

Community Health Needs Assessment for:

Zeeland Community Hospital d/b/a Spectrum Health Zeeland Community Hospital

The “hospital facilities” listed above are part of Spectrum Health System. Spectrum Health is a not-for-profit health system in West Michigan offering a full continuum of care through the Spectrum Health Hospital Group, which is comprised of 11 hospitals; the Spectrum Health Medical Group which employs more than 1,200 physicians and advanced practice providers; and Priority Health, a health plan with 590,000 members. Spectrum Health System is West Michigan’s largest employer with more than 21,700 employees. The organization provided \$294.6 million in community benefit during its 2014 fiscal year. Spectrum Health was named one of the nation’s Top Health Systems in 2014 by Truven Health Analytics.

Community Health Needs Assessment – Exhibit A

The focus of this Community Health Needs Assessment attached in Exhibit A is to identify the community needs as they exist during the assessment period (late 2014-early 2015), understanding fully that they will be continually changing in the months and years to come. For purposes of this assessment, “community” is defined as the county in which the hospital facility is located. This definition of community based upon county lines, is similar to the market definition of Primary Service Area (PSA). The target population of the assessment reflects an overall representation of the community served by this hospital facility. The information contained in this report is current as of the date of the CHNA, 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 CHNA report complies with the requirements of the Internal Revenue Code 501(r) regulations either implicitly or explicitly.

Evaluation of Impact of Actions Taken to Address Health Needs in Previous CHNA – Exhibit B

Attached in Exhibit B is an evaluation of the impact of any actions that were taken, since the hospital facility finished conducting its immediately preceding CHNA, to address the significant health needs identified in the hospital facility’s prior CHNA.

Ottawa County Community-Wide Health Needs Assessment

Research Results from the 2015
Community-Wide Health Needs Assessment

A Research Project for



*mi*Ottawa Department of
Public Health



North Ottawa Community
Health System



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INTRODUCTION

Partners

The following community organizations are responsible for the funding and implementation of the Ottawa County Community Health Needs Assessment 2015:

- Greater Ottawa County United Way
- Holland Hospital
- North Ottawa Community Health System
- Community Mental Health of Ottawa County
- Ottawa County Department of Public Health
- Spectrum Health Zeeland Community Hospital

Background and Objectives

- VIP Research and Evaluation was contracted by the Community Health Needs Assessment (CHNA) team of Ottawa County to conduct a Behavioral Risk Factor Survey (BRFS) 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 a task force consisting of Ottawa County Department of Public Health, Community Mental Health of Ottawa County, Holland Community Hospital, North Ottawa Community Hospital, Spectrum Health Zeeland Community Hospital, and the Greater Ottawa County United Way.

Background and Objectives (Cont'd.)

- Information collected from this research will supply the Health and Health Care section of the broader United Way Community Assessment and the Community Health Needs Assessment for the three hospitals in Ottawa County.
- Specific objectives include:
 - Gauge the overall health climate or landscape in Ottawa County
 - Determine positive and negative health indicators
 - Identify risk behaviors
 - Discover clinical preventive practices
 - Measure the prevalence of chronic conditions
 - Establish accessibility of health care
 - Ascertain barriers and obstacles to health care
 - Uncover gaps in health care services or programs
 - Identify health disparities

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 | 10 |
| Key Informants | Online Survey | Physicians, Nurses, Dentists, Pharmacists, Social Workers | 77 |
| Community Residents (Underserved) | Self-Administered (Paper) Survey | Vulnerable and underserved sub-populations | 285 |
| Community Residents | Telephone Survey (BRFS) | Ottawa County Adults (18+) | 2,008 |

- Secondary data was derived from local hospital utilization data and various government and health sources such as the U.S. Census, Michigan Department of Community Health, County Health Rankings, Youth Risk Behavior Survey, Youth Assessment Survey.

Methodology (Cont'd.)

- Of the 10 *Key Stakeholders* invited to participate, all 10 completed an in-depth interview (100% response rate). *Key Stakeholders* were defined as executive-level community leaders who:
 - Have extensive knowledge and expertise on public health issues
 - Can provide a “50,000 foot perspective”
 - Are often involved in policy decision making
 - Examples include hospital administrators and clinic executive directors
- Of the 289 *Key Informants* invited to take the online survey, 77 participated for a 27% response rate. *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 or directors of non-profit organizations

Methodology (Cont'd.)

- There were 285 self-administered surveys completed by *targeted sub-populations*, such as single mothers with children, senior adults, those uninsured, underinsured, or with Medicaid, and Hispanics. The following organizations received paper surveys and assisted in distributing to their clientele:
 - Free Clinics – City on a Hill, Love INC
 - OC Department of Public Health
 - Ready for School
 - Various Food Pantries
 - Community Mental Health of Ottawa County
 - Holland Community Health Center
 - Senior Adult Groups
 - Holland Hospital School Nurse Program
 - Bethany Christian Services

- With the *targeted sub-populations survey*, differences between subgroups (e.g., gender, age, race, income) have been tested for statistical significance (at the 95% confidence level).
 - Each subgroup has been assigned a letter
 - A letter to the right of a score/number indicates the score is significantly higher than the scores for the corresponding subgroup
 - Sometimes relatively small differences, that might not be important from a marketing point of view, reach the threshold for statistical significance (meaning that we are confident there is some degree of difference even though it might not be an important one)

Methodology (Cont'd.)

- A 2014 *Behavioral Risk Factor Survey* was conducted in Ottawa County via telephone with 2,008 county adult (18+) residents. The response rate was 35%.
- Disproportionate stratified random sampling (DSS) was used to ensure results could be generalized to the population of Ottawa County. Characteristics of DSS are:
 - Landline telephone numbers are drawn from two strata (lists) that are based on the presumed density of known telephone household numbers
 - Numbers are classified into strata that are either high density (listed) or medium density (unlisted)
 - Telephone numbers in the high density strata are sampled at the highest rate, in this case the ratio was 1.5:1.0
- In addition to landline telephone numbers, the design also targeted cell phone users. Of the 2,008 completed surveys:
 - 507 are cell phone completes (25.1%), and 1501 are landline phone completes (74.9%)
 - 373 are cell-phone-only households (18.6%)
 - 246 are landline phone completes (12.3%), and
 - 1384 have both cell and landline numbers (69.1%)
- The 2,008 households represent 2.1% of the 94,666 households in Ottawa County according to the 2009-2013 U.S. Census estimate.

Methodology (Cont'd.)

- The margin of error for the entire sample of 2,008, at a 95% confidence level, is +/- 2.2%. This is based on a population of roughly 198,386 Ottawa County residents 18 years or older, according to the 2009-2013 U.S. Census estimate.
- Unless noted, as in the Michigan BRFSS, respondents who refused to answer a question or did not know the answer to a specific questions were normally excluded from analysis. Thus, the base sizes vary throughout the section regarding the BRFSS.
- Data weighting is an important statistical process that was used to remove bias from the BRFSS sample. The formula consists of both design and iterative proportional fitting. The purpose of weighting the data is 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, and section to ensure the proportions in the sample match the proportions in the population of Ottawa County adults
 - Allow the generalization of findings to the whole Ottawa County adult population

EXECUTIVE SUMMARY

Executive Summary

In 2014, the Ottawa County Community Health Needs Assessment Task Force commissioned VIP Research and Evaluation to conduct an independent Community Health Needs Assessment (CHNA), which included a Behavioral Risk Factor Survey.

The primary goal of the study was to identify key health and health service issues in Ottawa County. The results will be used to assist in planning, implementation of programs and services, evaluating results, allocation of resources, and achieving improved health outcomes, specifically related to identified needs.

Data was gathered from a variety of sources and using multiple methodologies. Resident feedback was obtained via a Behavioral Risk Factor Survey (BRFS) (n=2,008) of the broader adult population in Ottawa County, as well as a self-administered survey (n=285) to more targeted subpopulations of underserved residents (e.g., Hispanics, single mothers with children, uninsured/underinsured/Medicaid). Health care professionals and other community leaders, known as Key Stakeholders or Key Informants, provided input via in-depth interviews (n=10) and an online survey (n=77). Secondary data gathered from state and national databases was also used to supplement the overall findings.

Executive Summary (Cont'd.)

The findings from the CHNA paint a picture of a community that lives up to its billing as the healthiest county in Michigan, according to the County Health Rankings. Ottawa County is considered to be a giving community with a wealth of excellent resources, programs, and services. With three hospitals, three free medical clinics, and hundreds of health care professionals, health care is accessible to most people. Residents also report good health, life satisfaction, and low levels of psychological distress.

Ottawa County residents enjoy longer life expectancy and lower mortality rates than people in Michigan or the U.S., and immunizations for both children and adults are high. The prevalence of risk behaviors such as smoking or inactivity are low; however, heavy drinking and binge drinking rates are higher than in the state or the nation. The most pressing risk behavior is dietary in nature, as there is a general lack of fruit and vegetable consumption among adults. This coincides with an adult population where the majority are either overweight (35.3%) or obese (23.9%).

Most adults engage in clinical preventive practices such as routine physical checkups, Pap tests, mammograms, and colonoscopies, however, these proportions have declined since the 2012 CHNA. Additionally, Ottawa County residents are less likely to visit a dentist than in the state or the nation, especially if they have no health care coverage.

Executive Summary (Cont'd.)

The prevalence of chronic conditions is low; however, diabetes continues to be a problem according to health care professionals because it is linked to obesity and many other health problems.

Ottawa County receives high marks for having excellent emergency care and transport, general surgery, OB/GYN, prenatal care, and orthopedics. Still, Key Stakeholders and Key Informants were clear in their perspective that there is a lack of services, especially for certain subpopulations, and that there are also gaps in services because existing services do not meet the demand. For example, there is a lack of services for all types of mental illness (from mild to severe), substance abuse, and dental care for people with and without insurance because these services are often not covered by insurance, even Medicaid.

The belief that there is a lack of primary care providers is mixed among health care professionals, although secondary data supports this dearth compared to the state. Many health care professionals believe the issue is more about existing PCPs' failure to accept Medicaid or a sliding payment scale, as opposed to lack of PCPs in terms of numbers. Either way, the problem is one of access and it impacts both adults and children, especially the underserved.

Although a myriad of programs and services exist, transportation is still a barrier to services. Residents often have to travel outside of Ottawa County to access care or have a hard time accessing care within the county due to its rural nature and the lack of a good public transportation system.

Executive Summary (Cont'd.)

There is a direct relationship between health outcomes and both education and income. For example, those with higher incomes and more education are likely to report: better health, greater satisfaction with life, plentiful emotional and social support, having health coverage, having a personal care provider, less engagement in risk behaviors such as smoking, and are more likely to visit a dentist.

Feedback from this assessment demonstrates there is room for improvement. For example, although health care is accessible to most residents, specific subpopulations experience barriers to health care programs and services. The populations considered underserved are low income, uninsured, underinsured, and Hispanic.

Not only are high health care costs a barrier to these groups, but even those with Medicaid find it hard to see a provider because more and more physicians are refusing to accept Medicaid. This has created critical consequences for primary health care, mental health treatment, and dental care.

Traditional health insurance often doesn't cover ancillary services such as prescription drugs, vision, or dental care. Thus, if consumers have to pay for these services, plus deductibles and co-pays, the cost burden can be great and residents will avoid seeking necessary treatment or any type of preventive service.

Executive Summary (Cont'd.)

Community members (both residents and health care professionals) suggest strategies to improve the health care landscape. Specifically, they prioritize:

- Moving toward a focus on the whole patient – studying the social, behavioral, and environmental determinants of health (e.g., understanding patients' barriers to meeting their health goals, looking at the impact of housing costs on health outcomes)
- Increasing access to primary care, mental health treatment, substance abuse services, and dental care
- Supporting increased coordination and collaboration among area hospitals, medical professionals, providers, agencies, and programs
- Supporting and expanding agency resources to address community health needs
- Increasing a focus on wellness, prevention, and nutrition
- Increasing educational opportunities on existing services, navigation of the health system, management of chronic disease, ways to obtain affordable and healthy food, and ways to prepare healthy meals
- Delivery of immunizations and child dental care directly into communities to alleviate barriers (transportation) to care
- Advocating for increased funding for mental health treatment
- Funding innovative approaches to redesigning the health care system, while making it sustainable
- Addressing health system waste (duplication of services, overuse of ER) through increased transparency

Key Findings

Health Care Access

- + Nine in ten Ottawa County adults have health insurance and/or a medical home and both of these improved
- + More people have health insurance or coverage now compared to the last CHNA, largely due to the Affordable Care Act and the Healthy Michigan Plan
- However, many are not using their coverage when needed – and especially not for preventive measures – because they cannot afford out-of-pocket expenses such as deductibles and co-pays
- This feeds into the continued misuse of the ER because: (1) people don't get preventive care or manage their diseases, which would prevent urgent situations, because of cost, and/or (2) people with mental health and other underlying issues visit the ER because their issues are often not covered by health insurance
- There is mixed feedback on whether or not there is a shortage of primary care providers, but there is certainly a lack of access to them. Some health care professionals have suggested that the problem is not lack of PCPs, but lack of PCPs accepting Medicaid, using a sliding scale for payment, or offering any services for the uninsured/underinsured
- There is still a shortage of services available for people with mental health, substance abuse, or dental issues because insurance often does not cover this type of treatment and there is lack of funding for existing service agencies

Key Findings (Cont'd.)

Health Status

- + General health status is better among area residents than those in peer counties, the state, or the nation
- + Further, both physical and mental health status is better among Ottawa County residents compared to those from the state or nation
- + Life expectancy is higher in Ottawa County than peer counties, the state, or the nation
- + Conversely, morbidity rates for adults, children, and infants are all lower than MI or US
- + The rate of cancer diagnosis or deaths is lower than MI, US, and peer counties, and the rate of deaths from heart disease is lower than MI or the US
- Although obesity rates are lower than the state or nation, the prevalence of overweight residents is higher in Ottawa County compared to Michigan. The result is that **six in ten adult residents in Ottawa County are either overweight or obese**

Key Findings (Cont'd.)

Alzheimer's Disease

- The prevalence of Alzheimer's Disease is higher in Ottawa County compared to peer counties
- Worse, the rate of death from Alzheimer's Disease is higher in Ottawa County compared to peer counties, the state of Michigan, and the United States
- Key informants have reported a shortage of quality, or even adequate, facilities to care for patients with Alzheimer's Disease

Chronic Disease

- + Prevalence of all chronic diseases measured (e.g., arthritis, asthma, cancer, COPD, diabetes, heart disease) are lower than the state or nation
- + Moreover, the prevalence of arthritis, asthma, and skin cancer is significantly lower than the 2012 CHNA

Key Findings (Cont'd.)

Coordination and Collaboration of Programs/Services

- + Awareness of the need for better coordination of services is high among area hospitals, medical groups, providers, agencies and organizations and has been building since 2012
- In order for a system of seamless care to exist there needs to be more of a team-based and patient-centered (treating the whole patient, focusing on social/behavioral/environmental determinants of health) approach which includes better communication and collaboration among all the stakeholders involved

Clinical Preventive Practices

- + The majority of older adults recommended to receive cancer screening (breast, cervical, prostate, and colon) are doing so
- Still, fewer are being screened for cervical or prostate cancer compared to the state as a whole
- Further, the proportion receiving screenings has declined for all four areas since the last report

Key Findings (Cont'd.)

Lifestyle Choices/Behaviors

- + Most people know what they need to do to live a healthier lifestyle, such as eating healthier, dieting if need be, exercising, and getting plenty of sleep
- Thus, advocating for more education about healthy lifestyle choices is probably not the best way to utilize resources
- + Alternatively, if policies are to focus on ways to get residents to make lifestyle changes, then the following four approaches are worth investigating: (1) find ways to incentivize people to make changes, (2) increase access to affordable and healthy foods, (3) educate people on how to cook healthy foods and prepare delicious healthy meals, and (4) increase access (make affordable) to gyms and places of recreation, especially in the winter months

Risk Behaviors

- + Area adults are more active, eat more fruits/vegetables, and smoke less than adults around the state or nation
- Still, seven in ten do not eat an adequate amount of fruits and vegetables daily
- Binge drinking and heavy drinking are both higher than the state or the nation
- Although fewer area adults have high cholesterol compared to others, they participate less often in cholesterol screening

Key Findings (Cont'd.)

Disparities in Health

- As in 2012, there continues to be disparities in health, particularly with respect to education and income. There is a direct relationship between health outcomes and either education or income on a number of key measures. For example, those with lower incomes or levels of education are less likely to:
 - Report good/very good/excellent general health
 - Be satisfied with life
 - Receive adequate social and emotional support
 - Report good mental health
 - Have health coverage
 - Have a medical home
 - Exercise adequately
 - Refrain from smoking cigarettes
 - Receive cancer screenings (breast, cervical, prostate, colon)
 - Visit a dentist
 - Receive vaccinations for the flu
 - Avoid heart disease
- The link between both education and income and health outcomes goes beyond the direct relationship. Those in the very bottom groups, for example, having no high school education and/or having less than \$20K in household income, are most likely to experience the worst health outcomes.

Summary Tables – Strengths

Social Indicators

- ✓ *Lower crime and poverty rates than MI/US*
- ✓ *Lower child abuse/neglect rates than MI/US*
- ✓ *Safe, walkable, and family-friendly community*
- ✓ *Active organizations that promote health - Fitness centers, senior centers, beaches, trails, parks, YMCA*
- ✓ *Caring and compassionate community*
- ✓ *Strong faith-based groups actively mobilizing around community causes*
- ✓ *Strong volunteer force*

Health Care Access

- ✓ *Excellent health resources, services, and programs*
- ✓ *More residents have health insurance and medical home (PCP) than MI/US*
- ✓ *Significantly more residents have coverage vs. 2012*
- ✓ *Fewer have had to forego medical care due to cost than MI/US*
- ✓ *Health partnerships are collaborative and cooperative (but could do better)*

Preventive Practices

- ✓ *Higher proportion of immunized children than MI/US*
- ✓ *Majority have routine checkups (much better than 2011) and health screenings/tests*
- ✓ *Colon cancer screening higher than MI*
- ✓ *Prevalence of oral health higher than MI*
- ✓ *Flu vaccine higher than MI/US*

Health Indicators

- ✓ *Higher life expectancy rates than MI/US (both men/women)*
- ✓ *Lower adult/child/infant mortality rates than MI/US*
- ✓ *Proportion of low birth weight lower than MI/US*
- ✓ *Death rates from cancer and heart disease lower than MI/US*
- ✓ *Higher proportion of mothers seek prenatal care than MI*
- ✓ *General health status, physical, and mental health better than MI/US*
- ✓ *High satisfaction with life*
- ✓ *Strong social and emotional support networks*
- ✓ *Prevalence of obesity far lower and prevalence of healthy weight higher than MI/US*
- ✓ *Lower prevalence of chronic disease such as diabetes, arthritis, asthma, cancer (other than skin), cardiovascular disease, and COPD compared to MI/US*

Risk Behaviors

- ✓ *Fewer youth having sex than MI/US*
- ✓ *Teen birth and repeat birth rates lower than MI/US*
- ✓ *Fewer youths reporting depression, considering/attempting suicide than MI/US*
- ✓ *Lower prevalence of youth risk behaviors such as smoking, binge drinking, and marijuana use compared to MI/US*
- ✓ *Lower prevalence of adult risk behaviors such as inactivity, and smoking compared to MI/US*
- ✓ *Lower obesity and inadequate exercise rates than MI/US*
- ✓ *Lower prevalence of HBP and high cholesterol than MI/US*
- ✓ *Significantly fewer have high cholesterol than in 2012*

Summary Tables – Opportunities for Improvement

Health Care Access

- ✓ *Even though more insured, high deductibles and co-pays preventing many residents from utilizing coverage*
- ✓ *Far fewer PCPs per capita than MI*
- ✓ *Lack of adequate mental health care services in general and those that accept multiple forms of insurance*
- ✓ *Lack of affordable oral health care and available dentists for uninsured, low income, and Medicare/Medicaid residents*
- ✓ *Lack of health care access for unemployed, uninsured, and Medicare/Medicaid residents*
- ✓ *Lack of Spanish-speaking health care professionals*
- ✓ *Need for more focus on prevention and wellness, self-care, and general health literacy through community programming*
- ✓ *Lack of programs/services to adequately address Alzheimer's and related senior issues*
- ✓ *Lack of programs/services for substance abuse in general and those that accept multiple forms of insurance*
- ✓ *Not enough health care services to meet community demand for uninsured residents*
- ✓ *Shortage of physicians accepting Medicare/Medicaid, and a shortage of specialists*
- ✓ *Transportation continues to be a barrier to access*

Social Indicators

- ✓ *Unemployment rate higher than US*
- ✓ *Three in ten students eligible for free/reduced lunch*
- ✓ *Half of single female families with children under 5 live in poverty, higher rate than US*

Health Indicators

- ✓ *Death rates from Alzheimer's higher than MI/US*
- ✓ *One in four youths reporting depression*
- ✓ *Prevalence of overweight residents higher than MI*
- ✓ *Obesity, depression, and anxiety viewed as highly prevalent but dissatisfaction with community response to them also great*

Risk Behavior Indicators

- ✓ *Almost half of youth report inadequate physical activity*
- ✓ *Lack of adequate fruits and vegetables in diets of both youth and adults, combined with a lack of affordable, healthy food*
- ✓ *Higher prevalence of heavy and binge drinking than MI/US*
- ✓ *Fewer residents getting cholesterol checked vs. MI/US*
- ✓ *Lack of personal responsibility and motivation to engage in behavioral changes*

Preventive Practices

- ✓ *Fewer adults have mammograms, Pap test, and PSA than MI*
- ✓ *Further, screenings for breast, cervical, prostate, and colon cancer all down from 2012*
- ✓ *One in four have not visited dentist in past year*
- ✓ *Proportion vaccinated against pneumonia lower than MI/US*
- ✓ *Most/All clinical preventive practices have worsened since 2012*

Summary Tables – A Comparison of Ottawa County to Peer Counties

| M O R T A L I T Y | Better (Most Favorable Quartile) | Moderate (Middle Two Quartiles) | Worse (Least Favorable Quartile) |
|---|--|------------------------------------|-------------------------------------|
| | Cancer deaths | Chronic kidney disease deaths | Alzheimer’s disease deaths |
| | Chronic lower respiratory deaths (CLRD) | Coronary heart disease deaths | |
| | Diabetes deaths | Motor vehicle deaths | |
| | Female life expectancy | | |
| | Male life Expectancy | | |
| | Stoke deaths | | |
| | Unintentional injury (including motor vehicle) | | |
| M O R B I D I T Y | Better (Most Favorable Quartile) | Moderate (Middle Two Quartiles) | Worse (Least Favorable Quartile) |
| | Adult obesity | Adult diabetes | Alzheimer’s disease/dementia |
| | Adult overall health status | Gonorrhea | Older adult depression |
| | Cancer | Older adult asthma | |
| | HIV | Preterm births | |
| | Syphilis | | |

The above Summary Comparison Report provides an “at a glance” summary of how Ottawa County compares with peer counties on the full set of primary indicators. Peer county values for each indicator were ranked and then divided into quartiles.

Source: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Community Health Profile, Ottawa County.

Summary Tables – A Comparison of Ottawa County to Peer Counties (Cont'd.)

| | | | |
|---|--|------------------------------------|-------------------------------------|
| A C C E S S | Better (Most Favorable Quartile) | Moderate (Middle Two Quartiles) | Worse (Least Favorable Quartile) |
| | Older adult preventable hospitalizations | Cost barrier to care | Primary care provider access |
| | | Uninsured | |
| H E A L T H B E H A V I O R S | Better (Most Favorable Quartile) | Moderate (Middle Two Quartiles) | Worse (Least Favorable Quartile) |
| | Teen births | Adult binge drinking | |
| | | Adult female routine pap tests | |
| | | Adult physical inactivity | |
| | | Adult smoking | |
| | | | |

Summary Tables – A Comparison of Ottawa County to Peer Counties (Cont'd.)

| S O C I A L F A C T O R S | Better (Most Favorable Quartile) | Moderate (Middle Two Quartiles) | Worse (Least Favorable Quartile) |
|---|--------------------------------------|------------------------------------|-------------------------------------|
| | Children in single parent households | High housing costs | Unemployment |
| | Inadequate social support | On time high school graduation | |
| | | Poverty | |
| | | Violent crime | |
| E N V I R O N M E N T | Better (Most Favorable Quartile) | Moderate (Middle Two Quartiles) | Worse (Least Favorable Quartile) |
| | Drinking water violations | Access to parks | Limited access to healthy food |
| | | Annual average PM2.5 concentration | |
| | | Housing stress | |
| | | Living near highways | |
| | | | |

Source: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Community Health Profile, Ottawa County.

DETAILED FINDINGS

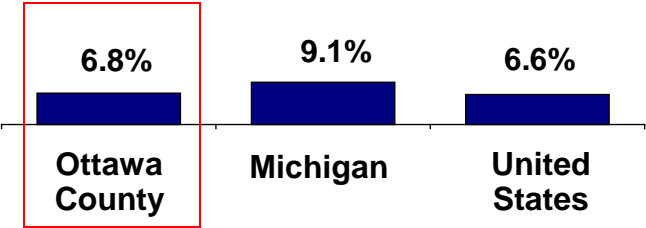
Secondary Data Sources

Social Indicators

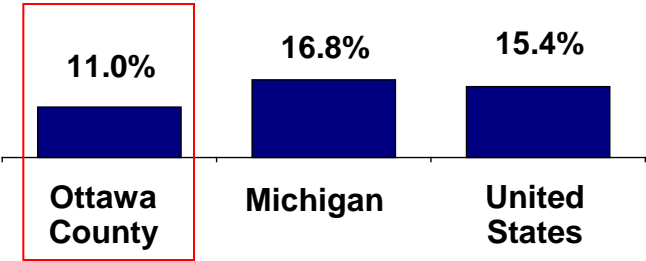
The unemployment rate is lower in Ottawa County than in Michigan but higher than U.S. overall. Additionally, more than one in ten people live in poverty in Ottawa County, lower than the proportions for Michigan or the U.S.

Unemployment and Poverty Rates

Population Age 16+ Unemployed and Looking for Work



Percentage of People in Poverty

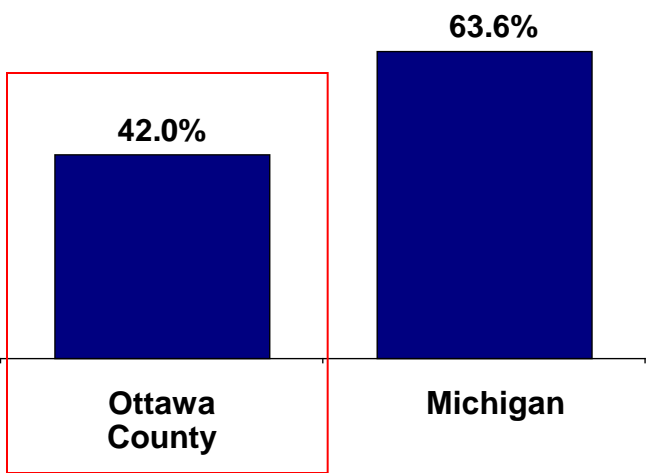


Source: Bureau of Labor Statistics, Local Area Unemployment Statistics; County Health Rankings. Ottawa Co. and MI 2014; County Health Rankings. 2009-2013 American Community Survey 5-Year Estimates. Counties and MI and US 2014. Data compiled from various sources and dates.

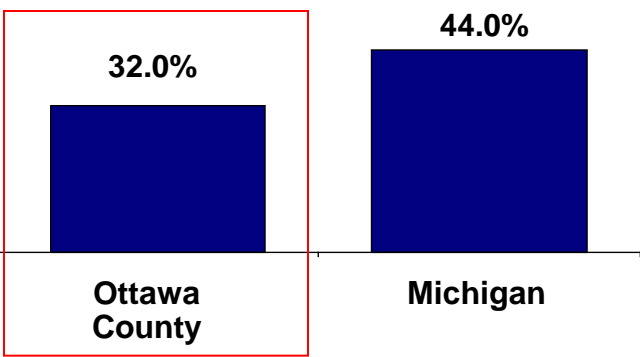
The proportion of children aged 1-4 receiving WIC and the proportion of Medicaid paid births are much lower in Ottawa County compared to the state of Michigan.

Children Born Into Poverty

Children Ages 1-4
Receiving WIC (2013)



Medicaid Paid Births (2012)

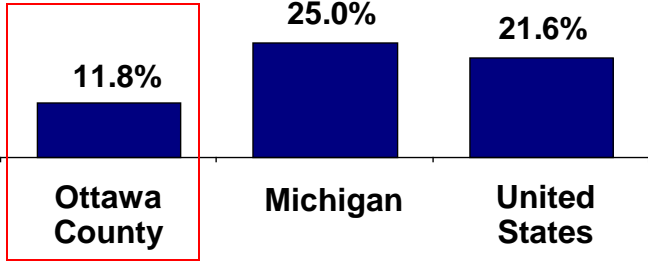


Source: Kid's Count Data Book. Ottawa Co. and MI 2013. .

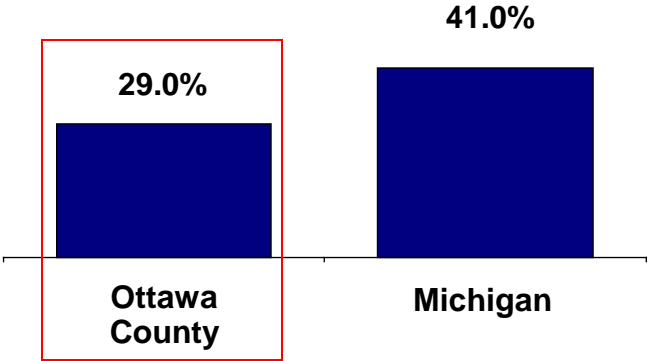
The proportion of children living in poverty or being eligible for free or reduced school lunches is far lower in Ottawa County than the state of Michigan. Still, almost three in ten children are eligible for free or reduced lunches.

Children Living in Poverty

Percentage of Children
(< Age 18) in Poverty



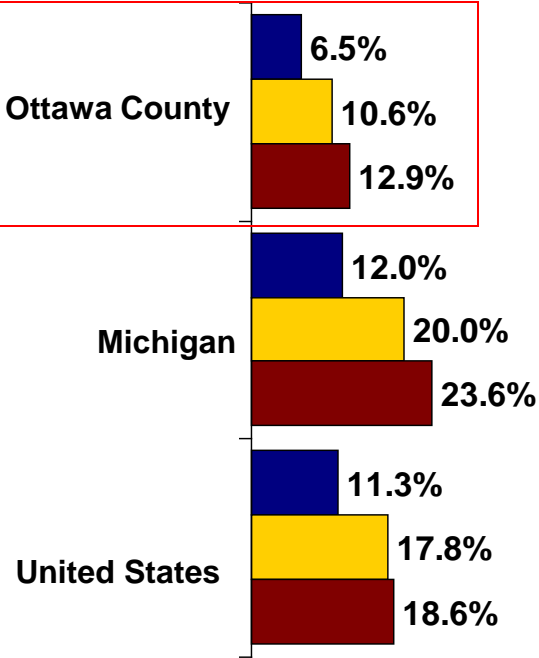
Percentage of Students
Eligible for Free/Reduced
Price School Lunches



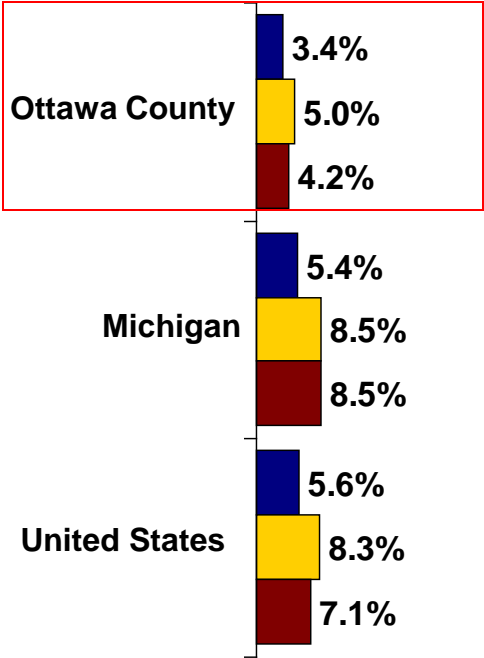
The proportion of families living in poverty in Ottawa County is lower than in Michigan and the U.S. One in ten (10.6%) Ottawa County families with children live in poverty. This proportion rises drastically for single female families, where half (50.7%) of single female families with children under 5 years of age live in poverty. Moreover, this is higher than the U.S. proportion.

Poverty Status of Families by Family Type
(% Below Poverty)

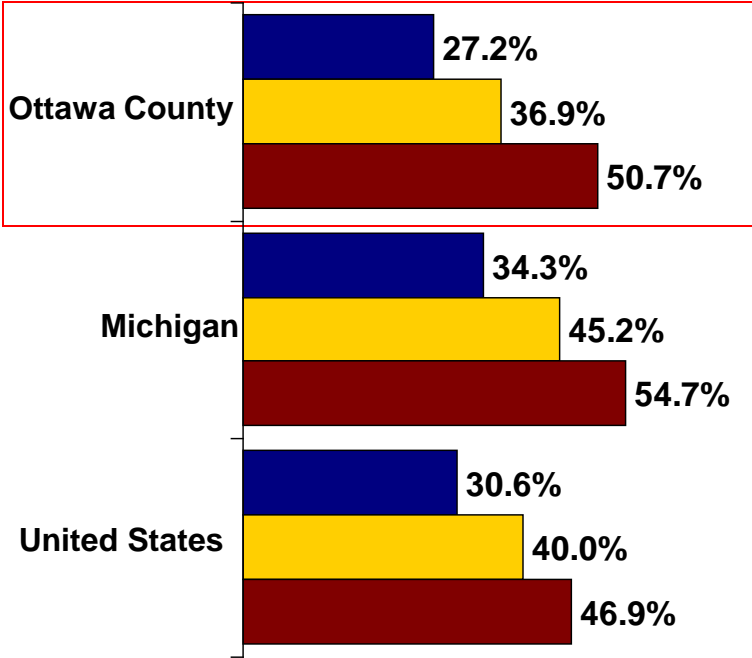
All Families



Married Couple Families



Single Female Families



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

Source: US Census, 2013 American Community Survey, Data Profiles, Selected Economic Characteristics

For both men and women, more Ottawa County residents graduate high school compared to the state and the nation. However, Ottawa County lags slightly behind the state and the nation for doctoral and professional degrees.

Educational Level Age 25+

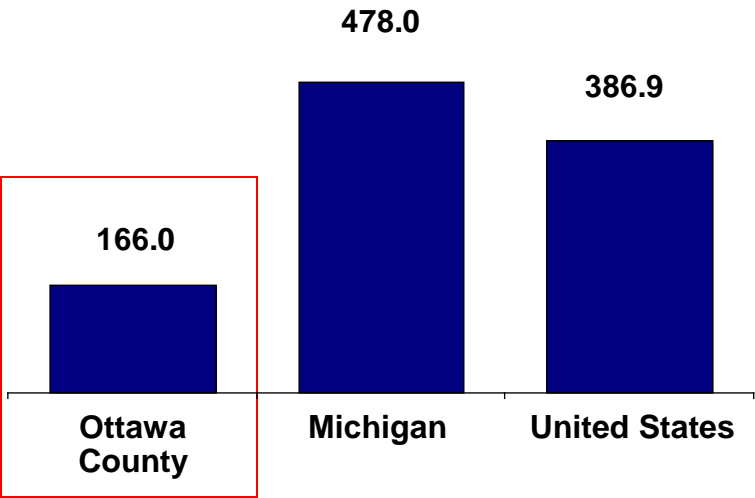
| | Men | | | Women | | |
|---|---------------|----------|-------|---------------|----------|-------|
| | Ottawa County | Michigan | U.S. | Ottawa County | Michigan | U.S. |
| No Schooling Completed | 4.0% | 3.6% | 1.4% | 3.3% | 3.3% | 1.4% |
| Did Not Graduate High School | 5.6% | 8.4% | 12.6% | 5.8% | 7.3% | 11.4% |
| High School Graduate, GED, or Alternative | 30.6% | 30.9% | 28.4% | 31.2% | 30.6% | 27.2% |
| Some College, No Degree | 22.3% | 23.8% | 20.8% | 21.9% | 24.2% | 21.4% |
| Associate's Degree | 7.7% | 7.2% | 7.2% | 9.1% | 9.5% | 8.9% |
| Bachelor's Degree | 19.5% | 15.8% | 18.3% | 19.5% | 15.7% | 18.6% |
| Master's Degree | 7.6% | 6.9% | 7.3% | 7.9% | 8.0% | 8.5% |
| Professional School Degree | 1.5% | 2.1% | 2.3% | 0.7% | 1.2% | 1.6% |
| Doctorate Degree | 1.1% | 1.4% | 1.7% | 0.3% | 0.8% | 1.0% |

Source: U.S. Census Bureau, American Community Survey, 1-year estimates

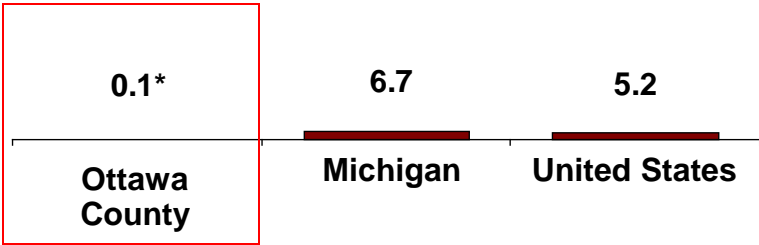
Ottawa County residents enjoy the safety of their community. In fact, Ottawa County has far lower violent crime and homicide rates compared to Michigan or the U.S. Although child abuse/neglect rates in Ottawa County are also lower than the state or nation, there is room for improvement as this rate has almost doubled from the last CHNA reporting period in (2012, 3.6).

Crime Rates

Violent Crime Rate
Per 100,000 Population

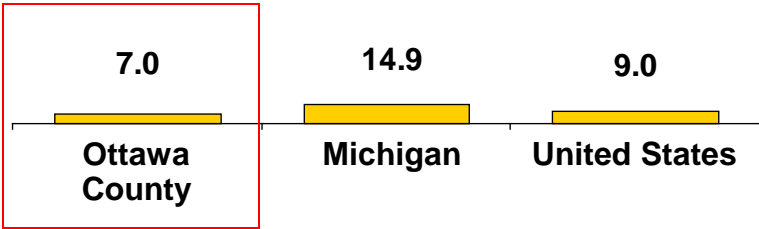


Homicide Rate Per 100,000 Population



*Caution small number, only 1 homicide during the year

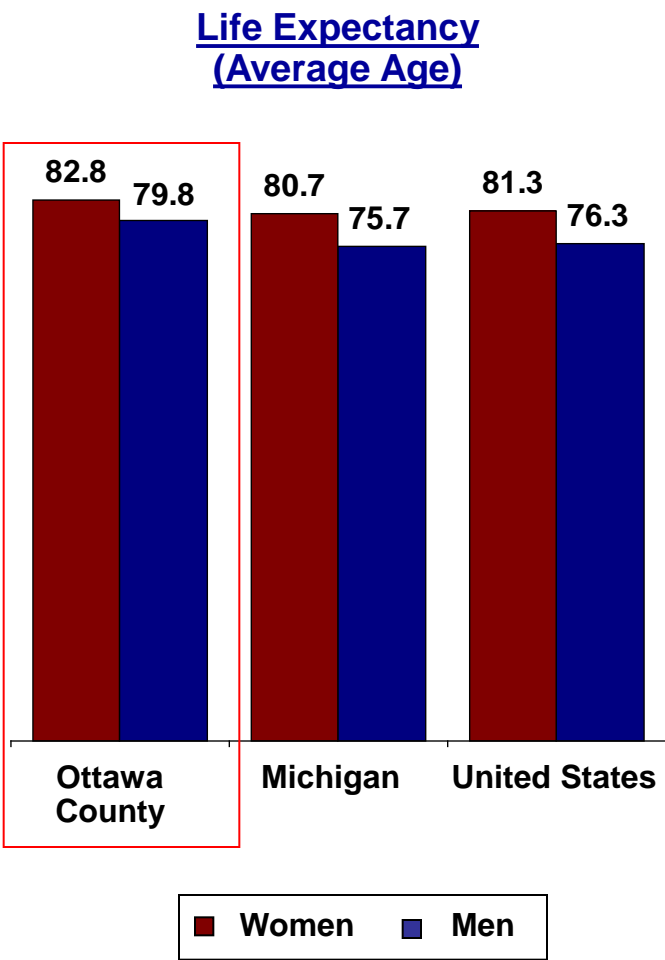
Confirmed Victims of Child Abuse/Neglect
Rate Per 1,000 Children <18



Source: County Health Rankings. Ottawa Co. and MI 2013; Note: Data compiled from various sources and dates; US FBI Website 2012; County Health Rankings/MDCH, Division of Vital Records. Ottawa and MI 2012; United States Census Bureau 2012; Kids Count Data Book. Ottawa Co., MI, and US 2012.

Health Indicators

Both Ottawa County men and women have longer life expectancy rates (when adjusted for age) compared to men and women across Michigan or the U.S.

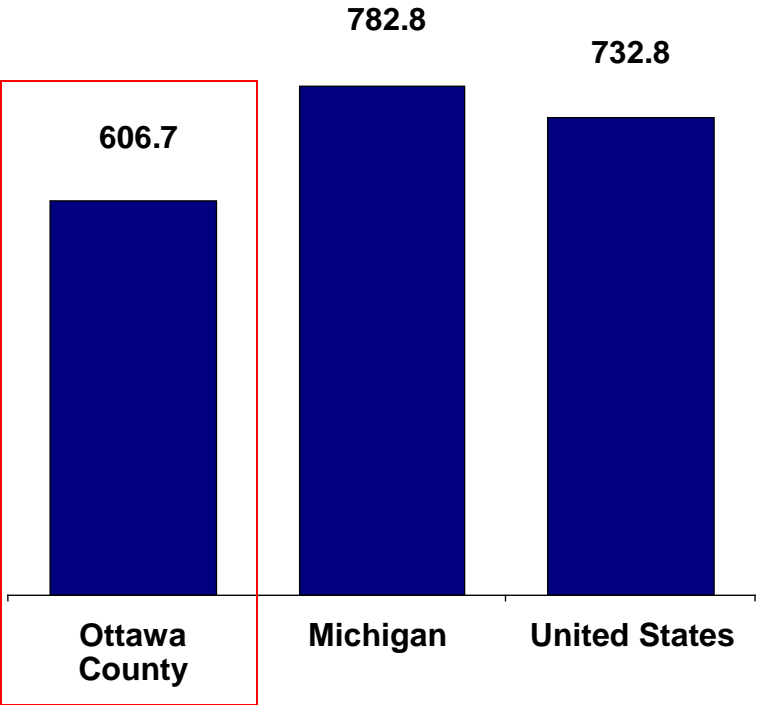


Source: Institute for Health Metrics and Evaluation at the University of Washington. Uses 2010 mortality data for Ottawa, MI, and US.

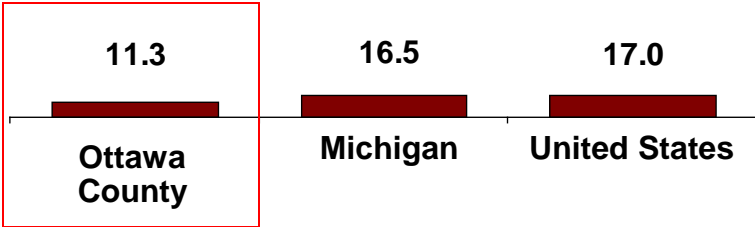
Ottawa County’s age adjusted and child mortality rates are far better than those of the state or nation. The most recent mortality rate data shows Ottawa County at just over 600 per 100,000 residents for age adjusted and 11.3 per 100,000 for children aged 1-14.

Mortality Rates

Age Adjusted Mortality Rate
Per 100,000 Population



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

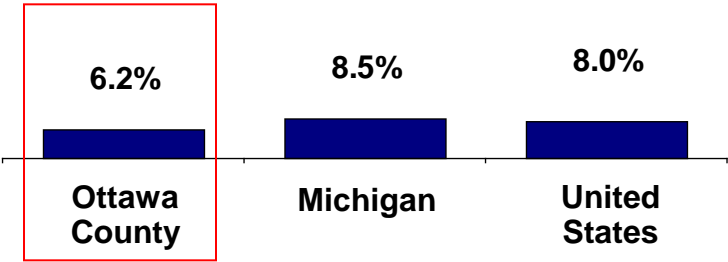


Source: Michigan Resident Death File, Vital Records & Health Statistics Section, Michigan Department of Community Health. Ottawa Co. 2012; MI 2012 and US 2011; US: Kaiser Family Foundation 2011; Kids' Count Data. MI 2012

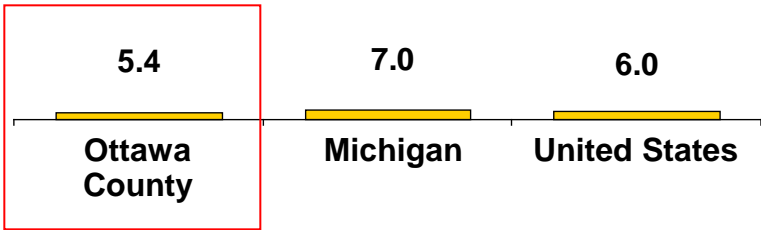
Moreover, Ottawa County has fewer live births with low birth weight and lower infant mortality rates than the state or nation. In Ottawa County, roughly one in fifteen live births are classified as having low birth weight and the infant mortality rate is 5.4 for every 1,000 live births.

Low Birth Rates and Infant Mortality Rates

Proportion of Live Births
with Low Birth Weight
(<2500g)



Infant Mortality Rate Per 1,000 Live Births



Source: Kids Count Data Book/MDCH Vital Records Division, Resident Birth Files. Ottawa County, MI, and US 2012.

Cancer is the leading cause of death in Ottawa County, compared to **heart disease** for the state and the nation. Alzheimer’s disease leads to death in Ottawa County more often than it does for the state and the nation. Conversely, COPD tends to be a cause of death more in the state and the nation than in Ottawa County. Of note, as a leading cause of death, diabetes moved up from 10th three years ago to 7th this year.

Top 10 Leading Causes of Death

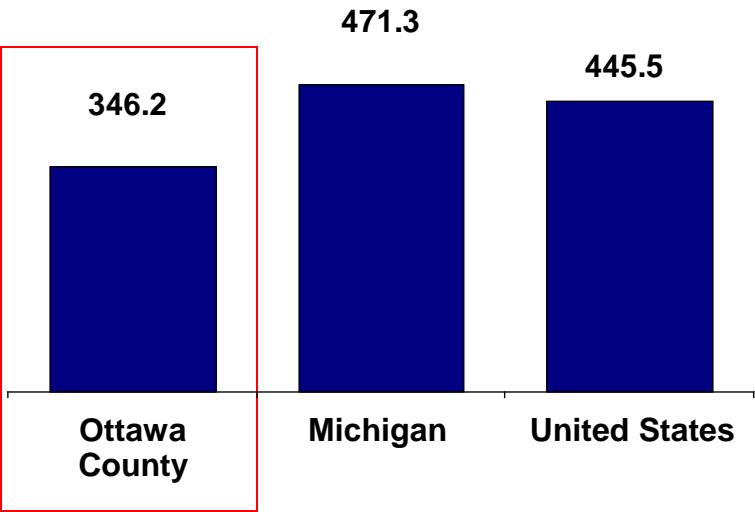
| | Ottawa County | | Michigan | | United States | |
|------------------------------------|---------------|-------|----------|-------|---------------|-------|
| | RANK | Rate | RANK | Rate | RANK | Rate |
| Cancer | 1 | 145.6 | 2 | 174.9 | 2 | 168.6 |
| Heart Disease | 2 | 128.2 | 1 | 197.9 | 1 | 173.7 |
| Stroke | 3 | 31.7 | 4 | 37.2 | 5 | 37.9 |
| Alzheimer’s Disease | 4 | 27.0 | 6 | 25.6 | 6 | 24.6 |
| Chronic Lower Respiratory Diseases | 5 | 27.0 | 3 | 45.2 | 3 | 42.7 |
| Unintentional Injuries | 6 | 23.0 | 5 | 36.6 | 4 | 38.0 |
| Diabetes Mellitus | 7 | 13.3 | 7 | 15.5 | 7 | 21.5 |
| Pneumonia/Influenza | 8 | 11.0 | 9 | 13.3 | 8 | 15.7 |
| Intentional Self-Harm (Suicide) | 9 | 9.0 | 10 | 12.2 | 10 | 12.0 |
| Kidney Disease | 10 | 7.9 | 8 | 13.5 | 9 | 13.4 |
| All Other Causes | | 180.5 | | 194.9 | | 192.2 |

Source: Michigan Department of Community Health, Ottawa Co. and MI 2012; U.S. Census Bureau. US 2010.

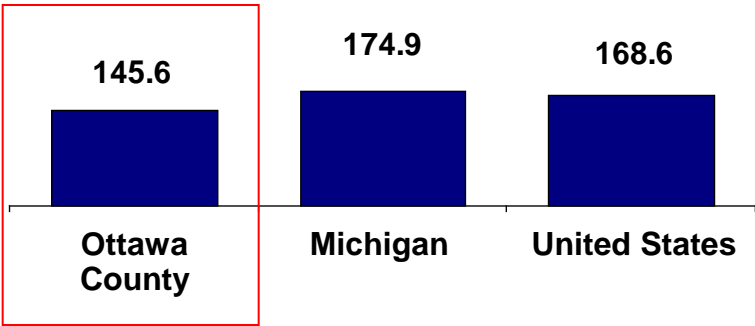
Compared to the state or the nation, cancer diagnosis and cancer death rates are lower for Ottawa County residents.

Cancer Rates

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



Overall Cancer Death Rate
Per 100,000 Population



Preventable hospitalizations are the same proportion of all hospitalizations in Ottawa County compared to the state of Michigan (20.2%). **Congestive heart failure** and **bacterial pneumonia** are the leading causes of preventable hospitalization in Ottawa County and Michigan. Grand mal and other epileptic conditions are more common in Ottawa County than Michigan, while COPD is more common throughout Michigan compared to Ottawa County.

Top 10 Leading Causes of Preventable Hospitalizations

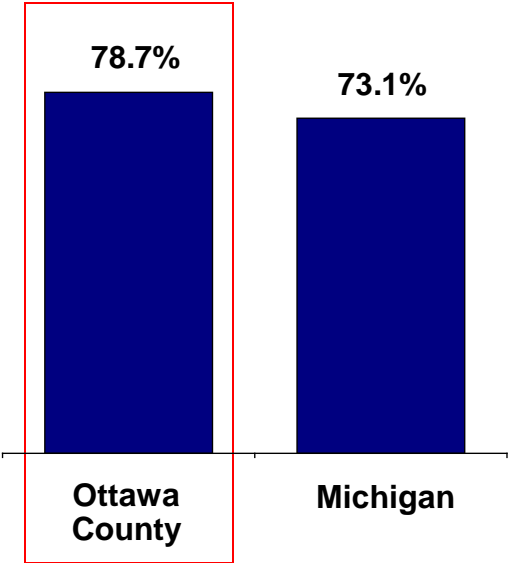
| | Ottawa County | | Michigan | |
|---|---------------|---------------------------------------|----------|---------------------------------------|
| | RANK | % of All Preventable Hospitalizations | RANK | % of All Preventable Hospitalizations |
| Congestive Heart Failure | 1 | 14.1% | 1 | 12.8% |
| Bacterial Pneumonia | 2 | 12.9% | 2 | 10.7% |
| Kidney/Urinary Infections | 3 | 6.2% | 4 | 7.1% |
| Chronic Obstructive Pulmonary | 4 | 5.9% | 3 | 9.8% |
| Cellulitis | 5 | 5.6% | 5 | 6.5% |
| Grand Mal and Other Epileptic Conditions | 6 | 5.3% | 8 | 3.2% |
| Diabetes | 7 | 4.7% | 6 | 5.6% |
| Dehydration | 8 | 3.5% | 7 | 5.3% |
| Asthma | 9 | 3.2% | 9 | 2.2% |
| Convulsions | 10 | 1.4% | -- | -- |
| Gastroenteritis | -- | -- | 10 | 1.6% |
| All Other Ambulatory Care Sensitive Conditions | | 29.6% | | 35.3% |
| Preventable Hospitalizations as a % of All Hospitalizations | | <u>19.2%</u> | | <u>20.2%</u> |

Source: MDCH Resident Inpatient Files, Division of Vital Records. Ottawa Co. and MI 2012.

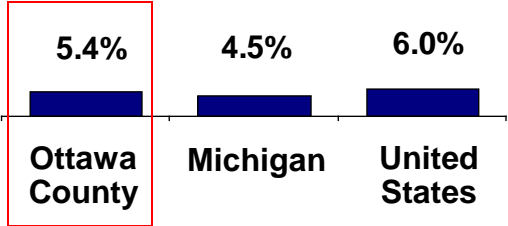
Ottawa County women are more likely to begin prenatal care in the first trimester than women elsewhere in Michigan. Further, almost all (94.6%) of Ottawa County women received prenatal care at some point. Children aged 19-35 months are more likely to be fully immunized in Ottawa County than children of the same age elsewhere in the state and on par with the nation.

Prenatal Care and Childhood Immunizations

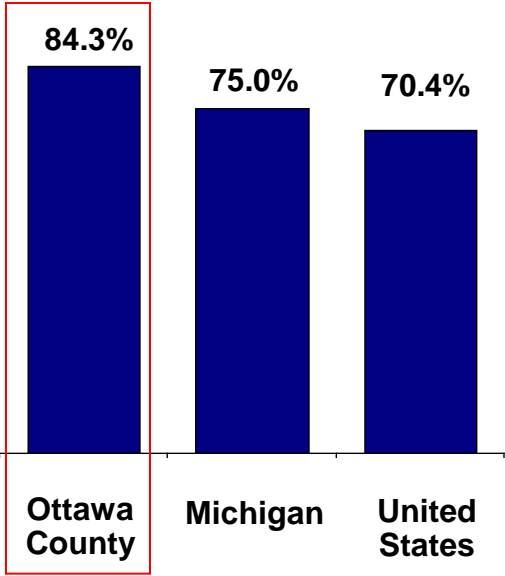
Proportion of Women Who Begin Prenatal Care in First Trimester



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



Proportion of Children Aged 19-35 Months Fully Immunized



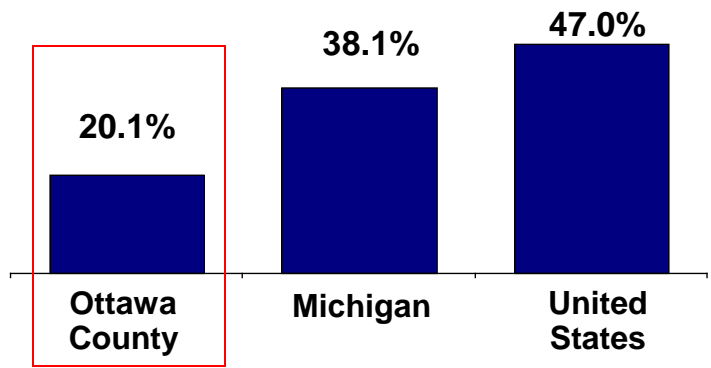
Source: MDCH Vital Records Ottawa Co and MI 2013; Kids Count Data Book/MDCH Vital Statistics. Ottawa Co. and MI 2014; Local and MI % from MICR. National data at CDC National Immunization Survey.

Youth Behavioral Risk Factors

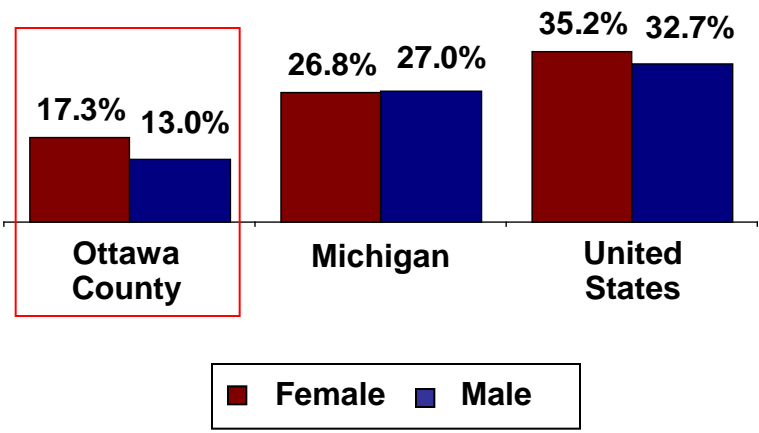
Ottawa County teens are less likely to engage in sexual intercourse than teens across Michigan or the U.S. Still, one in five (20.1%) Ottawa County youths have had sexual intercourse and 15.2% have had it in the past three months.

Teenage Sexual Activity

Youth Who Have Ever
Had Sexual Intercourse



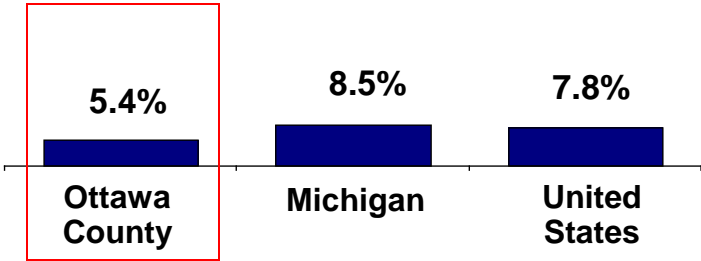
Youth Who Have Had
Intercourse in Past 3 Months



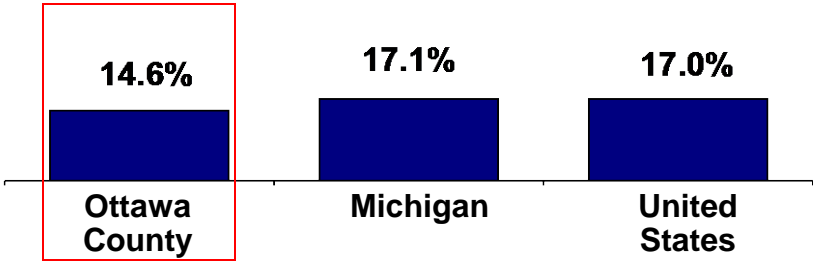
As a percentage of all births, teen births are lower in Ottawa County (5.4%) than in Michigan (8.5%) or the U.S (7.8%). Further, repeat teen births are also lower in Ottawa County than the state or the nation.

Teenage Pregnancy

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



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

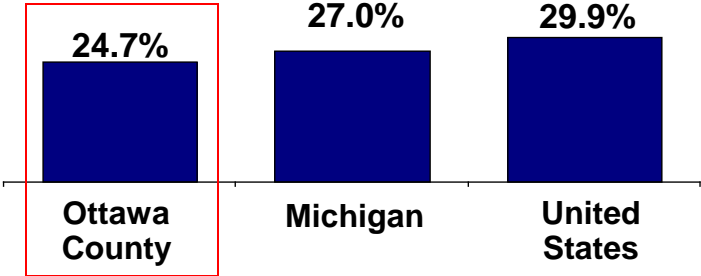


Source: MDCH Vital Records. Ottawa Co. and MI 2012; Kids Count Data Book. Ottawa Co. and MI 2012.

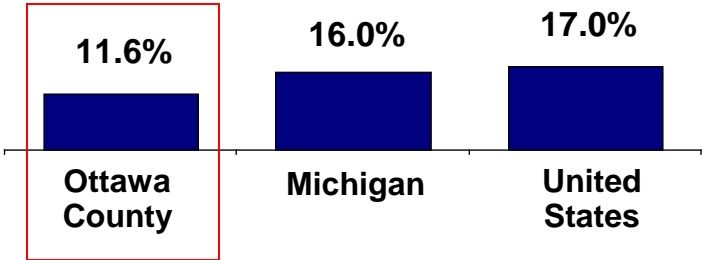
One in five Ottawa County youths reported depression in 2013, while 11.6% seriously considered suicide and 7.4% attempted suicide. All three of these indicators are lower than Michigan or the U.S., however, they are still high enough to warrant concern.

Mental Health Indicators Among Youth

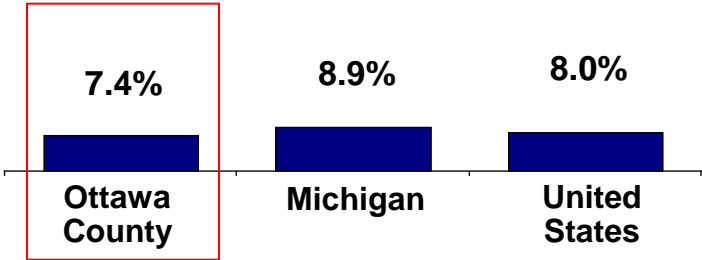
Proportion of Youth Reporting Depression in Past Year



Proportion of Youth Seriously Considered Suicide in Past Year



Proportion of Youth Reporting Suicide Attempt in Past Year

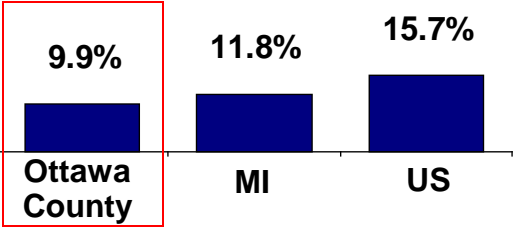


Source: Ottawa County 2013 Youth Assessment Survey (YAS). NOTE: YAS includes grades 8, 10, and 12. MI and US: YBRS 2013; includes grades 9, 10, 11, 12.

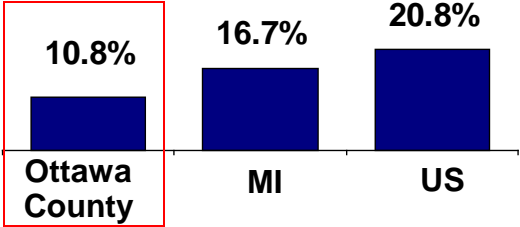
One in ten Ottawa County youths currently smoke cigarettes, a rate lower than both the state and U.S. Far fewer Ottawa County youths report binge drinking or marijuana use compared to Michigan or the U.S.

