SPECTRUM HEALTH

Community Health Needs Assessment for:

Mecosta County Medical Center d/b/a Spectrum Health Big Rapids 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.

Spectrum Health Big Rapids Hospital Community-Wide Health Needs Assessment

Research Results from the 2014-15 Community-Wide Health Needs Assessment

A Research Project for

SPECTRUM HEALTH

Big Rapids Hospital

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VP RESEARCH AND EVALUATION
VISION · INSIGHT · PRAXIS

April 29, 2015

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INTRODUCTION

Background and Objectives

- VIP Research and Evaluation was contracted by Spectrum Health to conduct a Community Health Needs Assessment (CHNA), which included a Behavioral Risk Factor Survey (BRFS) for Spectrum Health Big Rapids Hospital (SHBRH).

- 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 Spectrum Health Big Rapids Hospital communities began meeting to discuss how the community could collectively meet the requirement of a CHNA.

Background and Objectives (Cont'd.)

- The objective of the BRFS is to obtain information from SHBRH area residents about a wide range of behaviors that affect their health. More specific objectives include measuring each of the following:
  - Health status indicators, such as perception of general health, satisfaction with life, weight (BMI), and levels of high blood pressure
  - Health risk behaviors, such as smoking, drinking, diet/nutrition, and physical activity
  - Clinical preventative measures, such as routine physical checkups, cancer screenings, oral health, and immunizations
  - Chronic conditions, such as diabetes, asthma, heart disease and cancer, and the management of chronic conditions

- The overall objectives of CHNA include:
  - Gauge the overall health climate or landscape of the regions primarily served by Spectrum Heath Big Rapids Hospital, including primarily, Lake, Mecosta, and Osceola counties
  - 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

Background and Objectives (Cont'd.)

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

EXECUTIVE SUMMARY

Executive Summary

In 2014, VIP Research and Evaluation was contracted by Spectrum Health to conduct a Community Health Needs Assessment (CHNA), which included a Behavioral Risk Factor Survey (BRFS) for Spectrum Health Big Rapids Hospital (SHBRH).

The primary goal of the study was to identify key health and health service issues in the regions served by SHBRH, including primarily Lake, Mecosta, and Osceola counties. 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=1,653) and a Resident Survey (underserved sub-populations) (n=123). Health care professionals and other community leaders, known as Key Stakeholders or Key Informants, provided input via in-depth interviews (n=5) and an online survey (n=134). Secondary data gathered from state and national databases was also used to supplement the overall findings.

Executive Summary (Cont'd.)

Most adult residents in the SHBRH area consider themselves to be in good to excellent overall health. Residents are satisfied with their lives, and the large majority are able to access social and emotional support when needed.

Health care coverage has expanded in the last several years, and coverage levels are ahead of state and national levels. More than eight in ten adults have a personal health care provider, and most adults engage in clinical preventive practices such as routine physical checkups and cancer screenings.

Dental care is an area that many neglect, with four in ten residents reporting no dental cleanings in the past year.

Despite an increase in insured residents, more than one in ten adults has had to forego a needed doctor visit due to cost in the past year, as deductibles and co-pays can be prohibitive. A similarly widespread barrier exists with respect to dental care.

Additional barriers to care include a shortage of providers, particularly those accepting Medicaid, and transportation challenges. Lake County faces a particularly critical provider (both primary and specialty) shortage.

These barriers are particularly prominent among the vulnerable/underserved population, one-quarter of whom have had trouble getting needed health care for either themselves or their family in the past two years.

Executive Summary (Cont'd.)

Mecosta County fares better than peer counties on many mortality and morbidity measures, including adult overall health, male and female life expectancy, rates of adult obesity and diabetes, and deaths from diabetes or cancer.

However, Mecosta County fares less favorably than peer counties on many social measures, such as poverty, unemployment, high school graduation rates, and violent crime. Further, poverty is pervasive in Lake County, where over half of children and one in four residents in general live in poverty.

While Mecosta County men and women enjoy longer life expectancy than those in peer counties, life expectancies for men and women in the service area overall are lower than the national averages.

Chronic conditions (diabetes, cardiovascular disease, cancer) are generally less prevalent among adults in the SHBRH area than in Michigan as a whole, with the exceptions of asthma and COPD.

Even so, one in ten area adults has diabetes.

In terms of risk behaviors, smoking stands out as a trouble spot, with nearly one-third of area adults classified as smokers. Area health care workers feel that the high incidence of smoking is not being adequately addressed in the community.

Executive Summary (Cont'd.)

Mental health and substance abuse are additional areas that health care workers consider to be in need of additional attention. More than one in ten adult residents reports poor mental health 14 or more days of the month, and three in ten Osceola and Lake County youths report experiencing depression during the past year.

The majority of area adults are overweight or obese. Fruit and vegetable consumption is poor among adults and youths, and adult exercise levels are low.* Obesity is another area that is labeled as having an insufficient community response.

Additional areas identified by Key Stakeholders and Key Informants as needing more services and programming are management and prevention of chronic disease/health conditions, prevention and wellness in general, transportation, and programs targeting uninsured/underinsured and low income residents.

There is a direct relationship between positive health outcomes and both education and income; those with higher incomes and more education are likely to report better health and greater satisfaction with life, and are more likely to have health coverage, visit a dentist, refrain from smoking, and exercise regularly. They are less likely to have chronic health conditions, high blood pressure, or high cholesterol.

*Residents reported their level of activity during the 30 days prior to taking the survey, which was administered in the winter months, when fewer opportunities for outdoor activity are present.

Executive Summary (Cont'd.)

Since the last CHNA conducted in 2011, Key Stakeholders report improvements to the health landscape by way of increased agency collaboration, increased community-based wellness activities (e.g., programming to address obesity, diabetes, and stroke), increased access to services resulting from the merger of the local hospital with Spectrum Health, and the creation of the Cancer Center in Reed City.

Community members (both residents and health care professionals) suggest further strategies to improve the health care landscape. Priorities include:

- Increased coordination and information sharing among service providers
- Community programs to educate and engage individuals and families in healthy pursuits (exercise events, cooking classes, education about nutrition and accessing healthy foods)
- Support for adopting and maintaining a healthier lifestyle
- Raising awareness of existing services
- Bringing additional PCPs, specialists, and urgent care facilities into the community
- Increasing mental health services (particularly outpatient services)
- Increasing health care support and access (including dental care and mental health care) to the uninsured, poor, military veterans, and elderly
- Minimizing transportation barriers through coordination of resources across agencies, increasing home visits, and creating a volunteer network to provide transportation services

Next steps may include the creation of a steering committee to work on prioritizing and then developing a coordinated response to issues deemed most important to work on, within a specific time frame, such as 1 year, 3 year, and 5 year goals. Above all, next steps involve the establishment of careful priorities for action that once implemented, will benefit the community for the long haul.

Executive Summary (Cont'd.) – **Strengths**

Health Indicators

- ✓*Higher life expectancy than peer counties (both men/women)*
- ✓*Better adult overall health status than peer counties*
- ✓*Higher satisfaction with life than MI*
- ✓*Fewer preterm births than peer counties*
- ✓*Lower infant mortality rate than MI/US*
- ✓*Fewer adults overweight or obese than MI/US*
- ✓*Fewer residents with high cholesterol compared to MI/US*
- ✓*High blood pressure slightly less than MI*
- ✓*Lower prevalence of adult diabetes and diabetes deaths than peer counties*
- ✓*Lower rates of skin cancer and other cancers compared to MI/US; cancer death rate lower than peer counties*
- ✓*Lower prevalence of Alzheimer's disease/dementia than peer counties*

Preventive Practices

- ✓*Higher childhood immunization rates than MI/US*
- ✓*More having routine checkups compared to MI/US*
- ✓*More with mammograms in past two years compared to MI/US*
- ✓*More having colorectal cancer screening in past 5 years compared to MI/US*
- ✓*Higher proportion of females having routine pap test compared to peer counties*
- ✓*More with PSA test than MI*
- ✓*More residents age 65+ receiving flu vaccine than MI/US*

Risk Behaviors

- ✓*Higher rates of adult physical activity compared to peer counties*
- ✓*More youth physically active than MI/US*
- ✓*Less adult/youth binge drinking, adult heavy drinking, and youth cigarette smoking than MI/US*
- ✓*More youth with adequate fruit /vegetable consumption than MI/US (but still a minority of youth)*
- ✓*Fewer teen births than in peer counties*

Social Indicators

- ✓*Lower poverty in Mecosta County than MI/US*
- ✓*Fewer children in single parent households compared to peer counties*
- ✓*Osceola and Lake violent crime rate lower than MI/US*
- ✓*Higher degree of social support compared to peer counties*
- ✓*High degree of civic pride and volunteerism*

Health Care Access

- ✓*More residents with health insurance vs. 2011*
- ✓*More residents insured and having personal health care provider compared to MI/US; more than nine in ten underserved have PCP and nearly 97% insured*
- ✓*Fewer foregoing medical care due to cost than MI/US*

Executive Summary (Cont'd.) – **Opportunities for Improvement**

Health Indicators

- ✓*Lower life expectancy than US*
- ✓*General health worse than MI/US; among those with income less than $20K, four in ten rate health as fair/poor*
- ✓*Nearly one in four Lake County youth obese*
- ✓*One in ten adults with diabetes, slightly higher than US*
- ✓*Higher rates of asthma and COPD than MI/US*
- ✓*High blood pressure more prevalent than US*

Preventive Practices

- ✓*Fewer residents having cholesterol checked than MI/US*
- ✓*Fewer with appropriately timed pap test compared to MI*
- ✓*One in three have not visited dentist in past year*
- ✓*Less access to healthy food and parks than peer counties*

Risk Behavior Indicators

- ✓*Three in ten youth reporting depression*
- ✓*Fewer adults physically active than MI/US*
- ✓*29% adult smokers, substantially higher than MI/US; smoking occurring in more than three in ten pregnancies*
- ✓*Higher prevalence of adult smoking and adult binge drinking than peer counties*
- ✓*Less adult fruit and vegetable consumption than MI/US*
- ✓*Higher teen birth rates than MI/US*

Social Indicators

- ✓*In Lake County, one in four residents and over half of children living in poverty; in Osceola County, one in five residents and one-third of children living in poverty*
- ✓*High unemployment*
- ✓*Higher housing costs/more housing stress than peer counties*
- ✓*Lower high school graduation rates than in peer counties; no high school diploma for one in five Osceola/Lake County men*
- ✓*Lacking social/emotional support compared to MI*
- ✓*Mecosta violent crime rate higher than MI/US/peer counties*
- ✓*Much higher child abuse/neglect rates in Mecosta/Lake counties than in MI/US*

Health Care Access

- ✓*Far fewer PCPs per capita than MI; Lake County's rate less than one-quarter MI's rate*
- ✓*Lack of access to providers who accept Medicaid, treat the uninsured, and/or practice in the more rural areas*
- ✓*Need for services targeting urgent care, mental health treatment (mild to severe), substance abuse, dermatology, and oral surgery*
- ✓*Need for programs targeting obesity reduction, smoking, substance abuse, wellness/prevention*
- ✓*Cost barrier to care (co-pays/deductibles) and to a healthier lifestyle for underserved*
- ✓*More than one in ten foregoing needed doctor visit due to cost; same for dental care*
- ✓*Lack of transportation a barrier for underserved*

Key Findings

Health Care Access

+ Nearly nine in ten adults in the SHBRH area have health insurance, and more than eight in ten have a medical home.
+ More people have health care coverage now compared to 2011, largely due to the Affordable Care Act and the Healthy Michigan Plan.
- The SHBRH area has far fewer primary care physicians per capita than Michigan as a whole, and Lake County faces a particularly stark shortage, with fewer than one-fourth the number of PCPs per capita compared to Michigan overall.
- Provider options are especially limited for residents with Medicaid or no insurance.
- Despite the increase in insured residents, several barriers prevent citizens from obtaining needed care, most notably cost barriers, which can include the high cost of co-pays and/or deductibles for insured residents. The cost barrier is particularly prominent among the underserved population.
- Other barriers include transportation issues and a lack of available appointments.
- In addition to barriers to medical care, more than one in ten face barriers to obtaining needed dental care, and these barriers are nearly always cost-related.
- Service gaps identified by health care workers as most critical include programs targeting obesity, prevention and wellness programs, mental health services, and programs targeting uninsured/underinsured and low income residents.

Key Findings (Cont'd.)

Health Status

+ Mecosta County residents enjoy higher life expectancy than those in peer counties, and area residents have higher satisfaction with life than Michigan residents overall.
- However, life expectancy among area residents is lower than the national average.
- Further, more area adults report poor to fair overall health compared to state and national statistics, and physical health status is worse among area adults compared to Michigan in general. Mental health is roughly on par with the state.
+ Incidence of high cholesterol is lower among area adults than in the state and nation as a whole, and high blood pressure is slightly lower than the state incidence, although it is higher than the nationwide rate.
+ Lower percentages of adults are overweight or obese compared to the state and nation as a whole.
- Still, more than six in ten adults are overweight or obese, and nearly one in four Lake County youths are obese.
+ Infant mortality is lower than state and national rates.

Key Findings (Cont'd.)

Chronic Disease

+ Rates of skin cancer and other cancers are lower among area adults than in the state and nation as a whole.
- One in ten adults have diabetes, and this rate is slightly higher than the national percentage, although slightly lower than Michigan overall.
- Rates of adult asthma and COPD are higher than state and national statistics.
- In addition, rates of angina/coronary heart disease, heart attack, and stroke are all higher among area adults than in the nation as a whole but lower than in Michigan overall.

Key Findings (Cont'd.)

Clinical Preventive Practices

+ Eight in ten adults have visited a physician for a routine checkup within the past year, a far greater percentage than in the state or nation.

- However, cholesterol screening levels are lower than in the state and nation as a whole. Three in ten have never had their cholesterol checked.

+ The majority of older adults recommended to receive cancer screening (breast, cervical, prostate, and colon) are doing so, and appropriately timed breast and colon screening rates are ahead of the state and nation.

- However, fewer are being screened for cervical cancer compared to the state as a whole.

+ Most adults age 65 or older have received a flu vaccine in the past year and most have received a pneumonia vaccine at some time.

- Dental care lags behind the state and nation, with four in ten area adults having had no dental cleaning within the past year. Among those with the lowest household incomes and those with less than a high school education, a majority have not visited a dentist in the past year.

Key Findings (Cont'd.)

Lifestyle Choices/Behaviors

+ Most people know what they need to do to live a healthier lifestyle, such as exercising, eating healthier foods, and getting plenty of sleep.
- Thus, advocating for more education about healthy lifestyle choices is probably not the best way to utilize resources.
+ Residents recognize that what prevents them from making positive changes is cost, as well as lack of energy, time, and willpower.
+ Therefore, if policies are to focus on ways to encourage 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 quick, easy ways to prepare delicious healthy meals, and (4) increase access (affordable, convenient location, ease of use) to gyms, recreation areas, and community exercise programs and activities, especially in the winter months.
+ Education delivered in person at easily-accessible community sites is likely to be more successful with underserved residents than education delivered online.

Key Findings (Cont'd.)

Risk Behaviors

+ Area adults are more physically active than those in peer counties, and area youth are more active than those in the state and nation as a whole.
- However, area adults are less active compared to those state-wide or nation-wide.*
- Nearly three in ten area adults are considered to be smokers, considerably higher than statewide and nationwide rates.
+ Incidence of binge drinking (adult/youth) and heavy drinking (adult) are both lower than the state or the nation, as is incidence of youth cigarette smoking.
- Nearly nine in ten area adults do not eat an adequate amount of fruits and vegetables daily.

*Residents reported their level of activity during the 30 days prior to taking the survey, which was administered in the winter months, when fewer opportunities for outdoor activity are present.

Key Findings (Cont'd.)

Disparities in Health

- There continue 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
  - Report good physical and mental health
  - Be satisfied with life
  - Receive adequate social and emotional support
  - Have health coverage
  - Exercise
  - Refrain from smoking cigarettes
  - Consume adequate amounts of fruits and vegetables
  - Visit a dentist and have their teeth cleaned
  - Receive vaccinations for the flu
  - Avoid chronic health conditions, including diabetes, asthma, cardiovascular disease, non-skin cancers, COPD, and arthritis
  - Avoid high blood pressure and high cholesterol

- 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 – **A Comparison of Mecosta County to Peer Counties**

	Better (Most Favorable Quartile)	Moderate (Middle Two Quartiles)	Worse (Least Favorable Quartile)
MORTALITY	Cancer deaths	Alzheimer's disease deaths	
	Chronic lower respiratory deaths (CLRD)	Chronic kidney disease deaths	
	Diabetes deaths	Coronary heart disease deaths	
	Female life expectancy	Stroke deaths	
	Male life expectancy		
	Motor vehicle deaths		
	Unintentional injury (including motor vehicle)		
MORBIDITY	**Better (Most Favorable Quartile)**	**Moderate (Middle Two Quartiles)**	**Worse (Least Favorable Quartile)**
	Adult diabetes	Cancer	
	Adult obesity	Gonorrhea	
	Adult overall health status	Older adult asthma	
	Alzheimer's disease/dementia	Older adult depression	
	HIV		
	Syphilis		
	Preterm births		

The above Summary Comparison Report provides an "at a glance" summary of how Mecosta 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, Mecosta County.

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

ACCESS

Better (Most Favorable Quartile)	Moderate (Middle Two Quartiles)	Worse (Least Favorable Quartile)
Older adult preventable hospitalizations	Primary care provider access	Cost barrier to care
	Uninsured	

HEALTH BEHAVIORS

Better (Most Favorable Quartile)	Moderate (Middle Two Quartiles)	Worse (Least Favorable Quartile)
Adult female routine pap tests		Adult binge drinking
Adult physical activity		Adult smoking
Teen births		

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

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

SOCIAL FACTORS

Better (Most Favorable Quartile)	Moderate (Middle Two Quartiles)	Worse (Least Favorable Quartile)
Children in single parent households		High housing costs
Inadequate social support		On time high school graduation
		Poverty
		Unemployment
		Violent crime

ENVIRONMENT

Better (Most Favorable Quartile)	Moderate (Middle Two Quartiles)	Worse (Least Favorable Quartile)
Annual average PM2.5 concentration	Living near highways	Access to parks
Drinking water violations		Housing stress
		Limited access to healthy food

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

DETAILED FINDINGS

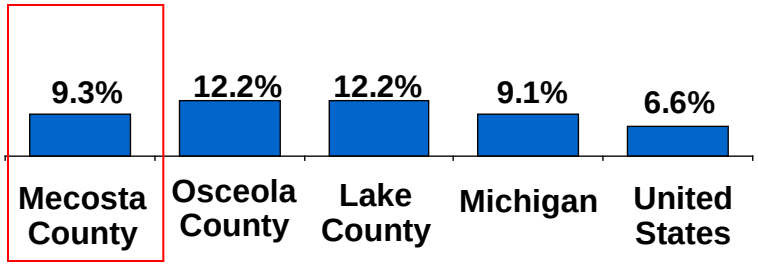
Secondary Data Sources

Social Indicators

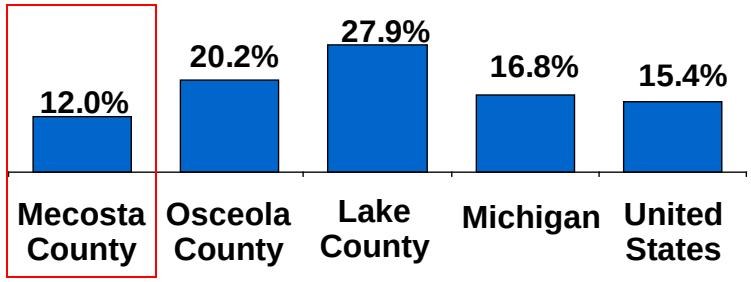
While the unemployment rate in Mecosta County is on par with the state it is much higher than the U.S. The unemployment rates for Lake and Osceola counties are far higher than MI or the U.S. Although the proportion of people living in poverty is lower in Mecosta County vs. MI or the U.S., they are much higher in Lake and Osceola counties. In fact, more than one in four Lake County residents lives in poverty.

