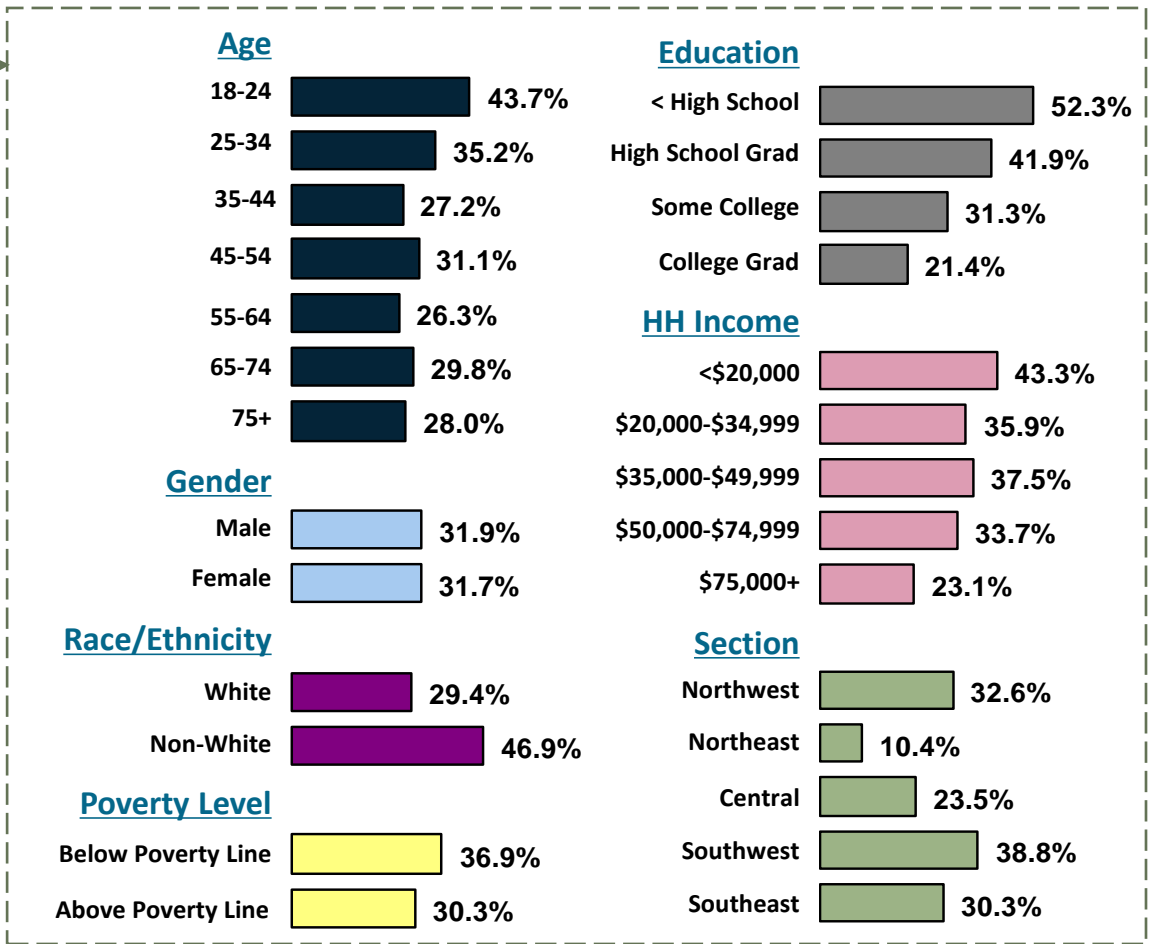
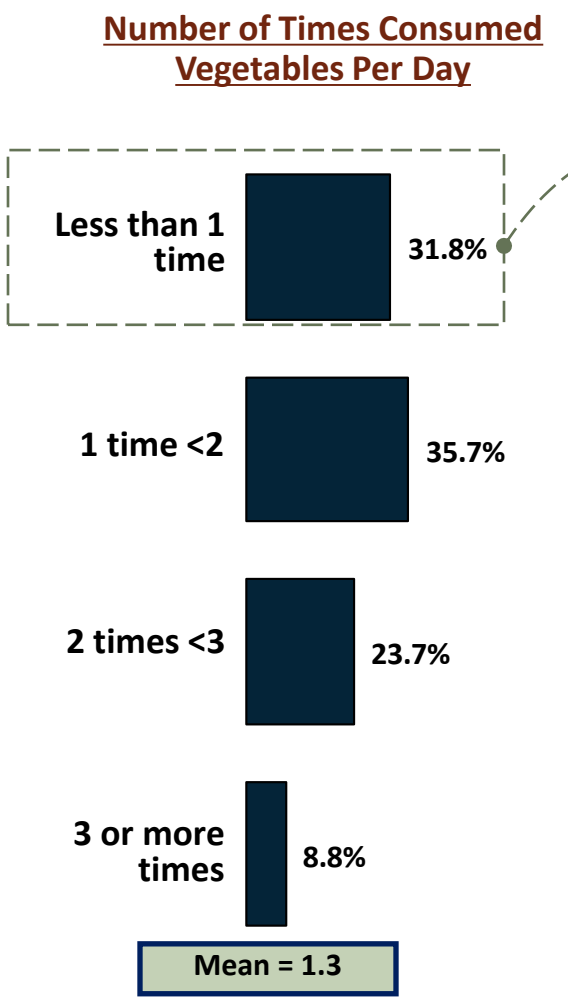




Vegetable Consumption

- 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



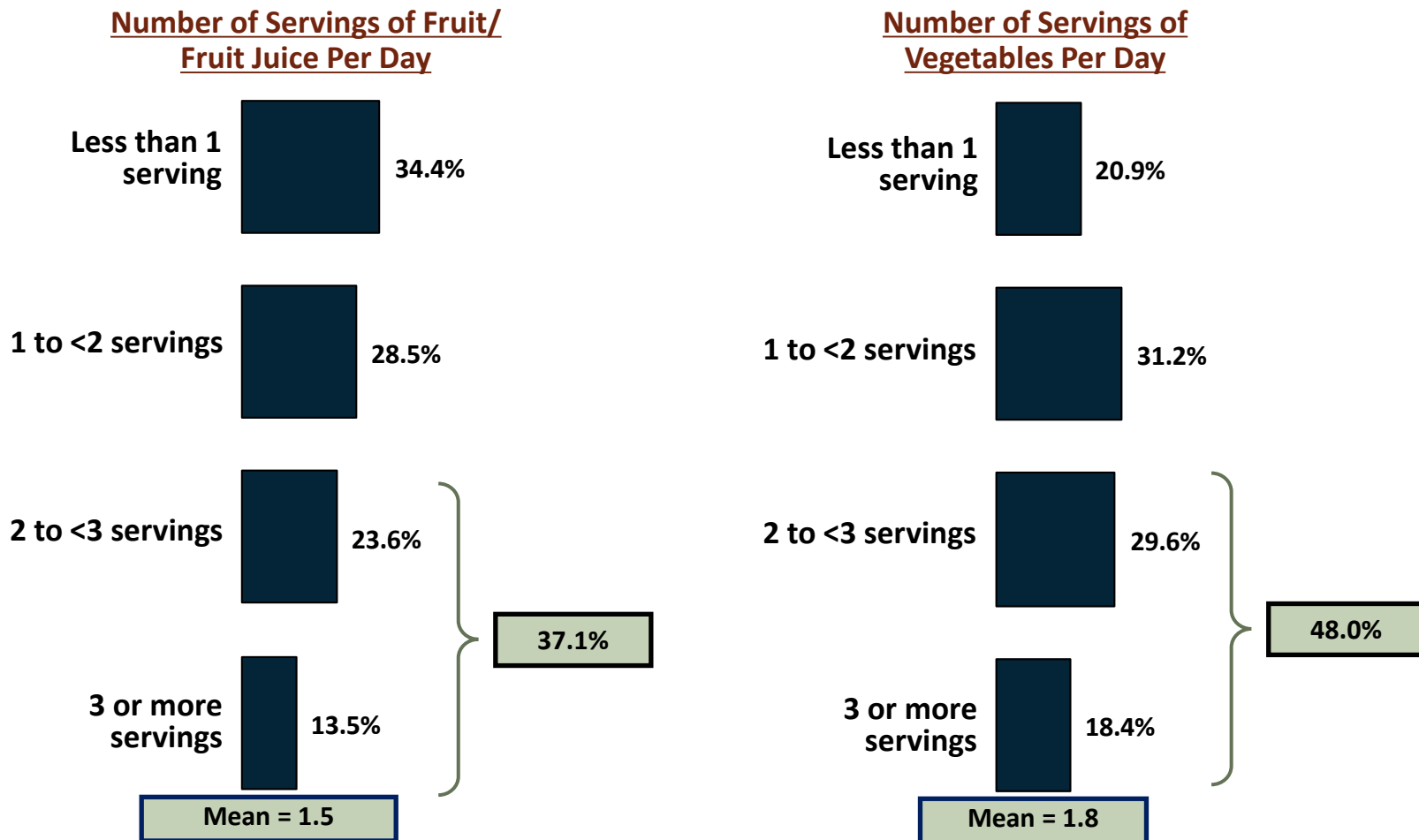
Q12.2: During the past month, how many times per day, week, or month did you eat vegetables, for example broccoli, sweet potatoes, carrots, tomatoes, V-8 juice, corn, cooked or fresh leafy greens including romaine, chard, collard greens, or spinach? (n=1,185)



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



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)

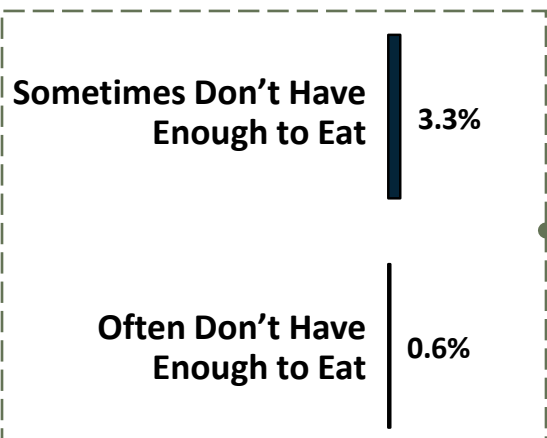
Q12.4: Now I'm going to ask you about servings. During the past month, how many servings per day, week, or month did you eat vegetables for example broccoli, sweet potatoes, carrots, tomatoes, V-8 juice, corn, cooked or fresh leafy greens including romaine, chard, collard greens or spinach? (n=1,167)



Food Sufficiency

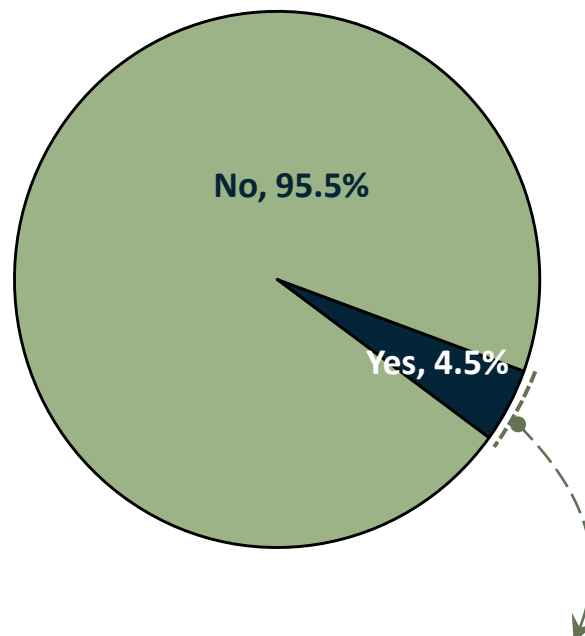
- A very small proportion (3.9%) of area adults report they sometimes or often don't have enough food to eat, and a similar proportion say they have had to cut the size of meals or skip meals due to lack of money.
- This rate is half of what it was in 2017 (7.6%-7.7%).
 - ❖ Not surprisingly, those who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

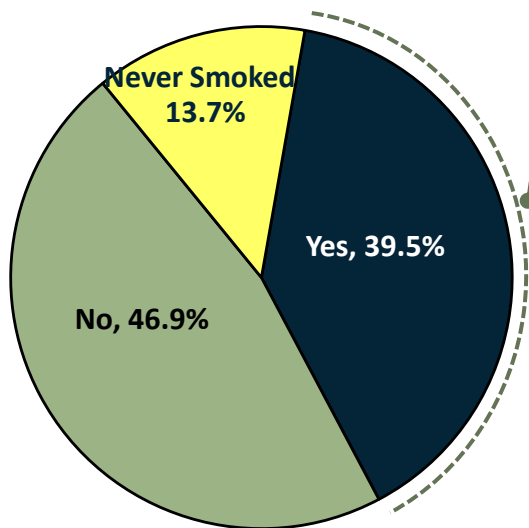
Q13.2: In the past 12 months, did you or others in your household ever cut the size of your meals or skip meals because there wasn't enough money for food? (n=1,198)



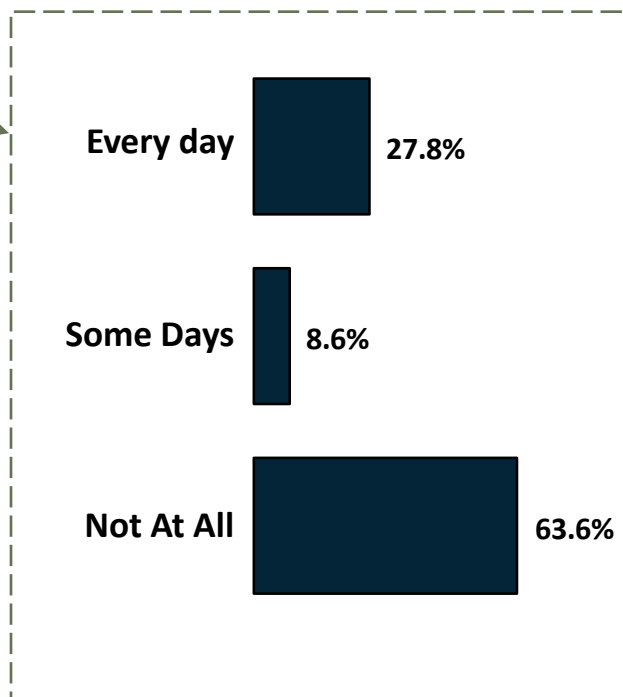
Cigarette Smoking

- 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

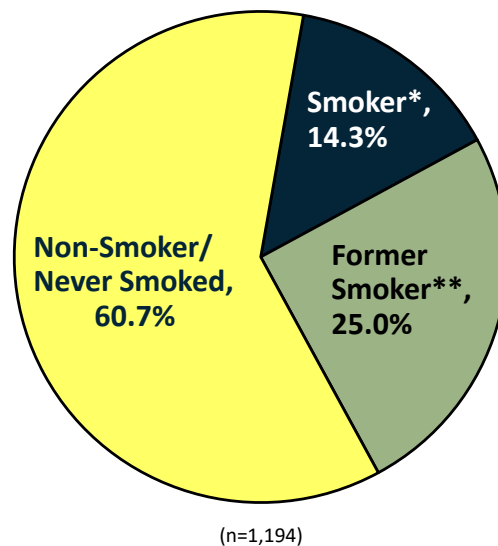
Smoked 100 Cigarettes in Lifetime



**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.



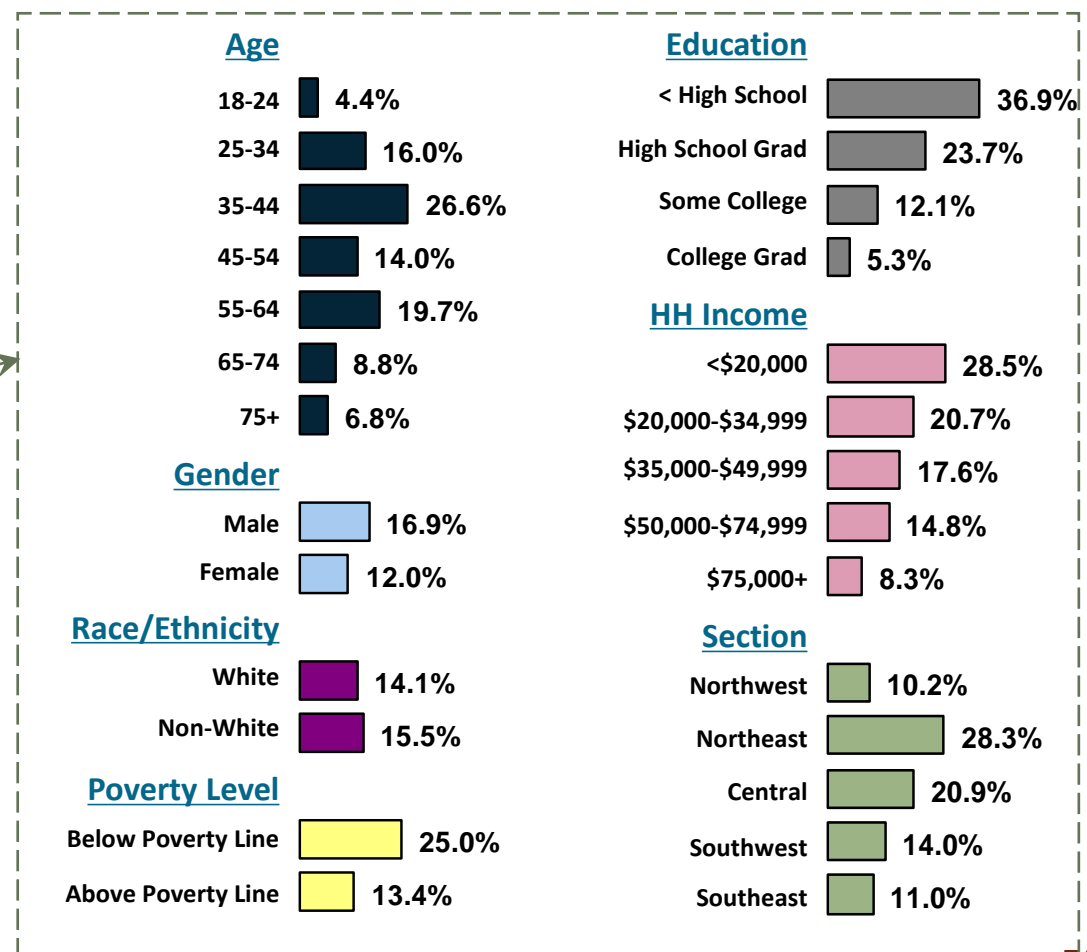
Cigarette Smoking (Continued)

- 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)



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.



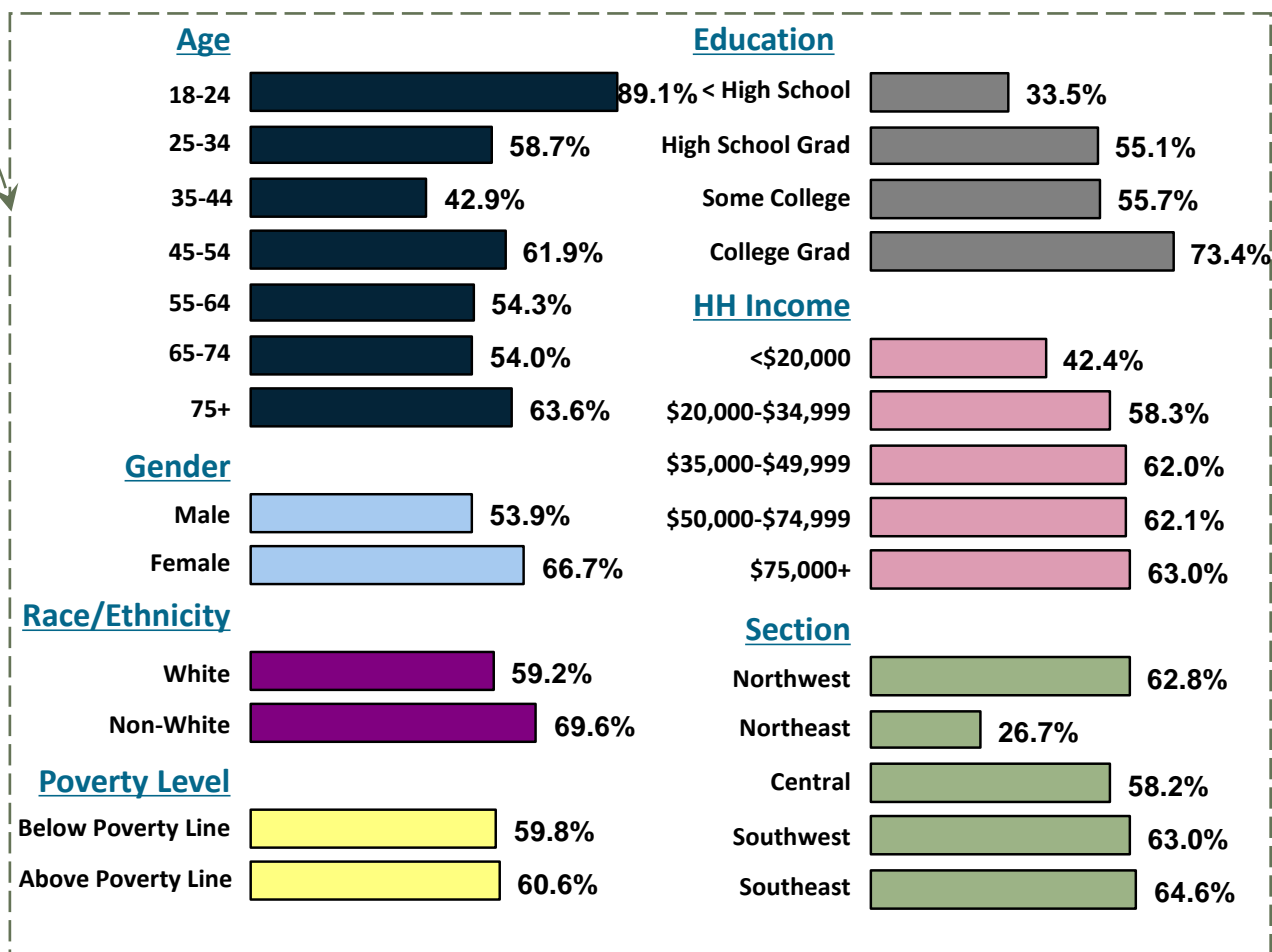
Cigarette Smoking (Continued)

- 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



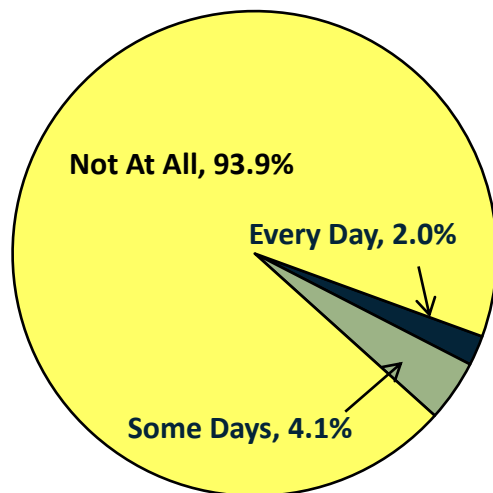
*Among all adults, the proportion who reported that they had had never smoked at all, or had never smoked at least 100 cigarettes (5 packs) in their life.