Tobacco, Alcohol and Marijuana Use Among Youth

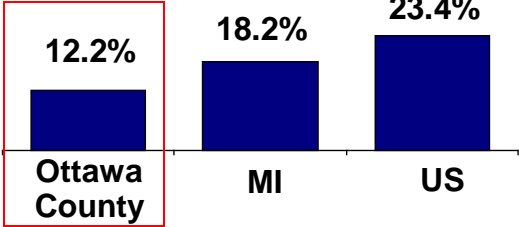
Proportion of Youth Who Report Current Smoking (Past 30 Days)



Proportion of Youth Reporting Binge Drinking (5+ Drinks, Past 30 Days)



Proportion of Youth Reporting Current Marijuana Use (Past 30 Days)

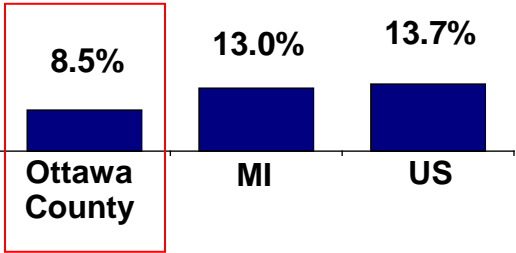


Source: Ottawa County 2013 Youth Assessment Survey (YAS). NOTE: YAS includes grades 8, 10, and 12. MI and US: YBRS 2013; includes grades 9, 10, 11, 12.

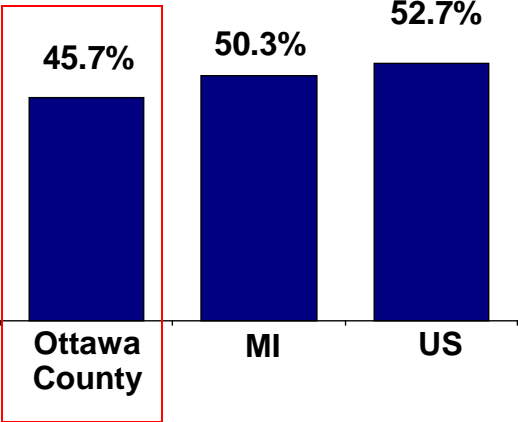
Fewer Ottawa County youth are obese or physically inactive compared to the youth of MI or the U.S. Further, fewer report inadequate consumption of fruits and vegetables compared to youth from across the nation. However, these are areas of opportunity, especially since almost half (45.7%) of Ottawa County youth are not adequately partaking in physical activity and two-thirds (68.0%) are not consuming adequate (<5 servings) of fruits or vegetables.

Obesity, Physical Activity and Diet

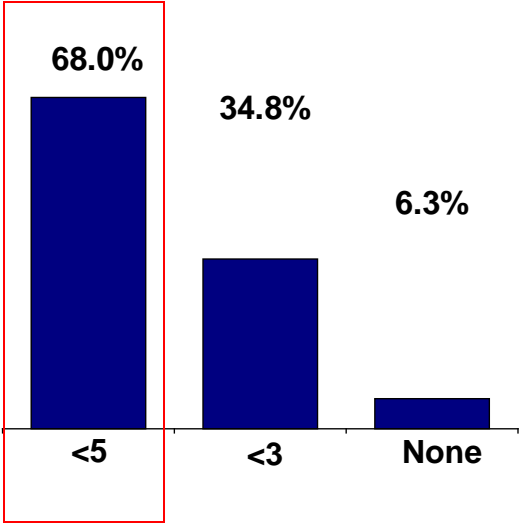
Youth Who Are Obese (>95th Percentile BMI for Age and Sex)



Youth Reporting Inadequate Physical Activity (<60+ Minutes, 5+ Days Per Week)



Ottawa County Youth Servings of Fruits/Vegetables Per Day



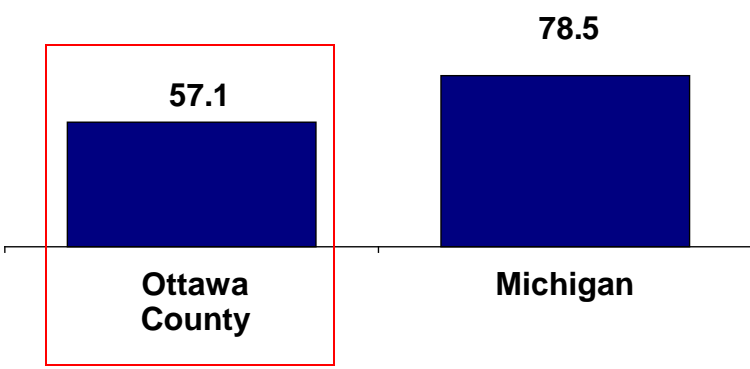
Source: Ottawa: 2013 Youth Assessment Survey and 3rd Grade BMI Surveillance; Michigan YRBS NOTE: YAS includes grades 8, 10, and 12 while YRBS includes grades 9-12.

Health Care Access

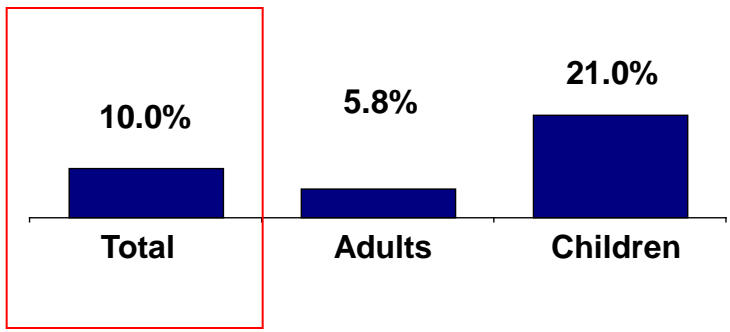
There are far fewer primary care physicians (PCP) per capita compared to the state. One in twenty adults and one in five children have Medicaid as their health care coverage in Ottawa County.

Primary Care Physicians and Medicaid Patients

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



Proportion of Medicaid Patients
in Ottawa County



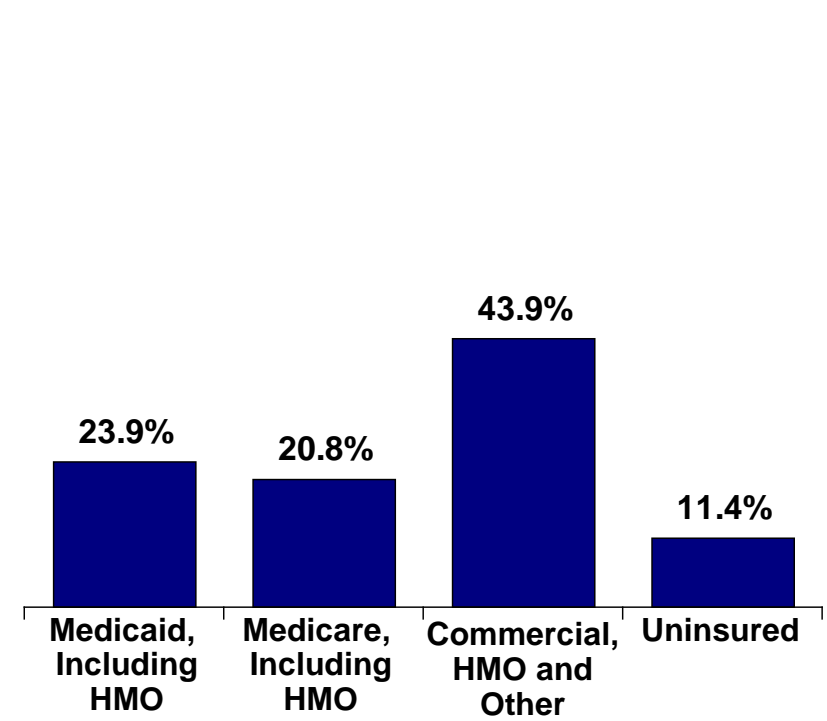
*Physicians defined as general or family practice, internal medicine, pediatrics, obstetrics or gynecology
Source: PCP: County Health Rankings, 2014. Medicaid: US Census ACS 2013 estimate. Michigan Department of Human Services Annual Report and monthly Green Book of Statistics (Dec 2014).

Hospital and Clinic Data

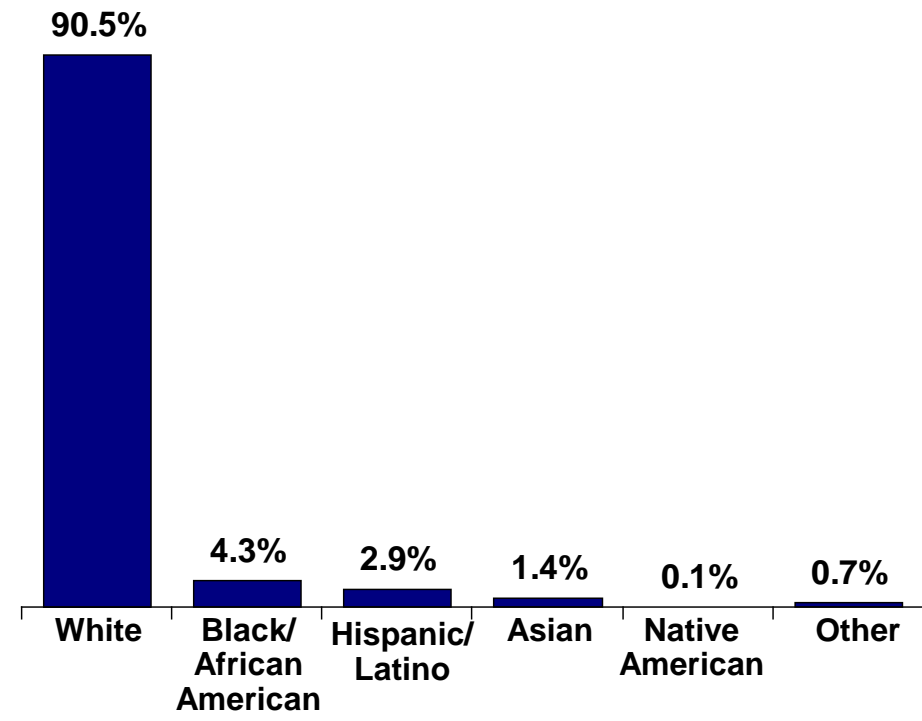
More than four in ten (44.7%) ER/ED admissions in Ottawa County are for patients with government sponsored health coverage, while 11.4% are uninsured. Thus, over half (56.1%) of ER/ED admissions are for people without commercial (private, employer provided) health insurance. ER/ED admissions are not represented disproportionately by minorities.

Hospital Data, Ottawa County

Insurance Status of Patients Admitted to the Emergency Room/Department



Race/Ethnicity of Patients Admitted to the Emergency Room/Department

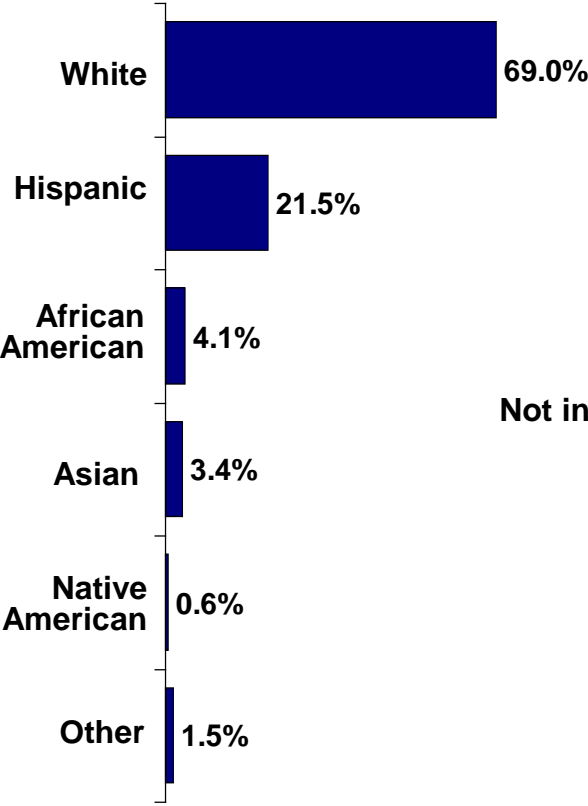


Source: Holland Hospital, North Ottawa Community Hospital, Spectrum Health-Zeeland Community Hospital

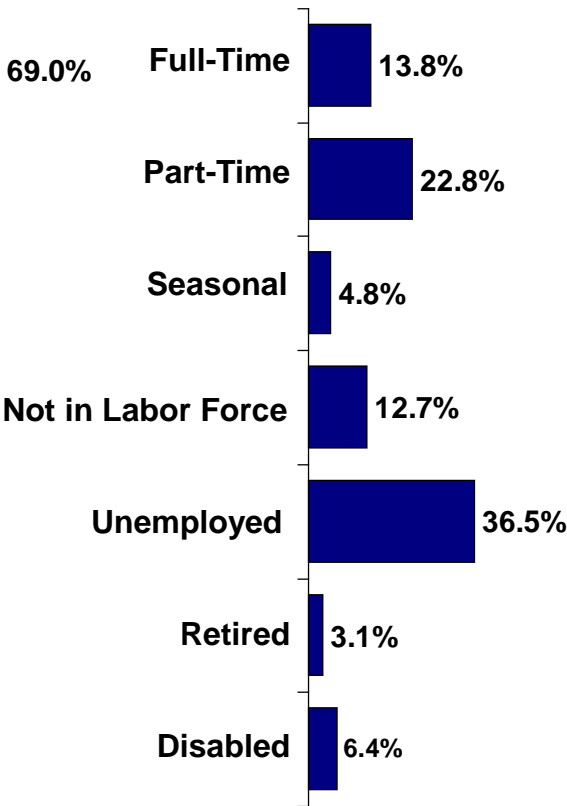
The free medical clinics in Ottawa County are utilized disproportionately by minorities (non-Whites), especially Hispanics. Additionally, just over one-third (36.6%) of the patients who use them are employed part or full time. The value of the free clinics is supported by the fact that if these facilities were not an option for specific subpopulations, they would most likely go without care or to the Emergency Room (ER/ED).

Free Clinic Data, Ottawa County
(City on a Hill, Holland Free Health Clinic, Love INC)

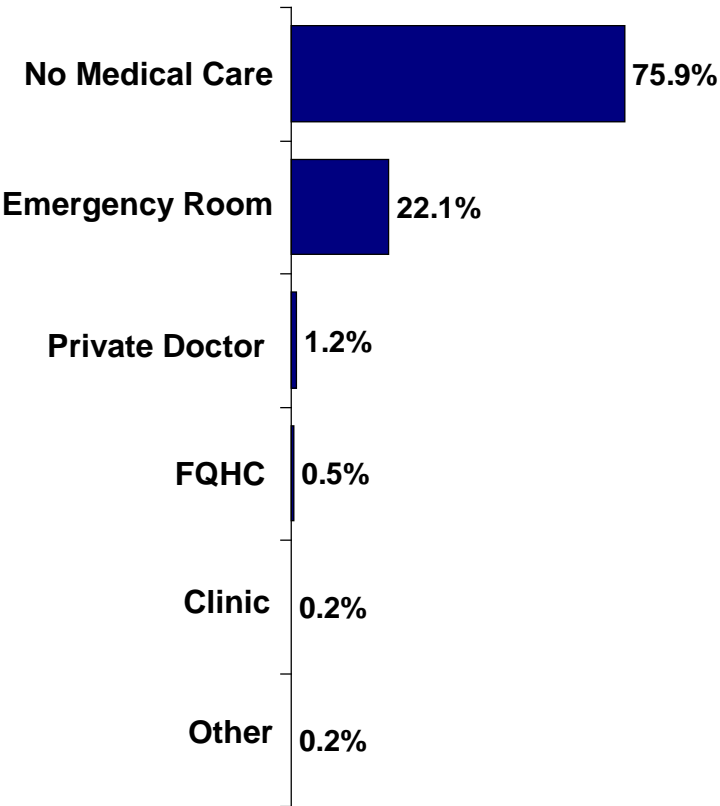
Free Medical Clinic Utilization
by Race/Ethnicity



Free Medical Clinic Utilization
by Employment Status



Where Patients Would Go if
Free Clinic Was Unavailable
(City on a Hill Only)



City on a Hill Free Clinic, Zeeland; Holland Free Health Clinic (HFHC), Holland; Love INC Free Clinic, Grand Haven.

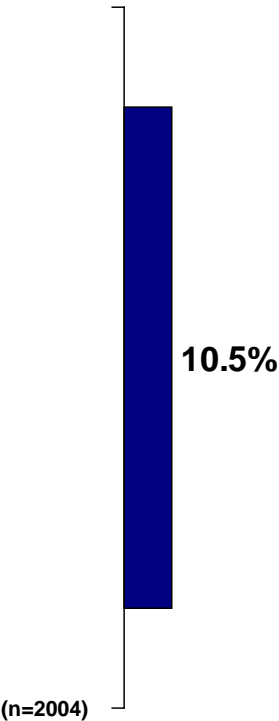
Behavioral Risk Factor Survey 2014

Health Status Indicators

One in ten Ottawa County adults report fair or poor health. The proportion 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 people living above the poverty line. Significantly more Hispanics report fair or poor health than other racial/ethnic groups. Adults who live in central and northeast Ottawa County are less likely to report fair or poor health than residents in other sections.

General Health Status

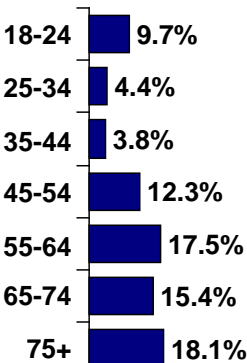
General Health Fair or Poor*
(Total Sample)



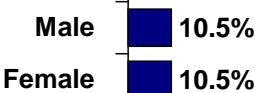
*Among all adults, the proportion who reported that their health, in general, was either fair or poor.

Health Fair or Poor by Demographics

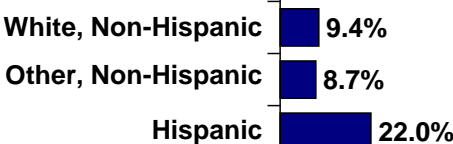
Age



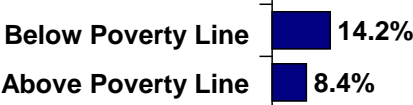
Gender



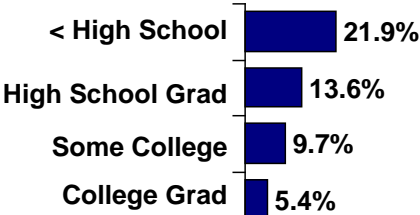
Race/Ethnicity



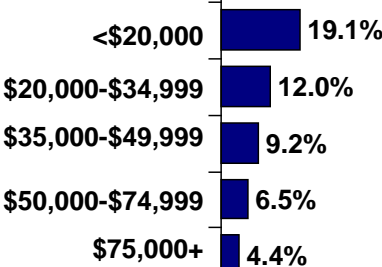
Poverty Level



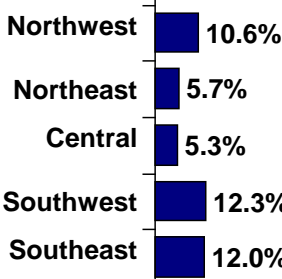
Education



HH Income



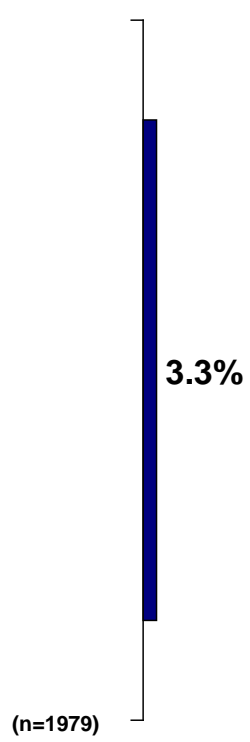
Section



Almost all adults are satisfied with their life. Those in households with incomes below \$20,000 are least likely to be satisfied with their lives. College graduates are more likely to be satisfied than those with less education, especially those who have less than a high school education.

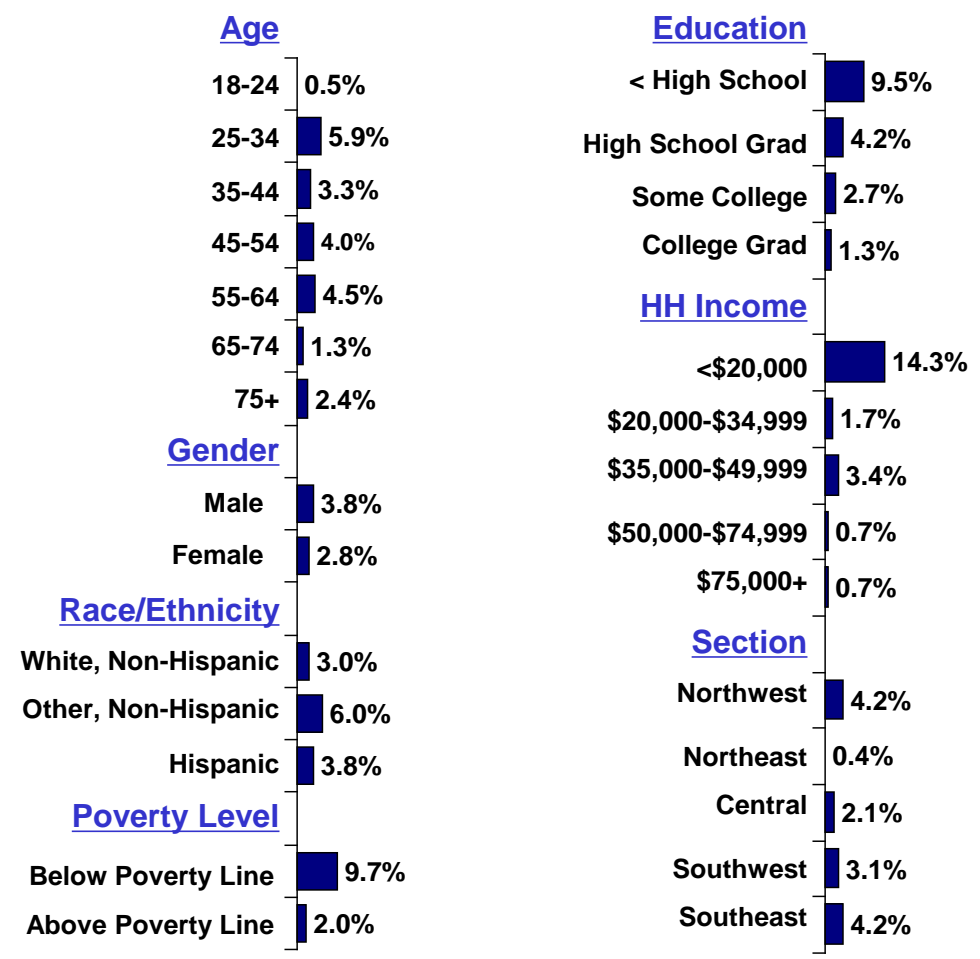
Life Satisfaction

Dissatisfied or Very Dissatisfied With Life*
(Total Sample)



*Among all adults, the proportion who reported either “dissatisfied” or “very dissatisfied” to the following question: “In general, how satisfied are you with your life?”

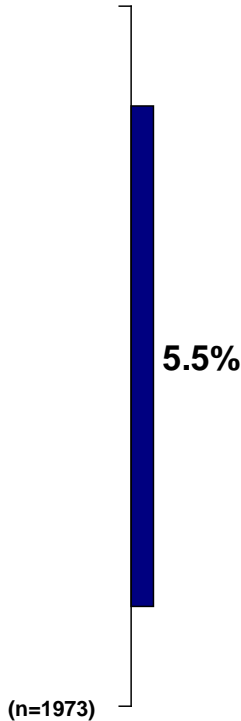
Dissatisfied/Very Dissatisfied by Demographics



Almost all Ottawa County adults receive adequate social and emotional support. Those who more often lack the social and emotional support they need come from groups that have less than a high school education, less than \$20,000 in annual income, and are Hispanic.

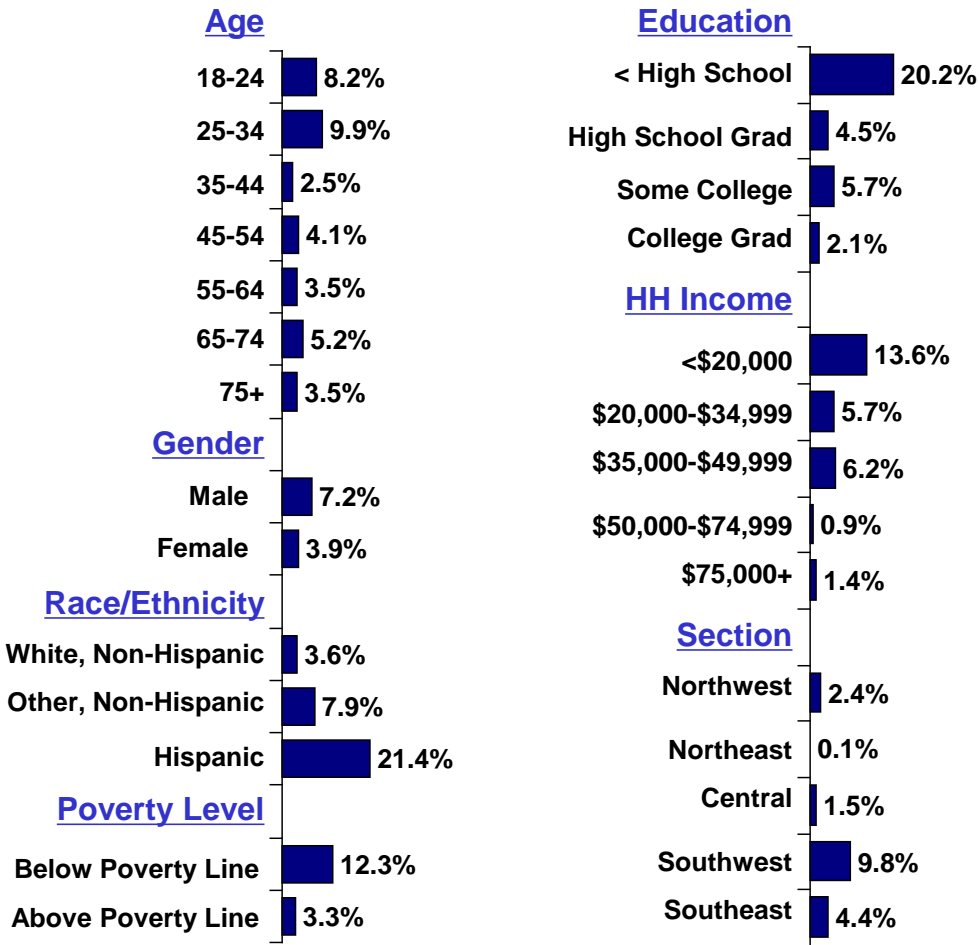
Social and Emotional Support

Rarely or Never Receive the Social and Emotional Support That is Needed*
(Total Sample)



*Among all adults, the proportion who reported either “rarely” or “never” to the following question: “How often do you get the social and emotional support you need?”

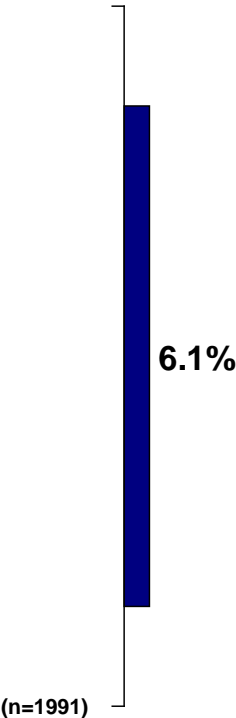
Rarely/Never Receive Support by Demographics



Prevalence of poor physical health is directly related to age. It is also highest among residents with the lowest household income (13.1%) and living below the poverty line (8.7%). Prevalence is lowest among college graduates (4.5%) and the highest income groups (2.9%, 4.3%).

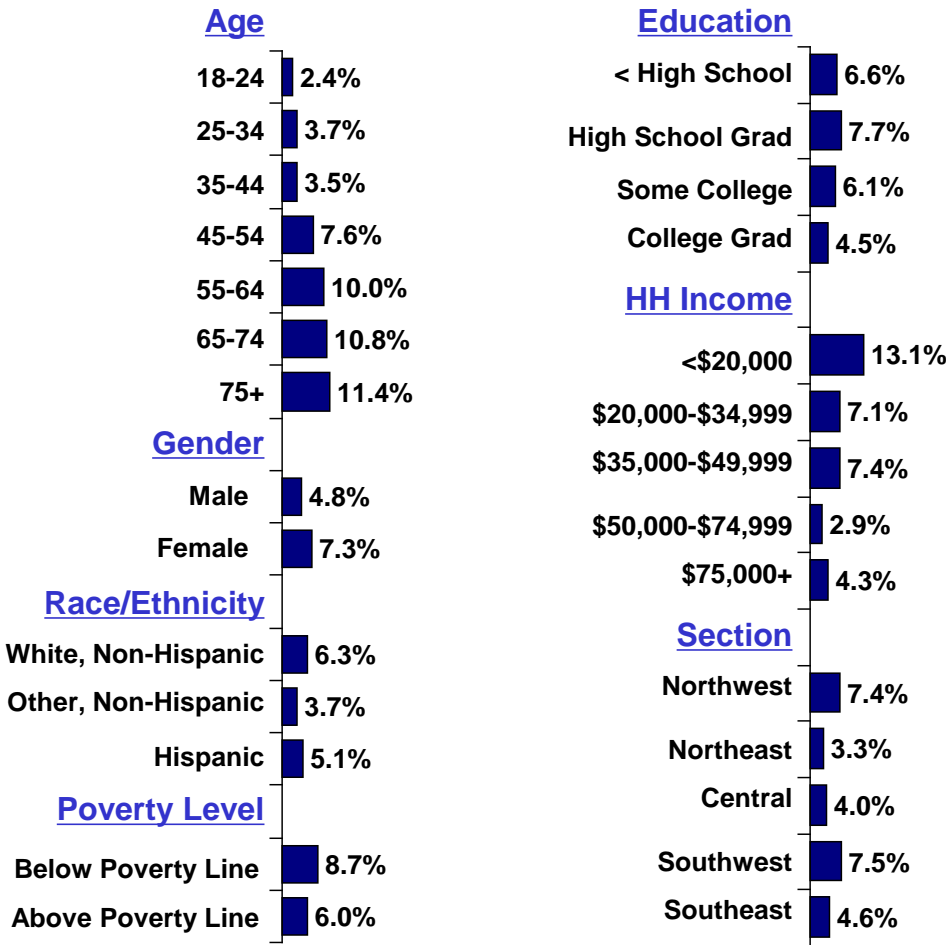
Physical Health Status

Poor Physical Health*
(Total Sample)



*Among all adults, the proportion who reported 14 or more days of poor physical health, which includes physical illness and injury, during the past 30 days.

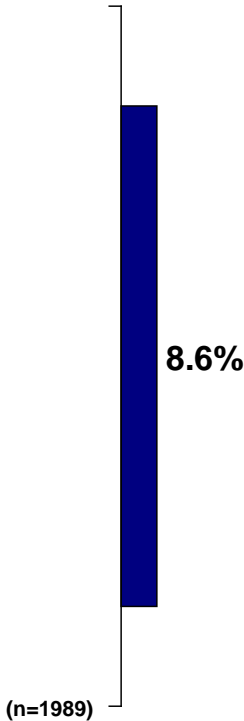
Poor Physical Health by Demographics



The prevalence of poor mental health is inversely related to age and highest among those age 18-24. The largest proportions of those with poor mental health are found among adults from households with low incomes and those with less than a high school degree. Poor mental health is more than twice as prevalent in the Hispanic subpopulation compared to other racial/ethnic groups.

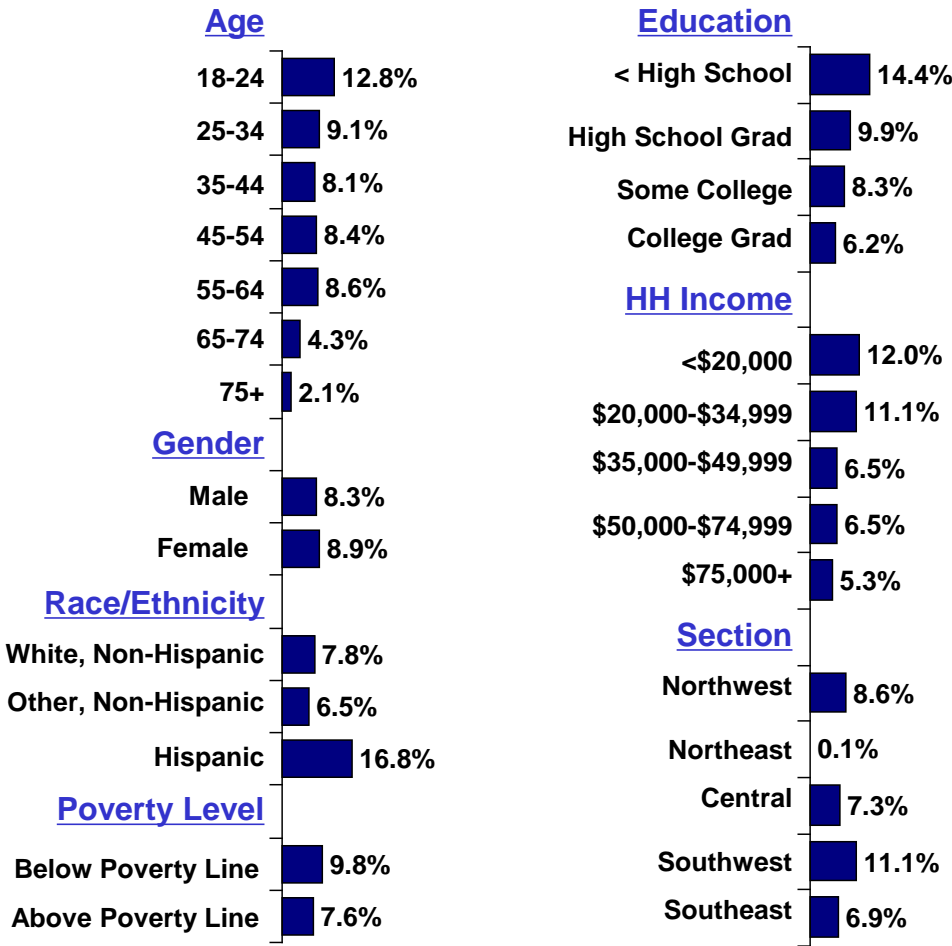
Mental Health Status

Poor Mental Health*
(Total Sample)



*Among all adults, the proportion who reported 14 or more days of poor mental health, which includes stress, depression, and problems with emotions, during the past 30 days.

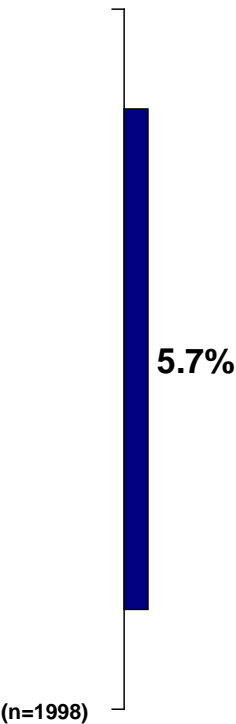
Poor Mental Health by Demographics



The largest proportions of adults who experience activity limitation are found among the poorest adults; those with the lowest incomes, for example, less than \$20K (12.6%), and those living below the poverty line (11.3%).

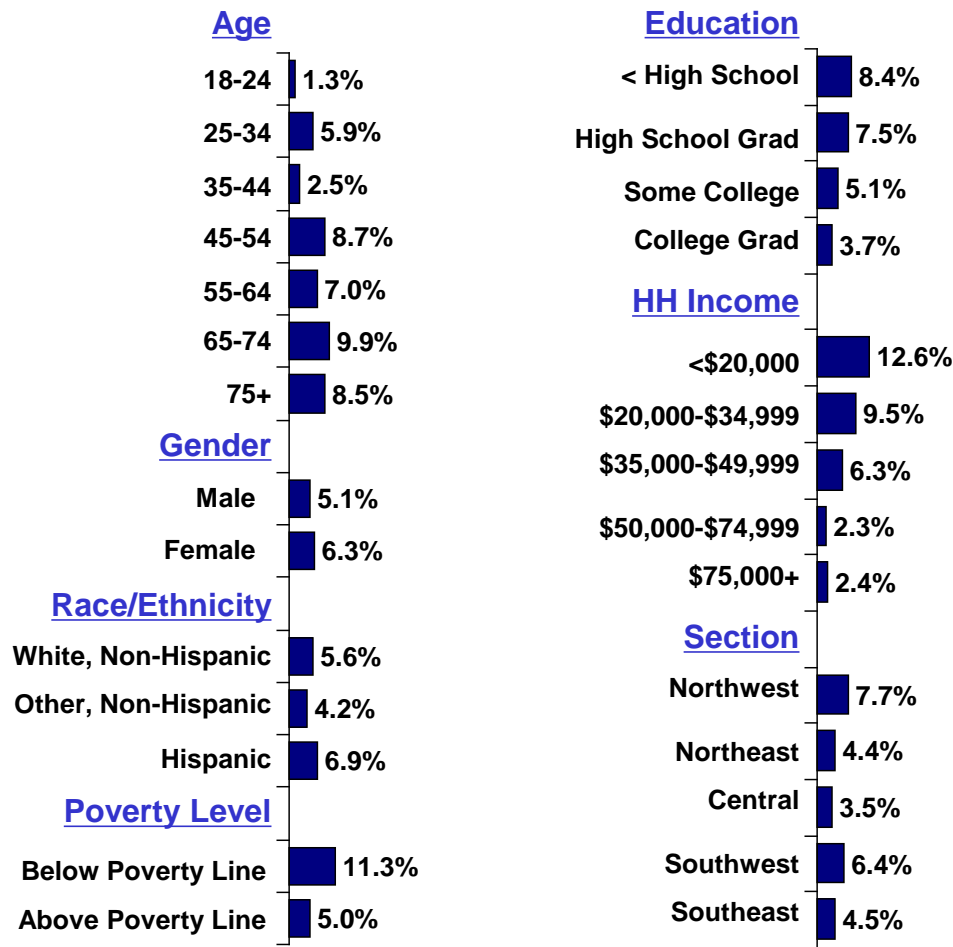
Activity Limitation

Activity Limitation*
(Total Sample)



*Among all adults, the proportion who reported 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.

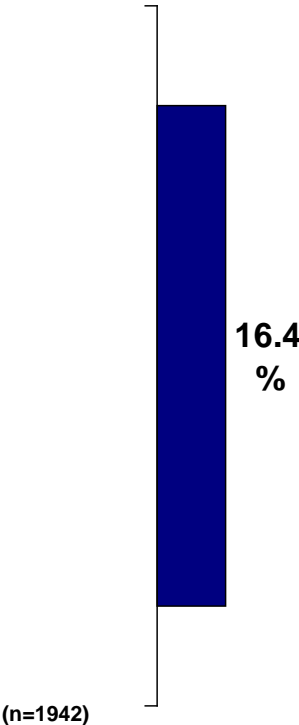
Activity Limitation by Demographics



Roughly one in six Ottawa County adults experience mild to severe psychological distress. Groups most likely to be diagnosed with mild to severe psychological distress include those who: are younger (< age 35), are non-White, have less than a high school education, and have household incomes less than \$35K. To this last point, one glaring difference is between those who live below the poverty line (31.9%) and those who live above it (14.8%)

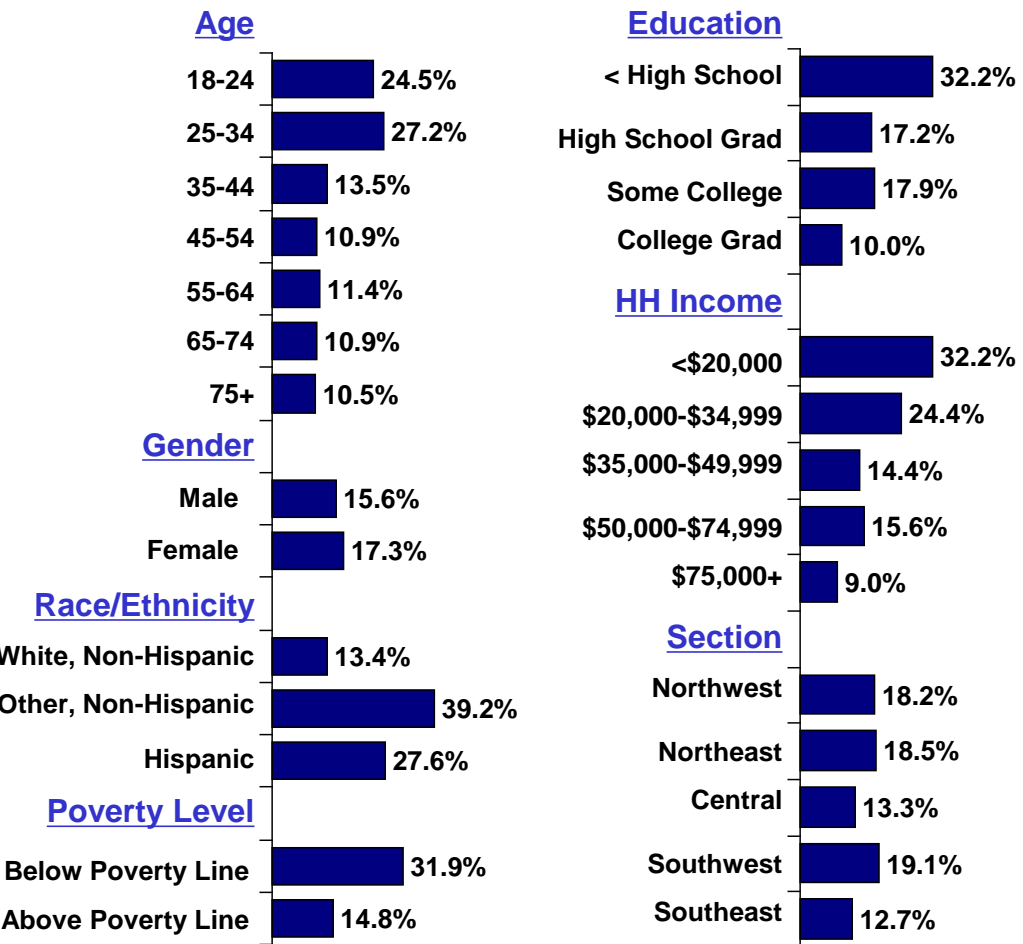
Psychological Distress

Mild to Severe Psychological Distress*
(Total Sample)



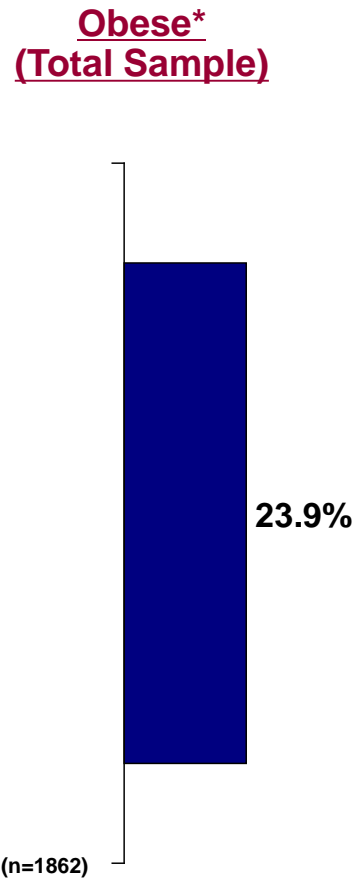
*Calculated from responses to Q. 22.1- 22.6 where respondents scored 12 or more across the six items on the Kessler 6 scale.

Mild to Severe Psychological Distress by Demographics



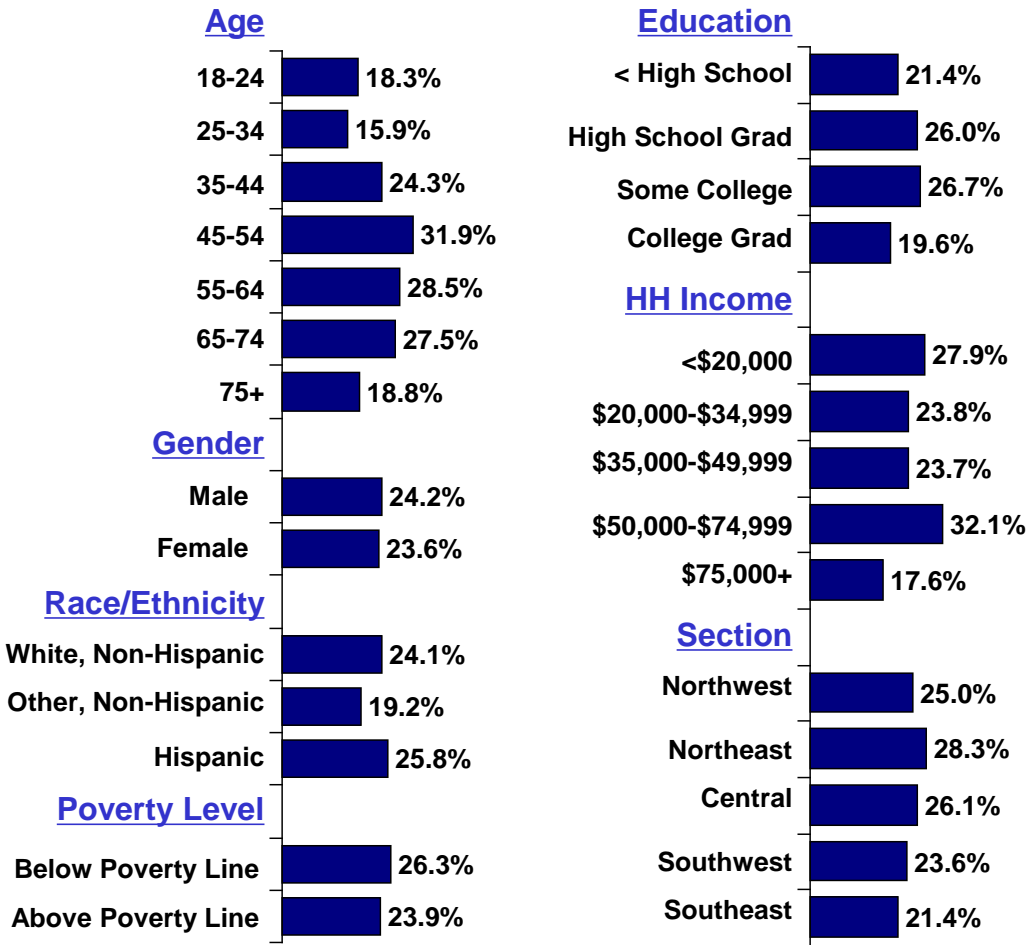
Almost one in four adults are considered to be obese per the BMI. Obesity is a condition that affects adults regardless of socioeconomic or socio-demographic characteristics. That said, college graduates and those with annual incomes of \$75,000 or more are less likely to be obese than other groups. Obesity tends to be a health problem for adults between the ages of 45-74.

Weight Status



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

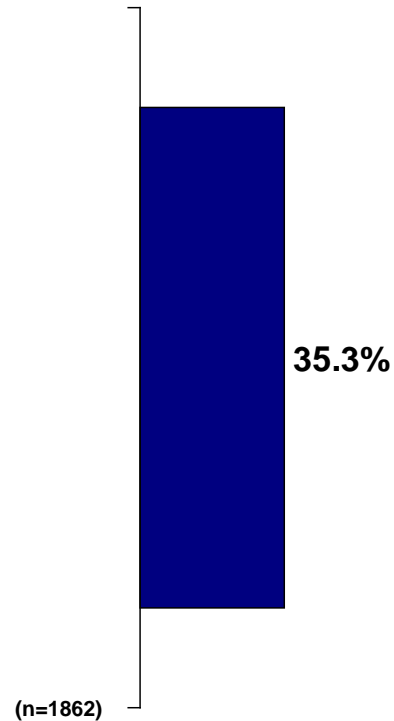
Obese by Demographics



Additionally, more than one-third of adults are overweight. Men and Hispanics are far more likely to be considered overweight (but not obese) than women and non-Hispanics, respectively. Residents living in northeast Ottawa County are least likely to be overweight compared to residents living elsewhere. Residents with the lowest incomes and/or below the poverty line are less likely to be overweight than others who are better off financially.

Weight Status (Cont'd.)

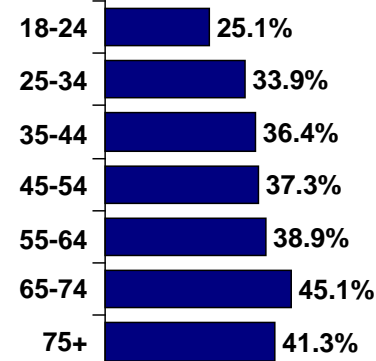
Overweight*
(Total Sample)



*Among all adults, the proportion of respondents whose BMI was greater than or equal to 25.0, but less than 30.0.

Overweight by Demographics

Age



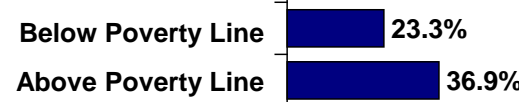
Gender



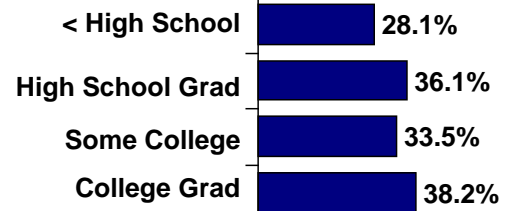
Race/Ethnicity



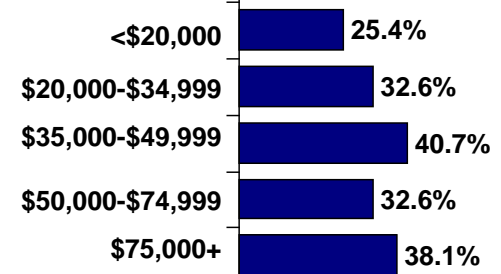
Poverty Level



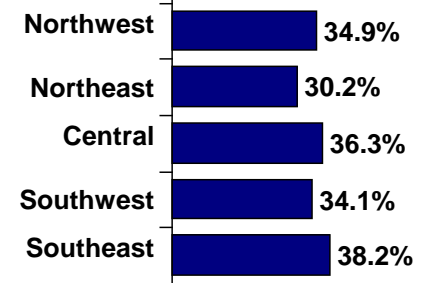
Education



HH Income



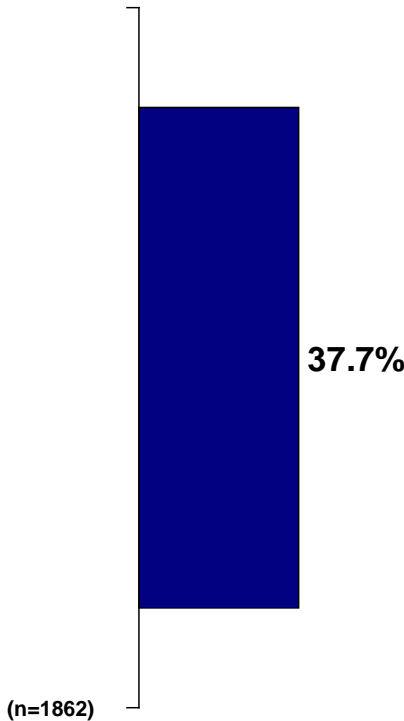
Section



Women are more likely than men to be at a healthy weight, as are people under age 35 compared to those older. Again, residents with the lowest incomes and/or below the poverty line are more likely to be at a healthy weight than others who are better off financially.

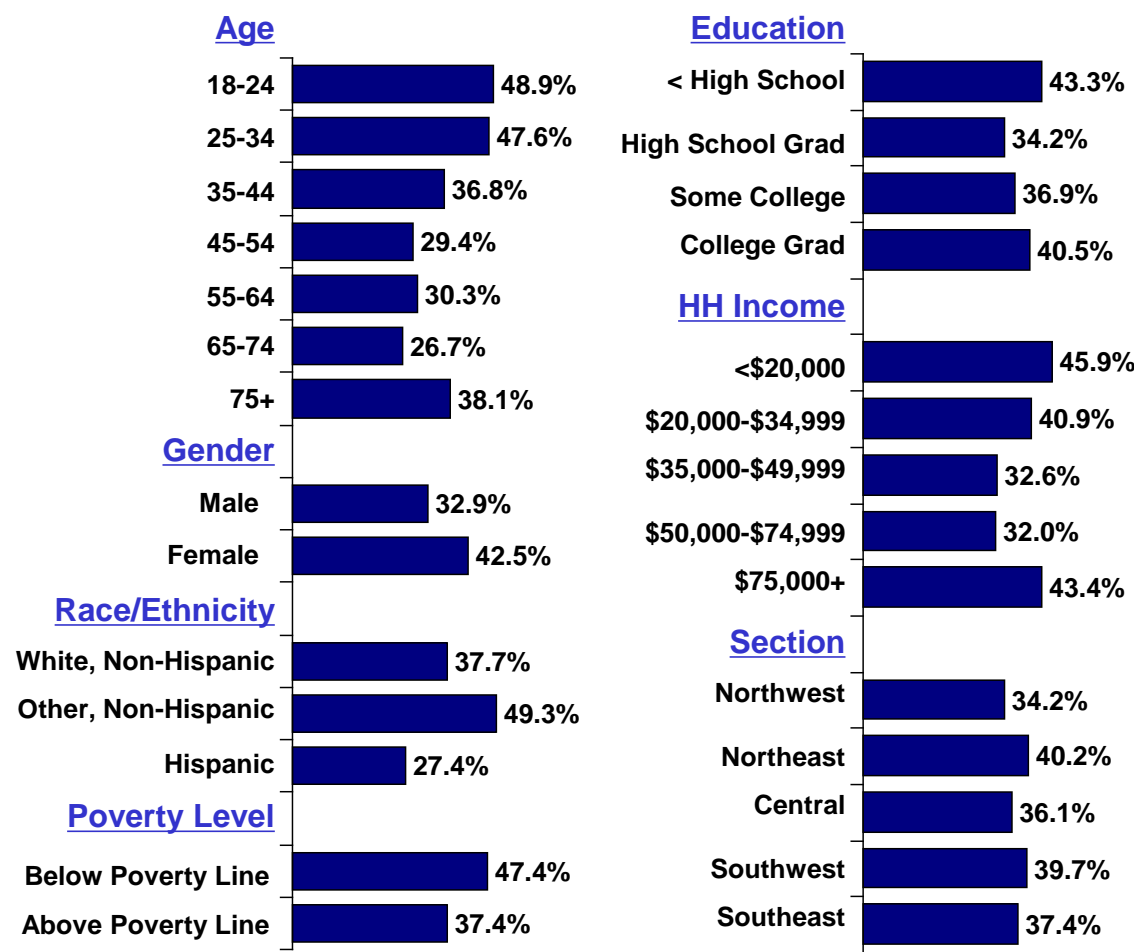
Weight Status (Cont'd.)

Healthy Weight*
(Total Sample)



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

Healthy Weight by Demographics

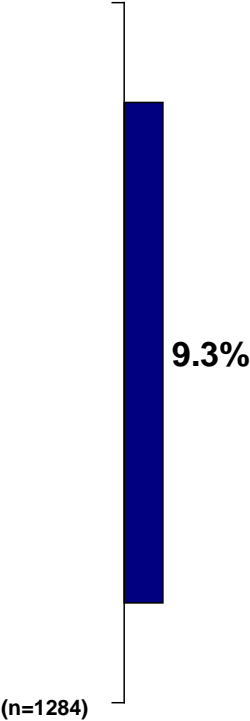


Health Care Access

Nearly one in ten adults have no health coverage/insurance. Having health care coverage is directly related to education and income. Additionally, younger residents (aged 18-34) are more likely to lack coverage than older residents, and non-Whites report lacking coverage more than Whites.

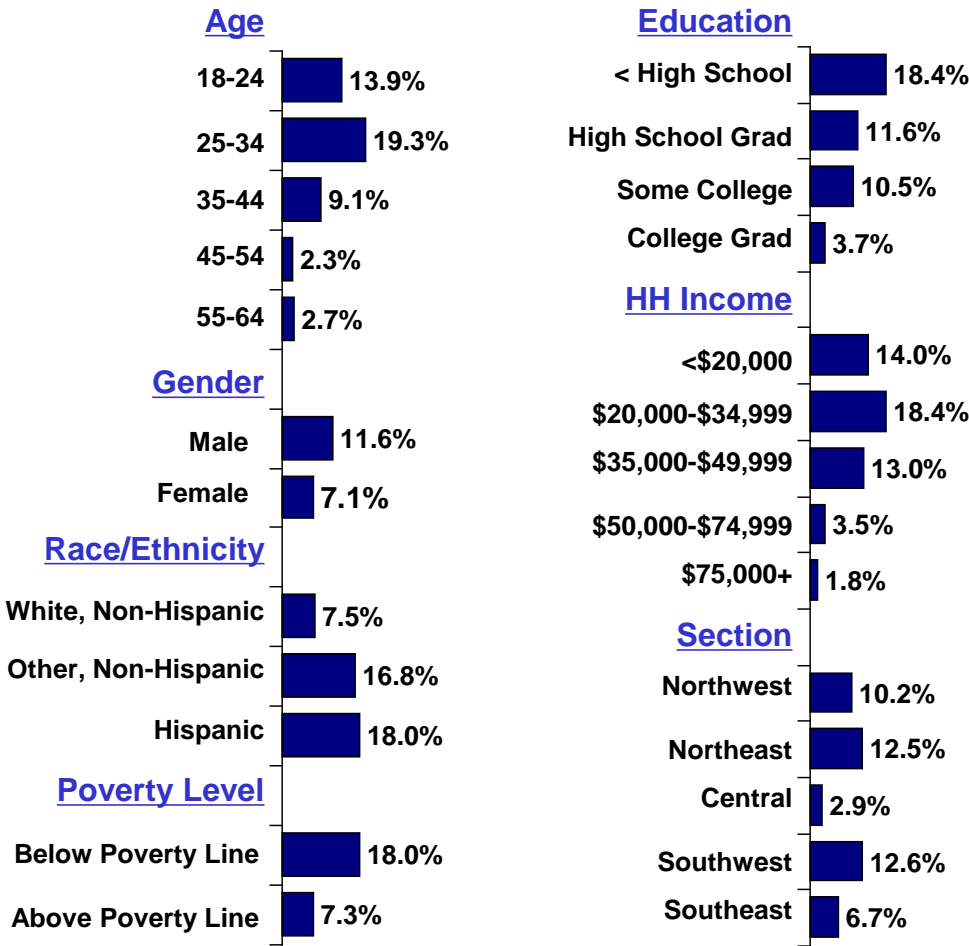
Health Care Coverage Among Adults Aged 18-64 Years

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



*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.

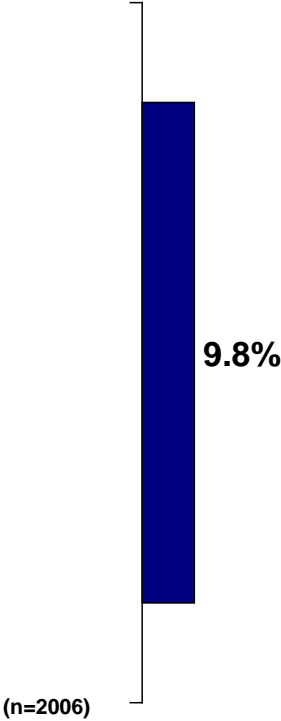
No Coverage by Demographics



The barrier of health care costs prevents certain subpopulations from seeking needed medical care more than others. For example, costs are more likely to be a barrier for: younger adults, non-Whites, and those with low incomes or below the poverty line.

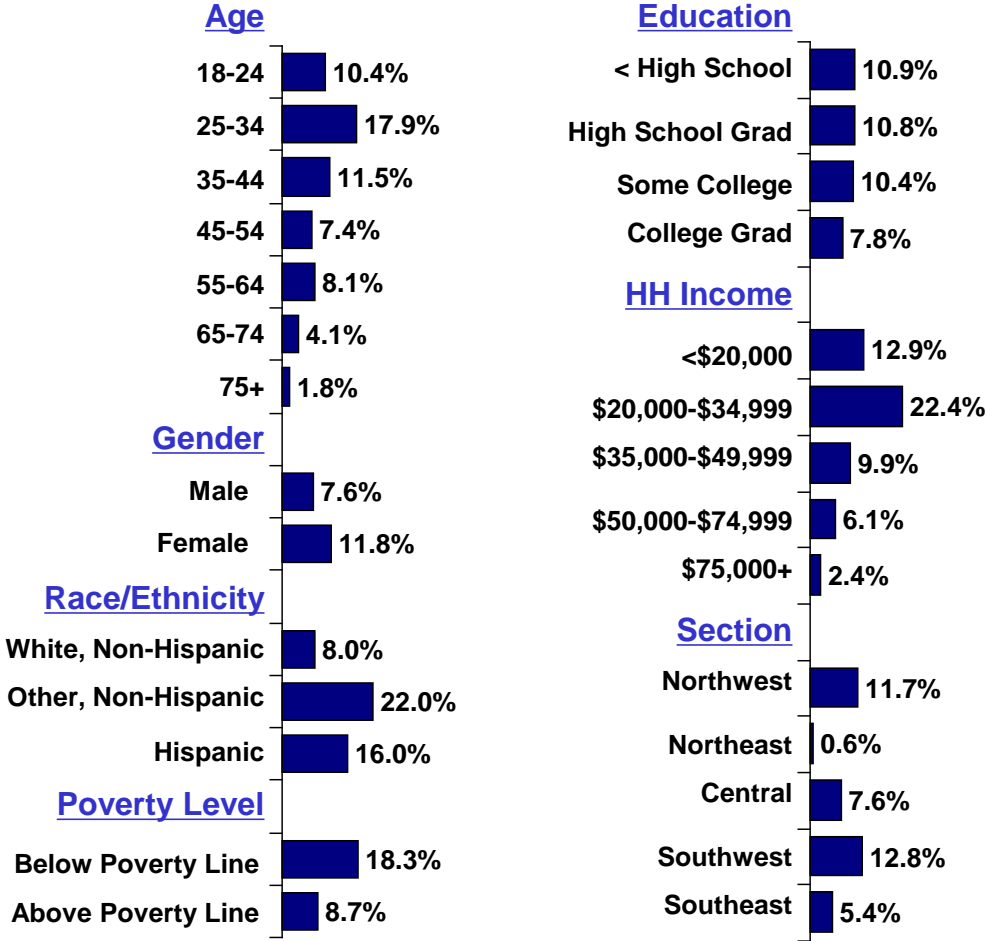
Problems Receiving Health Care Due to Cost

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



*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.