Unemployment and Poverty Rates

Population Age 16+ Unemployed and Looking for Work



Percentage of People in Poverty

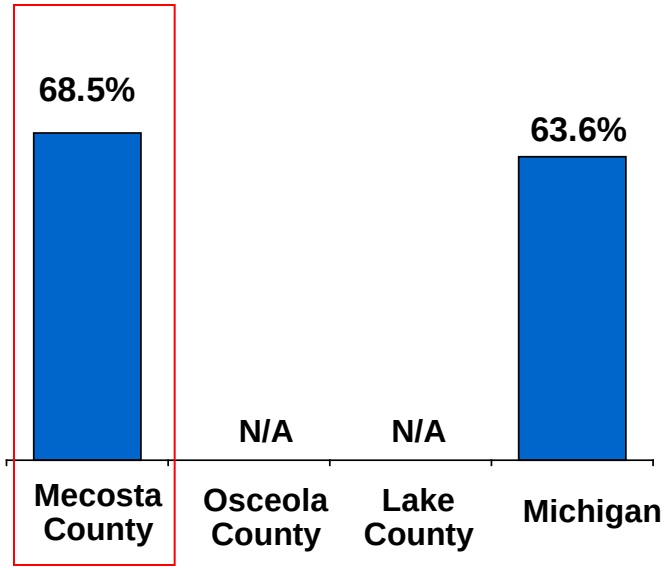


Source: Bureau of Labor Statistics, Local Area Unemployment Statistics, County Health Rankings. 2009-2013 American Community Survey 5-Year Estimates. Counties and MI and US 2014. Data compiled from various sources and dates.

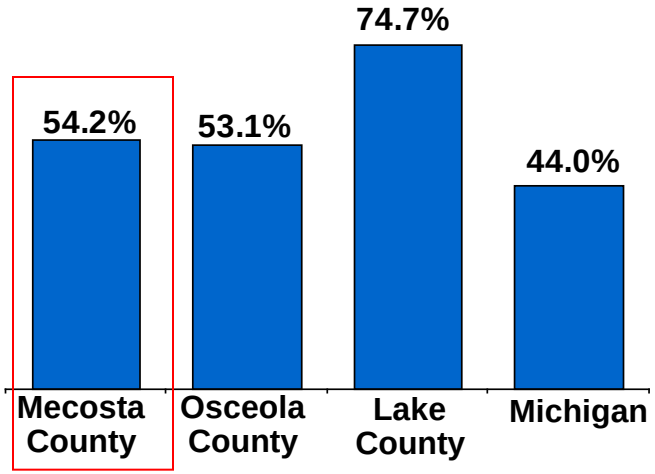
The proportion of children is slightly higher in Mecosta County compared to Michigan proportions. Data for Osceola and Lake counties are not available. Compared to the state, the proportions of Medicaid paid births are somewhat higher in Mecosta and Osceola counties and greatly higher in Lake County, with Medicaid funding almost three in every four births.

Children Born Into Poverty

Children Ages 1-4 Receiving WIC (2013)



Medicaid Paid Births (2012)



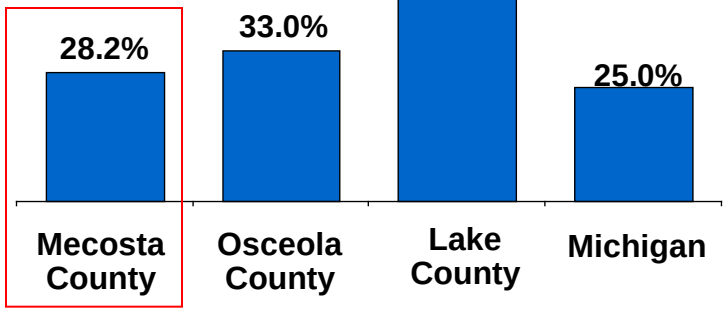
Source: Kids Count Data Book. Counties and MI 2013.

Note: The WIC percent is based on the population ages 1-4. Data for 2006-09 reflect the county of service, but subsequent data are based on the county of residence. Because of these changes, accurate data for some counties, including Osceola and Lake, are not available.

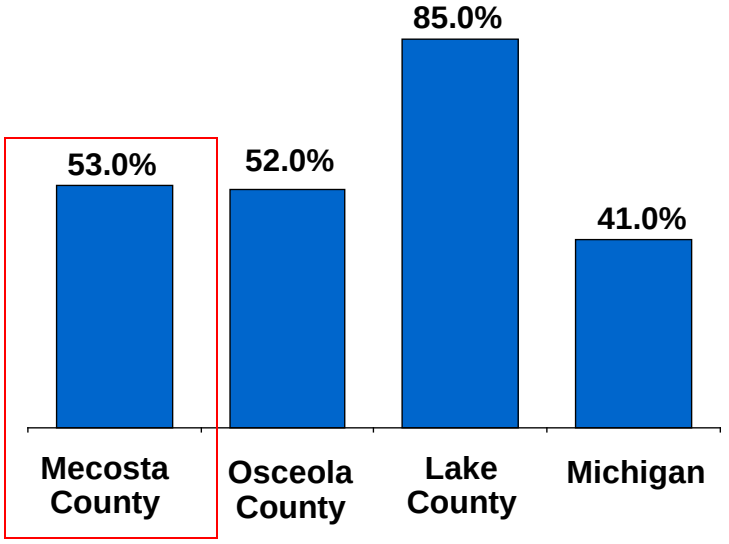
Compared to MI, the proportion of children living in poverty is greater in Mecosta and Osceola counties compared to the state, while the proportion in Lake County is more than double the state average. Additionally, the proportions of students eligible for free or reduced price school lunches are somewhat higher in Mecosta and Osceola counties compared to the state, while Lake County is again more than double the state average.

Children Living in Poverty

Percentage of Children (< Age 18) in Poverty



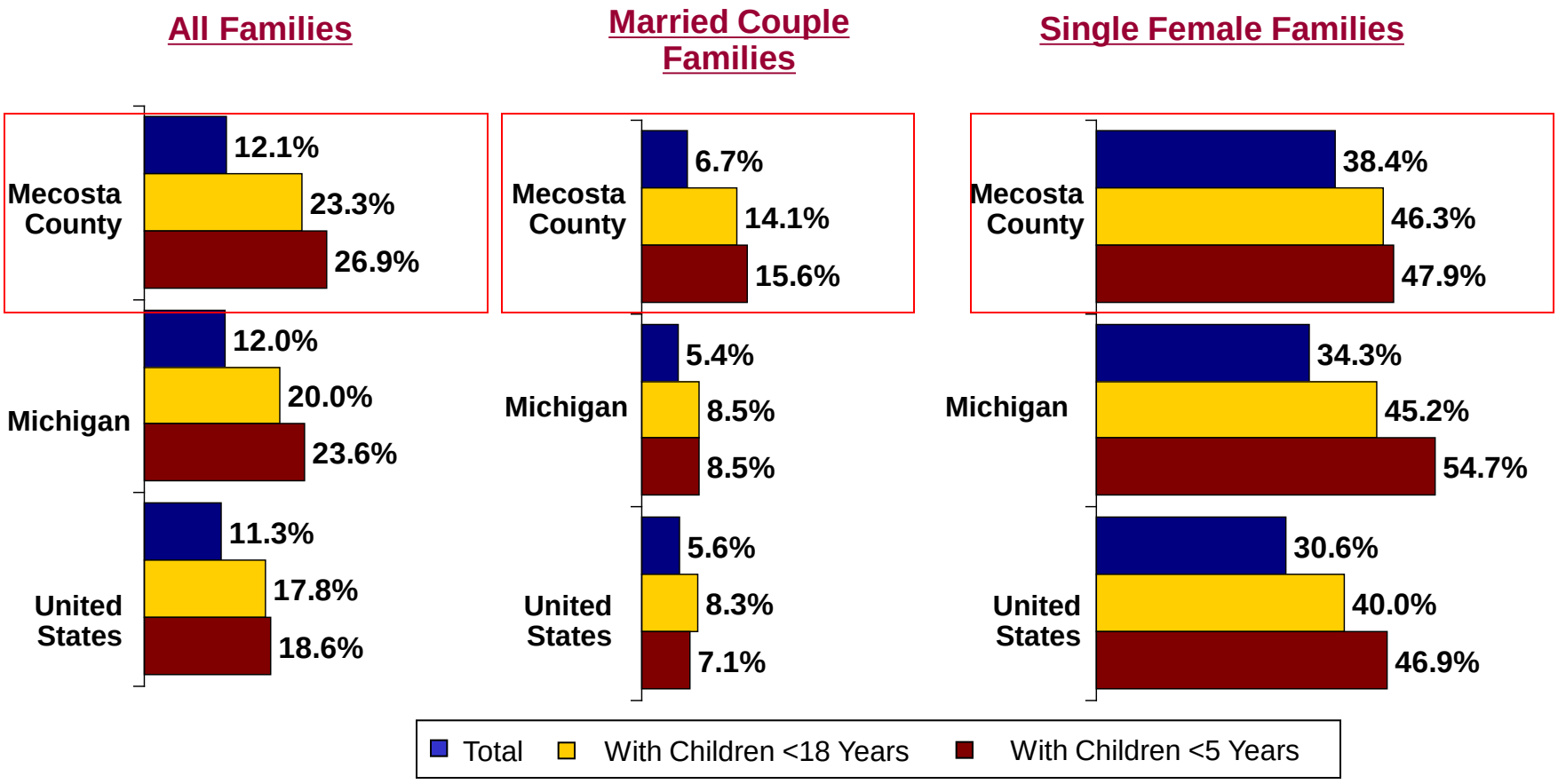
Percentage of Students Eligible for Free/Reduced Price School Lunches



Source: 2014 County Health Rankings

In general, slightly more families with children under age 18 live below the poverty line in Mecosta County compared to the state or nation. Further, poverty rates for married couple families with children are much higher in Mecosta County than in MI or the U.S. For example, 15.6% of married couple families with children under 5 live in poverty, over double the U.S. rate of 7.1%. More alarming, almost half of single female families with children under age 5 in Mecosta County live in poverty, a rate lower than MI but higher than the U.S.

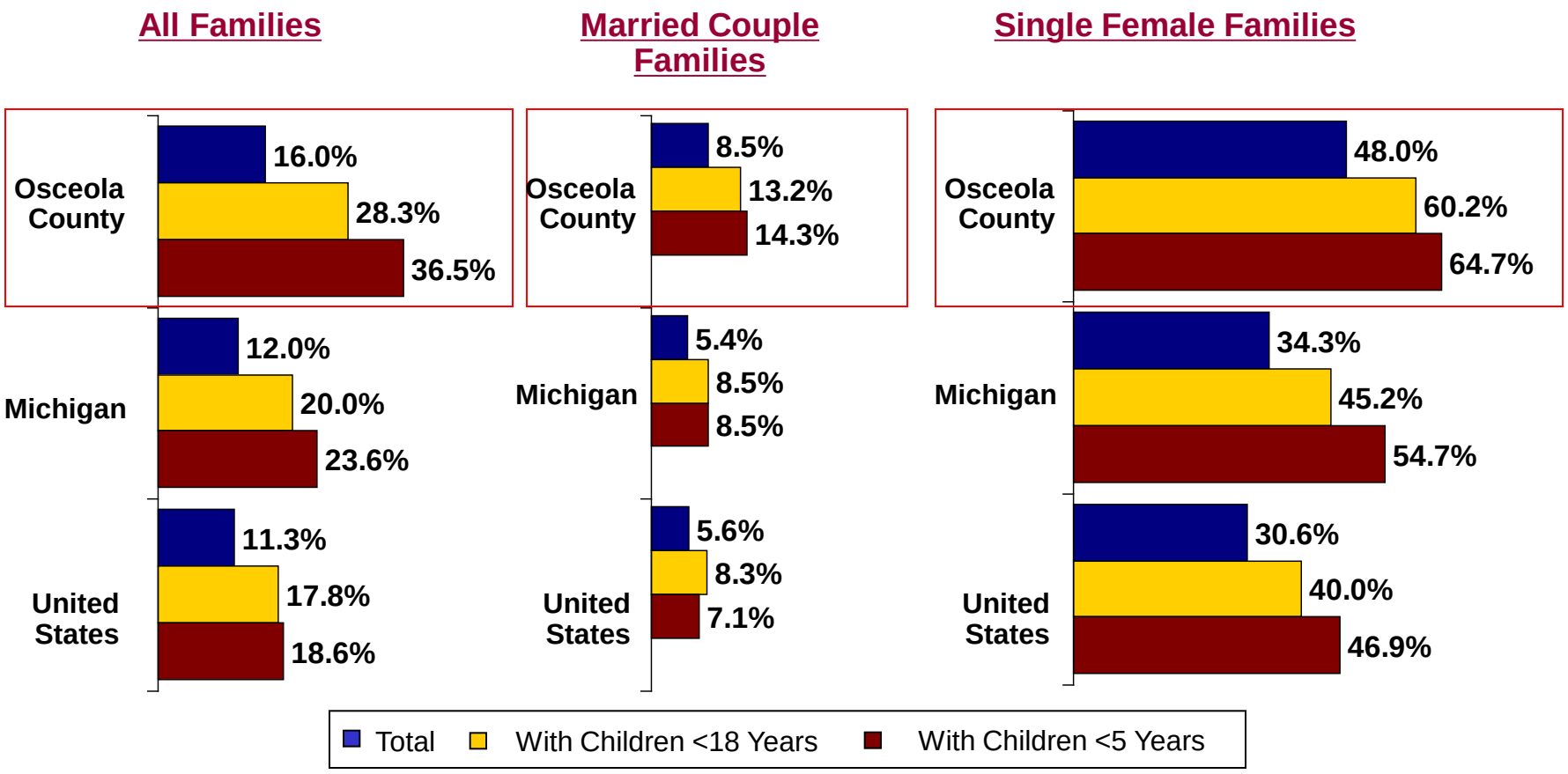
Poverty Status of Families by Family Type in Mecosta County (% Below Poverty)



Source: US Census, 2009-2013 American Community Survey 5-Year Estimates, Data Profiles, Selected Economic Characteristics

The proportion of all families living in poverty in Osceola County is much higher than in Michigan and the U.S. Further, poverty rates for Osceola County married couples are much higher than in the state or nation. Rates for single female households in Osceola County are also alarmingly high compared to MI and the U.S., as almost two thirds (64.7%) of single-female families with children under age 5 live in poverty.

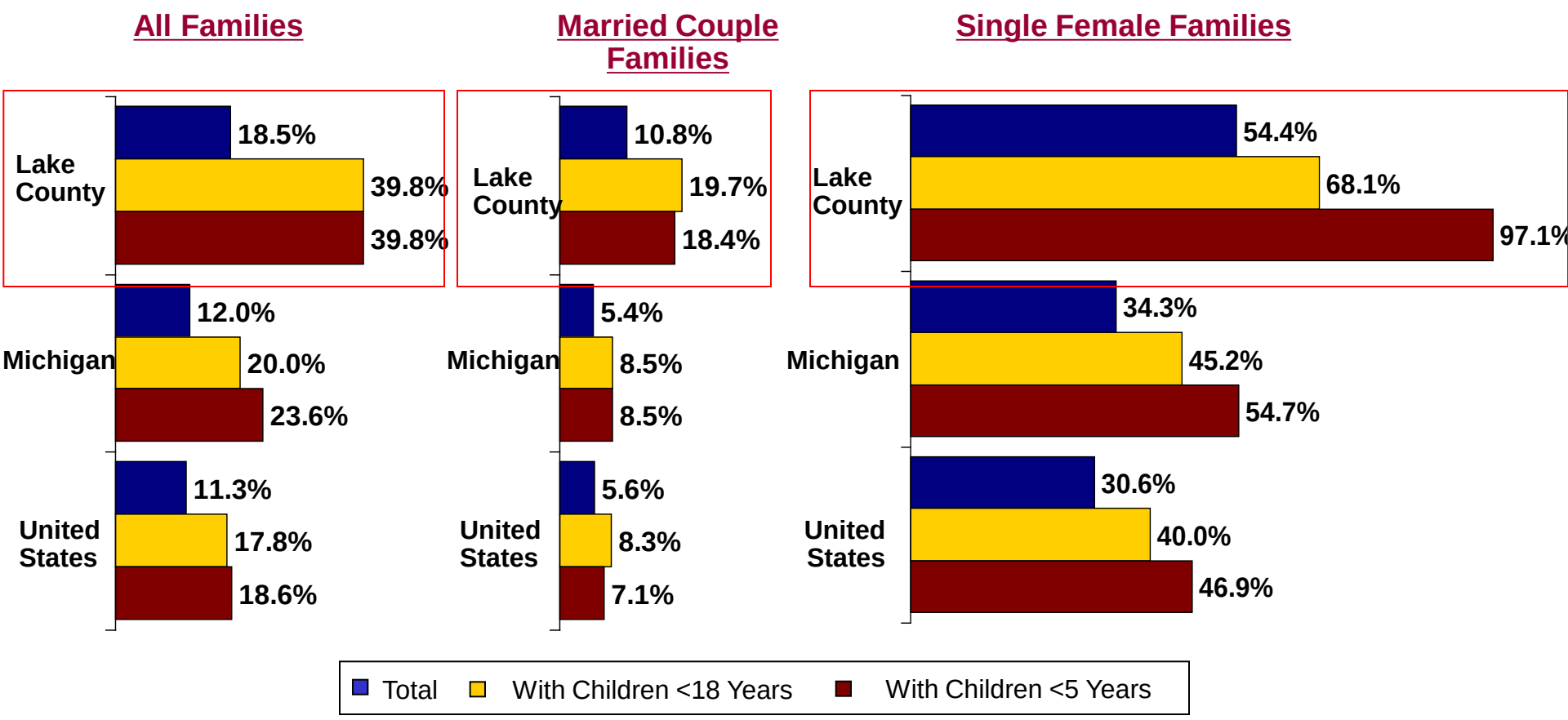
Poverty Status of Families by Family Type in Osceola County (% Below Poverty)



Source: US Census, 2009-2013 American Community Survey 5-Year Estimates, Data Profiles, Selected Economic Characteristics

For Lake County, poverty rates are even more dire. The proportion of families living in poverty in Lake County is far higher than in Michigan and the U.S. Four in ten Lake County families with children lives in poverty. The county exceeds both the state and nation in families living in poverty with children under 18 years of age. In fact, for single female families with children under 5, almost all (97.1%) live in poverty, which is extremely concerning.

Poverty Status of Families by Family Type in Lake County (% Below Poverty)



Source: US Census, 2010 American Community Survey, Data Profiles, Selected Economic Characteristics

Greater proportions of men and women from Osceola and Lake counties have not graduated from high school in comparison to MI or the U.S. Mecosta County residents receive Associate's degrees at a higher level than the U.S. and MI, but still receive less higher education overall. The greatest disparity in Bachelor degrees is seen between Lake County residents, especially women, and their state and national peers.

Educational Level Age 25+

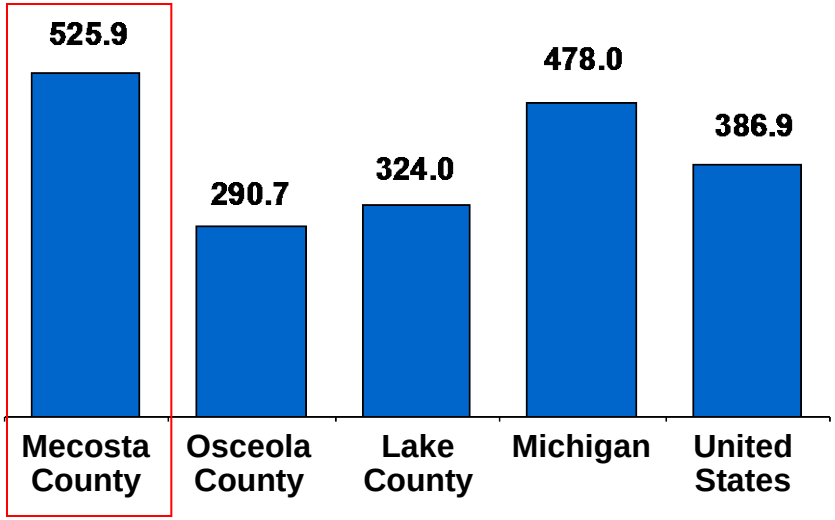
	Men					Women				
	Mecosta	Osceola	Lake	MI	U.S.	Mecosta	Osceola	Lake	MI	U.S.
No Schooling Completed	1.2%	0.8%	1.2%	3.6%	1.4%	0.6%	1.0%	1.3%	1.0%	1.4%
Did Not Graduate High School	13.1%	14.3%	20.6%	8.4%	12.6%	8.4%	10.2%	16.0%	7.3%	11.4%
High School Graduate, GED, or Alternative	44.7%	46.5%	40.7%	30.9%	28.4%	37.3%	41.9%	41.5%	30.6%	27.2%
Some College, No Degree	29.0%	21.6%	24.3%	23.8%	20.8%	24.1%	22.4%	25.5%	24.2%	21.4%
Associate' s Degree	9.4%	5.8%	4.6%	7.2%	7.2%	9.0%	10.4%	7.4%	9.5%	8.9%
Bachelor' s Degree	17.5%	7.5%	5.6%	15.8%	18.3%	12.3%	9.7%	4.7%	15.7%	18.6%
Master' s Degree	7.9%	2.7%	2.6%	6.9%	7.3%	6.4%	3.5%	3.2%	7.8%	8.5%
Professional School Degree	0.6%	0.4%	0.3%	2.1%	2.3%	0.7%	0.7%	0.1%	1.2%	1.6%
Doctorate Degree	2.6%	0.5%	0.0%	1.4%	1.7%	1.2%	0.1%	0.1%	0.7%	1.0%

Source: U.S. Census Bureau, American Community Survey, 2013 American Community Survey 1-Year Estimates

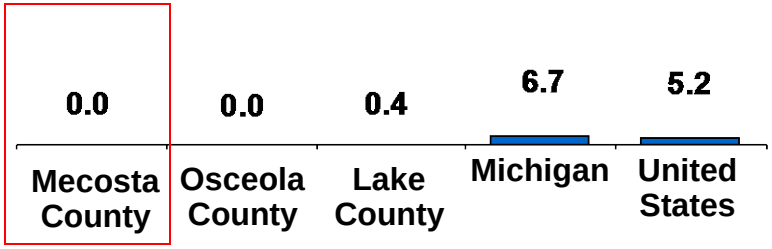
According to violent crime and homicide rates, Osceola and Lake counties are much safer communities compared to MI or the U.S. However, violent crime rates are higher in Mecosta County than MI or the U.S. Child abuse and neglect rates are higher in Mecosta County, and much higher in Lake County, vs. the state or the nation.