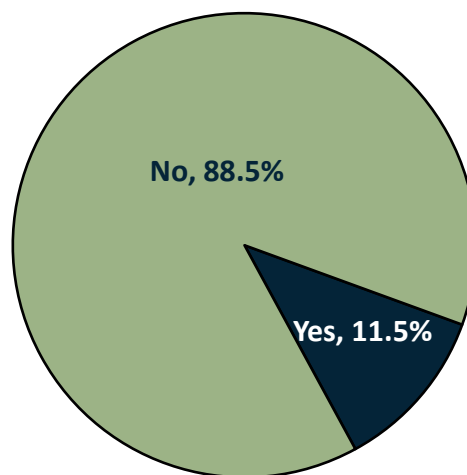
e-Cigarette/Vaping Device Use

- 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.

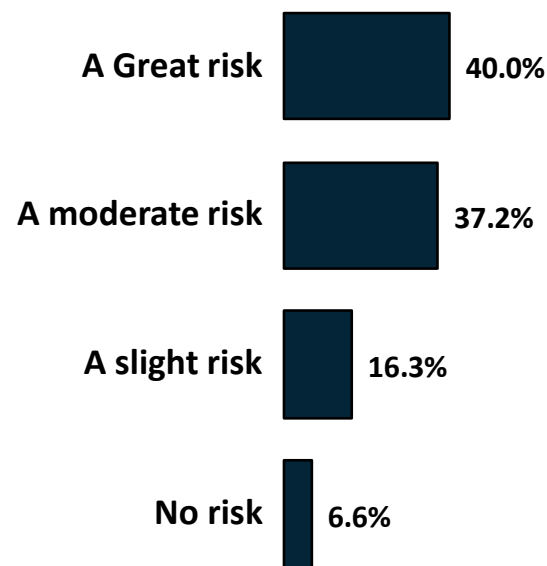
Current Use of e-Cigarettes or Other Electronic Vaping Products



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)

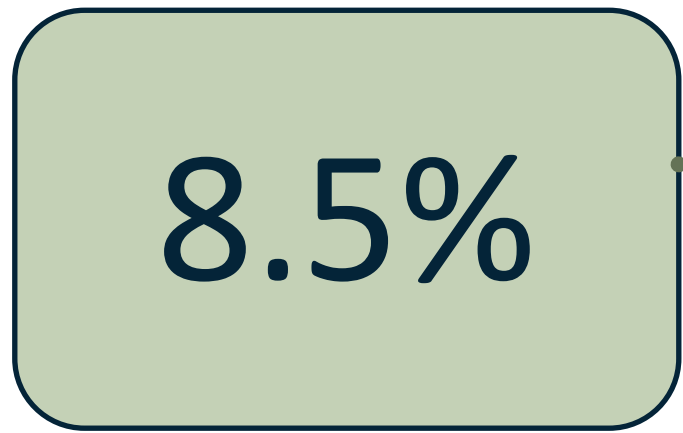
Q17.2: One drink is equivalent to a 12-ounce beer, a 5-ounce glass of wine, or a drink with one shot of liquor. During the past 30 days, on the days when you drank, about how many drinks did you drink on the average? (n=715)



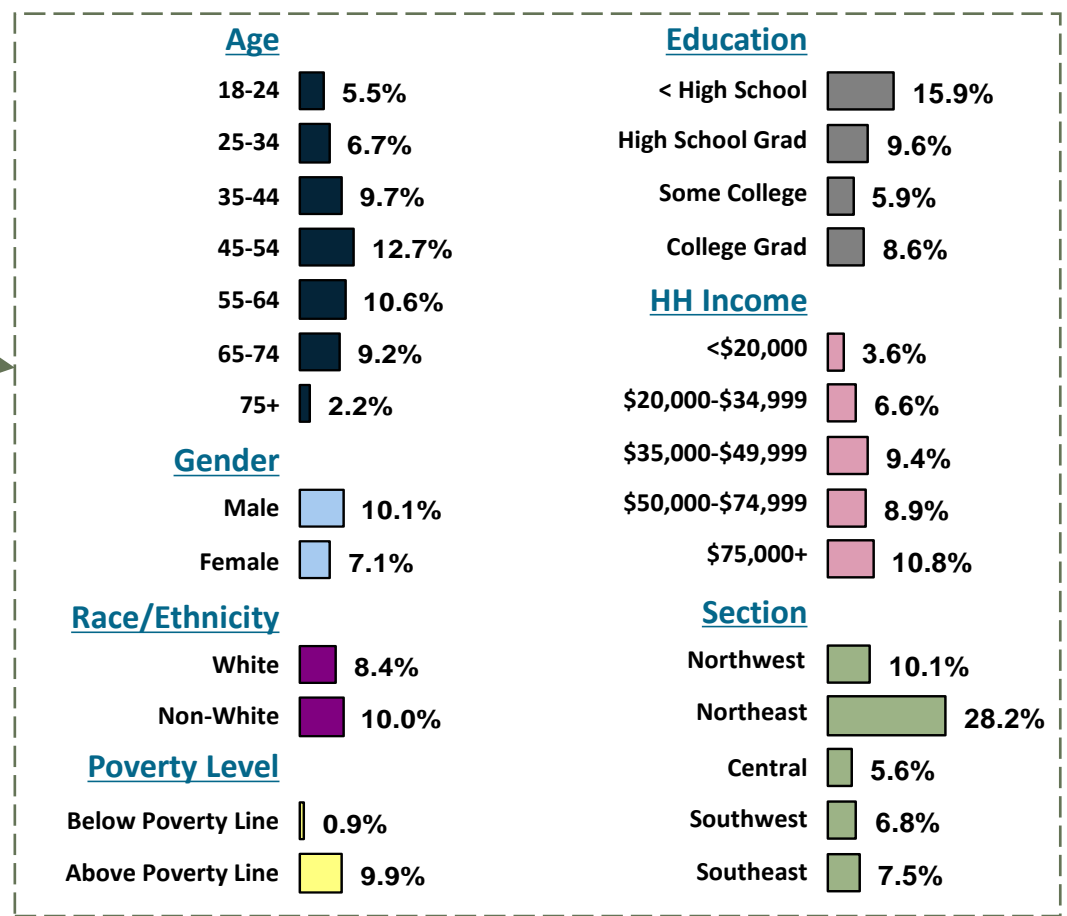
Alcohol Consumption (Continued)

- 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



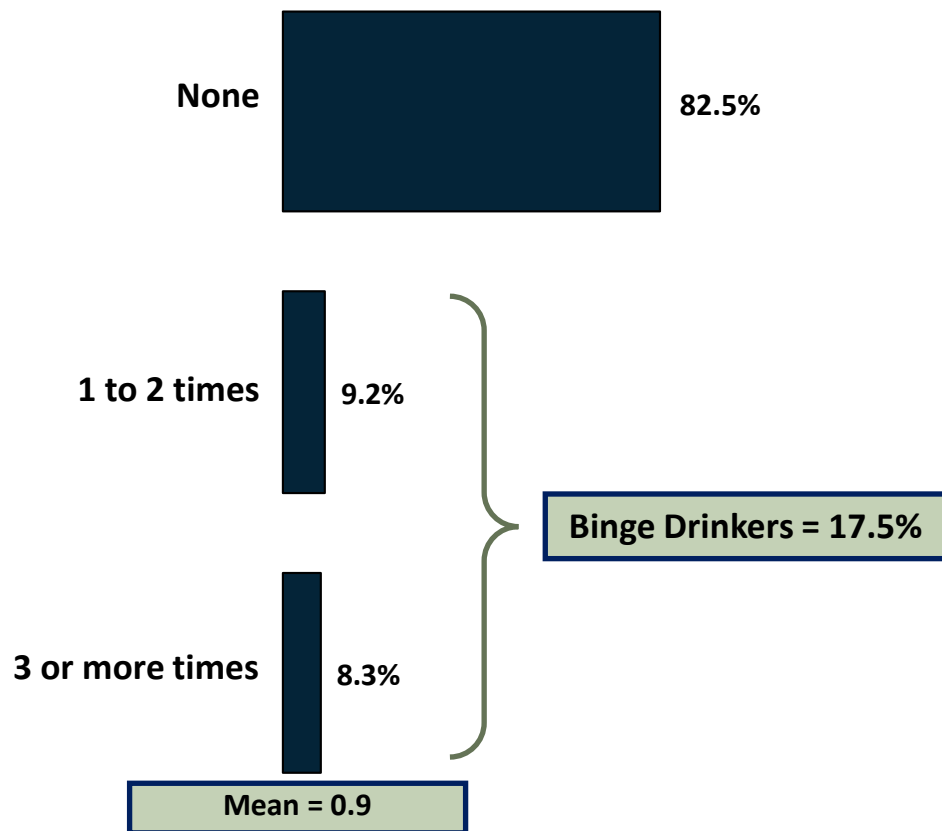
*Among all adults, the proportion who reported consuming an average of more than two alcoholic drinks per day for men and one per day for women in the previous month.



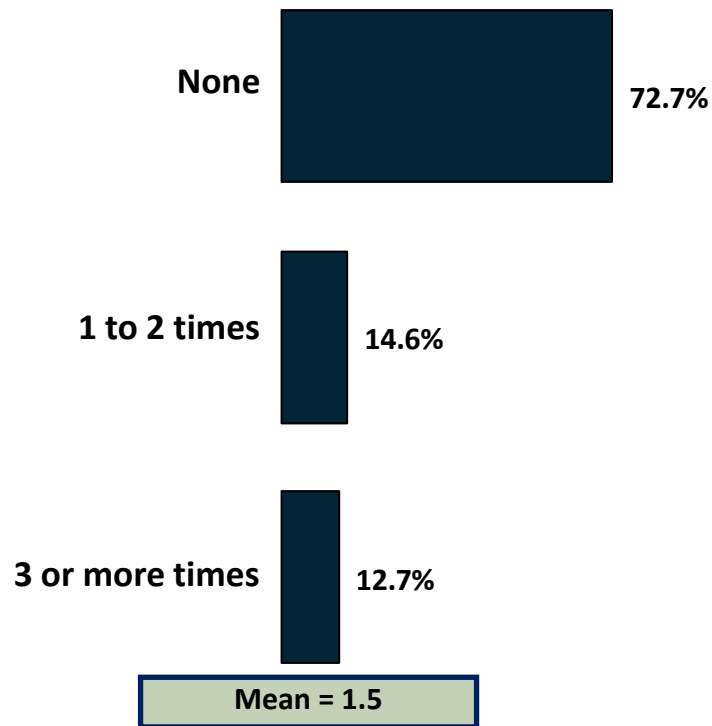
Binge Drinking

- 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)





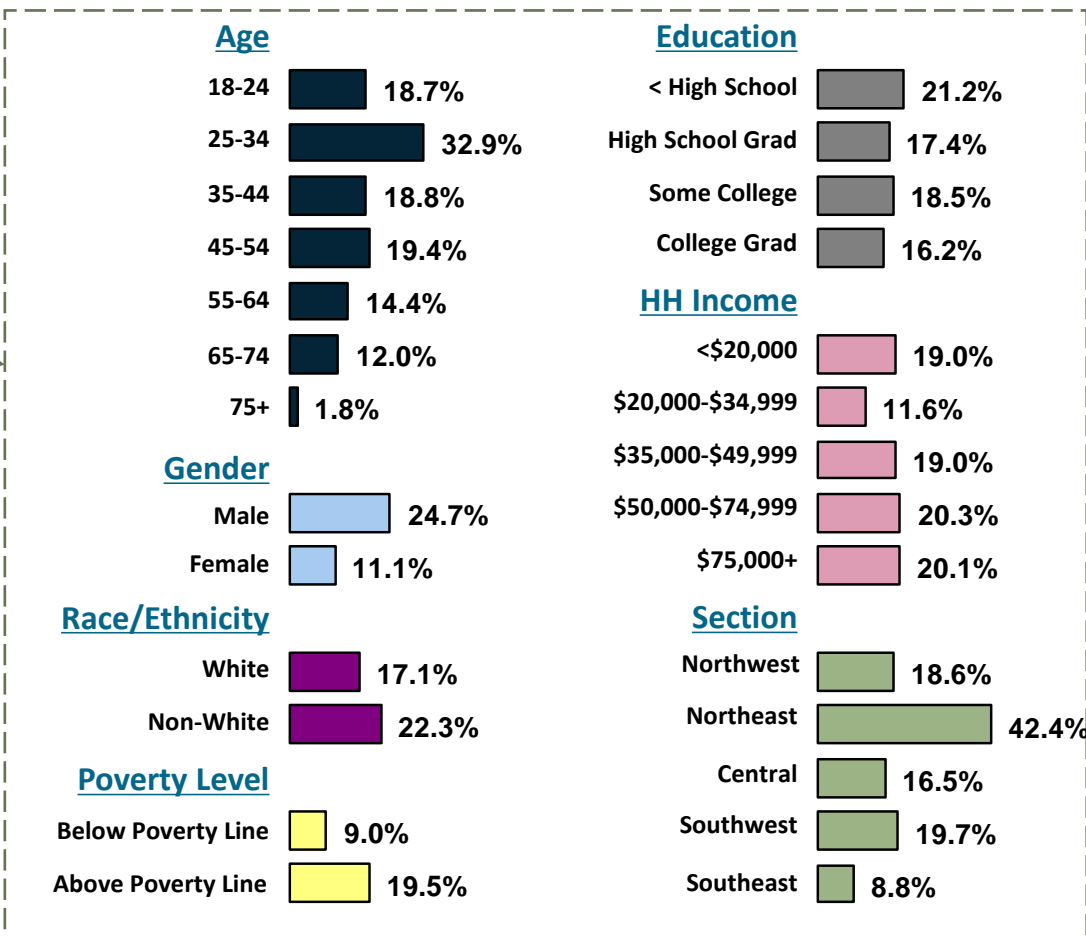
Binge Drinking (Continued)

- 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)



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



13.8%

Mean (All) = 2.6

Mean (Users) = 18.6

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)

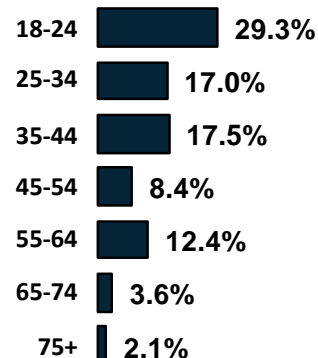
- Marijuana use is more prevalent among adults aged 18-44 than adults who are older, and it's also more prevalent among men than women.
- Marijuana use is most prevalent in adults who are 18-24, those who have less than a high school degree, and those who have annual incomes less than \$20,000.

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

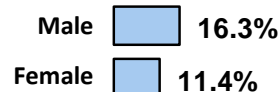
13.8%

Marijuana/Cannabis Use in Past 30 Days by Demographics

Age



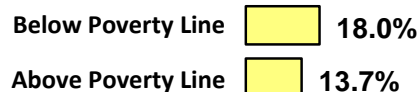
Gender



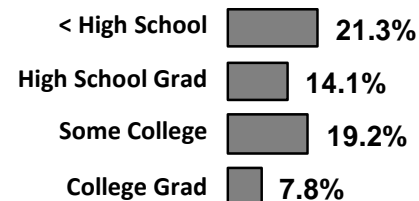
Race/Ethnicity



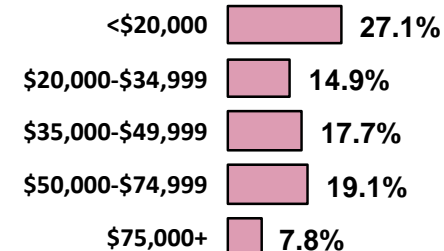
Poverty Level



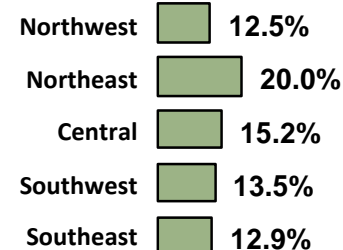
Education



HH Income



Section



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

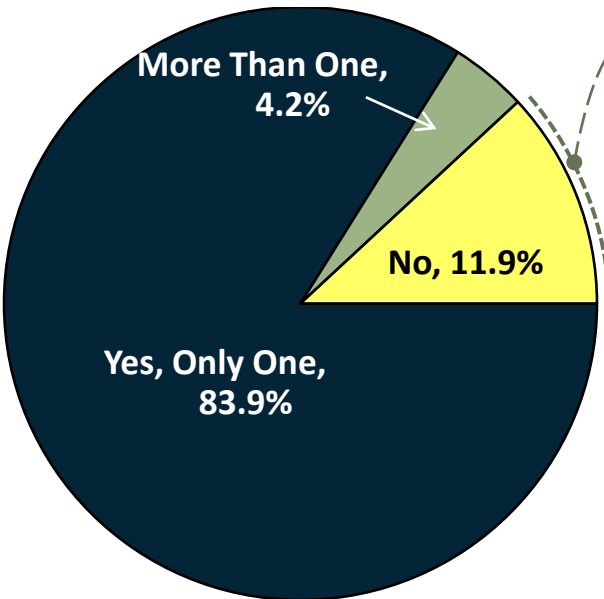
Clinical Preventive Practices



Personal Health Care Provider

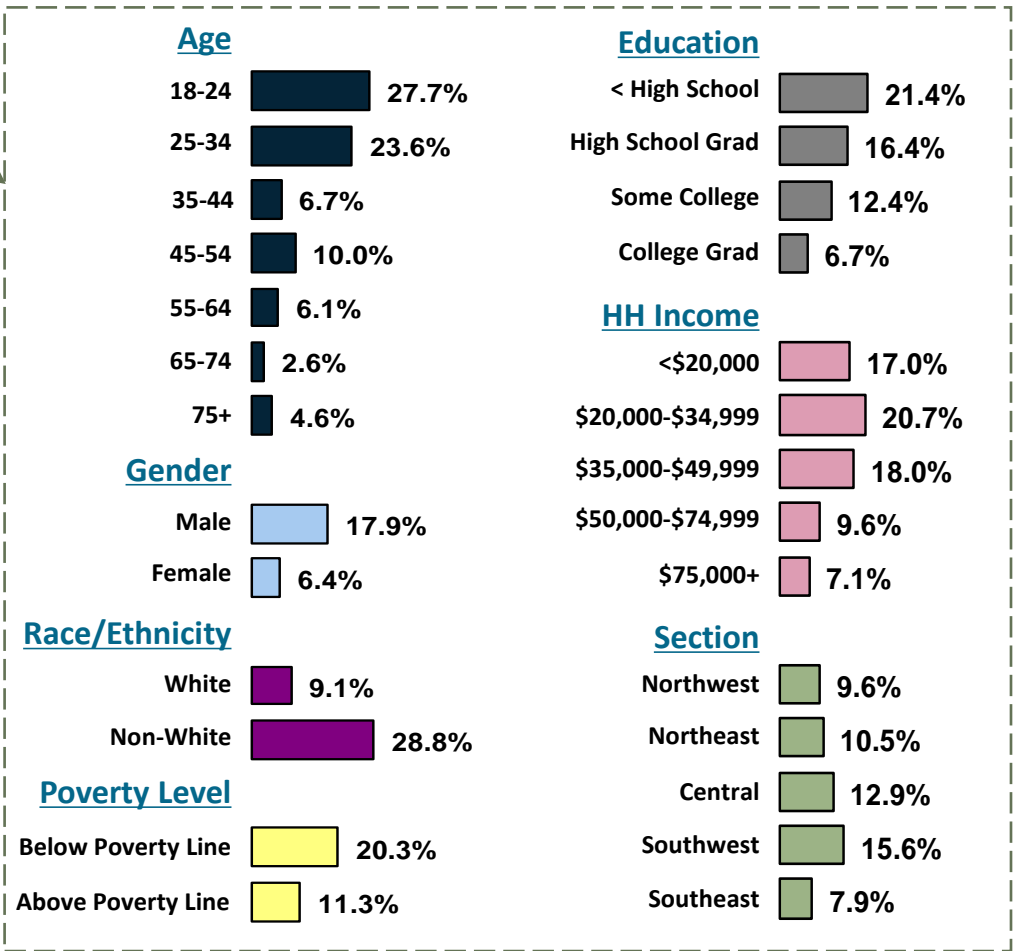
- Nearly nine in ten adults (88.1%) have a personal health care provider.
 - ❖ Those who don't tend to be represented by groups that are younger (< age 35), male, non-White, have incomes below \$50,000, and have less than a college education

Currently Have Personal Doctor/Health Care Provider



88.1% have a medical home

No Provider by Demographics

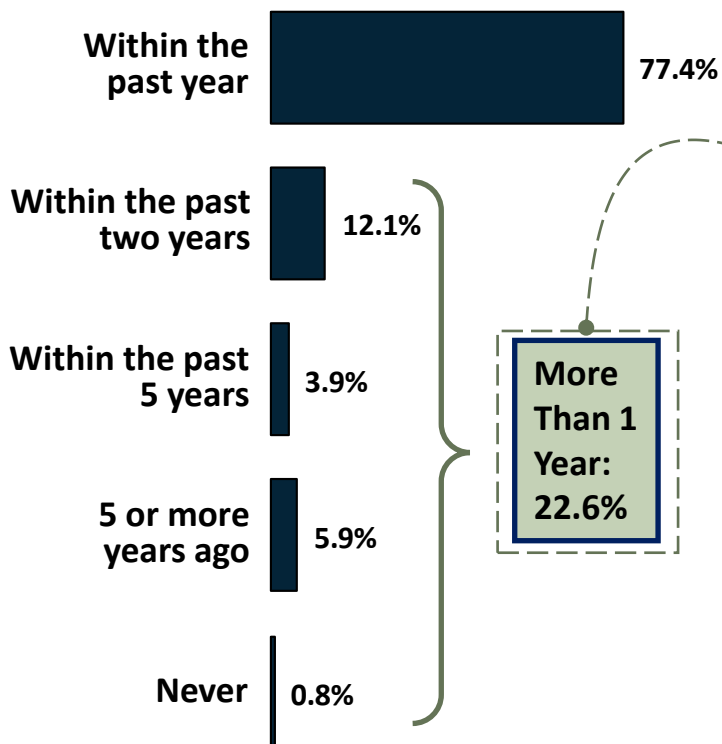




Oral Health (Continued)

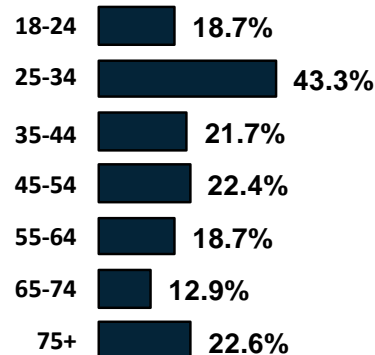
- More than one in five (22.6%) adults have not had a teeth cleaning in the past year.
- Visiting the dentist in a timely manner is directly related to education and income.
- White adults are more likely than non-White adults to have visited a dentist in the past year.