No Health Care Access Due to Cost by Demographics

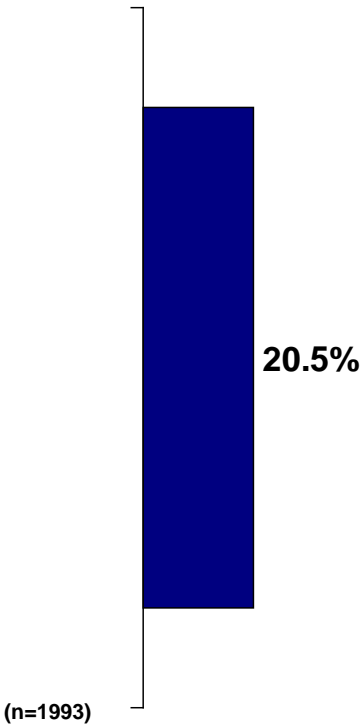


Risk Behavior Indicators

One in five adults engages in no leisure time physical activity. Worse, roughly four in ten adults with less than a high school diploma (41.4%) or living in households with incomes below \$20K (39.6%) do not participate in any leisure time physical activity.

Leisure Time Physical Activity

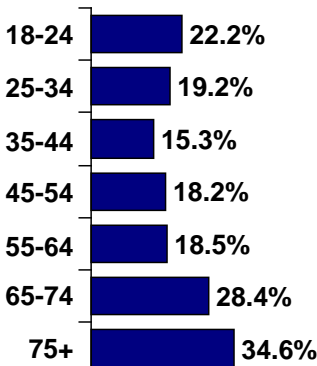
No Leisure Time Physical Activity*
(Total Sample)



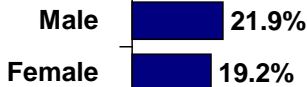
*Among all adults, the proportion who reported not participating in any leisure-time physical activities or exercises, such as running, calisthenics, golf, gardening, or walking, during the past month.

No Leisure Time Activity by Demographics

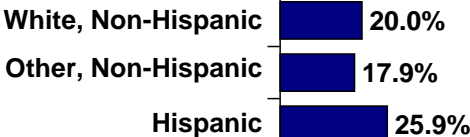
Age



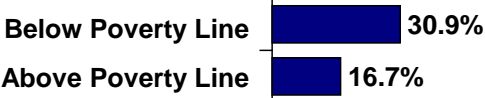
Gender



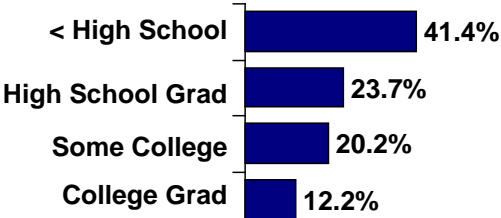
Race/Ethnicity



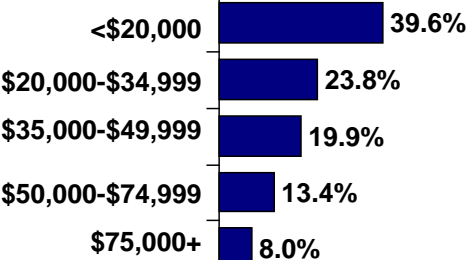
Poverty Level



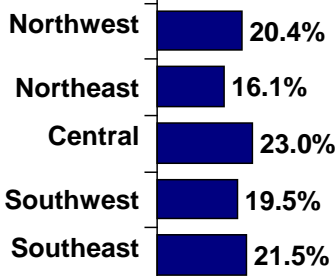
Education



HH Income



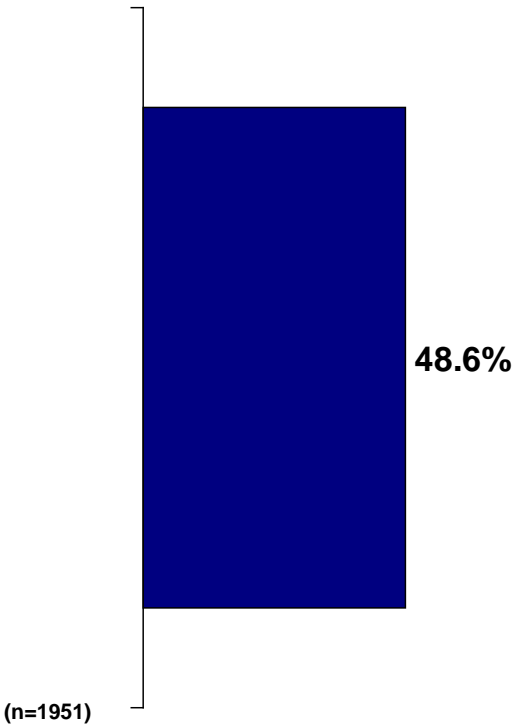
Section



Adults most likely to participate in adequate amounts of aerobic physical activity have a college degree and are financially stable (above the poverty line, household incomes \$35K+). Non-Hispanic minorities engaged in aerobic activities more than other racial/ethnic groups.

Leisure Time Physical Activity (Cont'd.)

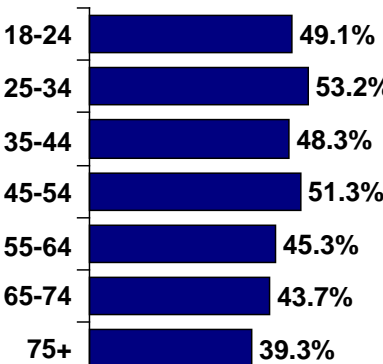
Adequate Aerobic Physical Activity*
(Total Sample)



*Among all adults, the proportion who reported that they do either moderate physical activities for at least 150 minutes per week, vigorous physical activities for at least 75 minutes per week, or an equivalent combination of moderate and vigorous physical activities.

Adequate Aerobic Physical Activity by Demographics

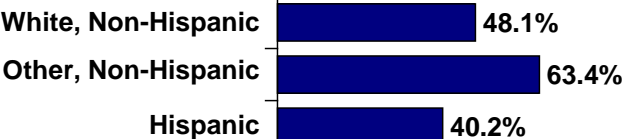
Age



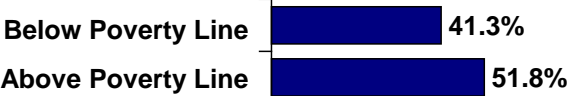
Gender



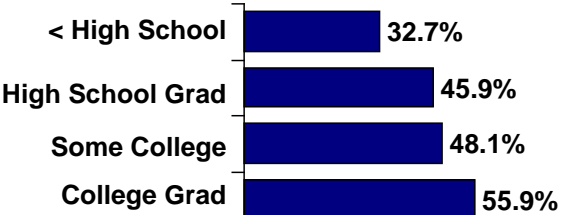
Race/Ethnicity



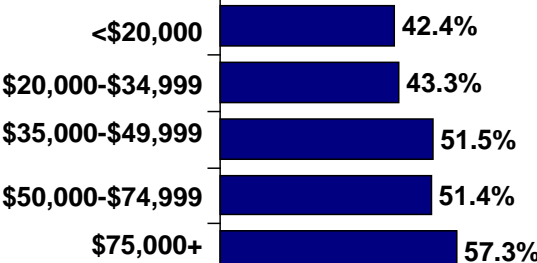
Poverty Level



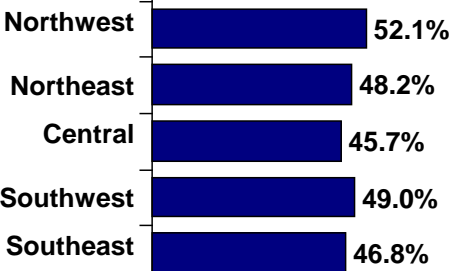
Education



HH Income



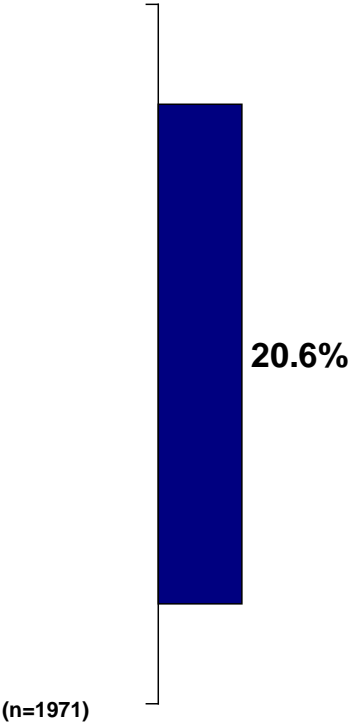
Section



Adults most likely to consume fruits less than one time per day come from groups that are the youngest (18-24), Hispanic, below the poverty level, and have less than a high school degree.

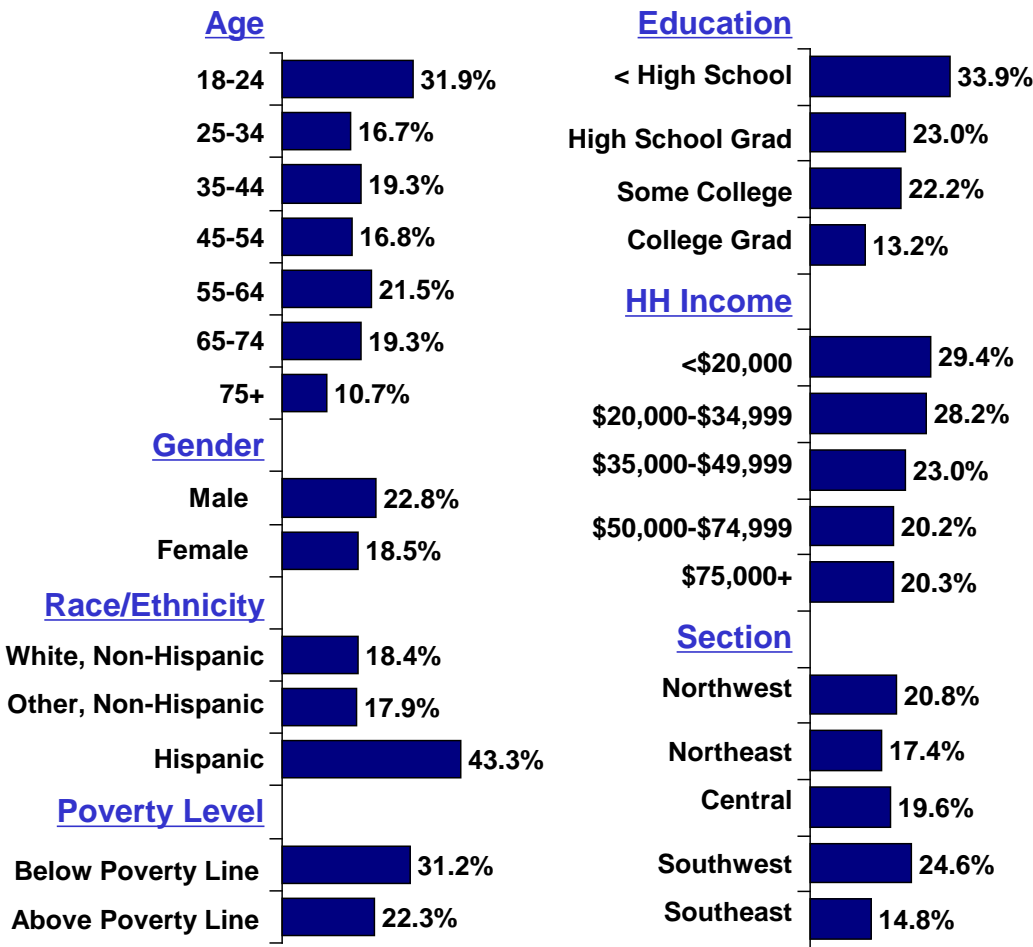
Fruit Consumption

Consumed Fruits <1 Time Per Day*
(Total Sample)



*Among all adults, the proportion whose total reported consumption of fruits (including juice) was less than one time per day.

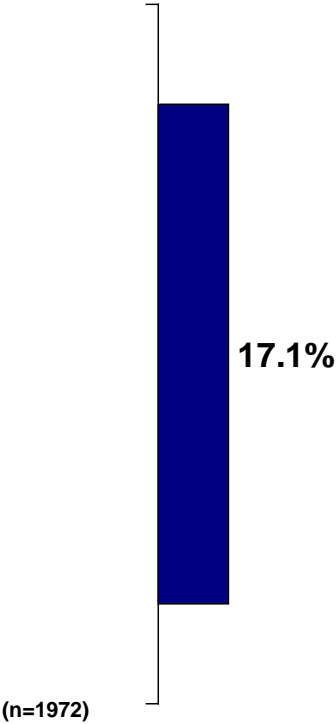
Consumed Fruits <1 Time Per Day
by Demographics



Similarly, those most likely to consume vegetables less than one time per day come from groups that are the youngest (18-24), Hispanic, and have households incomes less than \$20K.

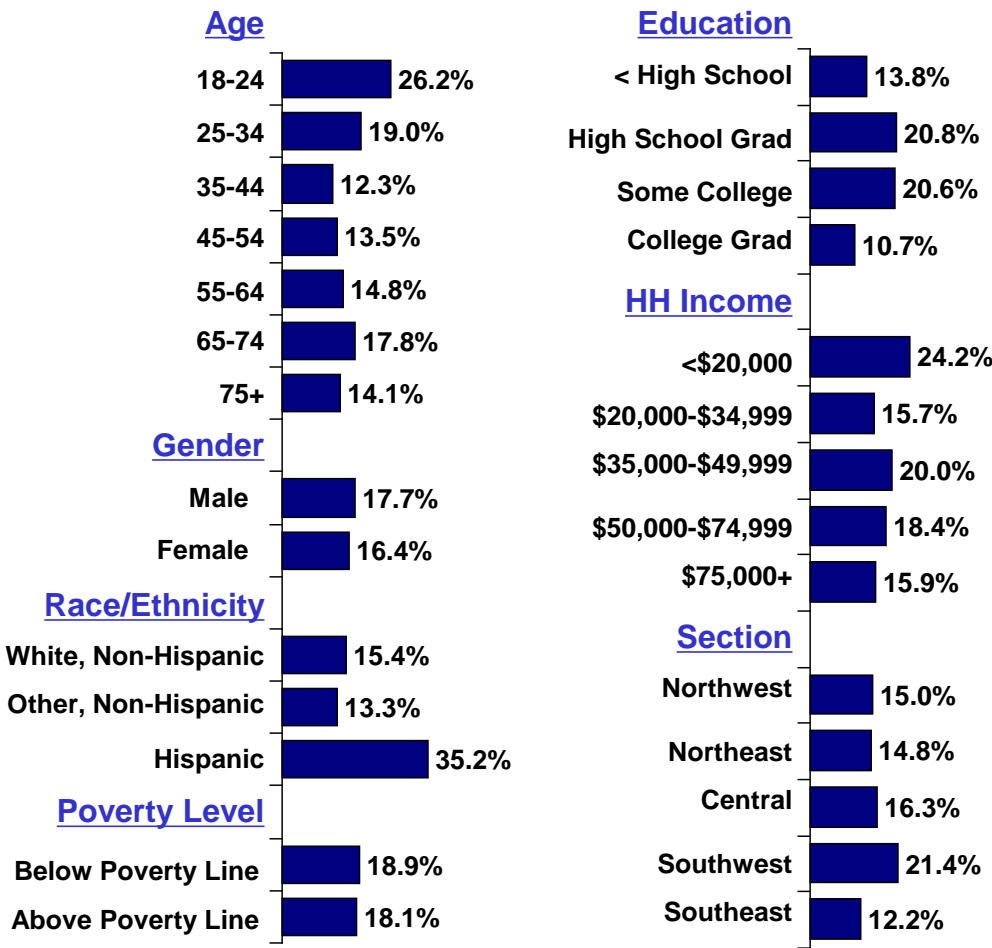
Vegetable Consumption

Consumed Vegetables <1 Time Per Day*
(Total Sample)



*Among all adults, the proportion whose total reported consumption of vegetables was less than one time per day.

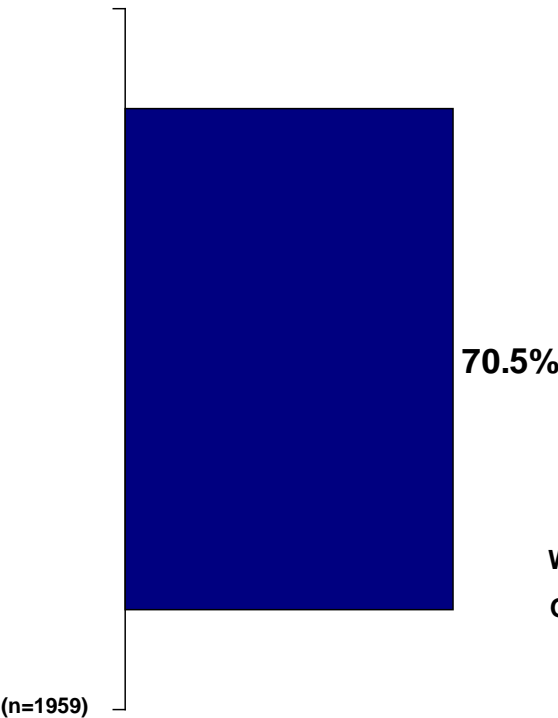
Consumed Vegetables <1 Time Per Day
by Demographics



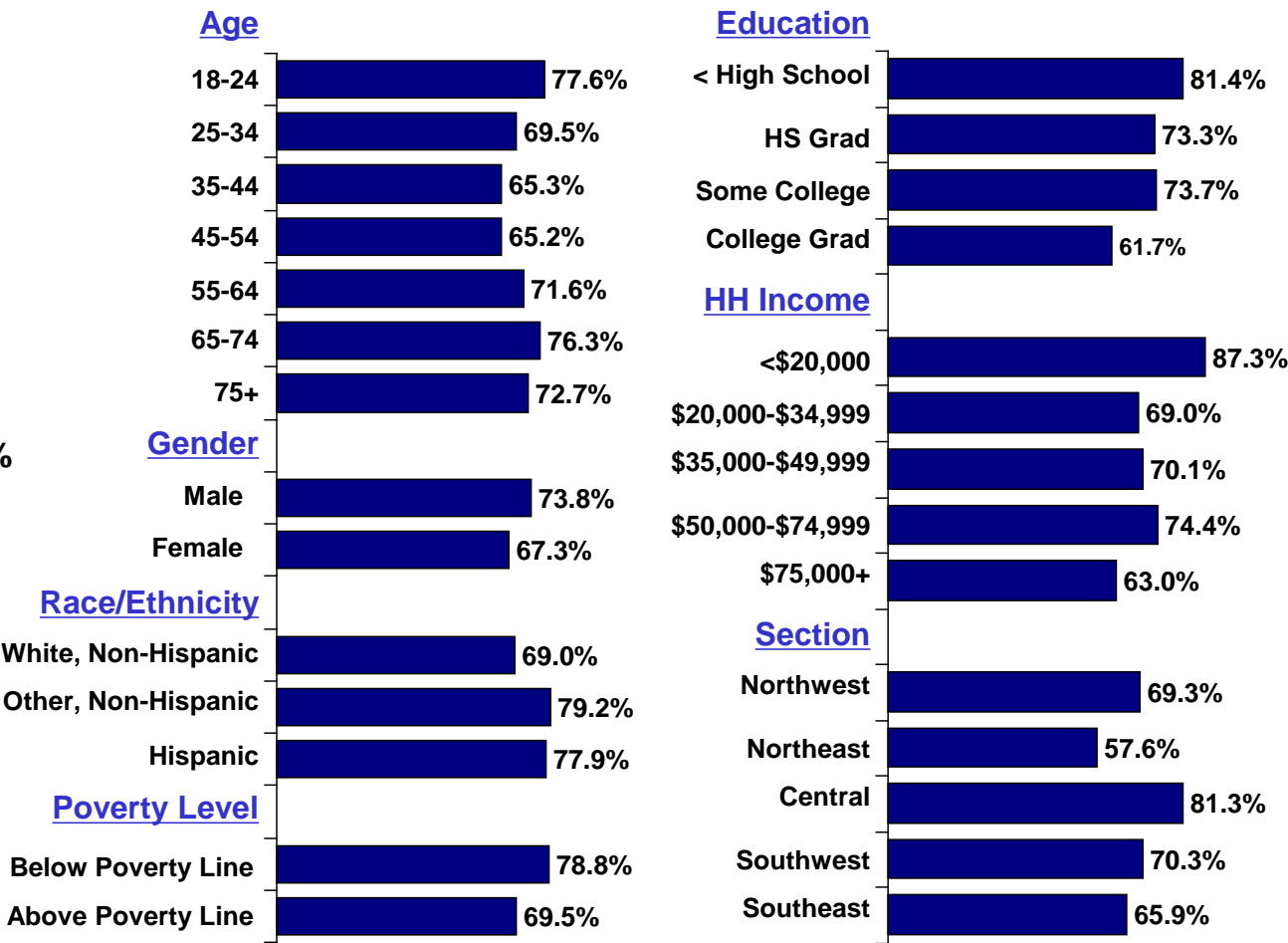
Inadequate fruit and vegetable consumption is common in Ottawa County, but much better than three years ago. Still, 70.5% of adults consume fruits or vegetables less than five times per day. Adequate fruit and vegetable consumption is directly related to education and income, although the proportions of inadequate consumption are still high for all demographic subgroups. Fewer men and non-Whites consume adequate quantities of fruits and vegetables compared to women and Whites, respectively.

Fruit and Vegetable Consumption

Inadequate Fruit and Vegetable Consumption*
(Total Sample)



Inadequate Consumption by Demographics

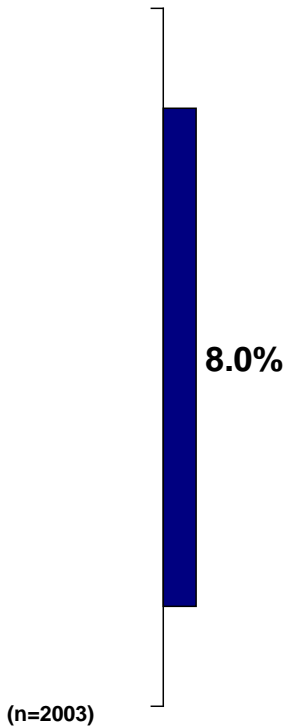


*Among all adults, the proportion whose total frequency of consumption of fruits (including juice) and vegetables was less than five times per day.

Among Ottawa County adults, the groups most likely to experience food insufficiencies are: younger (< age 35), Hispanic, those with less than a high school education, impoverished (incomes less than \$35K), and living in the central section.

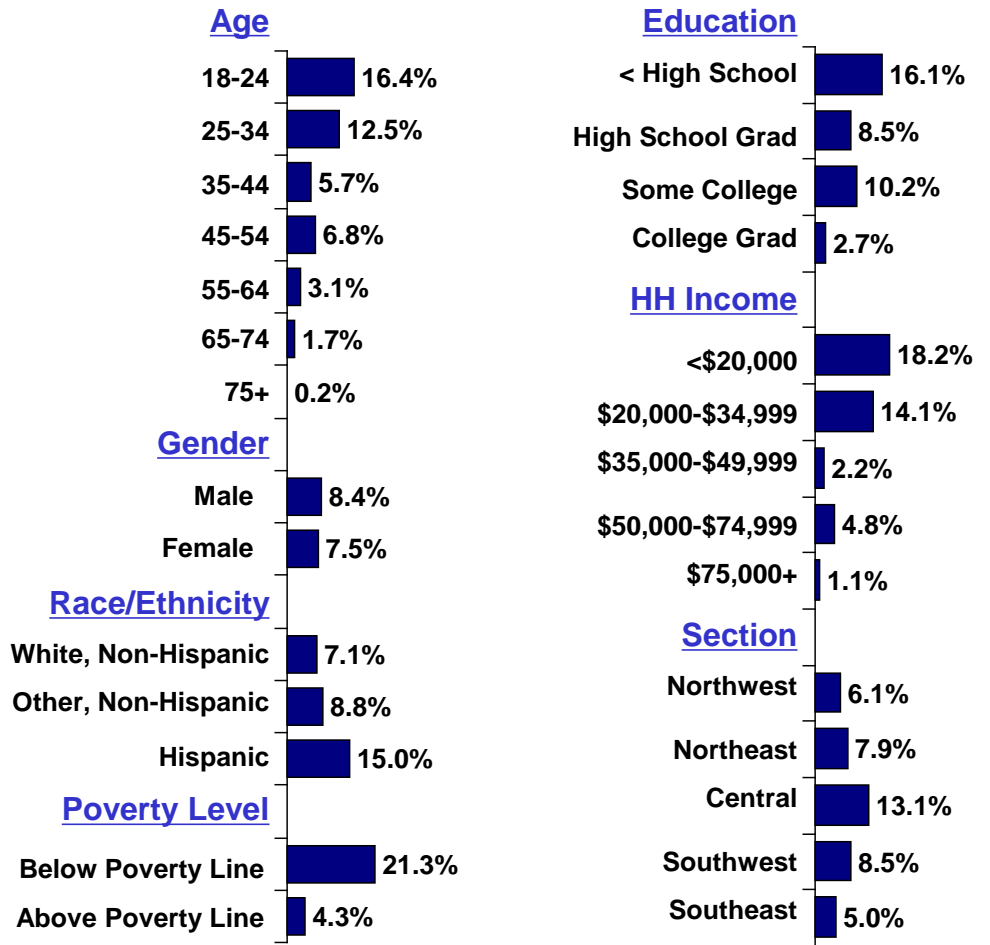
Food Sufficiency

Sometimes/Often Don't Have Enough to Eat*
(Total Sample)



*Among all adults, the proportion who reported they sometimes or often don't have enough to eat.

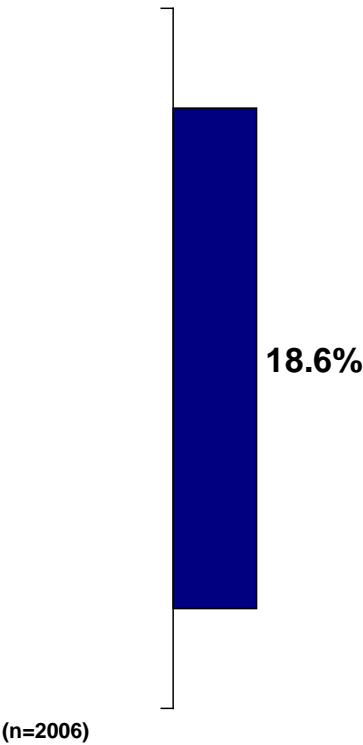
Sometimes/Often Don't Have Enough to Eat
by Demographics



Cigarette smoking is inversely related to age and income; 32.7% of adults between the ages of 18-24 and 27.4% of those with incomes less than \$20K currently smoke cigarettes. Additionally, there is a strong linear relationship between smoking and education, whereas, for example, 20.7%-24.6% of adults with no college education smoke, compared to 7.1% of college graduates. Smoking is also more common among men than women, and more common among non-Hispanic minorities than other racial/ethnic groups.

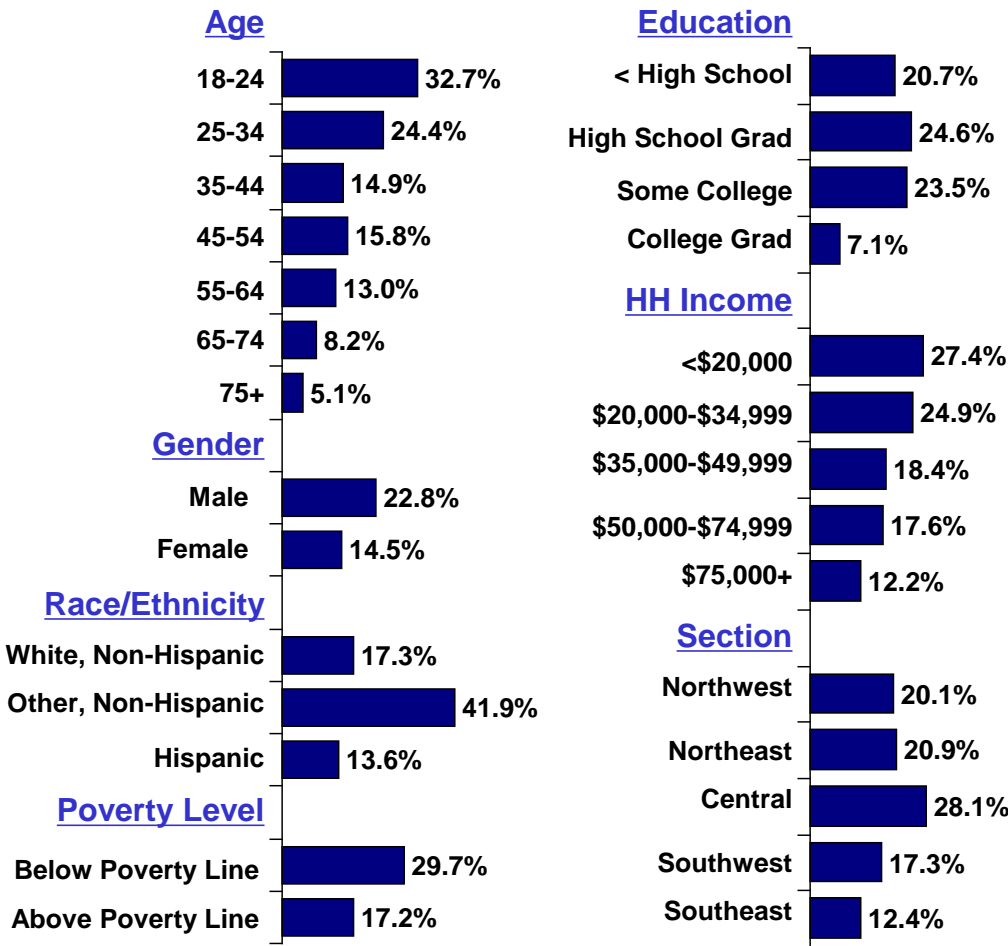
Cigarette Smoking

Current Cigarette Smoking*
(Total Sample)



*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.

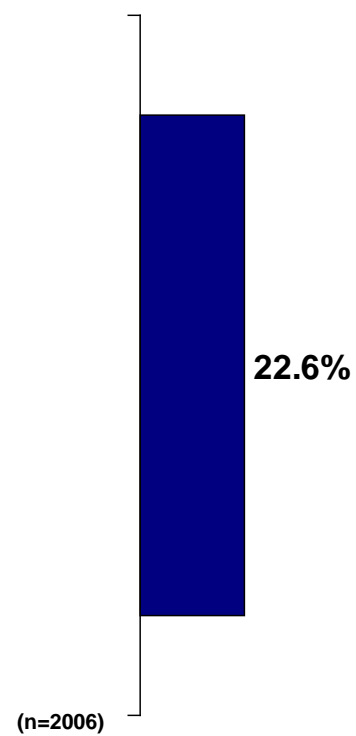
Current Cigarette Smoking by Demographics



Males are more likely than females to be former smokers. Also, adults age 55+ are likely to be former smokers compared to younger adults.

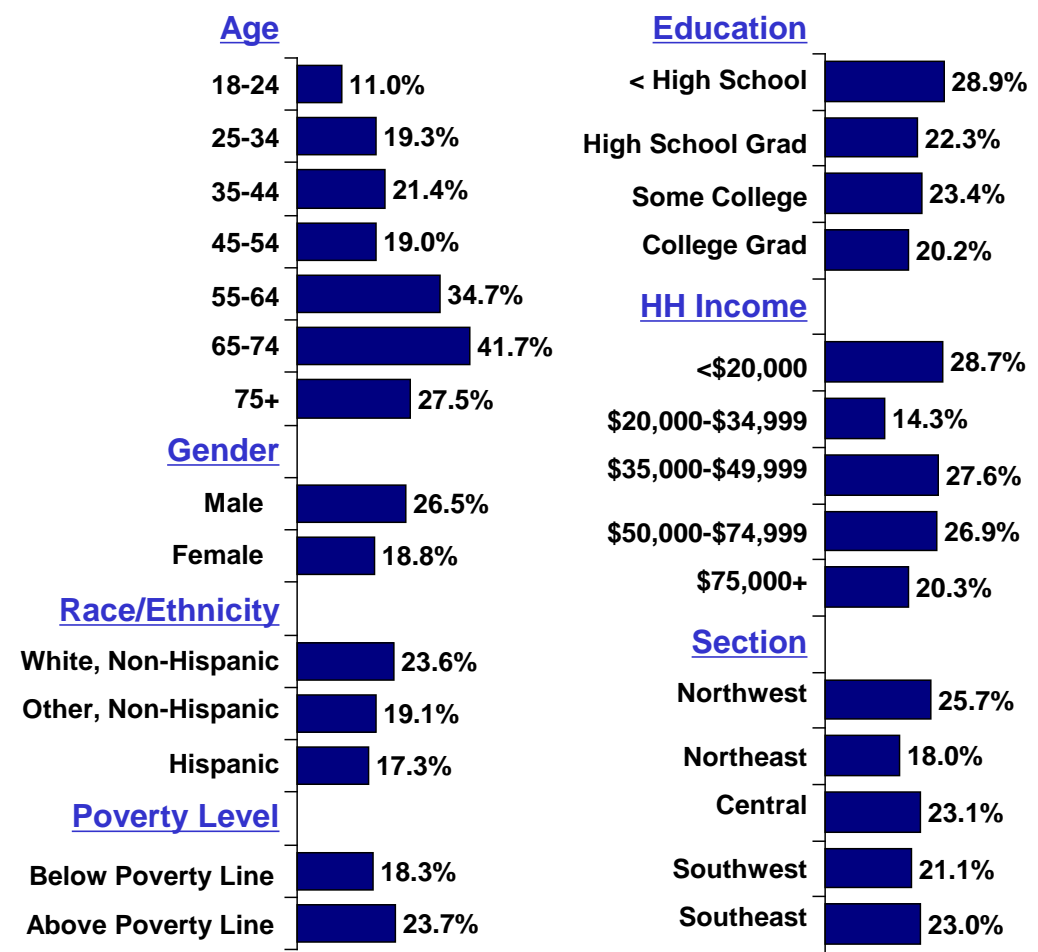
Cigarette Smoking (Cont'd.)

Former Cigarette Smoking*
(Total Sample)



*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.

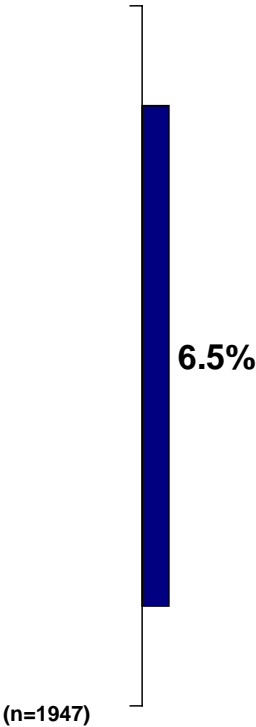
Former Cigarette Smoking by Demographics



Younger Ottawa County adults (<35 years of age) are more likely to engage in heavy drinking than older adults. The largest proportions of heavy drinkers are found among non-Hispanic minorities and from people residing in the northeast section of Ottawa County.

Alcohol Consumption

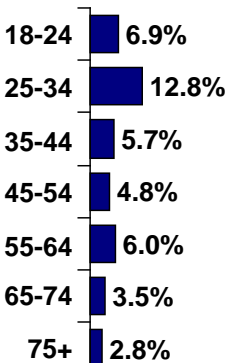
Heavy Drinking*
(Total Sample)



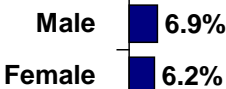
*Among all adults, the proportion who reported consuming an average of more than two alcoholic drinks per day for men and one per day for women in the previous month.

Heavy Drinking by Demographics

Age



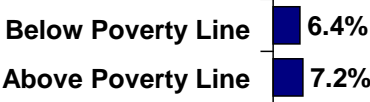
Gender



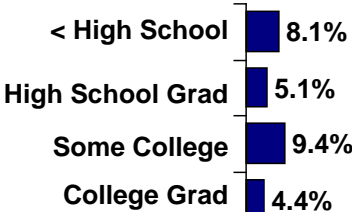
Race/Ethnicity



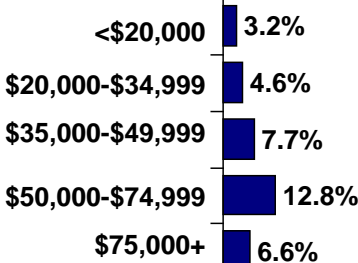
Poverty Level



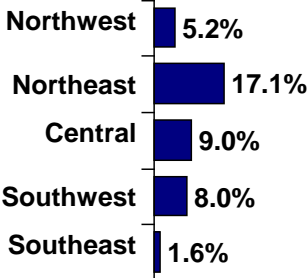
Education



HH Income



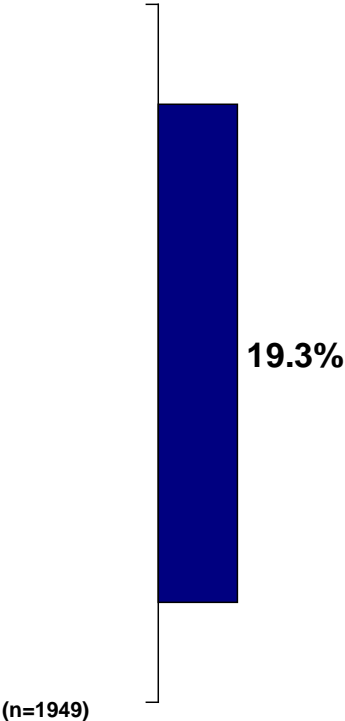
Section



One in five Ottawa County adults are considered to be binge drinkers. The prevalence of binge drinking is higher among men than women and higher among adults younger than 35 years of age vs. older adults. Binge drinking is far more prevalent among non-Whites compared to Whites, especially among Hispanics.

Binge Drinking

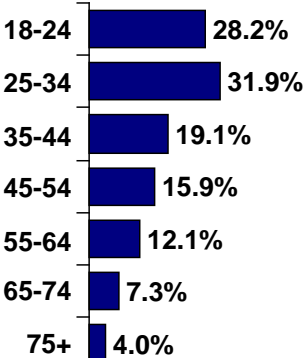
Binge Drinking*
(Total Sample)



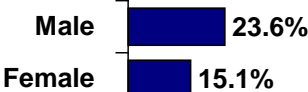
*Among all adults, the proportion who reported consuming five or more drinks per occasion (for men) or four or more drinks per occasion (for women) at least once in the previous month.

Binge Drinking by Demographics

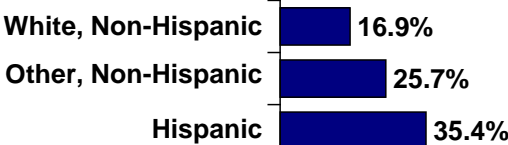
Age



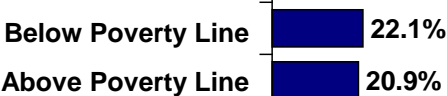
Gender



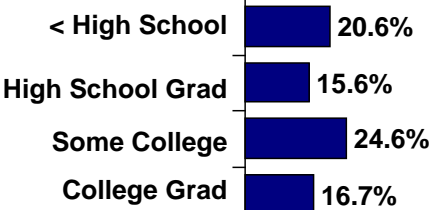
Race/Ethnicity



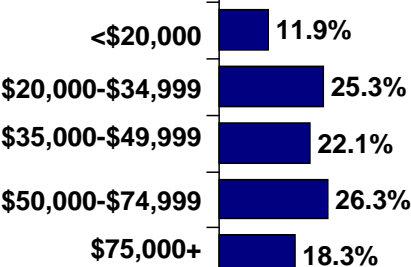
Poverty Level



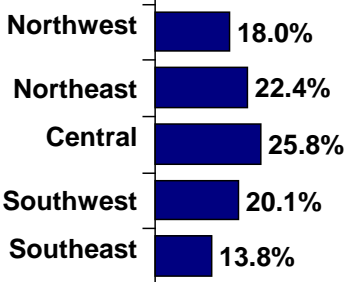
Education



HH Income



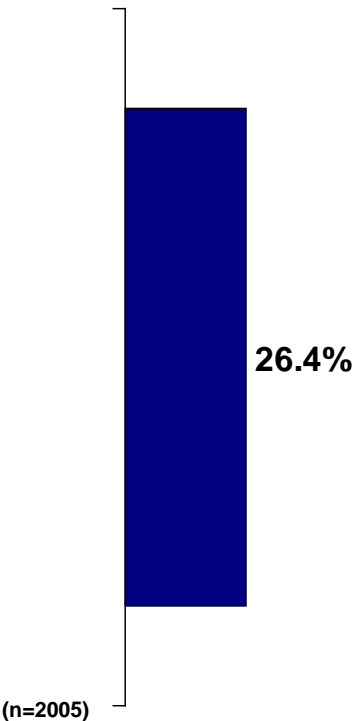
Section



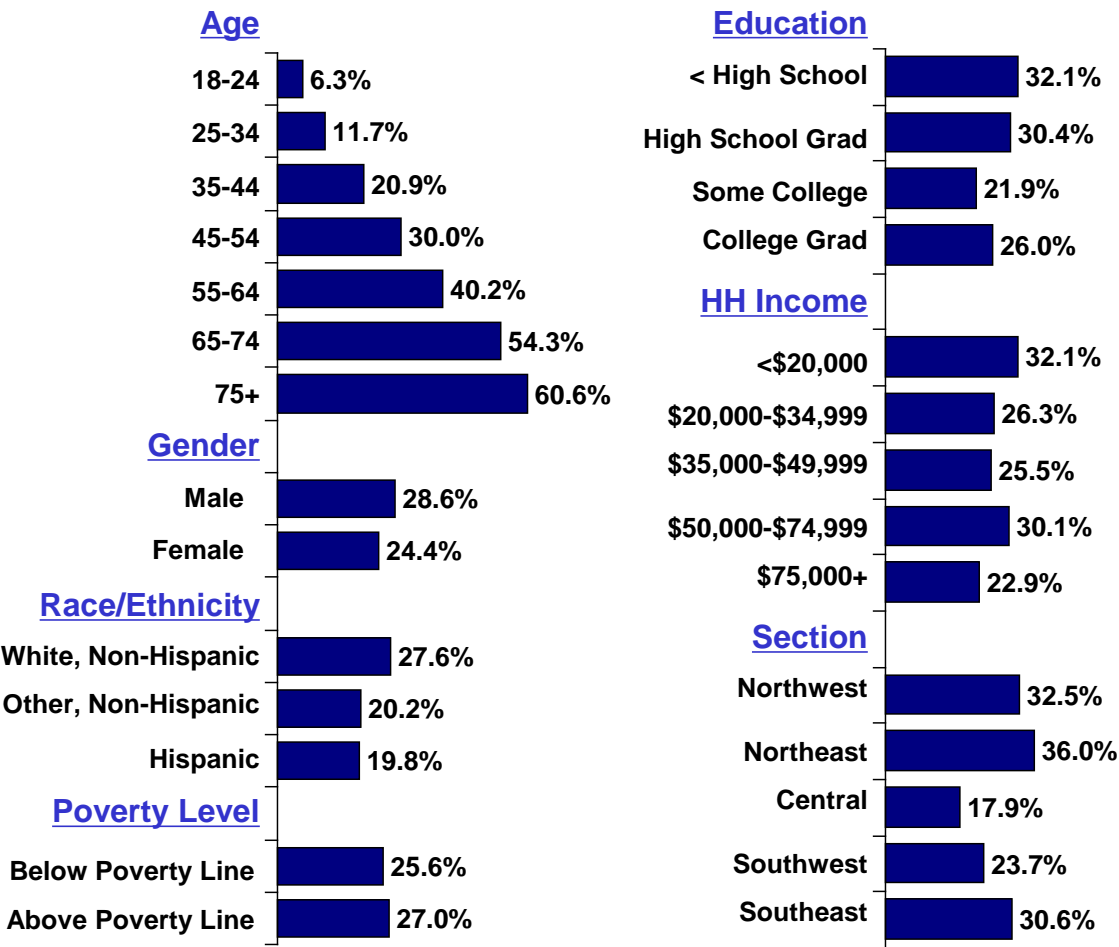
One in four adults have high blood pressure. HBP is directly related to age. It is also more common in men and adults with no college education compared to women and college educated adults, respectively. Those least likely to have HBP: are Hispanic or non-White, are under age 45, have annual incomes of \$75K+, and live in central Ottawa County.

Hypertension Awareness

Ever Told Had High Blood Pressure (HBP)*
(Total Sample)



Ever Told HBP by Demographics



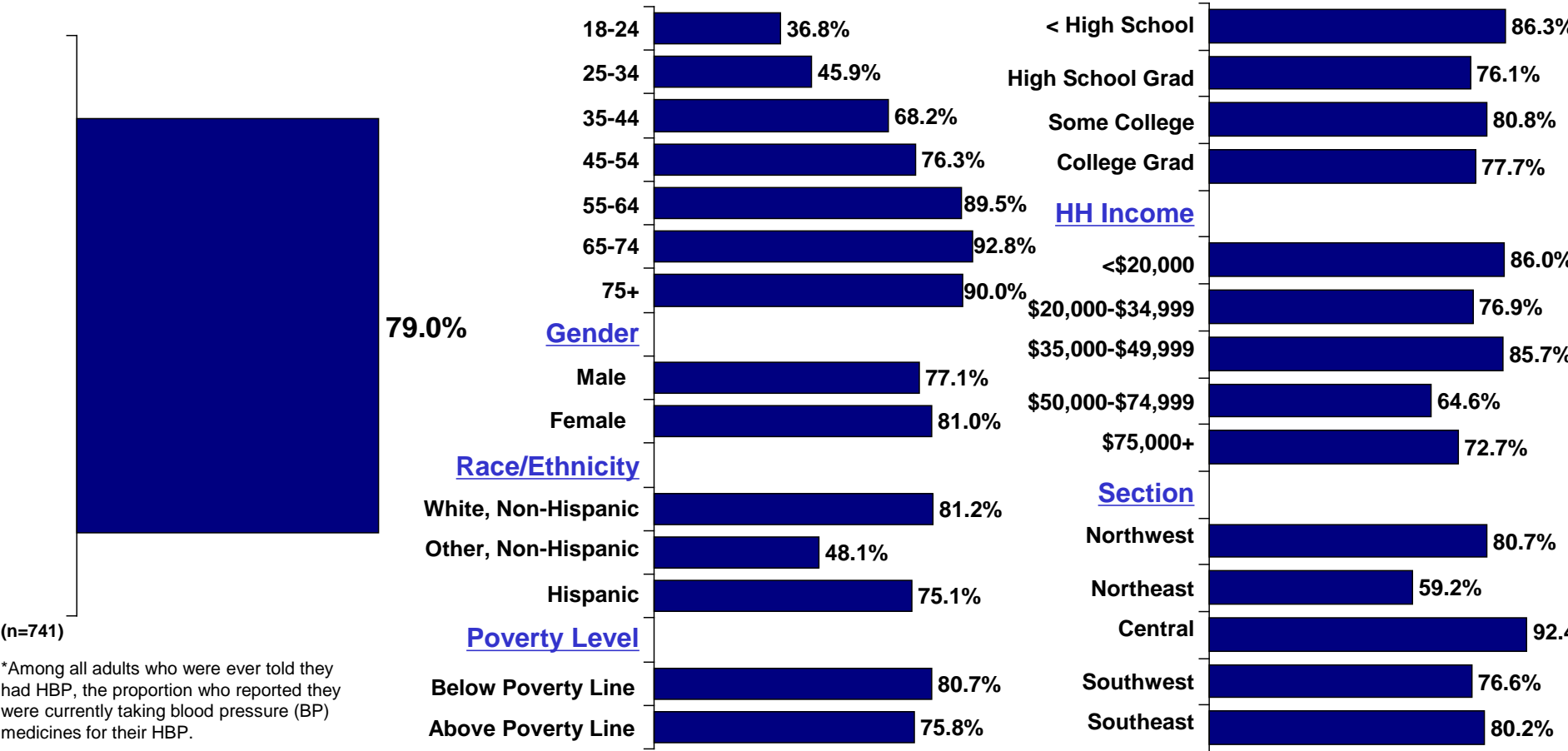
*Among all adults, the proportion who reported that they were ever told by a health care professional that they have high blood pressure (HBP). Women who had high blood pressure only during pregnancy and adults who were borderline hypertensive were considered not to have been diagnosed.

Ottawa County adults most likely to take medication for their HBP are: 55 years or older, without a high school diploma, from households with incomes <\$20K, and living in the central section of the county.

Hypertension Awareness (Cont'd.)

Currently Take Medication for High Blood Pressure (HBP)*
(Total Sample)

Currently Take Medication for HBP
by Demographics



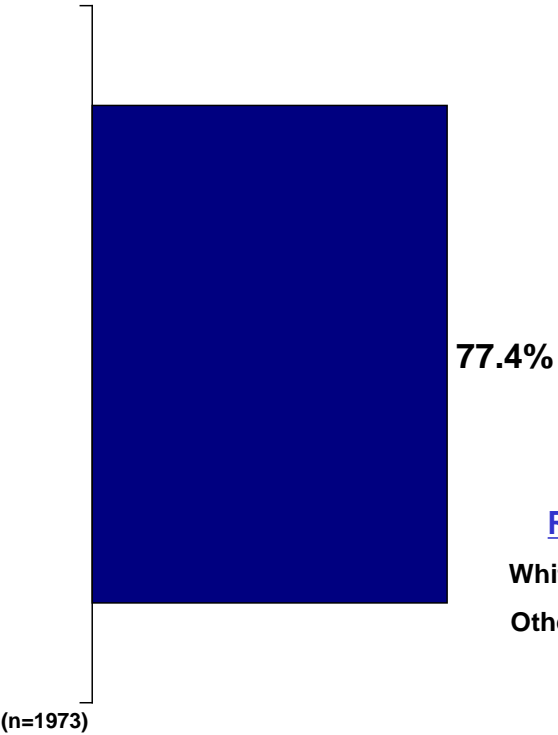
*Among all adults who were ever told they had HBP, the proportion who reported they were currently taking blood pressure (BP) medicines for their HBP.

Clinical Preventative Practices

More than three-fourths of Ottawa County adults have had their cholesterol checked. Adults most likely to have had their cholesterol checked are found among those age 35+, above the poverty line, who have annual incomes of \$50K+, and those who are college educated.

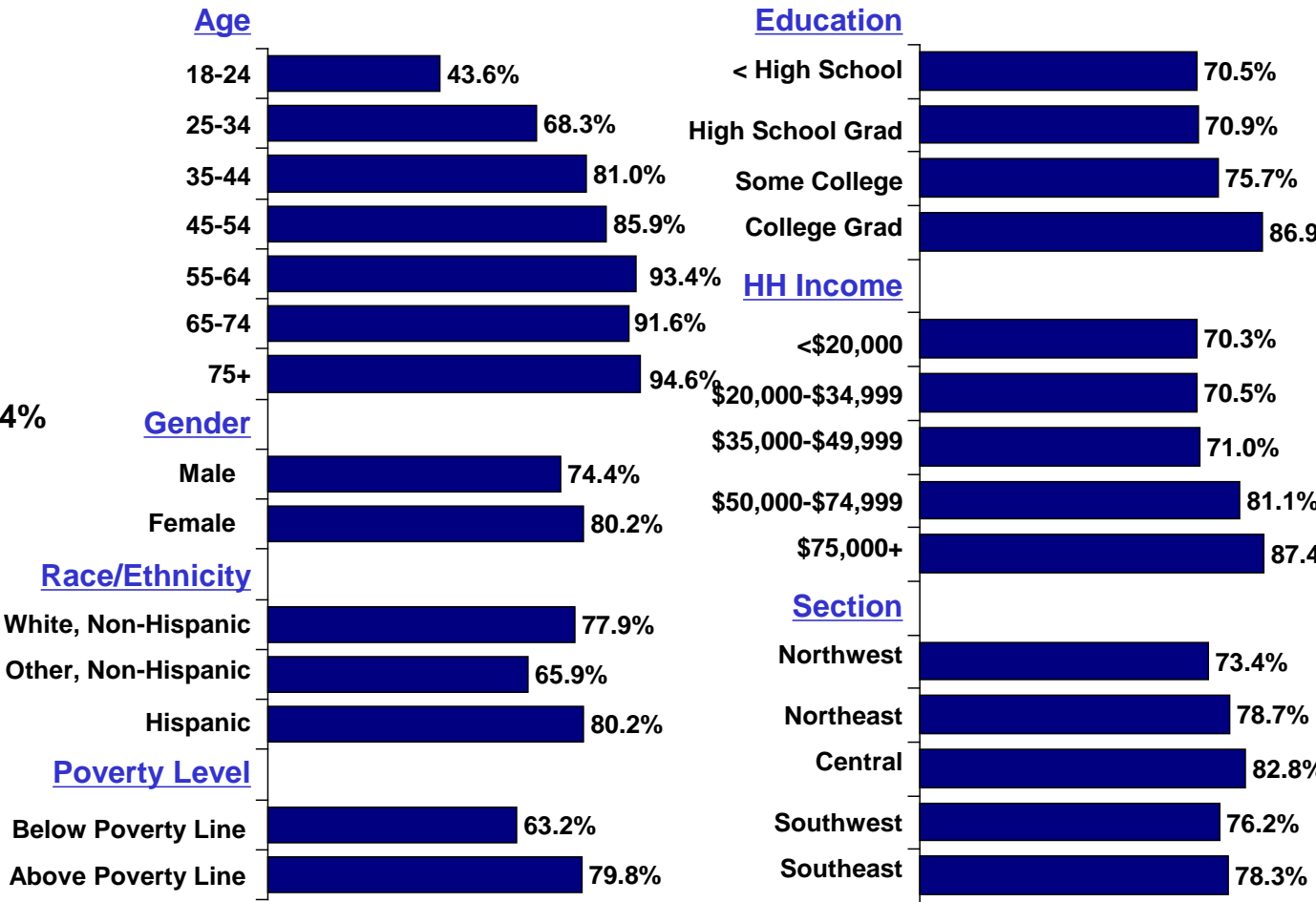
Cholesterol Awareness

Ever Had Blood Cholesterol Checked*
(Total Sample)



*Among all adults, the proportion who reported having had their blood cholesterol checked.

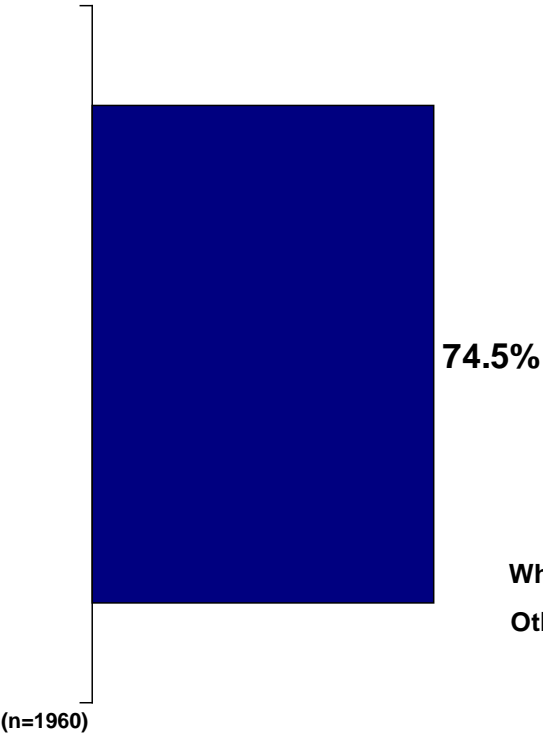
Ever Had Blood Cholesterol Checked
by Demographics



Similarly, Ottawa County adults most likely to have their cholesterol checked within the past five years are: age 45+, living above the poverty line, in households with annual incomes of \$50K+, and college educated.

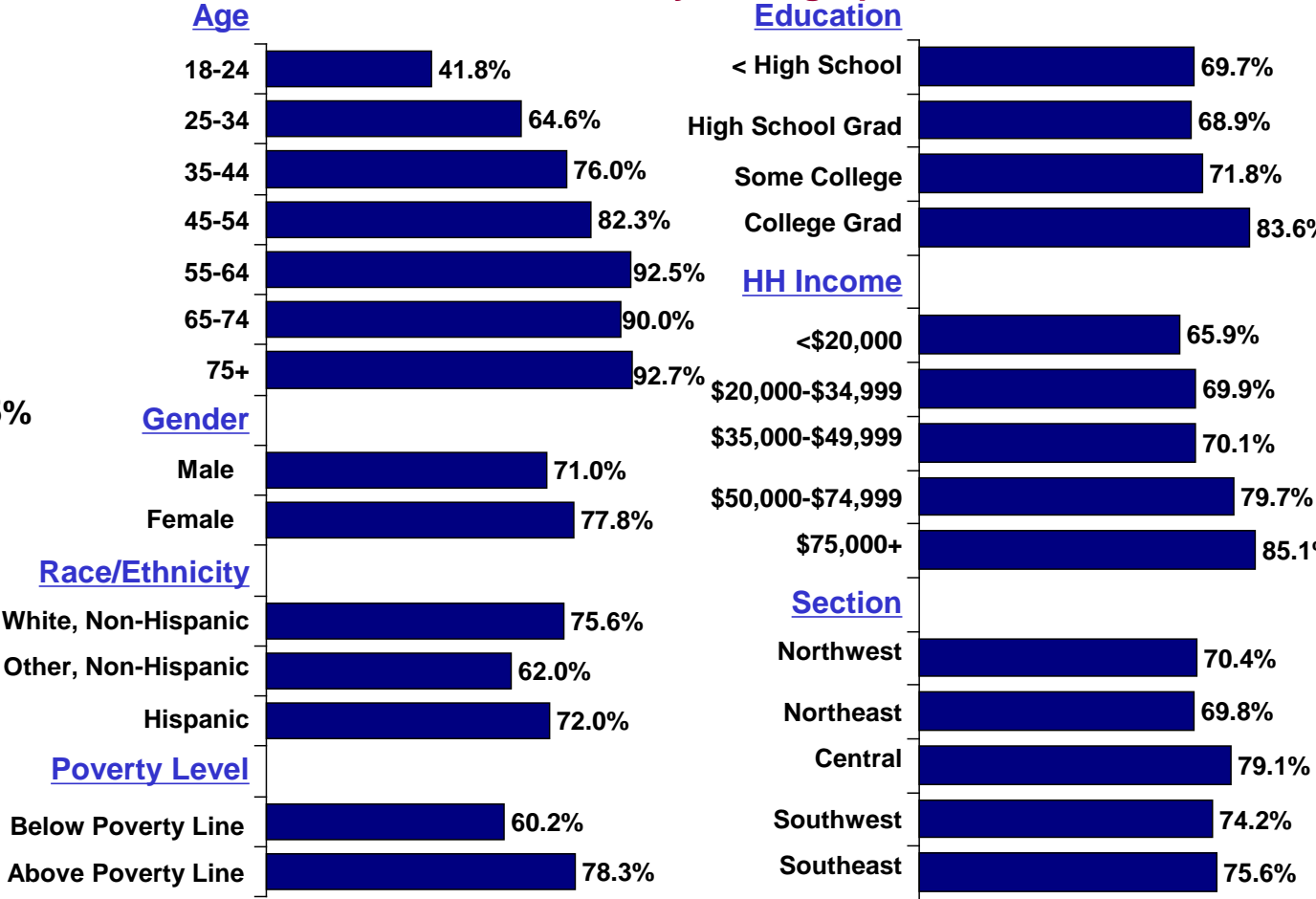
Cholesterol Awareness (Cont'd.)

Had Blood Cholesterol Checked Within Past Five years*
(Total Sample)



*Among all adults, the proportion who reported they have had their blood cholesterol checked within the past five years.

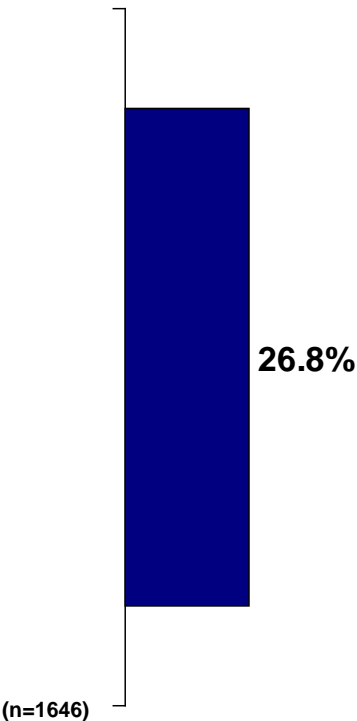
Had Blood Cholesterol Checked Within Past Five Years by Demographics



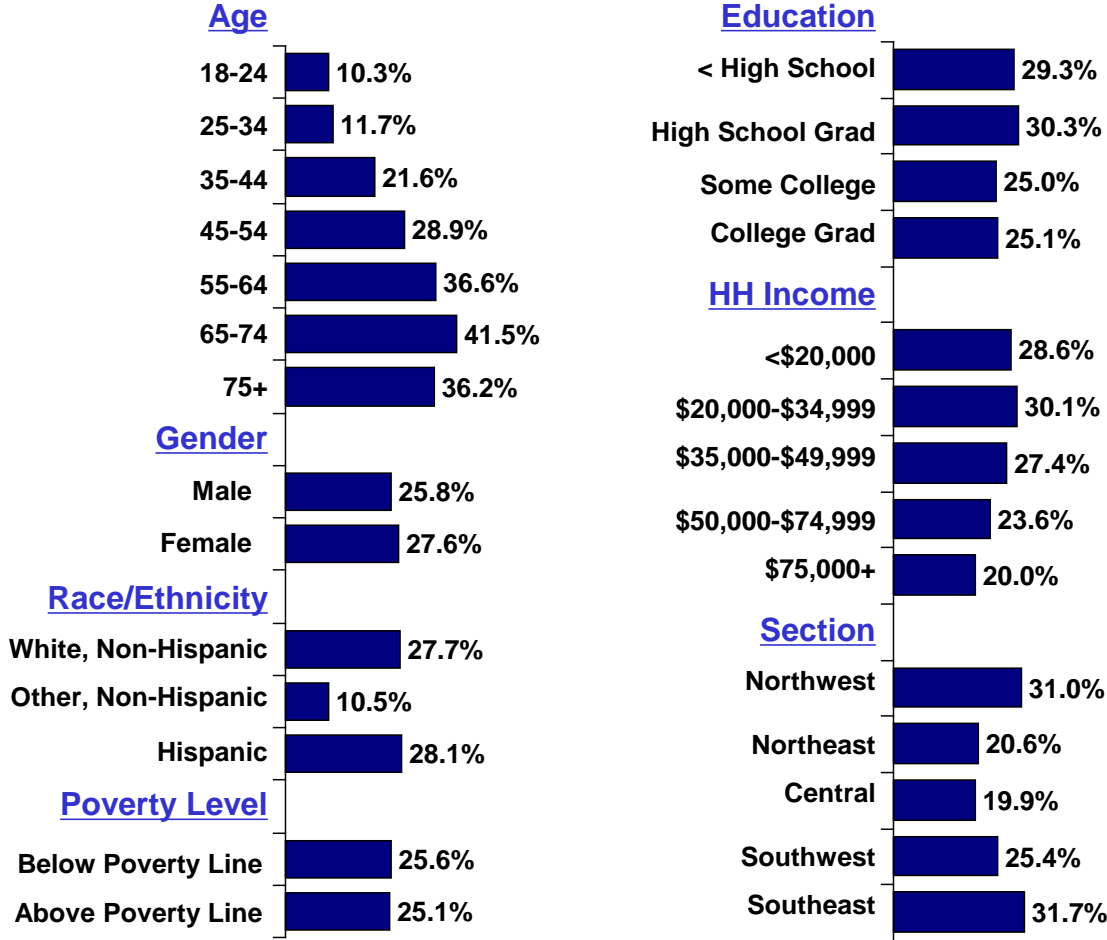
One in four adults have high cholesterol. Adults least likely to have high cholesterol are: under age 35, (2) non-Hispanic minorities, (3) living in households with annual incomes of \$50K+, and living in the central or northeast sections of the county.