Crime Rates

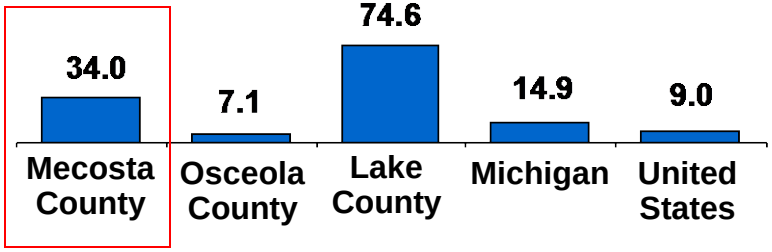
Violent Crime Rate Per 100,000 Population



Homicide Rate Per 100,000 Population



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

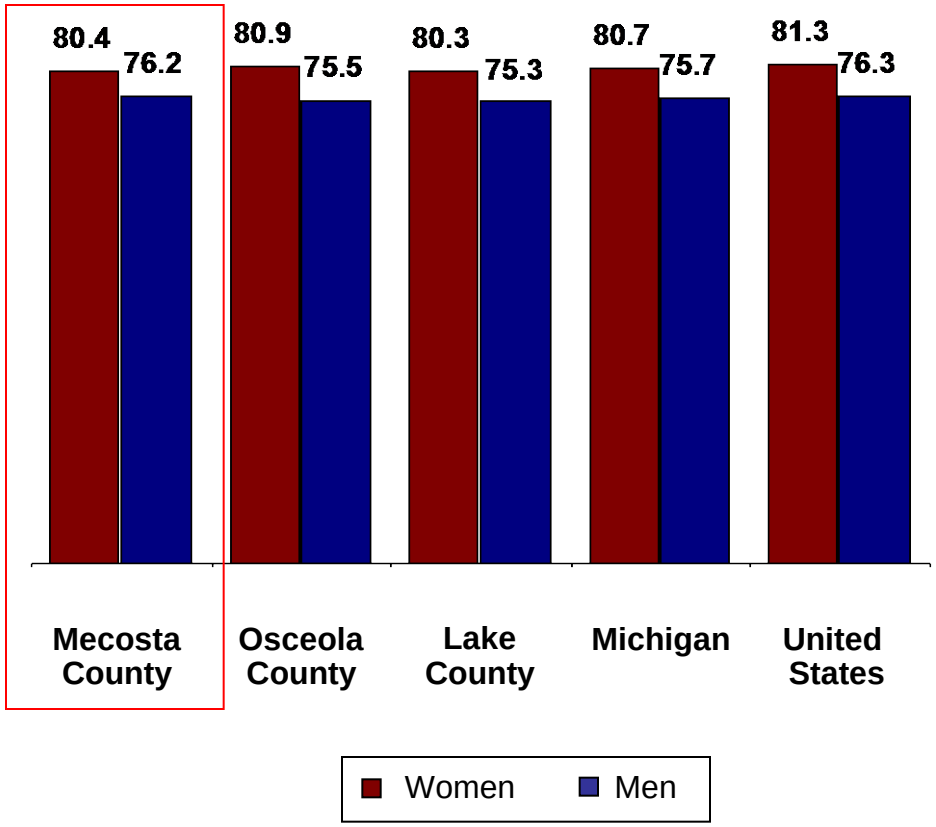


Source: County Health Rankings. Counties and MI 2013, US FBI Website 2012; MDCH, Division of Vital Records, Counties and MI 2012, United States Census Bureau 2012; Kids Count Data Book. 2012, 2013. Note: Data compiled from various sources and dates

Health Indicators

Average life expectancy for both men and women in Mecosta, Osceola, and Lake counties is lower compared to the U.S. Compared to Michigan overall, Lake and Mecosta County women and Lake and Osceola County men have lower life expectancy, while Osceola County women and Mecosta County men have higher life expectancy than the state.

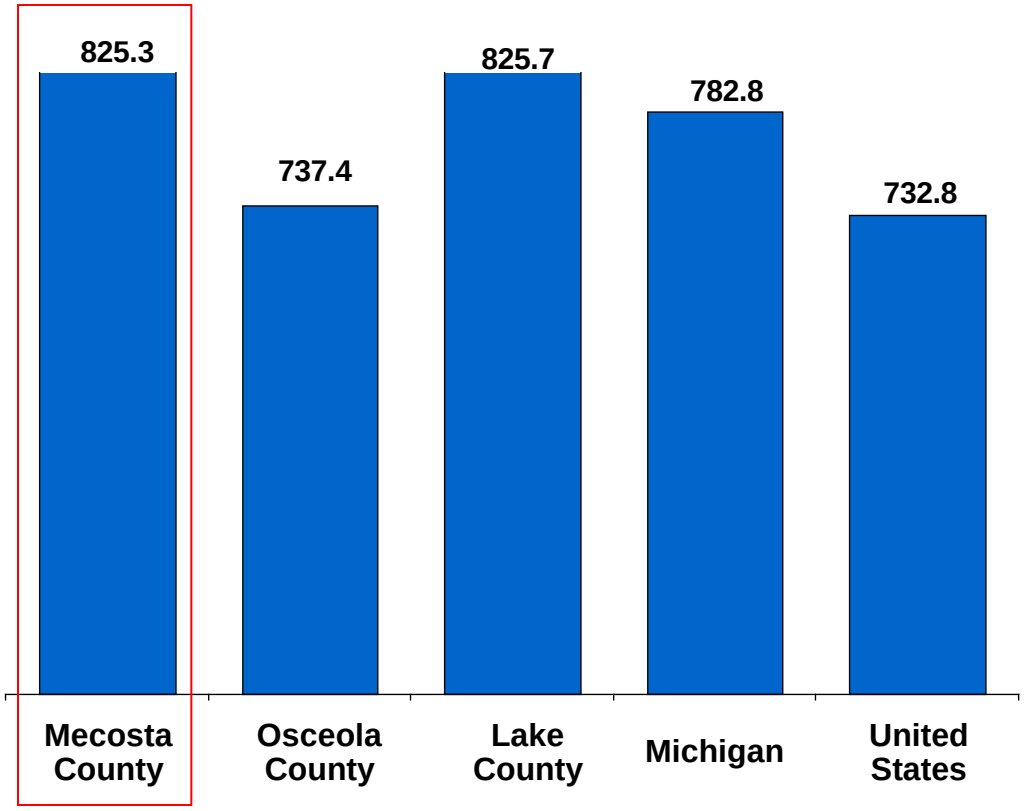
Life Expectancy (Average Age)



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

The age adjusted mortality rate is higher in Mecosta and Lake counties vs. the state or the nation. Osceola county fares much better than the state and is on par with the U.S.

Mortality Rates, Age Adjusted Per 100,000 Population

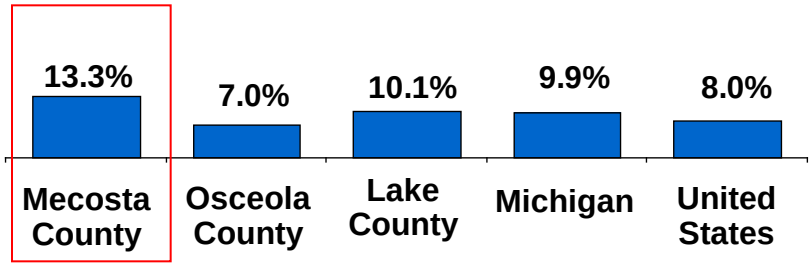


Source: Michigan Resident Death File, Vital Records & Health Statistics Section, Michigan Department of Community Health. Counties and MI 2013; US 2012;

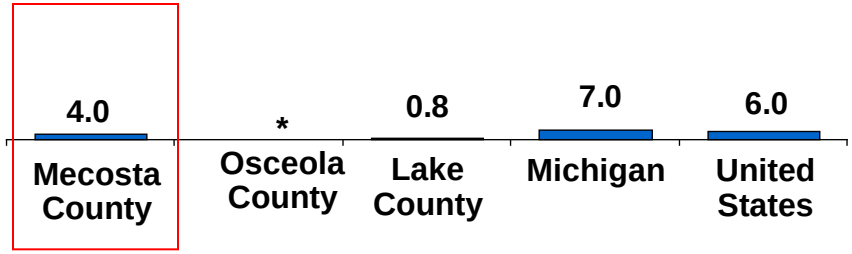
Mecosta County has greater proportions of live births with low birth weight than Osceola County, Lake County, MI, and the U.S. Mecosta County's infant mortality rate is lower than MI or the U.S., while Lake County's is much lower.

Low Birth Rates and Infant Mortality Rates

Proportion of Live Births with Low Birth Weight



Infant Mortality Rate Per 1,000 Live Births



Source: Kids Count Data Book/MDCH Vital Records Division, Resident Birth Files. Counties and MI 2013, and US 2012.

*A rate is not calculated where there are fewer than 6 events, because the width of the confidence interval would negate any usefulness for comparative purposes.

The top two leading causes of death – **cancer** and **heart disease** – are the same for all three counties, Michigan, and the U.S. Deaths from CLRD are also very prevalent in all three counties. Further, Alzheimer's is the fifth leading cause of death in Osceola County but outside the top five in Mecosta and Lake counties, Michigan, and the U.S.

Top 5 Leading Causes of Death

	Mecosta County		Michigan		United States	
	RANK	Rate	RANK	Rate	RANK	Rate
Heart Disease	1	288.8	1	197.9	1	173.7
Cancer	2	189.9	2	174.9	2	168.6
Unintentional Injuries	3	47.3	5	36.6	4	38.0
Stroke	4	45.2	4	37.2	5	37.9
Chronic Lower Respiratory Diseases	5	41.2	3	45.2	3	42.7

	Osceola County		Michigan		United States	
Heart Disease	1	210.6	1	197.9	1	173.7
Cancer	2	188.8	2	174.9	2	168.6
Chronic Lower Respiratory Diseases	3	*	3	45.2	3	42.7
Unintentional Injuries	4	*	5	36.6	4	38.0
Alzheimer's	5	*	6	25.6	6	24.6

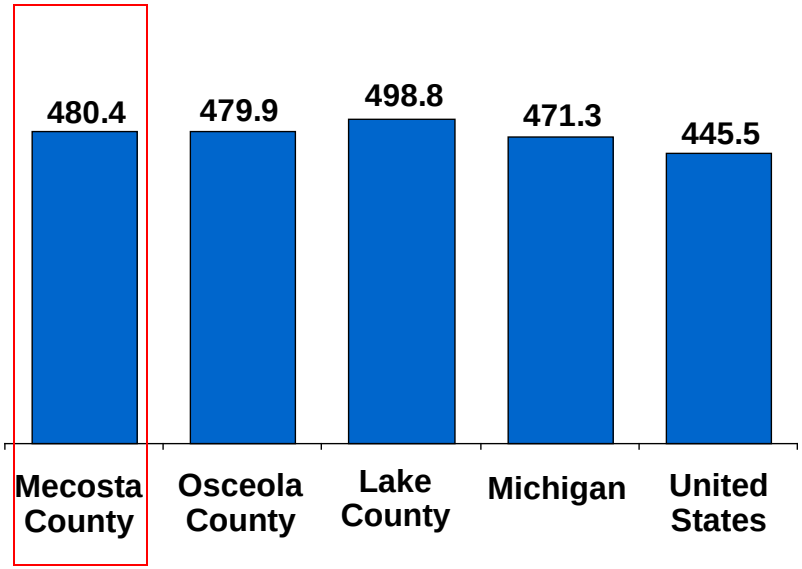
	Lake County		Michigan		United States	
Cancer	1	215.9	2	174.9	2	168.6
Heart Disease	2	198.1	1	197.9	1	173.7
Stroke	3	*	4	37.2	5	37.9
Chronic Lower Respiratory Diseases	4	*	3	45.2	3	42.7
Unintentional Injuries	5	*	5	36.6	4	38.0

Source: Michigan Department of Community Health, Counties and MI 2013; United States CDC, National Vital Statistics Report, 2012.

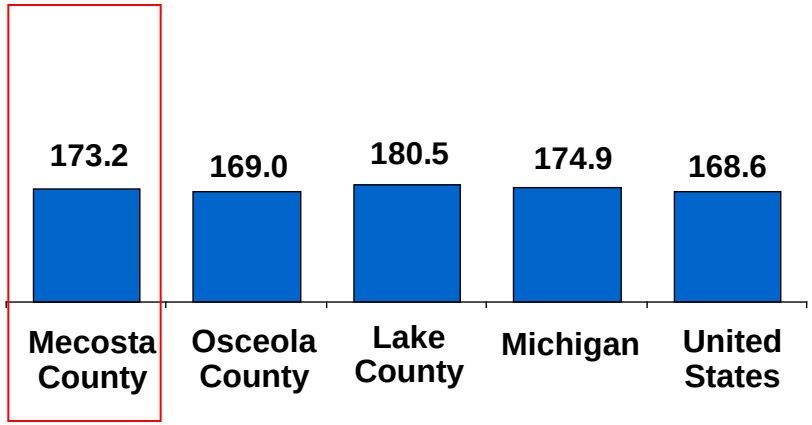
Compared to MI or the U.S., cancer diagnosis rates are higher for residents of all three counties, particularly in Lake County. The cancer death rate is also slightly higher for Lake County residents compared to MI and the U.S., while Mecosta and Osceola have death rates on par with the state and nation. These figures are key since it is an indication that Lake County residents may not be diagnosed early enough to prevent a terminal outcome.

Cancer Rates

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



Overall Cancer Death Rate Per 100,000 Population



Source: MDCH Cancer Incidence Files, Cases Diagnosed- Counties , MI, 2011. Death rates- Counties, MI 2012. US CDC Cancer Registry, 2010.

Bacterial pneumonia is the leading cause of preventable hospitalization in Michigan and all three SHBRH area counties, followed by **congestive heart failure** and **chronic obstructive pulmonary disease (COPD)**. **Cellulitis** is in the top five leading causes for hospitalization in all three counties, as well as Michigan. The counties do a better job at preventing **kidney/urinary disease** compared to Michigan.

Top 10 Leading Causes of Preventable Hospitalizations

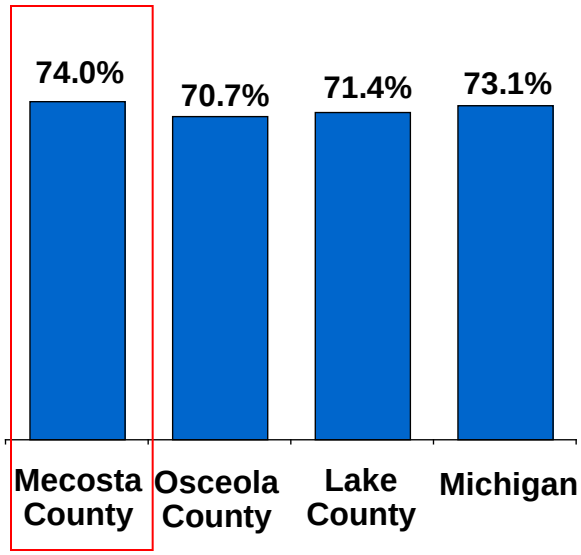
	Mecosta County		Osceola County		Lake County		Michigan	
	RANK	% of All Preventable Hospitalizations	RANK	% of All Preventable Hospitalizations	RANK	% of All Preventable Hospitalizations	RANK	% of All Preventable Hospitalizations
Bacterial Pneumonia	1	17.5%	1	15.3%	1	15.6%	2	10.7%
Congestive Heart Failure	2	14.8%	2	14.0%	2	15.3%	1	12.8%
Chronic Obstructive Pulmonary Disease (COPD)	3	13.5%	3	10.9%	3	11.2%	3	9.8%
Cellulitis	4	6.1%	5	6.4%	4	6.1%	5	6.5%
Kidney/Urinary Infections	5	5.6%	4	6.7%	5	4.8%	4	7.1%
Diabetes	6	5.0%	9	2.7%	6	4.1%	6	5.6%
Grand Mal and Other Epileptic Conditions	7	3.6%	6	3.3%	8	3.2%	8	3.2%
Gastroenteritis	8	2.4%	8	2.7%	10	2.2%	10	1.6%
Asthma	9	1.9%	7	2.9%	7	3.8%	7	5.3%
Convulsions	10	1.1%	--	--	--	--	--	--
Dehydration	--	--	10	1.8%	9	2.2%	9	2.2
All Other Ambulatory Care Sensitive Conditions		32.9%		31.5%		31.5%		35.3%
Preventable Hospitalizations as a % of All Hospitalizations		15.5%		16.8%		20.9%		20.2%

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

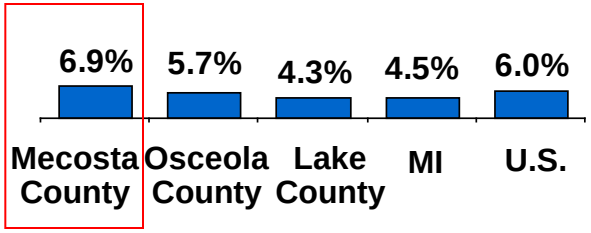
The proportion of pregnant women receiving late or no prenatal care is greater in Mecosta County than MI or the U.S. Further, the proportion of women who begin prenatal care during the first trimester is greater in Mecosta County than the proportion in Michigan, while Osceola and Lake counties lag behind. Child immunization rates are much better in Mecosta and Osceola counties compared to MI or the U.S., and Lake is on par with MI/U.S.