When Last Visited Dentist for Teeth Cleaning



No Teeth Cleaning in Past Year by Demographics

Age



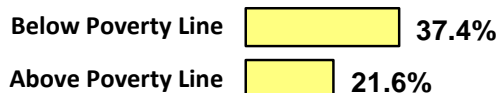
Gender



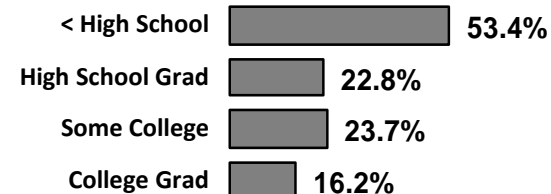
Race/Ethnicity



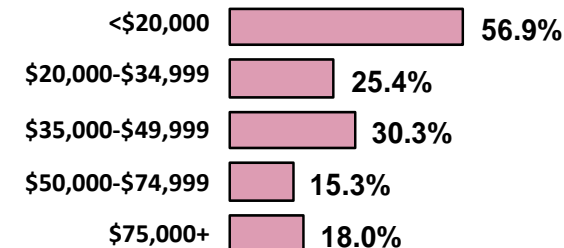
Poverty Level



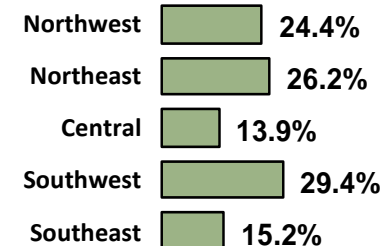
Education



HH Income



Section

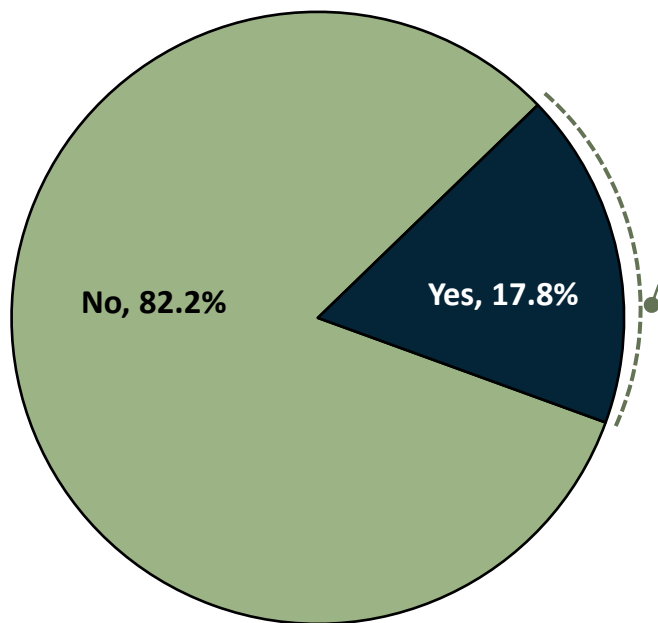




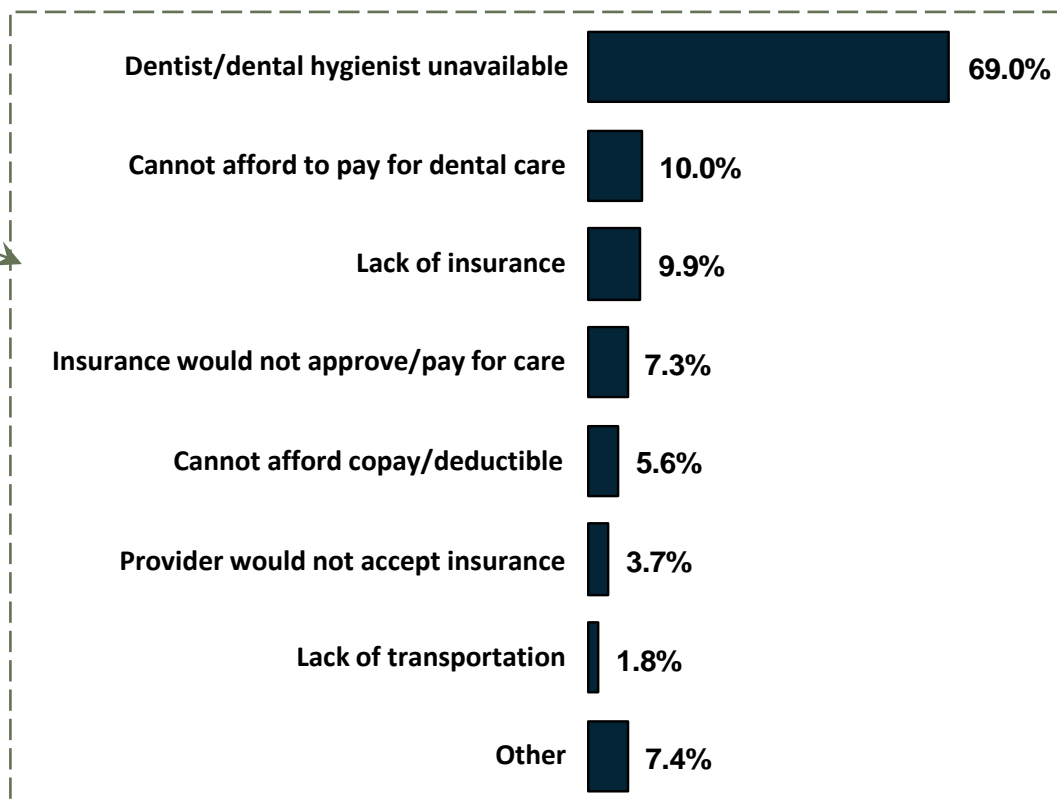
Barriers to Dental Care

- 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)

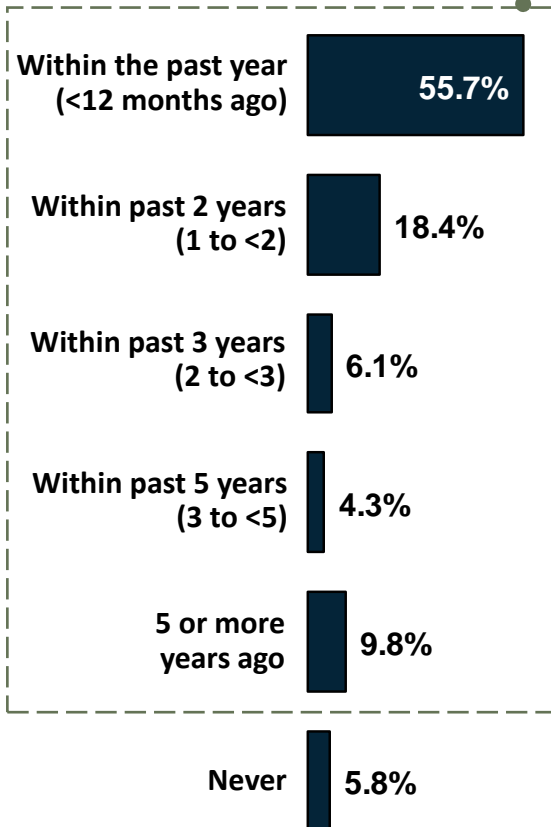
Q19.3: Please provide the reason(s) for the difficulty in getting dental care. (Multiple responses allowed) (n=175)



Cancer Screening – Mammogram

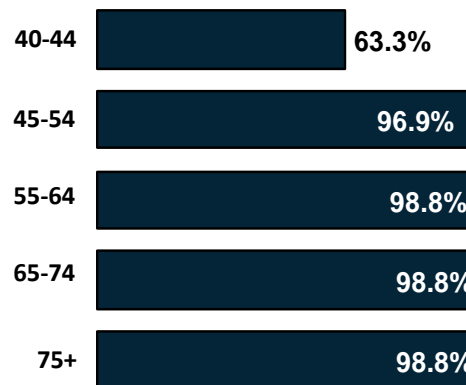
- Almost all (94.2%) area women age 40 or older have had a mammogram at one time.
 - ❖ Women aged 40-45 are least likely to have had a mammogram

Ever Had Mammogram (Among Women Age 40+)

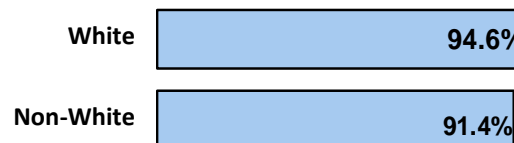


Ever Had Mammogram by Demographics

Age



Race/Ethnicity



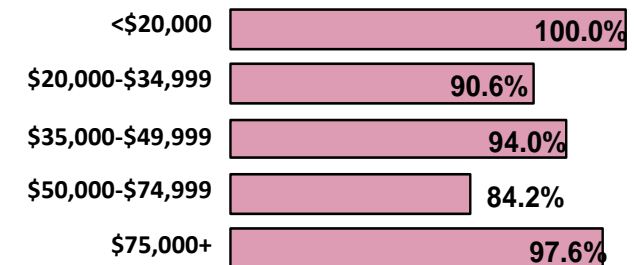
Poverty Level



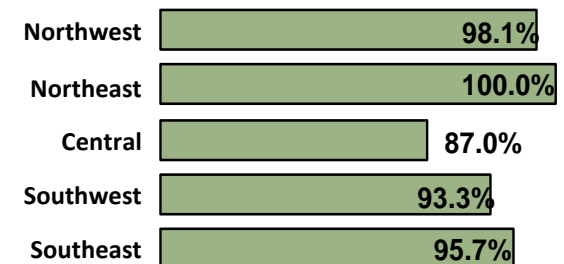
Education



HH Income



Section

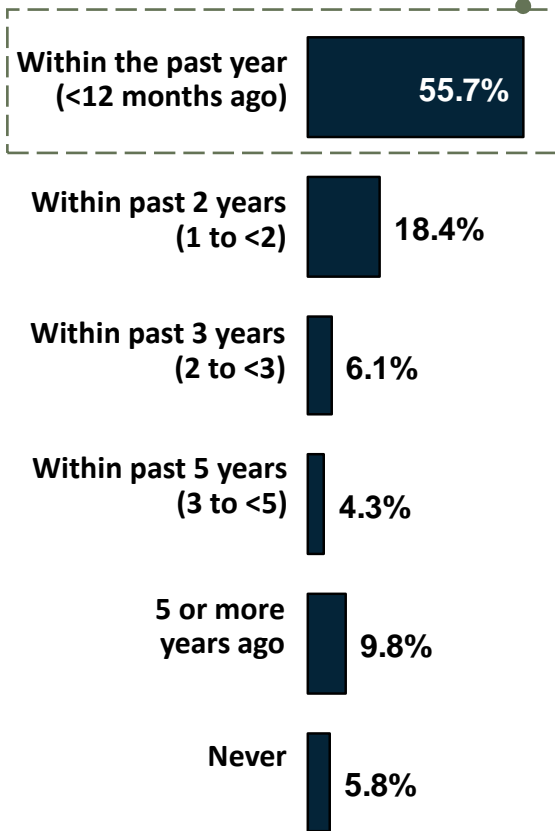




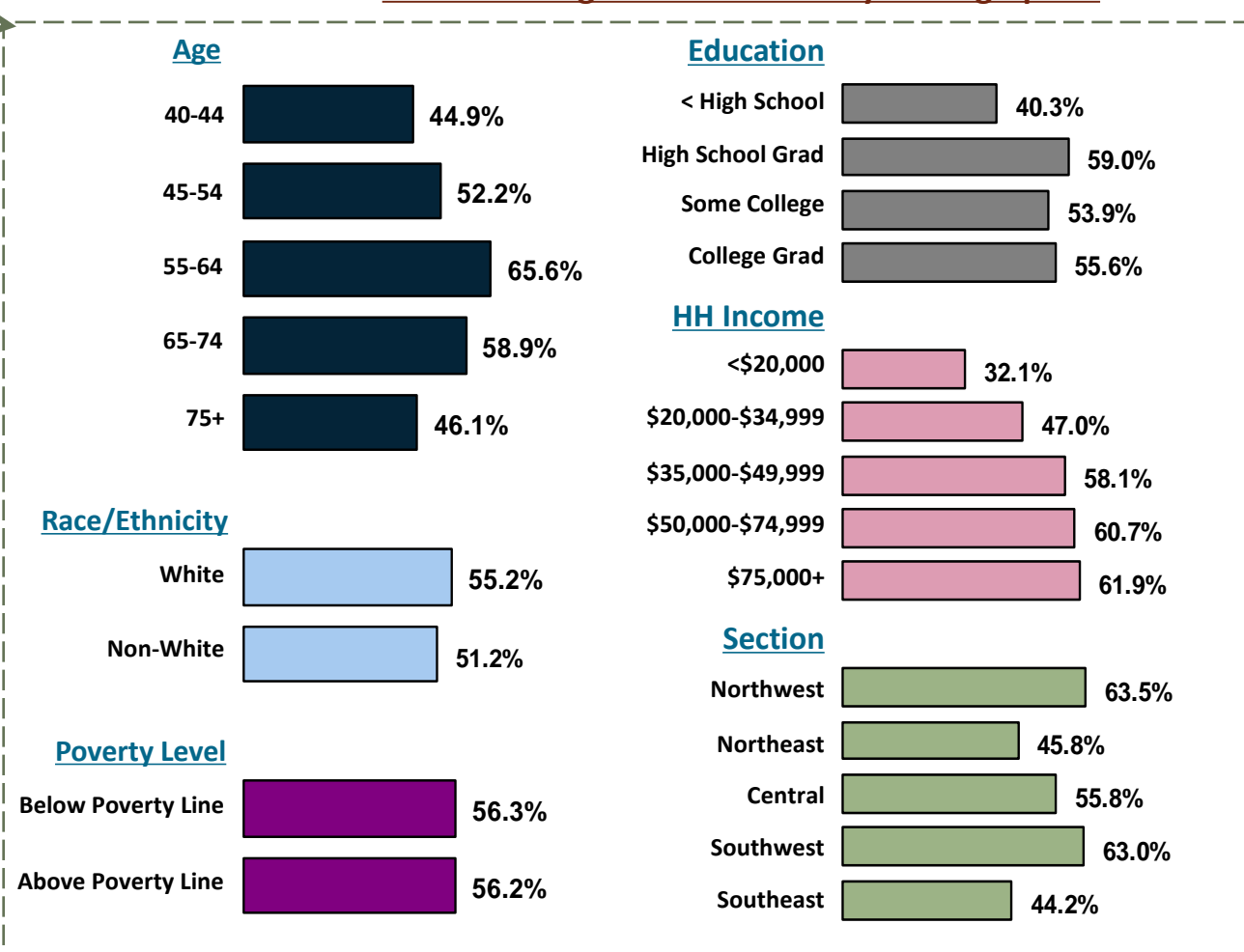
Cancer Screening – Mammogram (Continued)

- 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

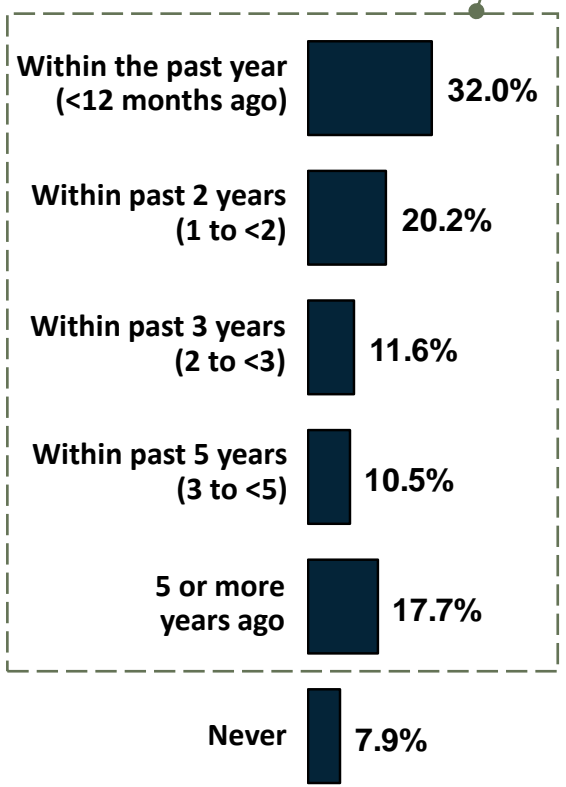




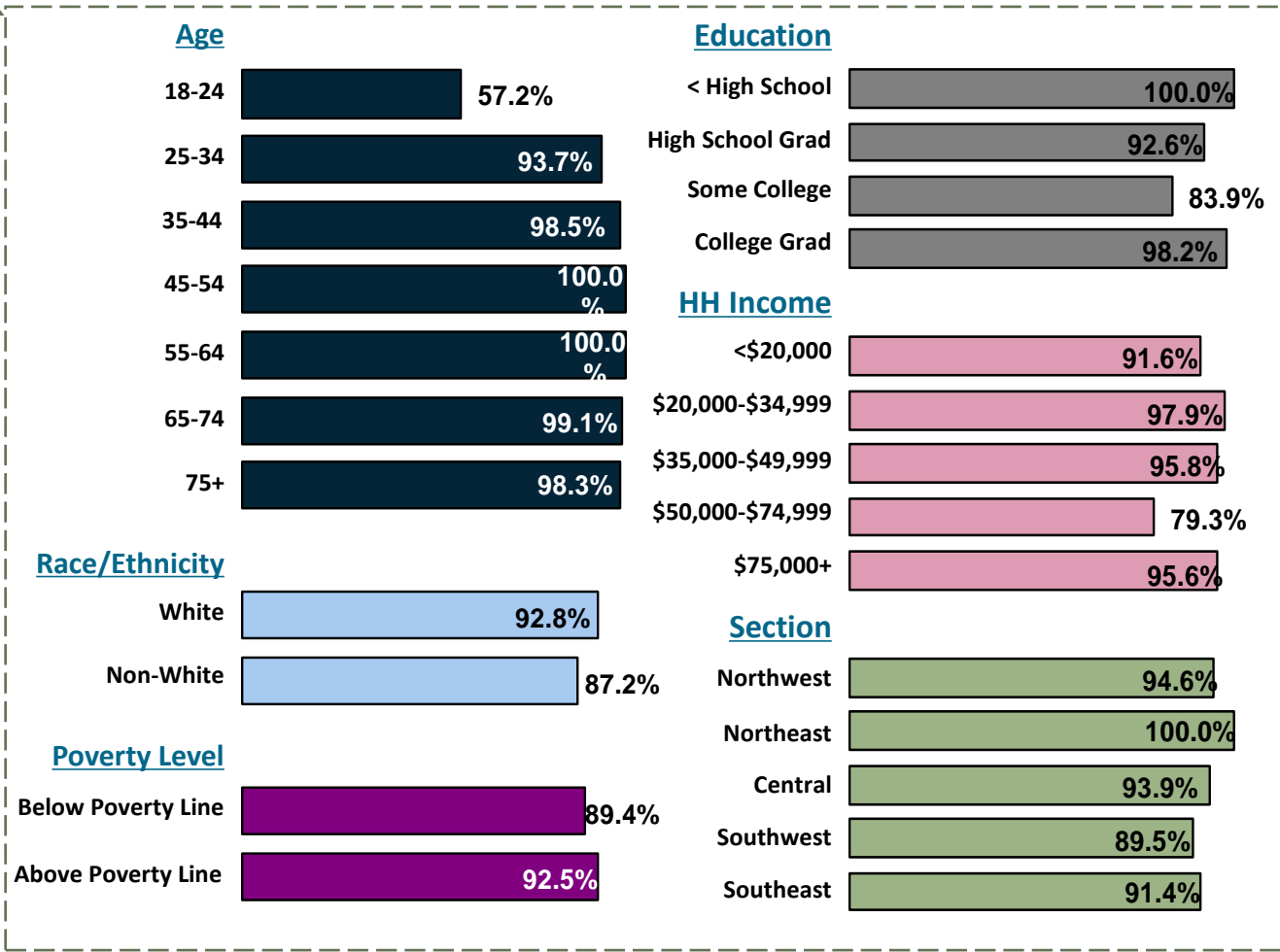
Cancer Screening – Pap Test

- 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

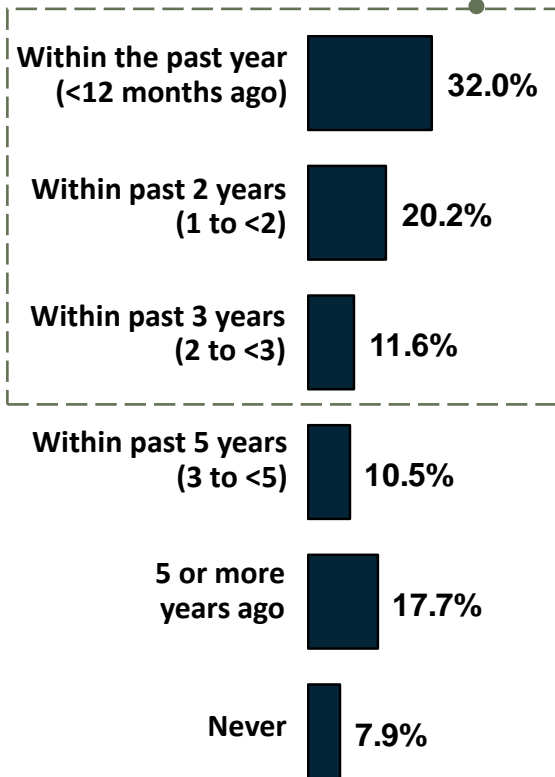




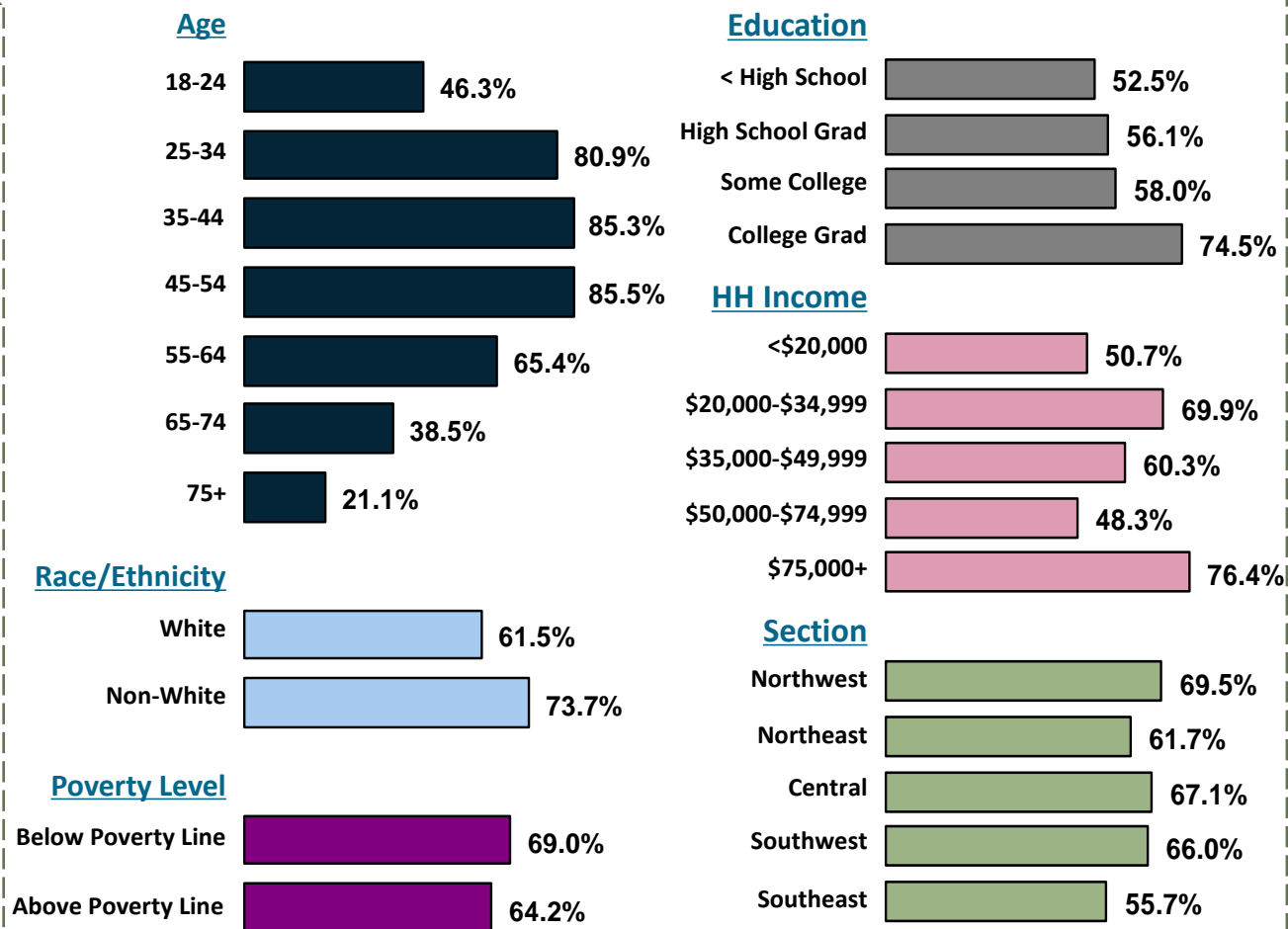
Cancer Screening – Pap Test (Continued)