Cholesterol Awareness (Cont'd.)

Ever Told Blood Cholesterol High*
(Total Sample)



Ever Told Blood Cholesterol High
by Demographics

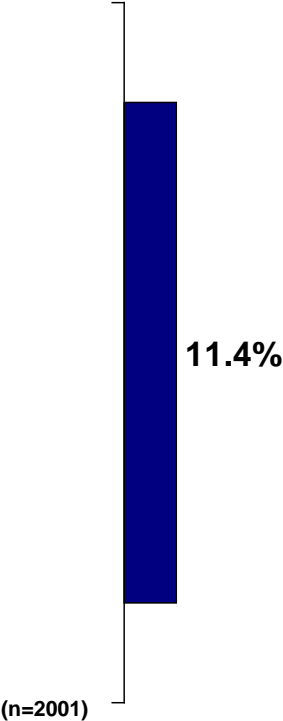


*Among adults who ever had their blood cholesterol checked, the proportion who reported that a doctor, nurse, or other health professional has told them that their cholesterol was high.

More than one in ten (11.4%) Ottawa County adults have no medical home (no personal health care provider). Those least likely to have a medical home are younger (aged 18-34), male, non-White, and have not graduated from high school.

Personal Health Care Provider

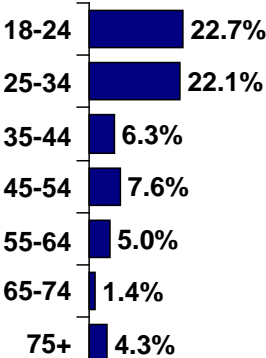
No Personal Health Care Provider*
(Total Sample)



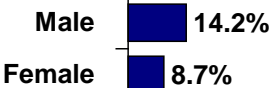
*Among all adults, the proportion who reported that they did not have anyone that they thought of as their personal doctor or health care provider.

No Provider by Demographics

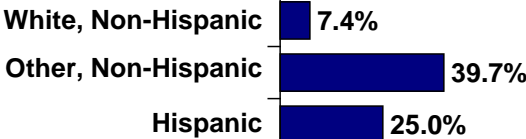
Age



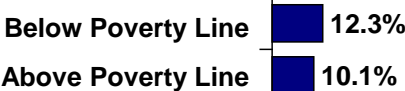
Gender



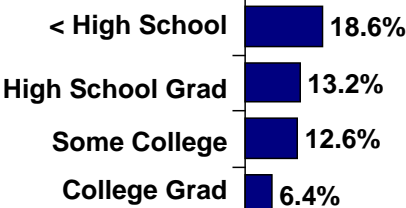
Race/Ethnicity



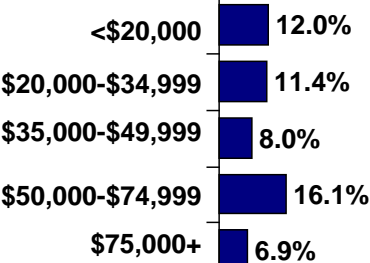
Poverty Level



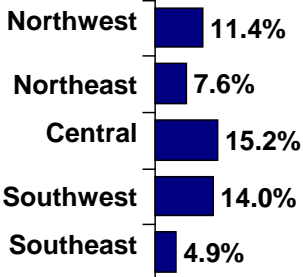
Education



HH Income



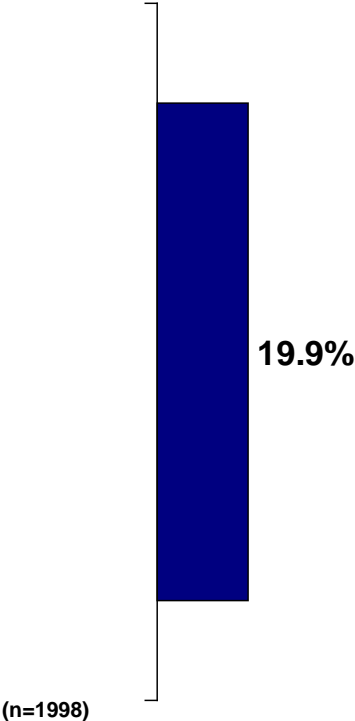
Section



One in five (19.9%) adults in Ottawa County have had no routine physical checkup in the past year. Having a timely routine physical checkup is directly related to age and associated with having a college degree. Non-Whites and men are less likely to have a timely physical exam compared to Whites and women, respectively.

Routine Physical Checkup in Past Year

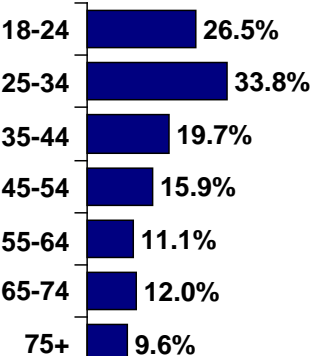
No Routine Physical Checkup in Past Year*
(Total Sample)



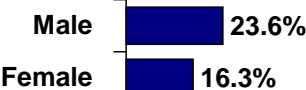
*Among all adults, the proportion who reported that they did not have a routine checkup in the past year.

No Checkup by Demographics

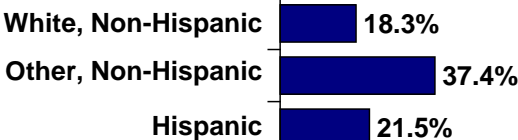
Age



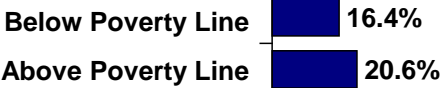
Gender



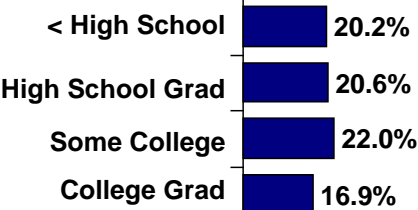
Race/Ethnicity



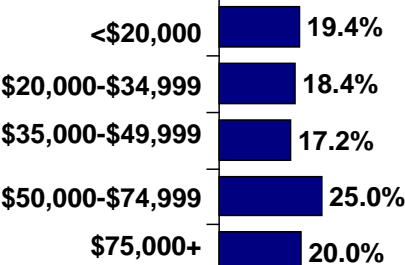
Poverty Level



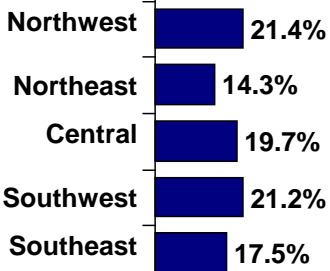
Education



HH Income

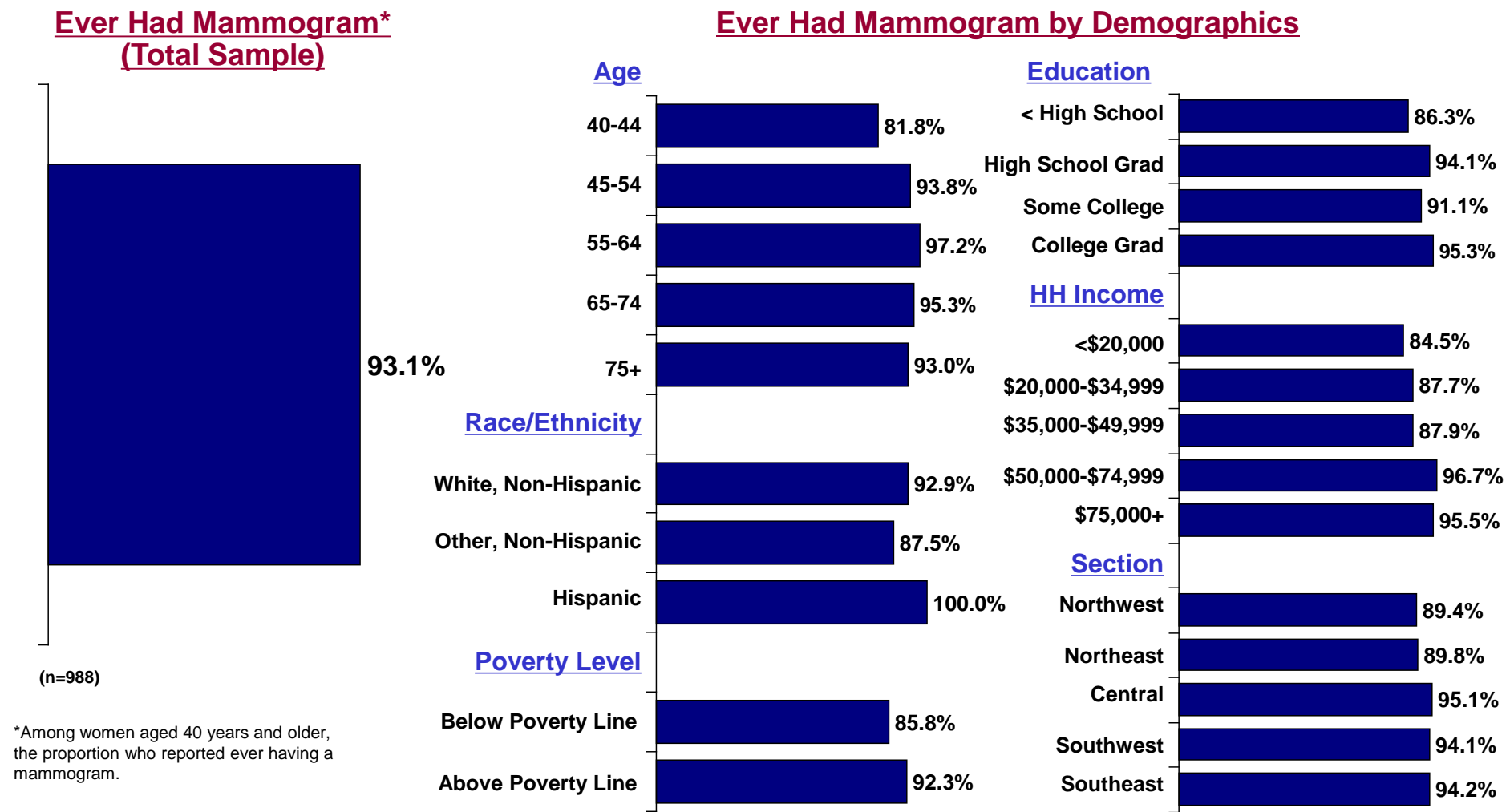


Section



Since most women 40 years of age or older in Ottawa County have had a mammogram at some point, there is very little difference among demographic groups.

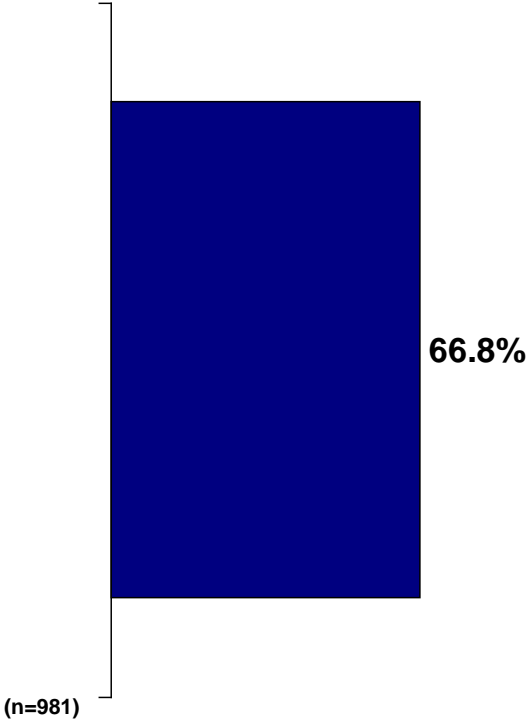
Mammography Indicators Among Women Aged 40 Years or Older



Having a timely mammogram is directly related to household income; 55.9% of women from households with incomes less than \$20K have had a mammogram within the past year, compared to 75.1% of women in households with incomes \$75K+. Education is also strongly associated with a timely mammogram, as women with less than a high school education are least likely to have a timely mammogram and women with a college degree are most likely.

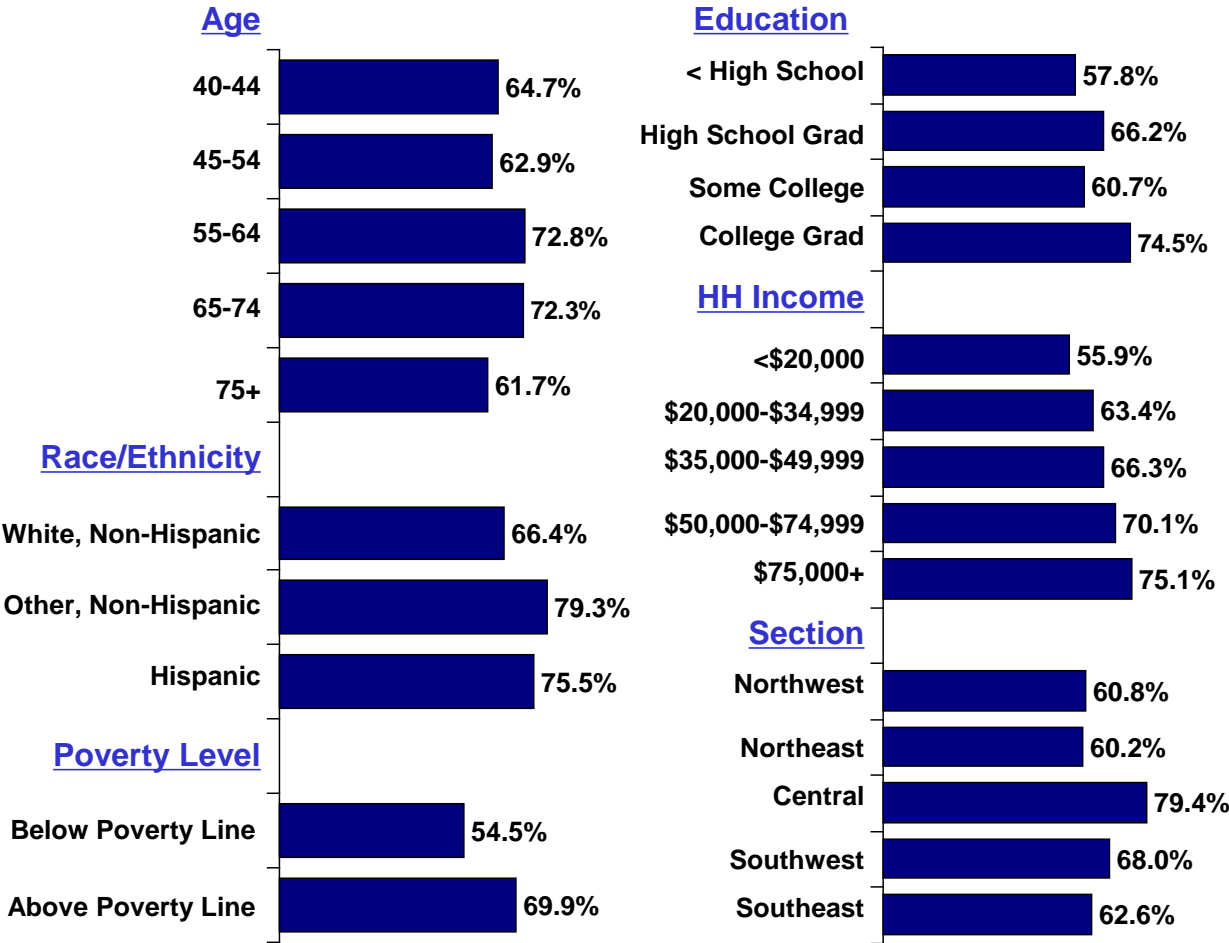
Mammography Indicators Among Women Aged 40 Years or Older (Cont'd.)

Had Mammogram in Past Year*
(Total Sample)



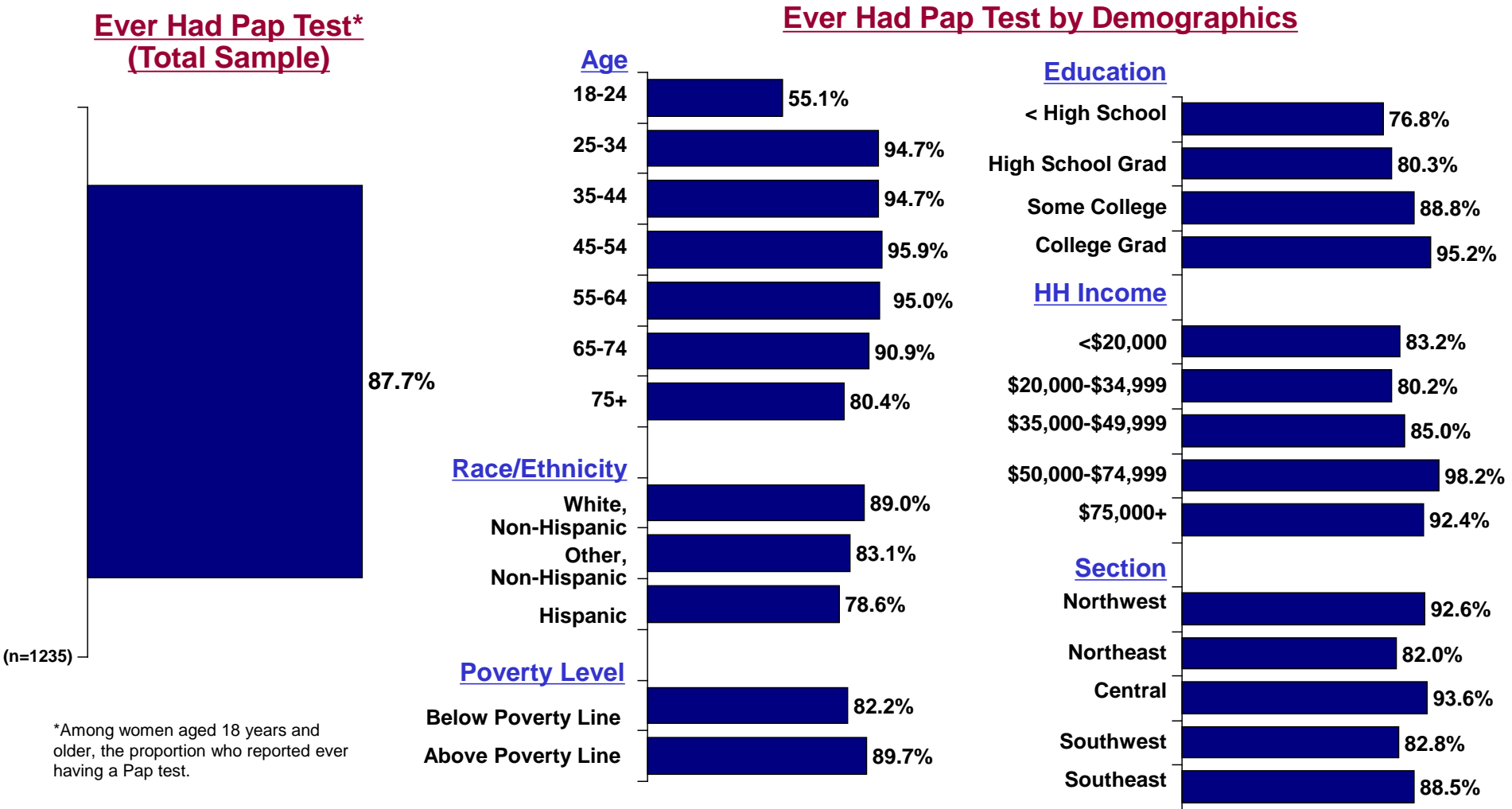
*Among women aged 40 years and older, the proportion who reported having a mammogram in the past year.

Had Mammogram in Past Year by Demographics



Nearly nine in ten women have had a Pap test at some point. Pap test rates are lowest among women aged 18-24 and those with less than a high school degree. Rates are highest among college graduates and those with household incomes \$50K or more.

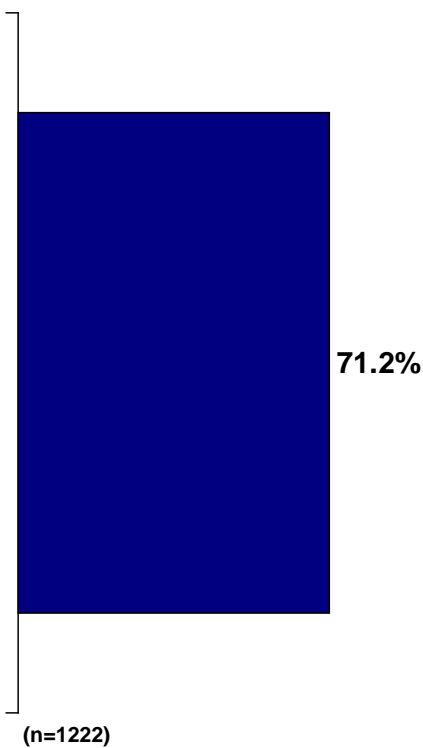
Cervical Cancer Screening



Adult women least likely to have appropriately timed (within past three years) Pap tests are in the youngest (18-24) and oldest (65+) ages groups and/or are non-Hispanic minorities. Further, having an appropriately timed Pap test is directly related to education and income.

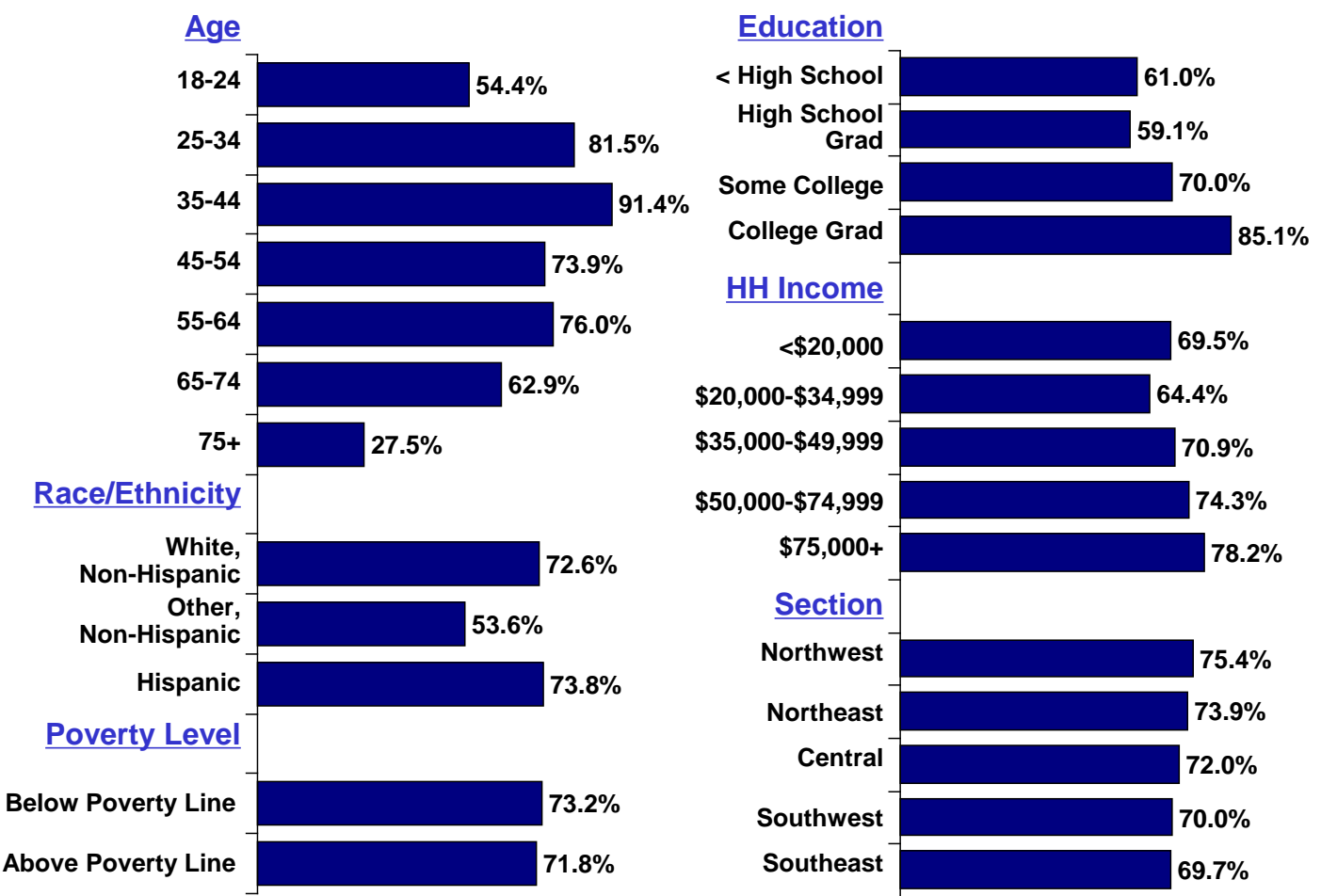
Cervical Cancer Screening (Cont'd.)

Had Appropriately Timed Pap Test*
(Total Sample)



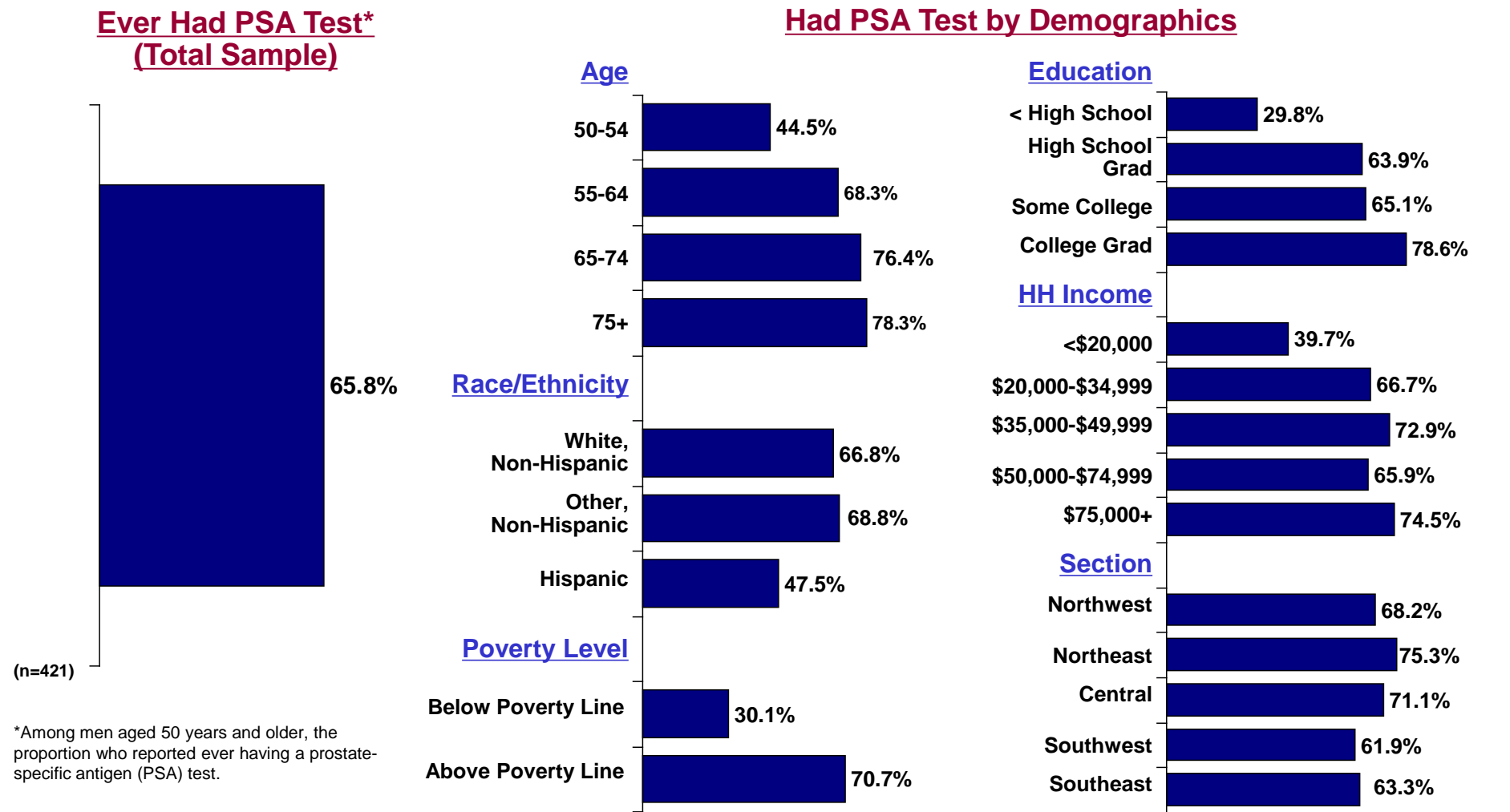
*Among women aged 18 years and older, the proportion who reported having a pap test within the previous three years..

Appropriately Timed Pap Test by Demographics



Two-thirds (65.8%) of men in Ottawa County aged 50 years or older have had a PSA test screening for prostate cancer. The rate falls to three in ten among men below the poverty line men and those with less than a high school education. Further, Hispanic men are less likely to get a PSA test than non-Hispanic men.

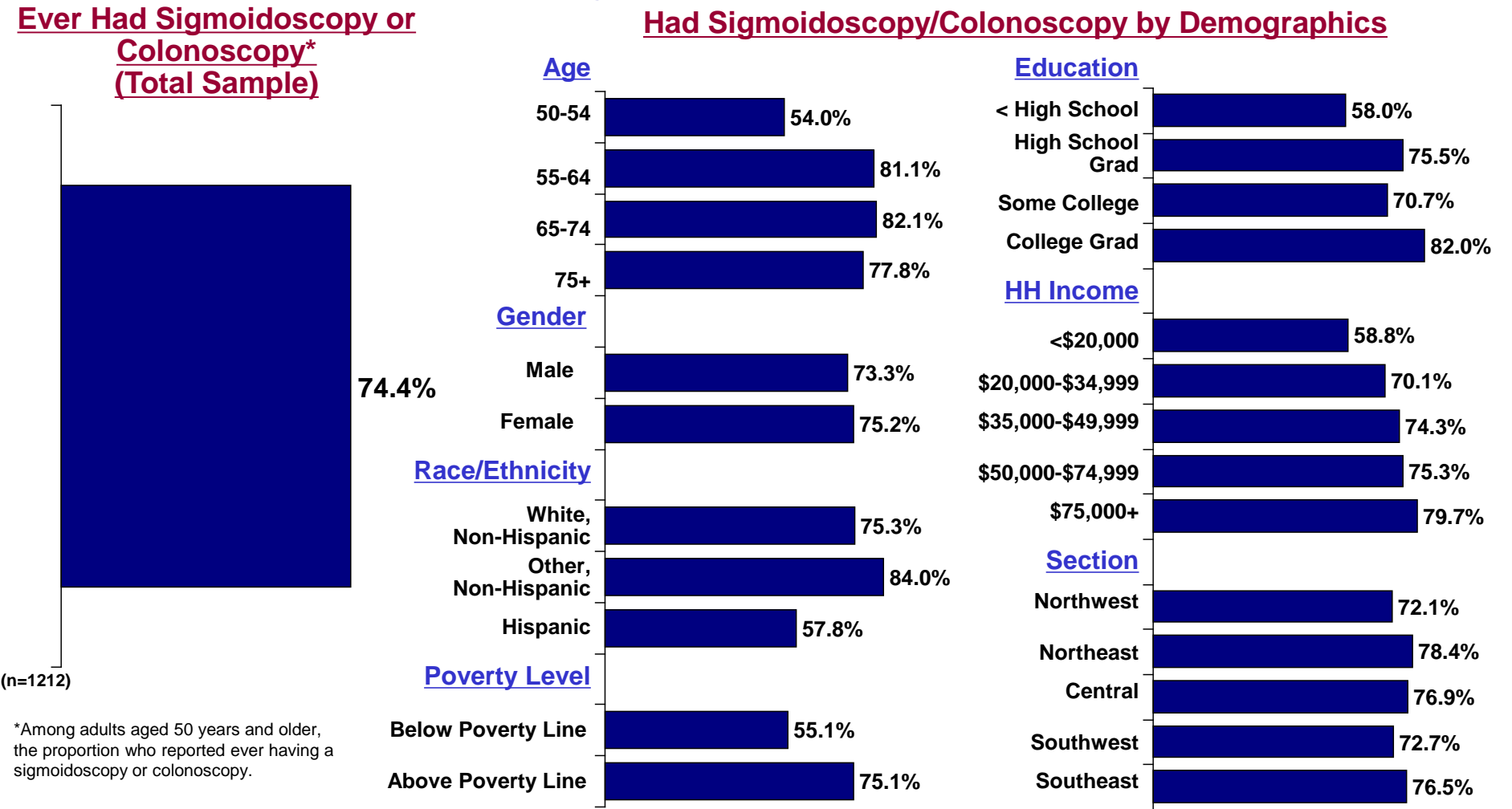
Prostate Cancer Screening Among Men Aged 50 Years and Older



*Among men aged 50 years and older, the proportion who reported ever having a prostate-specific antigen (PSA) test.

Three in four adults have been screened for colorectal cancer. Demographic groups least likely to be screened are: people aged 50-54, Hispanic, those with less than a high school degree, and those living below the poverty line. Screening for colorectal cancer is directly related to income.

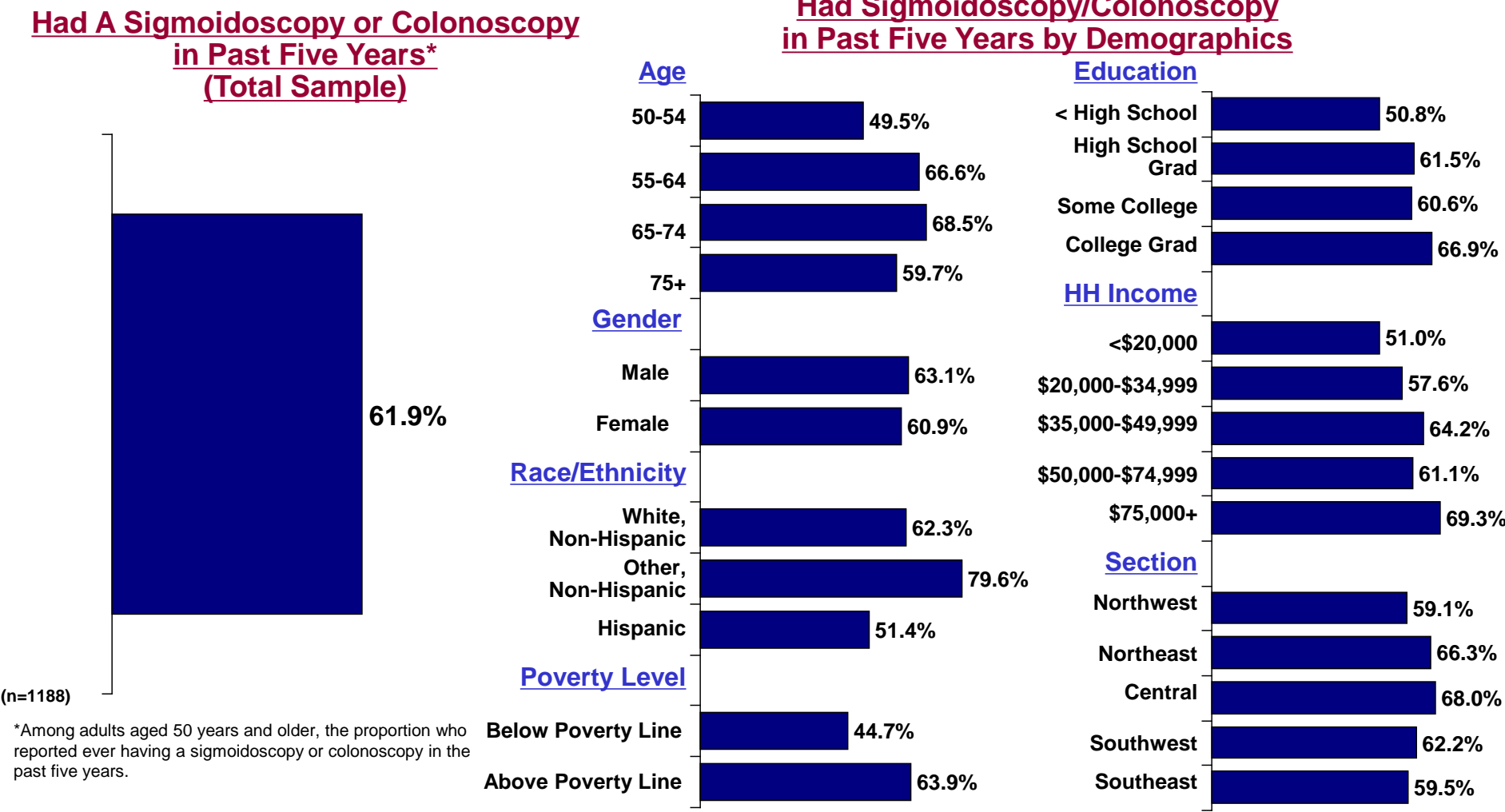
Colorectal Cancer Screening (Sigmoidoscopy/Colonoscopy) Among Adults Aged 50 Years and Older



*Among adults aged 50 years and older, the proportion who reported ever having a sigmoidoscopy or colonoscopy.

When looking at all adults aged 50 or older, six in ten (61.9%) have been screened for colorectal cancer in the past five years. Least likely to have been screened in the past five years are: people aged 50-54, Hispanic, those with less than a high school degree, from households with annual incomes less than \$20K, and living below the poverty line. Again, having been screened in a timely manner is directly related to income.

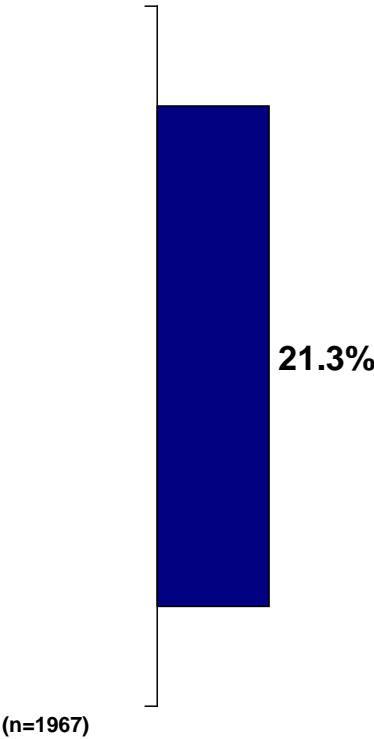
Colorectal Cancer Screening (Sigmoidoscopy/Colonoscopy) Among Adults Aged 50 Years and Older (Cont'd.)



One in five adults have not visited a dentist in the past year. Visiting a dentist in a timely manner is directly related to education and income. In fact, more than half (51.9%) of adults with less than a high school education and more than four in ten (43.1%) living in a household with income less than \$20K have not visited a dentist in the past year. Further, 41.4% of adults living below the poverty line have not visited a dentist, in comparison to 18.5% of those living above the poverty line. Non-Whites are also less likely to have a timely dental visit/check-up compared to Whites.

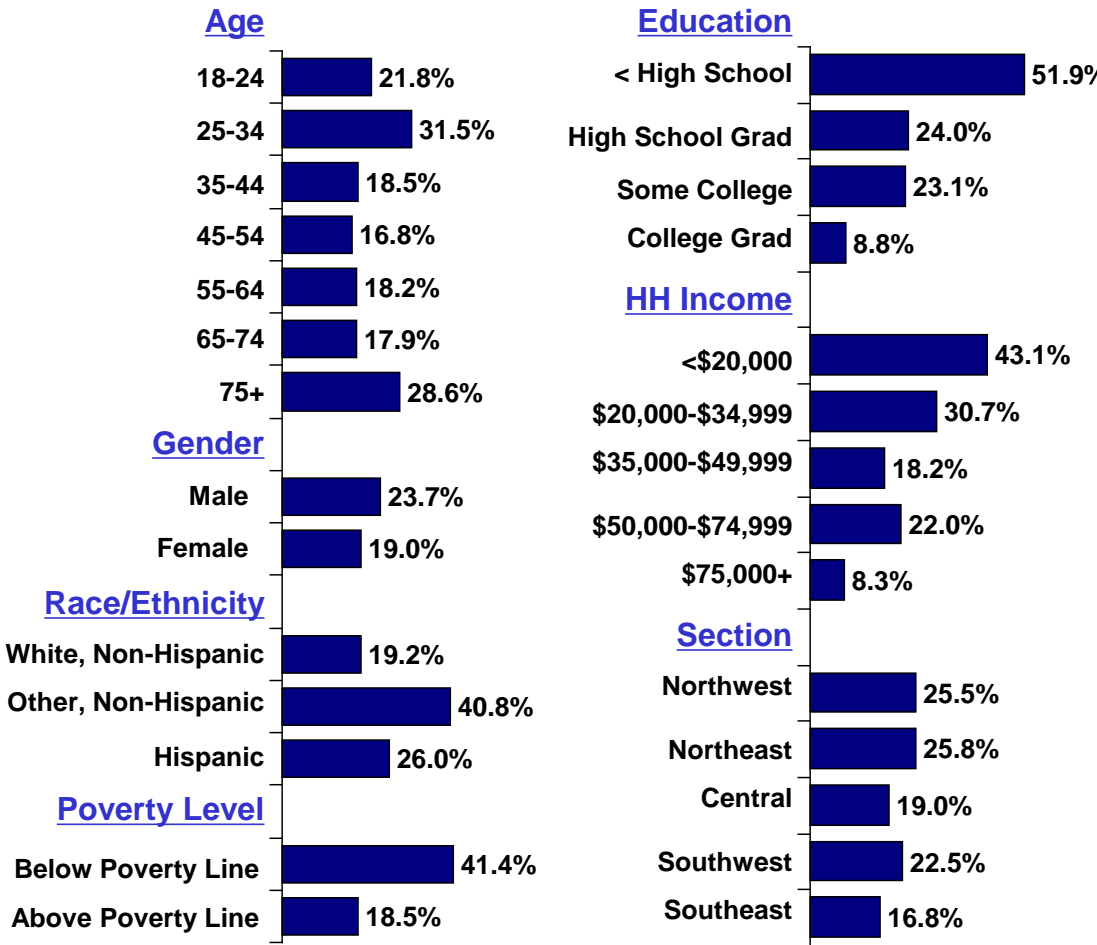
Oral Health

No Dental Visit in Past Year*
(Total Sample)



*Among adults, the proportion who reported that they had not visited a dentist or dental clinic for any reason in the previous year.

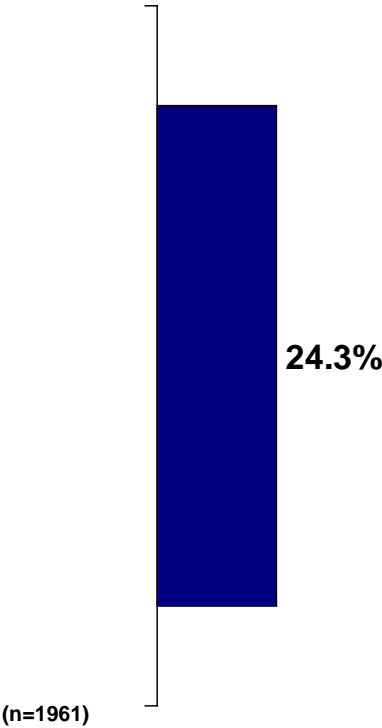
No Dental Visit in Past Year by Demographics



Similarly, having a recent teeth cleaning is directly related to education and income. Least likely to have a timely cleaning are those who have less than a high school education and those living in a household with income less than \$20K. The greatest discrepancy is seen between those living below the poverty line (45.4% have had not teeth cleaning in the past year) and those above the poverty line (22.0%)

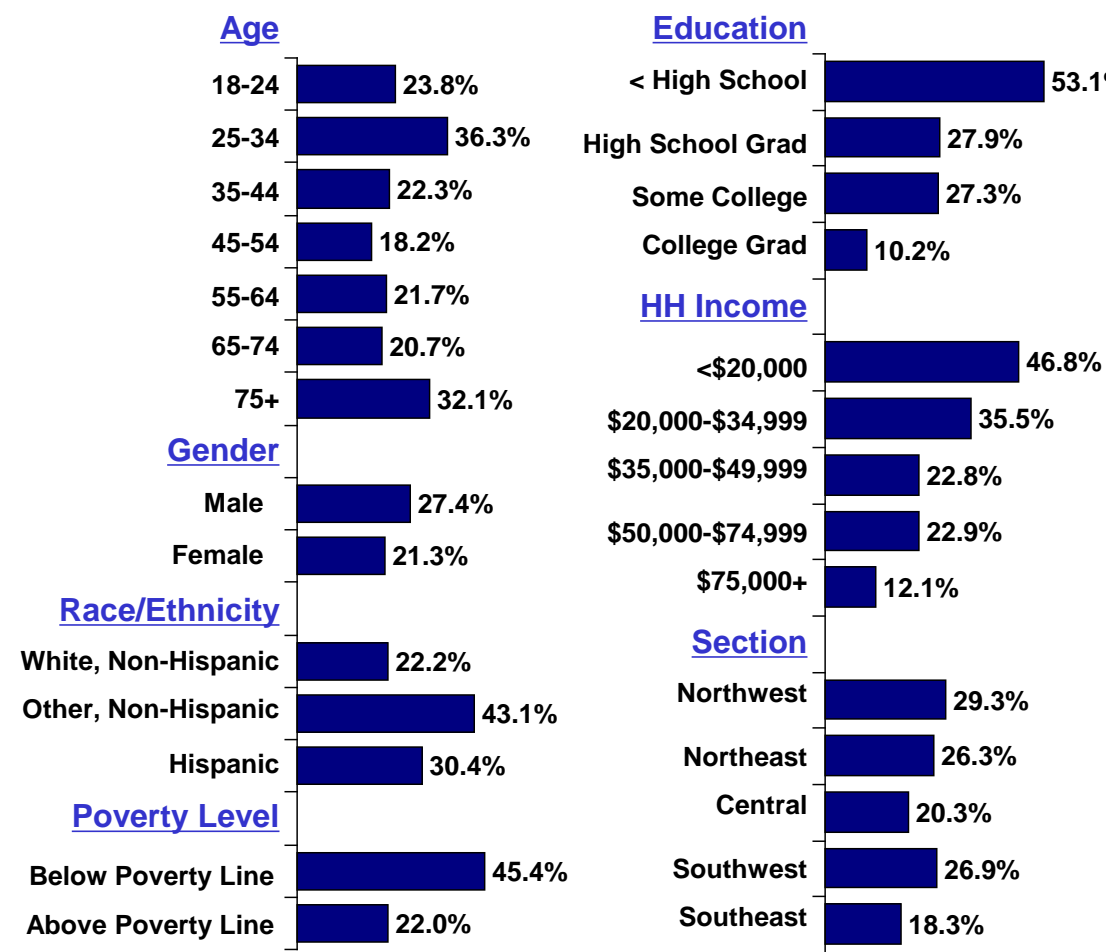
Oral Health (Cont'd.)

No Teeth Cleaning in Past Year*
(Total Sample)



*Among adults, the proportion who reported that they did not have their teeth cleaned by a dentist or dental hygienist in the previous year.

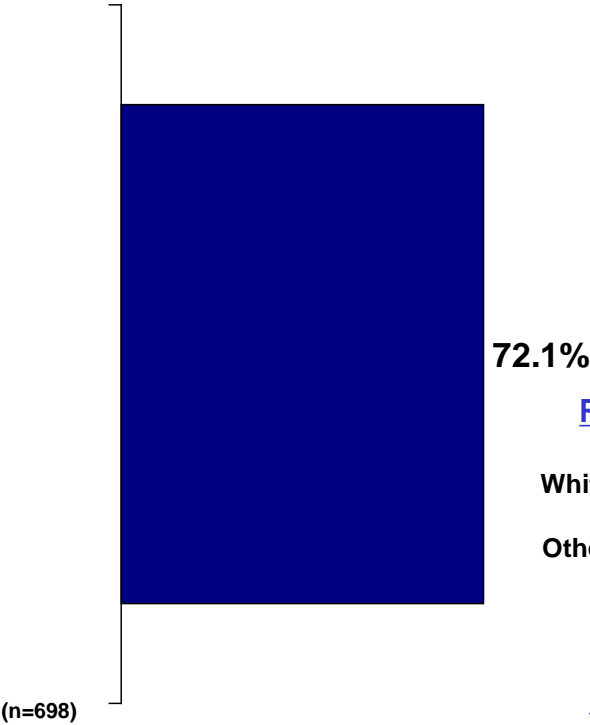
No Teeth Cleaning in Past Year by Demographics



More than seven in ten (72.1%) adults aged 65 or older have received a flu vaccine in the past year. Adults aged 75+ are more likely to have received one in the past year than those aged 65-74. Senior non-Whites are far more likely than Whites to have received a flu vaccine in the past year. Conversely, those with little education and incomes below \$20K are least likely to have received immunization from the flu.

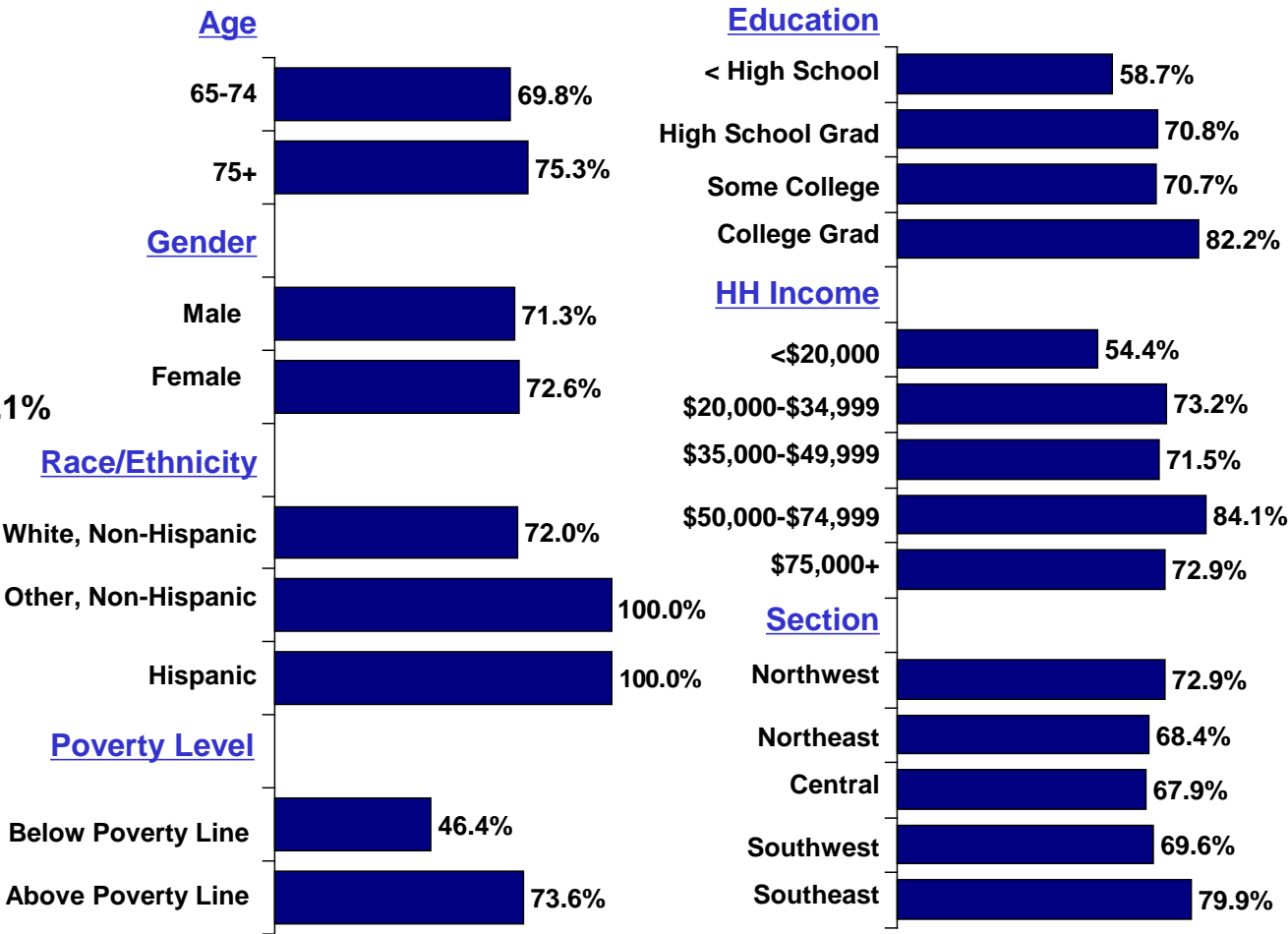
Immunizations Among Adults 65 Years and Older

Had Flu Vaccine in Past Year*
(Total Sample)



*Among adults aged 65 years and older, the proportion who reported that they had a flu vaccine, either by an injection in the arm or sprayed in the nose during the past 12 months.

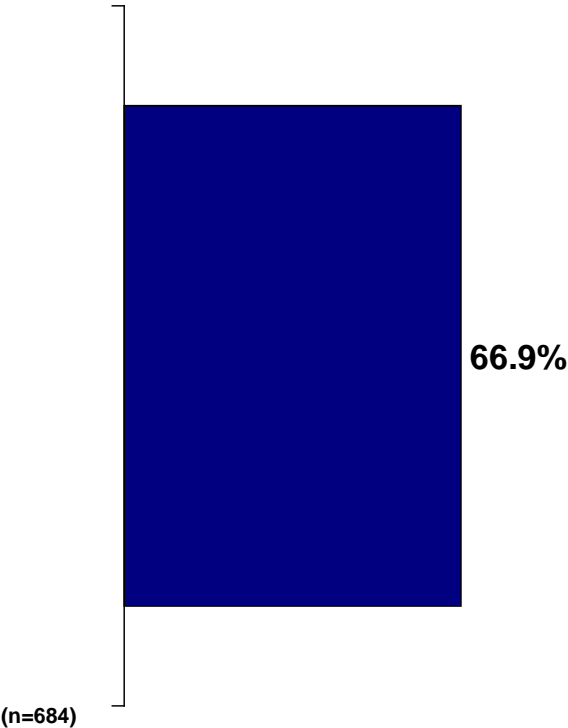
Had Flu Vaccine by Demographics



Additionally, two-thirds (66.9%) of adults aged 65 or older received a pneumonia vaccine at some point and this rate is higher for those aged 75 or older. The lowest rates are among adults who are non-Hispanic minorities and/or are living below the poverty line.

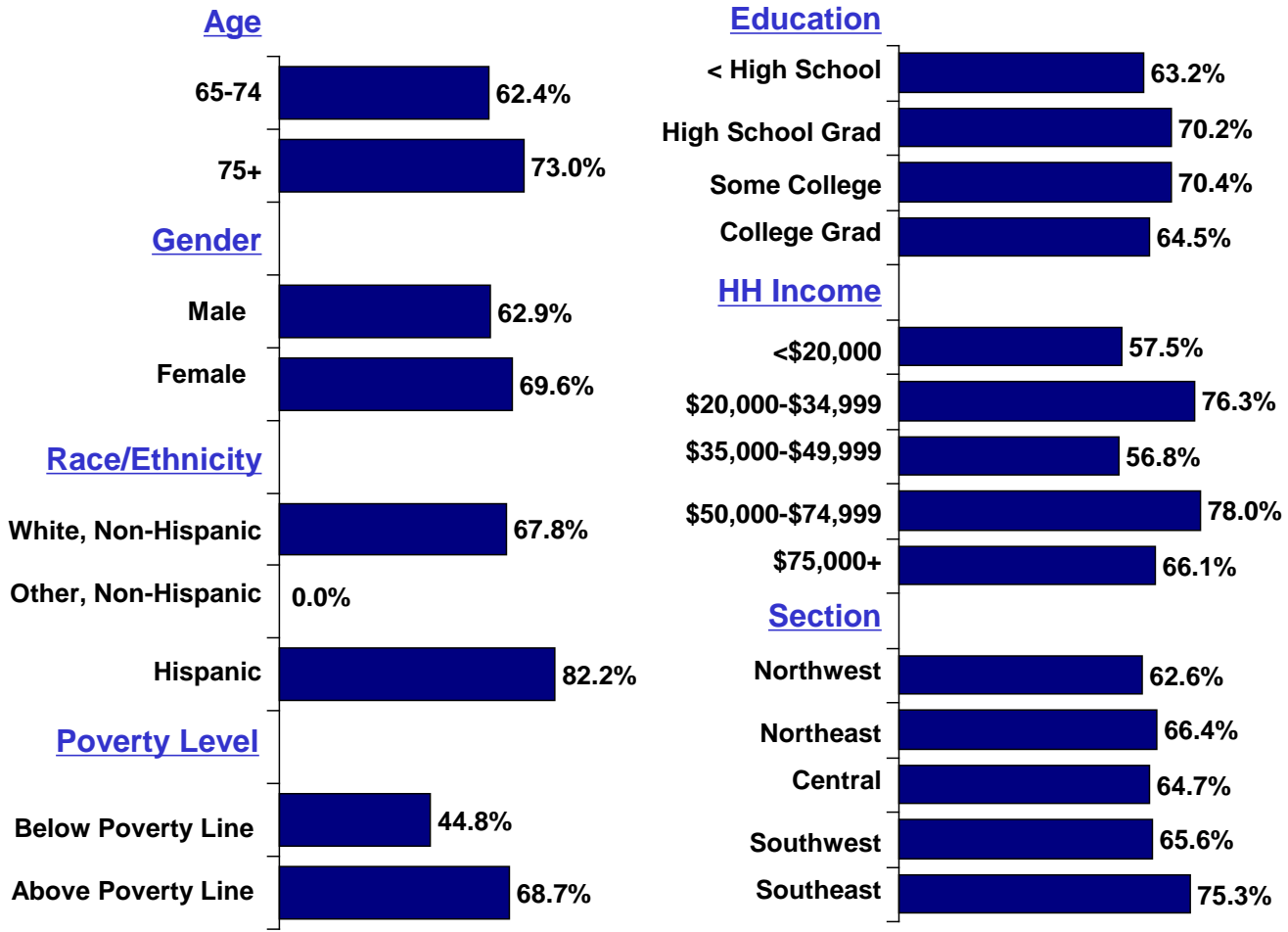
Immunizations Among Adults 65 Years and Older (Cont'd.)

Ever Had Pneumonia Vaccine*
(Total Sample)



*Among adults aged 65 years and older, the proportion who reported that they ever had a pneumococcal vaccine.

Had Pneumonia Vaccine by Demographics

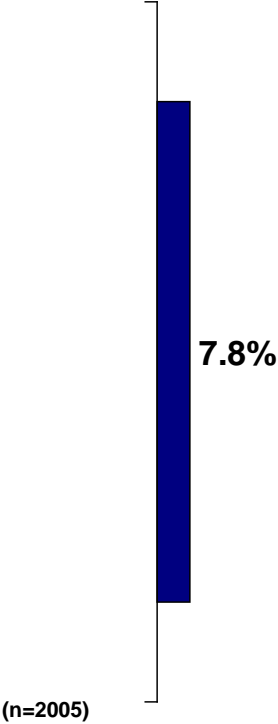


Chronic Conditions

Roughly one in twelve Ottawa County adults have diabetes. The prevalence of diabetes is greater for older adults (45+), Hispanics, those with incomes less than \$35K, and those in the northeast section.

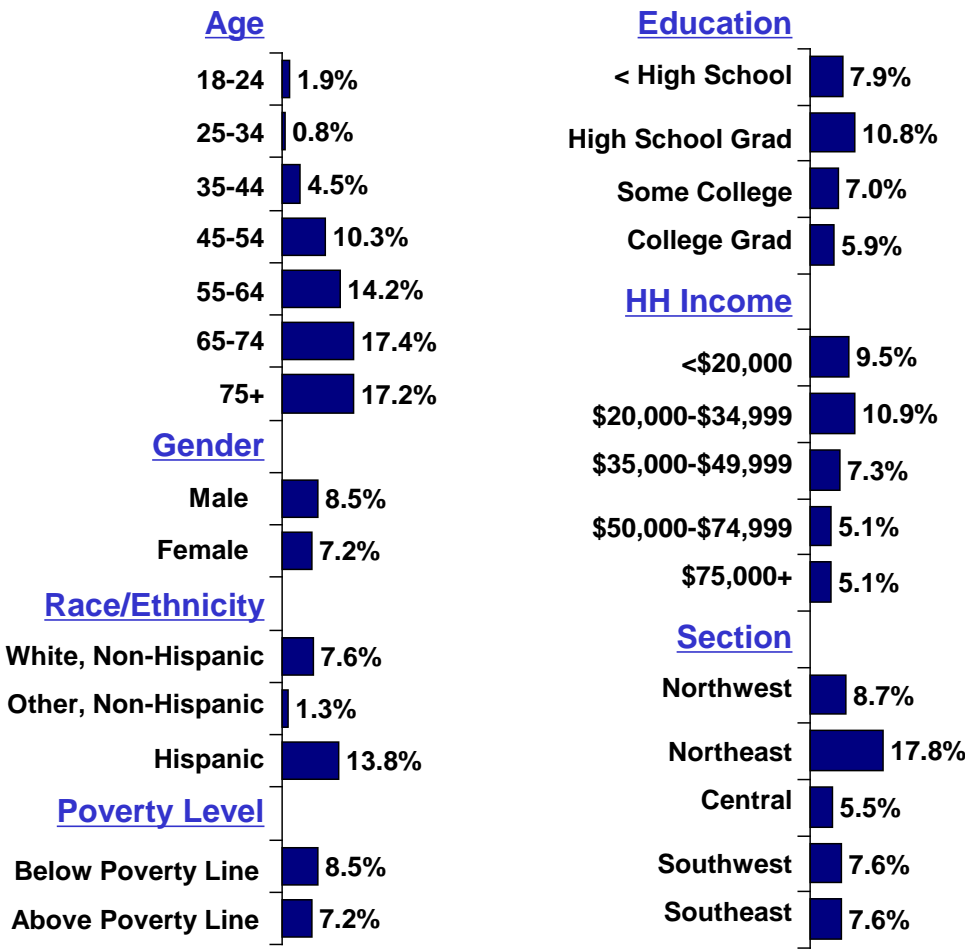
Diabetes

Ever Told Have Diabetes*
(Total Sample)



*Among all adults, the proportion who reported that they were ever told by a doctor that they have diabetes. Adults who had been told they have prediabetes and women who had diabetes only during pregnancy were classified as not having been diagnosed.