Prenatal Care and Childhood Immunizations

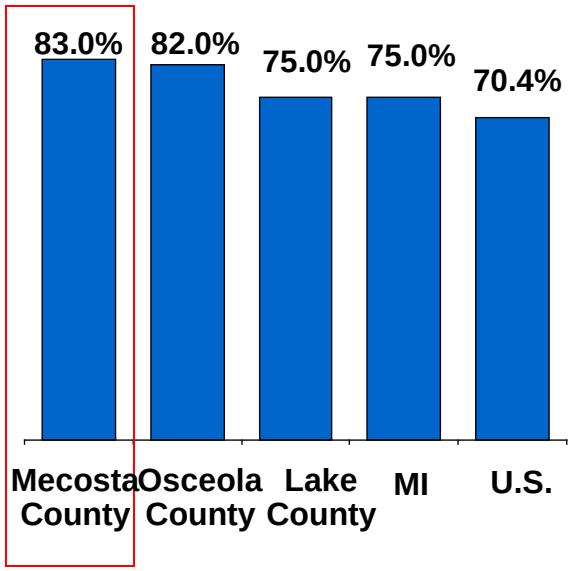
Proportion of Women Who Begin Prenatal Care in First Trimester



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



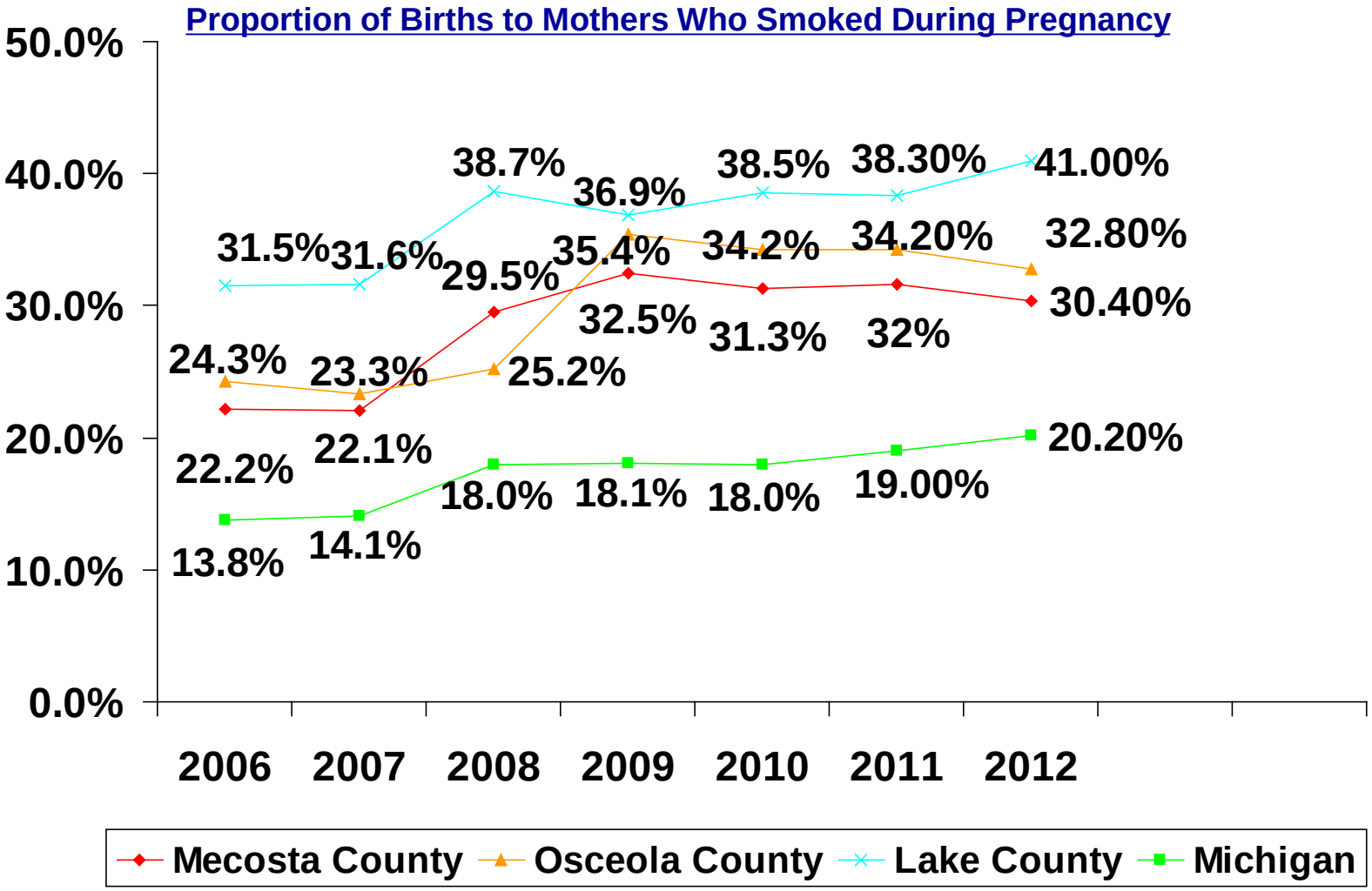
Proportion of Children Aged 19-35 Months Fully Immunized



Source: MDCH Vital Records Counties and MI 2013; Kids Count Data Book/MDCH V. Immunization data: Counties and MI from MICR NOV 2014) National data: CDC National Immunization Survey- National, State, and Selected Local Area Vaccination Coverage Among Children Aged 19–35 Months —Counties and MI 2013 Published August 29, 2014

Adult Risk Behaviors

The proportion of Lake County mothers who smoke during pregnancy is more than double the proportion across Michigan. The proportion of Mecosta and Osceola County births to mothers who smoke is also higher than for Michigan. Although rates for Mecosta and Osceola County have been steadily decreasing since 2008, rates for the state have been trending slightly upward since 2010.



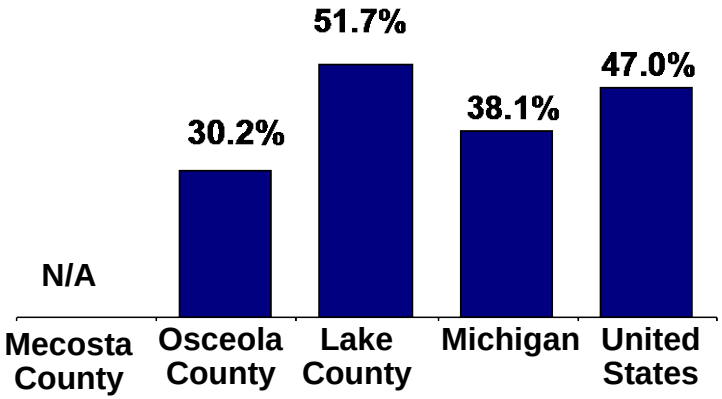
Source: Michigan League for Human Services; Mecosta and Osceola counties Health Profile, District Health Department #10, 2011 (2005-2008). Kids Count Data, 2009-2012.

Youth Risk Behaviors

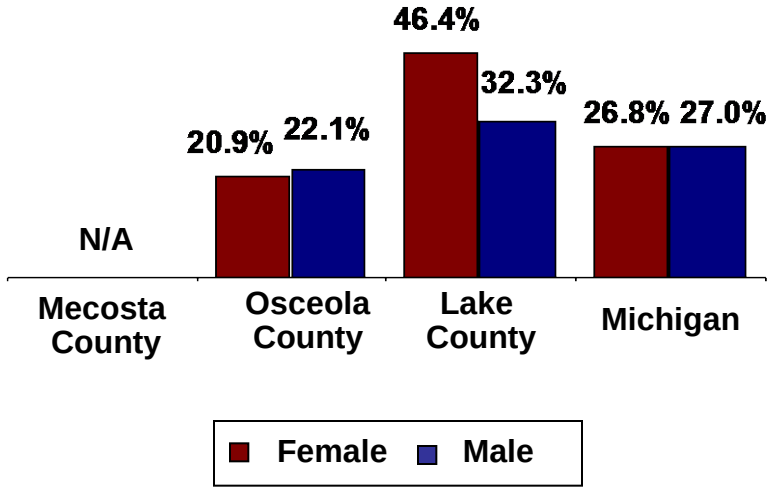
Osceola County teens are less likely to engage in sexual intercourse than teens across Michigan or the U.S., while teens in Lake County are more likely to be sexually active. Similarly, almost half of female and one third of male teen youths in Lake County have had sexual intercourse in the past three months, compared to only about one in five Osceola County adolescents.

Teenage Sexual Activity

Youth Who Have Ever Had Sexual Intercourse



Youth Who Have Had Intercourse in Past 3 Months

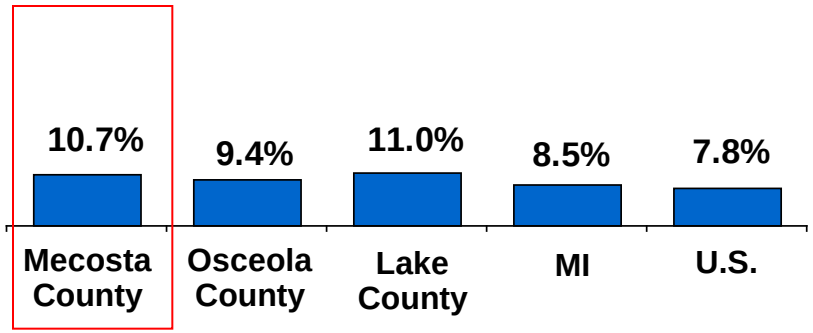


Source: Michigan YRBS; Osceola, and Lake: MiPhy 2013-2014- Sexual Behavior Note: Data groups Lake and Mason Co. information together. MiPhy Data for Mecosta county not available. MI & US Data: YRBS 2013

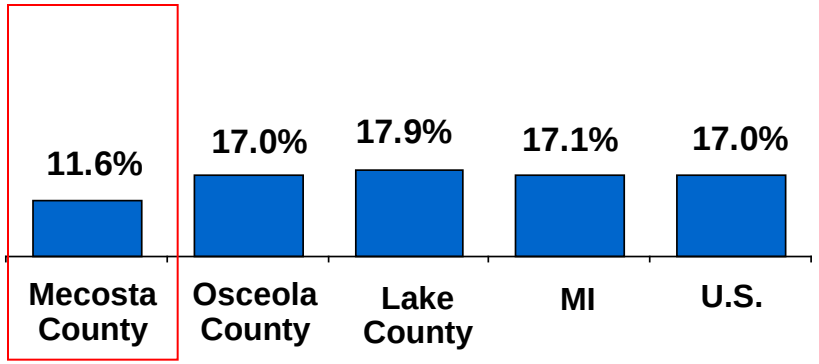
Teen births are slightly higher in all three counties compared to Michigan or the U.S. Rates for repeat teen births in Mecosta County are lower than both the state and national, however, the rates in Lake and Osceola counties are on par with MI or the U.S.

Teenage Pregnancy

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



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

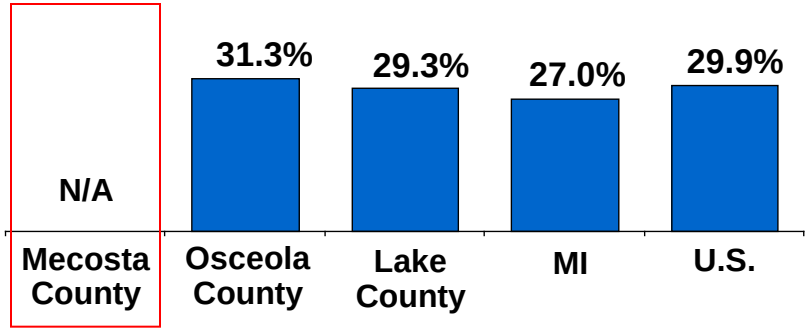


Source: MDCH Vital Records. Mecosta, Osceola and Lake Co. and MI 2013. Kids Count Data Book. Counties, MI, and US 2012.

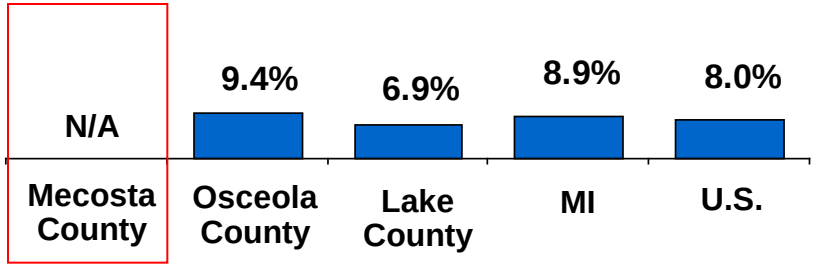
The prevalence of depression among youth in Osceola and Lake counties are higher than in Michigan, with approximately three in ten reporting depression in these counties. Youth suicide attempts are less prevalent in Lake County compared to MI or the U.S., but youth suicide attempts are more prevalent in Osceola County, where almost one in ten youths reports an attempted suicide in the past year.

Mental Health Indicators Among Youth

Proportion of Youth Reporting Depression in Past Year



Proportion of Youth Reporting Suicide Attempt in Past Year

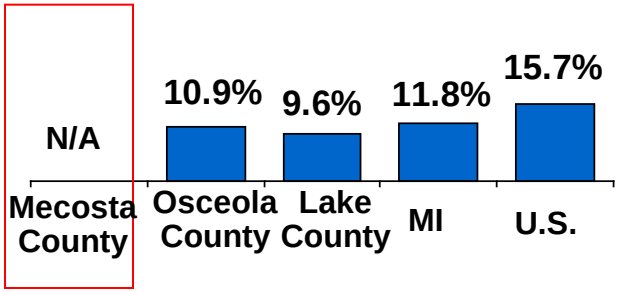


Source: MiPHY, 2013-2014, Data for Mecosta Co. not available in Michigan Profile for Healthy Youth (MiPhy). National YRBS, 2013.

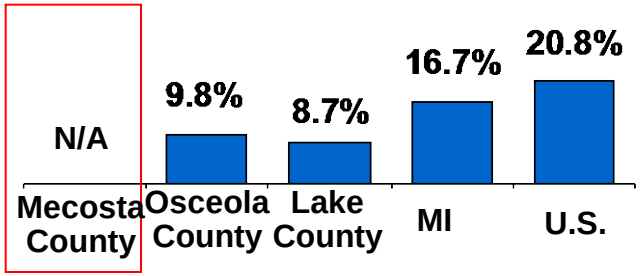
Fewer youth in Osceola and Lake counties currently smoke cigarettes or engage in binge drinking compared to youth across Michigan and the U.S. Reported marijuana use among youths is lower in Osceola County compared to MI/U.S., but slightly greater in Lake County than Michigan.

Tobacco, Alcohol and Marijuana Use Among Youth

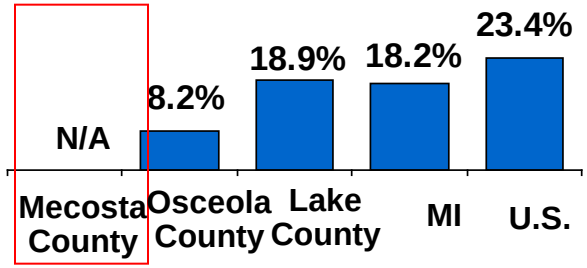
Proportion of Youth Who Report Current Smoking (Past 30 Days)



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



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

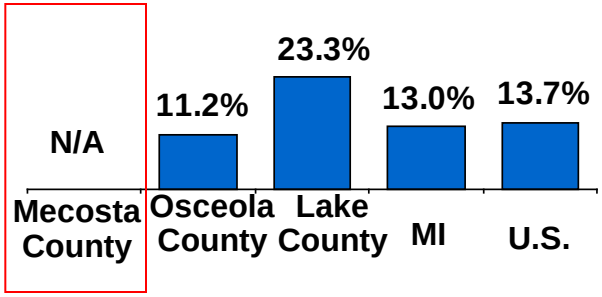


Source: MiPHY, 2013-2014. Data for Mecosta Co. not available in Michigan Profile for Healthy Youth (MiPhy).US & MI: Youth Risk Behavior Survey (YRBS), 2013.

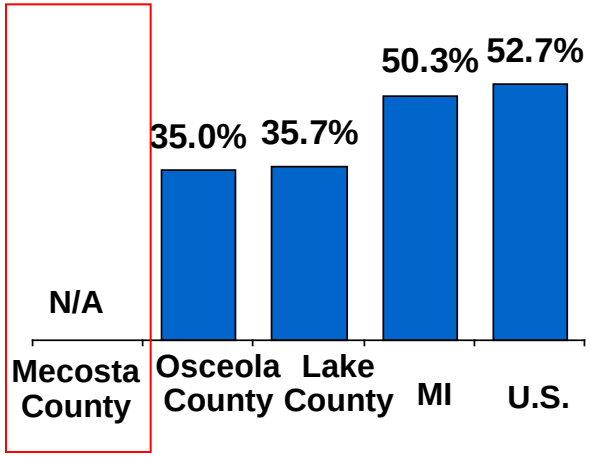
The proportion of obese youth in Lake County exceeds that of the state or the nation. However, youth in Osceola and Lake counties report lower levels of inadequate leisure time physical activity and inadequate fruit/vegetable consumption than their Michigan and U.S. peers.

Obesity, Physical Activity and Diet Among 9th and 11th Grade Students

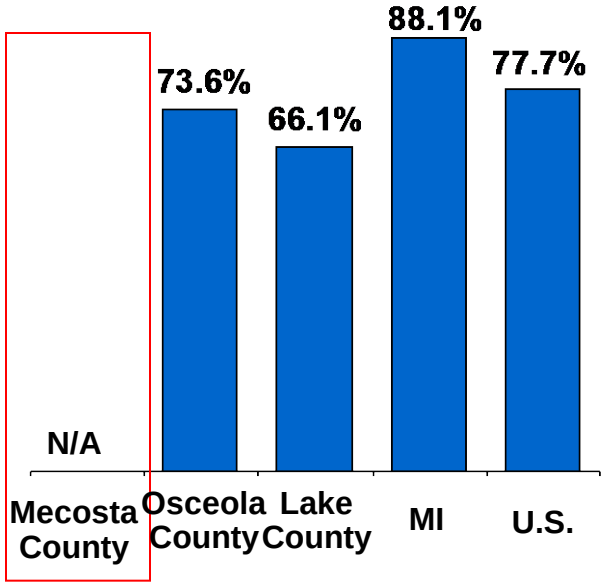
Youth Who Are Obese (>95th Percentile BMI for Age and Sex)



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



Youth Reporting Less Than 5 Servings of Fruits/Vegetables Per Day (Past Week)



Source: Michigan Profile for Healthy Youth (MiPHY) 2013-2014 cycle and 3rd Grade BMI Surveillance; Michigan YRBS; MiPhy Data for Mecosta Co. not available. MI and US from 2013 YBRS.

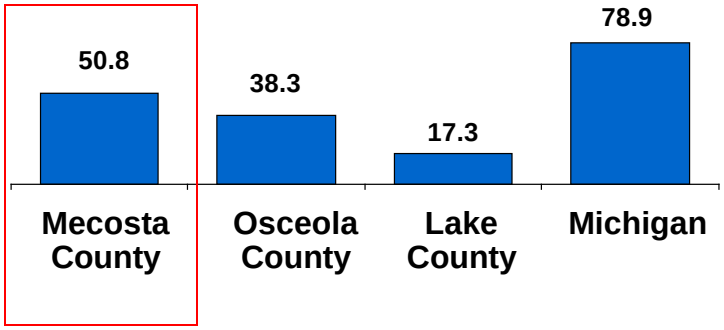
NOTE: YAS includes grades 8, 10, and 12, while MiPhy includes grades 9 and 11.. Counties: <5 Servings Fruit/Veg per day; MI and US from 2013 YBRS, < 3 Servings Fruit/Vegetable per day

Health Care Access

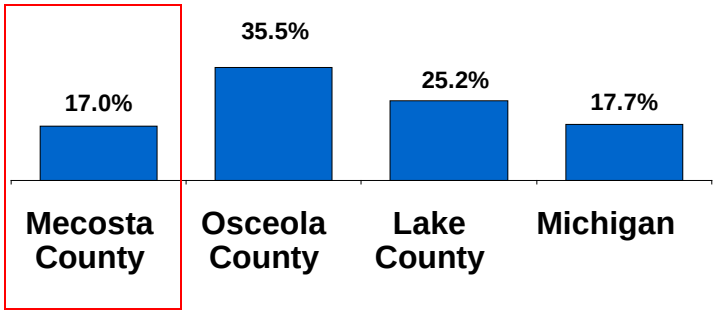
With regard to the number of primary care physicians per capita, there is a large disparity between the state and Mecosta, Osceola, and Lake Counties. In fact, Michigan has over four times as many PCPs per capita compared to Lake County. The proportion of residents with Medicaid for health care coverage is higher in Osceola and Lake counties compared to the state, with more than one-third of Osceola County residents receiving Medicaid.