- 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



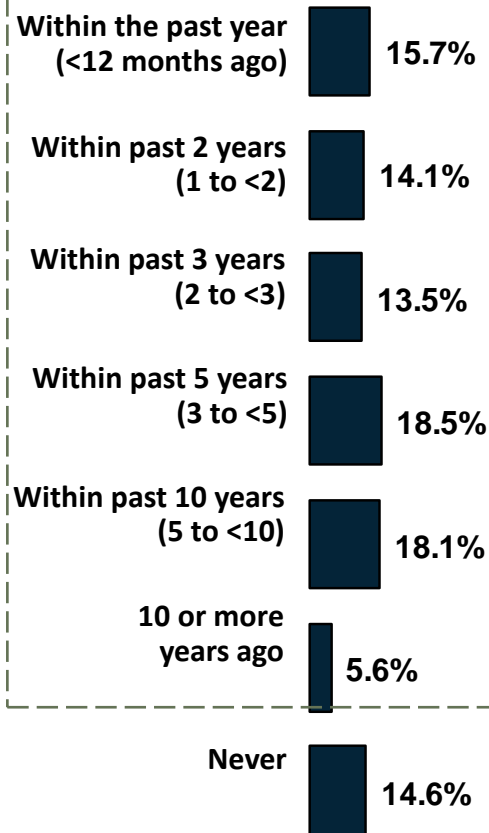


Cancer Screening – Sigmoidoscopy and Colonoscopy

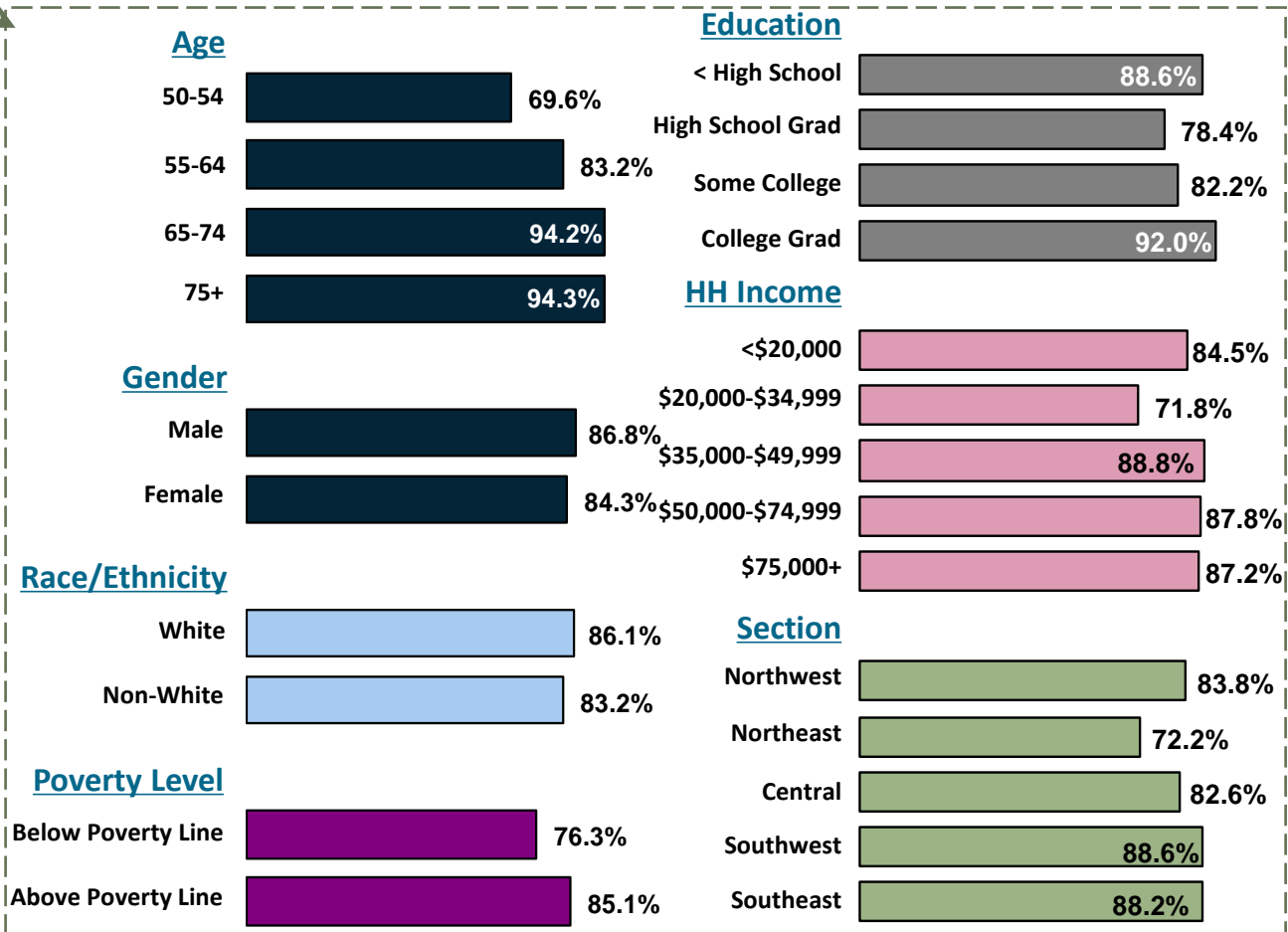
- Among Ottawa County adults age 50 or older, 85.4% have had a sigmoidoscopy or colonoscopy at one point to screen for colon cancer.

❖ 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



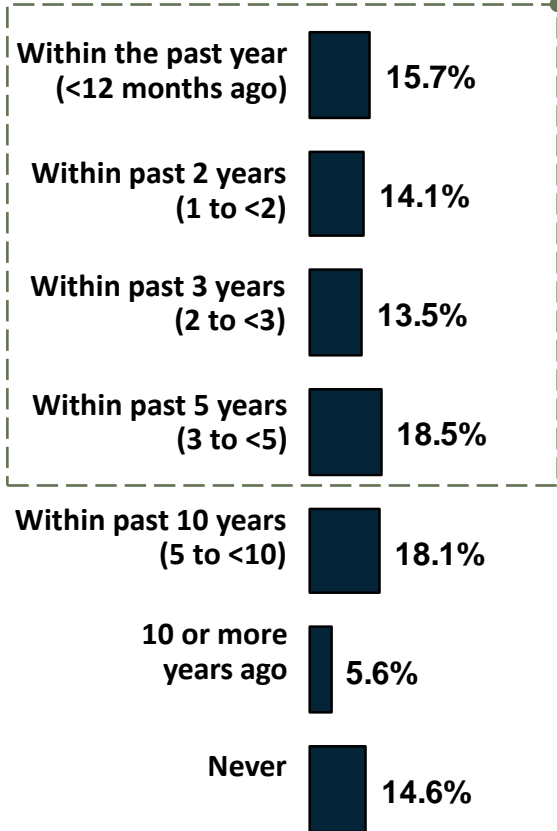
Q15.3: Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems. How long has it been since you had your last sigmoidoscopy or colonoscopy? (n=871)

Cancer Screening – Sigmoidoscopy and Colonoscopy (Continued)

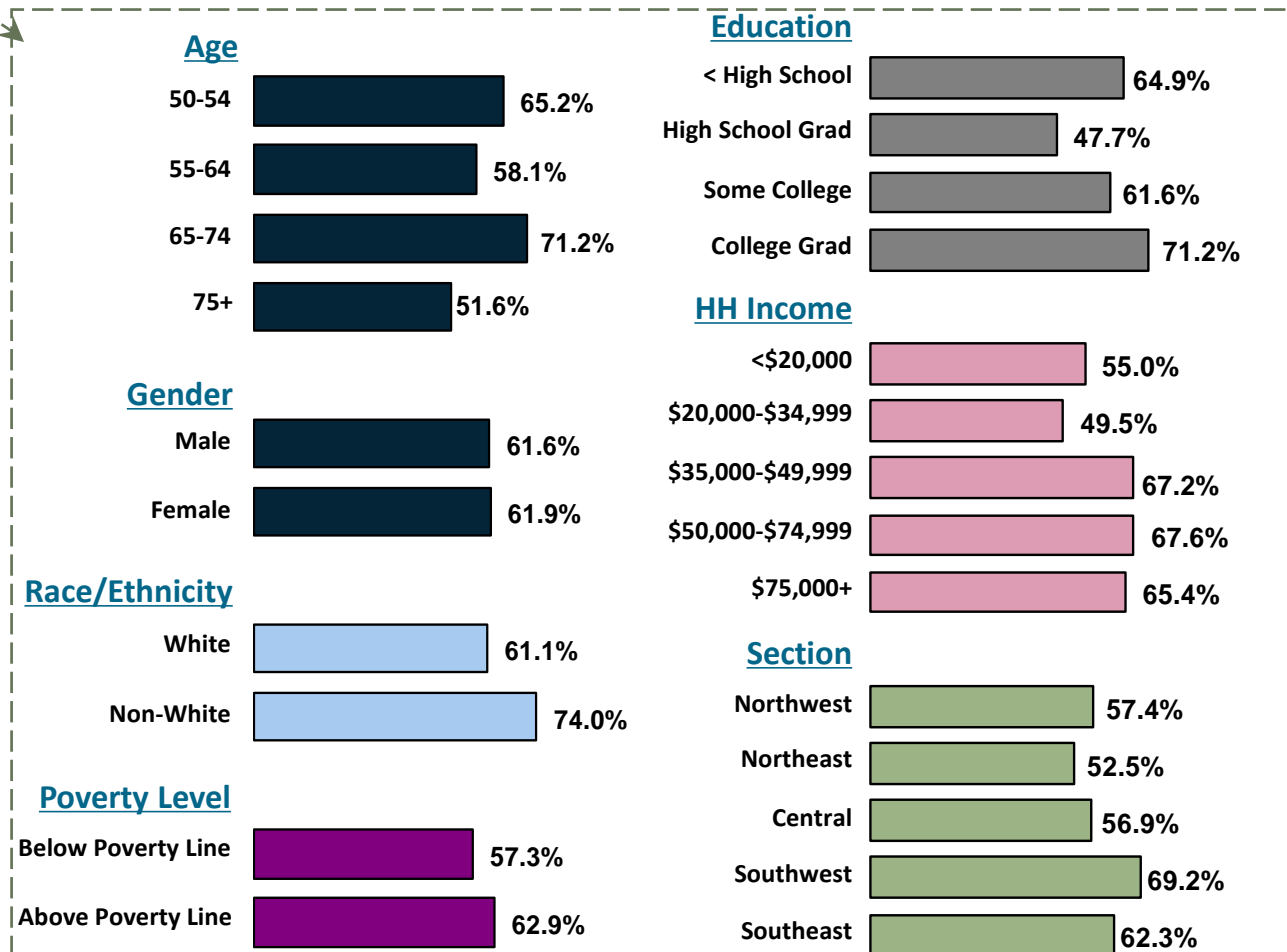
- Six in ten (61.8%) Ottawa County adults age 50 or older have had a sigmoidoscopy or colonoscopy within the past 5 years.

❖ 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



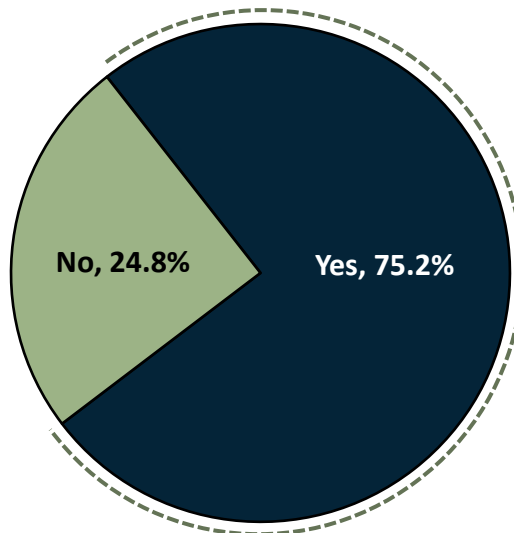
Q15.3: Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems. How long has it been since you had your last sigmoidoscopy or colonoscopy? (n=871)



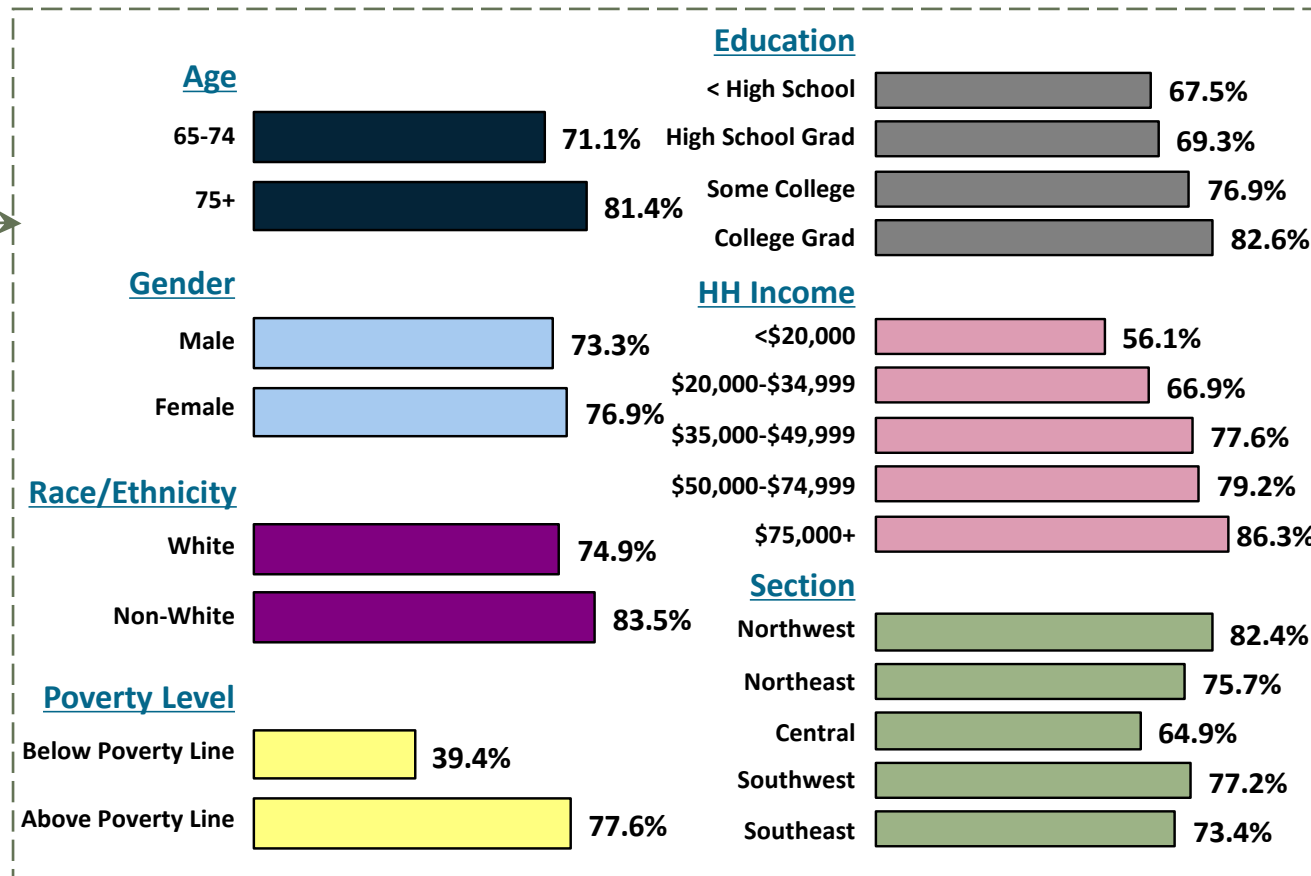
Flu Vaccination

- 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+)

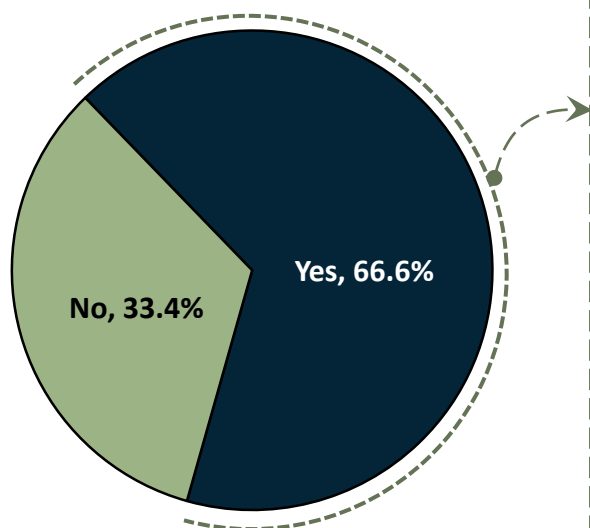




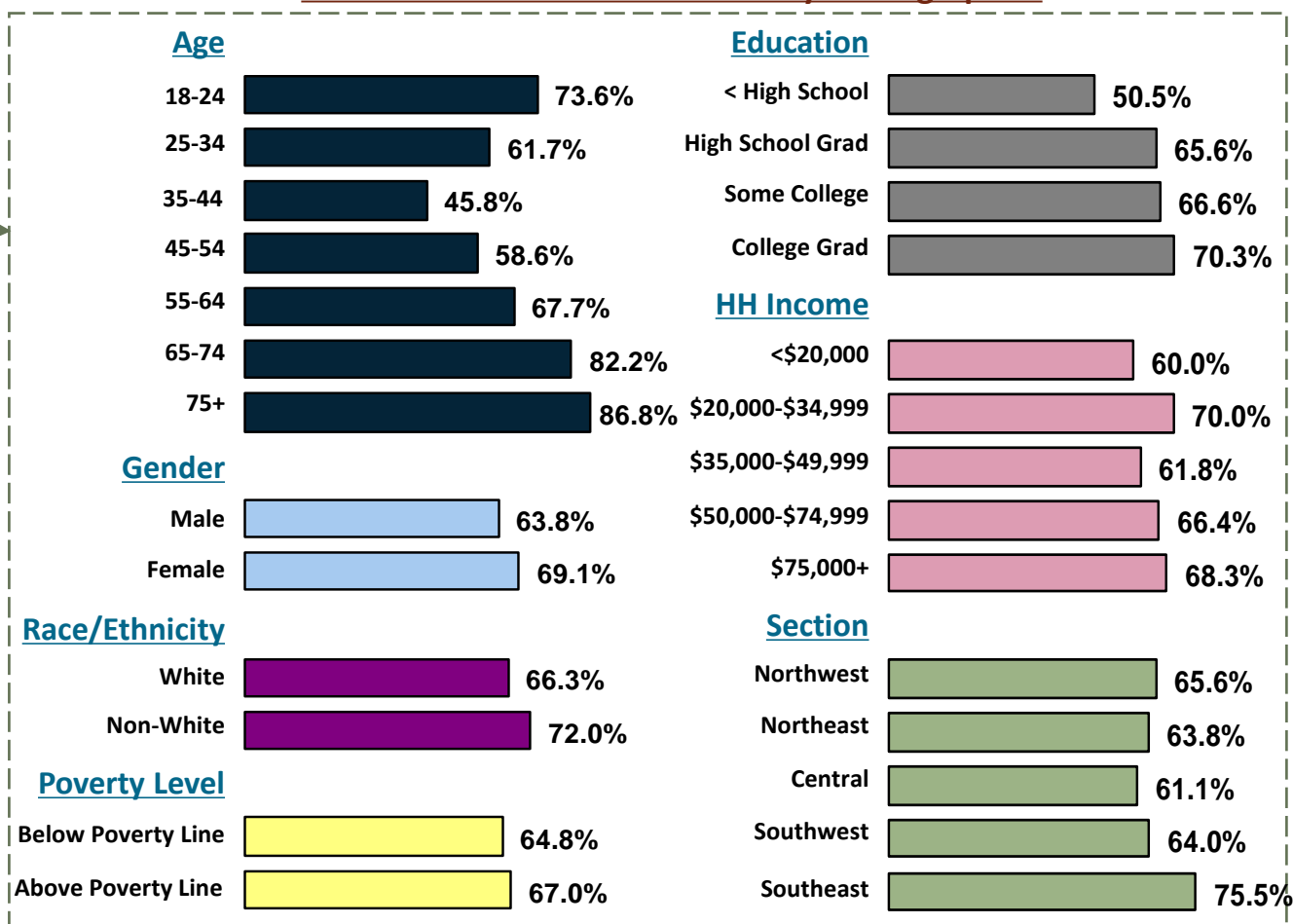
Flu Vaccination (Continued)