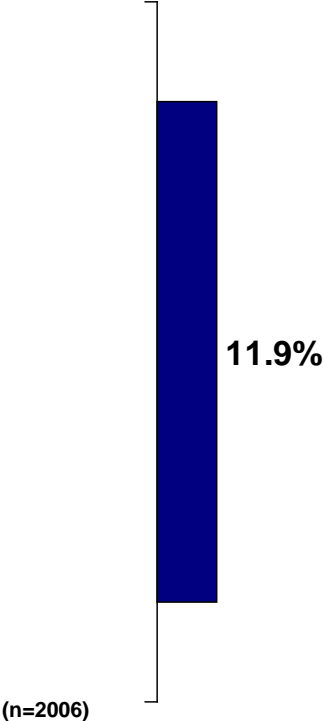
Told Have Diabetes by Demographics



More than one in ten (11.9%) adults in Ottawa County have been diagnosed with asthma in their lifetime. This rate is higher for females than males and higher for those living in northeast Ottawa County vs. residents in other sections.

Asthma Among Adults

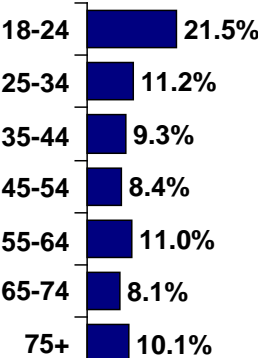
Lifetime Asthma Prevalence*
(Total Sample)



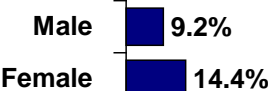
*Among all adults, the proportion who reported that they were ever told by a doctor, nurse, or other health care professional that they had asthma.

Lifetime Asthma by Demographics

Age



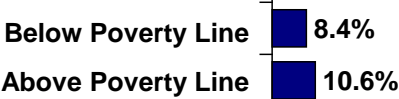
Gender



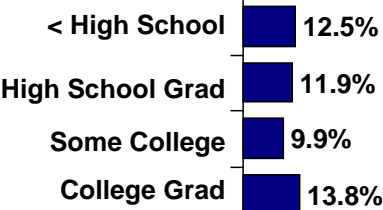
Race/Ethnicity



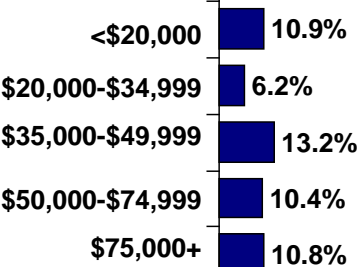
Poverty Level



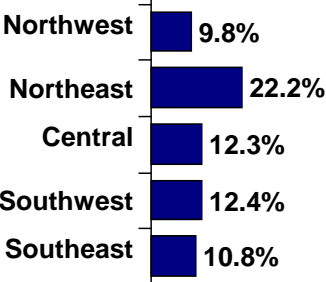
Education



HH Income



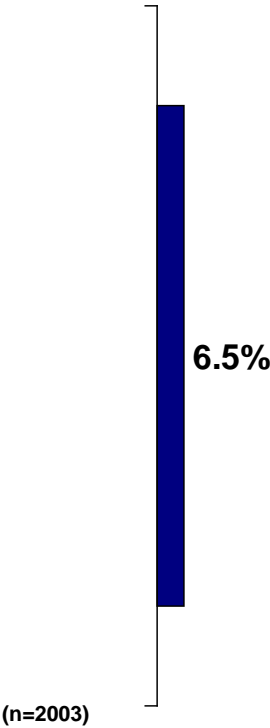
Section



Fewer (6.5%) adults in Ottawa County currently have asthma. Women are more likely to have asthma than men, and those with less than a high school education are more likely to have asthma than those with more education. The prevalence of asthma in northeast Ottawa County is highest. Non-Hispanic minorities are least likely to have asthma compared to other racial/ethnic groups.

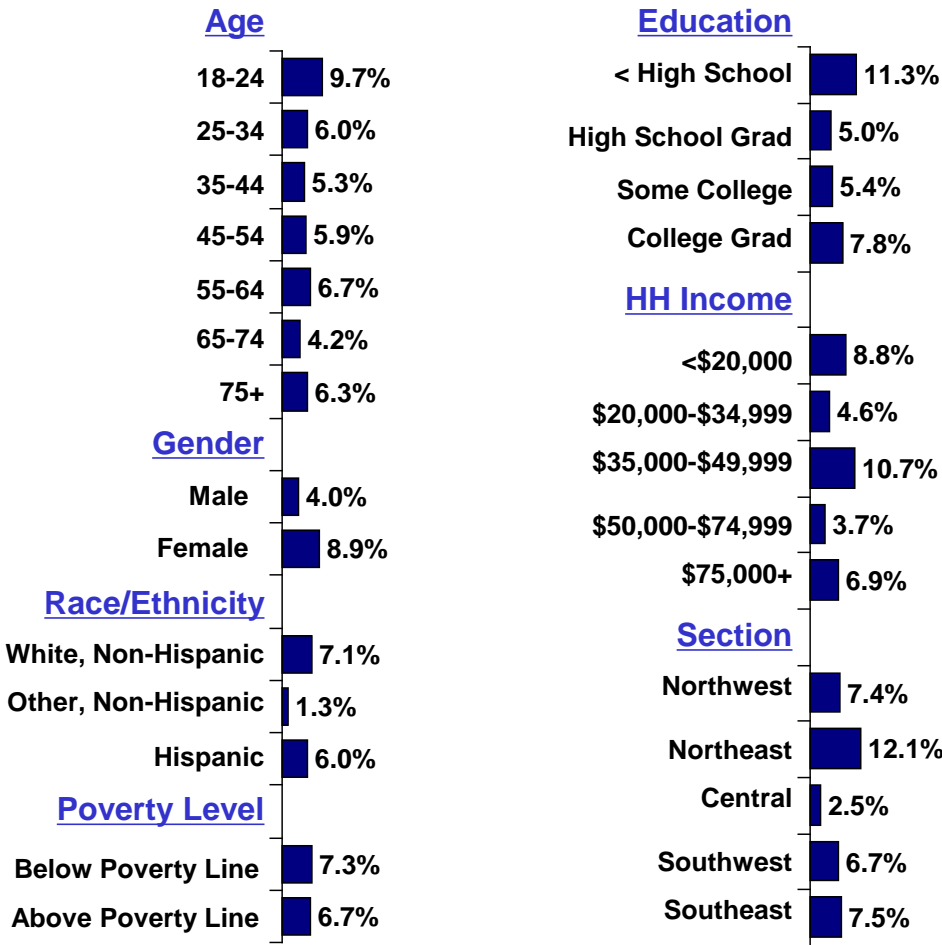
Asthma Among Adults (Cont'd.)

Current Asthma Prevalence*
(Total Sample)



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

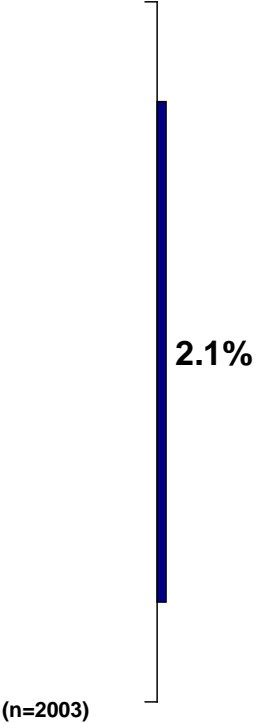
Current Asthma by Demographics



Very few Ottawa County adults have had a heart attack and this is true regardless of demographics. The proportion of adults who have had a heart attack is highest among adults aged 55+.

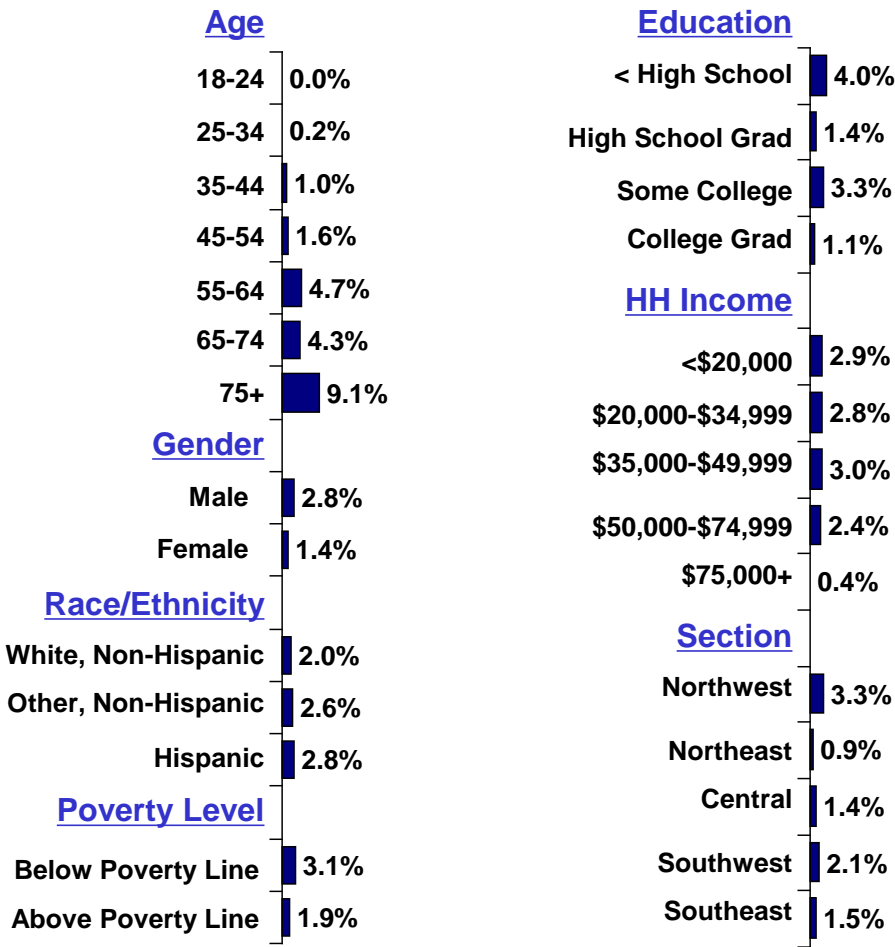
Cardiovascular Disease

Ever Told Had Heart Attack*
(Total Sample)



*Among all adults, the proportion who had ever been told by a doctor that they had a heart attack or myocardial infarction.

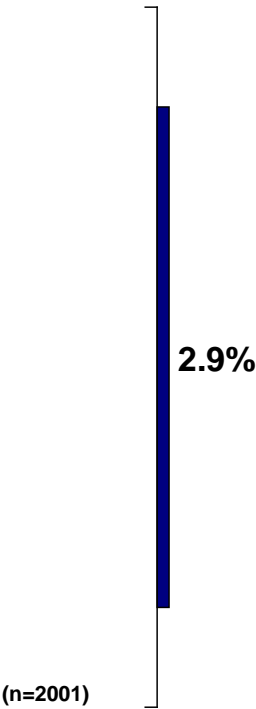
Told Had Heart Attack by Demographics



Very few Ottawa County adults have ever been told they have angina or coronary heart disease. The rate is higher for adults aged 65+ and those in the northeast section of the county. There is also an inverse relationship between experiencing angina or coronary heart disease and level of education.

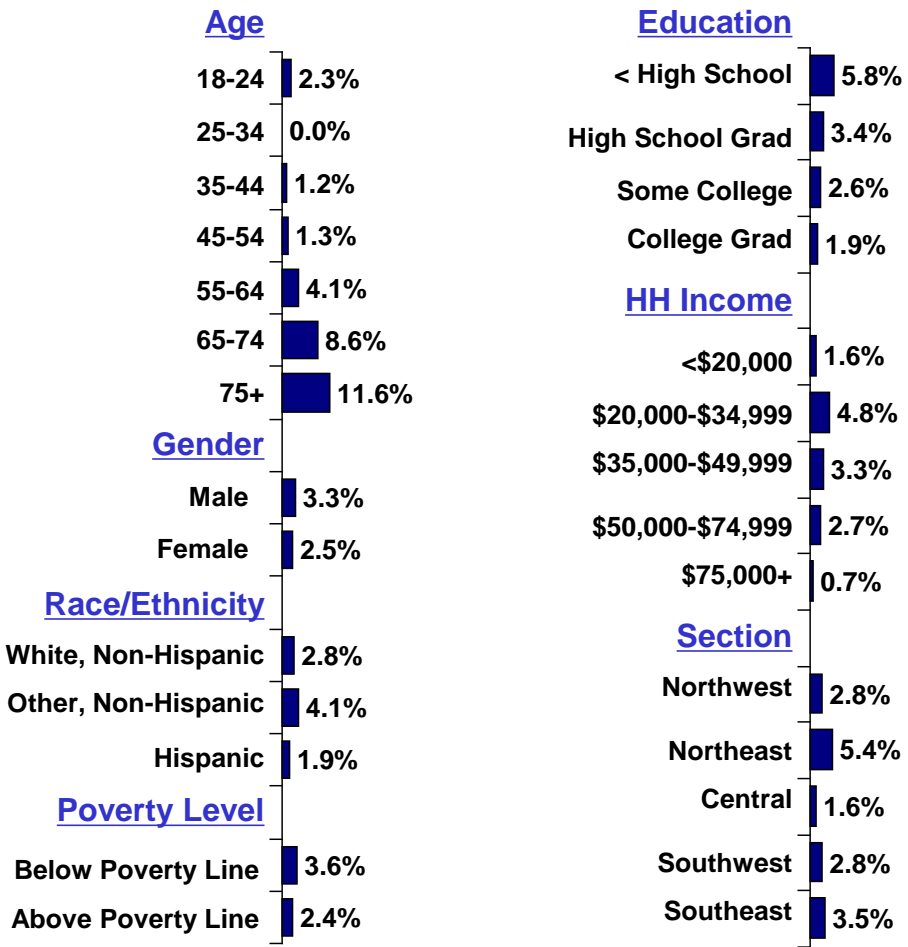
Cardiovascular Disease (Cont'd.)

Ever Told Have Angina/Coronary Heart Disease*
(Total Sample)



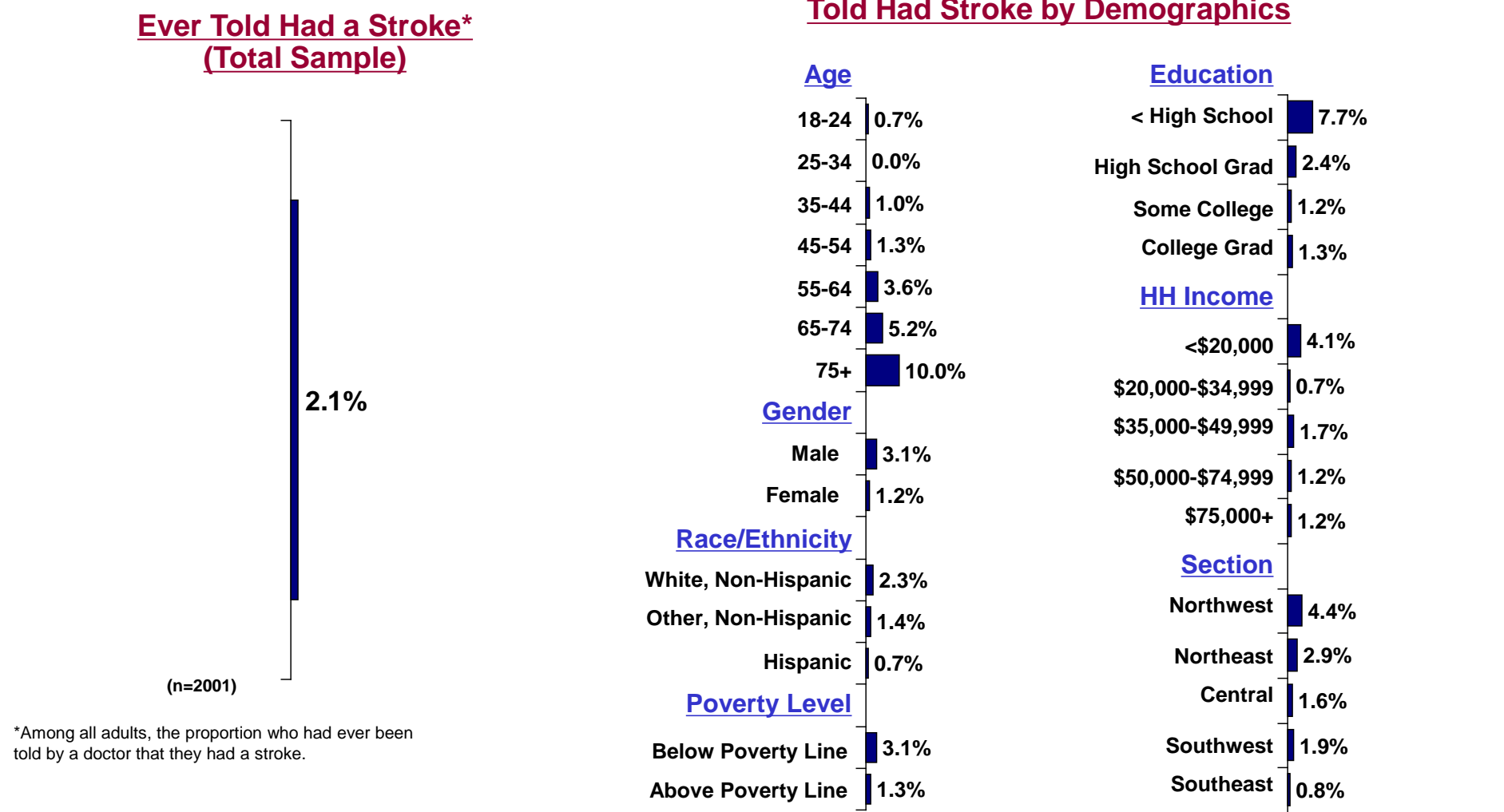
*Among all adults, the proportion who had ever been told by a doctor that they had angina or coronary heart disease.

Told Have Angina/Coronary Heart Disease by Demographics



Few Ottawa County adults have had a stroke. The highest prevalence of stroke can be found in the highest age, lowest education, and lowest income groups.

Cardiovascular Disease (Cont'd.)

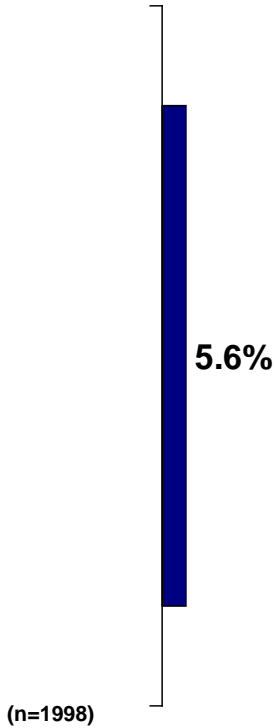


*Among all adults, the proportion who had ever been told by a doctor that they had a stroke.

Having any form of cardiovascular disease (heart attack, angina, stroke) is directly related to age and inversely related to education and income. For example, 3.6% of college graduates have experienced heart disease in some form, compared to 15.5% of those with less than a high school diploma.

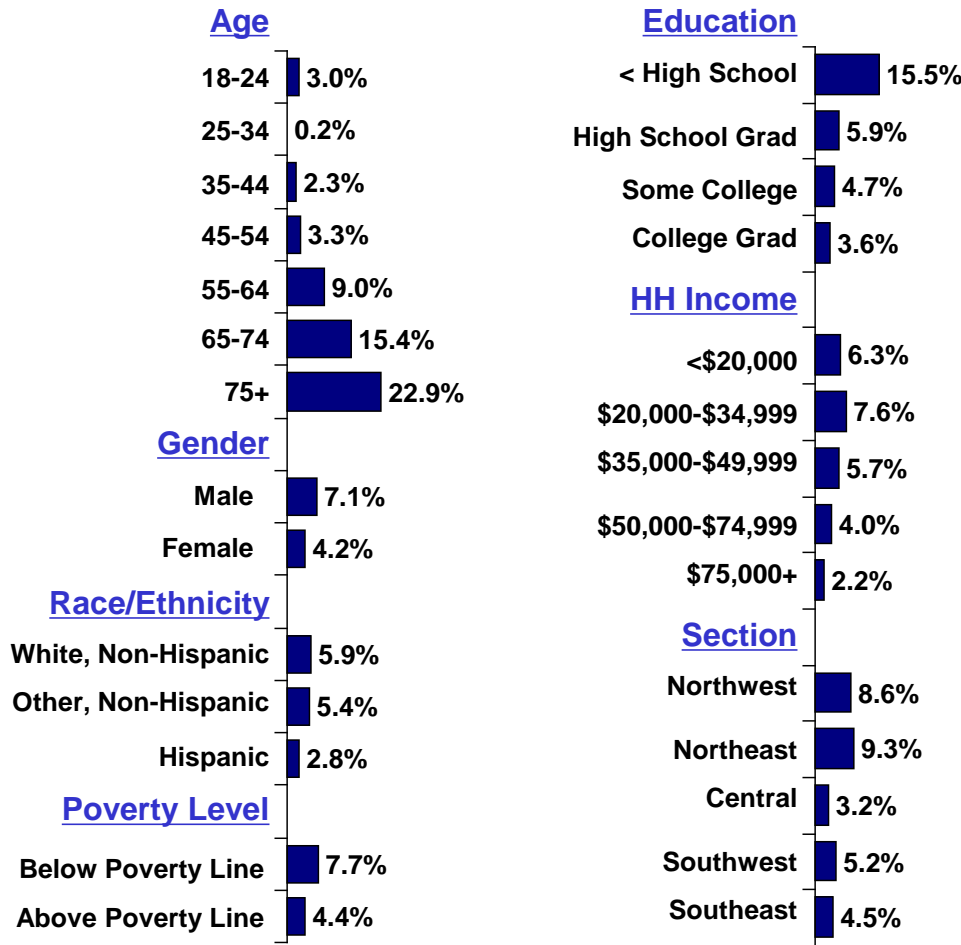
Cardiovascular Disease (Cont'd.)

Ever Told Had Heart Attack, Angina, or Stroke*
(Total Sample)



*Among all adults, the proportion who had ever been told by a doctor that they had a heart attack, angina, or stroke.

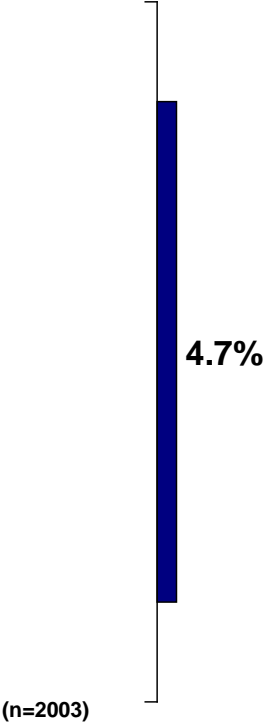
Told Had Stroke by Demographics



Less than one in twenty (4.7%) Ottawa County adults have been told by a doctor they have skin cancer. Expectedly, this proportion rises dramatically with age; one-fourth (24.0%) of people aged 75 or older have been told they have skin cancer. People living above the poverty line are more likely to be diagnosed with skin cancer than people living below the poverty line. Residents in northeast Ottawa County are more likely to have skin cancer than residents in other sections of the county.

Skin Cancer

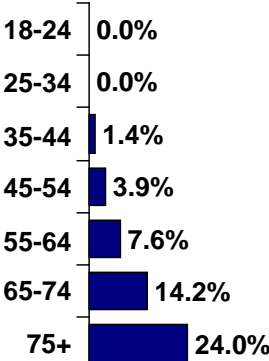
Ever Told Have Skin Cancer*
(Total Sample)



*Among all adults, the proportion who reported that they were ever told by a doctor that they have skin cancer.

Told Have Skin Cancer by Demographics

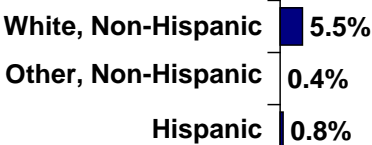
Age



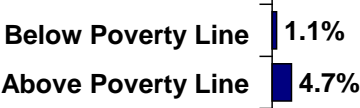
Gender



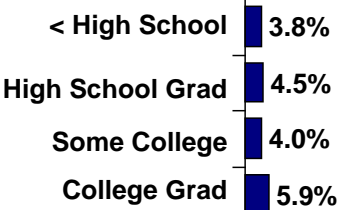
Race/Ethnicity



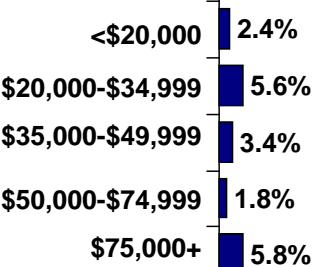
Poverty Level



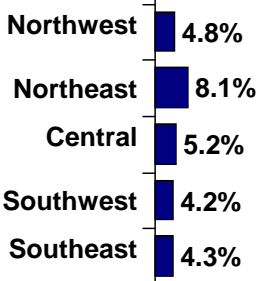
Education



HH Income



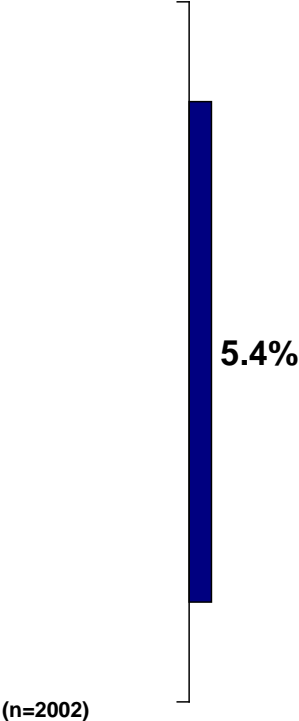
Section



One in twenty (5.4%) Ottawa County adults have been told by a doctor they have non-skin cancer. This proportion also rises dramatically with age; 19.2% of residents aged 75 or older have been diagnosed with some form of non-skin cancer. Residents in northwest Ottawa County are more likely to have cancer than residents in other sections of the county.

Cancer (Other Than Skin)

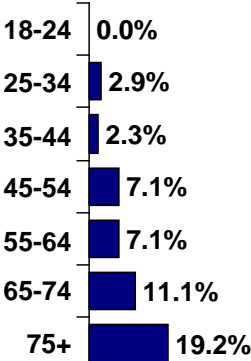
Ever Told Have Cancer (Other Than Skin)*
(Total Sample)



*Among all adults, the proportion who reported that they were ever told by a doctor that they have cancer (other than skin).

Told Have Cancer by Demographics

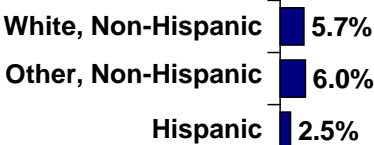
Age



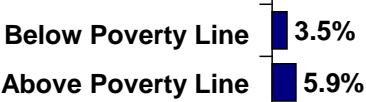
Gender



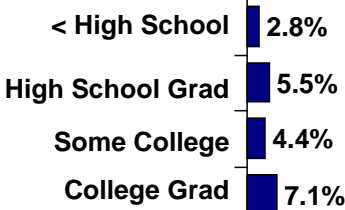
Race/Ethnicity



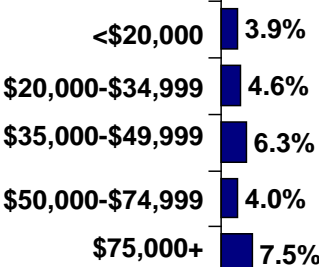
Poverty Level



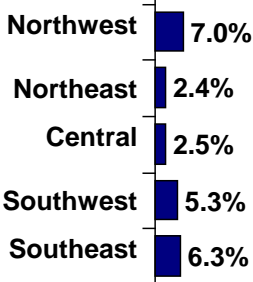
Education



HH Income



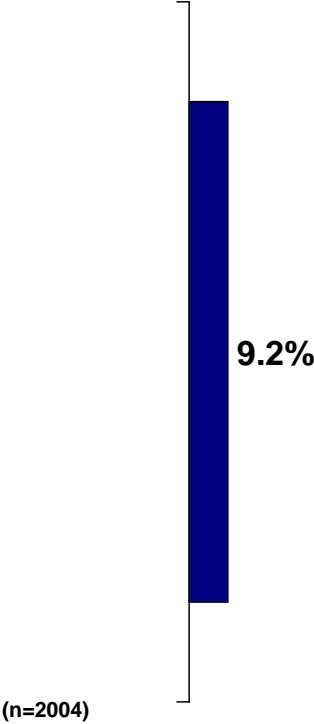
Section



Almost one in ten (9.2%) Ottawa County adults have been told by a doctor they some form of cancer (either skin or non-skin). This proportion also rises dramatically with age; more than one third (37.6%) of residents aged 75 or older have been diagnosed with some form of cancer. Residents in the northern sections of the county are more likely to have cancer than residents in other sections of the county.

Any Cancer (Skin or Other Type)

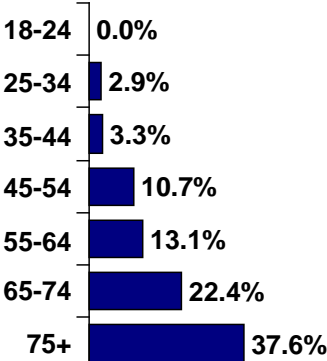
Ever Told Have Cancer (Skin or Other Type)*
(Total Sample)



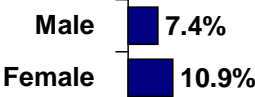
*Among all adults, the proportion who reported that they were ever told by a doctor that they have skin cancer or any other type of cancer.

Told Have Cancer by Demographics

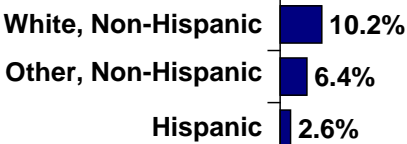
Age



Gender



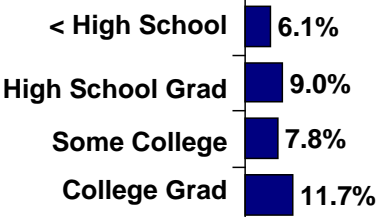
Race/Ethnicity



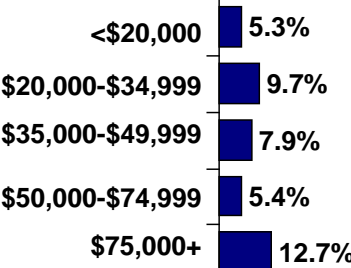
Poverty Level



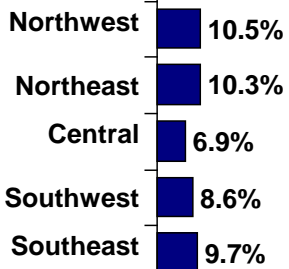
Education



HH Income



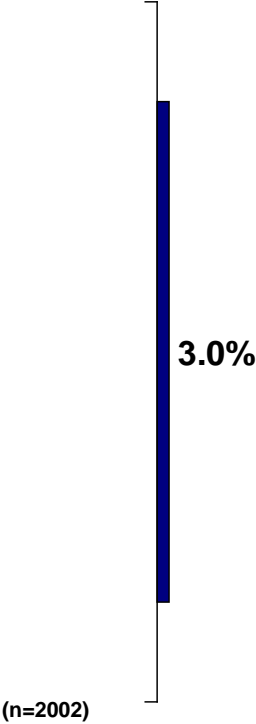
Section



A small proportion (3.0%) of Ottawa County residents have been told they have chronic obstructive pulmonary disease (COPD). The disease is more common among residents who are older (55+), have less education (high school graduate or less), and live in the northeast section.

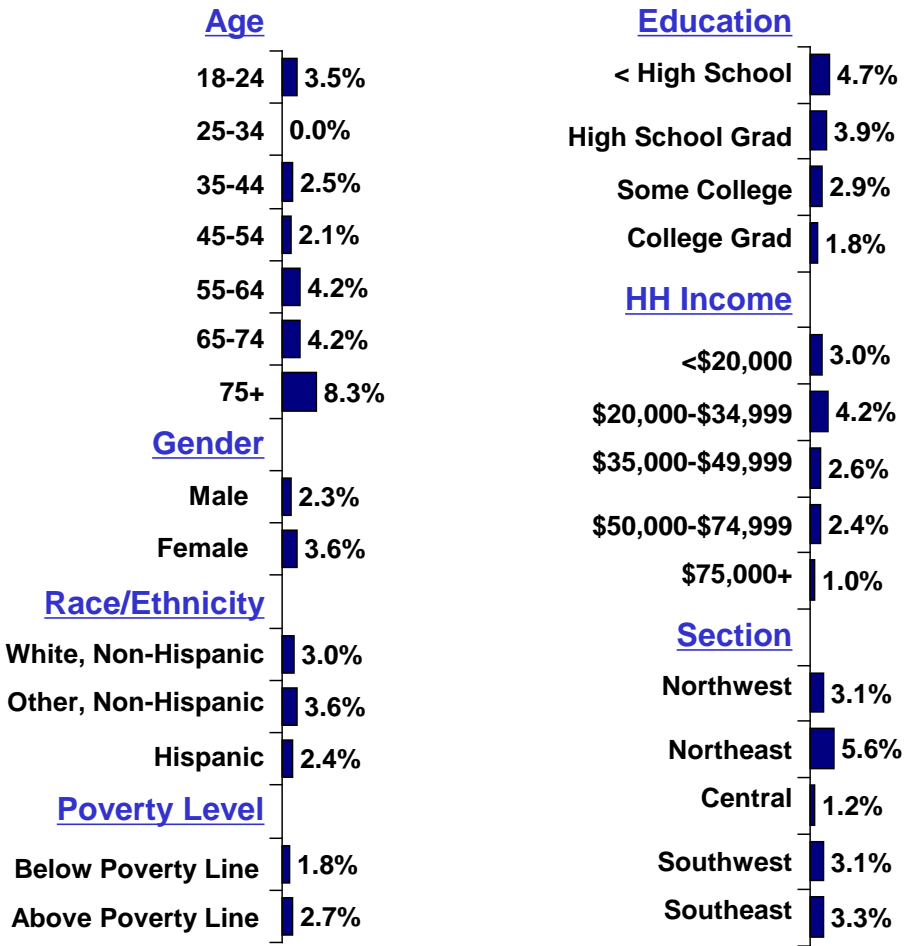
COPD

**Ever Told Have COPD*
(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.

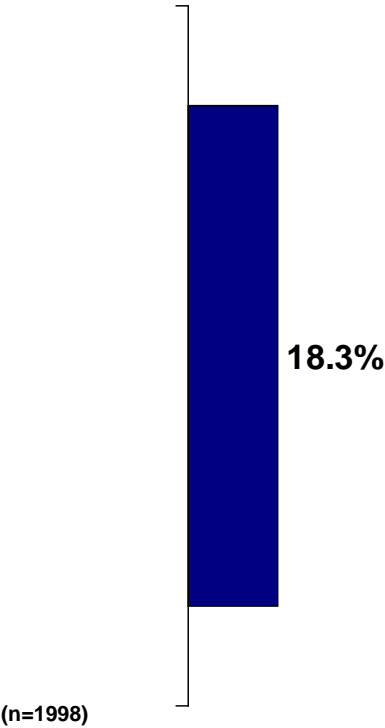
Told Have COPD by Demographics



Less than one in five (18.3%) Ottawa County adults have ever been told by a health care professional they have arthritis. This rate, not surprisingly, rises dramatically with age. Non-Hispanic minority adults are least likely to have received this diagnosis. Having arthritis is more prevalent among women than men, and more prevalent among groups with less than a college education compared to those who attended college or received a college degree.

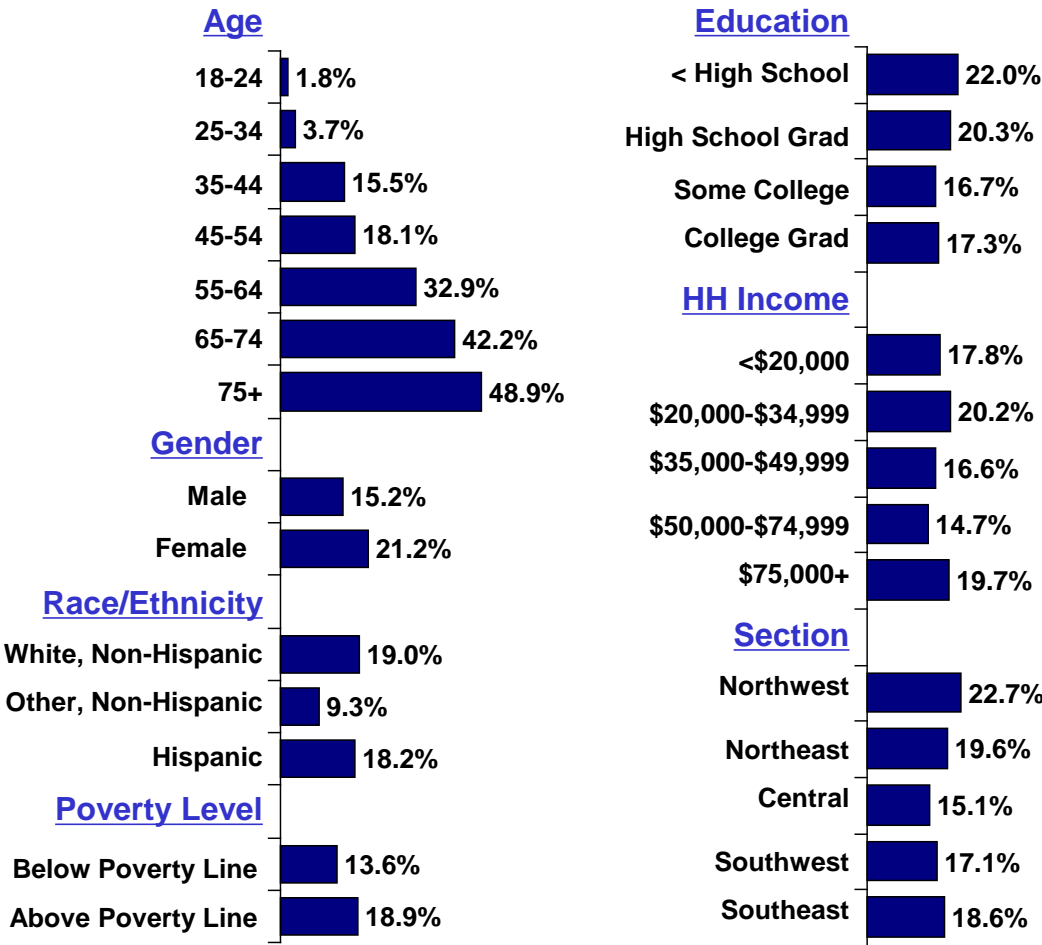
Arthritis

Ever Told Have Arthritis*
(Total Sample)



*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.

Told Have Arthritis by Demographics



Comparison of BRFs Measures Between Ottawa County, Michigan, and the United States

Health Status Indicators

| | Ottawa County | Michigan | U.S. |
|---|---------------|-------------|--------------|
| General Health Fair/Poor | 10.5% | 17.7% | 16.9% (2013) |
| Poor Physical Health (14+ days) | 6.1% | 12.7% | -- |
| Poor Mental Health (14+ days) | 8.6% | 12.0% | -- |
| Activity Limitation (14+ days) | 5.7% | 8.8% | -- |
| Dissatisfied/Very Dissatisfied with Life | 3.2% | 6.1% (2010) | -- |
| Rarely/Never Receive Social and Emotional Support | 5.5% | 6.5% (2010) | -- |
| Obese | 23.9% | 31.5% | 28.9% (2013) |
| Overweight | 35.3% | 34.7% | 35.4% (2013) |
| Healthy Weight | 37.7% | 32.5% | 33.4% (2013) |
| No Health Care Coverage (18-64) | 9.3% | 17.4% | 20.0% (2013) |
| No Personal Health Care Provider | 11.4% | 17.0% | 22.9% (2013) |
| No Health Care Access Due to Cost | 9.8% | 15.5% | 15.3% (2013) |



= best measure among the comparable groups



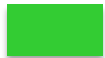
= worst measure among the comparable groups

Sources: Preliminary Estimates for Risk Factor and Health Indicators, State of Michigan, Selected Tables, Michigan BRFs, 2013
Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2013

Comparison of BRFs Measures Between Ottawa County, Michigan, and the United States (Cont'd.)

Risk Behavior Indicators

| | Ottawa County | Michigan | U.S. |
|---|---------------|----------|--------------|
| No Leisure Time Physical Activity | 20.5% | 24.4% | 25.5% (2013) |
| Inadequate Fruit and Vegetable Consumption (<5 Times Per Day) | 70.5% | 84.7% | 76.6% (2009) |
| Consume Fruits <1 Time Per Day | 20.6% | 37.5% | 39.2% |
| Consume Vegetables <1 Time Per Day | 17.1% | 23.9% | 22.9% |
| Current Cigarette Smoking | 18.6% | 21.4% | 19.0% (2013) |
| Former Cigarette Smoking | 22.6% | 27.0% | 25.2% (2013) |
| Binge Drinking | 19.3% | 18.9% | 16.8% (2013) |
| Heavy Drinking | 6.5% | 6.2% | 6.2% (2013) |
| Ever Told High Blood Pressure | 26.4% | 34.6% | 31.4% (2013) |
| Cholesterol Ever Checked | 77.4% | 83.2 | 80.1% (2013) |
| Ever Told High Cholesterol | 26.8% | 40.6 | 38.4% (2013) |



= best measure among the comparable groups



= worst measure among the comparable groups

Sources: Preliminary Estimates for Risk Factor and Health Indicators, State of Michigan, Selected Tables, Michigan BRFs, 2013
Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2013

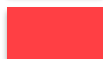
Comparison of BRFs Measures Between Ottawa County, Michigan, and the United States (Cont'd.)

Clinical Preventive Practices

| | Ottawa County | Michigan | U.S. |
|--|---------------|--------------|--------------|
| No Routine Checkup in Past Year | 19.9% | 30.1% | 31.8% (2013) |
| Ever Had Mammogram (Females, 40+ only) | 93.1% | 94.5% (2012) | -- |
| Had Mammogram in Past Year (Females, 40+ only) | 66.8% | 59.2% (2012) | -- |
| Had Mammogram in Past 2 Years (Females, 40+ only) | 80.6% | 76.6% (2012) | 75.6% (2010) |
| Ever Had Pap Test | 87.7% | 92.1% (2012) | -- |
| Had Appropriately Timed Pap Test | 71.2% | 79.4% (2012) | -- |
| Ever Had PSA Test (Males, 50+ only) | 65.8% | 72.2% (2012) | -- |
| Ever Had Sigmoidoscopy or Colonoscopy (50+ only) | 74.4% | 74.0% | -- |
| Had Sigmoidoscopy /Colonoscopy in Past 5 Years (50+) | 61.9% | 56.4% | 52.8% (2010) |
| No Dental Visit in Past Year | 21.3% | 32.0% (2012) | 30.0% (2008) |
| No Teeth Cleaning in Past Year | 24.3% | 29.2% (2010) | 28.7% (2008) |
| Had Flu Vaccine in Past Year (65+ only) | 72.1% | 56.8% | 62.6% (2013) |
| Ever Had Pneumonia Vaccine (65+ only) | 66.9% | 68.6% | 69.4% (2013) |



= best measure among the comparable groups



= worst measure among the comparable groups

Sources: Preliminary Estimates for Risk Factor and Health Indicators, State of Michigan, Selected Tables, Michigan BRFs, 2013
Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2013

Comparison of BRFs Measures Between Ottawa County, Michigan, and the United States (Cont'd.)

Chronic Conditions

| | Ottawa County | Michigan | U.S. |
|---|---------------|----------|--------------|
| Lifetime Asthma Prevalence | 11.9% | 15.2% | 14.1% (2013) |
| Current Asthma Prevalence | 6.5% | 10.9% | 9.0% (2013) |
| Ever Told Had Arthritis | 18.3% | 31.3% | 25.1% (2013) |
| Ever Told Had Heart Attack | 2.1% | 5.2% | 4.4% (2013) |
| Ever Told Had Angina/Coronary Heart Disease | 2.9% | 5.2% | 4.1% (2013) |
| Ever Told Had Stroke | 2.1% | 3.6% | 2.8% (2013) |
| Ever Told Had Diabetes | 7.8% | 10.4% | 9.8% (2013) |
| COPD | 3.0% | 8.8% | 6.3% (2013) |
| Skin Cancer | 4.7% | 5.4% | 6.0 (2013) |
| Other Cancer | 5.4% | 7.7% | 6.7 (2013) |
| Any Cancer (skin or other type) | 9.2% | 11.9% | -- |



= best measure among the comparable groups










= worst measure among the comparable groups



Sources: Preliminary Estimates for Risk Factor and Health Indicators, State of Michigan, Selected Tables, Michigan BRFs, 2013
Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2013

Comparison of Ottawa County BRFs Measures from 2011 and 2014

Health Status Indicators








| | Ottawa County 2014 | Ottawa County 2011 |
|---|--|--------------------|
| General Health Fair/Poor | 10.5% | 9.9% |
| Poor Physical Health (14+ days) | 6.1%  | 8.1% |
| Poor Mental Health (14+ days) | 8.6% | 8.6% |
| Activity Limitation (14+ days) | 5.7% | 5.1% |
| Dissatisfied/Very Dissatisfied with Life | 3.2%  | 4.5% |
| Rarely/Never Receive Social and Emotional Support | 5.5% | 4.4% |
| Obese | 23.9%  | 25.8% |
| Overweight | 35.3%  | 36.7% |
| Healthy Weight | 37.7%  | 36.3% |
| No Health Care Coverage (18-64) | 9.3%  | 12.6% |
| No Personal Health Care Provider | 11.4%  | 12.0% |
| No Health Care Access Due to Cost | 9.8% | -- |

  = better/improved measure from 2011



  = significantly (95% confidence level) better/improved measure from 2011

Comparison of Ottawa County BRFs Measures from 2011 and 2014

Risk Behavior Indicators

| | Ottawa County 2014 | Ottawa County 2011 |
|---|---|--------------------|
| No Leisure Time Physical Activity | 20.5%  | 12.7% |
| Inadequate Fruit and Vegetable Consumption* | 70.5%  | 83.0% |
| Current Cigarette Smoking | 18.6% | 17.2% |
| Former Cigarette Smoking | 22.6%  | 24.5% |
| Binge Drinking | 19.3%  | 20.3% |
| Heavy Drinking | 6.5%  | 7.5% |
| Ever Told High Blood Pressure | 26.4%  | 31.4% |
| Cholesterol Ever Checked | 77.4% | 82.0% |
| Ever Told High Cholesterol | 26.8%  | 37.2% |




  = better/improved measure from 2011

  = significantly (95% confidence level) better/improved measure from 2011



*Two questions assessed fruit and vegetable consumption in 2014 versus five questions in 2011, so use caution in comparing this measure across the two surveys.

Comparison of Ottawa County BRFs Measures from 2011 and 2014 (Cont'd.)

Clinical Preventive Practices






| | Ottawa County 2014 | Ottawa County 2011 |
|--|---|--------------------|
| No Routine Checkup in Past Year | 19.9%  | 26.2% |
| Ever Had Mammogram (Females, 40+ only) | 93.1% | 94.1% |
| Had Mammogram in Past Year (Females, 40+ only) | 66.8% | 70.1% |
| Had Mammogram in Past 2 Years (Females, 40+ only) | 80.6% | 83.0% |
| Ever Had Pap Test | 87.7% | 92.5% |
| Had Appropriately Timed Pap Test | 71.2% | 78.8% |
| Ever Had PSA Test (Males, 50+ only) | 65.8% | 77.3% |
| Ever Had Sigmoidoscopy or Colonoscopy (50+ only) | 74.4% | 75.5% |
| Had Sigmoidoscopy /Colonoscopy in Past 5 Years (50+) | 61.9% | 62.6% |
| No Dental Visit in Past Year | 21.3%  | 21.6% |
| No Teeth Cleaning in Past Year | 24.3% | 22.2% |
| Had Flu Vaccine in Past Year (65+ only) | 72.1%  | 67.9% |
| Ever Had Pneumonia Vaccine (65+ only) | 66.9% | 70.9% |

  = better/improved measure from 2011



  = significantly (95% confidence level) better/improved measure from 2011

Comparison of Ottawa County BRFs Measures from 2011 and 2014 (Cont'd.)

Chronic Conditions

| | Ottawa County 2014 | Ottawa County 2011 |
|---|---|--------------------|
| Lifetime Asthma Prevalence | 11.9%  | 13.5% |
| Current Asthma Prevalence | 6.5%  | 8.4% |
| Ever Told Had Arthritis | 18.3%  | 23.2% |
| Ever Told Had Heart Attack | 2.1% | 2.1% |
| Ever Told Had Angina/Coronary Heart Disease | 2.9%  | 3.0% |
| Ever Told Had Stroke | 2.1% | 1.2% |
| Ever Told Had Diabetes | 7.8% | 7.3% |
| COPD | 3.0% | -- |
| Skin Cancer | 4.7%  | 7.3% |
| Other Cancer | 5.4% | 5.3% |

  = better/improved measure from 2011

  = significantly (95% confidence level) better/improved measure from 2011

Key Stakeholder Interviews

Health Care Issues and Accessibility

While financial barriers to primary care have lifted somewhat with the implementation of the Healthy Michigan Plan and the Affordable Care Act, a **shortage of physicians** results in continued access limitations. Other pressing issues are the lack of **coordinated patient care**, the need for **greater prevention and education**, and **insufficient access to mental health care**.

Most Pressing Health Needs or Issues

- ❖ In the three years since the last needs assessment was conducted, overall access to health care has improved under the Healthy Michigan Plan and the Affordable Care Act.
 - **Stakeholders express the concern that some insured residents may forego needed care due to high deductibles and co-pays.**
- ❖ Top reported health needs or issues are: a shortage of primary care physicians, lack of coordinated care/whole patient approach, need for increased focus on wellness/ prevention, gaps in health awareness among residents, and lack of affordable mental health care.
- ❖ Less frequently mentioned needs or issues are:
 - Finding a cost-sustainable health care model
 - Chronic disease management and education (e.g., diabetes)
 - Obesity
 - Lack of collaboration between the area's large employers and health care providers
 - Inappropriate reliance on emergency room
 - Lack of affordable access to dental/oral care
 - Lack of affordable access to specialty services such as diagnostics
 - Stigma related to mental illness and substance abuse problems
 - Understanding patient barriers to seeking care
 - Health system waste (e.g., duplication of services, overuse of ER)
 - Addressing unhealthy lifestyle choices

Verbatim Comments on Most Pressing Health Needs or Issues

*"There just **aren't enough primary care physicians to meet the demand.**"*

*"I would point to the **coordination of services and increasing that as much as possible.** I think that a number of different providers, hospitals, medical groups, and agencies in the community are more aware of the need to do that, but **we've got a ways to go to have that look anything like seamless care.**"*

*"There is a **lack of looking at a person as a whole in health care** in the community right now. For example, **making sure that you're addressing a person's whole body,** not just, 'You came in and you said you have a headache, but that's because you're [an] alcoholic, but I'm not going to deal with that; I'll treat your headache.'"*

*"We have a **huge void in the whole public health prevention piece.** We've got a real strong reliance on the health care system and I think **we need to really invest in more of a preventative model and an integration of behavioral, social, and environmental determinants of health.**"*

*"One of the biggest things that we have concerns with is **mental health availability.** Our CMH has gone through a very large change as far as their **funding,** so there's definitely a **lack of resources available.**"*

*"We **still have folks utilizing the emergency room in an ineffective and inappropriate way for a myriad of reasons,** whether it's 'I can't get into a doctor' or, more importantly, 'I don't have a doctor.'"*

*"[People] **might have more physical access but it doesn't mean that they're actually going or that they're taking their meds or getting their meds or whatever it may be.**"*

*"I don't know that employers really have a great deal of confidence looking ten and twenty years out to say if we keep chunking along at seven and eight percent annual increases, or higher, for the cost of health care, that the model can work, so again, **how do we gain efficiencies while maintaining or improving on quality?**"*

Key Stakeholders cite numerous programs and plans underway to address key issues, while stressing that more work remains to be done.

| Issue | Programs/Plans Aimed at Addressing Issue |
|---|--|
| Shortage of primary care physicians | <ul style="list-style-type: none"> • Use of advanced practice providers to alleviate some of the physician shortage • Expansion of hospital programs so that primary care physicians are freed from making hospital rounds |
| Lack of coordination among services; need for team-based, patient-centered approach | <ul style="list-style-type: none"> • Several Key Stakeholders cited efforts and plans aimed at better communication/coordination of care among agencies/providers - i.e., “breaking down silos” • Insurance companies and health care providers have implemented or are talking about implementing a care management focus • Movement toward studying the social, behavioral, and environmental determinants of health; understanding patients’ barriers to meeting their health goals; looking at the impact of housing costs on health outcomes |
| Need for focus on wellness/prevention | <ul style="list-style-type: none"> • Funding of wellness initiatives by insurance companies • Delivery of immunizations, child dental care, etc., directly into the community to alleviate barriers to care • Focus on nutrition |
| Insufficient health awareness/education | <ul style="list-style-type: none"> • Movement toward increased education on chronic disease within primary care offices • Increased nutrition education |
| Lack of affordable and plentiful access to mental health care | <ul style="list-style-type: none"> • Advocating for increased funding for mental illness |
| Overall need for a new health care model | <ul style="list-style-type: none"> • SIM grant to fund innovative approaches/redesign of health care system • Insurance provider working closely with health care providers to transform health care delivery |
| Sustainability | <ul style="list-style-type: none"> • Addressing system waste through increased transparency; addressing over-use of emergency rooms • Movement toward increased collaboration between businesses (payers) and providers |

Q1a. Is there anything currently being done to address these issues? Q1b. (If yes) How are these issues being addressed? Q1c. (If no) In your opinion, why aren’t these issues being addressed? Q1d. (If no) In what ways have these issues been addressed in the past, if any?

Verbatim Comments on How Issues are Being Addressed

*“There just **aren’t enough primary care physicians to meet the demand**. We’re using advanced practice providers, but it takes a while for [the existing providers] to fully accept the help that they can provide.”*

*“There are **a few people that have major issues that are really the reason behind the most expensive services. Those people probably have more than just a health issue. The solution is to surround you with the support and care that you need so that it’s more of a proactive approach to your treatment and health care as opposed to emergency room kinds of visits or real reactive kind of treatment.**”*

*“We’re **very interested in transforming the model of care so we’re heavily funding care management**, which is an approach to **team-based care**. We’re certainly **funding wellness initiatives**. We want the **health plan and our accountable care networks to be acting as one enterprise**. We want to be **close partners**, working closely with our delivery systems to remodel health care delivery.”*

*“We’ve done a lot of work in the last year on **reorganizing our human services coordinating council to strengthen the relationship between government organizations and the private sector agencies** in our community so that we can **do some joint planning and do a better job of getting people the needed services**. There’s a big initiative through the state, a **SIM grant**, and this **grant hopefully will bring health care and public health and agencies together to talk about how we can redesign our health system to create better health outcomes.**”*

*“**Community mental health and the various agencies and the services that are available in this community certainly are attempting to deal with people’s mental health concerns and substance abuse issues**. Our funding is being cut. Even though there’s parity with mental health through insurances now, **some people still can’t afford it because of deductibles, or the benefits that they have in their insurance aren’t adequate.**”*

Q1a. Is there anything currently being done to address these issues? Q1b. (If yes) How are these issues being addressed? Q1c. (If no) In your opinion, why aren’t these issues being addressed? Q1d. (If no) In what ways have these issues been addressed in the past, if any?

Important outcome measures include: sufficient access to/use of primary care physicians, mortality and morbidity rates, levels of chronic disease management, and obesity rates.

Important Health Outcomes

❖ Key Stakeholders identified the following as important measures for health-related outcomes:

- Numbers with and without a primary care provider; length of time since last wellness visit
- Sufficient number of primary care physicians; minimal wait times to get appointment
- Mortality and morbidity measures
- Management of chronic disease such as diabetes
- Obesity rates; weight management; BMI
- Early childhood development; preschool
- Number of sick days used
- Pregnancy outcomes
- Quality of life indicators
- Reductions in vaccine-preventable diseases and other communicable diseases
- Cost/sustainability/waste
- Incidence of emergency room use for preventable issues, primary care, or mental or dental health issues; repeat use of emergency room
- Implementation of a patient-centered medical home philosophy

Q2. What are the outcomes that should be evaluated?

Health care access has expanded with the introduction of the Healthy Michigan Plan and the Affordable Care Act. However, high deductibles, a shortage of primary care physicians, and a lack of dental services for low-income patients present barriers to access.

The State of Health Care Access

- ❖ Key Stakeholders acknowledge that, although a small percentage of residents remain uninsured, access to health insurance and, by extension, health care, has expanded under the Healthy Michigan Plan and the Affordable Care Act.
- ❖ **However, Stakeholders agree that the high deductibles of today's health insurance plans present a significant challenge for the insured, causing some to forego needed care. Co-pays are another out-of-pocket expenses that can be an issue as well.**
- ❖ There is disagreement as to whether or not Ottawa County has a shortage of primary care physicians – while some report a shortage, others say there is plenty of choice and variety.
 - While a few acknowledge that **options are more limited for lower income and/or Medicaid patients**, the more urgent issue appears to be the area's shortage of primary care physicians in general.
- ❖ Numerous Key Stakeholders cite **dental care, for low income adults in particular, as a glaring gap** in accessible care. Several report a critical **lack of dental care providers who accept Medicaid** patients.
- ❖ Some report that transportation remains a barrier to access.

Q3. Describe the current state of health care access in Ottawa County. Q3a. Is there a wide variety/choice of primary health care providers? Q3b. (If yes) Is this variety/choice available to both insured and uninsured people? Q3c. (If no) In your opinion, why is there a lack of primary health care providers? Q3d. Is there a lack of insurance coverage for ancillary services, such as prescriptions or dental care? Q3e. Is there an inability to afford out-of-pocket expenses, such as copays and deductibles?

Verbatim Comments on the State of Health Care Access

“Healthy Michigan has really opened up access to a broader subpopulation.”

“It’s better now than it was about two or three years ago. One of the practices that was open to Medicaid in that community I think closed or was taken over by [a hospital]. Now, if I understand correctly, I think that practice was reopened.”

“I could be an insured patient but I still have so much personal responsibility for a great deal of the bill that to the hospital or to the doctor I almost still look like uninsured. I’m a new level of uninsured.”

“We have primary care providers but those doctors are also aging. I’m not meeting the need today and if I don’t replace them I’m certainly not going to meet the need exponentially tomorrow.”

“We have a local dentist, who, when we have patients who come into the emergency room that are uninsured and they have significant dental issues going on, maybe it was an abscess or something that brought them into the ER, he has been trying to figure out how to help take care of these patients. He is the lone wolf doing this stuff. He’s working right now on creating almost like a free clinic for dental care.”

“I think in general they are able to find a personal care physician. Dentists, dental care, is another story. There isn’t enough. People frequently have to travel here and there and hope they can get services. A lot of times it’s an acute situation. They don’t do a lot of preventative service because there’s just not enough of it.”

Q3. Describe the current state of health care access in Ottawa County. Q3a. Is there a wide variety/choice of primary health care providers? Q3b. (If yes) Is this variety/choice available to both insured and uninsured people? Q3c. (If no) In your opinion, why is there a lack of primary health care providers? Q3d. Is there a lack of insurance coverage for ancillary services, such as prescriptions or dental care? Q3e. Is there an inability to afford out-of-pocket expenses, such as copays and deductibles?

Existing Programs and Services

Most Key Stakeholders think existing programs and services are highly effective at meeting the community's needs and demands. Key areas for improvement are mental health services, preventative care, and coordination of care.

Programs/Services Meeting Needs & Programs/Services Lacking

- ❖ Stakeholders hold Ottawa County's existing programs and services in high regard, while at the same time acknowledging that improvements are needed.
- ❖ Services identified as lacking include:
 - **Mental health** services
 - **Preventative** care
 - **Coordination of services/Treating the whole patient**
 - Specialty care/Specialists within the community
 - Additional care options to keep patients from misusing emergency room services
- ❖ Several Stakeholders noted that lack of motivation to seek care or lack of knowledge that care is needed is an issue for some residents.

Q4. How well do existing programs and services meet the needs and demands of people in your community? Would you say they meet them exceptionally well, very well, somewhat well, not very well, or not at all well? Q4a. Why do you say (INSERT RESPONSE)? Q4b. What programs or services are lacking in the community?

Verbatim Comments on Programs/Services Meeting Needs & Programs/Services Lacking in Community

Programs/Services Meeting Needs

*“One program we’ve launched [is called] **Home-based Primary Care**, and it’s **bringing the care team into the homes of patients who find it difficult to access the traditional ambulatory environment.**”*

*“We have a **lot of agencies that will work together** to ensure that **health education, health promotion** activities are taking place.”*

Programs/Services Lacking

*“**Ottawa County mental health has just been chronically, chronically inadequate.**”*

*“**I’ve got to be able to switch the paradigm. I can’t just be here when you’re sick; I have got to be here to keep you well, and nobody is paying me to keep you well.**”*

*“**I think managing the person’s health care really should include looking at the whole person and making those connections in the community.**”*

*“**There’s kind of a cycle here if people have a very high deductible and they postpone care that perhaps they shouldn’t, then they end up in the emergency department, or it isn’t necessarily an emergency situation. It could be urgent or it could occur on a weekend or after hours. Here again, we need better access points than the emergency department.**”*

Q4. How well do existing programs and services meet the needs and demands of people in your community? Would you say they meet them exceptionally well, very well, somewhat well, not very well, or not at all well? Q4a. Why do you say (INSERT RESPONSE)? Q4b. What programs or services are lacking in the community?

Stakeholders overwhelmingly cite the need for a collaborative approach among service providers to formulate a complete care plan for the individual.

Recommendations for Service Improvement

- ❖ Recommendations for improved implementation of existing services focus almost exclusively on the need for more collaborative care that **addresses the whole patient**, taking into consideration not only the **patient's physical health but also mental health and social and economic circumstances**.
- ❖ Additional suggestions include:
 - **Partnering with corporations to deliver care on site**
 - **Financial incentives for physicians to provide care for Medicaid patients**
 - Increased **promotion of existing services** – e.g., expand home-based primary care initiative by getting the word out to physicians that the service is available to patients

Q4c. In your opinion, how could any of the existing services/programs in your community be implemented better?