Primary Care Physicians and Medicaid Patients

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



Proportion of Residents Receiving Medicaid



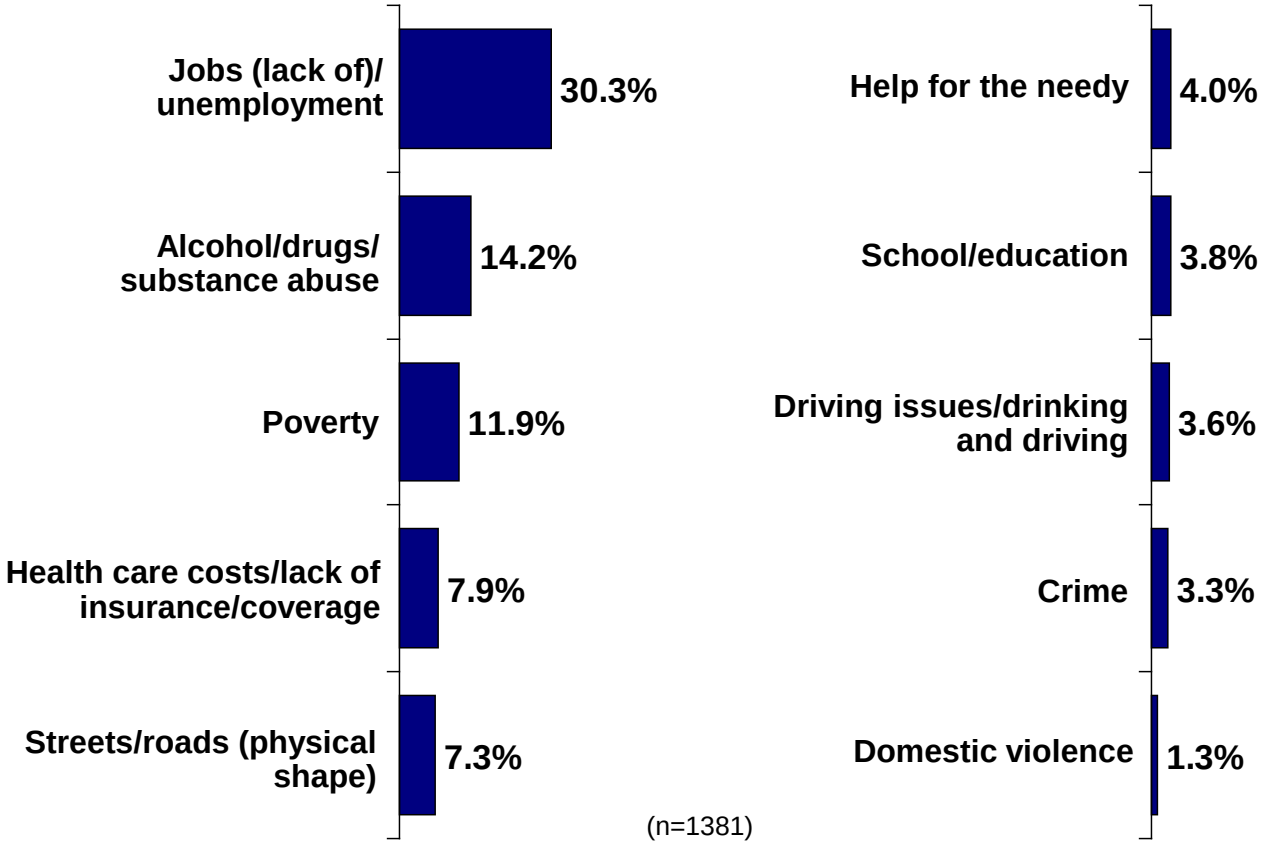
Source: PCP: County Health Rankings, 2013.; Medicaid: US Census, Green Book (Dec 2014), 2014 estimate.

Behavioral Risk Factor Survey

Perception of Community Problems

When asked to give their top of mind response to addressing the community's most important problems, Spectrum Health Big Rapids Hospital area adults cite a myriad of issues, beginning with **lack of jobs or the economy**, followed by **substance abuse** and **poverty**. Other problems mentioned include the issue of **health care access**, including **costs** in general, and for co-pays and deductibles, and **lack of insurance** which makes health care even more of a barrier for some.

Top 10 Most Important Problems in the Community Today

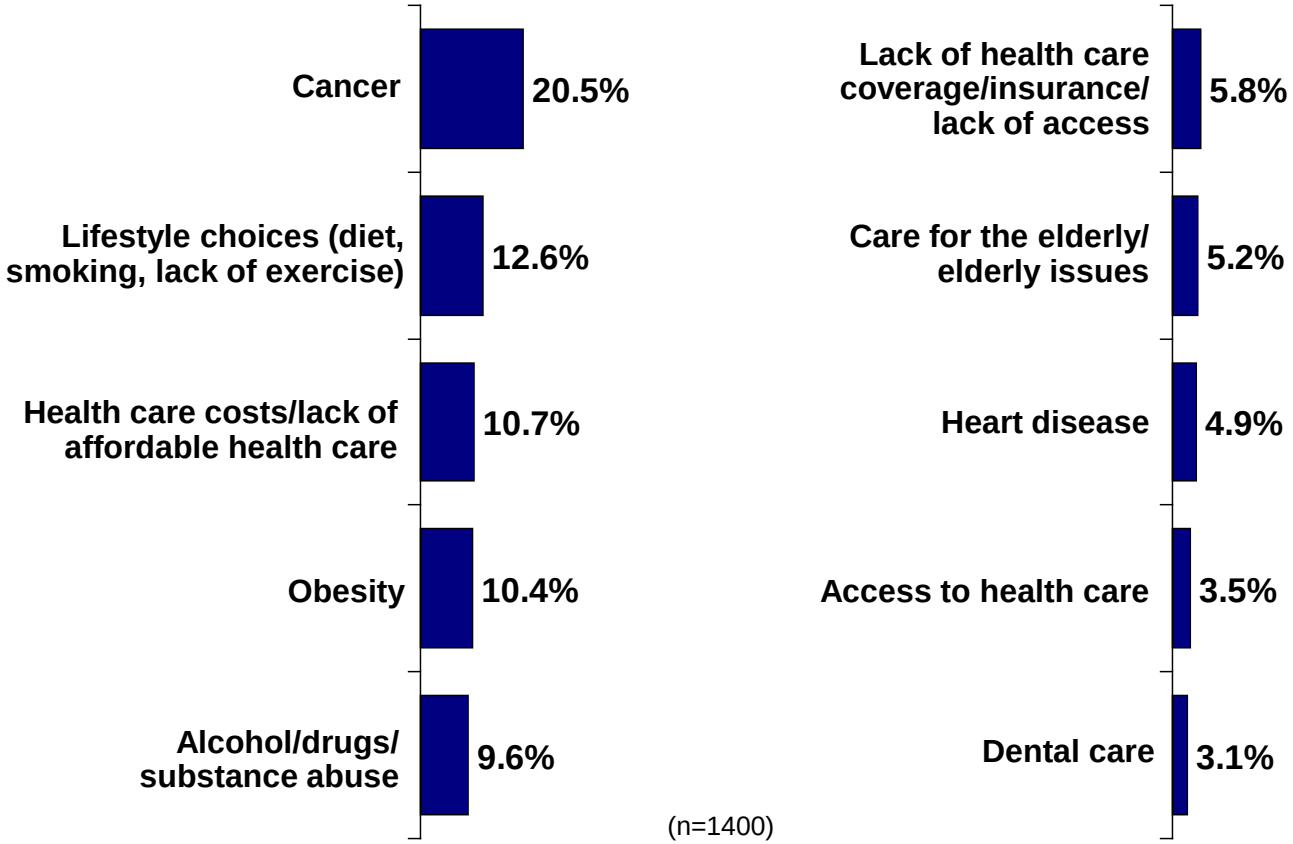


(n=1381)

Q1.1: What do you feel is the most important problem in your community today?

Area adults perceive the top health problem to be **cancer**, followed by **lifestyle choices** that lead to health problems, **health care costs**, **obesity**, and **substance abuse**. Related to health care costs is the issue of **health care access**, which means many things (e.g., transportation, language barriers, etc.), including the **lack of health care coverage/insurance**.

Top 10 Most Important *Health* Problems in the Community Today



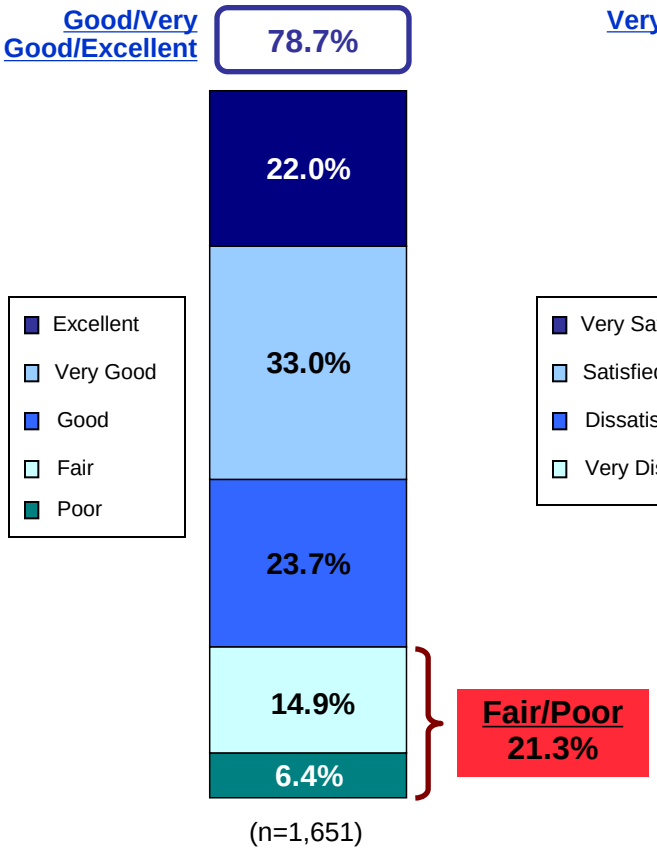
Q1.2: What do you feel is the most important health problem in your community today?

Health Status Indicators

Almost eight in ten (78.7%) SHBRH area adults cite good or better general health and 94.7% say they are satisfied with their lives. Slightly more than three-fourths say they usually or always receive the emotional support they need. More than one in five report fair or poor health, 5.3% report dissatisfaction with life, and 10.1% rarely or never receive the emotional support they need.

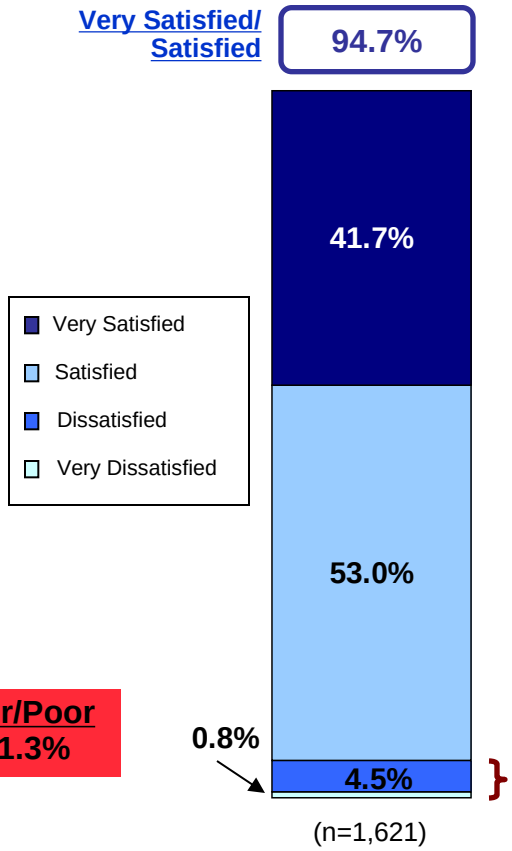
Perception of General Health, Life Satisfaction, and Social Support

Perception of General Health



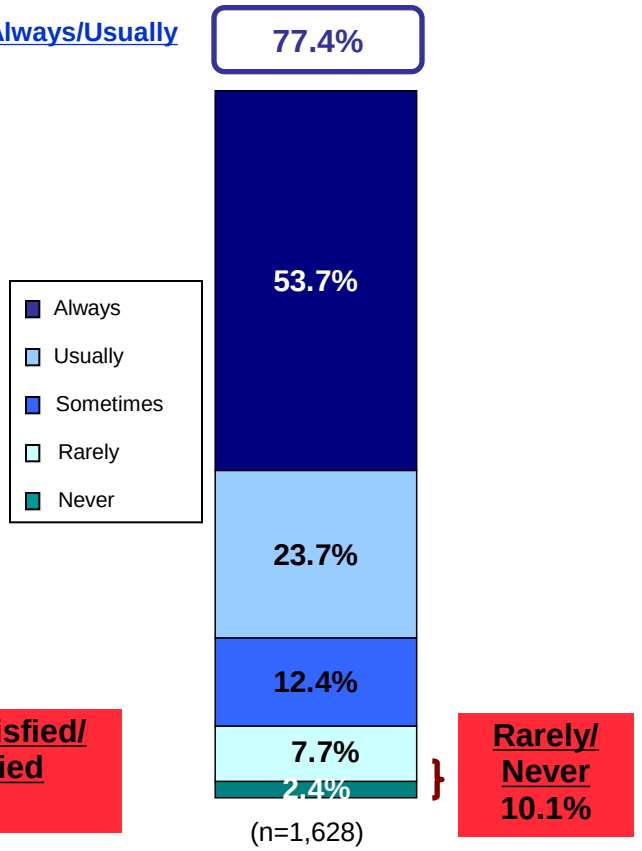
(n=1,651)

Overall Satisfaction with Life



(n=1,621)

Frequency of Emotional Support



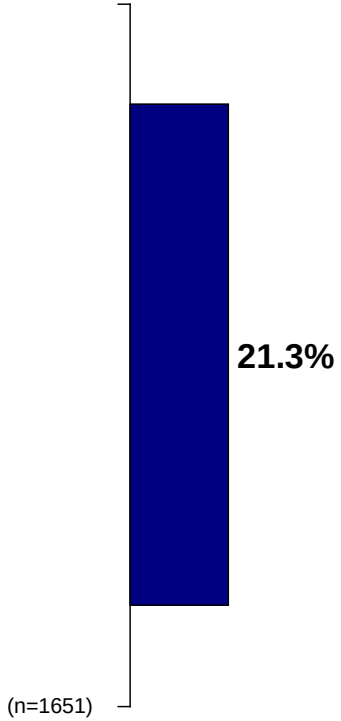
(n=1,628)

Q1.3: Would you say that in general your health is…
Q21.2: In general, how satisfied are you with your life?
Q21.1: How often do you get the social and emotional support you need?

The proportion of adults who perceive their health as fair or poor is inversely related to level of education and household income. For example, adults most likely to report fair or poor health have less than a high school education and/or live in households with annual incomes below $20K. People living below the poverty line are more likely to report fair or poor health than people living above the poverty line. Significantly more non-Whites report fair or poor health than Whites. Adults between the ages of 45-64 are more likely to report fair or poor health than adults of other age groups.

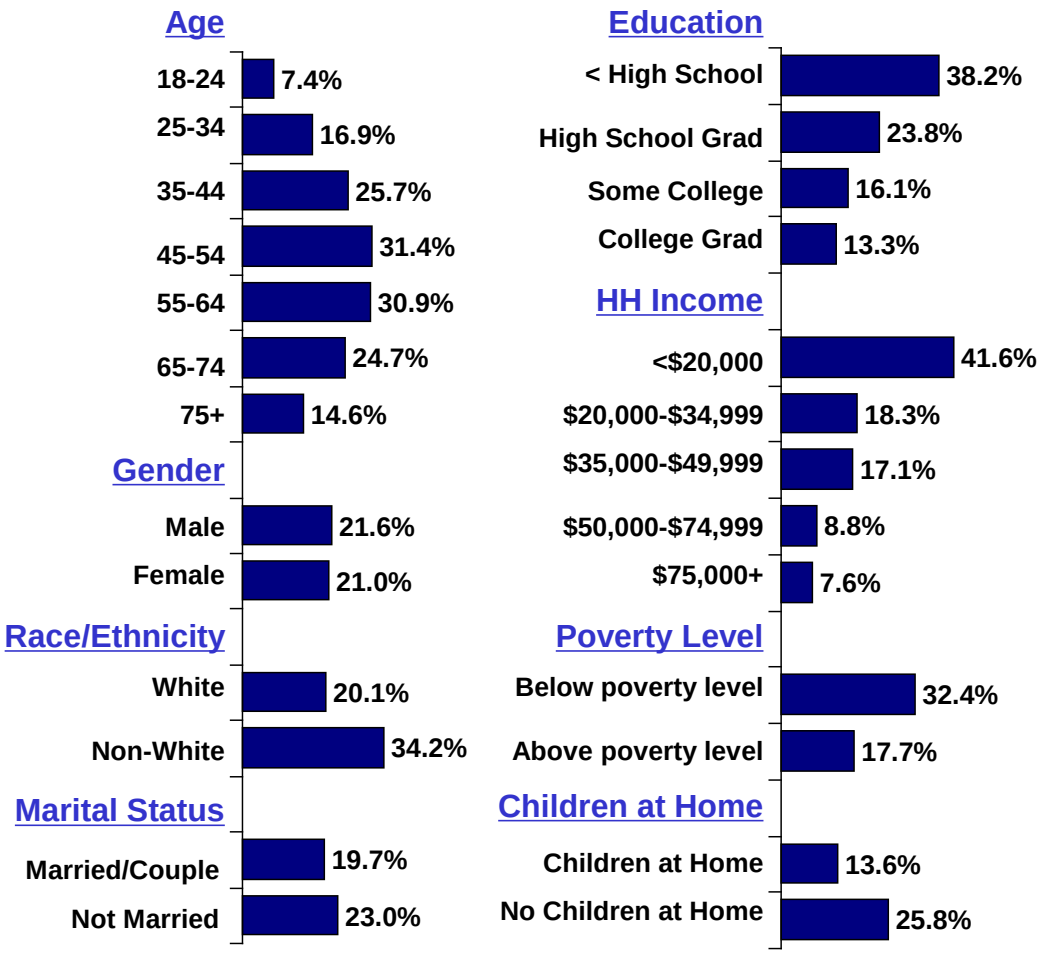
General Health Status

General Health Fair or Poor* (Total Sample)



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

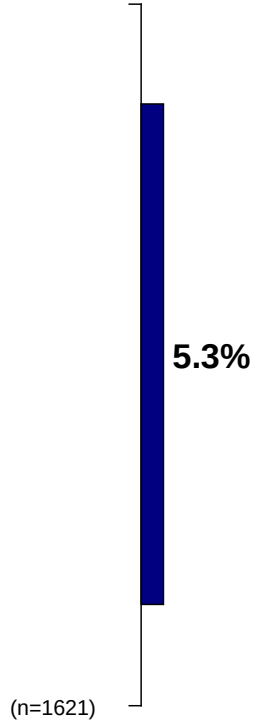
Health Fair or Poor by Demographics



SHBRH adults without a high school diploma or in households with incomes below $20,000 are least likely to be satisfied with their lives. The youngest (18-24) or oldest adults (75+), those with children at home, and those in households with incomes $50K or more are most likely to be satisfied with their lives.

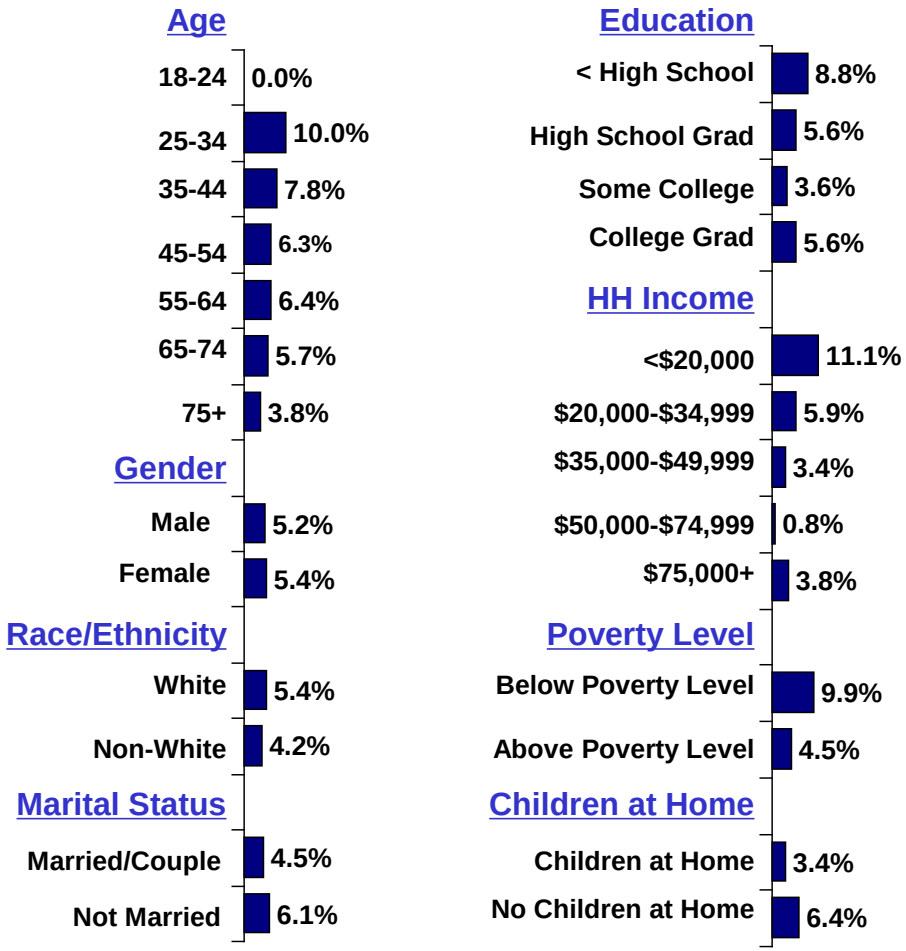
Life Satisfaction

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?