- 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



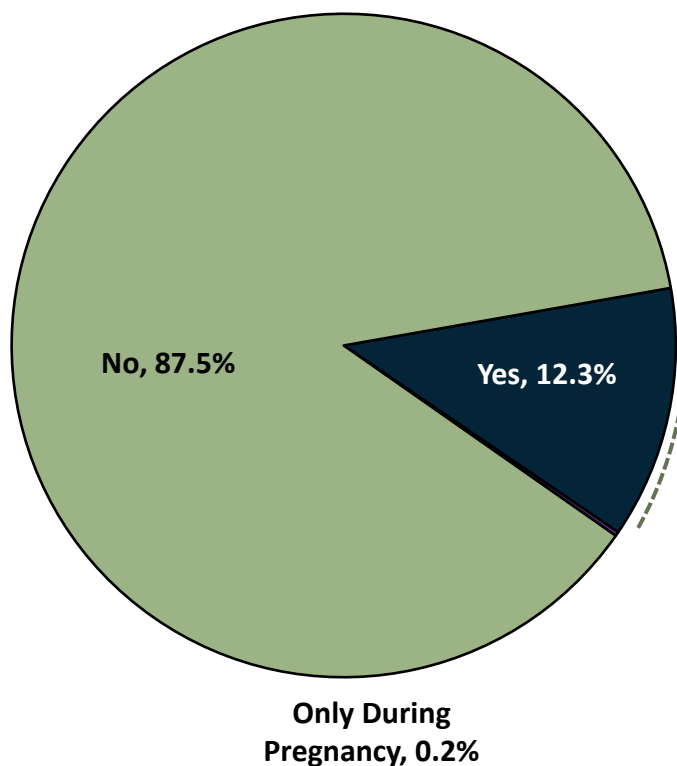
Chronic Conditions



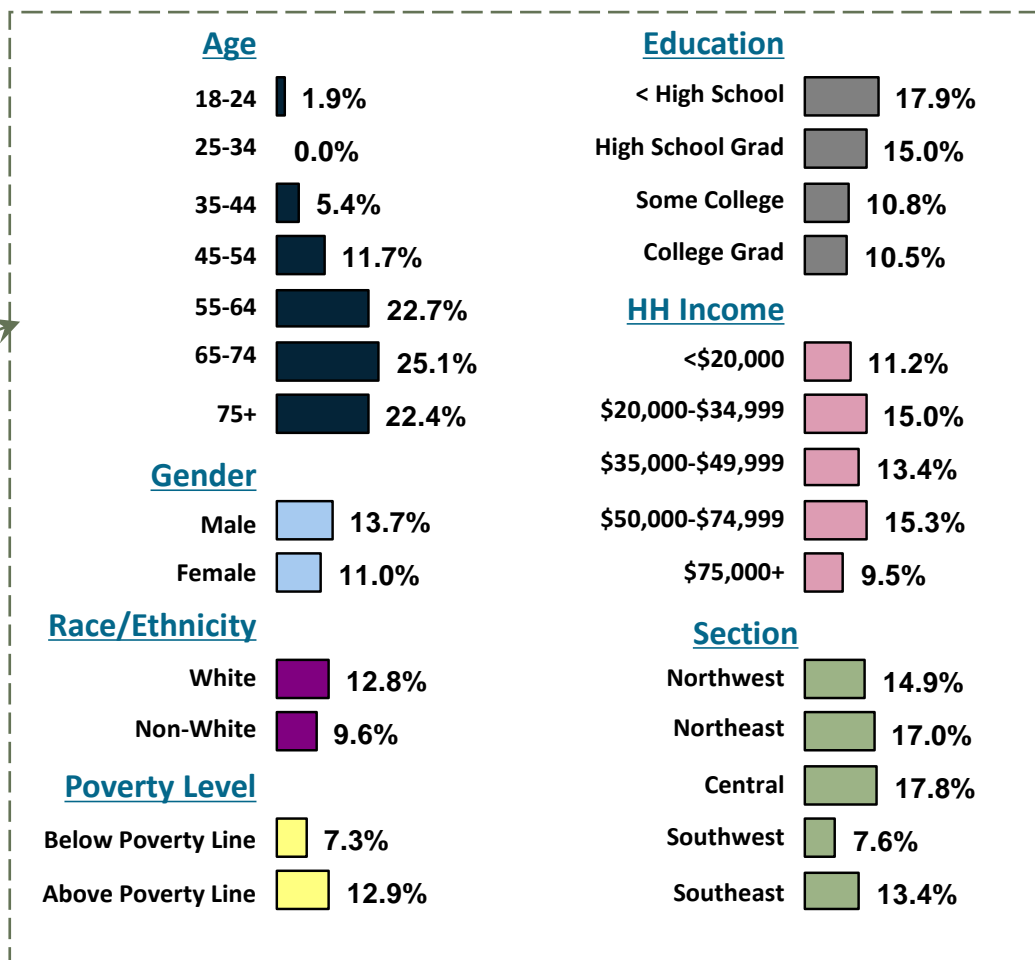
Prevalence of Diabetes

- 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

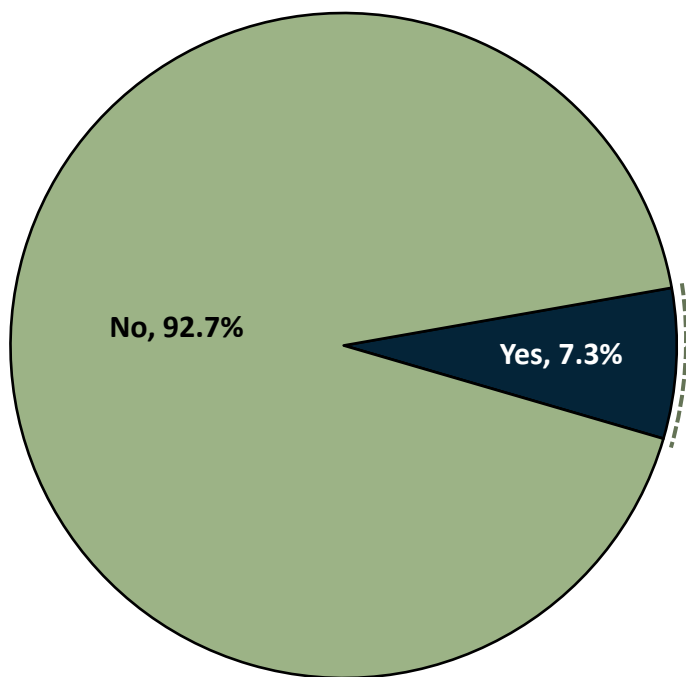




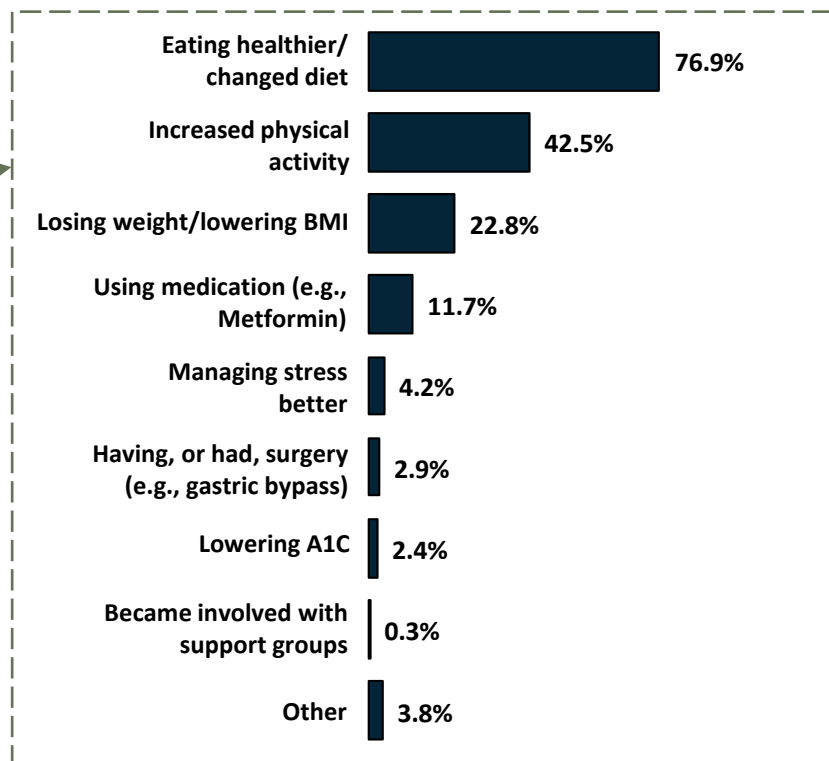
Prevalence of Pre-Diabetes/Borderline Diabetes

- 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)



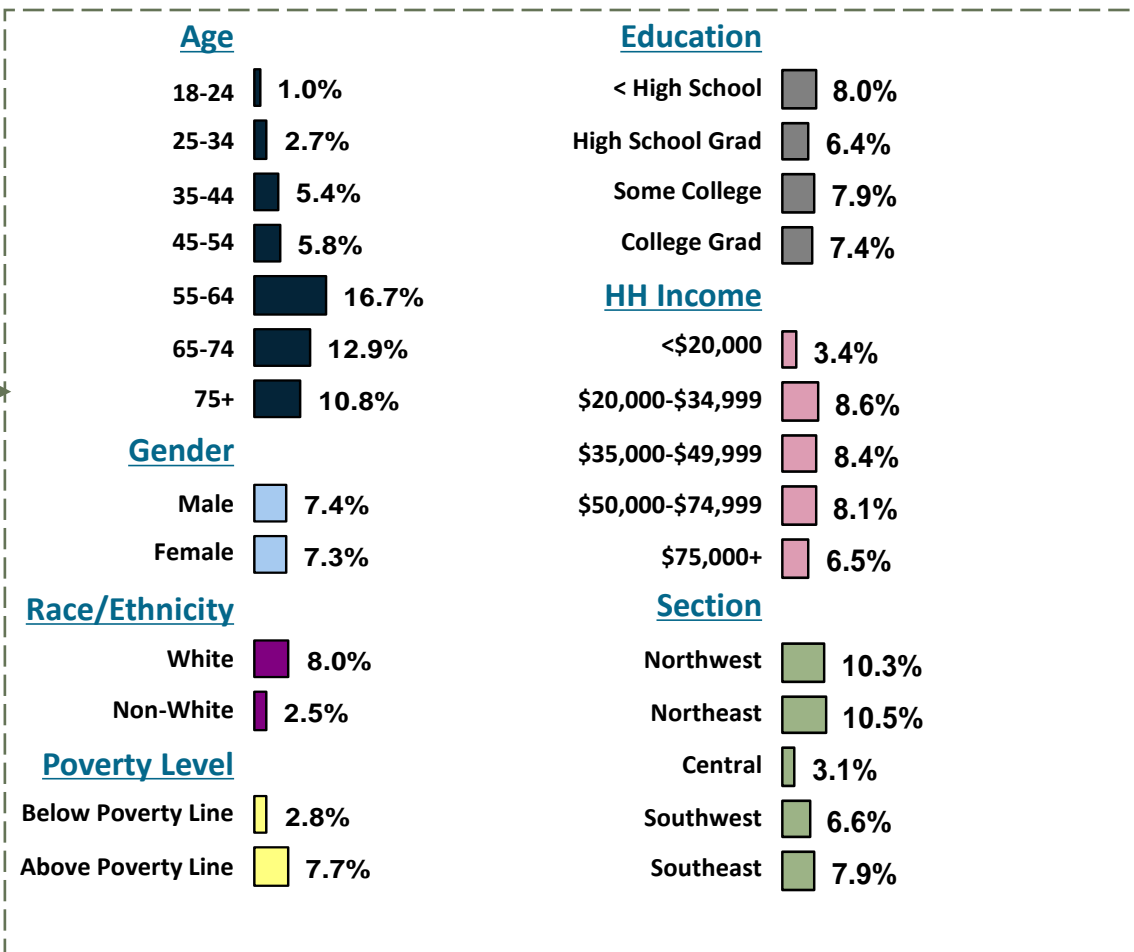
Prevalence of Pre-Diabetes/Borderline Diabetes

- 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)

7.3%

Told Have Pre-Diabetes/Borderline
Diabetes by Demographics



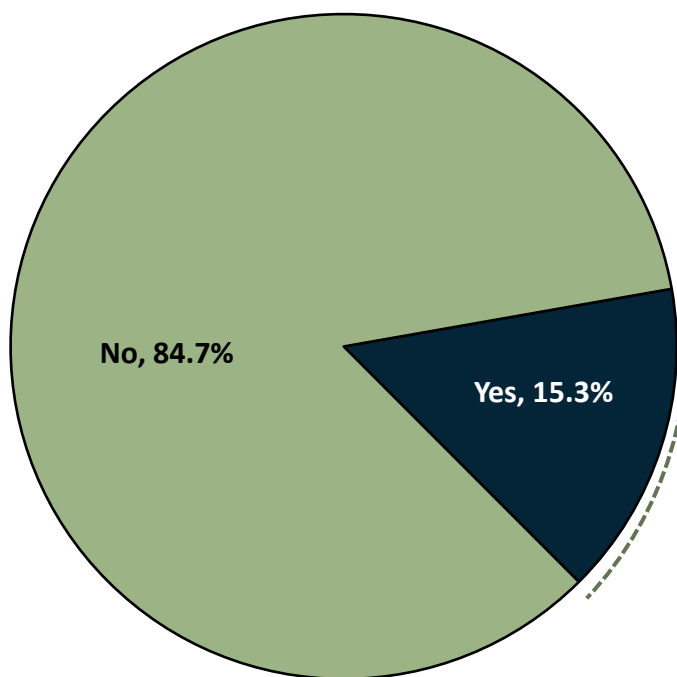
*Among adults without diabetes, the proportion who reported ever being told by a health care professional that they had pre-diabetes or borderline diabetes



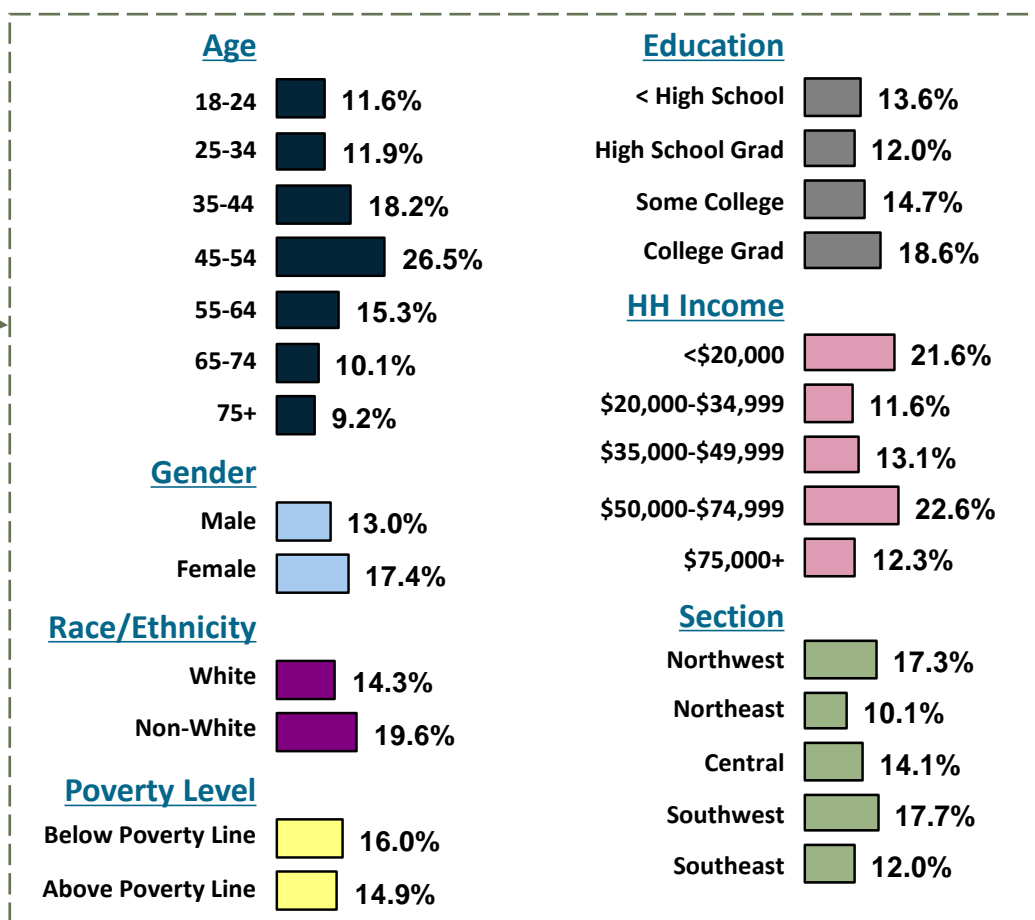
Lifetime Asthma

- 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



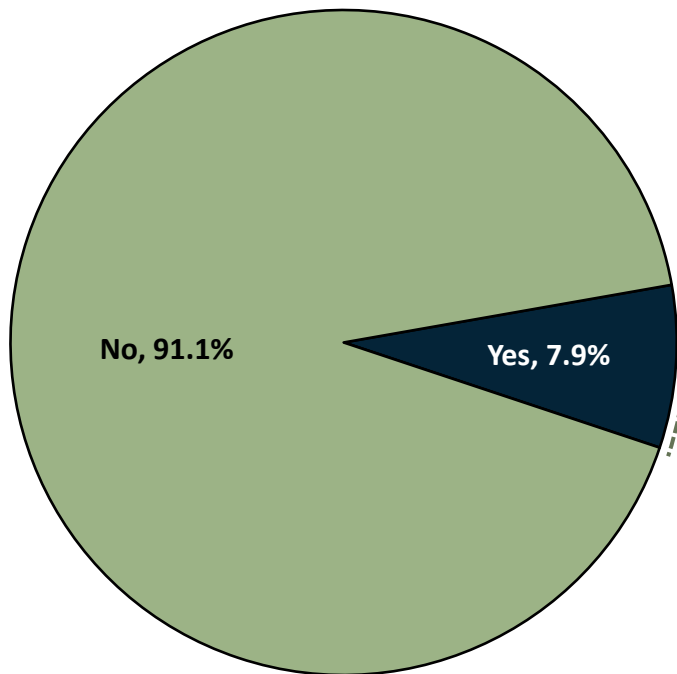
*Among all adults, the proportion who reported that they were ever told by a doctor, nurse, or other health care professional that they had asthma



Current Asthma

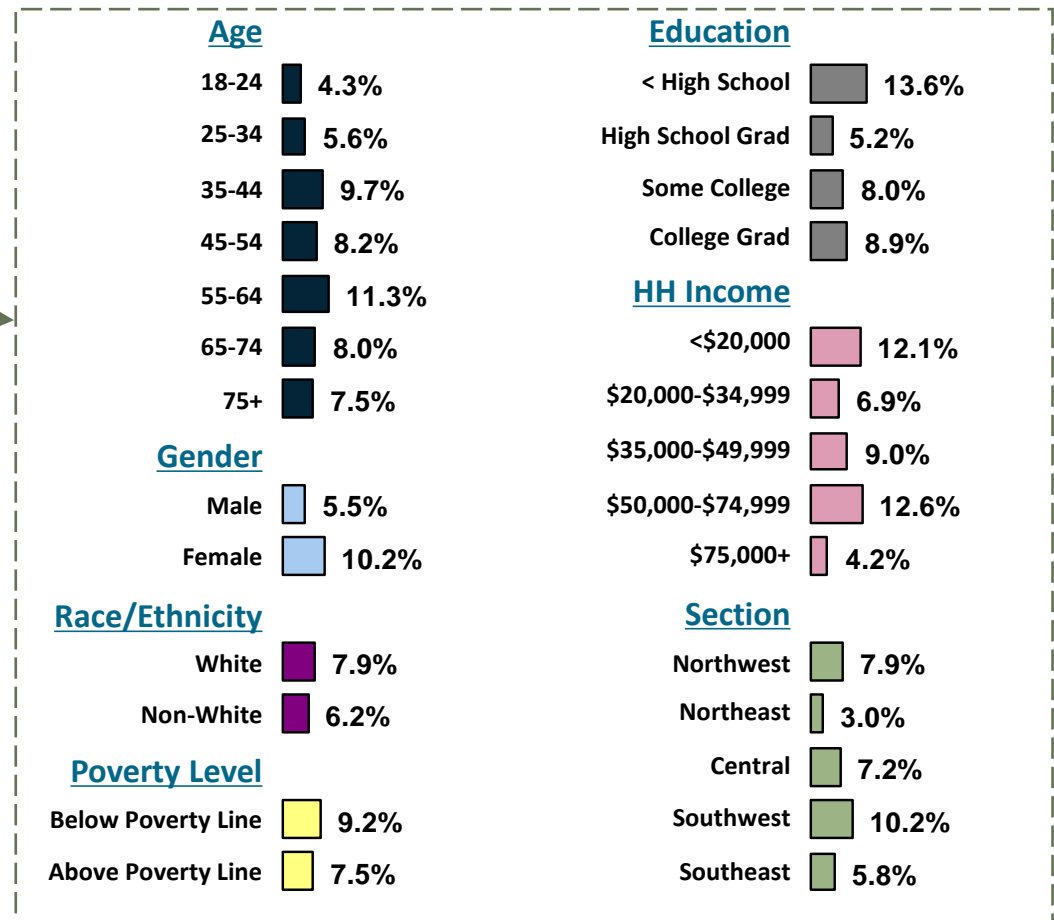
- Roughly one in thirteen (7.9%) area adults currently has asthma.
 - ❖ Women are more likely to have asthma than men, and it is more prevalent in adults with less than a high school education compared to those with more education
 - ❖ It is also more prevalent in adults living in the southwest section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

Current Asthma Prevalence* (Total Sample)