Verbatim Comments on Recommendations for Service Improvement

“If you and I sat down to build a community-wide system of support today, we wouldn’t build it the way it has evolved because it’s all evolved separately and it needs to be coordinated. It’s one person, a hundred services, given by seventy different entities, with forty different funding streams.”

“I think that we could have a whole lot more impact if we were able to work more closely together. The system is set up to not necessarily look at a person as a whole. You might go to the doctor and they say you have to control your diabetes and you go home and you figure it out, but somebody who’s got major depression and is in poverty, that’s harder to do – but we can help.”

“All of us in the human services world are trying really hard to connect people to the right services, but we’re all doing it independently because we haven’t designed a model where it can be more universal, and I think there would be some real benefit to that. The medical model can’t take care of everything and they need to recognize that it’s okay to reach out and work with the partners and the community on those other issues.”

“If physicians are getting paid **thirty cents on the dollar of their expense** – I’m not talking about their charges, I’m talking about their cost, then we see as a common practice that they’ll just limit their practice.”

Q4c. In your opinion, how could any of the existing services/programs in your community be implemented better?

Stakeholders offer many ideas for partnering with others in the care community. Several cite successful partnerships currently underway.

Recommendations for Partnerships

❖ Partnership ideas include:

- **Collaboration between providers and large businesses**, with businesses involved in designing the benefit plan
- **Better communication among “safety net” providers** (e.g., free health clinic, Salvation Army) to **spread awareness** among providers as to what other services are available
- More **integration of public health into the health care model**, with an **emphasis on prevention**
- **Partnering between mental health services and emergency rooms** in order to address the underlying mental health or social issues of repeat emergency room users and thereby change the pattern of seeking care through the emergency room
- **Insurance companies working with providers** to better understand the challenges they face

❖ Successful partnerships currently in place include:

- **Ready for School Initiative** – a partnership among businesses and community organizations
- **Partnerships between hospitals** – current partnerships exist in the areas of radiation/oncology and rehabilitation services, with additional partnerships being sought
- **Shape Michigan, partnerships between United Way and the Lakeshore Housing Alliance**, and case managements partnerships – these are promising new initiatives in the early stages that need more time and continued funding to demonstrate progress

Q5. Are there any partnerships that could be developed to better meet a need? Q5a. (If yes) What are the partnerships? Q5b. (If yes) How could they be better developed?

Verbatim Comments on Recommendations for Partnerships

*“Essentially **business leaders**, but **several others**, have done a very nice job of implementing this **Ready for School** program. Part of it is certainly reading and so forth but it’s also **engaging parents, connecting them with the resources they need** not just for education but also for health care and other services. Of course they need healthy teeth. They need to be able to see if they’ve got vision issues or hearing or whatever it might be. All of those things combined of course are what determine if that child is going to succeed once they enroll in school. **We hope that things like that continue to evolve and kind of get in the gap here to lift the community at that very fundamental level.**”*

*“Definitely **I think between public health and health care...**I think the **businesses are...realizing that relationship between behaviors and their cost**, and so really emphasizing prevention as so key, and we need that fully integrated into our health care system.”*

*“**Heavy users of the emergency departments...**I bet you that a large **majority of those people probably have co-morbidity, a mental health issue or some other social issue that isn’t being resolved**, so they’re constantly using that service. **We [Mental Health Dept.] have plans and we hope to work more closely with our emergency rooms, our departments, to try to solve some of those issues because what it does is it just increases health care costs for all of us.**”*

*“**It’s not that they can do it better; it’s that they need to continue their work.** You’ve got a lot of groups that are starting to work together. The Health Department’s connected to a lot of this. **A lot of people are starting to work on these things in a more collaborative nature.**”*

Q5. Are there any partnerships that could be developed to better meet a need? Q5a. (If yes) What are the partnerships? Q5b. (If yes) How could they be better developed?

Barriers to Health Care Access

Key Stakeholders report progress in addressing barriers to care, such as expanded transportation options. However, transportation remains a barrier, especially for low-income and rural residents. Additional barriers include cultural and language differences, as well as **the inherent complexity of health care and the health care system.**

Barriers & How They Can Be Addressed

- ❖ Key Stakeholders identified the following barriers or obstacles to obtaining care:
 - **Transportation**, particularly for low-income and rural residents
 - **Cultural and language** barriers
 - Individual **awareness**, health literacy, and comfort level in seeking care
 - **Complexity of navigating** the system
 - **Cost**
 - **Insurance coverage lagging behind availability of new services**
- ❖ Many report that efforts have been underway to address barriers. Examples include:
 - Expansion of public transportation
 - Subsidizing cost of travel/providing rides
 - Delivering medical care to migrant camps
 - Case management for families who have children with complex health care needs
 - Use of Spanish-speaking clinical workers
 - Ready for School Initiative

Q6. Are there any barriers or obstacles to health care programs/services in your community? Q6a. (If yes) What are they? Q6b. Have any of these barriers been addressed? Q6c. Are there any effective solutions to these issues? Q6d. (If yes) What are they? Are they cost effective? Q6e. Have any solutions been tried in the past?

Barriers & How They Can Be Addressed (cont.)

- ❖ Additional suggestions for alleviating barriers include:
 - Continued dialogue between provider groups to eliminate overlap
 - Establishing communication with migrant worker leadership to identify barriers
 - Fostering engagement of older residents through activities, education, and support
 - Addressing the problems minority residents face in knowing what services are available and seeking them out

Q6. Are there any barriers or obstacles to health care programs/services in your community? Q6a. (If yes) What are they? Q6b. Have any of these barriers been addressed? Q6c. Are there any effective solutions to these issues? Q6d. (If yes) What are they? Are they cost effective? Q6e. Have any solutions been tried in the past?

Verbatim Comments on Barriers & How They Can Be Addressed

Barriers

*"I think **everything in the low income area relates to 'How do we get easy access for them?'** – so it's **transportation**, it's **communication**, it's **being where the people are.**"*

*"I think that there probably is a **language barrier**. I think I've been told that [for things like] **mental health services**, they're often not available in the primary language of the client."*

*"I think we **probably could do a better job of addressing some of the problems that the Hispanic population or the Asian population here has in seeking services** and knowing what's available."*

*"In health care, and even in public health, **we talk a language that only people in our world understand**, and we, I think, **need to recognize that the people don't necessarily speak that language**, and they don't want to look stupid so they don't ask the questions. I think we have an older adult population that really struggles with the **complexity of the system**, and they go in and the doctor says, 'Do this,' and so they just do it because it's complicated."*

Addressing Barriers

*"[The **public transportation system**] **keeps getting funded**. It has grown. I won't [suggest] that it addressed every need but I think it's pretty good. That's the **Max Bus** service I'm alluding to here."*

*"**Intercare is addressing transportation, language, and financial barriers.**"*

*"Somehow we have to **make sure people understand what the resources are that exist out there and how they can make sure that they're maximizing the use of the resources that we have.**"*

*"We really **have to sit down with some of the leadership who deals the most closely with that [migrant] population and say what you need**, where are things falling through the cracks, is there a **language barrier**, is it just the cultural sensitivities where **maybe we could do a better job of helping people feel good about seeking care** from any one of our providers."*

Q6. Are there any barriers or obstacles to health care programs/services in your community? Q6a. (If yes) What are they? Q6b. Have any of these barriers been addressed? Q6c. Are there any effective solutions to these issues? Q6d. (If yes) What are they? Are they cost effective? Q6e. Have any solutions been tried in the past?

Many Key Stakeholders applaud current practices that include community members in planning and decision-making. Some feel that more inclusion would be beneficial.

Involvement of Relevant Stakeholders/Community Residents

- ❖ Stakeholder opinions **differ with respect to whether there is sufficient involvement of relevant parties in health care planning and decision making.** Some cite business and consumer board participation. Others feel the consumer voice is not included to the extent it should be.

“Our hospital boards really do represent the communities. I know our board, all except two members of the board are still community representatives.”

“We’ve got all sorts of collaborations here in Ottawa...it’s government services, it’s nonprofits, it’s churches, it’s businesses. I think businesses actually are very active here in Ottawa trying to be a part of the solution to not only business problems but the social, economic issues that we face here. I sit on the Great Start collaborative that’s actually got a parent component to it, so we definitely are intentionally seeking the [input of the] people who we’re supposed to be serving, but I don’t know if that happens all the time, or at what level. I think about the housing groups that get together. I don’t know as much that they have a homeless person sitting there or someone from a shelter or somebody who can’t afford housing. I hope they do.”

“Every year I think that gets stronger but I don’t think we’re exceptional at it yet.”

“Not as much as they should be. Unfortunately, it’s difficult because people are so unique...so the challenge for all of us is designing a system that really meets the needs of the majority of those folks.”

“I don’t think the client base is used in any serious decision making in the health arena. I’m not convinced that they should.”

Q8. With regard to health and health care issues, are relevant stakeholders or community residents involved in planning and decision making?
Q8a. (If yes) Who is involved? Q8b. (If no) Should they be? Q8c. (If yes) Who should be?

Community Resources

Key Stakeholders agree that Ottawa County is rich in resources that support the welfare of its residents, with a wealth of dedicated business leaders, as well as nonprofit and faith-based organizations. Limited funding is the main barrier to expanding the reach of successful and needed programs.

Community Resources & Resource Limitations

- ❖ Ottawa County is described as a **caring and engaged community** with **extensive resources**.
- ❖ Resources that support health needs include:
 - A **wealth of nonprofit agencies and coalitions aimed at improving the physical and emotional health** of children, workers, the homebound, the elderly, the homeless, the at-risk population, and those who cannot afford to pay for care
 - A **healthy and involved business community**
 - A **thriving faith-based community**/Faith-based organizations such as City on a Hill and Love INC
 - **Large and varied volunteer base**
 - **Philanthropic** organizations
 - **Ottawa County Department of Public Health**
 - **Intelligent and committed** health care leadership
- ❖ **Inadequate funding is a widely-cited limitation.** Other limitations include a **lack of affordable housing** and a **lack of coordination/communication among health care providers and agencies**.

Q7. What resources currently exist in your community beyond programs/services just discussed? Q7a. What are any resource limitations, if any?

Verbatim Comments on Community Resources

*"I definitely think there's a **lot of smart people in leadership positions**. **Good people are running our hospitals and our public health and our mental health and our programs**. I think that if we put our heads together we're going to be able to figure this out. I think we're an **incredibly caring community, and giving**. We have a **lot of financial capital that's available** from our business community and from our philanthropists."*

*"I think **sometimes we take it for granted here but most places don't have the kind of philanthropy and the desire to help**. I think that's huge here."*

*"It is not an incredibly deprived community. There's business and there's industry and there's I think **a lot of community engagement and a lot of intelligent undertakings**, like Healthy Beginnings [from Ready for School Initiative]."*

*"**City on a Hill here in Zeeland does phenomenal work**. I see **growing collaboration within the public school sector**, the school nurses."*

*"**Love INC**, because **they assist not only with housing but with the free health clinic with monies and assistance for pharmacy items** in extenuating circumstances. There's women's shelters and a Tri-Cities Ministries."*

*"There's **multiple home care access points** that the hospital and several others also provide."*

*"Our **employment resource network** where we've got a caseworker in eight businesses in the community that assists employees with any kind of needs in order to keep them employed – things like their furnace goes out, well, maybe they're going to have to miss work for a week; well, no, let us help you so that we can fix that so you're back to work. Things like daycare."*

Verbatim Comments on Resource Limitations

*“From a public health viewpoint, there’s just **really not enough funding to put an all-out effort** into some of the expertise that we have. **We’re always kind of pasting things together and so therefore the impact isn’t as great as it could be.**”*

*“**There’s just never enough [funding], and then there’s cuts.** I don’t have the solution to that but it’s definitely a money problem, a funding problem.”*

*“**Housing is still a limited resource in our community, both affordable housing as well as people who need housing as far as [being] homeless.** Love INC and The People Center, they’ve really been here and stepped up to try to do that but I think sometimes [there is] more need than what they have resources for.”*

*“Our **churches do a wonderful job of helping to meet as many needs as they possibly can.** I’m not sure that there’s a significantly coordinated effort. Maybe it’s not even just effort. Maybe it’s just an understanding, too, to make sure everybody knows what each other is doing.”*

Impact of Health Reform

Key Stakeholders see clear benefits to the Healthy Michigan Plan, while the Affordable Care Act is expected to have more mixed results. Stakeholders agree, however, that it's too early to tell whether service delivery or outcomes will be significantly impacted by these reforms.

The Impact of Federal Health Care Reform and the Healthy Michigan Plan

- ❖ The Affordable Care Act and the Healthy Michigan Plan have resulted in more Ottawa County residents with health insurance.
- ❖ **Stakeholders widely applaud the expansion of coverage for low-income residents under the Healthy Michigan Plan.**
- ❖ On the other hand, the **Affordable Care Act** is viewed as a **mixed** blessing. While more residents now have some level of insurance, out-of-pocket expenses have risen. In addition, some Stakeholders **foresee negative consequences related to increased regulations** on businesses.
- ❖ Current or expected consequences of the reforms include the following:
 - + More residents obtaining needed care
 - + Reduction in demand for Department of Public Health services
 - High out-of-pocket expenses discourage the insured from seeking care
 - Some employers choosing to opt out of offering coverage and pay penalties instead
 - Work hours cut to move employees below the 30-hour threshold for mandated employer coverage
- ❖ The **effects of these reforms on short- or long-term health outcomes is unknown** at this early stage.

Q9. What has been the impact of Federal Health Care Reform or the Healthy Michigan Plan in your community? Q9a. Has the implementation of HCR or Healthy MI positively impacted the access to health care? Q9b. In what ways have these changes impacted service delivery? Q9c. What impact has it had, if any, on health outcomes?

Verbatim Comments on Impact of Federal Health Care Reform and the Healthy Michigan Plan

“A whole lot more people have health insurance. Healthy Michigan has allowed a lot more people to be eligible for our services.”

“The percent of our patients who are uninsured or underinsured has started to fall.”

“We’re seeing some reductions in our services here, and we were a safety net for certain kinds of things, and so to me that says that they are getting access elsewhere, and that’s a really good thing. Even if you think about one person who has high blood pressure and wasn’t able to get blood pressure medications and now can, that has a really positive impact.”

“Our bad debt write-offs have been significantly shifted now to at least getting some pay and some contractual allowance.”

“For some it’s not good. Prescription costs went up. Co-pays for doctors’ visits went up. So many things that they had available are much more costly.”

“This whole notion of defining who gets benefits and, in particular, that thirty hours would become a hurdle – that if you’re over thirty hours, then you have a richer benefit plan than what an employer may have been planning on. Rather than those folks getting full-time benefits, they’re just being managed to work less than thirty hours. We’re seeing that here and all across the community. Unfortunately, that’s having the opposite effect I think of what was intended.”

“Way too early to tell [if there has been an impact on health outcomes]. Call me back in twenty years.”

Q9. What has been the impact of Federal Health Care Reform or the Healthy Michigan Plan in your community? Q9a. Has the implementation of HCR or Healthy MI positively impacted the access to health care? Q9b. In what ways have these changes impacted service delivery? Q9c. What impact has it had, if any, on health outcomes?

Impact of the Last Community Health Needs Assessment

Numerous programs and partnerships have been implemented or expanded since the 2011 Community Health Needs Assessment. More funding is needed to keep pace with community needs and the solutions generated to address them.

Impact of 2012 Community Health Needs Assessment

- ❖ Key Stakeholders named numerous initiatives that have occurred since the 2012 Community Health Needs Assessment, with two specifically noting that study findings were incorporated into their organization's strategic plan.
- ❖ Programs and initiatives include the following:
 - Nutrition programs and education/Food Policy Council efforts
 - Disease management and weight management programs
 - Increased pace of physician recruitment
 - Increased partnering/collaboration among providers, agencies, etc.
 - Initiatives to address mental health
 - Expansion of non-ER urgent care options
 - Growth of the Healthy Beginnings (Ready for School Initiative) program
 - Partnering with schools on child health and safety
 - Efforts to educate parents on the importance of childhood immunizations
 - Condom distribution
 - Efforts to link ER patients to needed community resources
- ❖ Several noted that funding challenges limit the ability to expand programming.

Q10. Since the Community Health Needs Assessment conducted three years ago in 2011, what has been done locally to address any issues relating to the health or health care of Ottawa County residents?

Verbatim Comments on Impact of 2012 Community Health Needs Assessment

*“The **expansion of urgent care** – and that is partly to take some pressure off the emergency room and it’s also partly an access point that’s not as expensive as an emergency room but it provides after-hours care.”*

*“Part of our emergency room study right now has been to **identify the mental health component within our emergency room**, and we are working right now at identifying a partner...to assist us with having something here more locally and certainly on the lakeshore to **help create improved access for mental health**.”*

*“I know the **Food Policy Council** has **definitely been strengthened** as a result of some of the data that came out of the last study.”*

*“We have been **more intentional in terms of physician recruitment**. We have **worked with [a local free health clinic]** ... and we **provide coupons for lab tests and x-rays [for] patients** that go to that free clinic and need those services. We **continue to work in the schools** trying to do **education on nutrition and seatbelts and car seats and bike helmets** and all of that. Again, the resources aren’t unlimited so you can’t do everything for every school or do all of the things that we want to do.”*

*“What I really think we need to do a better job of is, instead of coming up with our own plans in isolation, we **take these relationships that we’ve developed and we come together and bring in some of the other partners and really come up with a community health improvement plan and prioritize the top things and all kind of march in the same direction**.”*

Q10. Since the Community Health Needs Assessment conducted three years ago in 2011, what has been done locally to address any issues relating to the health or health care of Ottawa County residents?

Community Preparedness for a Disease Outbreak

With respect to community preparedness to handle an infectious disease outbreak such as Ebola, Key Stakeholders express confidence in the community's hospitals and health department but at the same time recognize the limits of any system in dealing with a massive outbreak of a highly infectious disease.

Community Preparedness for a Disease Outbreak

- ❖ Stakeholders were quick to praise local health officials and hospitals for the systems they have in place for managing an infectious disease outbreak.
- ❖ At the same time, Stakeholders recognize that even the highest levels of precaution may not be enough under severe circumstances, and that, as a mid-sized community, there is a limit as to what the system can handle.

"I think the Health Department's really well prepared. I don't think a lot of businesses are well prepared for it, or households."

"I know through this last episode our organization was significantly ahead of other area providers. We took it very seriously. Now, are we supposed to be a sectional center for taking Ebola patients? No, because of the care that's going to be necessary for that significant of a disease. That patient is critically ill and we don't take care of any critically ill patients for very long. For the role that we can play, I think the preparedness is good."

"We were strapped in the early stages of Ebola. If we were caught off guard, I think we'd really, really struggle. If we had an outbreak of a disease like Ebola I think that our systems would be seriously challenged."

"We probably are about as well positioned as any but any major disaster would bring us challenges."

Q11. How well prepared are local health care professionals to deal with a communicable or infectious disease outbreak, such as Ebola? Would you say not at all well, not very well, somewhat well, very well, or extremely well? Why do you say that?

In closing, Stakeholders confirm the overall strength of their community's health care system and look towards making continued progress through innovative ideas and partnerships.

Stakeholders' Closing Comments

"All in all, I think that the services here are pretty adequate, are, generally speaking, pretty well funded....The reality is the economics and health care are challenging for many and will remain so...Our coordination of services, to get people in the right setting, making it cost-effective, making it coordinated, we need to keep going down that road just as fast as we can, and that's how we see the whole field evolving."

"We're blessed with some great organizations and great people, great doctors, great providers, [but] if you don't continue to say 'Where can we get better?' then we're going to be in trouble."

"[We've been] going through this big training on how to be more creative and think in terms of what is the need of our customer and why do they need it and identifying all the barriers. We sort of have to get out of our box a little bit, too, and always try to do a better job of meeting the needs."

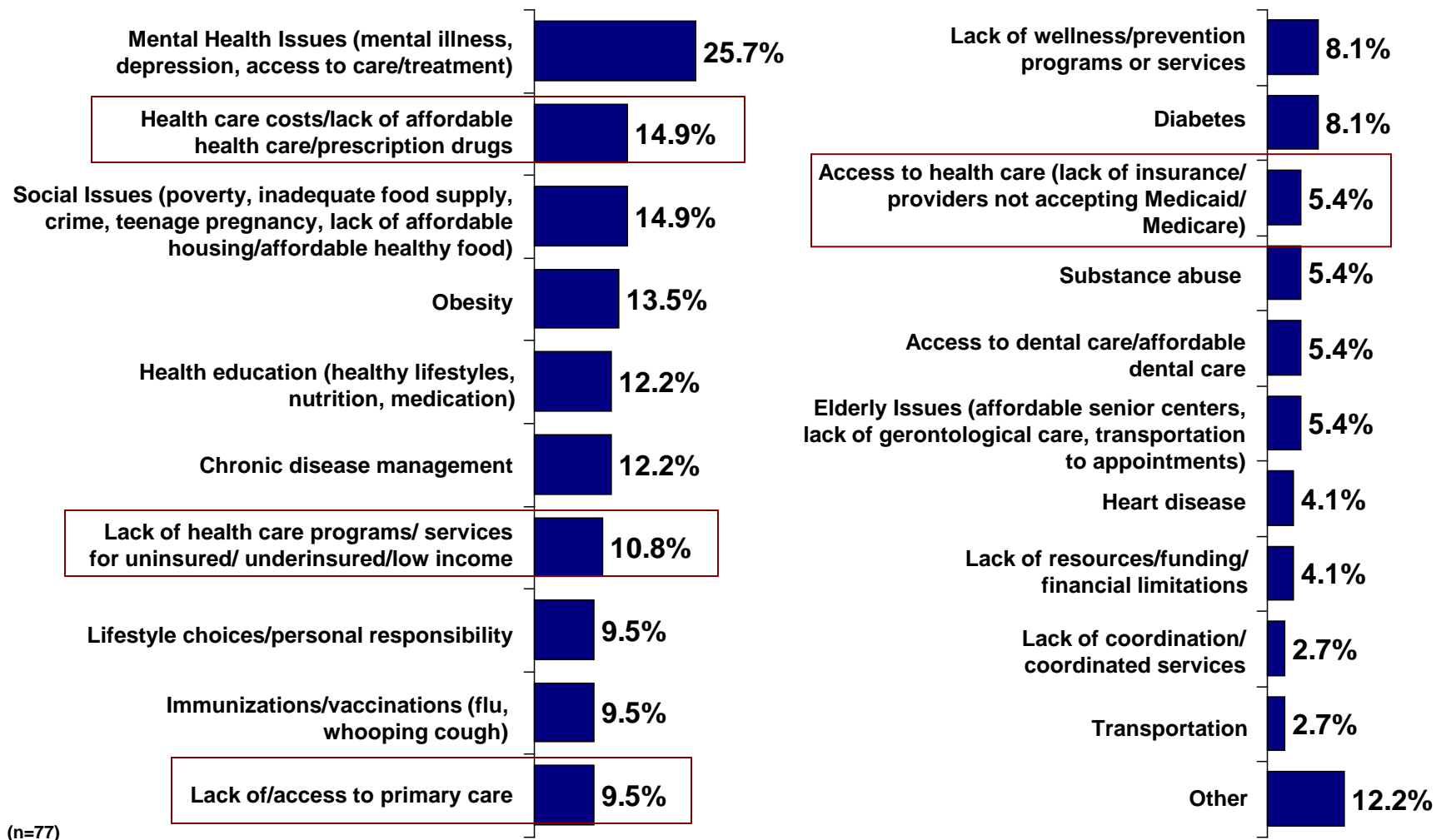
Q12. In concluding, do you have any additional comments on any issues regarding health or health care in your community or Ottawa County that we haven't discussed so far?

Key Informant Survey

Health Conditions

When asked to cite the most pressing health issues or needs in Ottawa County top of mind, Key Informants mention a myriad of issues. Most often reported are issues revolving around three main topics: **mental health**, **access to care**, and **social issues** that they perceive to impact health or health care access. More specific areas of concern are **obesity**, a need for more **health education**, and **chronic disease management**.

Most Pressing Health Needs or Issues in Ottawa County (Volunteered)

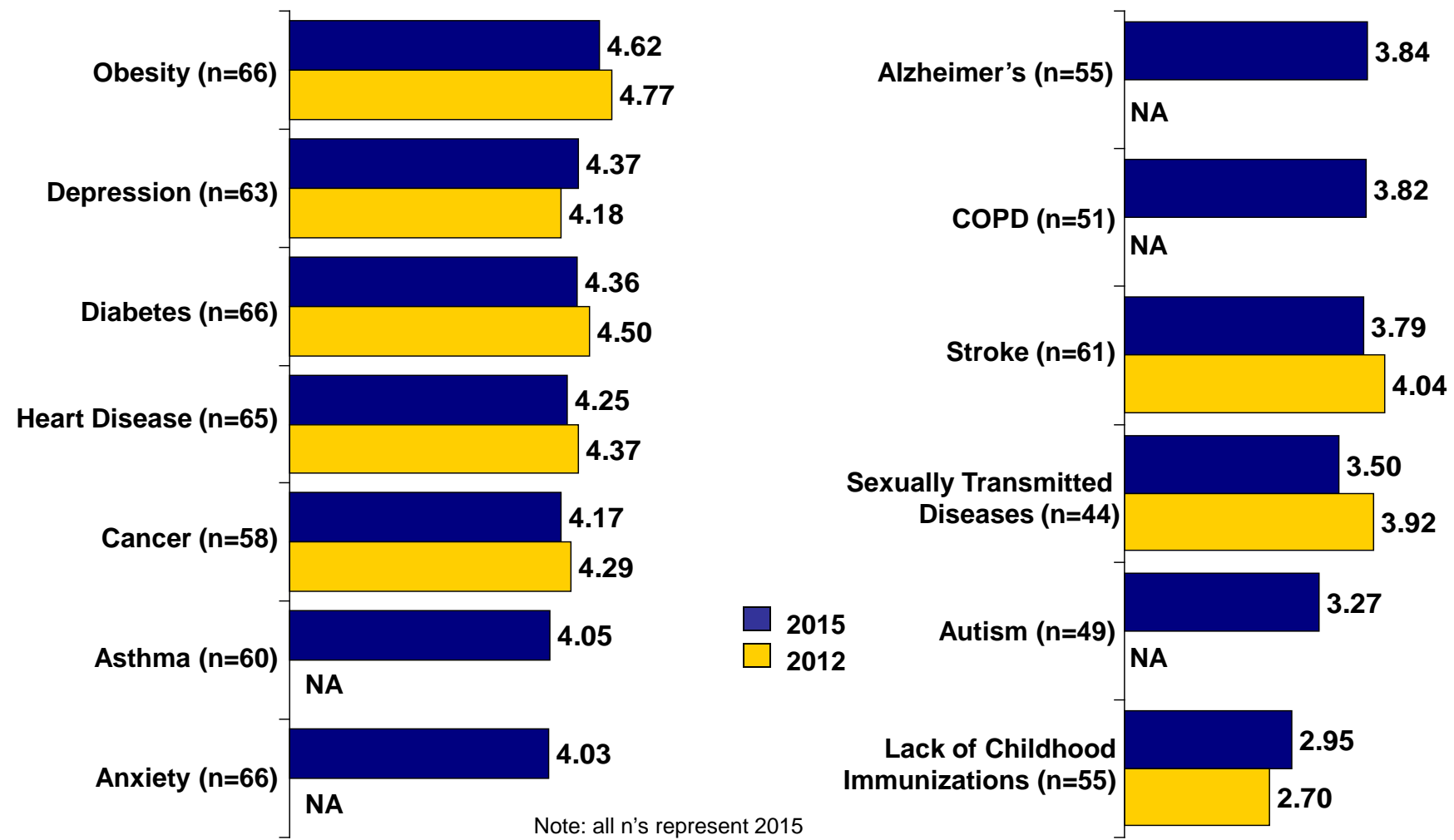


(n=77)

Q1: To begin, what do you feel are the most pressing health needs or issues in Ottawa County? Please be as detailed as possible. = issues of health care access

Key Informants view **obesity** as the most prevalent health issue in Ottawa County, followed by **diabetes**, **heart disease**, **cancer** and **depression**. The greatest single change is that depression is currently viewed as more prevalent than it was three years ago. Childhood immunizations appear to occur fairly regularly and are not an issue.

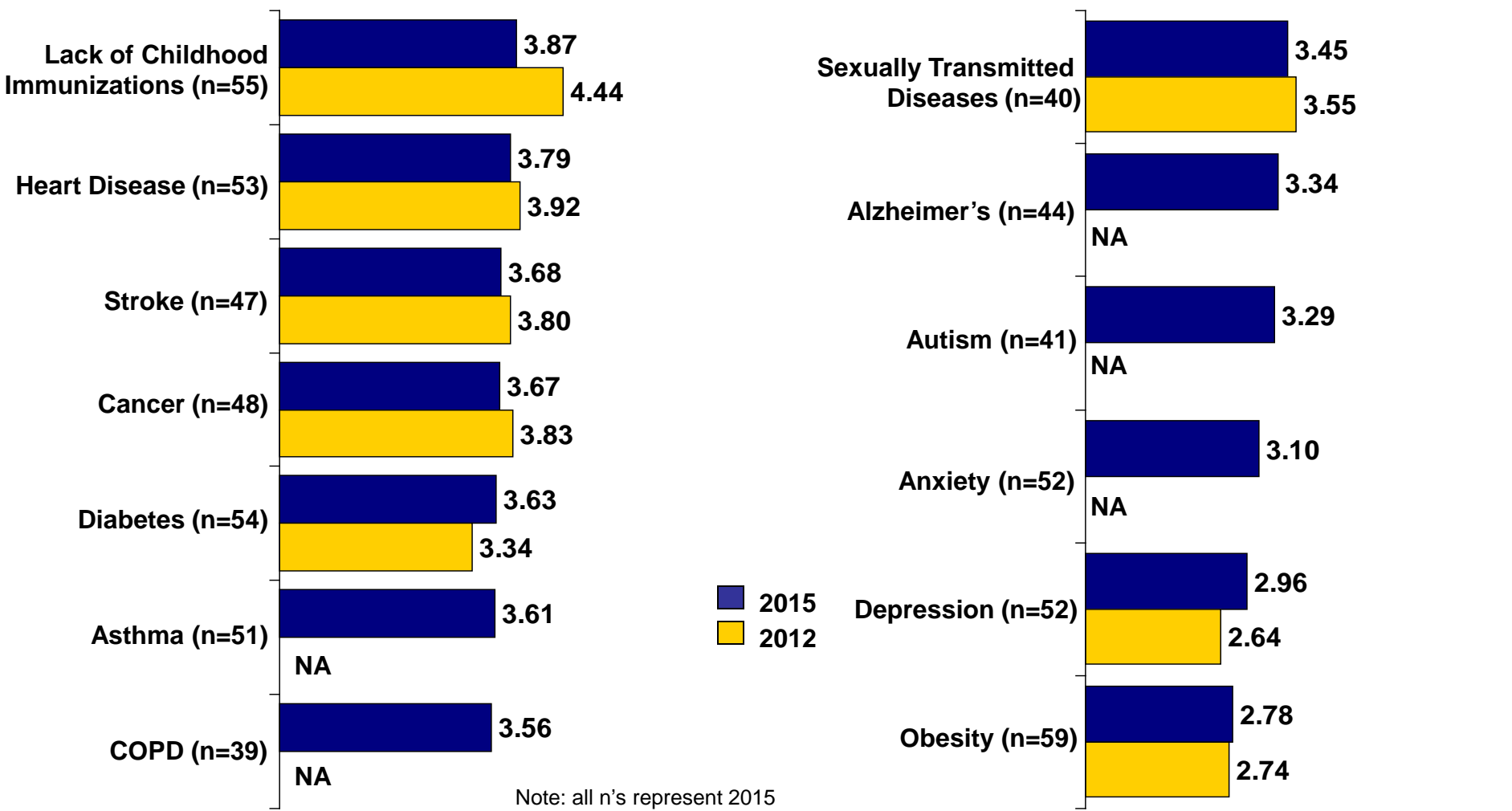
Perception of Prevalence of Health Issues in Ottawa County



Q2: Please tell us how prevalent the following health issues are in Ottawa County. (1=not at all prevalent, 2=not very prevalent, 3=slightly prevalent, 4=somewhat prevalent, 5=very prevalent)

Key Informants are most satisfied with the community’s response to **childhood immunizations**, followed by **heart disease**, **stroke**, and **cancer**. They are more satisfied this year with the response to diabetes, than three years ago. Conversely, they are least satisfied with the response to **obesity**, **depression**, and **anxiety**. Dissatisfaction with the response to obesity and depression remain an issue today.

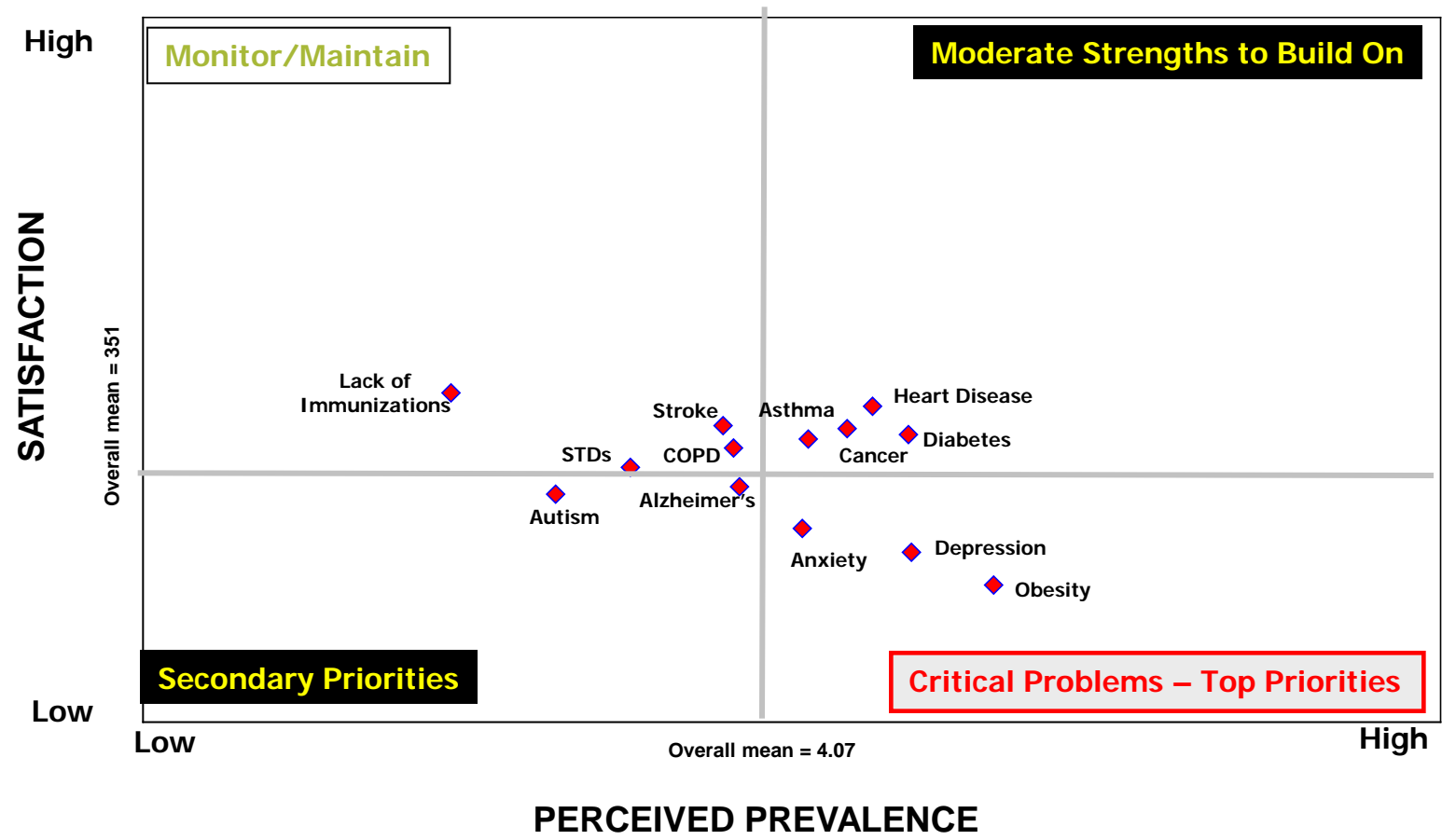
Satisfaction with Community’s Response to Health Issues in Ottawa County



Q2a: How satisfied are you with the community’s response to these health issues? (1=not at all satisfied, 2=not very satisfied, 3=slightly satisfied, 4=somewhat satisfied, 5=very satisfied)

The quadrant chart below depicts both **problem areas and opportunities**. The community's response to **asthma, diabetes, cancer, and heart disease** is fairly strong because Key Informants perceive them all to be prevalent and are satisfied with the community response to these conditions. Conversely, **anxiety, depression, and obesity** are critical problem areas because they are not only prevalent, but the response has been less than satisfactory. **Of note, diabetes moved from a critical problem area in 2012 to a moderate strength in 2015.**

Performance of Community in Response to Health Issues in Ottawa County



Q2: Please tell us how prevalent the following health issues are in Ottawa County. Q2a: How satisfied are you with the community's response to these health issues?

Additional health issues deemed prevalent in Ottawa County are those involving **mental health** and **elderly** adults. More specifically, there is a lack of mental health treatment and those who report this shortcoming are highly dissatisfied with the community's response to this issue. There is also a shortage of facilities that can adequately accommodate senior adults with Alzheimer's.

Additional Health Issues Prevalent in Ottawa County

Mental Health Issues

"Behavior medication use in school-age children; not very satisfied. Medications are used without concurrent counseling for student and care-takers."

"Increased number of people with mental health issues. The funding cuts to CMH have left many **uninsured and low income people without resources**."

"Lack of a coordinated effort to address mental health issues."

"Lack of mental health assistance - health and professional. Especially for parents with **children** (bi-polar disorder). Referral paths are nonexistent when they present in the ER. Not satisfied at all."

"Lack of timely availability of mental health services. Not satisfied."

"Mental health issues. Not satisfied due to how many loops we have to go through to check if a person is qualified for mental health care."

Senior Adult Issues

"Alzheimer's – not enough care facilities that are affordable and can handle individuals with this disease."

"Need **more education for people to begin planning for assisted living**, etc., before they are 85 or older. Education on how Medicare and Medicaid work and how people can apply or access services."

"Problems associated with aging: who to contact for what. There is the area on aging but I feel that very few people know about this."

"Care facilities for aging parents with Alzheimer's. Not satisfied with facilities in our area. They aren't trained to handle those patients, even though they say they are."

Q2b: What additional health issues are prevalent in Ottawa County, if any? For each listed, tell us how satisfied you are with the community's response to the health issue.

Moreover, Key Informants see a **need for education** in various areas, such as increasing awareness of existing programs and services, demonstrating how to manage chronic disease and pain, and assisting people in navigating the health care system. Other opportunities for improvement are increasing the number of adults immunized, increasing the proportion of the population that actively seek preventive oral care by providing affordable dental care, and increasing resources to treat substance abuse and addiction.

Additional Health Issues Prevalent in Ottawa County (Cont'd.)

Education

*“**Knowledge of what resources are available and appropriate.** See need for improvement.”*

*“**Chronic pain management.**”*

*“Concerned with **lack of patient navigation available.** Not a health issue but concerned there does not seem to be a well-organized effort to help with **Medicaid & Healthy Michigan** coverage or to **assist those who have this coverage** [and help them] navigate.”*

*“**Need more community education** on pneumonia and COPD.”*

Immunizations

*“**Adult Immunizations** - not satisfied.”*

“Immunization for adults is not 100% -- somewhat satisfied.”

Dental Care

*“**Affordable dental services.** This is really an area that is lacking everywhere, not just Ottawa County.”*

“Oral health – are starting to make in-roads for children but need to do more for adults.”

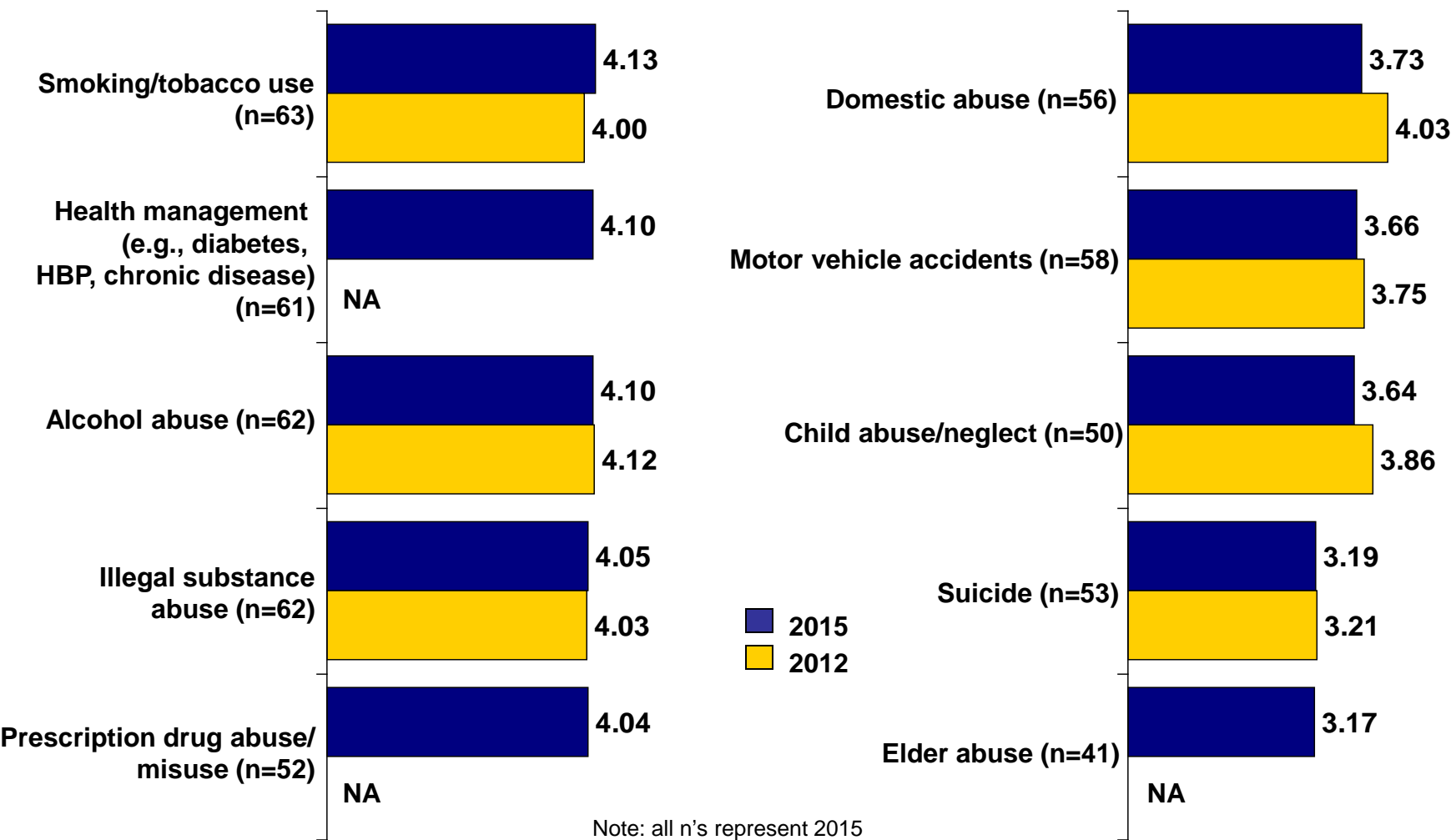
Substance Abuse Treatment

*“**Drug and alcohol abuse and addiction** I do not think there are **adequate resources accessible** for teaching the community what to look for and how to help and not adequate treatment facilities for detox under supervision and then treatment.”*

Health Behaviors

Key Informants believe health behaviors involving the misuse/abuse of substances (tobacco, alcohol, illicit drugs, prescription drugs) and health management issues are most prevalent. Perception of domestic abuse as an issue is not as great as it was three years ago.

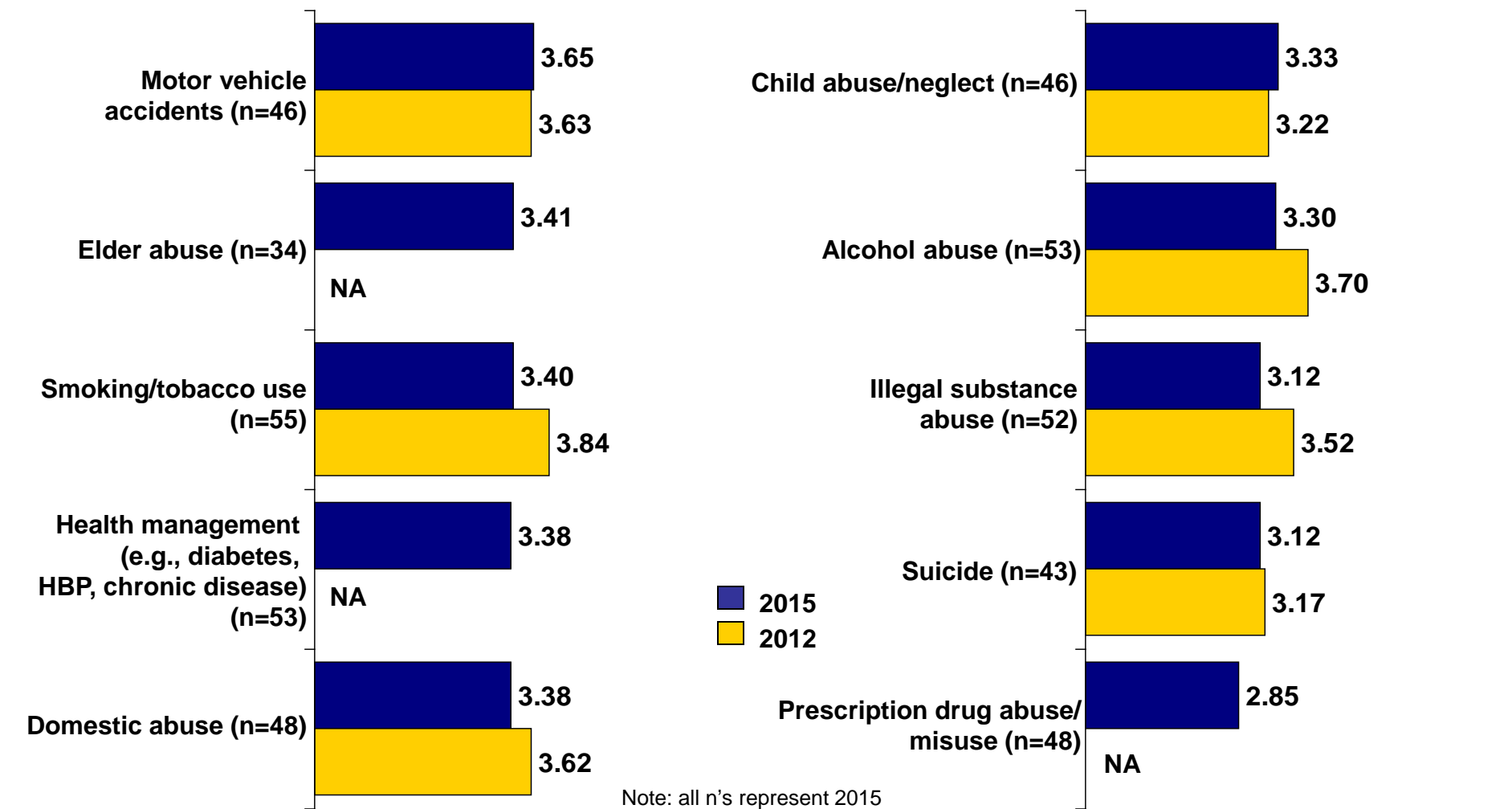
Perception of Prevalence of Health Behaviors in Ottawa County



Q3: Please tell us how prevalent the following health behaviors are in Ottawa County.

Key Informants are only moderately satisfied with the community’s response to the health behaviors rated. Opportunities for improvement exist with behaviors they consider to be prevalent, such as **alcohol abuse** and **drug use/abuse** (both licit and illicit).

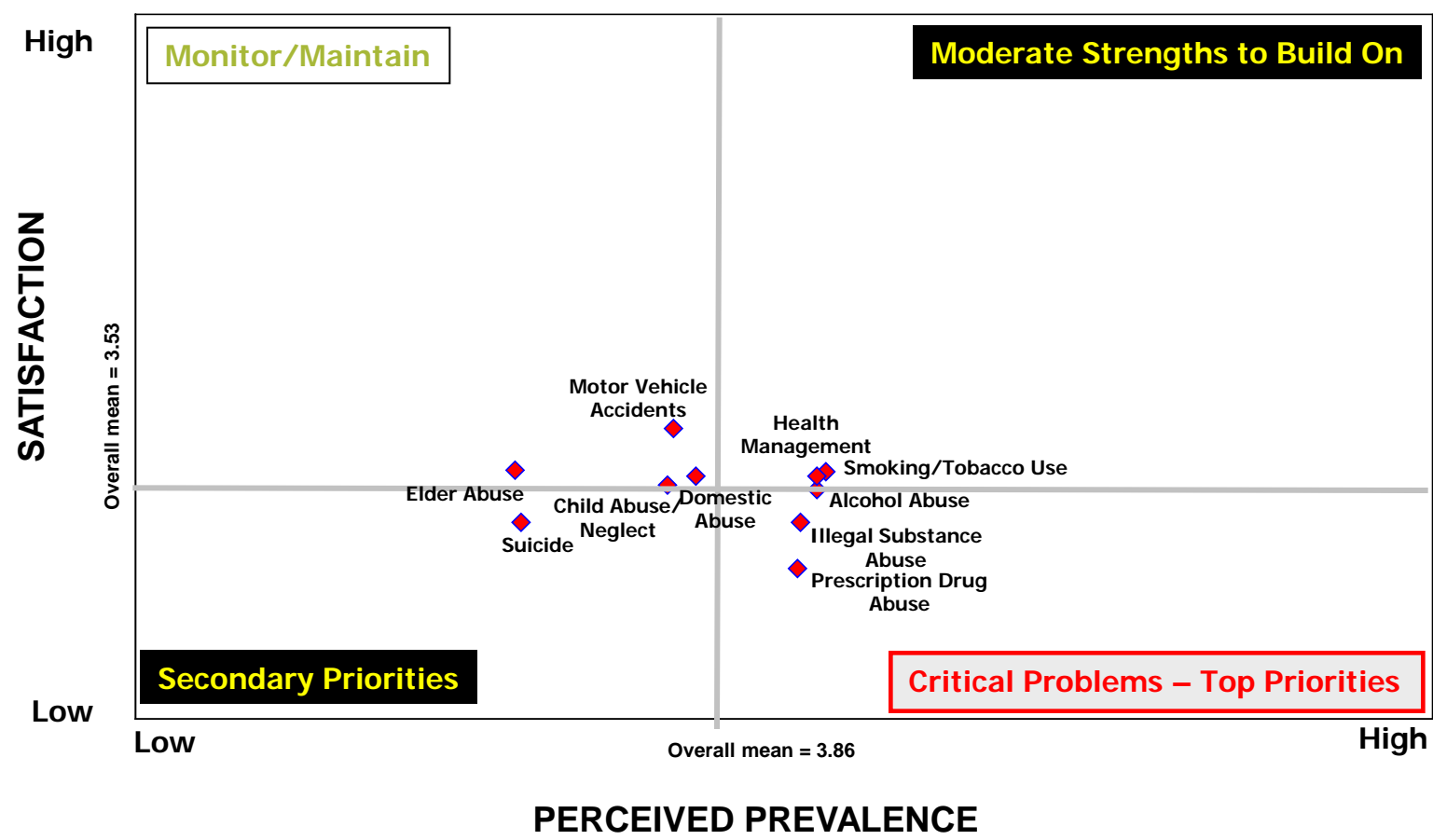
Satisfaction with Community’s Response to Health Behaviors in Ottawa County



Q3a: How satisfied are you with the community’s response to these health behaviors?

The quadrant chart shows moderate satisfaction with community response to most all health behaviors. The three areas that could be addressed are the responses to **prescription drug abuse**, **illegal substance abuse**, and **alcohol abuse**. Additionally, satisfaction with **child abuse/neglect** and **suicide** are low compared to other areas; however, these are less prevalent than other behaviors.

Performance of Community in Response to Health Behaviors in Ottawa County



Key Informants believe **lifestyle choices** and **issues involving children or adolescents** warrant further attention. Although generally satisfied with the community's response to lifestyle issues such as diet and exercise, there is still room for improvement, especially with regard to school lunches. Child and adolescent issues include obesity, bullying, teenage pregnancy, and drug/alcohol use.

Additional Health Behaviors Prevalent in Ottawa County

Lifestyle Choices

"Lack of physical activity. Very satisfied. There are so many parks, trails, heated sidewalks, etc. There are plenty of places to be active."

"Promotion of healthy eating and exercise, I think this has increased in the past few years but would like to see it continue and be supported more for the general public with **free classes or options for exercise, especially in the winter.**"

"Diet; somewhat satisfied. **Exercise;** somewhat satisfied

"Unhealthy lifestyle, particularly poor diets. The **school lunches** are extremely poor in nutritional value; all processed food."

Children/Adolescent Issues

"Childhood obesity – slightly satisfied."

Cyber bullying; **bullying** in general."

"Teen pregnancy/unplanned pregnancy - unsatisfied with efforts to address this issue."

"Marijuana use in high school and college age students (they don't think it is dangerous because it is "legal" now); not satisfied with the prevention of use."

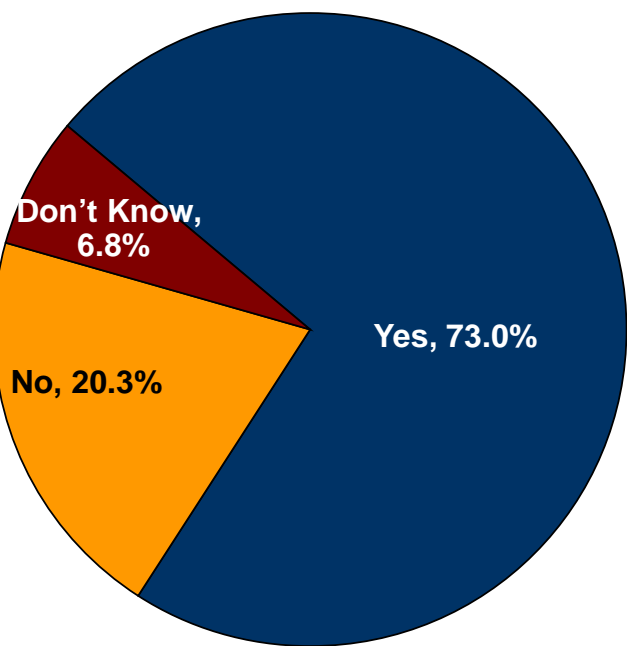
"The community health report last year, sighted **alcohol abuse by youth as a concern for Ottawa County. I am only slightly satisfied with the response to this concern**

Access to Health Care

Three-fourths (73.0%) of Key Informants believe access to health care is a pressing and prevalent issue in Ottawa County. The greatest barriers to health care access are: people **cannot afford out-of-pocket expenses such as co-pays/deductibles**, **limited providers accepting Medicaid** as insurance, **lack of awareness of available options**, **limited providers treating the uninsured**, and **transportation**.

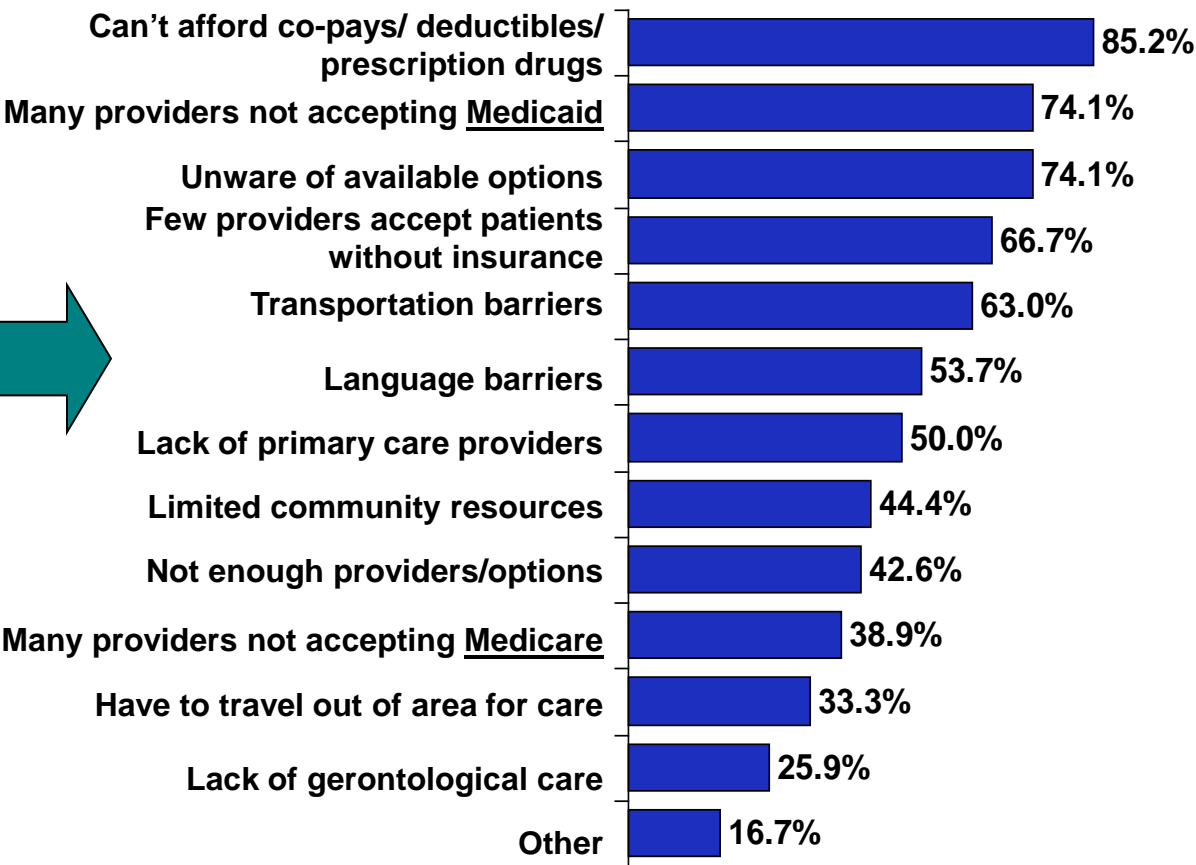
Access to Health Care

Is Access to Health Care a Pressing and Prevalent Issue in Ottawa County



(n=74)

Reasons Access to Health Care is an Issue



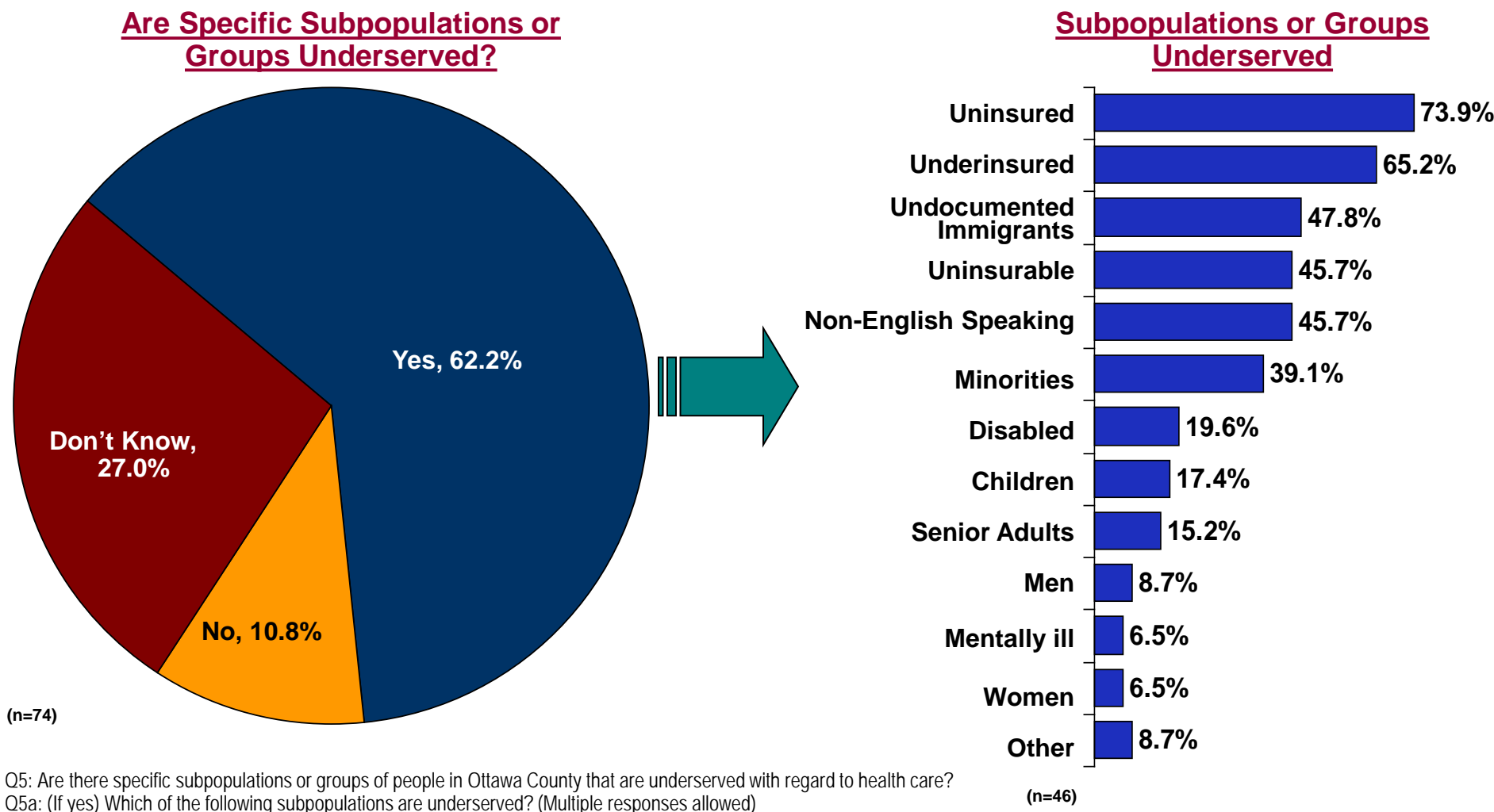
(n=54)

Q4: Do you believe that access to health care is a pressing and prevalent issue for some residents in Ottawa County?