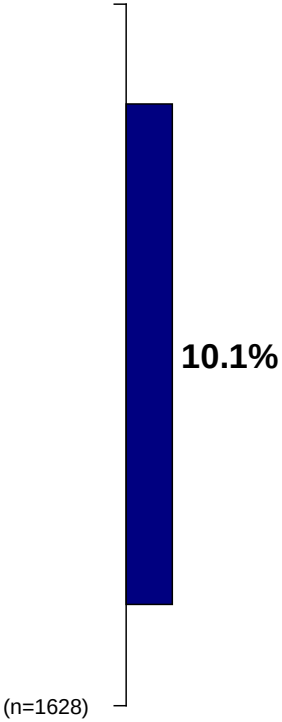
Dissatisfied/Very Dissatisfied by Demographics



Adults who more often report lacking the social and emotional support they need come from groups that are youngest (18-24), unmarried, and have household incomes less than $20,000.

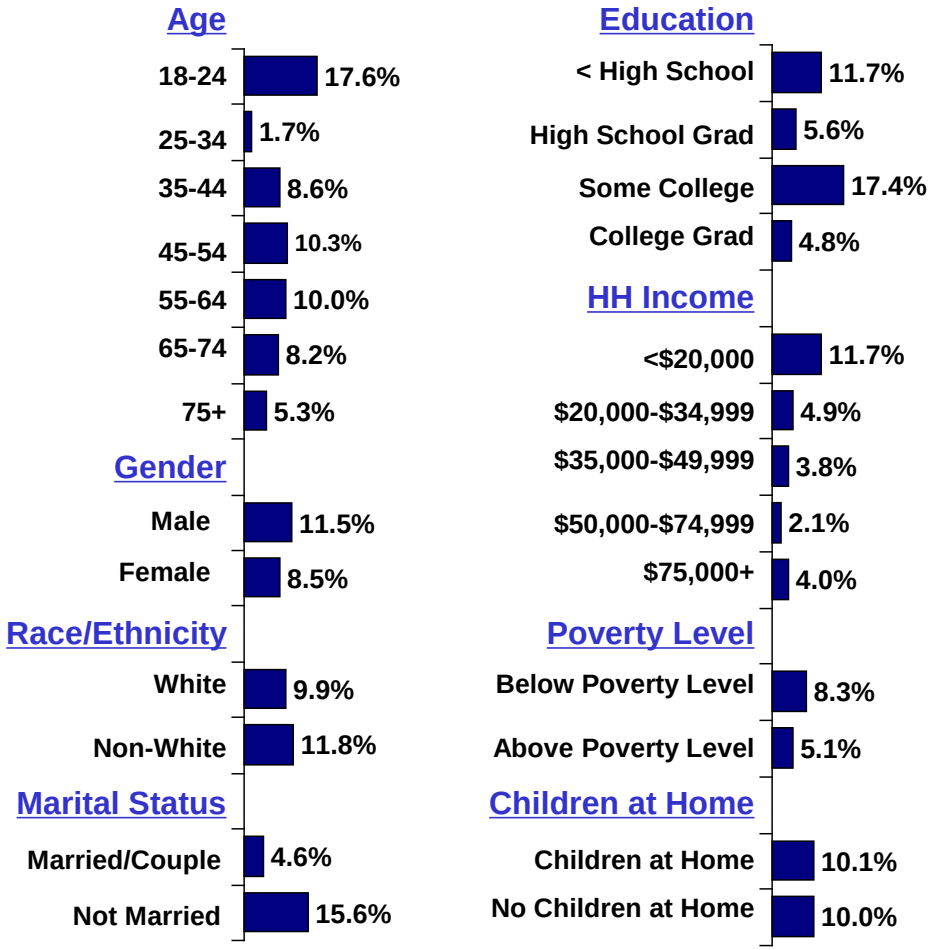
Social and Emotional Support

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?

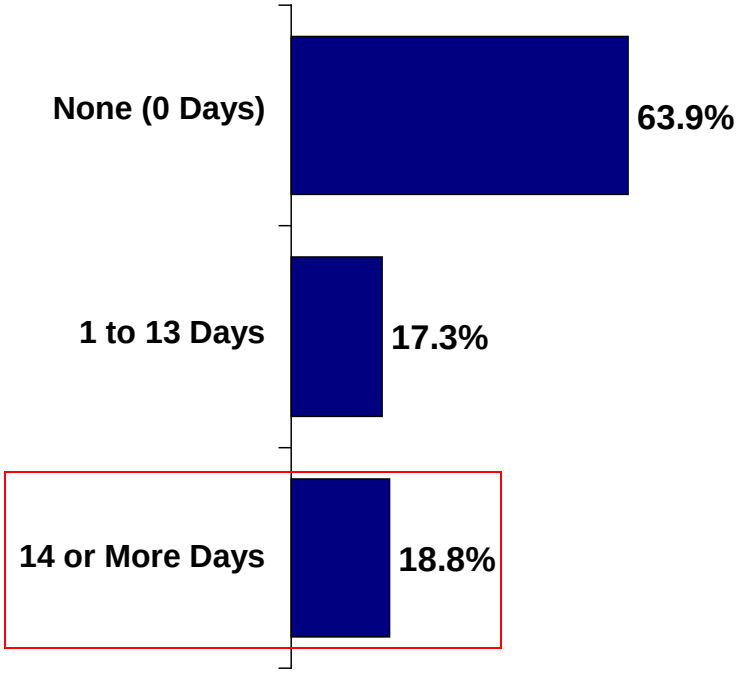
Rarely/Never Receive Support by Demographics



Between one-fourth and one-third of SHBRH area adults have experienced at least one day in the past month where their physical or mental health was not good. Further, 18.8% and 11.8% are classified as having poor physical and mental health, respectively. Among all adults, they average 5.3 and 3.5 days where their physical or mental health is not good, respectively.

Physical and Mental Health During Past 30 Days

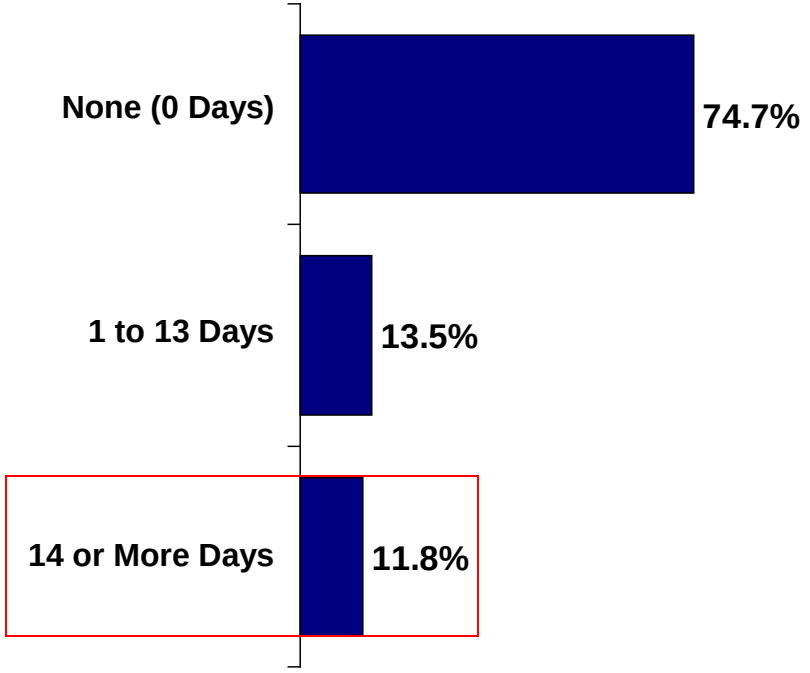
Number of Days Physical Health Was Not Good in Past 30 Days



Mean Days (Including Zero) = 5.3
Mean Days (Without Zero) = 14.5

(n=1639)

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



Mean Days (Including Zero) = 3.5
Mean Days (Without Zero) = 13.8

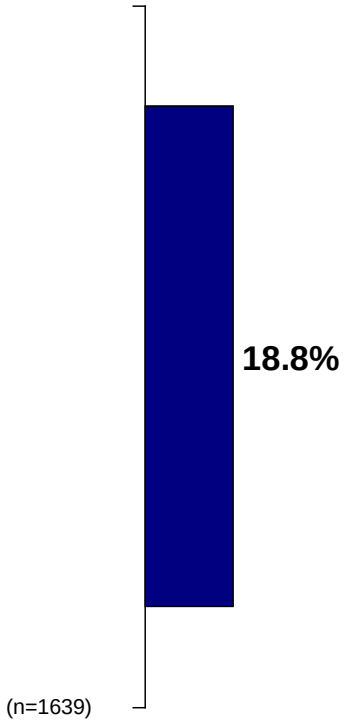
(n=1639)

Q2.1: Now thinking about your physical health, which includes physical illness and injury. For how many days during the past 30 days was your physical health not good?
Q2.2: Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?

Prevalence of poor physical health is inversely related to education and income; it is highest among adult residents with the lowest household incomes (37.0%), living below the poverty line (26.8%), and without a high school diploma (38.7%). The greatest discrepancy is between Whites (15.7%) and non-Whites (49.5%). Prevalence is lowest among adults with incomes $50K or more.

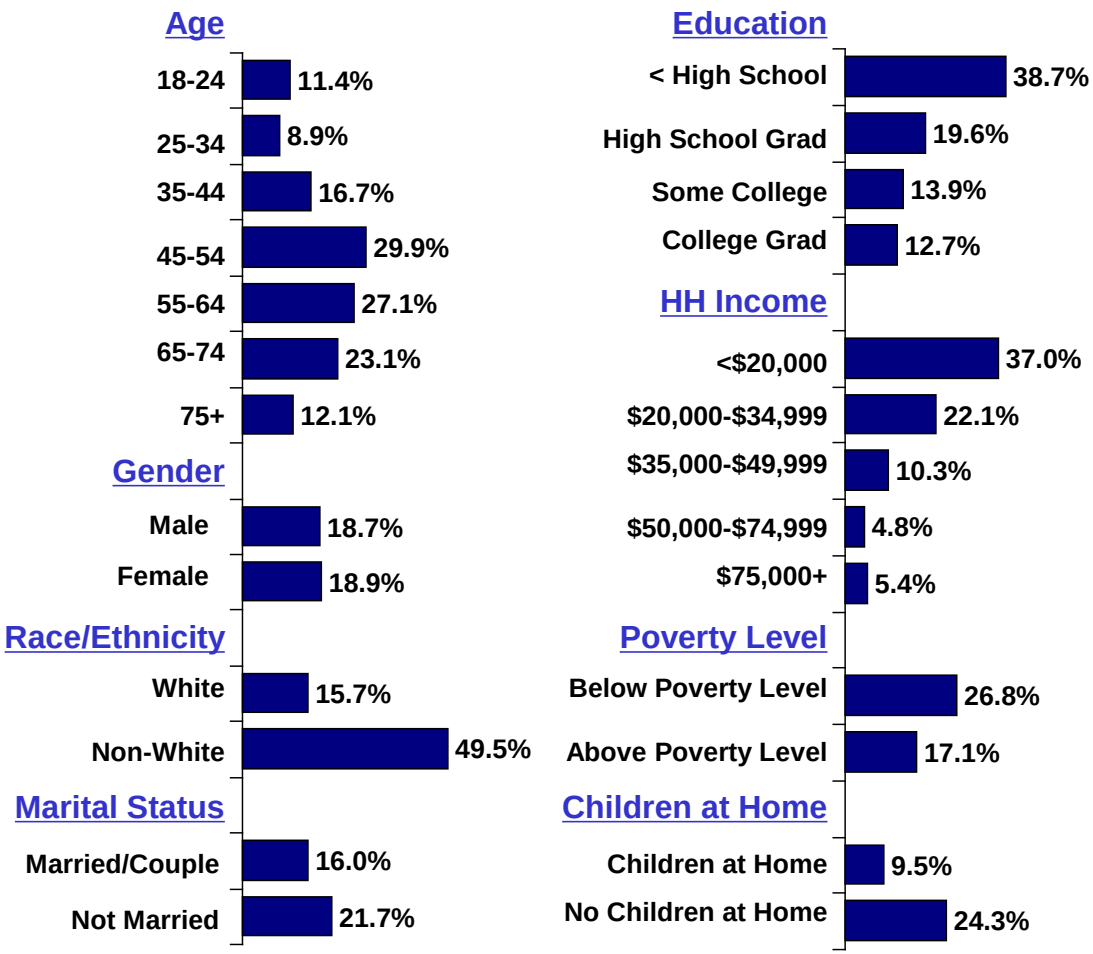
Physical Health Status

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.

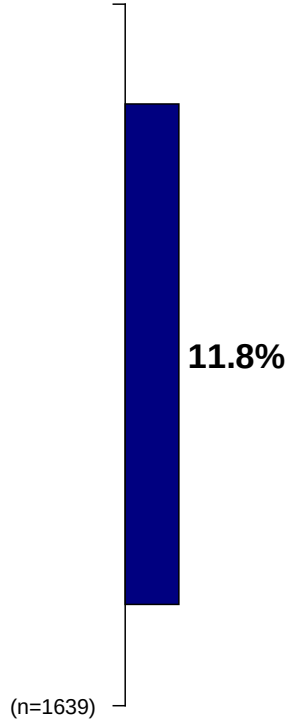
Poor Physical Health by Demographics



The prevalence of poor mental health is also inversely related to education and income, where those without a high school diploma, living below the poverty line, or living in households with incomes less than $20K are most likely to report poor mental health. Conversely, those from groups with a college education and incomes $50K or more are least likely to report poor mental health. Additionally, non-Whites are more likely than Whites to experience poor mental health.

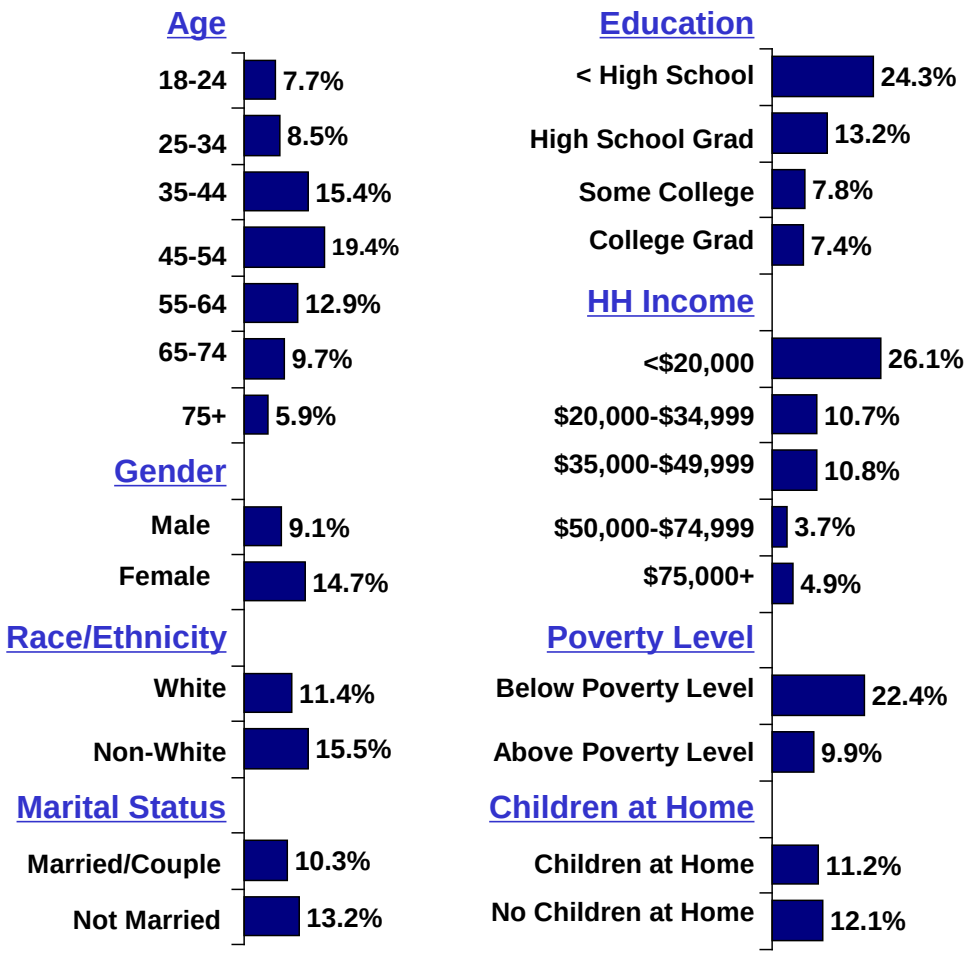
Mental Health Status

Poor Mental Health* (Total Sample)



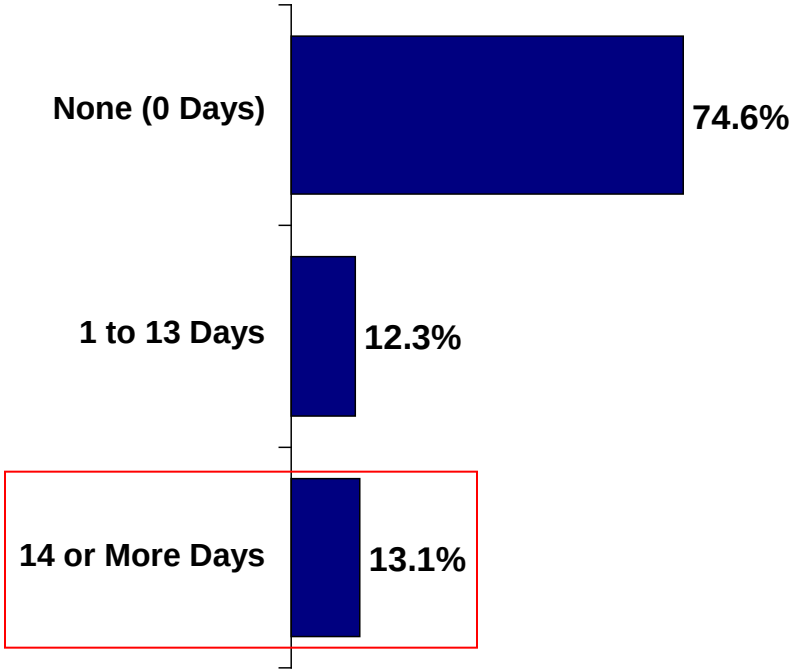
*Among all adults, the proportion who reported 14 or more days of poor mental health, which includes stress, depression, and problems with emotions, during the past 30 days.

Poor Mental Health by Demographics



More than one in ten (13.1%) area adults experience limited activity due to poor physical or mental health. Those who experience this limitation average almost half the days each month (13.9 days) where they are prevented from doing their usual activities.

Activity Limitation During Past 30 Days



Mean Days (Including Zero) = 3.5
Mean Days (Without Zero) = 13.9

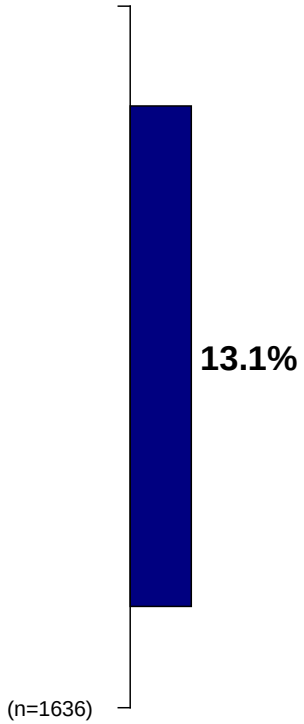
(n=1636)

Q2.3: During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?

Activity limitation due to poor mental or physical health is most common in groups of adults without high school degrees and who are non-White. Secondly, large proportions of adults who experience activity limitation are found among the poorest adults; those with the lowest incomes, for example, less than $20K (28.8%), and those living below the poverty line (22.5%).