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

Current Asthma by Demographics

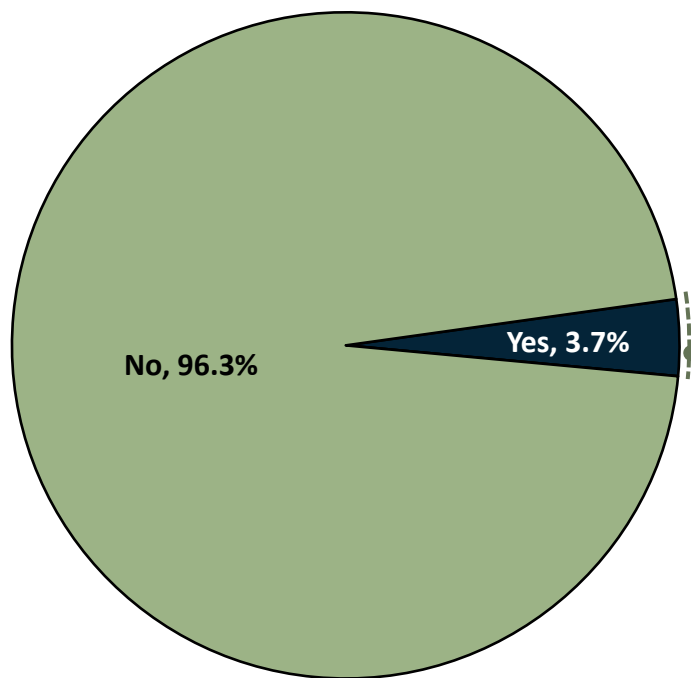




Prevalence of COPD

- 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

Age

18-24	0.0%
25-34	0.0%
35-44	4.0%
45-54	5.0%
55-64	4.8%
65-74	7.7%
75+	4.5%

Gender

Male	4.0%
Female	3.3%

Race/Ethnicity

White	3.9%
Non-White	2.1%

Poverty Level

Below Poverty Line	4.7%
Above Poverty Line	3.3%

Education

< High School	10.6%
High School Grad	2.8%
Some College	7.0%
College Grad	0.4%

HH Income

<\$20,000	11.7%
\$20,000-\$34,999	3.8%
\$35,000-\$49,999	2.8%
\$50,000-\$74,999	3.1%
\$75,000+	2.3%

Section

Northwest	3.0%
Northeast	8.6%
Central	1.9%
Southwest	3.8%
Southeast	3.9%

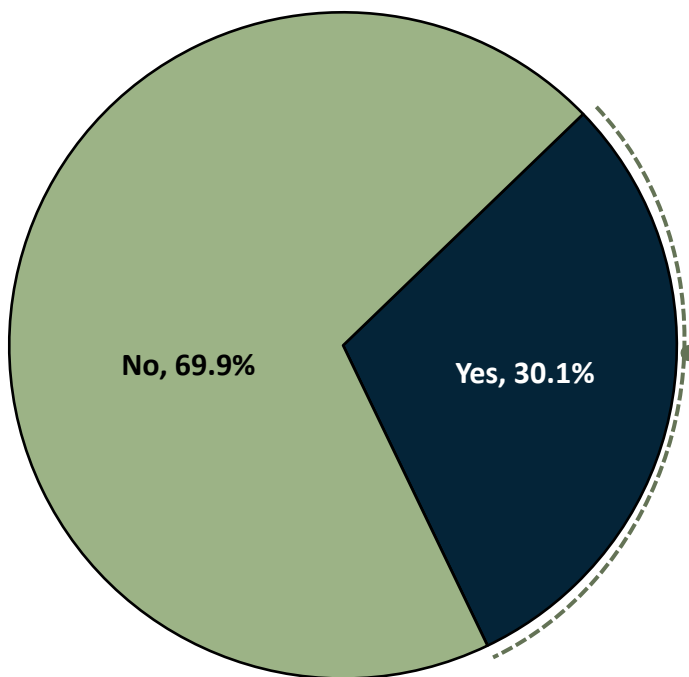
*Among all adults, the proportion who reported that they were ever told by a doctor that they have chronic obstructive pulmonary disease (COPD), emphysema, or chronic bronchitis



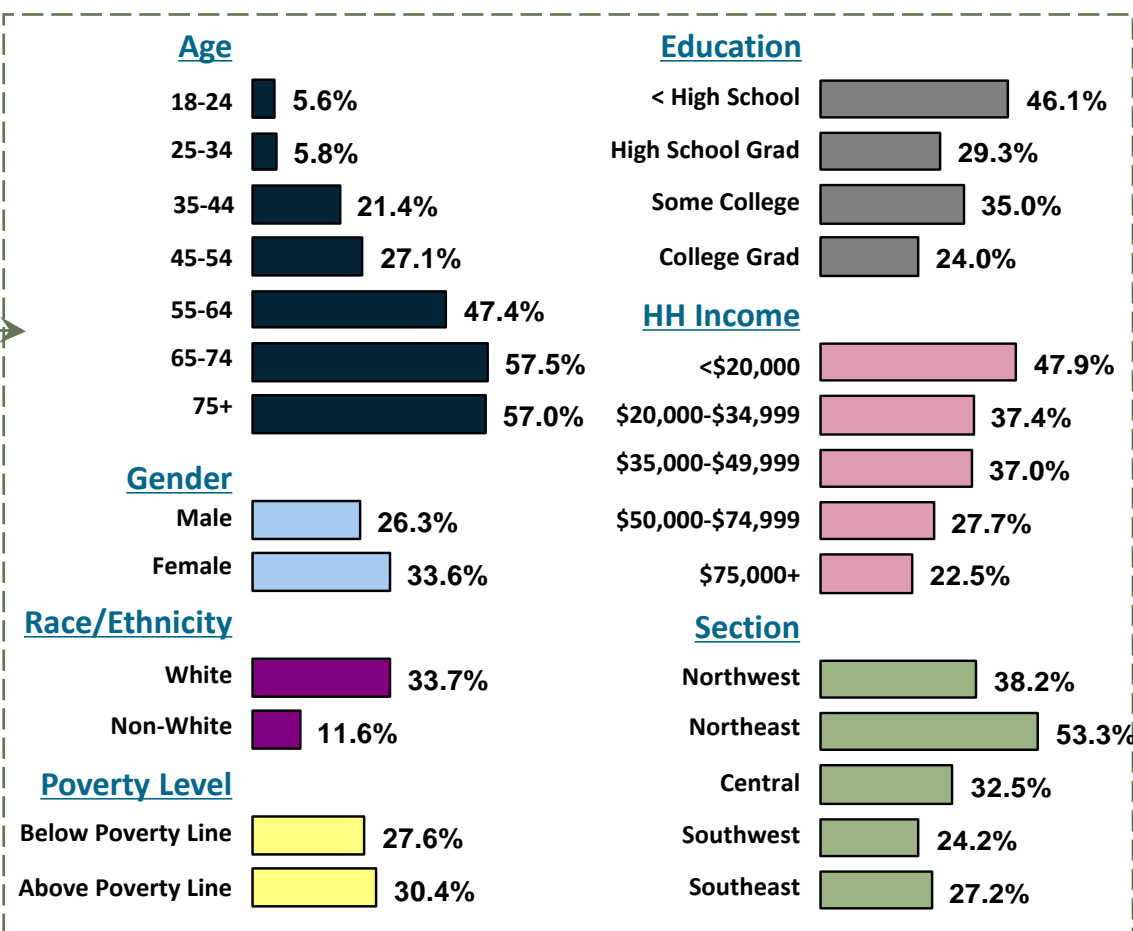
Prevalence of Arthritis

- 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



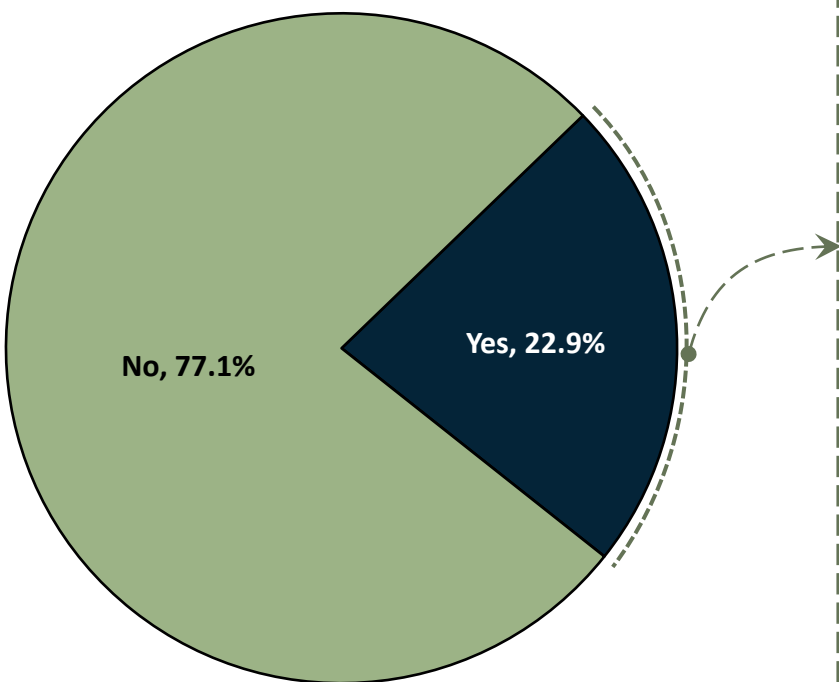
*Among all adults, the proportion who reported ever being told by a health care professional that they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia



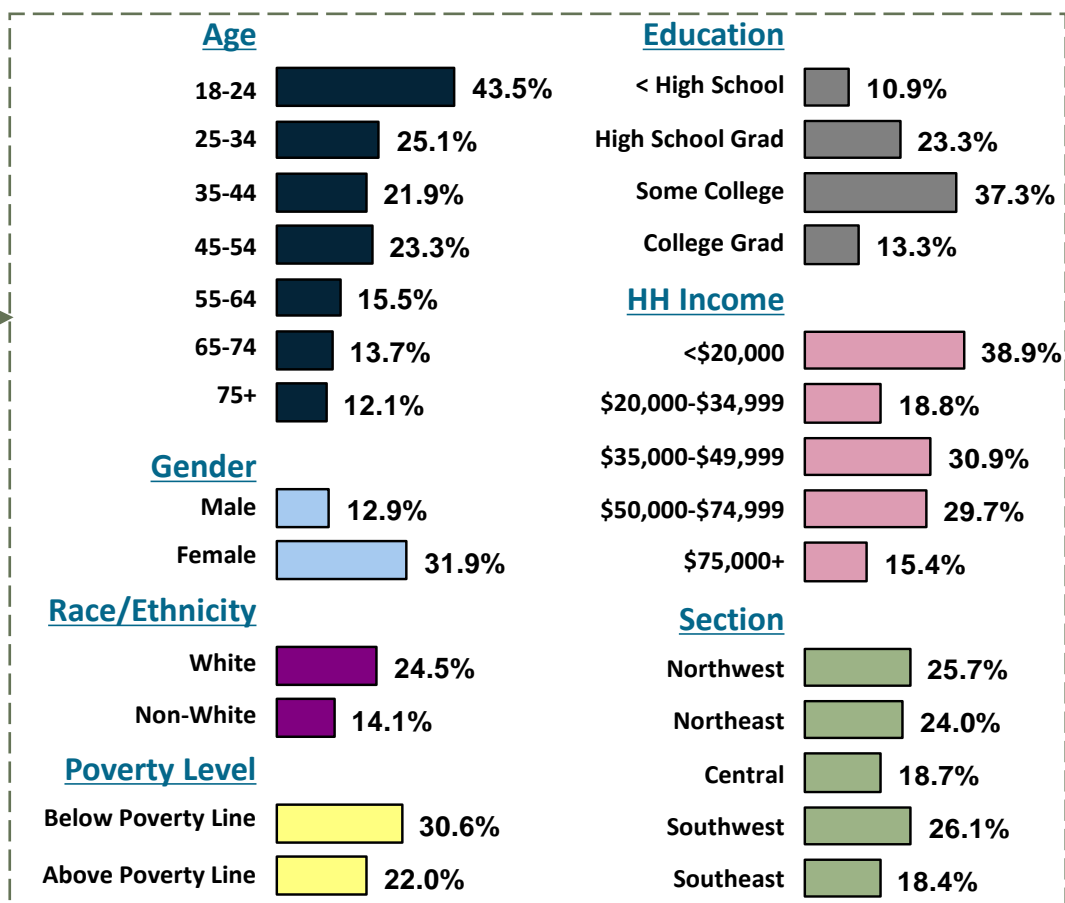
Prevalence of Anxiety Disorder

- 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)

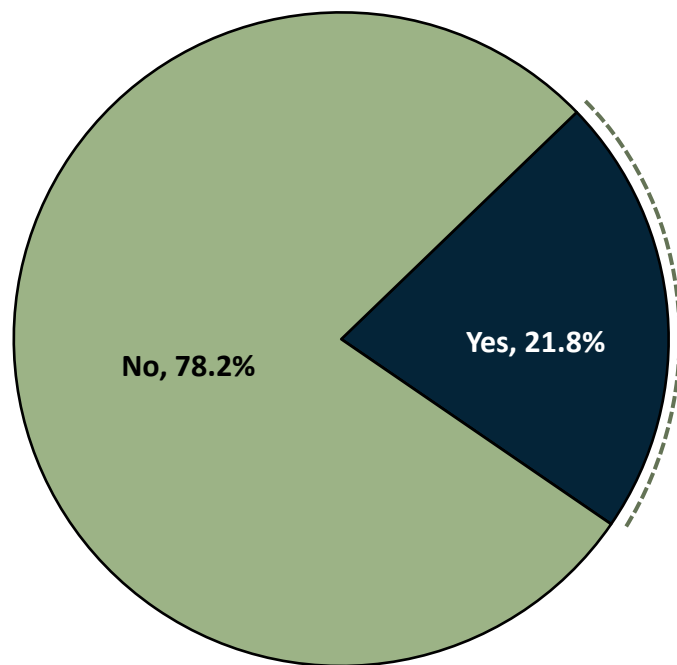
Q4.8: Has a doctor or other healthcare provider EVER told you that you have an anxiety disorder (including acute stress disorder, anxiety, generalized anxiety disorder, obsessive-compulsive disorder, panic disorder, phobia, posttraumatic stress disorder, or social anxiety disorder)? (n=1,189)



Prevalence of Depressive Disorder

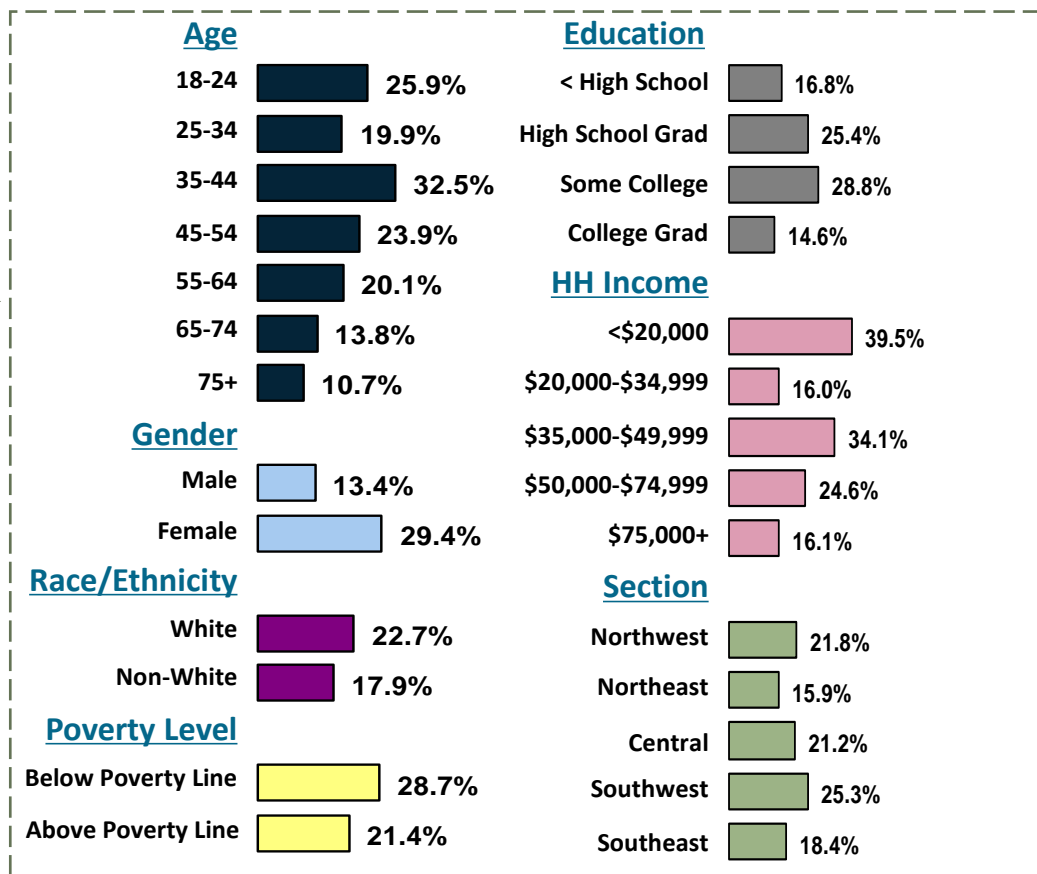
- Roughly one in five (21.8%) Ottawa County adults has a depressive disorder.
 - ❖ Like anxiety, depression is more common in women than men, and more common in White adults than non-White adults
 - ❖ Depression is least common in adults with college degrees, with annual incomes of \$75K+, and/or those 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)

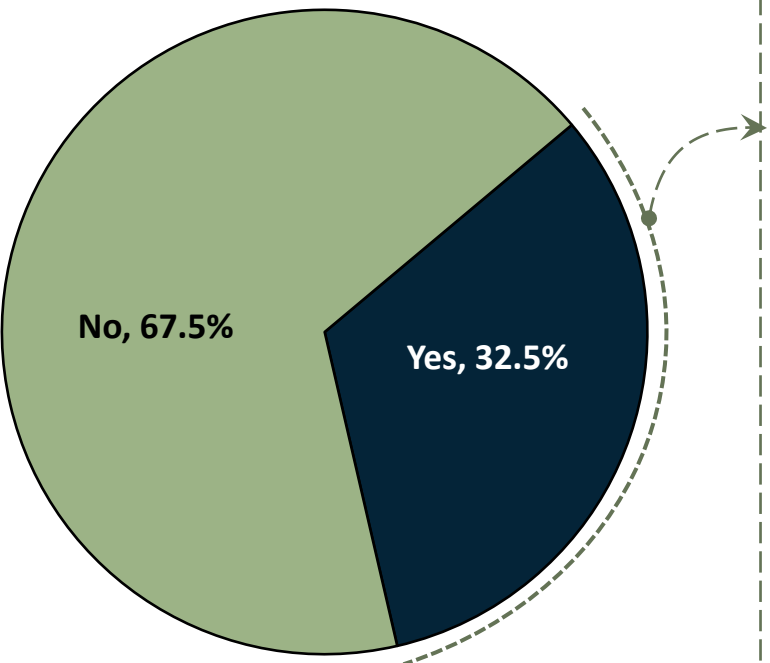
Q4.9: (IF FEMALE AND Q4.8= YES) Was this following the birth of a child or related to pregnancy? (n=173)



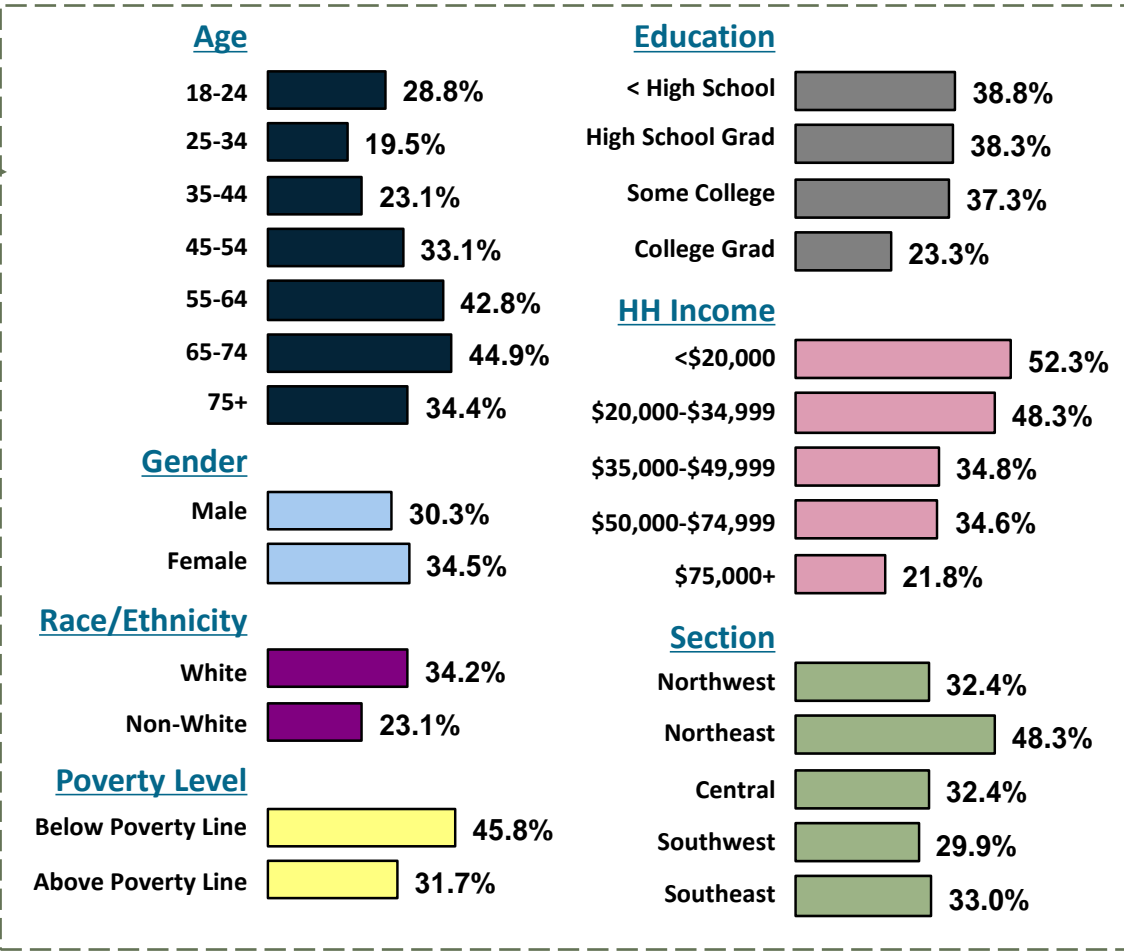
Chronic Pain

- 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

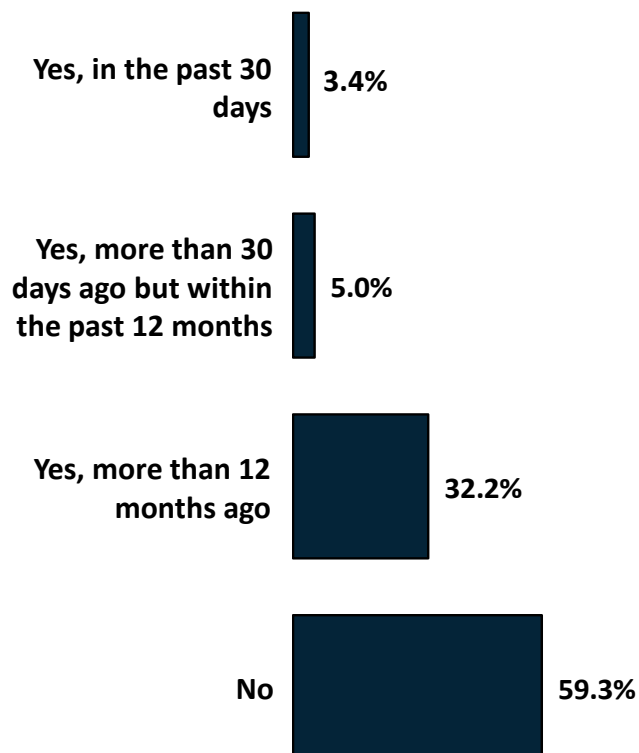




Chronic Pain (Continued)