Q4a: (If yes) In your opinion, why is access to health care an issue for some Ottawa County residents? (Multiple responses allowed)

More than six in ten (62.2%) Key Informants recognize that certain subpopulations or groups in Ottawa County are underserved with respect to health care, although this is down from 78.0% in 2012. **Those most at risk lack insurance, either completely or partially and/or are minorities.**

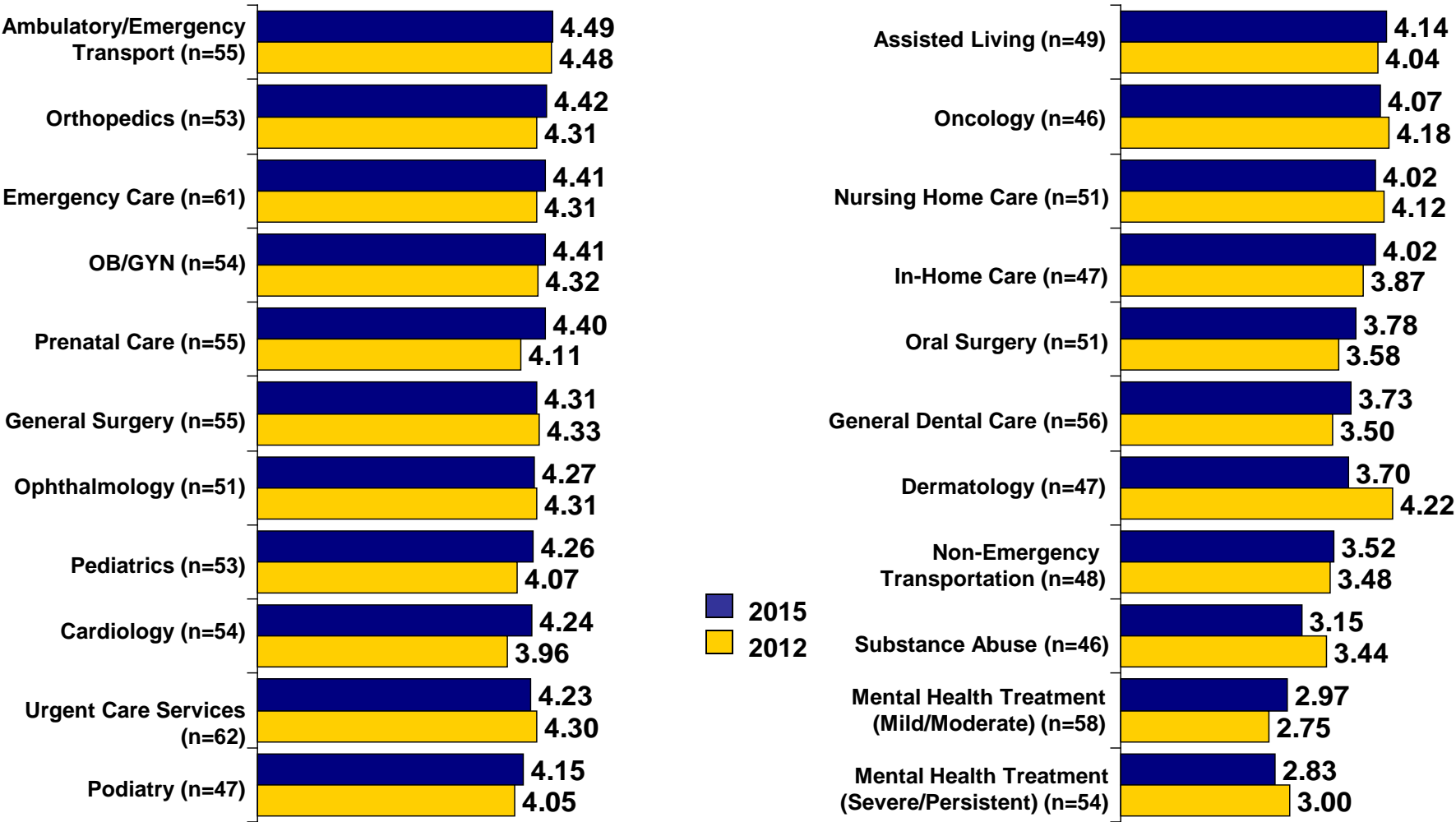
Subpopulations Underserved with Regard to Health Care



Gaps in Health Care

Ottawa County programs and services perceived to meet the needs/demands of residents well are **emergency transport, orthopedics, emergency care, OB/GYN, and prenatal care**. Conversely, **mental health treatment (mild to severe), substance abuse, non-emergency transportation, and dermatology** are perceived to be lacking. Prenatal care and cardiology meet the needs better now than three years ago, while dermatology and substance abuse services were perceived to be more prevalent three years ago.

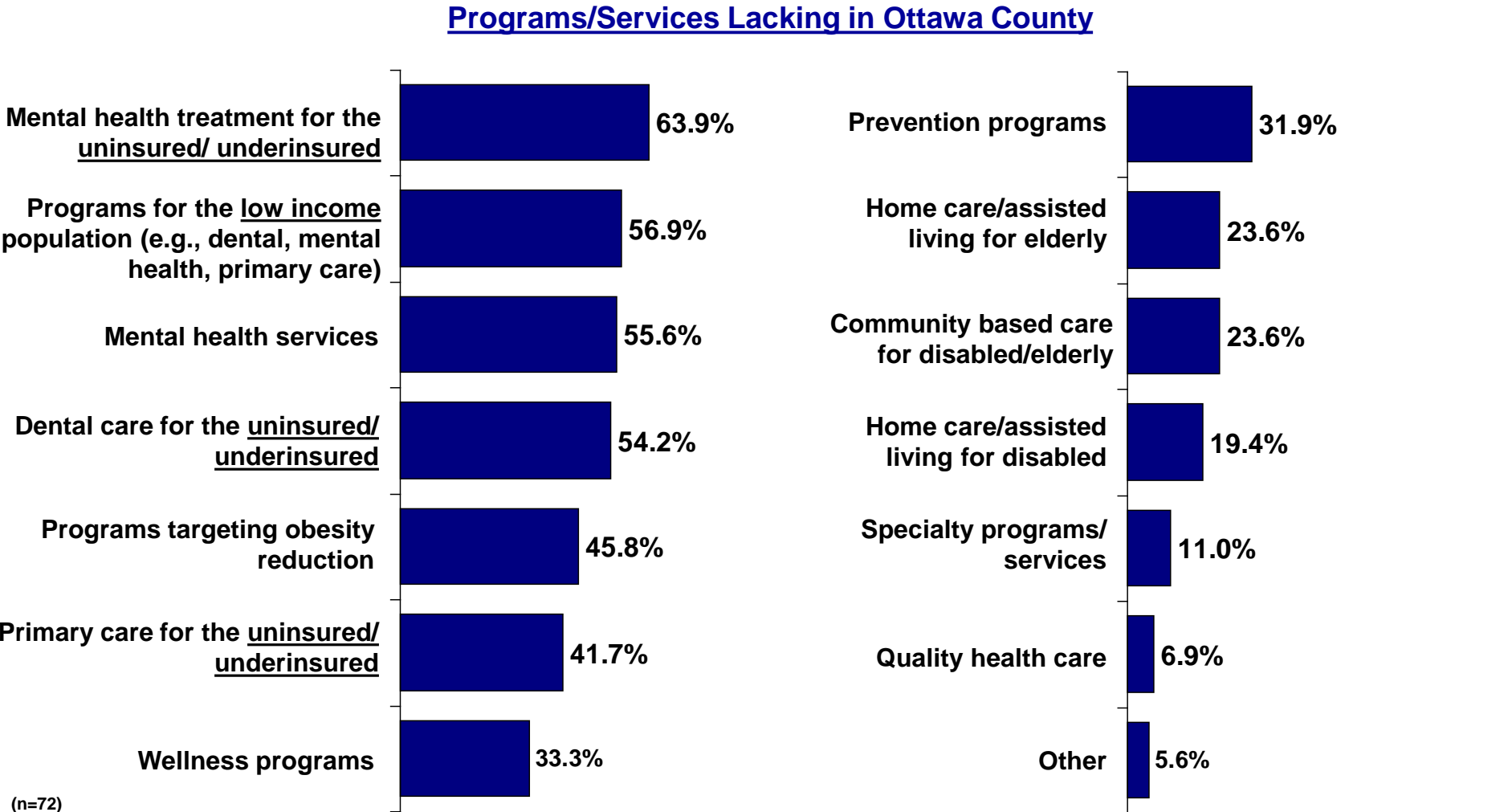
Degree to Which Programs/Services Meet the Needs/Demands of Ottawa County Residents



Q6: How well do the following programs and services meet the needs and demands of Ottawa County residents?

Note: all n's represent 2015

Key Informants report that Ottawa County lacks programs or services that **address the underserved; uninsured/underinsured** and **low income** residents. Although **primary care** and **dental services** are said to be lacking, the greatest void is found in **mental health treatment/services**.

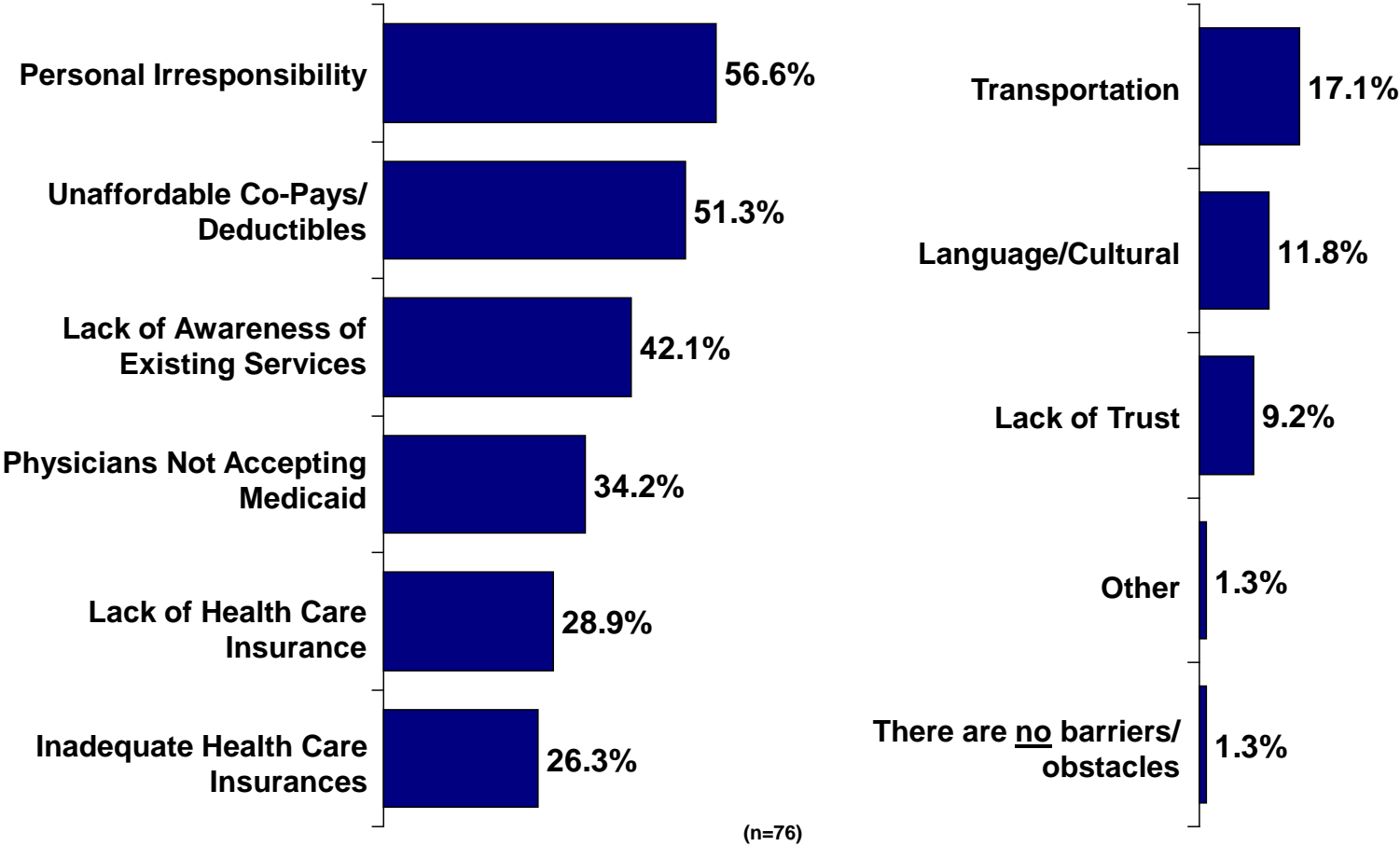


Q7: What programs or services are lacking in the community, if any? Please be as detailed as possible.

Barriers to Health Care

According to Key Informants, **personal irresponsibility** is the top barrier or obstacle to health care programs and services, while a close second is an **inability to afford** out-of-pocket expenses, such as **co-pays and deductibles**. Additional barriers include: **lack of awareness of existing programs/services, limited providers accepting Medicaid and lack of/inadequate health insurance**. Conversely, **trust** is not considered to be much of an obstacle.

Barriers and Obstacles to Health Care Programs/Services



Q8: What are the top three barriers or obstacles to health care programs and services? Please rank from 1 to 3, where 1 is the greatest barrier, 2 is the second greatest barrier, and 3 is the third greatest barrier.

Key Informants offer effective solutions for many of the barriers to health care. The top barrier rated, personal irresponsibility, is the most difficult to conquer because it is deeply embedded in society's culture. That said, effective solutions begin with **educating children about the importance of a healthy lifestyle at a young age** and supporting that with solid mentorship. A **community fund** would be one way to offset high costs of co-pays and deductibles. Lack of awareness of existing programs and services can be addressed through various **communication, advertising, and marketing media**.

Effective Solutions to Barriers and Obstacles to Health Care
Verbatim Comments

Personal Irresponsibility

*“**Personal irresponsibility is a culture problem.** The only way to fix this is to have **good mentors** to pass on this quality to the next generation.”*

*“Personable responsibility - who knows, **we are a national society of entitlement.** It would take **radical change.**”*

*“We **need to somehow incorporate healthy lifestyles into our culture!** It is a very **difficult** thing to do. Schools do not spend enough time educating about healthy lifestyles and our **culture is set up so people eat fast and/or processed food.**”*

*“Increase educational and personal responsibility programs that have **financial incentives** designed to take charge of one's health through ‘healthy choices’.”*

Unaffordable Co-Pays and Deductibles

*“For **inability to pay for co-pays/deductibles** - create **scholarship funds to assist people**, especially for preventative services and disease education.”*

*“I am not sure how to cure or prevent personal irresponsibility. **Large co-pays and deductibles could be solved with nationalized healthcare.**”*

Unaffordable Co-Pays and Deductibles

*“**Lack of awareness** - There are programs that I don't even know about let alone the public. If there was **more advertising** (posters in pharmacies and other healthcare locations) to **promote** what is offered, more people would know what options they have. Also education of the health care workers in Ottawa County as to what this county offers may help us pass on that info to those in need.”*

*“For **lack of awareness of existing programs** - **Improve communication among community organization** so that available resources are **marketed by everyone in the same manner.** Avoid duplication of services whenever possible. Create one or two “go-to” organizations for each health issue. Ensure there is a **common message being spoken on each health issue.**”*

Q8a: What, if any, are the effective solutions to these barriers? Please be as detailed as possible and identify which problems you are referring to when discussing solutions. (open-end)

Additional suggestions focus on **finding ways increases access to health care for those who face obstacles**. For example, Key Informants think we should develop strategies to encourage providers who do not accept Medicaid to do so by offering incentives or tax breaks. Incentives are also suggested as a way to encourage providers to treat residents with inadequate or no health coverage by offering a sliding scale for payment. More creative suggestions include developing entirely new options for health coverage such as HSAs and bringing programs directly to people where they already are (work, school) to offset the issue of transportation.

Effective Solutions to Barriers and Obstacles to Health Care
Verbatim Comments (Cont'd.)

Providers Not Accepting Medicaid

*“If all providers were to take even a small number of Medicaid/underinsured/uninsured patients it would **spread the "cost/burden" of providing care to this population**. Designate a point of entry to assess need and coordinate care with providers.”*

*“**Improve Medicare/Medicaid reimbursement rates, incentivize healthy living**, make exercise and healthy living the norm.”*

*“**More reasonable reimbursements with less paper work**. Possible indemnification for work completed on underinsured/Medicaid or a **tax benefit** to the providers who contribute to the care of those who financially cannot contribute fully.”*

Lack of/Inadequate Health Care Insurance

*“**Incentives to provide low cost, accessible health care regardless of insurance**.”*

*“**Clinics that accept patients on a sliding scale payment**.”*

*“Public education can help those who are in need. **Love Inc. needs to be advertised, free mammograms and Pap tests, sliding scale payments should be allowed**.”*

*“**Providing more options for HSA and major medical coverage. Change in health care billing** to provide more competitive market rather than current fixed cost system where uninsured are forced to pay the most by federal mandates.”*

*“**Increase access and reduce language barriers for low income** individuals and families. **Increase cultural competency** of providers and reach into communities of color.”*

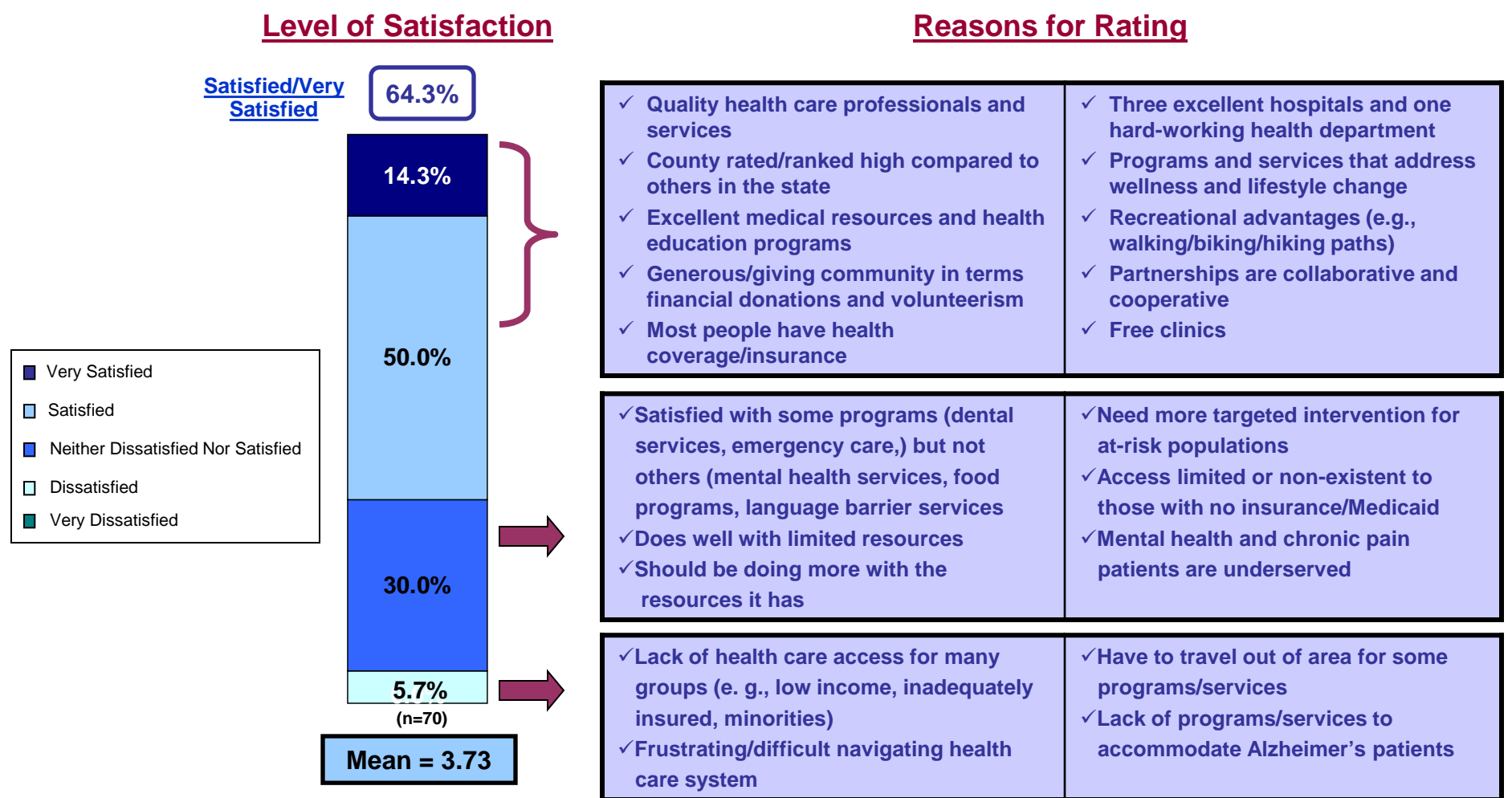
*“**Programs that bring low/no cost services directly to people where they're at** (workplace, school, places they're already going/spending time) - i.e. don't make low-income, transportation challenged individuals/families jump through many hoops to access services.”*

*“**Provide options on cost of care to the patient**.”*

Identifying and Addressing Needs

Two-thirds (64.3) of Key Informants are satisfied overall with the health climate in Ottawa County, which is almost double from 2012 (34.0%). Those who are satisfied cite **excellent resources, programs, and services**, and that the county is rated/ranked higher than most other counties in the state. Those dissatisfied see **lack of health care access for many people** and **insufficient programs/services requiring residents to travel elsewhere**.

Overall Satisfaction with Health Climate in Ottawa County



Q10: Taking everything into account, including health conditions, health behaviors, health care availability, and health care access, how satisfied are you overall with the health climate in Ottawa County? Q10a: Why do you say that? Please be as detailed as possible.

When commenting on the impact of Federal Health Care Reform or the Healthy Michigan Plan, Key Informants are more likely to cite negative or mixed results, compared to positive results. Those who view the legislation as positive point to a **greater access to health care**, which translates into greater access to needed health services such as testing, prescription medication, management of chronic disease, treatment of mental health, and even better access to dental care.

Impact of Federal Health Care Reform/Healthy Michigan Plan in Ottawa County Positive Results Verbatim Comments

*“Being able to **insure adult children until age 26**. **Offering more Medicaid services.**”*

*“It has **provided a level of insurance coverage to the uninsured that didn't exist before**. It has **not changed the way care is being delivered**. It is too early to measure if it has had any impact on health outcomes.”*

*“I believe the Federal Health Care Reform has **increased the access to health care**. Certainly, the long-term effect of increasing the number of community members covered with health insurance will be better health outcomes.”*

*“I have found many more people in the population I serve getting the Healthy Michigan Plan and **being able to get a Primary Care Physician even though it takes some time and often much assistance**. They are then able to afford their **prescriptions and also get preventive care for diabetes, etc**. So, **access has improved and also service delivery**. For many this has meant improved health in the ability to have treatment for their chronic diseases (diabetes, hypertension), lab work to monitor and treat conditions that they just ignored before (high cholesterol, etc.) and the ability to pay for prescriptions or therapy that might be needed (depression, chronic pain, etc.).”*

*“**In dentistry, there is better reimbursement for providing care making availability greater**. Still, **reimbursement lags the general insured** so there are still limits, but some progress has been made.”*

*“**More people are using our PCP's - they are seeing 100's of new patients every month!** People with insurance are seeking appropriate levels of care - **we are not seeing them present in our ER as originally predicted**. Our PCP's are able to see these new patients - they have new care models and utilize APP's. There will be more access points with the growth of retail medicine and CVS Health. Access isn't the issue. It's too soon to measure health outcomes as a result of ACA.”*

*“**More people have access to health care now with the Healthy Michigan Plan and they don't wait as long to seek treatment.**”*

Q12: What has been the impact of Federal Health Care Reform or the Healthy Michigan Plan in your community? In other words, in what ways has it impacted the following: (1) access to health care, (2) service delivery, and (3) health outcomes? Please be as detailed as possible.

Those who view results as mixed say **more people are now covered, but that doesn't necessarily translate into access** for primarily two reasons: (1) many people are purchasing insurance at a premium they can afford and this often comes with **high-deductibles and co-payments they cannot afford**, resulting in their reluctance to use coverage for needed health services, and (2) **simply having coverage doesn't mean a provider will accept it**, and in the case of the Healthy Michigan Plan this is often an issue because providers continue to refuse patients with Medicaid coverage.

Impact of Federal Health Care Reform/Healthy Michigan Plan in Ottawa County
Mixed Results Verbatim Comments

- “Access to insurance has been guaranteed but not medical care that people can get to when needed. Service delivery is not scaled up to handle the demand for services.”***
- “From my perspective it has increased access to health care in terms of getting people in the system who weren't before but capacity to absorb this new demand for services at the reimbursement rates being provided has not matched this.”***
- “I'm aware of greater access to health care for many people. This is absolutely a good thing, but the feeling is that the burden of cost has fallen on the middle class families in the way of higher premiums and deductibles.”***
- “It has theoretically increased access, but high deductibles and lack of providers are big problems. I doubt that there has been a big effect on health outcomes.”***
- “It is too soon to determine the impact. I am aware of significant numbers of people who now have coverage (50% or more of those we work with at our agency). We are aware of a portion with Healthy Michigan who have found providers and accessing care. We have also seen significant improvement in access to prescription medications for both Medicaid and Healthy Michigan covered. We are aware of those with coverage still struggling to find providers for dental, vision and mental health.”***
- “More patients on Medicaid. Improved access for previously uninsured, but reduced access to those whose insurance has been dropped, or co-pays have become unaffordable.”***
- “More people get covered but it is not good coverage and there are co-pays and deductibles.”***
- “More people have access, but many do not understand how to get approved for Medicaid.”***
- “People have signed up for insurance with the healthcare reform; however, many are unable to say the premium in order to continue it.”***

Q12: What has been the impact of Federal Health Care Reform or the Healthy Michigan Plan in your community? In other words, in what ways has it impacted the following: (1) access to health care, (2) service delivery, and (3) health outcomes? Please be as detailed as possible.

In addition to higher deductibles and co-pays preventing people from using their health insurance, the **quality of those plans comes into question** and many Key Informants believe people have been **forced to purchase substandard coverage**. Not surprisingly, it has also prompted **businesses** to find loopholes around offering health care benefits by **reducing full-time positions in favor of part-time positions** that are under the threshold of hours needed to be eligible for health care benefits.

Impact of Federal Health Care Reform/Healthy Michigan Plan in Ottawa County
Negative Results Verbatim Comments

- “A mess for people receiving insurance to wade through all of the paperwork and higher costs for employers so many employees didn't receive a raise to absorb the increase of health care costs. Service delivery has been affected as well; harder to get in to see a doctor and must go to one doctor to be able to see the real doctor that is needed.”***
- “Access to health care is worse now in my opinion as no one wants to take new Medicaid/Medicare. What is the point of having health insurance now if you cant find a provider to help you? High deductible plans and increased co-payments are a hindrance as well. If I have to pay for my office visit out of pocket because my "insurance" will not cover it until I reach my \$5000 deductible why would I go see the doctor? Insurance appears to be for healthy people as they are the only ones who can afford it because they don't use it, but pay a ton of money each month just to carry it.”***
- “I have seen no difference in any of the health options since the start of the Reform. If anything is has gotten worse as employers have stopped offering healthcare and forcing people to buy their own more expensive coverage.”***
- “I think it has made it more expensive for the middle class and I don't see people utilizing the insurance because they either can't afford it or choose not to pay for it.”***
- “It has not opened up access to health care as the reimbursement does not cover the cost of services and providers cannot afford to take on more governmental insurance. It has also put limits on businesses who have eliminated insurance for employees and limited the hours that employees can work. There are no dollars tied to prevention programs, which is what we need to provide good health outcomes.”***
- “Patients have not been able to keep their providers as promised. It has not reduced the cost to Healthcare for many, preventing patients access to medical care and critical medications.”***
- “People seem to have poorer coverage for healthcare and much higher deductibles.”***

Q12: What has been the impact of Federal Health Care Reform or the Healthy Michigan Plan in your community? In other words, in what ways has it impacted the following: (1) access to health care, (2) service delivery, and (3) health outcomes? Please be as detailed as possible.

Key Informants offer a multitude of strategies for improving the overall health climate in Ottawa County. Addressing issues of **mental health** is at the top of the list and suggestions include **making access to mental health care easier** for everyone, including adults, adolescents, children, and families. Two additional issues are: increasing education on the **importance of immunizations and vaccinations** for adults and children, and making **access to dental care easier** for everyone, especially the underserved.

Suggested Strategies to Improve the Overall Health Climate in Ottawa County

Verbatim Comments

Mental Health

“Access to Mental Health services quickly in the area is a big problem. In order to be seen by a psychiatrist now one must go through the ER - that does not make sense!!! Waiting to schedule an appointment takes weeks or months in the office. Mental Health is every bit a health concern as Diabetes is and we need more doctors and therapists in the area to help this population.”

“Establish an effective mental health affordable care organization where there is an entire network available to these patients and their families, especially children.”

“Greater presence in schools to teach about mental/emotional health and behaviors associated with those struggling with these issues. Provide private/group counseling in schools. Position them for success by teaching them healthy coping skills and resources for physical and emotional health.”

“Improve the access to mental health care, behavioral and addiction related.”

Immunizations

“Increase the rate of adult immunization educate the community on the importance of immunization.”

“Increased education to healthcare workers and community regarding the importance of immunizations against preventable diseases such as pertussis.”

“Education on the importance of vaccinating children. There are old myths and misunderstandings that surround vaccinations that should be dispelled.”

Dental Care

“Medical home and basic dental care for every individual in Ottawa County.”

“Dental care for Medicaid.”

“More dental clinics for uninsured.”

Further, it is critical that **access to affordable health care is easier**, especially primary care and especially for the underserved. Ways to address this issue include the recruitment of additional primary care providers and incenting the existing PCPs to accept Medicaid coverage. Ultimately, it will may take a concerted effort of many to absorb some of the costs of care in order to ensure that no Ottawa County resident goes without needed medical care.

Suggested Strategies to Improve the Overall Health Climate in Ottawa County
Verbatim Comments (Cont'd.)

Ensure Services for the Underserved

*“Continue to look for and **provide resources for those that either do not have insurance, or struggle with paying a high deductible.**”*

*“**Access to programs for the highest needs** as noted in current data not perception.”*

*“A **united effort of providers willing to absorb a portion of care for the underserved. Also, increase marketing of providers who DO accept Medicaid/underserved and who have bilingual staff for the ESL population.**”*

*“**Better/more available clinics that reach out to underserved communities.**”*

*“**Create more culturally sensitive health programs** for targeted underserved especially mental health and substance abuse.”*

Access to Primary Care

*“**Better primary care access, more providers of primary care as well as making it low out of pocket cost.**”*

*“Continue ongoing efforts to **increase primary care resources.**”*

*“**More providers, primary care specifically** brought into the county.*

Affordable Care

*“**Increase affordable opportunities** in the mid to Northeast part of the county.”*

*“**Access to more affordable exercise/sports/activity in the winter** for students and adults so people can keep active and stem the rising tide of obesity as well as ward off some depression and substance abuse.”*

Q13: What one or two things could be done in Ottawa County that would improve the overall health climate in Ottawa County? Please be as detailed as possible.

Health experiences might improve overall with **increased coordination and collaboration** of organizations and providers, making the system more efficient and seamless. **Increasing awareness and information of existing programs** and services will not only ensure they are being adequately used but also will let residents know what each organization does, what services they offer, and how this can help them. There also must be a concerted effort to **accommodate the Hispanic population by improving cultural competency** among health care professionals.

Suggested Strategies to Improve the Overall Health Climate in Ottawa County
Verbatim Comments (Cont'd.)

Coordination/Collaboration of Services

“Collaboration between health care and community services.”

“Coordinated Mental Health services.”

“Improved communication and collaboration among the healthcare community. A consistent message on specific health topics.”

*“Entities need to work together to provide seamless services. There are too many small nonprofits who **all compete for funding**. A lot of these nonprofits are just stop gap services, such as small clinics who provide pieces and parts and do not provide primary services across the continuum.”*

Increasing Awareness of Existing Programs/Services

“Better information on available providers/services.”

“Community awareness on programs for general public and healthcare professionals.”

“Explain what things like Love Inc. and City on a Hill do, what they offer.”

*“Keep **educating** the public on services available.”*

Cultural

*“Help the **Language Barrier**! More food programs.”*

*“**Increase services in mental health, dental care, and providers who are bi-lingual and bi-cultural**. Continue education in **cultural competency** and understanding implicit bias for providers. The county is doing great work to expand the understanding of the workforce, but it is more than just the county providers who need education.”*

*“**Multi-lingual health fairs located annually around the county with health education and screenings available.**”*

Q13: What one or two things could be done in Ottawa County that would improve the overall health climate in Ottawa County? Please be as detailed as possible.

Suggested strategies also include focusing on obesity, issues involving adolescents and children, and lifestyle choices. A global and holistic approach to lifestyle choices, such as bringing together many programs and organizations and focusing on diet, exercise, accessing affordable and healthy food, will have a positive impact on obesity as well. Adolescents and children need to be educated on the importance of a healthy lifestyle from an early age.

Suggested Strategies to Improve the Overall Health Climate in Ottawa County
Verbatim Comments (Cont'd.)

Obesity

*“Obesity is a major issue. Would be great to **incorporate lifestyle changes early, e.g. in schools with regular gym class/recesses to encourage exercise.** Also **encourage more healthy meals with ways to obtain those foods more inexpensively** - e.g. already starting at our summer farmers market in Holland. Need **more programs offered to help families with diet and exercise ideas** e.g. FitKids 360.*

*“**Community-wide effort involving employers, schools, churches and the community** at large focusing on decreasing obesity through increased exercise and proper diet.”*

*“Take a **holistic approach to tackling obesity** - we can't address this without talking about exercise, food, lifestyle, everyday habits, etc. **Collaboration between health care and community services.**”*

Adolescents/Children

*“**Provide meaningful care for teens and young women around contraceptive options** that match their family planning objectives. Decrease the number of unplanned pregnancies/increase prenatal care. Increase overall community awareness that planning for pregnancy allows far greater opportunity for most beneficial pre-conception/pre-natal care.”*

*“**Focus on the children and their mental and physical being.**”*

“Start education and programs for youth that teach them about disease prevention.”

Lifestyle Choices/Personal Responsibility

*“**Focusing on the basics:** Responsibility to DO regular exercise (what that means), adequate sleep (what that means), and understanding of calories in food (balancing in versus out). If the majority of people could do these things - there would be less chronic illness as well as anxiety/depression. They would not go away - but would decrease.”*

Q13: What one or two things could be done in Ottawa County that would improve the overall health climate in Ottawa County? Please be as detailed as possible.

Since the 2012 CHNA, Key Informants report a number of activities and initiatives implemented as the result of the information coming out of that research. For example, new programs have been implemented or existing ones bolstered to address: **health education, obesity, and diabetes**. Moreover, there has been an **expanded effort to recruit primary care physicians to the area** and an increased effort to assist the free clinics in any way possible.

Activities Since the 2012 CHNA
Verbatim Comments

- “An increase in alcohol abuse awareness and prevention.”*
- “Coordinated efforts by health clinics (mammograms, etc.), food policy council efforts, northern Ottawa county discussion among mental health care providers.”*
- “Diabetes programs through Holland Hospital.”*
- “Increased recruitment of primary care and specialty providers and establishment of another Urgent Care facility in Zeeland.”*
- “More utilization of APP's. Increased health education opportunities to the community. Multiple access to flu shots and vaccinations. Tobacco cessation initiatives.”*
- “NOCH attempting to be proactive-space for Love Inc. clinic.”*
- “North Ottawa Community Hospital System has been a champion in promoting health and wellness by expanding its mission to go beyond providing immediate medical care to advancing programs for prevention and community awareness.”*
- “Provider recruitment has been expanded. Health education programs in the schools and for seniors have increased. Support for free health clinics has improved.”*
- “There has been an increased focus on developing care for dental and mental health needs and some programs for childhood obesity.”*
- “Under the leadership of the county administrator, all county staff, include the health department, are undergoing workshops to understand racial equity, impact of implicit bias in health care, and best practices for moving beyond those unintentional biases we all have. It is an excellent opportunity to move care forward and it would benefit all providers to participate.”*

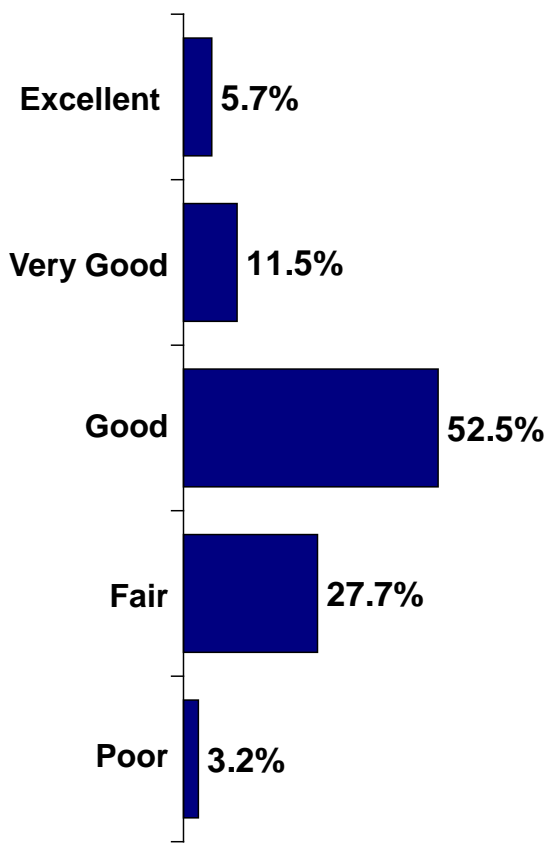
Q13: Since the Community Health Needs Assessment conducted three years ago in 2011, what has been done locally to address any issues relating to the health and health care of Ottawa County residents? Please be as detailed as possible.

Resident Survey

Health Status

Three in ten (30.9%) residents in the targeted subpopulations reports their health as fair or poor and this is almost three times greater than the general resident feedback from the BRFS (10.5%).

Perception of General Health



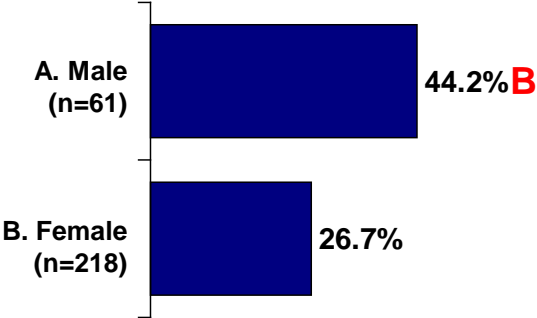
(n=282)

Q1: To begin, would you say your general health is....

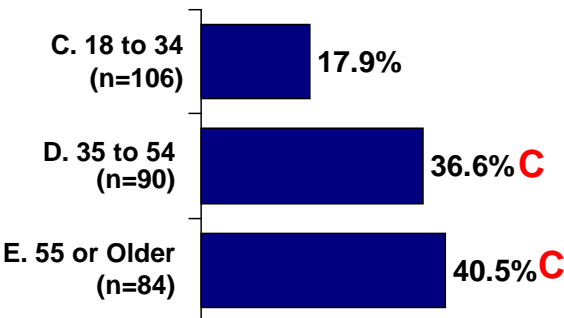
Among the underserved subpopulation, men and those aged 35 years or older are far more likely than women or those under age 35, respectively, to report their general health as fair/poor. Groups least likely to report their health as fair or poor include: Hispanics, those in households with \$35K+ income, those who have a medical home, and those with employer provided or private health insurance.

Perception of General Health as Fair/Poor
by Social Factors

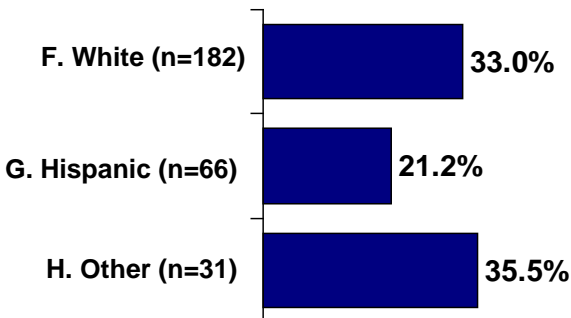
Gender



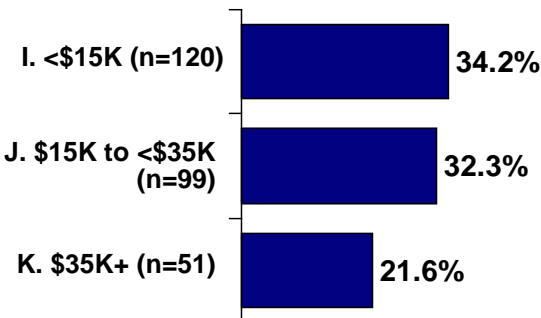
Age



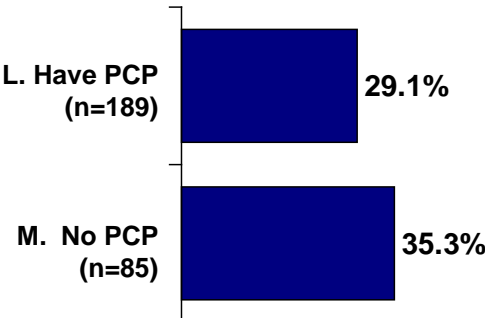
Race/Ethnicity



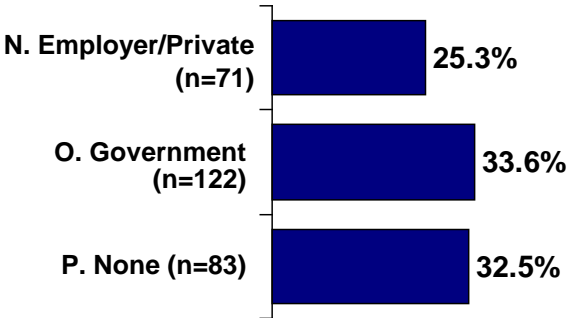
Income



Medical Home



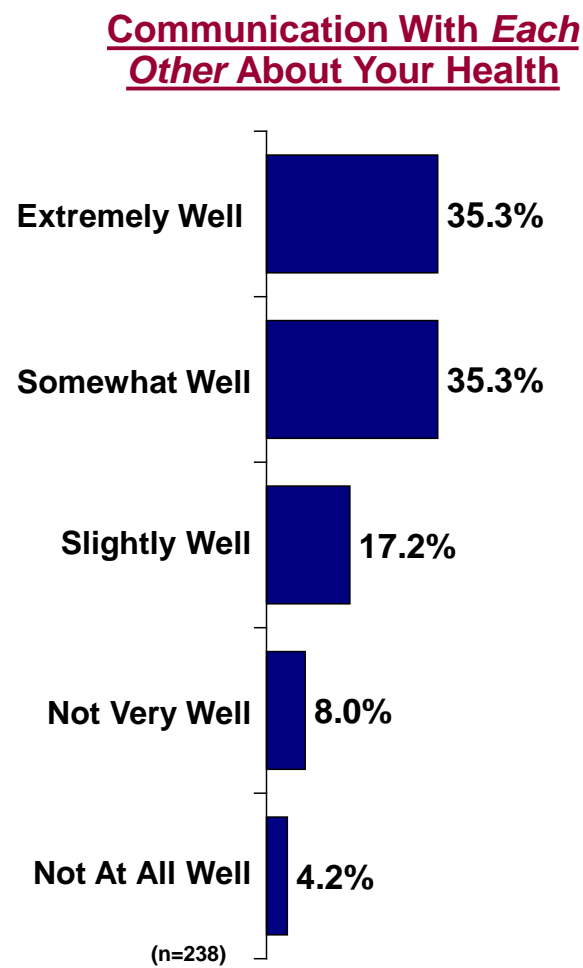
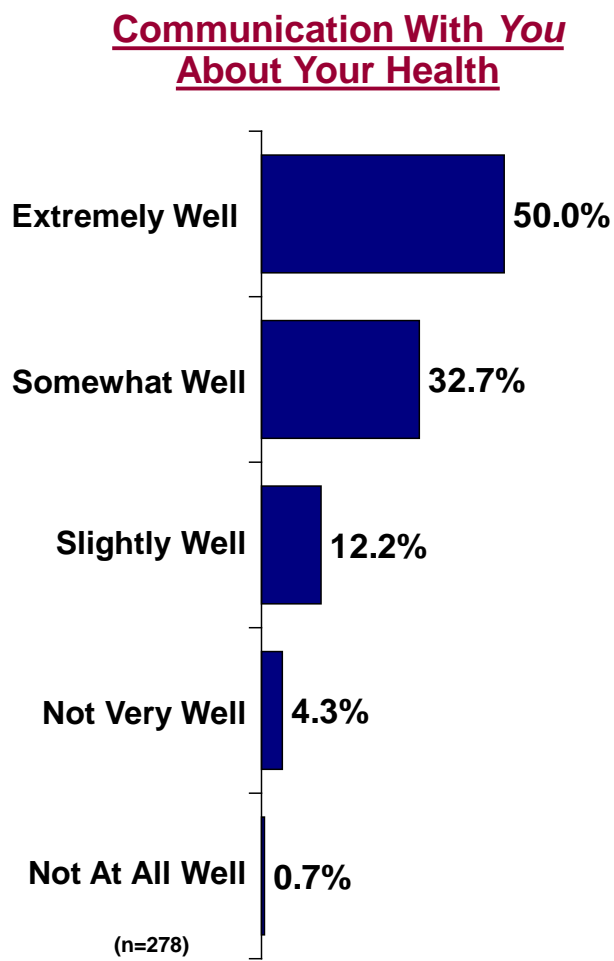
Type of Insurance



Q1: To begin, would you say your general health is....

More than eight in ten (82.7%) believe health care providers communicate somewhat or extremely well with them about their health. When it comes to communicating with each other, providers don't score as well, but still seven in ten (70.6%) say providers communicate well with each other.

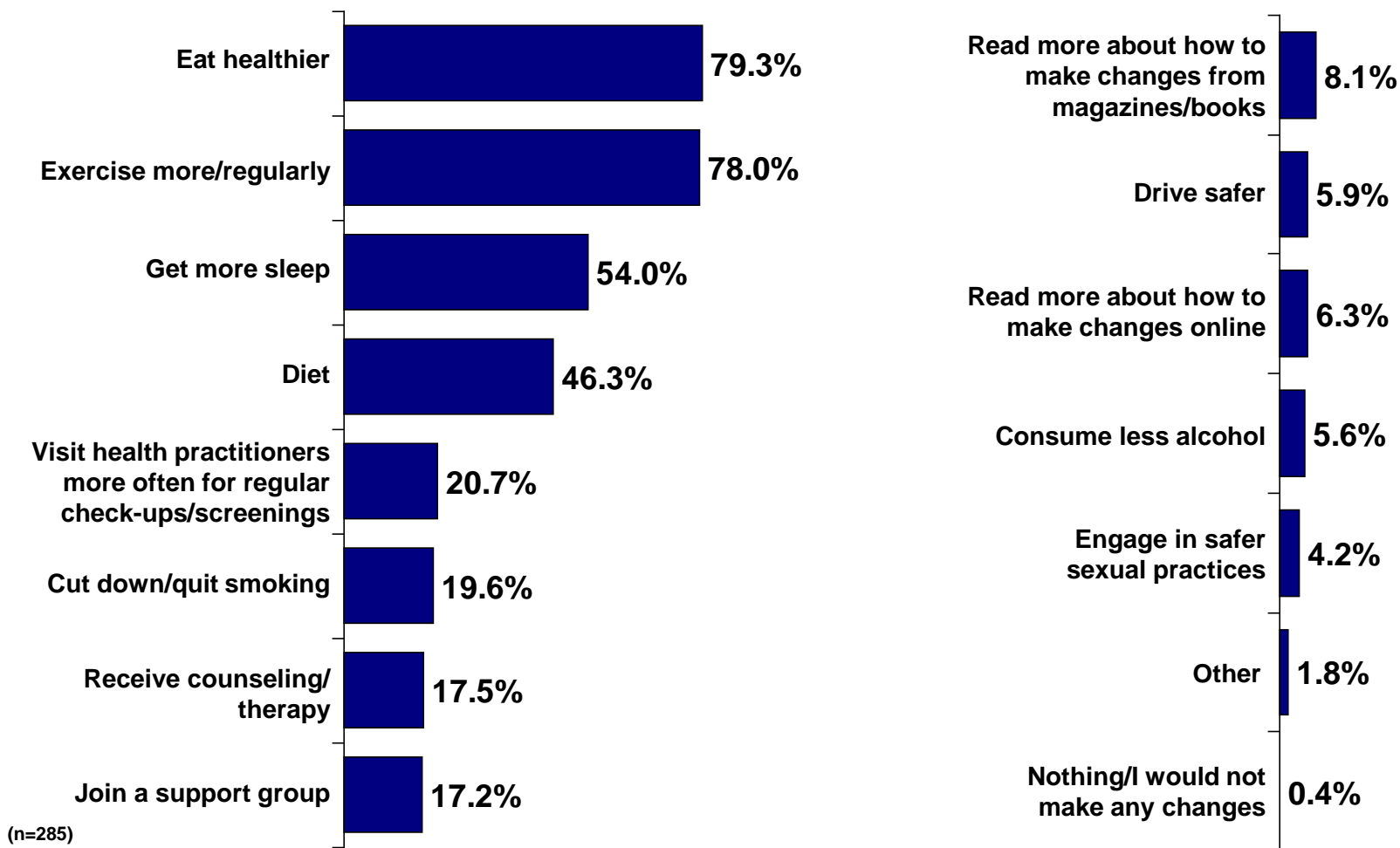
Quality of Communication Among Health Care Providers



Q6: How well do you feel health care providers communicate with you about your health?
Q7: How well do you feel health care providers communicate with each other about your health?

The vast majority of the underserved know what they need to do to improve their health: **eat healthier** and **exercise more regularly**. More than half believe they should **get more sleep** and more than four in ten say they should **diet**. They are also willing to visit health practitioners more often, quit smoking, engage in counseling/therapy, and join support groups.

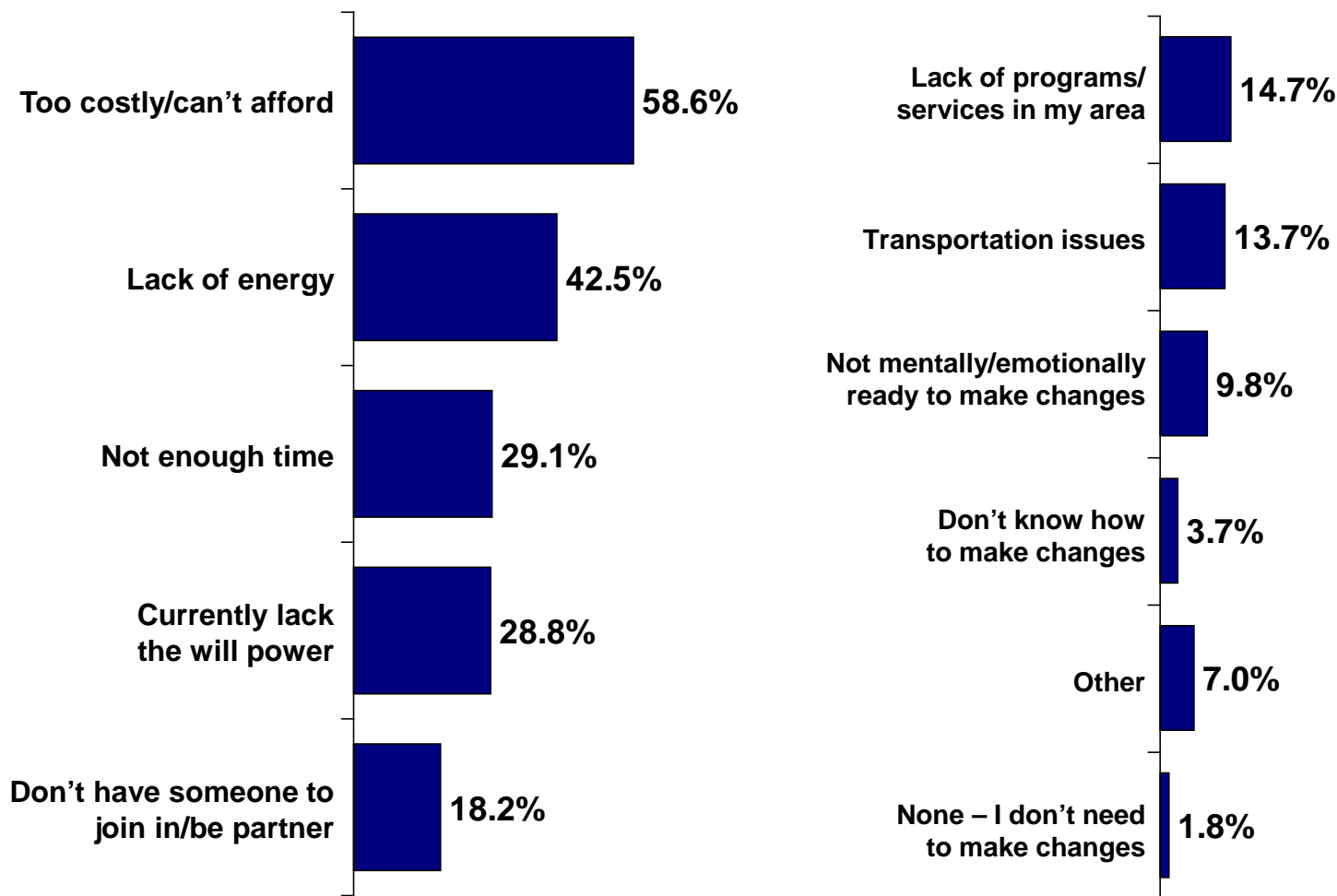
Behavioral Changes Needed to Improve Health



Q17: Which of the following behavioral changes do you believe you need to make to improve your health? (Select all that apply)

Although underserved residents know what they should do to improve their health, they face several barriers to living a healthy lifestyle, the greatest of which is **cost**. Further stumbling blocks include **lack of energy, time** and **will power**. Only a very small number (1.8%) say they do not need to make any changes.

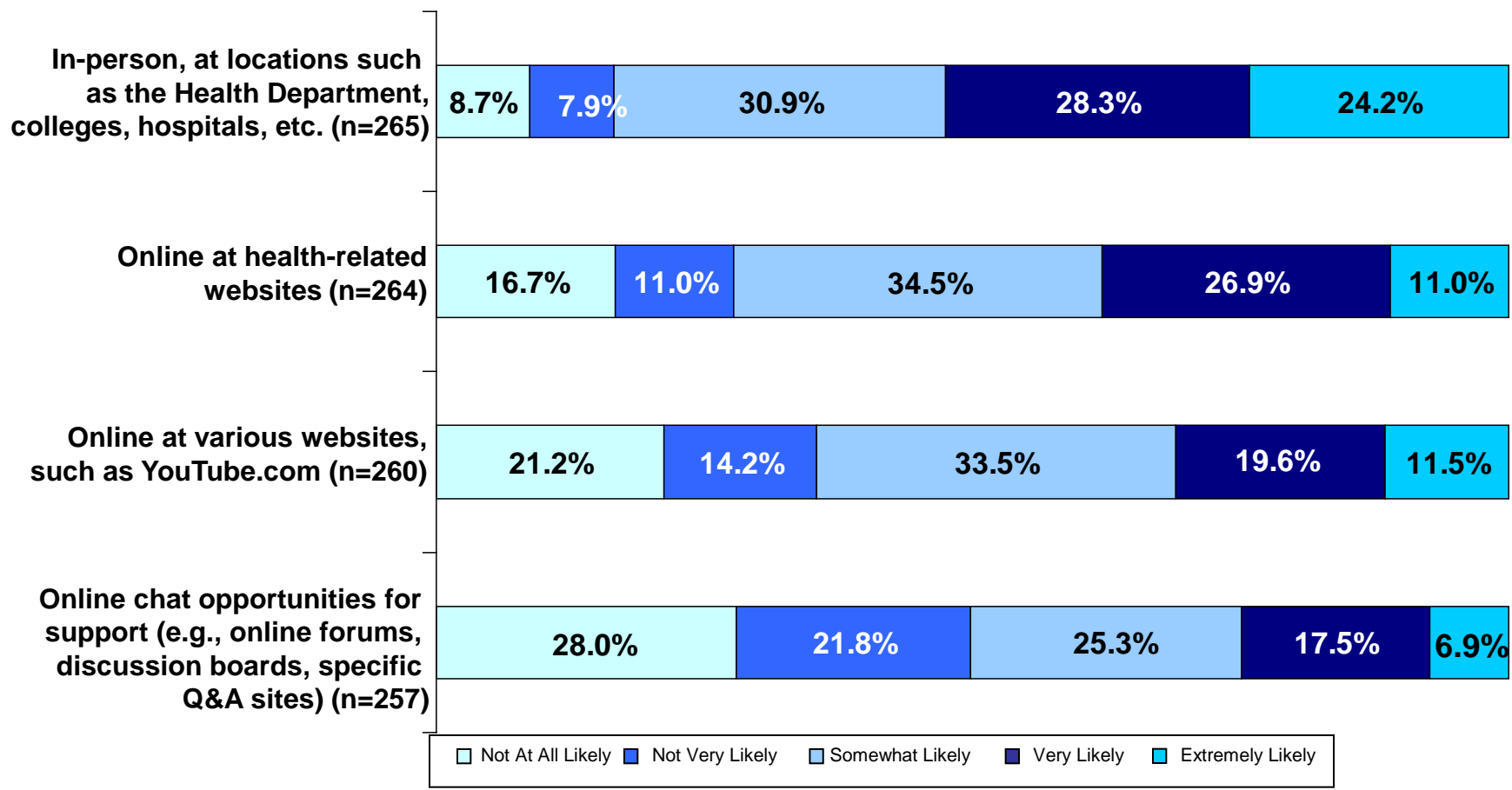
Barriers Preventing Living a Healthier Lifestyle



(n=285)
Q18: What are some of the barriers you face when trying to live a healthier lifestyle? (Select all that apply)

If education or instruction were provided on ways to live healthier lifestyles in various formats, underserved residents are most likely to select **in-person over online**. For those who prefer an online format, they are more likely to visit health-related websites than other websites (e.g., YouTube) or chat rooms.

Likelihood to Participate in Education/Instruction on Leading Healthier Lifestyles

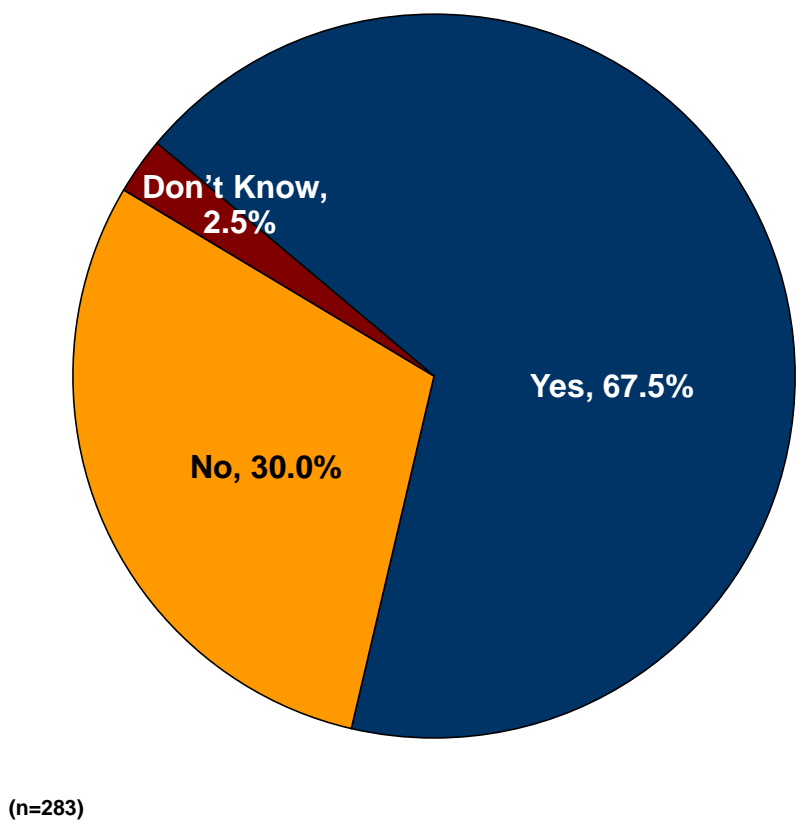


Health Care Access

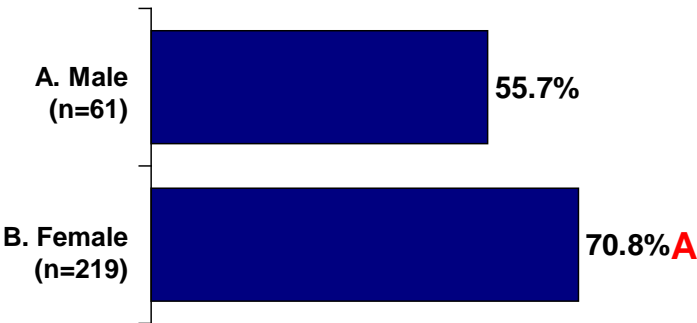
Two-thirds (67.5%) of underserved residents have a primary care physician (medical home) that they can visit with any questions or concerns about their health. Women are more likely than men to have a medical home and having a medical home is directly related to household income.

Health Care Providers

Have Primary Care Physician



Gender



Income



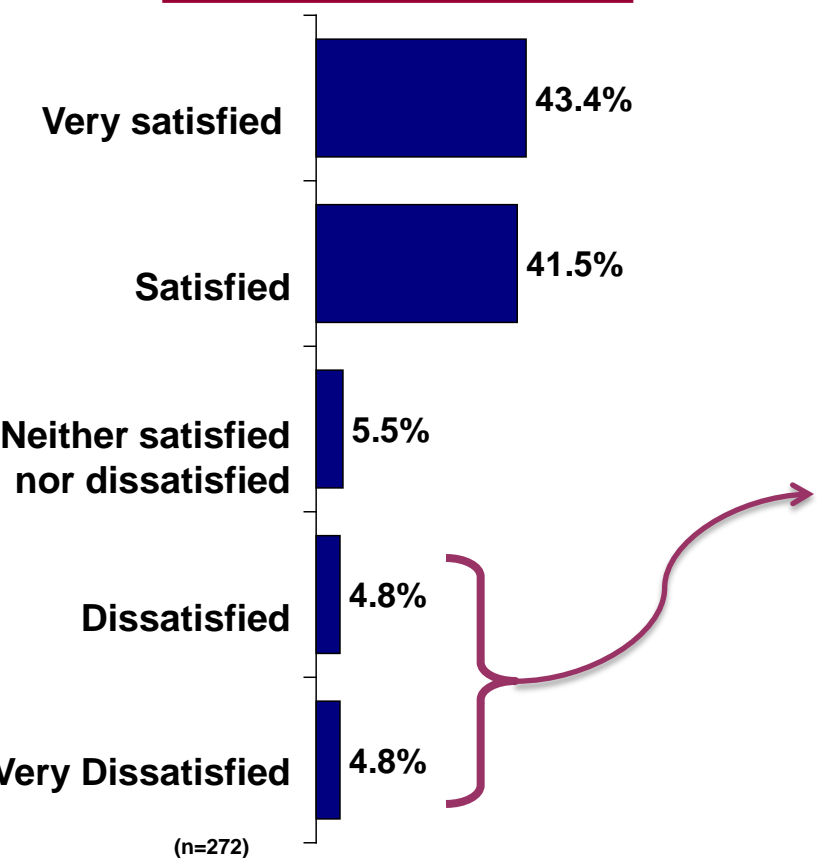
Q2: Do you and your family members have a primary care physician that you can visit for questions or concerns about your health?