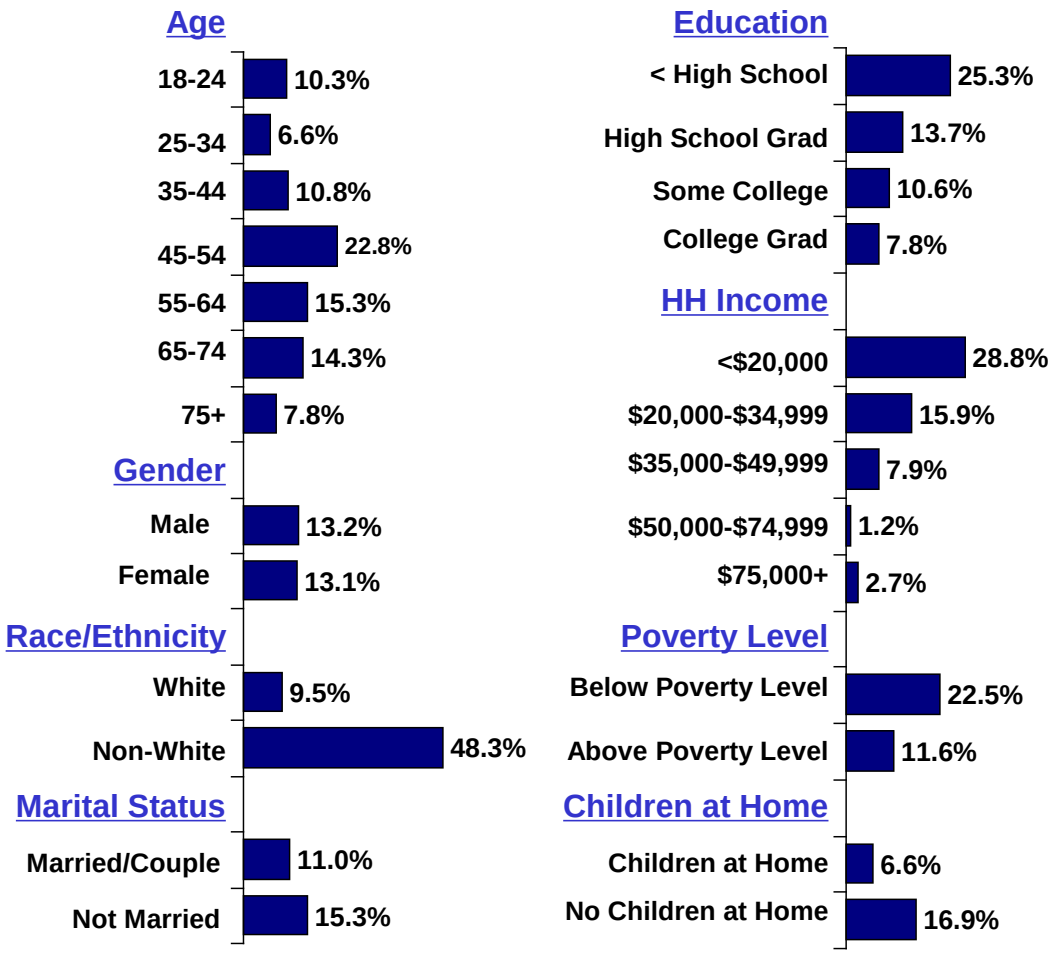
Activity Limitation

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



More than eight in ten (81.2%) area adults are considered to be mentally healthy according to the Kessler 6 Psychological Distress Questionnaire. Conversely, 15.6% experience mild to moderate psychological distress while 3.2% are severely distressed.

Psychological Distress*

	During the Past 30 Says, About How Often Did You….					
Frequency of Feeling	**Feel Nervous (n=1643)**	**Feel Hopeless (n=1642)**	**Feel Restless or Fidgety (n=1639)**	**Feel So Depressed That Nothing Could Cheer You Up (n=1641)**	**Feel That Everything Is An Effort (n=1636)**	**Feel Worthless (n=1643)**
None of the time	47.5%	80.3%	48.6%	84.5%	64.8%	87.8%
A Little	29.0%	11.8%	24.5%	8.7%	20.5%	6.3%
Some of the time	16.8%	4.8%	16.8%	4.1%	8.1%	2.9%
Most of the time	3.9%	1.9%	5.4%	1.9%	2.8%	1.2%
All of the time	2.8%	1.3%	4.8%	0.8%	3.9%	1.8%

Mentally Healthy (Well) = 81.2%

Mild to Moderate Psychological Distress = 15.6%

Severe Psychological Distress = 3.2%

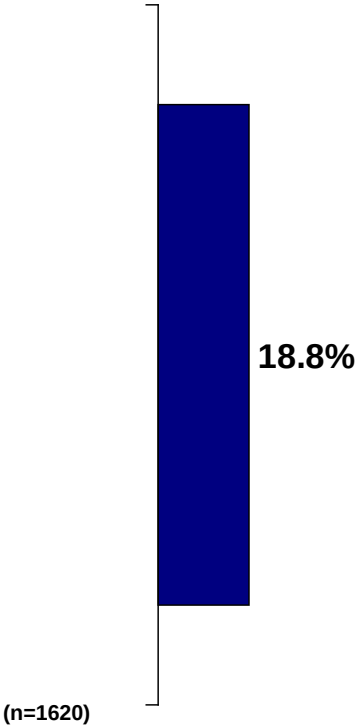
*Calculated from responses to Q. 22.1- 22.6, where none of the time =1, a little = 2, some of the time =3, most of the time =4, and all of the time =5. Responses were summed across all six questions with total scores representing the above categories: mentally well (6-11), mild to moderate psychological distress (12-19), and severe psychological distress (20+).

Q22.1-Q22.6 About how often over the past 30 days did you feel….

Among area adults, the groups most likely to be diagnosed with mild to severe psychological distress include those who: aged 25-64, unmarried, have less than a high school education, have household incomes less than $20K, and are below the poverty line. Conversely, those least likely to have psychological distress are found in groups that have a college education and have incomes of $50K or more.

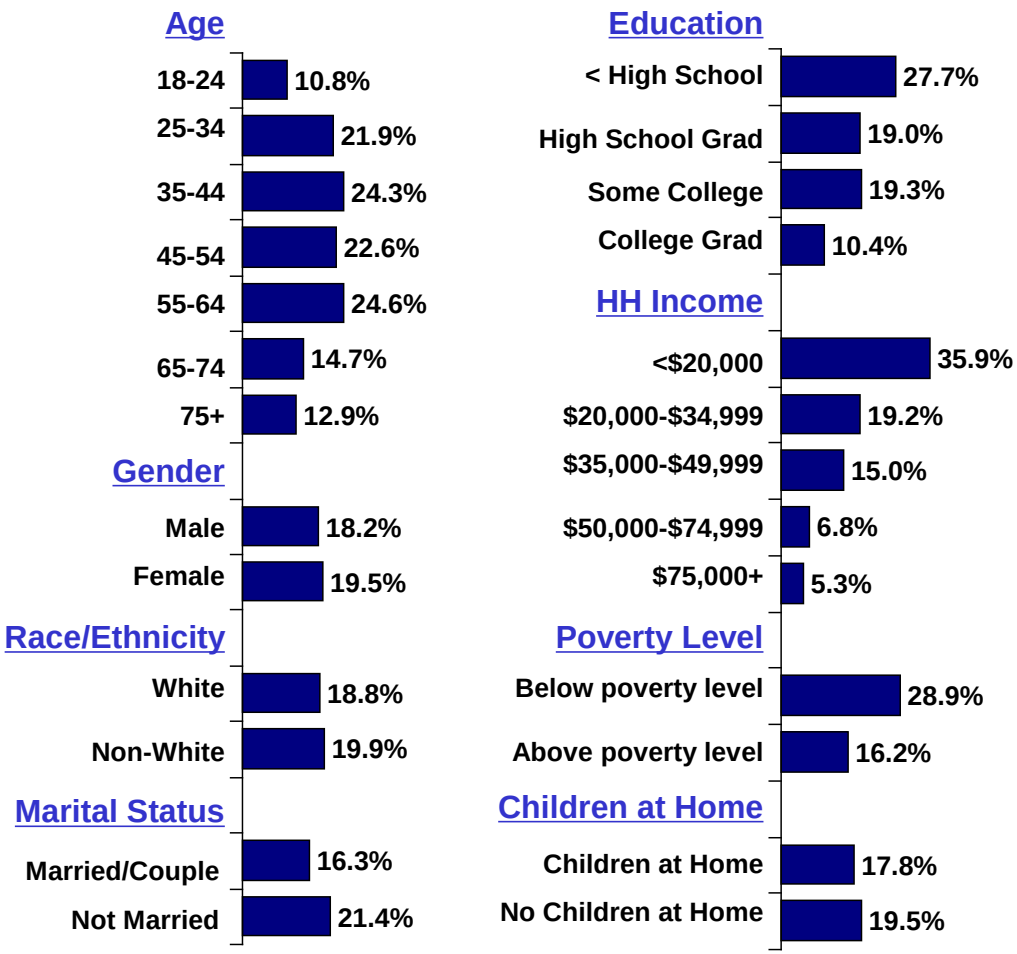
Psychological Distress

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.

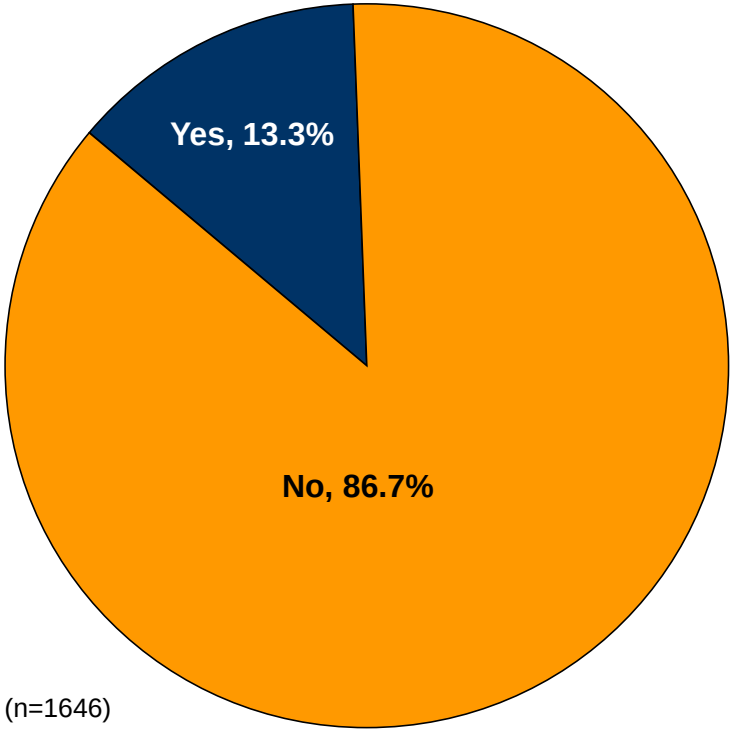
Mild to Severe Psychological Distress by Demographics



Of all SHBRH area adults, 13.3% currently take medication or receive treatment for a mental health condition or emotional problem. However, those who could benefit the most from medication/treatment are not getting it as often as they should: roughly four in ten adults classified as having "severe psychological distress" and/or having "poor mental health" currently take medication or receive treatment for their mental health issues.

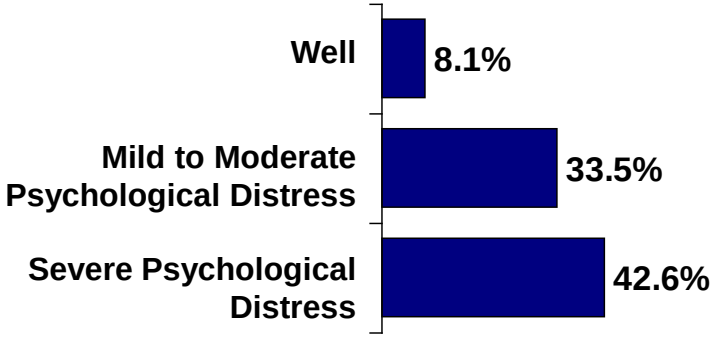
Medication and Treatment for Psychological Distress

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



(n=1646)

Percent Taking Medication/Receiving Treatment by Psychological Distress Category



Percent of Those Classified as "Poor Mental Health" That are Taking Medication/Receiving Treatment

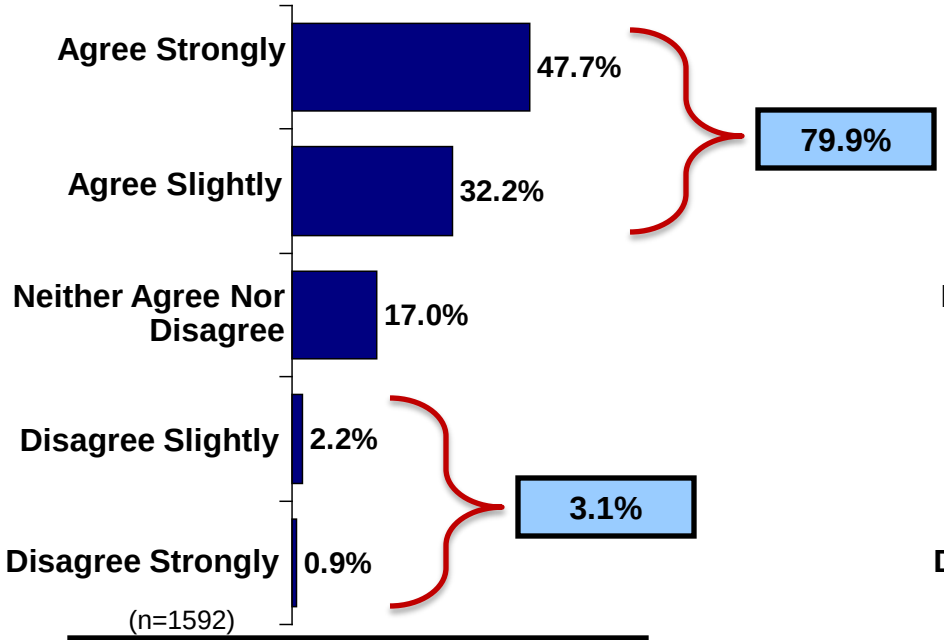
38.1%

Q22.7: Are you now taking medicine or receiving treatment from a doctor or other health care professional for any type of mental health condition or emotional problem?

The vast majority (79.9%) of area adults believe treatment can help people with mental illness lead normal lives. On the other hand, only four in ten (40.2%) think people are generally caring and sympathetic toward people with mental illness and this drops to 27.4% among those with severe psychological distress. This stigma could be a reason that although the vast majority of people with mild to severe psychological distress believe treatment works far fewer seek it.

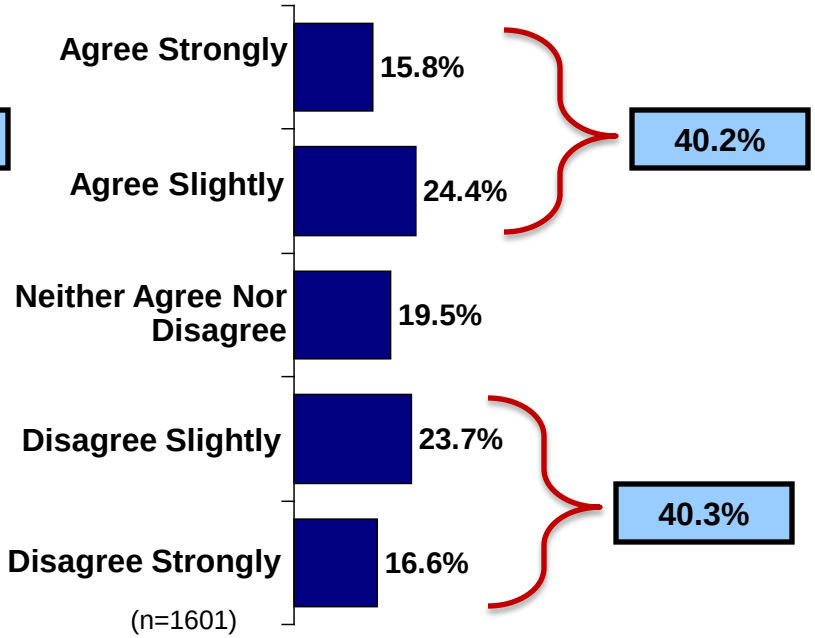
Perceptions of Mental Health Treatment and Mental Illness

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



Agree by Psychological Distress
- Well (78.4%)
- Mild to Moderate (86.2%)
- Severe (90.6%)

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



Agree by Psychological Distress
- Well (42.1%)
- Mild to Moderate (34.5%)
- Severe (27.4%)

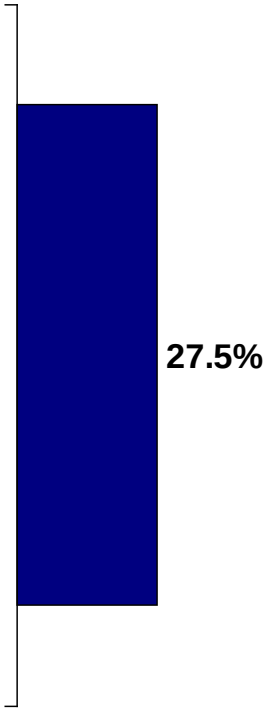
22.8 What is your level of agreement with the following statement? "Treatment can help people with mental illness lead normal lives." Do you – agree slightly or strongly, or disagree slightly or strongly?

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

Six in ten (61.2%) of SHBRH area adults are considered to be either overweight or obese per their BMI. More than one-third (36.8%) are at a healthy weight.

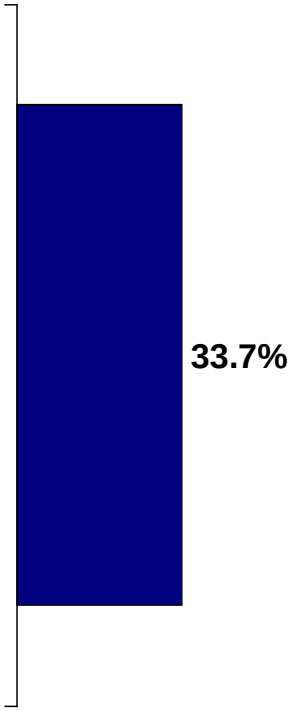
Weight Status

Obese* (Total Sample)



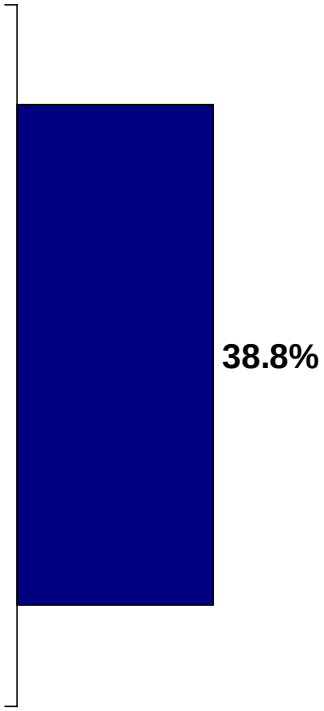
*Among all adults, the proportion of respondents whose BMI was greater than or equal to 30.0.

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

Not Overweight or Obese* (Total Sample)



Healthy Weight = 36.8%
Underweight = 2.0%

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

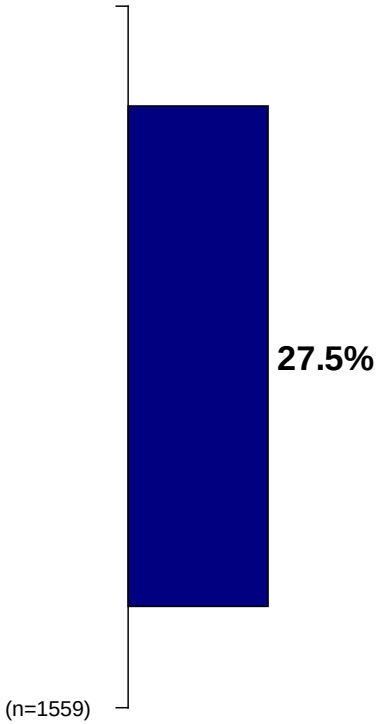
Q13.10: About how much do you weigh without shoes?
Q13.11: About how tall are you without shoes?

(n=1559)

Obesity is a condition that affects adults regardless of socioeconomic or socio-demographic characteristics. That said, adults most likely to be obese come from groups that include those aged 55-74, who are non-White, and making less than $20K annually. Women are slightly more likely to be obese than men.