- 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

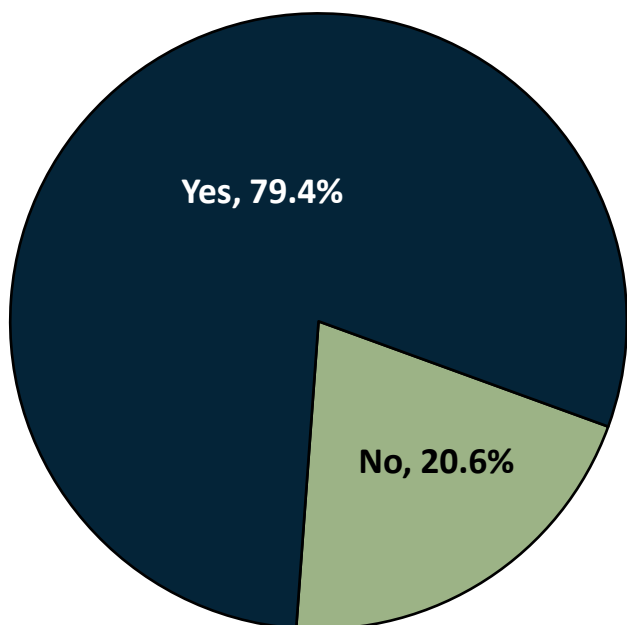
	Suffer From Chronic Pain	No Chronic Pain
In past 30 days	9.3%	0.6%
More than 30 days but within past 12 months	9.0%	3.2%
More than 12 months ago	34.8%	31.0%
Have not taken pain medication	46.9%	65.2%



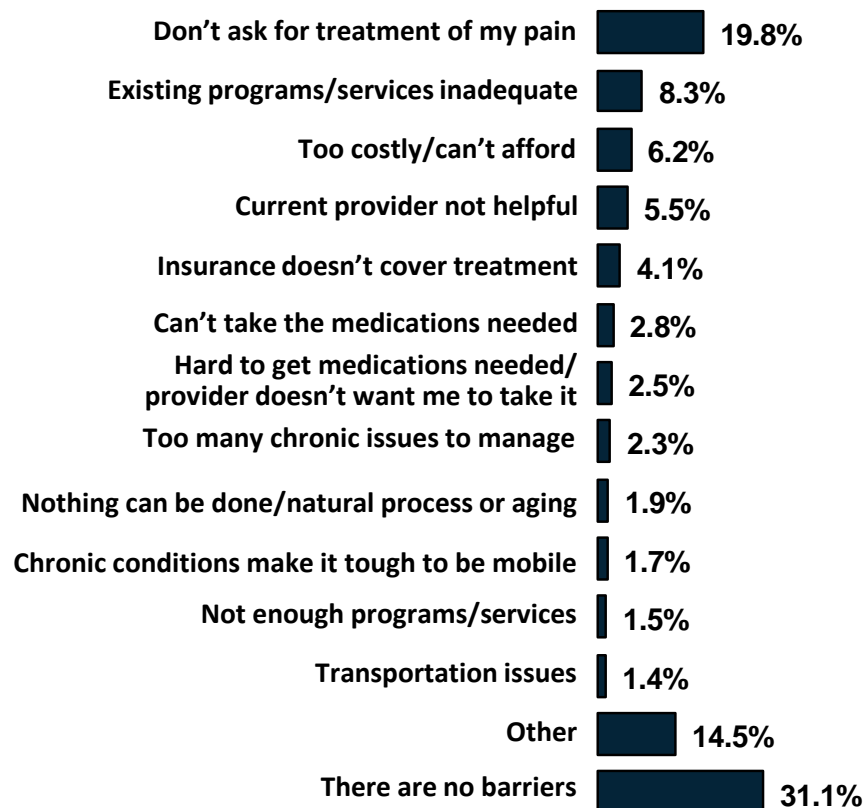
Chronic Pain Management

- 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)

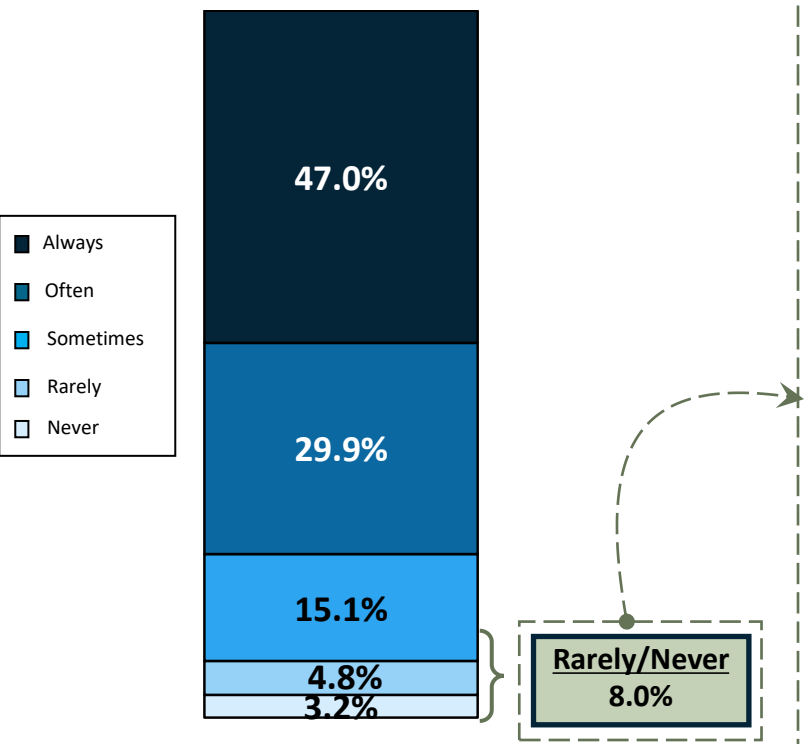
Resiliency and Social Support



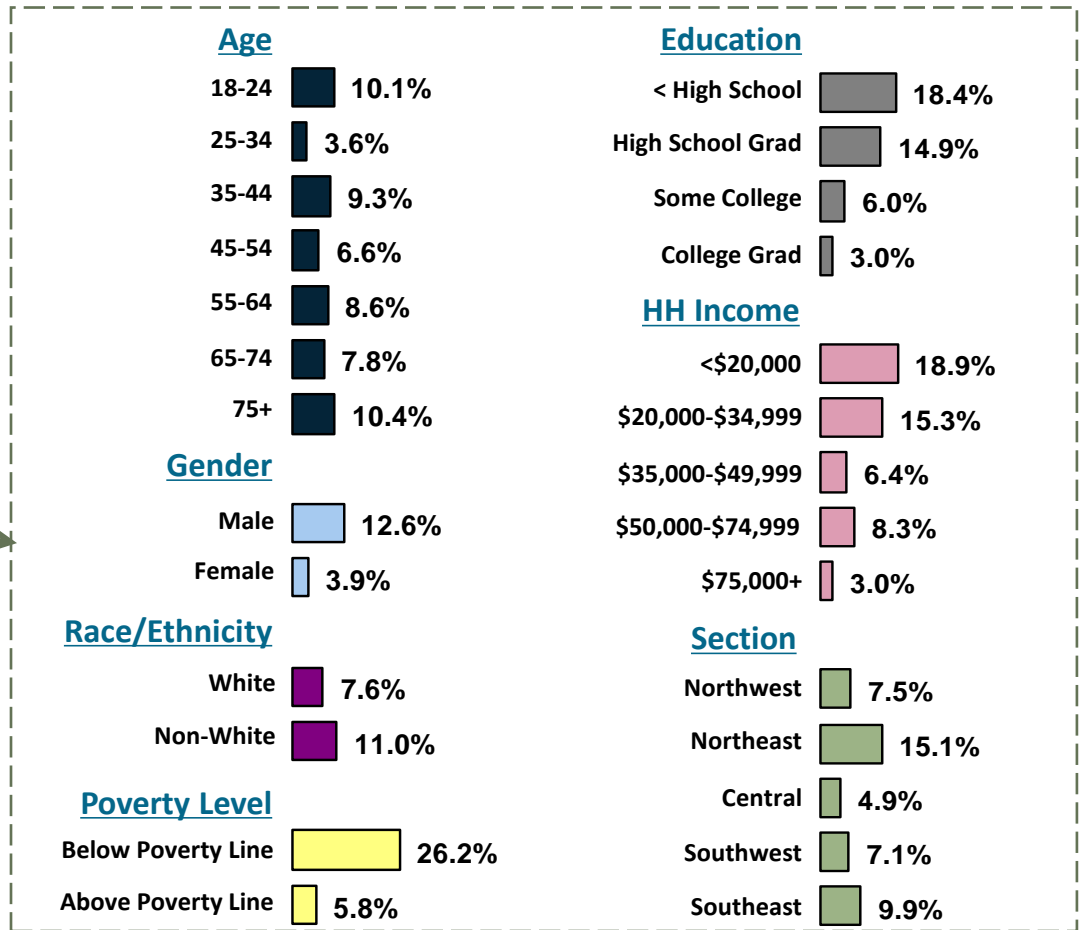
Social and Emotional Support

- 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.

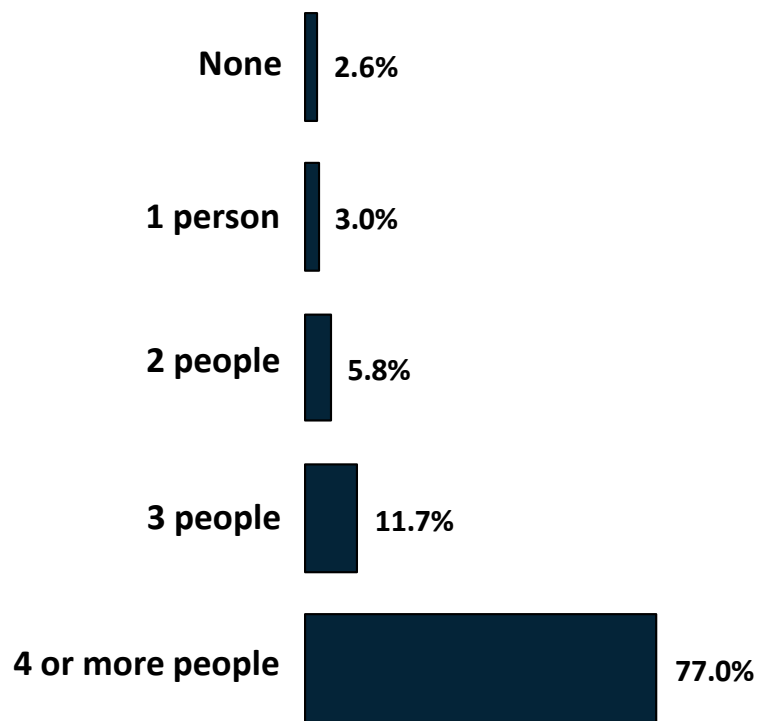
	Frequency of Needed Social and Emotional Support	
	Always/Often	Sometimes/Rarely/Never
Health status fair/poor	9.2%	24.0%
Poor physical health	6.7%	18.4%
Poor mental health	9.5%	35.7%
Activity limitation	5.2%	13.8%
Anxiety	20.1%	33.1%
Depression	18.3%	34.9%
Suffer from chronic pain	29.0%	44.4%
Marijuana 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%



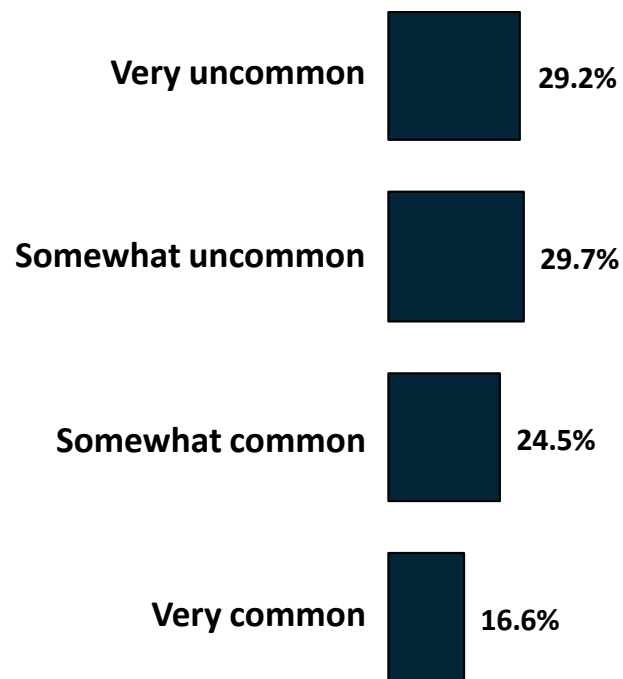
Social and Emotional Support (Continued)

- 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)

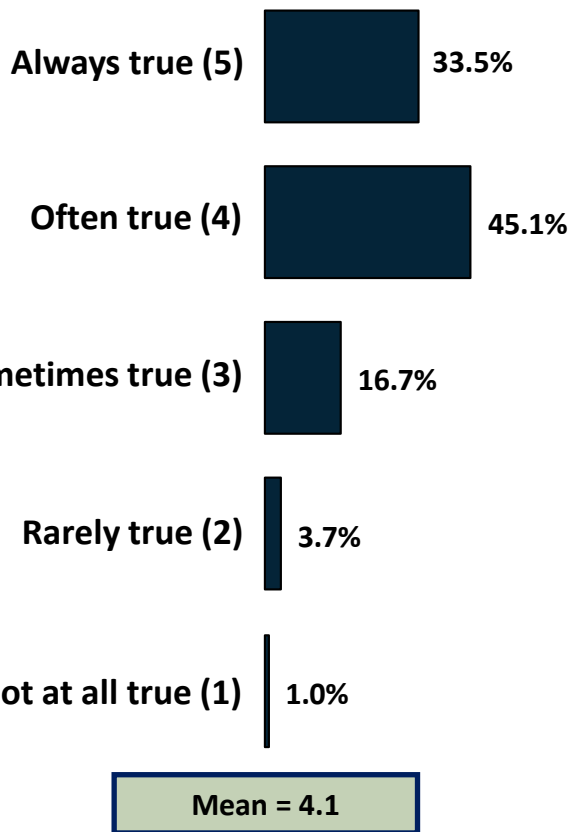
Q9.3: Think about people you rely on for help and support. How common is it for you to reach outside this circle of people to give or receive practical help or social and emotional support? (n=1,174)



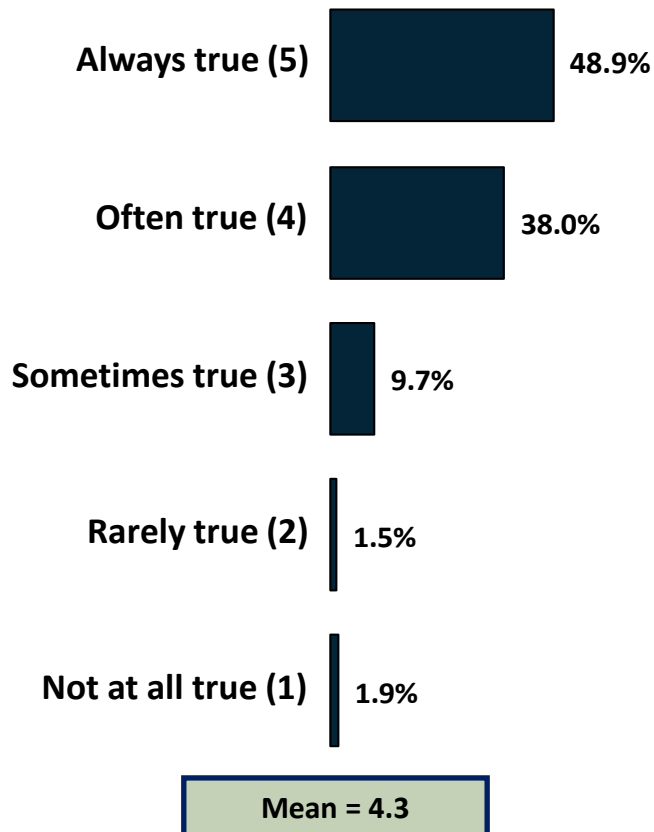
Resiliency

- 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”



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



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.

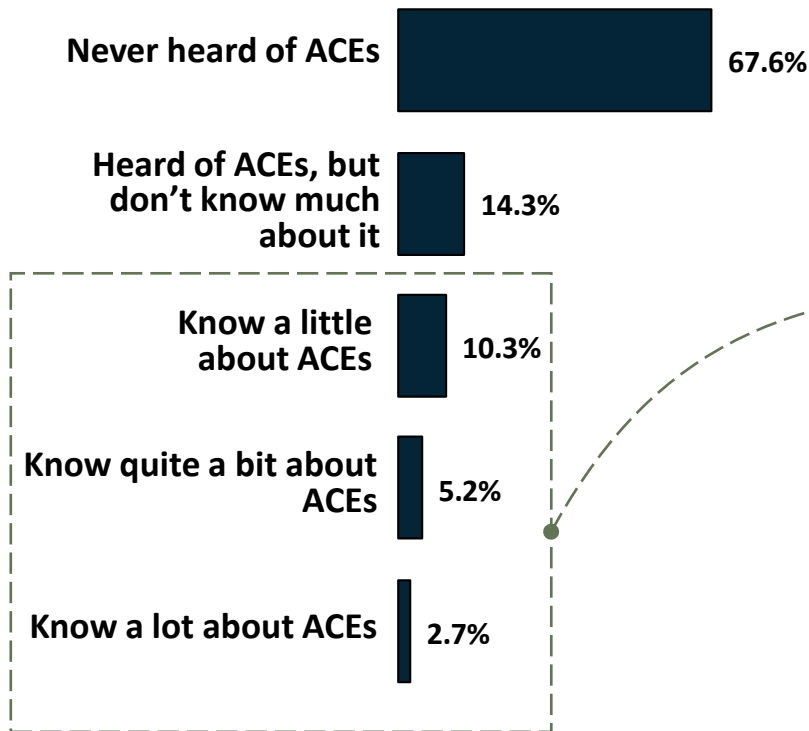
Adverse Childhood Experiences



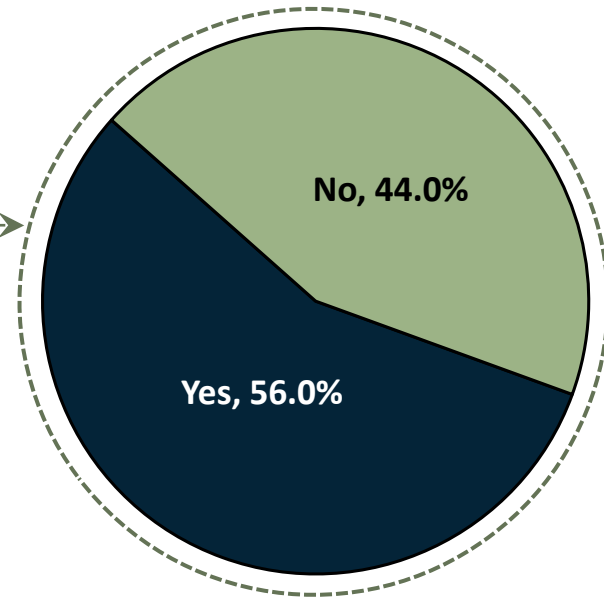
Familiarity and Application of ACEs

- 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)	40.2%
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)	21.9%
How often did anyone at least five years older than you or an adult, ever touch you sexually? (n=1,186)	11.7%
How often did anyone at least five years older than you or an adult, try to make you touch them sexually? (n=1,186)	8.4%
How often did anyone at least five years older than you or an adult, force you to have sex? (n=1,185)	3.8%
Did you live with anyone who was depressed, mentally ill, or suicidal? (n=1,188)	28.1%
Did you live with anyone who was a problem drinker or alcoholic? (n=1,196)	23.9%
Were your parents separated or divorced? (n=1,195)	23.7%
How often did your parents or adults in your home ever slap, hit, kick, punch, or beat each other up? (n=1,184)	17.6%
Did you live with anyone who used illegal street drugs or abused prescription medication? (n=1,188)	14.6%
Did you live with anyone who served time, or was sentenced to serve time, in prison, jail, or other correctional facility? (n=1,193)	10.6%

ABUSE

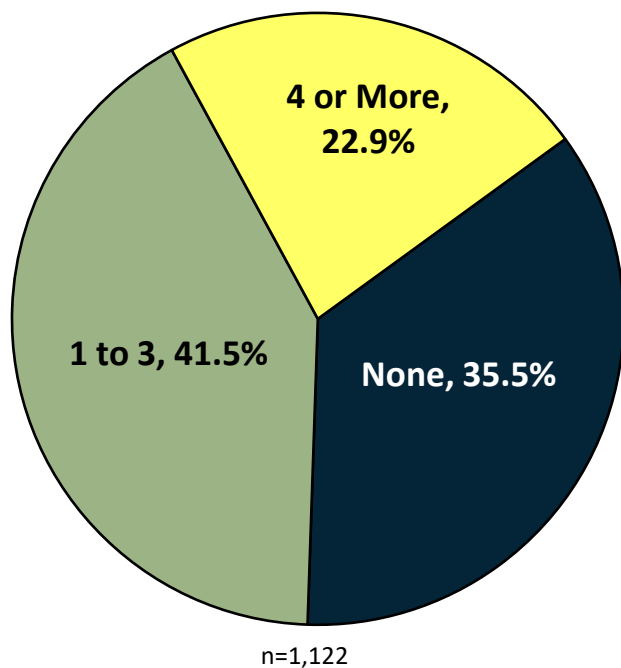
HOUSEHOLD CHALLENGES



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



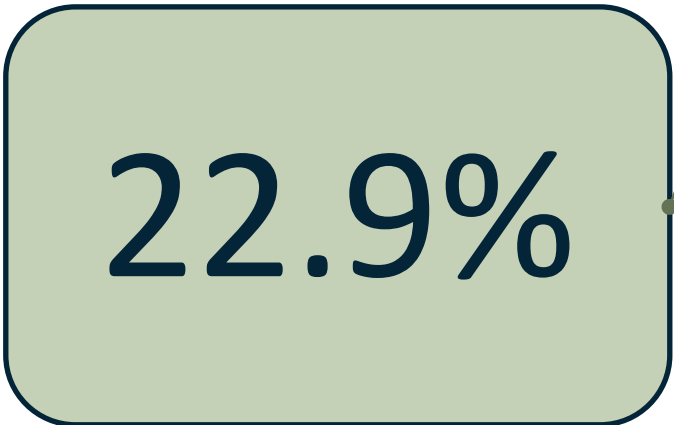
	Number of ACEs		
	None	1-3	4 or More
Health status fair/poor	8.0%	12.0%	22.9%
Poor physical health	5.1%	9.0%	15.7%
Poor mental health	5.7%	15.2%	29.3%
Activity limitation	3.2%	6.1%	13.8%
Anxiety	9.4%	25.1%	41.2%
Depression	8.5%	20.6%	44.5%
Suffer from chronic pain	25.3%	31.9%	43.3%
Marijuana use (past 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%