Most Important Qualities in a Health Care Provider

The vast majority (84.9%) of underserved residents are satisfied with their last visit for health care. However, those who are dissatisfied report the following issues: (1) misdiagnosis of problem/condition, (2) too long to receive care, (3) treated as a number, rushed in and out, (4) lack of good communication, (5) lack of empathy/concern, (6) lack of professionalism, (7) disorganization, and (8) uncaring.

Satisfaction with Last Health Care Visit and Reason for Rating

Satisfaction with Last Visit



Reasons for Dissatisfaction with Last Visit

*"Doctor said I did not have yeast infection. Got a call four hours later saying I did. **Doctor said nothing was wrong** with my ear. **Two days later diagnosed with sinus infection** at medical center."*

*"**Felt rushed**, didn't really get to the problems."*

*"I was the only person waiting, it **took a very long time to be called back**, was **treated like I wasn't important**. It's been awhile since I was there, I just remember thinking 'I hope I never need to come here again.'"*

*"Because the **doctor didn't clearly explain my problem**."*

*"**[The clinic] is very disorganized, gives me the runaround, misplaces paperwork. Primary problem is communication, organization, and knowing medical laws.**"*

*"New **doctor, wouldn't look at me, explain herself, rude, talked down to me and my wife.**"*

*"**Didn't listen**, didn't do their job, just wanted to get to the next patient."*

*"Felt the **doctor didn't really seem concerned** of all the issues I have nor inform me of the do's and don'ts."*

*"They **took too long to provide care and find out the problem.**"*

Q4: How satisfied were you with your last visit for health care?
Q5: Why do you say that? Please be as detailed as possible.

Underserved consumers who are satisfied with their last health care visit appreciate providers (physicians, nurses) who discuss in detail their ailments/conditions and develop a plan to address them. They like providers who take time without rushing them and communicate well, listen, show empathy/concern (care), answer as well as ask questions, are knowledgeable and treat patients with respect.

Reasons for Satisfaction with Last Health Care Visit
Verbatim Comments

*“Because **with diabetes**, I need to know everything about my health and get that from my doctor.”*

“Doctor took time to answer my questions, not rushed.”

*“Doctor was **thorough and concerned**.”*

*“I like the attention I receive and **they seem to care about my health**.”*

*“It’s **important to have accuracy** when concerning my health.”*

*“My needs were met, **questions answered**, doctor was **kind and easy to talk to**.”*

*“My physician was **kind, thorough** in his examination and was **more than willing to take the time to answer my questions**.”*

*“The doctor always talks and **communicates very well**.”*

*“They **get me in, in a timely manner** and always **answer any concerns**, along with **making me feel very welcome**.”*

*“They were **willing to see me anytime needed**.”*

*“They were able to **keep me calm while explaining the procedure** needed to be done.”*

*“Because [my doctor] is **smart**, right away showed me my x-ray/MRI and **explained everything in detail**. She’s awesome! You can tell **she cares about her patients**.”*

*“He is **honest** about my medical needs and **I trust him**.”*

*“I was **seen quickly, treated with respect** and the doctor **knew what he was doing**.”*

*“I was **treated professionally and attentively** and I was **taken seriously!** Thanks.”*

*Doctor was **thorough and concerned**.”*

*“**Informative, preventative, open, treat me as equal**, like the **attention** I receive and they **seem to care about my health**.”*

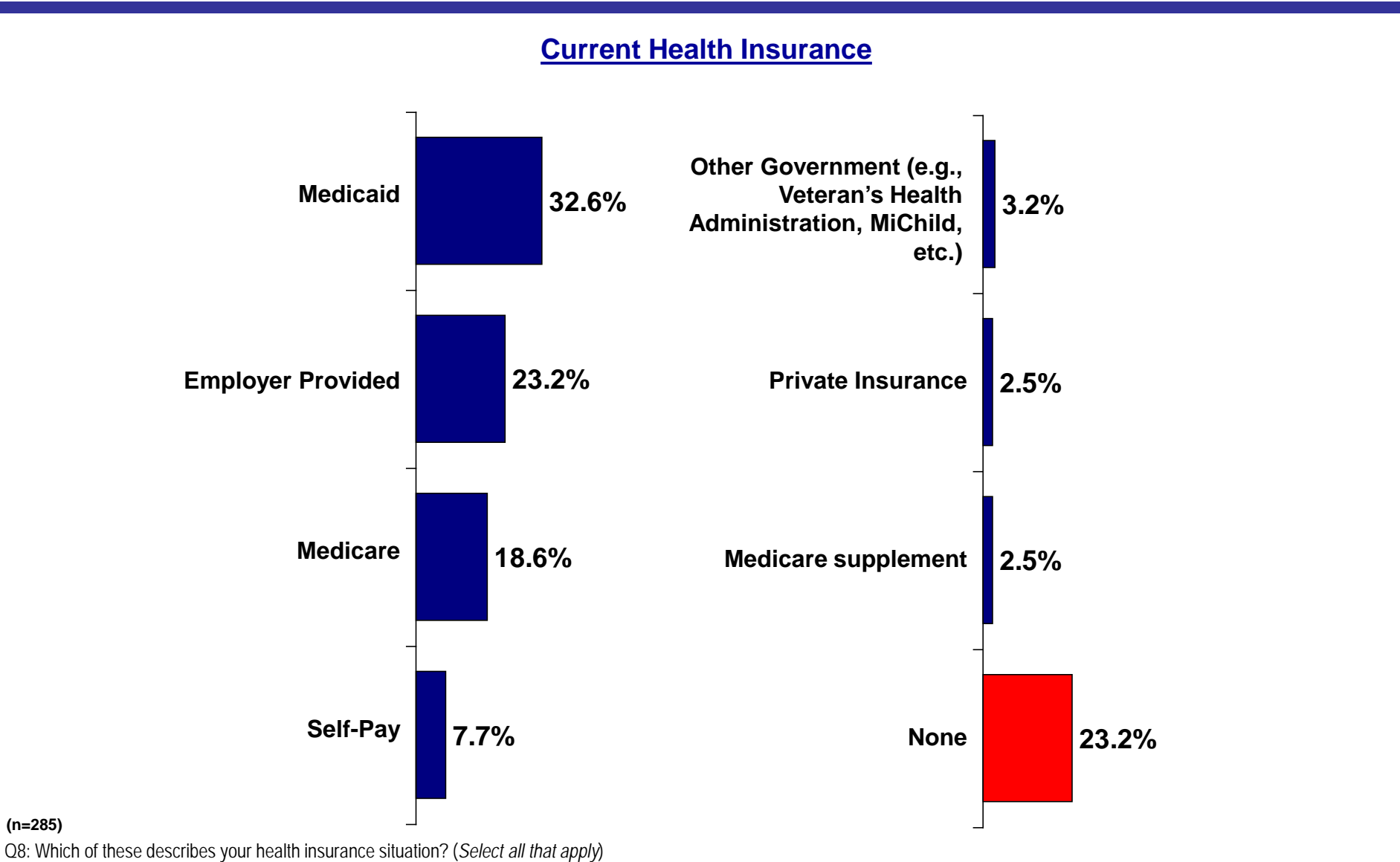
*“The nurse is very **knowledgeable**. **Took the time** to not only address the issue at hand but **asked if there was anything else which led to positive treatment with another problem**.”*

*“The nurses here are **very nice, honest, non-judgmental**, they tell me how it is and give me all the **knowledge** I need to be safe.”*

*“**Took time to ask detailed questions** of health and length of sickness. **I didn’t feel rushed**.”*

Q5: Why do you say that? Please be as detailed as possible.

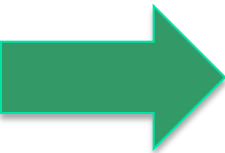
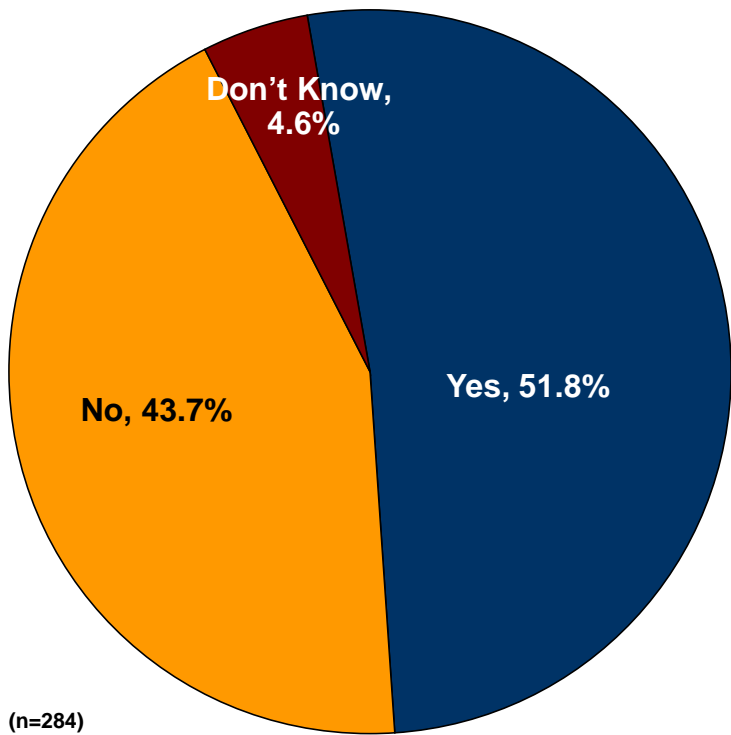
One-third (32.6%) of the underserved residents have Medicaid, while one-fourth (23.2%) have no health insurance at all; this represents over half (55.8%) of this subpopulation. Very few (2.5%) have private health insurance.



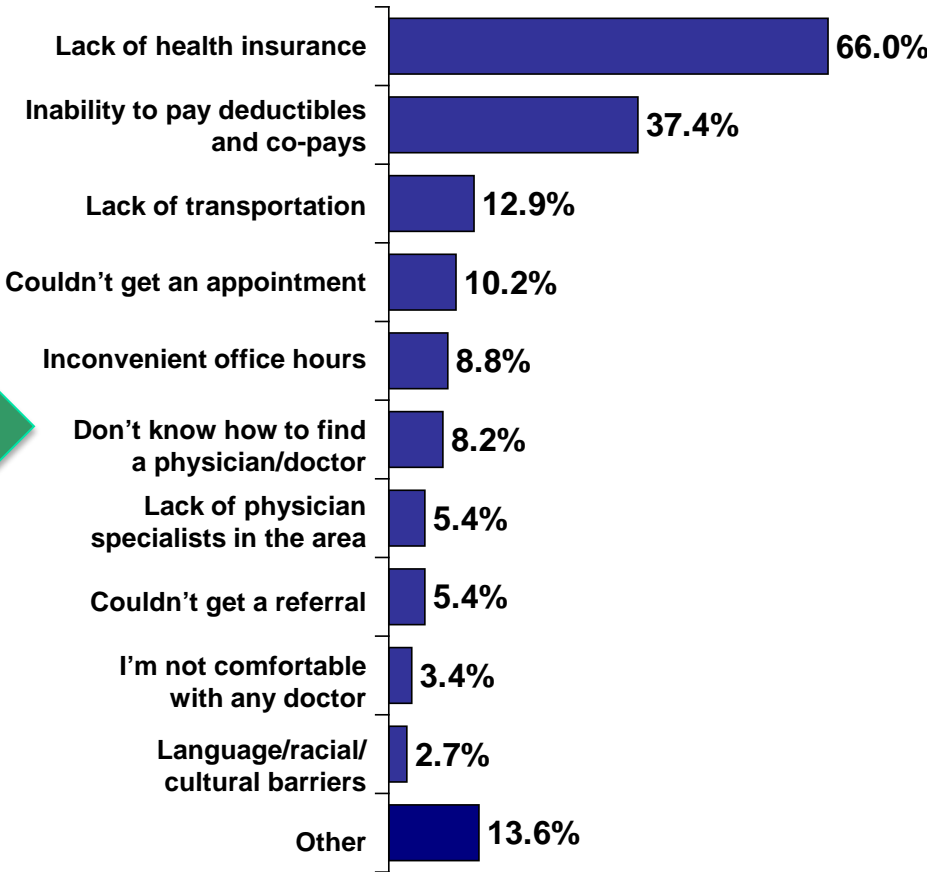
Half (51.8%) of the underserved have had trouble getting needed health care for either themselves or their family in the past two years. The most prominent reason for this is lack of health insurance, however, more than a third (37.4%) of those who have health insurance do not seek care because they cannot afford the deductibles and/or co-pays.

Barriers to Meeting Health Care Needs

Had Trouble Meeting Health Care Needs in the Past Two Years



Reasons for Not Receiving Needed Health Care



Q9: In the past two years, was there a time when you had trouble meeting the health care needs of you and your family?
Q10: (If yes) What are some of the reasons you had trouble meeting the health care needs of you and your family? (Select all that apply)

Underserved residents would like to see **more affordable health care or services**, especially **dental services** and a to a lesser extent **chiropractic** and **vision** services and more affordable **prescription medication**. Residents would also like to see classes on **CPR, first aid, prevention, wellness**, and medical insurance. Further, they would like to see **information (list) on providers who accept new patients and/or providers who accept Medicaid**. **Mental health** and **substance abuse services** are both lacking because they are often not covered by medical insurance.

Health Care Programs, Services, and Classes That are Lacking in the Community

“Affordable, chiropractic, and dental.”

“Affordable dental. Currently they have a 1 day free, but I always seem to work on that day.”

“Affordable health care.”

“Affordable health care for those without private insurance.”

“An inexpensive dental insurance that doesn’t cost you \$80 a month Dental insurance that will pay for crowns without me paying \$800 when my insurance would only okay 30% of it.”

“Coordinated pharmacy program. I used to have a mail pharmacy service that provided a three month supply for a discounted co-pay. Now I have eight medications all needing monthly refills at different times with co-pays that seem to arbitrarily change. I feel as though I have to shop around each month to avoid \$100/month charges for just one medication.”

“CPR and First Aid.”

“CPR classes.”

“Dental and eye care that I can afford.”

“Dental and vision services.”

“Education on medical insurance, education on prevention/wellness.”

“I have a friend who has drug dependency issues and has to go to Grand Rapids for treatment.”

“I’d like to see health drives, getting people involved and spreading awareness to local places/resources.”

“Mental health understanding by the community so people understand more about mental health issues that people live with each day. Not enough information in this area that people who have mental illness are “not always crazy or dangerous” as can be seen a lot on TV.”

“More free clinics, free services, dental clinic.”

“More information about doctors and those who accept new patients.”

“More/improved mental health care for children/ adolescents. Hard to get children in for therapy without them missing a significant amount of school.”

“Specialty care. Have to find transportation to gastroenterologist, for example. Dental specialties that accept Medicaid/Medicare.”

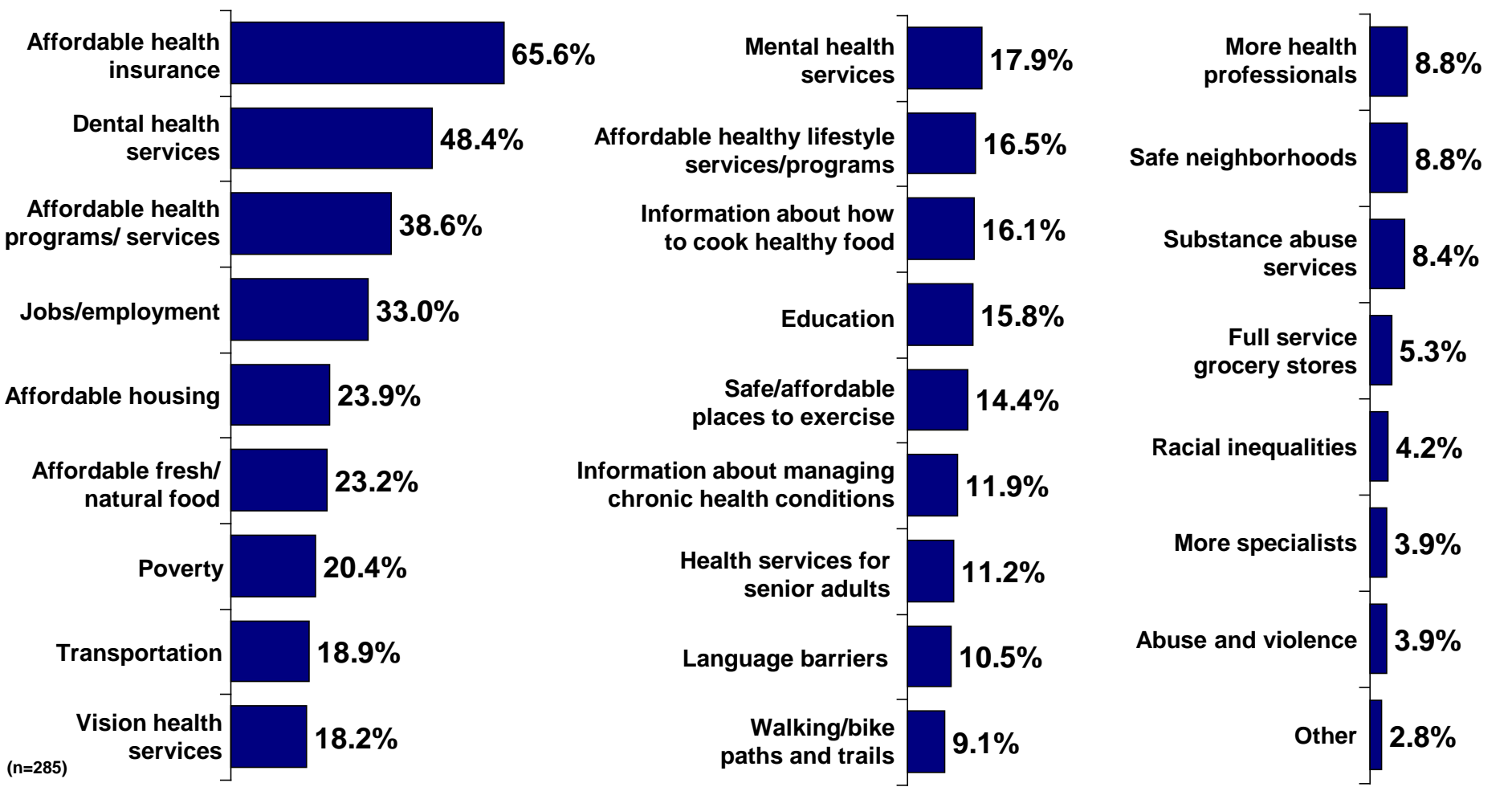
“We need a strong mental health system. The fact that our governor stated he cared about mental health and then cut the budget for mental health systems is ridiculous. Many including myself struggle to find proper care for mental health issues because of lack of funding. Most people do not care for their physical health if their mental health is lacking. People with mental illness die 20 years sooner than those without mental illness. We need better access to care.”

Q11: What health care related programs, services, or classes are lacking in your community? In other words, what programs, services, or classes do you want that are currently unavailable?
Please be as detailed as possible.

Community Issues That Impact Health

There are numerous issues that underserved residents believe impact health in their community. At the top is **affordable health insurance**, followed by **dental services**. Other impactful issues include **affordable health programs/services**, **jobs**, **affordable housing**, **affordable fresh/natural food**, and **poverty**. Very few Ottawa County underserved residents see **abuse and violence** or **racial inequalities** as issues in the community that impact health.

Community Issues That Impact Health



Q12: What are the top five issues in your community that impact health?

Residents point to numerous community characteristics that make it easy for people to be healthy, such as safe neighborhoods and schools, clean air and environment, and friendly neighbors that watch out for each other. Further, there are many healthy aspects about the community that are free, such as accessible walking/hiking/biking trails, parks, and lakes. Additionally, although not free, are numerous gyms, health clubs, grocery stores with fresh/healthy food, doctor's offices, clinics, and hospitals.

Community Characteristics That Make it Easy to be Healthy

"A lot of health care facilities and access to exercise."

"Ability to walk safely in my neighborhood. Public transportation is available and safe."

"Access to doctors, walking trails, Lake Michigan for mental health, community transportation to get to grocery stores and appointments, events throughout the year."

"Affordable grocery stores, pantries, food markets, and gyms."

"Being close to the beach and being able to walk and bike to places in the spring, summer, and fall."

"Bike trails, lake, YMCA, grocery stores."

"Bussing available, counseling, and doctors close to me."

"Clean air, doctors, dentists, jobs, vision doctors, and food is available."

"Doctors everywhere. Connections to health systems in nearby Grand Rapids."

"Education, affordable prices for me."

"Everything is near each other, there are lots of trails, gyms."

"Farmer's Market, grocery stores, parks, etc."

"Farmer's Market, multi-cultural, community services encouraging health."

"Free health clinics like Love Inc."

"Fresh fruits and vegetables, safe schools."

"Having a hospital and community mental health to address physical and mental health needs. Bus service to get there."

"Health food stores, people helping people with food, clothing, basic needs."

"Lots of bike paths, safe area to walk."

"Lots of exercise opportunities, lake, aquatic center, etc. Lots of good grocery stores, excellent Farmer's Market."

"Many doctor's offices and Urgent Care Centers plus hospitals makes it easier to get medical attention as soon as needed."

"Nature trails, paths, easy access to walking and hiking trails."

"Ottawa county has a great parks department that has places to bike, hike, walk, swim etc. to stay healthy."

"Plenty of gyms if you have the money. Bike paths."

"Quiet street where all the neighbors know each other and watch out for each other including protecting property, shoveling snow. Neighborhood park. Neighborhood block party."

"Safe neighborhoods, bike paths, trails, beaches, working in these areas."

Conversely, community characteristics that make it hard for residents to lead healthy lives include the **abundance of fast food restaurants**, **lack of affordable and healthy food**, **cost of gym memberships**, and **inclement weather** (e.g., the entire winter season) preventing people from going outside to be active. **Lack of affordable health care** is an issue even for people with insurance who may have to see several different physicians and/or cannot afford the co-pays and deductibles. **Limited transportation** systems and **language barriers** also prevent many residents from achieving optimum health.

Community Characteristics That Make it *Hard* to be Healthy

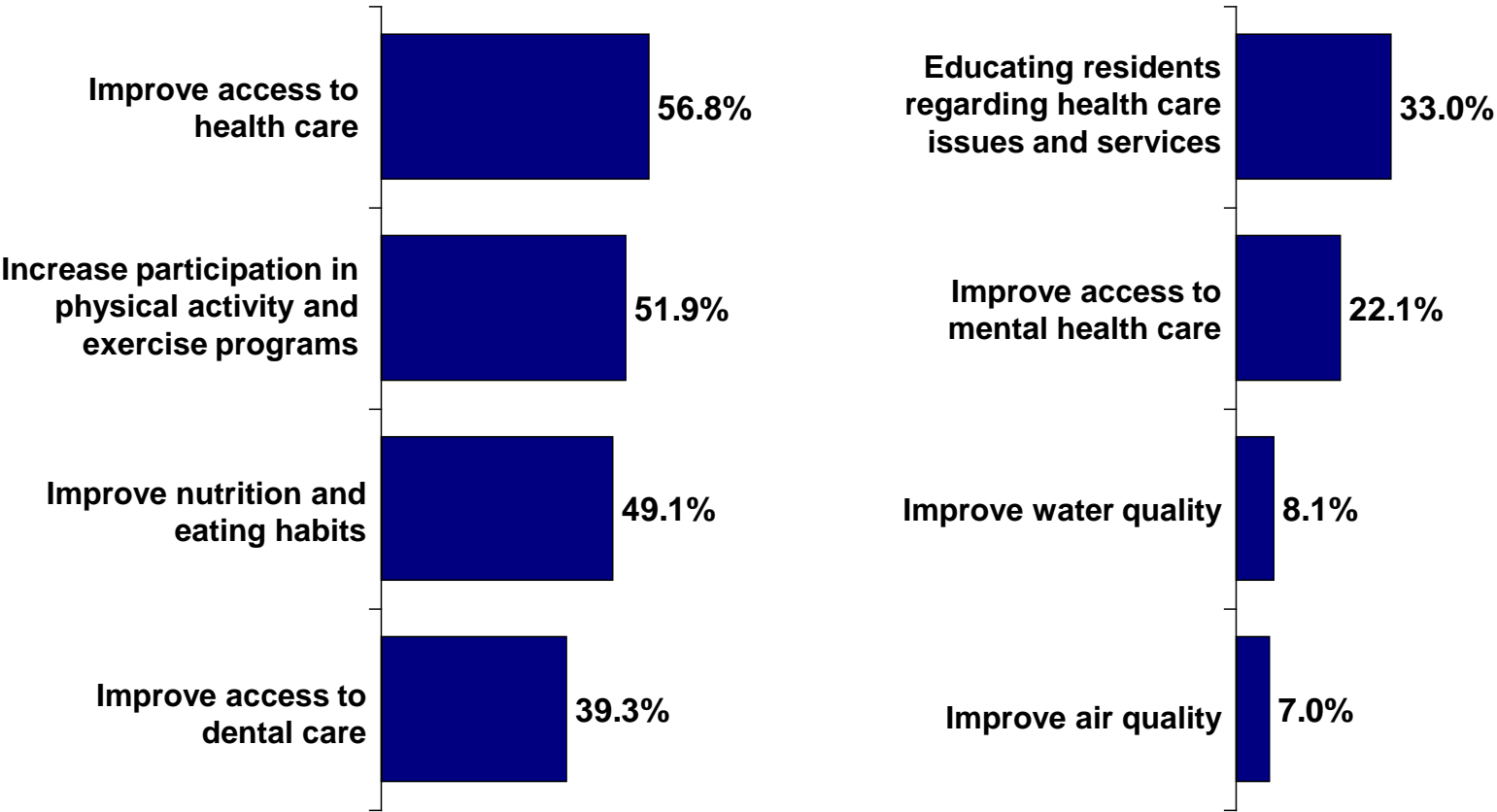
- “A lot of fast food places on every corner.”*
- “[Lack of] affordable healthy food, unemployment.”*
- “Bad weather, hard to get outside.”*
- “Buying healthy foods is more expensive than unhealthy food.”*
- “Cheap, fast food, cheaper than vegetables and fruit.”*
- “Cold weather and snow keep us from going outside and have activities.”*
- “Cost of gym memberships.”*
- “Costs of eating healthy and costs involved in medical care (tests and aftercare).”*
- “Each doctor has their own specialty so they send patients to numerous doctors which makes it too costly, so I pick one or two problems and am forced to ignore others.”*
- “Fast food is cheap. Salty food places close in town. Food that is fresh is hard to get and is very expensive.”*
- “Fast food places everywhere, bars and liquor stores on almost every corner.”*
- “Hard to be active in the winter.”*
- “Healthy choices are usually more expensive.”*
- “Healthy food and medical care is too expensive.”*

- “I have a difficult time getting inexpensive dental services with dental insurance and those who are on SSDI assistance have the only option to have tooth pulled instead of putting crown on it.”*
- “If you do not have health insurance you have a lot of paperwork to get help with and it takes a long time to get in to a doctor.”*
- “Lack of affordable insurance, lack of culturally sensitive and language appropriate service providers.”*
- “Lack of support groups. Lack of transportation after 5:30 PM (bus stops running after 5:30).”*
- “Language barrier or lack of interpreter for appointments. Also, it is hard to set up an appointment with a new physician in a timely manner.”*
- “Language/educational barrier. Many without English who then cannot understand proper nutrition and exercise. Also the expense of trying to eat healthy, sometimes cheaper to buy “convenience” (unhealthy) foods.”*
- “Not enough communication, support, or education.”*
- “Stress of finding specialists that aren't over an hour away. Nothing being close in proximity.”*
- “The availability of the doctor's offices. Very few practices are open after traditional business hours/days. To book an appointment you have to call many months in advance.”*

Q14: On the other hand, what are the primary characteristics of your community that make it hard to be healthy? Please be as detailed as possible.

The most important change that could make the local community healthier is to **improve access to health care**. Secondly, it's critical to get people to **change their lifestyle through increased participation in physical activity and healthier eating**. Improving **access to dental care** and **educating residents** on health care issues and services is important to a sizeable minority. Improving air and water quality are not considered necessary.

Most Important Actions for Making Community Residents Healthier



(n=285)
Q15: From the following list, please rank the top three areas that are most important to making the people in your community healthier, For example, 1 would be your most important, 2 would be your second most important, and 3 would be your third most important.

Underserved residents think that health care professionals, decision makers, and policy makers could benefit from a better understanding of what it's like be in their situation. Out of this may come things like: **affordable housing, affordable dental care** or clinics that take all insurance, **less expensive or free access to gyms and indoor places to exercise** in winter, **education on nutrition, gardening, and preparing healthy food, better transportation** (extended hours), and **more affordable health care options and/or better access to the free clinics** such as Love Inc. or City on a Hill.

Suggestions for Making Community Residents Healthier

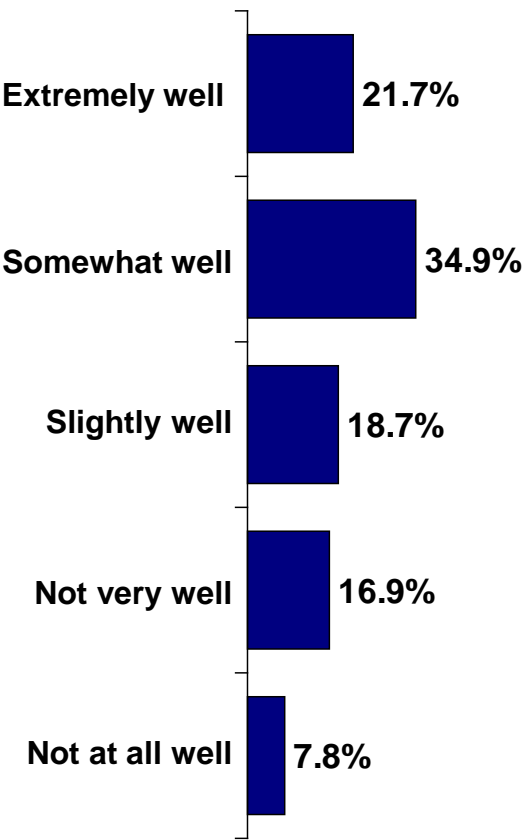
- "A deeper understanding of those in poverty. Health care providers/politicians/DHS workers need to try and walk in the shoes of those living in poverty and listen."*
- "Access to affordable housing. Transportation extended hours. Racial equality, less prejudice."*
- "Affordable health care and exercise places."*
- "Being able to join the YMCA or gym without a checking account. Transportation to appointments out of town to see specialists."*
- "Cheaper and easier access to gyms and more healthy ones."*
- "Community gardens with classes to preserve their produce."*
- "Dental clinics for low income."*
- "Education about the importance of being physically active and information about healthy food options that are not too difficult to maintain. I think there are a lot of people who do not know how to cook healthy meals and assume that to do so requires lots of energy and time."*
- "Equip parents with the knowledge to keep themselves healthier and their children as well."*
- "Free exercise programs, more affordable ways to get fruits and vegetables."*
- "Free or very reasonably priced classes."*
- "Gardening, growing your own food, types of gardens."*

- "Good modeling/mentoring. Really educating kids/families at schools. Making healthy food accessible/affordable."*
- "Groups getting together to exercise."*
- "Have better dental coverage for Medicaid."*
- "Healthy foods at pantries."*
- "Improve health care sites to make them more available to people. Currently most of our public health is located in Holland. Not everyone from the county can get to and from the Holland area."*
- "Improving wellness by educating about preventive exercises."*
- "Indoor walking areas."*
- "It would be helpful if more practices/clinics would offer payment plans for dental work (very expensive)."*
- "More dental places that take Medicaid."*
- "More ESL classes that involve health/nutrition education."*
- "More free facilities for indoor recreation, especially in winter."*
- "More places like City on a Hill around. Not only in Zeeland."*
- "Offering free healthy cooking education and nutrition education maybe sponsored by a major local company."*
- "Offer more fruits and veggies to kids in schools and daycares as well as adults in factories and offices."*

Q16: What other ideas do you have to make the people in your community healthier? Please be as detailed as possible.

Many underserved residents are unable to answer how well prepared they think local health professionals are when dealing with communicable or infectious disease outbreaks. Of those who have an opinion, over half (56.6%) think they are somewhat or very well prepared. On the other hand, one-fourth (24.7%) feel they are not very or not at all well prepared.

Preparedness for a Communicable or Infectious Disease Outbreak



(n=166)

Q20: How well prepared are local health care professionals to deal with a communicable or infectious disease outbreak, such as Ebola?

Underserved residents had a chance to provide concluding comments and those who took the opportunity reiterated issues they have with health care costs and access, especially mental health and dental care, and the way they are treated by providers and the system overall.

Concluding Verbatim Comments

Make mental health services available to all.

“[This free clinic] is a life saver to me. Not sure what I would do without them.”

“Doctors and dentists don't want to take Medicaid, too much paperwork, red tape. Must make it easier for the poor to get quality care! Not looked down on.”

“Government needs to understand that not everyone can afford their health insurance plan. In some households only one person is working and that income goes to pay for rent and bills. They shouldn't penalize people for not having health insurance.”

“Health care is not affordable for middle class families that can't get it through employment”

“In non-profit, many times patients are pushed through due to meeting a certain amount of patients per day/per provider. We are people, not car parts.”

“It's all too confusing. I don't mind paying a fair price when I need help, but I feel pushed around when dealing with any health care.”

“Just probably be more informed in what my community is offering to do to help with our families that need medical help.”

“Listen to patients thoroughly. Doctors may know the answer ahead of time, but blurting it out, without letting the patient finish leaves them feeling like you look at them as everyone leaving no room for personalization. They will likely doubt doctors diagnosis this way.”

“My home town (Grand Haven) needs better access to mental health care. Have to travel all the way to Holland. Transportation is non-existent unless you arrange it with family and friends. There are many of us who don't have that help. We are on our own. Mental illness treatment should be accessible in Grand Haven and not all the way to Holland.”

Q21: In concluding, do you have anything else you would like to add about health or health care issues? Please be as detailed as possible.

Further, underserved residents stressed the lack of affordable and healthy food and the fact that fast/junk food is much less expensive and prevalent, leading to bad eating habits and obesity. Other concerns are lack of bilingual health care personnel, the necessity of planned parenthood programs, and lack of local government support for health programs and services for the poor.

Concluding Verbatim Comments (Cont'd.)

*"Money prevents the majority of changes possible. **Fast food/fried food/frozen food is 4 times cheaper than healthy whole food.** Getting less bang for your buck. People can't afford it. You can get 20 [chicken] nuggets for \$5, but \$5 won't get you a salad that's the size of an orange."*

*"I have substituted at many area elementary schools in the lunchroom and playground over the last 10-12 years and I have seen **horrible eating habits.** I'd have to **guess well over 50% of the kids eat poorly every day.** I feel this will impact the health care system greatly."*

*"**Obesity**, our society has the cheapest fast food and candy and expensive fresh vegetables and fruit."*

*"**Please stop taking away programs like Plan First.** It really helps those of us who cannot afford birth control, etc. It's not always about not wanting to get pregnant."*

*"**Some health issues are genetic, some issues are not lack of knowledge but lack of willingness to eat right and exercise.**"*

*"The biggest thing is **being able to afford it!** **Obamacare is very costly!! Deductibles are very high with insurance!** **When you don't have the money to cover those costs, it is hard to go to a doctor and also get your prescriptions!**"*

*"This community is a wealthy one and it is **my belief that local government does not invest in health programs for the poor. I believe we are largely ignored. We have very limited social service agencies and/or indigent programs.** Thank goodness for community mental health!"*

*"Being Hispanic (Spanish speaking), **we need more bilingual personnel.**"*

APPENDIX

Definitions of Commonly Used Terms

Definitions of Commonly Used Words/Acronyms

- ESL – means “English as a second language.” For this population/group, English is not their primary language. For purposes of this report, it most often refers to the Hispanic population that has Spanish as their primary language.
- PCP – refers to “primary care provider” or “primary care physician,” but the key terms are “primary care.” Examples of this are family physicians, internists, and pediatricians.
- Binge drinkers – those who consumed five or more drinks per occasion (for men) or four or more drinks per occasion (for women) at least once in the previous month.
- Heavy drinkers – those who consumed an average of more than fourteen alcoholic drinks per week for men and more than seven per week for women in the previous month.

Respondent Profiles

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

Chief Operating Officer, Intercare Community Health Network

Director of Care Management, Priority Health

Director, Ottawa County Department of Human Services

Executive Director, Community Mental Health of Ottawa County

Executive Director, Greater Ottawa County United Way

Health Officer, Ottawa County Department of Public Health

Vice President of Human Resources, Gentex

Behavioral Risk Factor Survey

| | TOTAL | A. Northwest | B. Northeast | C. Central | D. Southwest | D. Southeast |
|---------------------------------|----------|-----------------|-----------------|---------------|-----------------|-----------------|
| Gender | (n=2008) | (n=460) | (n=74) | (n=175) | (n=948) | (n=339) |
| Male | 48.8% | 50.1% | 41.4% | 48.2% | 53.2% | 42.0% |
| Female | 51.2% | 49.9% | 58.6% | 51.8% | 46.8% | 58.0% |
| Age | (n=1995) | (n=459) | (n=74) | (n=173) | (n=943) | (n=335) |
| 18 to 24 | 18.7% | 12.9% | 11.8% | 23.4% | 22.3% | 15.4% |
| 25 to 34 | 16.0% | 16.0% | 17.1% | 14.4% | 18.1% | 13.6% |
| 35 to 44 | 16.3% | 17.1% | 21.0% | 17.1% | 16.7% | 13.7% |
| 45 to 54 | 20.3% | 23.6% | 15.3% | 19.1% | 18.7% | 22.3% |
| 55 to 64 | 14.5% | 17.4% | 14.8% | 13.9% | 11.6% | 17.4% |
| 65 to 74 | 8.2% | 7.4% | 11.4% | 7.7% | 7.5% | 9.9% |
| 75 or Older | 5.9% | 5.7% | 8.7% | 4.4% | 5.0% | 7.8% |
| Race/Ethnicity | (n=1988) | (n=456) | (n=71) | (n=174) | (n=940) | (n=338) |
| White, non-Hispanic | 83.4% | 93.2% | 81.9% | 75.6% | 74.5% | 96.5% |
| Other, non-Hispanic | 7.1% | 4.1% | 10.8% | 14.1% | 8.2% | 2.1% |
| Hispanic | 9.5% | 2.7% | 7.4% | 10.3% | 17.3% | 1.4% |
| section of Ottawa County | (n=1996) | (n=460) | (n=74) | (n=175) | (n=948) | (n=335) |
| Northwest | 18.3% | 100% | | | | |
| Northeast | 4.1% | | 100% | | | |
| Central | 16.0% | | | 100% | | |
| Southwest | 39.3% | | | | 100% | |
| Southeast | 22.3% | | | | | 100% |

Behavioral Risk Factor Survey (Cont'd.)

| | TOTAL | A. Northwest | B. Northeast | C. Central | D. Southwest | D. Southeast |
|--|----------|-----------------|-----------------|---------------|-----------------|-----------------|
| <u>Marital Status</u> | (n=2000) | (n=459) | (n=74) | (n=174) | (n=945) | (n=338) |
| Married | 59.3% | 62.0% | 51.6% | 62.4% | 52.6% | 67.9% |
| Divorced | 6.7% | 7.6% | 7.9% | 6.8% | 6.9% | 5.3% |
| Widowed | 2.9% | 2.5% | 4.7% | 3.7% | 2.5% | 3.0% |
| Separated | 0.7% | 0.5% | 0.0% | 1.0% | 1.2% | 0.0% |
| Never married | 29.7% | 26.9% | 34.2% | 25.9% | 36.1% | 23.4% |
| A member of an unmarried couple | 0.6% | 0.5% | 1.6% | 0.3% | 0.8% | 0.4% |
| <u>Number of Children Less Than Age 18 At Home</u> | (n=2007) | (n=460) | (n=74) | (n=174) | (n=948) | (n=339) |
| None | 58.0% | 61.1% | 56.1% | 57.0% | 56.1% | 58.9% |
| One | 17.1% | 16.6% | 21.5% | 20.6% | 17.9% | 13.2% |
| Two | 13.9% | 15.0% | 16.4% | 10.2% | 14.4% | 14.9% |
| Three or more | 11.0% | 7.3% | 6.0% | 12.2% | 11.7% | 13.1% |
| <u>Number of Adults and Children in Household</u> | (n=2007) | (n=460) | (n=74) | (n=174) | (n=948) | (n=339) |
| One | 8.9% | 8.1% | 14.2% | 4.1% | 10.6% | 8.9% |
| Two | 28.6% | 34.9% | 34.8% | 22.0% | 27.8% | 28.4% |
| Three | 17.0% | 20.5% | 10.9% | 15.4% | 14.9% | 20.2% |
| Four | 18.4% | 18.1% | 12.6% | 17.7% | 19.0% | 19.6% |
| Five | 12.4% | 8.1% | 5.6% | 24.7% | 11.2% | 10.8% |
| More than five | 14.6% | 10.2% | 21.8% | 16.2% | 16.6% | 12.1% |

Behavioral Risk Factor Survey (Cont'd.)

| | TOTAL | A. Northwest | B. Northeast | C. Central | D. Southwest | D. Southeast |
|---|----------|-----------------|-----------------|---------------|-----------------|-----------------|
| <u>Education</u> | (n=2000) | (n=458) | (n=74) | (n=173) | (n=946) | (n=339) |
| Never attended school, or only Kindergarten | 0.5% | 0.0% | 0.0% | 0.0% | 0.0% | 2.2% |
| Grades 1-8 (Elementary) | 2.1% | 1.3% | 4.0% | 0.3% | 4.1% | 0.5% |
| Grades 9-11 (Some high school) | 5.9% | 5.9% | 7.5% | 5.3% | 7.3% | 3.5% |
| Grade 12 or GED (High school graduate) | 28.0% | 25.5% | 27.8% | 31.3% | 27.3% | 29.1% |
| College 1 year to 3 years (Some college) | 33.2% | 35.3% | 34.9% | 34.4% | 31.9% | 31.9% |
| College 4 years or more (College graduate) | 30.3% | 31.9% | 25.7% | 28.7% | 29.4% | 32.9% |
| <u>Employment Status</u> | (n=2001) | (n=459) | (n=74) | (n=175) | (n=944) | (n=338) |
| Employed for wages | 54.0% | 49.3% | 59.1% | 60.0% | 52.7% | 54.9% |
| Self-employed | 6.6% | 4.7% | 7.1% | 5.0% | 7.7% | 7.5% |
| Out of work for more than a year | 2.6% | 3.1% | 0.0% | 6.1% | 2.0% | 1.2% |
| Out of work for less than a year | 2.0% | 1.2% | 1.0% | 2.9% | 3.1% | 0.4% |
| A homemaker | 5.7% | 8.0% | 4.0% | 5.9% | 5.0% | 5.4% |
| A student | 5.7% | 5.5% | 0.0% | 3.3% | 7.7% | 5.3% |
| Retired | 18.7% | 21.8% | 24.0% | 14.0% | 16.9% | 21.1% |
| Unable to work | 4.6% | 6.5% | 4.7% | 2.8% | 4.7% | 4.1% |

Behavioral Risk Factor Survey (Cont'd.)

| | TOTAL | A. Northwest | B. Northeast | C. Central | D. Southwest | D. Southeast |
|--------------------------------|----------|-----------------|-----------------|---------------|-----------------|-----------------|
| <u>Household Income</u> | (n=1210) | (n=292) | (n=50) | (n=105) | (n=569) | (n=188) |
| Less than \$10,000 | 3.8% | 2.5% | 0.8% | 2.8% | 4.0% | 6.0% |
| \$10,000 to less than \$15,000 | 5.1% | 5.2% | 7.3% | 4.9% | 3.9% | 7.2% |
| \$15,000 to less than \$20,000 | 4.9% | 5.1% | 4.2% | 2.3% | 7.5% | 2.0% |
| \$20,000 to less than \$25,000 | 8.6% | 10.5% | 11.9% | 5.0% | 8.1% | 9.2% |
| \$25,000 to less than \$35,000 | 13.4% | 14.8% | 3.8% | 14.9% | 15.4% | 9.5% |
| \$35,000 to less than \$50,000 | 19.4% | 19.0% | 29.7% | 16.6% | 20.9% | 16.8% |
| \$50,000 to less than \$75,000 | 18.3% | 17.6% | 20.7% | 22.0% | 16.3% | 19.8% |
| \$75,000 or more | 26.4% | 25.4% | 21.5% | 31.6% | 23.8% | 29.5% |
| <u>Poverty Status</u> | (n=1210) | (n=292) | (n=50) | (n=105) | (n=569) | (n=188) |
| Income under poverty line | 17.0% | 11.9% | 28.9% | 20.9% | 18.7% | 13.6% |
| Income over poverty line | 83.0% | 88.1% | 71.1% | 79.1% | 81.3% | 86.4% |
| <u>Military Service</u> | (n=2008) | (n=460) | (n=74) | (N=175) | (n=948) | (n=339) |
| Served | 8.2% | 10.1% | 5.4% | 10.9% | 6.0% | 9.1% |
| Did not serve | 91.8% | 89.9% | 94.6% | 89.1% | 94.0 | 90.9% |

Key Informant Surveys

| | | |
|---|---|--|
| Executive Director (6) | Coordinator | Manager |
| Registered Nurse (6) | County Commissioner | Manager of a Family Practice |
| Pharmacist (5) | Dentist | Medical Office Manager |
| Physician, M.D. (5) | Diabetes Program | Medical Social Worker |
| Nurse (2) | Director | Ophthalmologist |
| Retired (2) | Physician, D.O. | Pastor |
| RN, Case Manager (2) | Financial professional | Pediatric Dentist |
| Administrator | Head of Recreation Department | Pediatrician |
| Broker | Health and Wellness Specialist | President |
| Care Manager, LMSW | Health Clinic Director | RN, Director |
| Case management coordinator, BSN, RN | Healthcare Administration (RN) | RN, Parish Nurse at a homeless shelter for families and children |
| CEO | Hospital Administrator | Self employed |
| Clinic Director | Hospital Director of Home Care Programs | Vice President of Community Impact |
| CNO | Human Services Program Director | Vice President, Planning & Ancillary Services |
| Community Education and Outreach, Public Health | Lead Pastor | |

Resident (Underserved) Survey

| | TOTAL |
|------------------------|---------|
| <u>Gender</u> | (n=282) |
| Male | 21.6% |
| Female | 78.4% |
| <u>Age</u> | (n=283) |
| 18 to 24 | 14.5% |
| 25 to 34 | 23.0% |
| 35 to 44 | 15.2% |
| 45 to 54 | 17.3% |
| 55 to 64 | 24.4% |
| 65 to 74 | 4.6% |
| 75 or Older | 1.1% |
| <u>Race/Ethnicity</u> | (n=282) |
| White/Caucasian | 65.2% |
| Black/African American | 3.2% |
| Hispanic/Latino | 23.8% |
| Asian | 3.5% |
| Other | 4.3% |

| | TOTAL |
|--------------------------------------|---------|
| <u>Marital Status</u> | (n=282) |
| Married | 38.7% |
| Divorced | 24.5% |
| Widowed | 2.5% |
| Separated | 3.5% |
| Never married | 25.2% |
| Member of an unmarried couple | 5.7% |
| <u>Adults in Household</u> | (n=272) |
| One | 30.9% |
| Two | 45.2% |
| Three | 13.6% |
| Four | 5.9% |
| Five or more | 4.4% |
| <u>Children in Household < 18</u> | (n=272) |
| None | 54.0% |
| One | 14.5% |
| Two | 16.3% |
| Three | 8.0% |
| Four | 2.5% |
| Five or more | 4.7% |

| | TOTAL |
|------------------------------------|---------|
| <u>Children in Household <5</u> | (n=272) |
| None | 75.4% |
| One | 14.3% |
| Two | 8.8% |
| Three or more | 1.5% |
| <u>Employment Status</u> | (n=279) |
| Employed for wages | 48.0% |
| Self-employed | 3.6% |
| Out of work less than 1 year | 9.7% |
| Out of work 1 year or more | 5.7% |
| Homemaker | 6.8% |
| Student | 3.6% |
| Retired | 6.1% |
| Unable to work/disabled | 16.5% |
| <u>Household Income</u> | (n=273) |
| Less than \$10K | 22.7% |
| \$10K to less than \$15K | 21.1% |
| \$15K to less than \$20K | 14.3% |
| \$20K to less than \$25K | 10.3% |
| \$25K to less than \$35K | 12.1% |
| \$35K to less than \$50K | 10.3% |
| \$50K or more | 9.1% |

Ottawa County Community Health Needs Assessment Task Force

CHNA Task Force Members

Tim Breed, Director of Community Relations, Holland Hospital

Liz DeLaLuz, Director of Community Impact, Great Ottawa County United Way

Lynne Doyle, Executive Director, Community Mental Health of Ottawa County

Jodi Gogolin, Community Outreach Director, Holland Hospital

Marcia Mansaray, Epidemiologist, Ottawa County Department of Public Health

Rachel McDermott, Health System Educator, North Ottawa Community Health System

Patrick Moran, President, Greater Ottawa County United Way

Jodie Reimink, Coordinator of Community Programs, Spectrum Health Zeeland Community Hospital

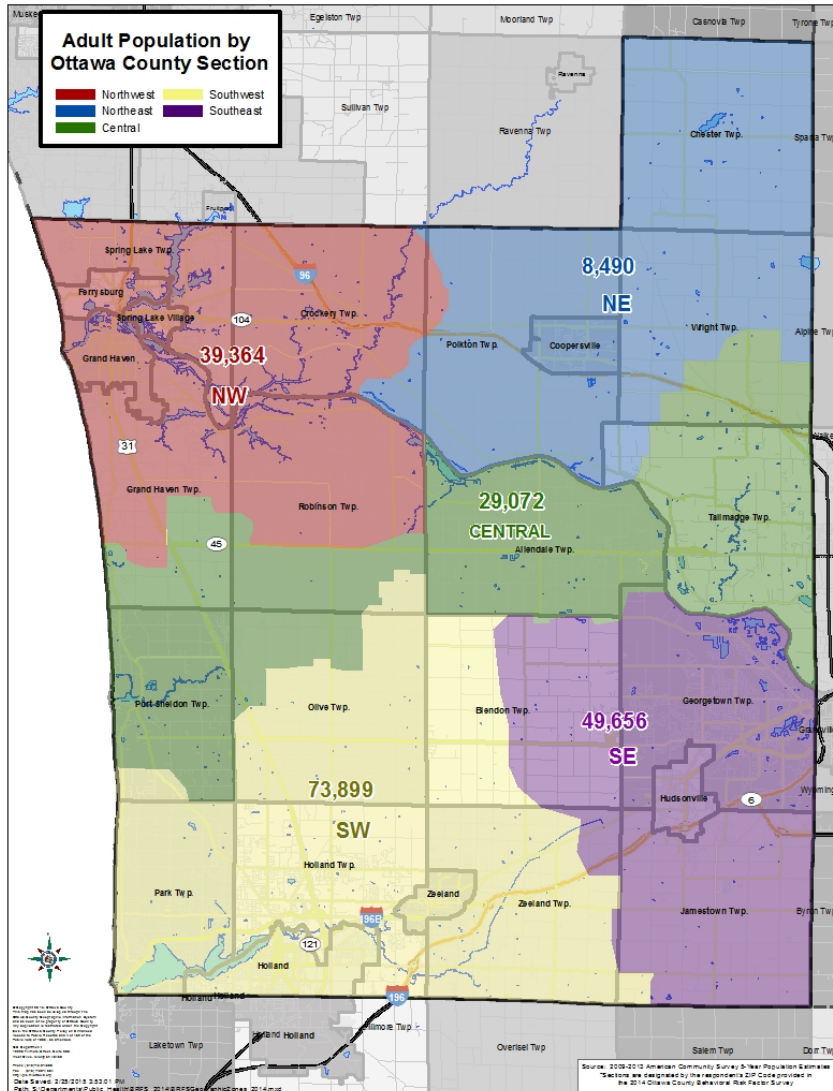
Lisa Stefanovsky, Health Officer, Ottawa County Department of Public Health

Tamara Vanderark-Potter, Director of Foundation & Community Services, Spectrum Health Zeeland Community Hospital

Jennifer VanSkiver, Chief Communications Officer, North Ottawa Community Health System

Ottawa County Map with sections

Ottawa County Map with Sections



| Section Name | Community Area | ZIP Codes* |
|-------------------|---|---------------------------------------|
| Northwest Section | Ferrysburg Grand Haven Spring Lake & surrounding areas | 49409, 49417 49456, 49448 |
| Northeast Section | Coopersville Chester Wright & surrounding areas | 49404, 49403 |
| Central Section | Allendale Port Sheldon Tallmadge & surrounding areas | 49401, 49430 49435, 49460 49534 |
| Southwest Section | Holland Olive Park Zeeland & surrounding areas | 49423, 49424 49464 |
| Southeast Section | Georgetown Hudsonville Jamestown & surrounding areas | 49315, 49418 49426, 49428 |

*For ZIP codes that cross county lines, only Ottawa County residents were surveyed

Previous Implementation Plan Impact- Exhibit B

Spectrum Health Zeeland Hospital

This document serves as the tool to identify the impact of actions taken from 2011-2014 to address the significant health needs in the Implementation Plans created as a result from the previous 2011 CHNA.

| Specific Health Need Goal | Metric | Impact of Implementation Plan |
|---|---|--|
| Access | | |
| Expand hospitalist coverage that allows for the redeployment of these primary care physicians back into their offices to facilitate greater ambulatory access. Physician recruitment will fill vacancies and add practitioners. | <ol style="list-style-type: none">1. Hire 4 hospitalists and 4 Advance Practice Providers.2. Efforts are continuing to recruit/replace physicians as needed.3. With the passage of the Affordable Care Act, SHZCH will provide assistance to patients in finding health insurance through the Federal Exchange and expanded Medicaid known as Healthy Michigan. | <ol style="list-style-type: none">1. We have achieved this goal through the hiring of the hospitalists and providers which has resulted in 24 hour/7 day hospitalist coverage for adult medicine.2. Physician practices serving Spectrum Health Zeeland Community Hospital (SHZCH) have added evening hours 4 nights/week and SHZCH services are open later in the evening to accommodate referrals. Zeeland-Georgetown physicians and Lakewood physicians have more time in their offices and practices and are seeing more than 100 additional patient visits per month.3. Trained Financial Resource Advisors are available to assist patients in finding health coverage through the Affordable Care Act. Financial Resource Advisors assist over 300 patients each month. |
| In cooperation with Spectrum Health Visiting Nurse Association, increase the number of Flu Immunization Clinics and the services offered. | Increase the number of Flu immunization clinics in the community | <p>In 2012-2014, 38 Flu immunization Clinics were held and 1,816 flu shots were given. In 2014, we have provided the greatest number of flu shots in the history of our program.</p> <ul style="list-style-type: none">• Beginning in 2012, blood pressure screenings and information on 211 and Whole Family Connection were made available at screenings, events and classes. |

Previous Implementation Plan Impact- Exhibit B

Spectrum Health Zeeland Hospital

| Support City on a Hill's Free Health Clinic through a hospital voucher program for their uninsured and/or underinsured patients. The vouchers cover prescribed minor radiology, lab procedures, EKG's and mammograms as charity care. | Continue or expand free voucher program at City on a Hill. | <ul style="list-style-type: none"> Voucher program continued at City on a Hill's Free Health Clinic to ensure that the uninsured/underinsured have access to imaging and laboratory services. In 2012-2014, SHZCH contributed \$112,030 in services for 588 patients through the voucher program at City on a Hill. In fall 2013, the Women's Health Initiative funding was discontinued from the Susan G. Komen Foundation. Funding to continue the program through 2014 was received from the Holland/Zeeland Community Foundation. |
|---|--|--|
| Explore development of a health clinic at the Early Childhood Center (ECC) in cooperation with Zeeland Public Schools. | Establish a functional health clinic at the Early Childhood Center in collaborative partnership with Zeeland Public Schools. | <ul style="list-style-type: none"> Due to leadership changes at Zeeland Public Schools (ZPS), new priority areas were identified and hospital resources were dedicated to developing those programs. Being a community hospital, we adapted to the changing needs of the community and it was decided to not pursue a health clinic at this time. An increase in student enrollment led to space at the Early Childhood Center being used for classrooms. ZPS and Spectrum Health Zeeland Community Hospital staff agreed on a plan of action that included the creation of the Learning About Nutrition through Activities (LANA) Preschool Program and support of the school nurse consultant role. |
| Specific Health Need Goal | Metric | Impact of Implementation Plan |
| Health Literacy | | |
| Implement Fuel Up to Play 60 (FUTP60) in partnership with the United Dairy Industry of Michigan & the Detroit Lions at Lincoln Elementary. | <ol style="list-style-type: none"> Encourage and track milk consumption and school breakfast participation at Lincoln Elementary. Continued to offer Zeeland Public Schools opportunity to participate in FUTP60 | <ol style="list-style-type: none"> Milk consumption remained steady and participation in school breakfast increased by 10% at Lincoln Elementary. Through partnership with the United Dairy Industry of Michigan, we improved health literacy by providing education on the importance of fruits and vegetable |

Previous Implementation Plan Impact- Exhibit B

Spectrum Health Zeeland Hospital

| | | |
|--|---|--|
| | program. | <p>consumption at Fuel Up to Play 60 events. Specific examples include the following:</p> <ul style="list-style-type: none"> • Hosted blender parties each year of the initiative for 350 7th and 8th graders at Cityside Middle School and provided education, recipes, and opportunities to sample fruits and vegetables through blended smoothies. • Provided nutrition education aimed at increasing the health literacy of students and provided healthy snacks at The Bridge Youth Ministry. |
| Expand Learn for Life (LFL)! School Health Education Programs. | <ol style="list-style-type: none"> 1. Track number of contacts made by Learn for Life! school nurse consultant through staff trainings and developing student care plans. 2. Work with principals to establish and support healthy learning environments related to nutrition physical activity and tobacco, as needed, through the LANA Preschool Program. | <ol style="list-style-type: none"> 1. Between 2012- 2014, our school nurse consultant provided education for school staff on topics such as diabetes, classroom hygiene, communicable diseases, asthma, allergies, seizures, epi-pens, catheterization, AED training, intense feeding requirements and reproductive health to more than 800 Zeeland, Hudsonville and Allendale Public School staff. The school nurse consultant improved staff knowledge, awareness and skills needed to manage chronic conditions of students while at school. <ul style="list-style-type: none"> • The number of school contacts increased each year of the implementation plan. 2. In 2013, school staff identified early childhood nutrition as a priority. In response, SHZCH began the LANA Preschool Program to better meet the needs of Zeeland Public Schools and improve health literacy among the youngest students. <ul style="list-style-type: none"> • The LANA Preschool program has reached over 1,000 kids since it started in January, 2014. The program has expanded to the PreK school program at Hudsonville Public Schools, Hudsonville ECC and at the Georgetown Christian Preschool Learning Center. |

Previous Implementation Plan Impact- Exhibit B

Spectrum Health Zeeland Hospital

| | | |
|---|--|--|
| Develop a Community Health Education Scholarship Program for classes including diabetes education and clinic follow-up visits. | To develop and implement a Community Health Education Scholarship Program. | <p>Changes in public policy, the Affordable Care Act, altered this goal. With these changes in mind, the SHZCH staff worked to achieve the same results of our original goal by expanding coverage of classes to Medicaid-eligible participants.</p> <ul style="list-style-type: none"> • Since October 2012, we have had 17 Medicaid participants complete “Childbirth for New Parents” class. • In 2013-2014, 25 Medicaid patients and 123 Medicaid HMO patients received group and/or individual diabetes education. |
| Increase participation in key community events and bring relevant health education messages by attending more community events and bringing more comprehensive services to each function. | Increase in the number of community events that have SHZCH representation and increase the number of class/event participants. | <p>Since implementing the Community Health Improvement Plan, we’ve completed the following:</p> <ul style="list-style-type: none"> • Participated in 49 Community Events reaching over 45,000 people. • Began partnering with the Helen DeVos Children’s Hospital Injury Prevention Program to increase safety/injury prevention messages and awareness in 2013. We participated in 9 community events reaching over 300 community members. • In 2014, we hosted 7 car seat check events, conducted 15 individual appointments at SHZCH, 3 Safe Kids Camps and held 6 helmet safety events reaching over 4,300 people. • Expanded availability of community education classes and programs from 18 in 2012 reaching 1,521 people to 21 in 2014 reaching 2,383 people including: Childbirth weekend/online options, Matter of Balance, Healthy Weighs to Live, FitKids360, and the Better Breather’s Club Harmonica Program for those struggling with COPD. • Continued the weekly Wellspring radio show that highlights health issues. • Expanded the <i>Well for Life</i> newsletter to 4 times a |

Previous Implementation Plan Impact- Exhibit B

Spectrum Health Zeeland Hospital

| | | year beginning with the fall 2014 edition. |
|--|---|--|
| Establish a review process to determine which hospital-wide education pieces need to be translated into other languages and set goals for accomplishing translation. | Expand the number of educational materials that are available in non-English languages. | <ul style="list-style-type: none">• Efforts directed at hospital-wide educational materials have changed our ability to work with patients in their native language and has decreased the likelihood of misunderstandings and increased patient safety by eliminating language barriers. In addition, the following enhancements were also implemented:<ul style="list-style-type: none">• Signs in Spanish and other languages have been posted in public areas.• Vietnamese and Spanish “Patient Rights & Responsibilities” were produced and made available for patients.• In January 2013, Krames On-Demand went live providing medical records and educational materials in a multitude of languages accessible to staff and patients.• Since becoming a part of the Spectrum Health System, we have access to materials and translation services in practically any language that could present at SHZCH. |