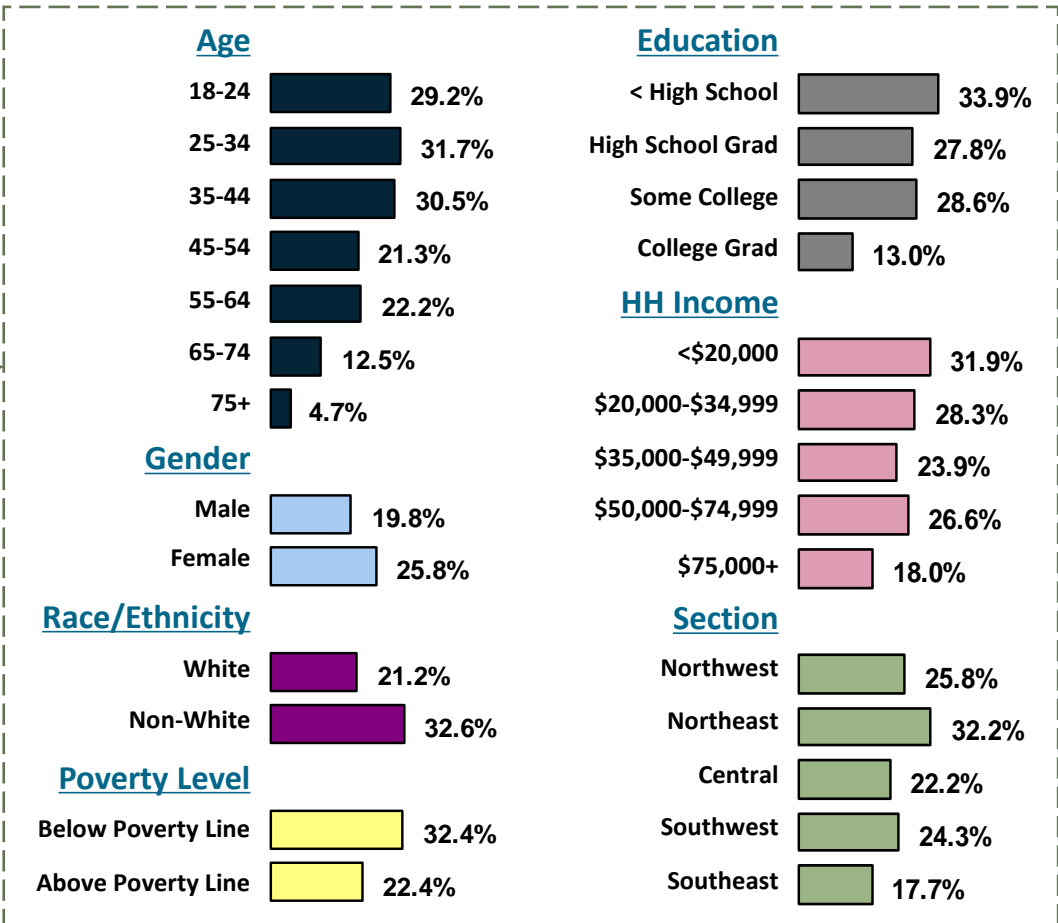
Prevalence of 4+ ACEs

- 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)



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.

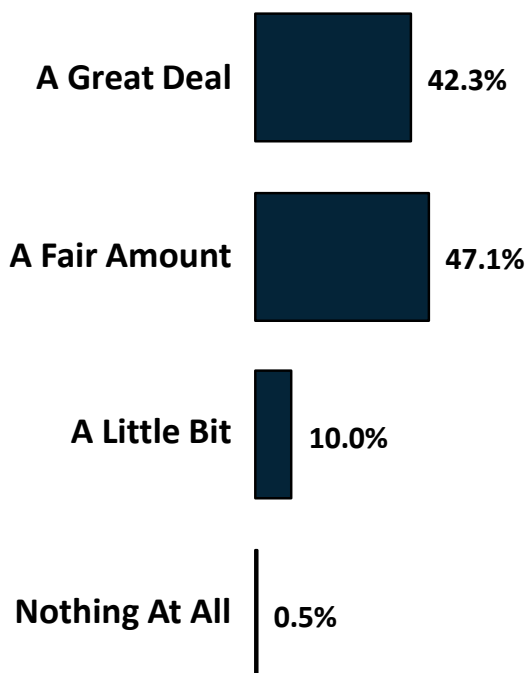
Coronavirus (COVID-19)



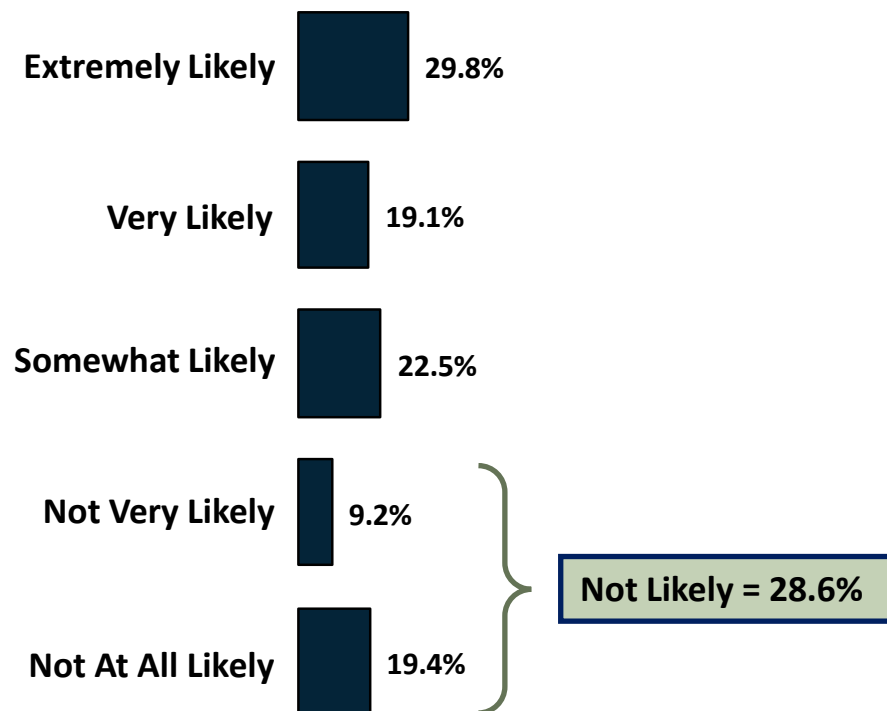
Knowledge of COVID-19 and Likelihood to Get Vaccine

- 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





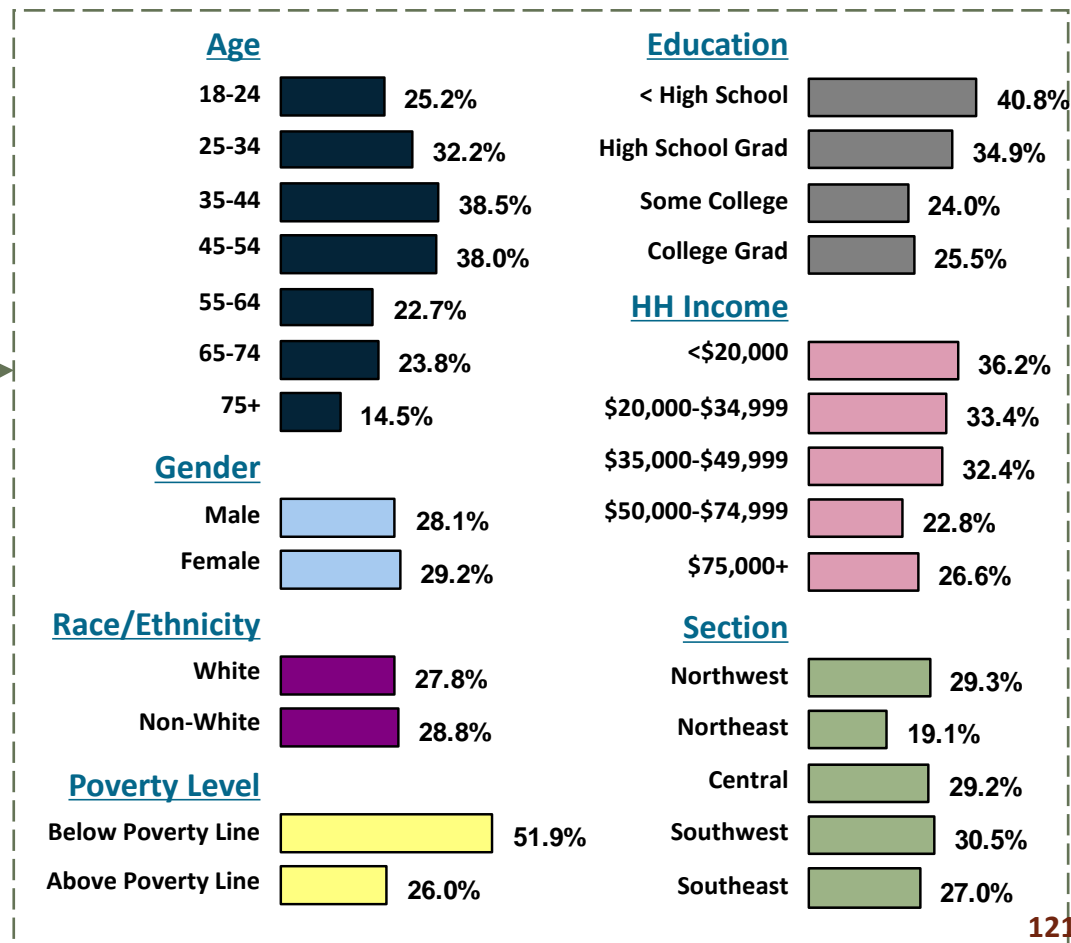
Likelihood to Get COVID-19 Vaccine

- 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.
 - ❖ 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



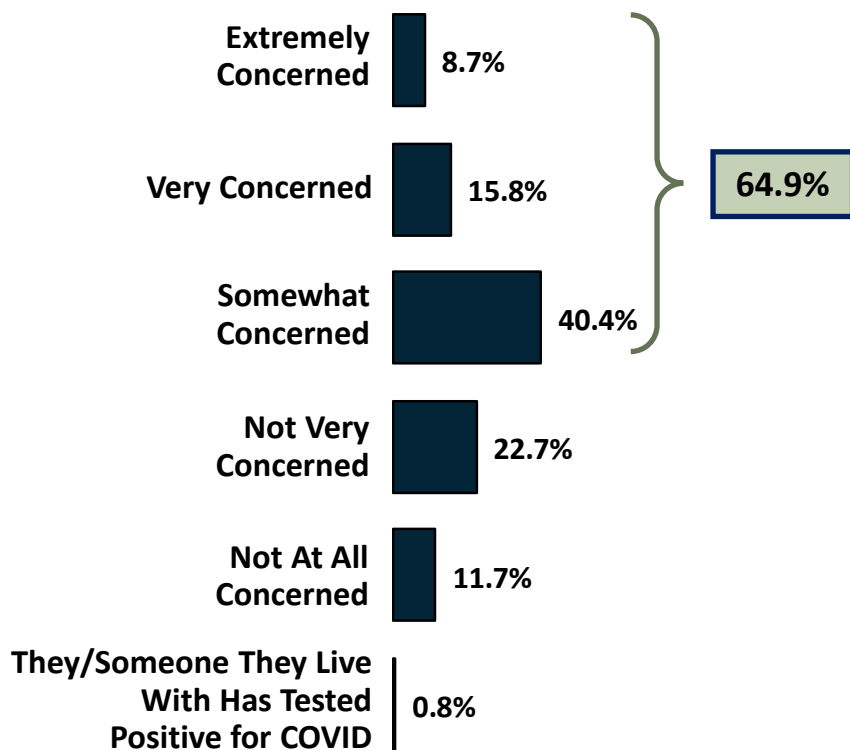
*Among all adults, the proportion who reported they were "not at all likely" or "not very likely" to get the vaccine for coronavirus if it were available.



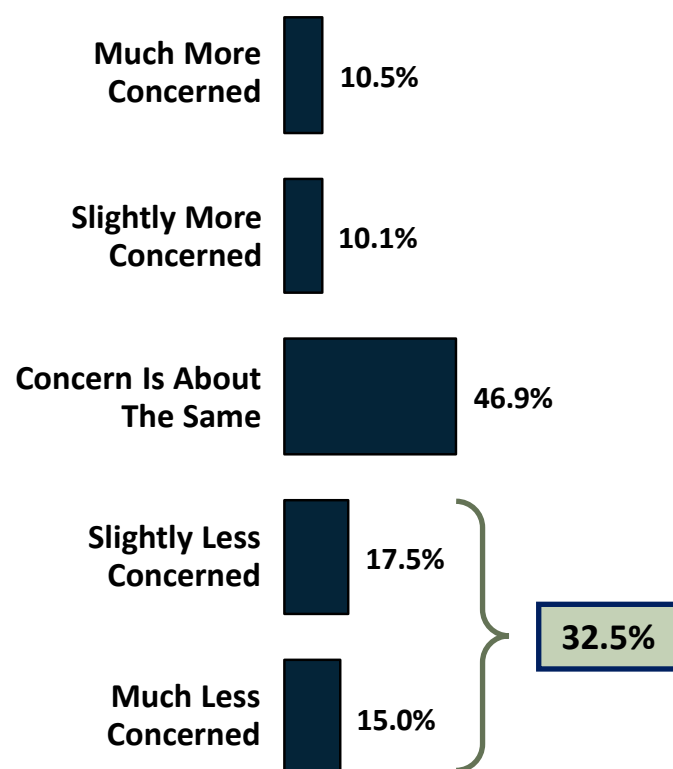
Concern About COVID-19

- 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





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

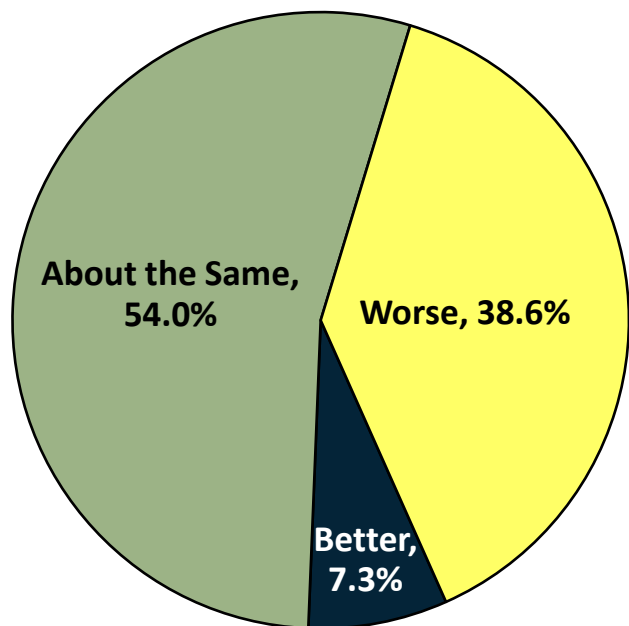
	Concern About Getting or Being Exposed to Coronavirus				
<i>Change In Concern From Beginning of Pandemic</i>	Not At All Concerned	Not Very Concerned	Somewhat Concerned	Very Concerned	Extremely Concerned
Much Less Concerned	54.9%	28.0%	4.1%	2.1%	2.8%
Slightly Less Concerned	5.5%	21.8%	25.6%	6.4%	4.8%
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%



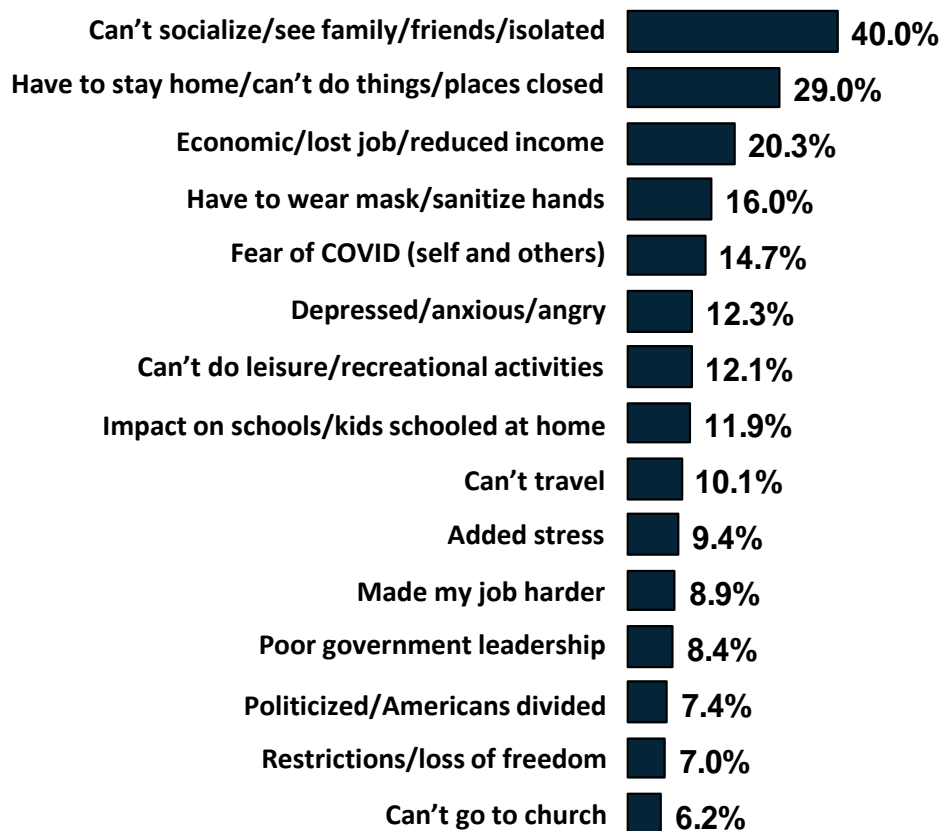
Life Changes During COVID-19 Pandemic

- Roughly half (54.0%) 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)

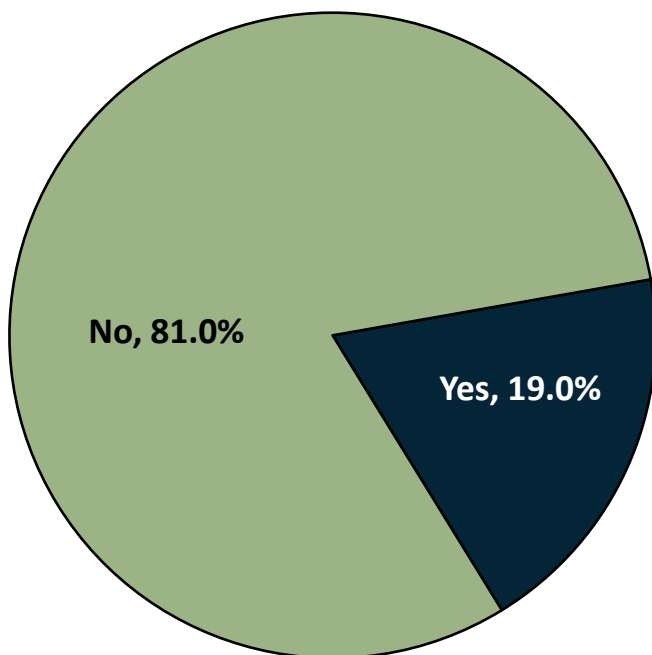
Q22.5: Why do you say that? Please be as detailed as possible. (n=491)



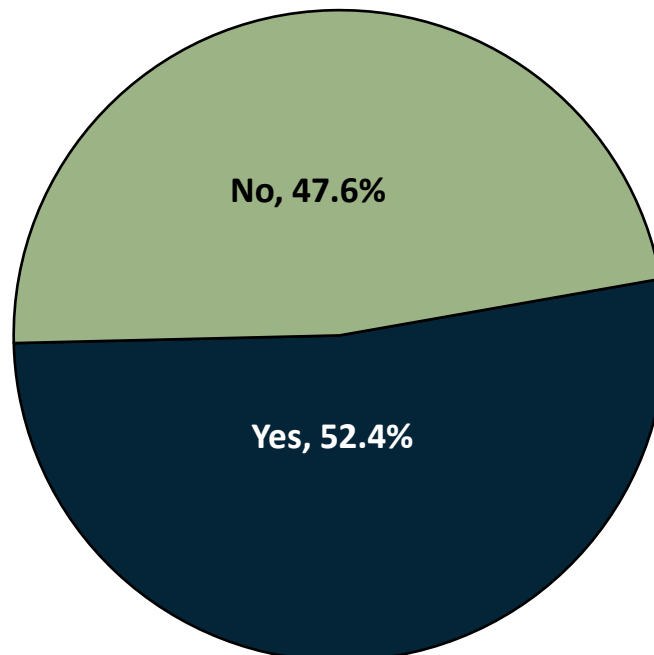
Impact of COVID-19 on Physical and Mental Health

- 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
Gender	(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%
Age	(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%
Race/Ethnicity	(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%
Section of Ottawa County	(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
Marital Status	(n=1194)	(n=301)	(n=33)	(n=92)	(n=154)	(n=614)
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%
Number of Children Less Than Age 18 At Home	(n=1198)	(n=302)	(n=33)	(n=92)	(n=154)	(n=617)
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%
Number of Adults and Children in Household	(n=1198)	(n=302)	(n=33)	(n=92)	(n=154)	(n=617)
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
Education	(n=1198)	(n=303)	(n=33)	(n=92)	(n=154)	(n=616)
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%
Employment Status	(n=1198)	(n=302)	(n=33)	(n=92)	(n=154)	(n=617)
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
Household Income	(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%
Poverty Status	(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%
Home Ownership	(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%
Transgender	(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%