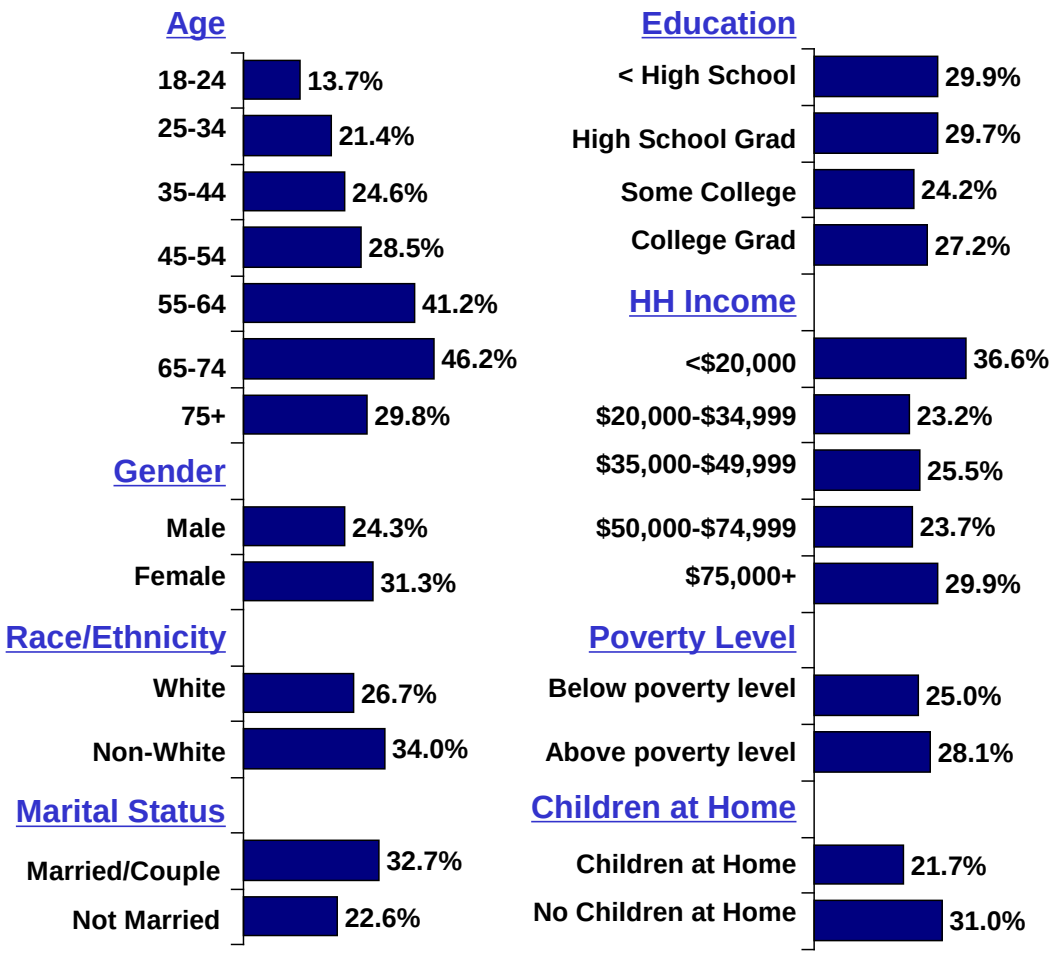
Weight Status (Cont'd.)

Obese* (Total Sample)



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

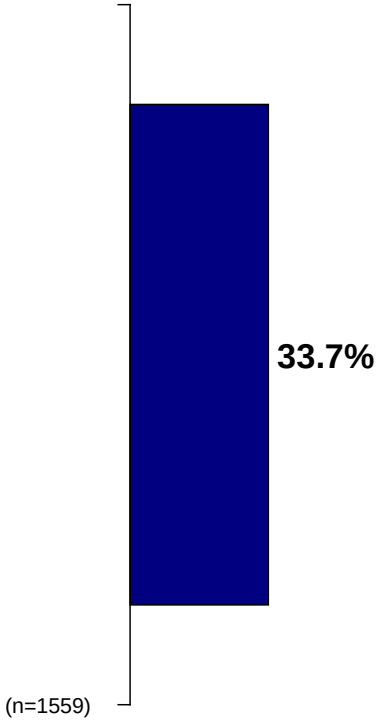
Obese by Demographics



Men are far more likely to be considered overweight (but not obese) than women, and Whites are more likely to be overweight than non-Whites. Being overweight is not associated with particular levels of education or income.

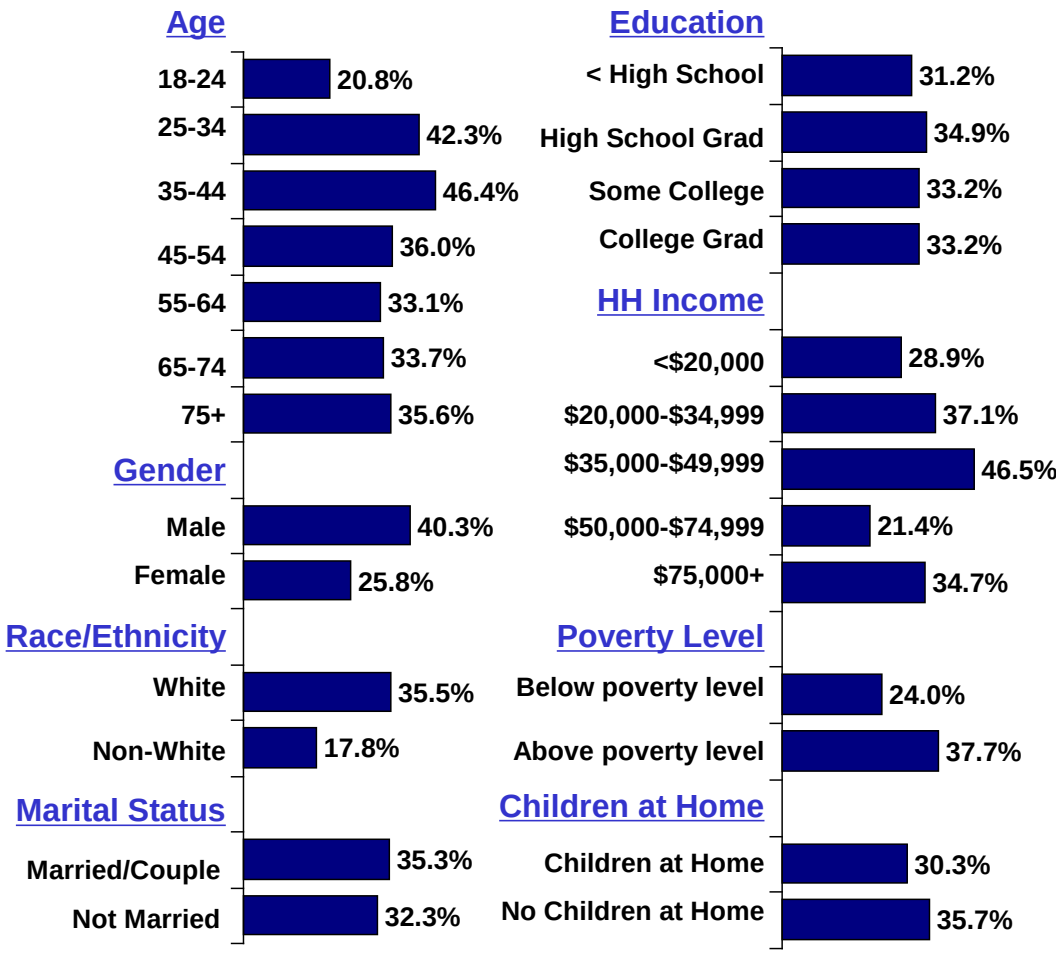
Weight Status (Cont'd.)

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.

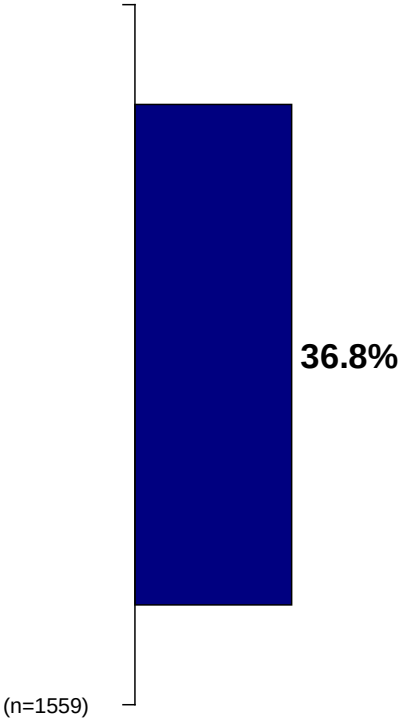
Overweight by Demographics



The youngest adults (18-24) are by far the most likely to be at a healthy weight. Women and non-Whites are more likely to be at a healthy weight than men and Whites, respectively. Adults with the least education and income are slightly less likely to be at a healthy weight compared to adults with the highest levels of education and income.

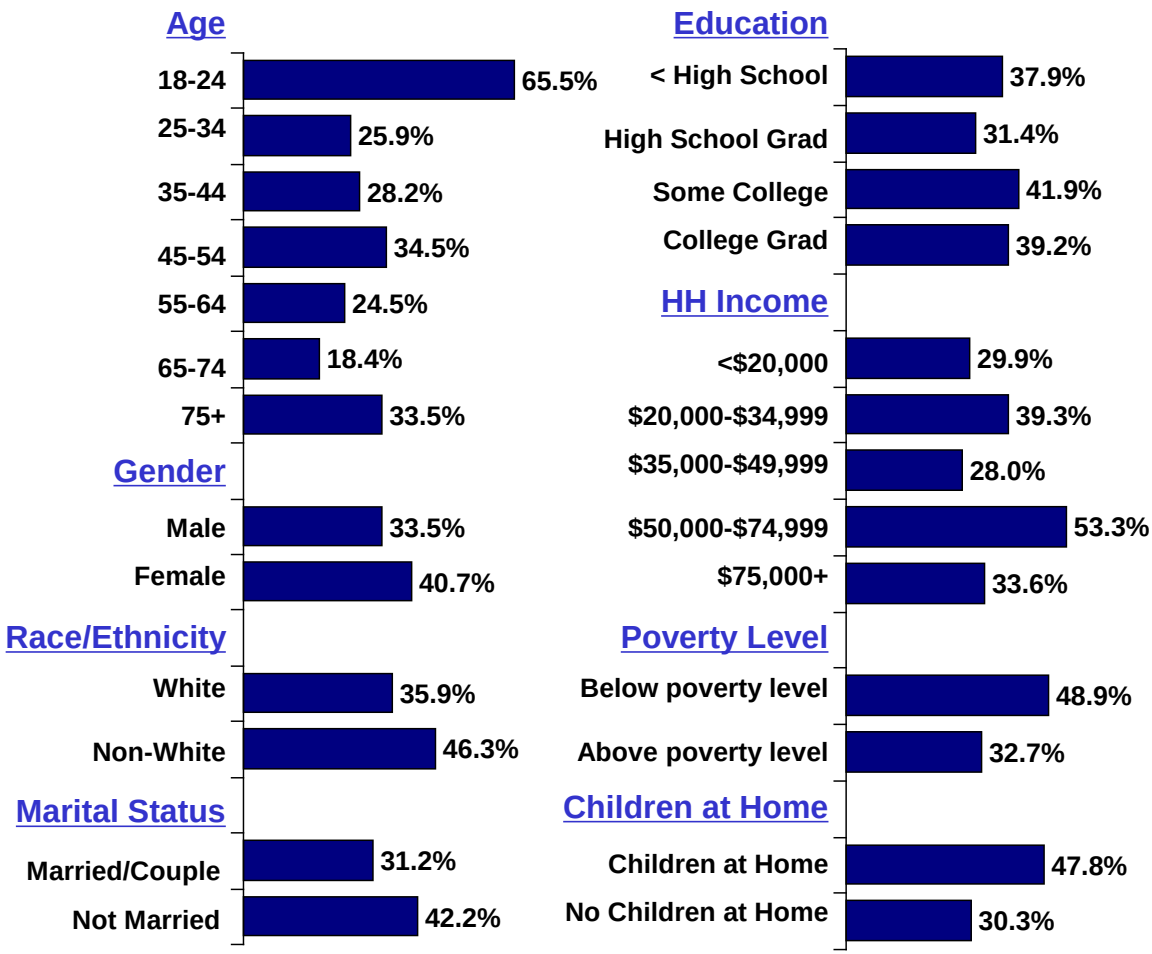
Weight Status (Cont'd.)

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

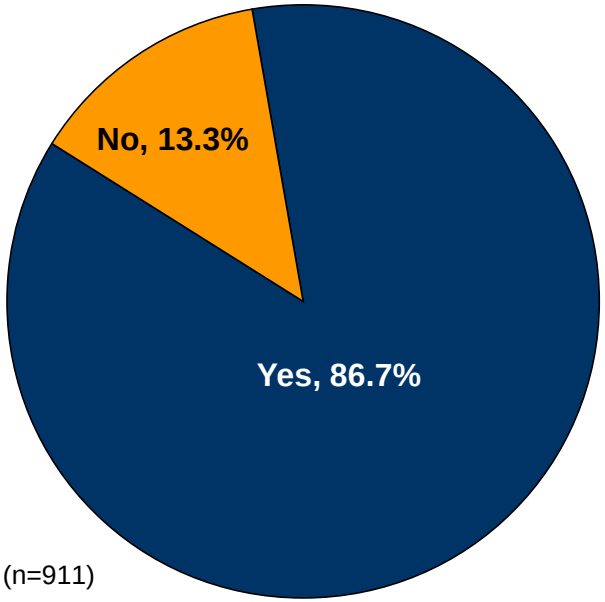


Health Care Access

Almost nine in ten (86.7%) adults under age 65 have health care coverage. The primary source of health coverage for all adults is a plan purchased through an employer or union. Roughly one in ten (9.6%) purchase health coverage on their own.

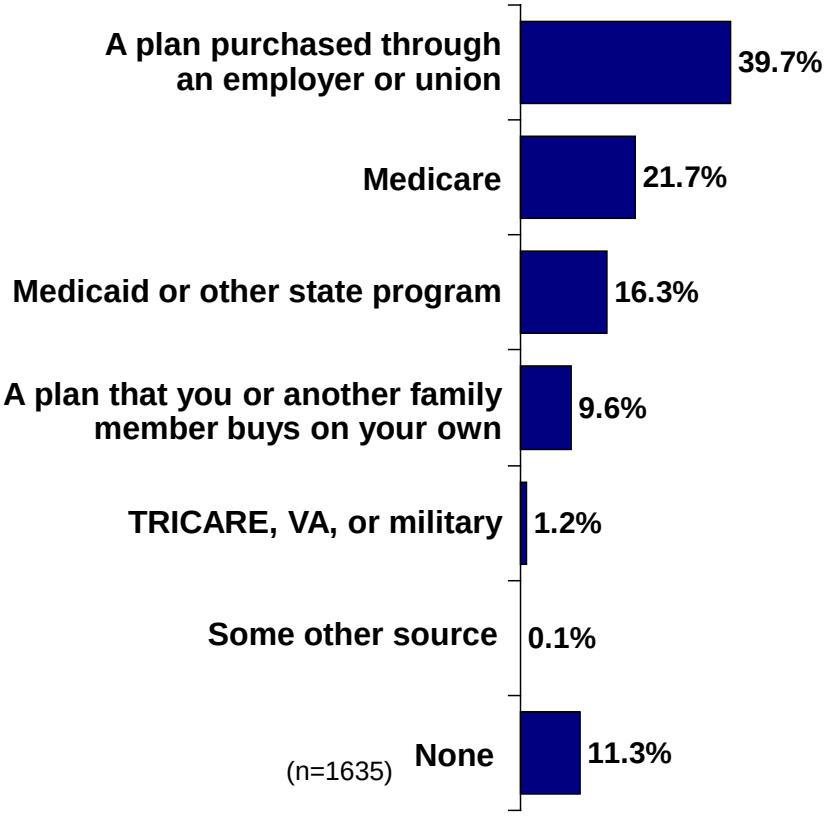
Health Care Coverage

Currently Have Health Coverage (Among Adults 18-64)



(n=911)

Primary Source of Health Coverage (Total Sample)



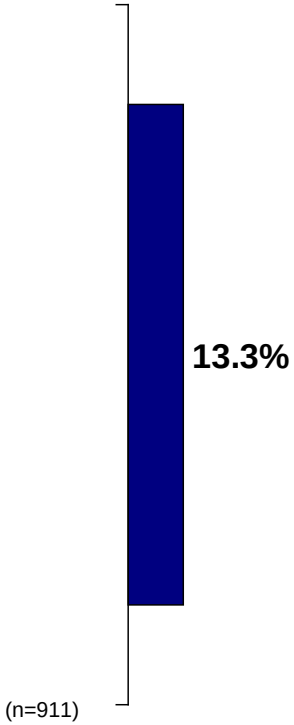
(n=1635)

Q3.1: Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare or Indian Health Services?
Q3.2: What is the primary source of your health coverage? Is it….?

Having health care coverage is related to education and income; those with the highest levels of education and income are most likely to have health care coverage. Additionally, those lacking coverage come from groups that are youngest (aged 18-34), male, unmarried, White, and below the poverty level. Further, and perhaps more alarming, those with children at home are less likely to have coverage than those with no children at home.

Health Care Coverage Among Adults Aged 18-64 Years

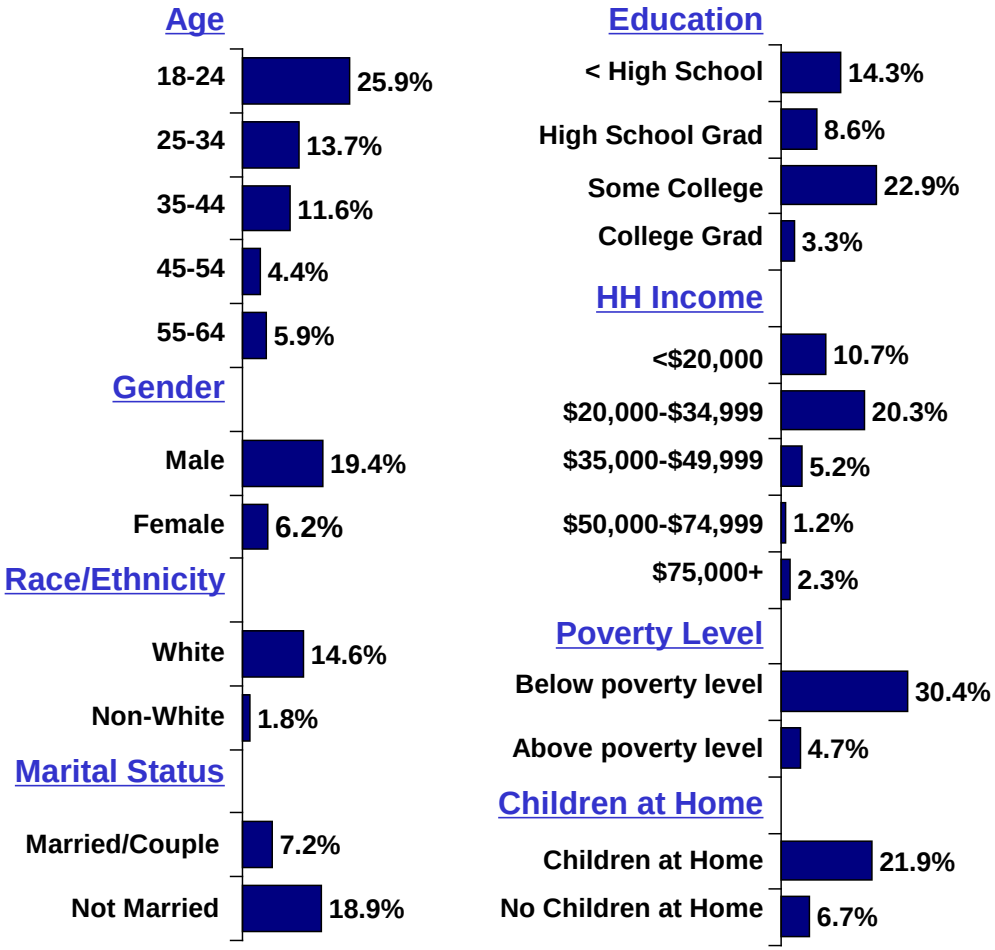
No Health Care Coverage* (Among Adults 18-64)



(n=911)

*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.

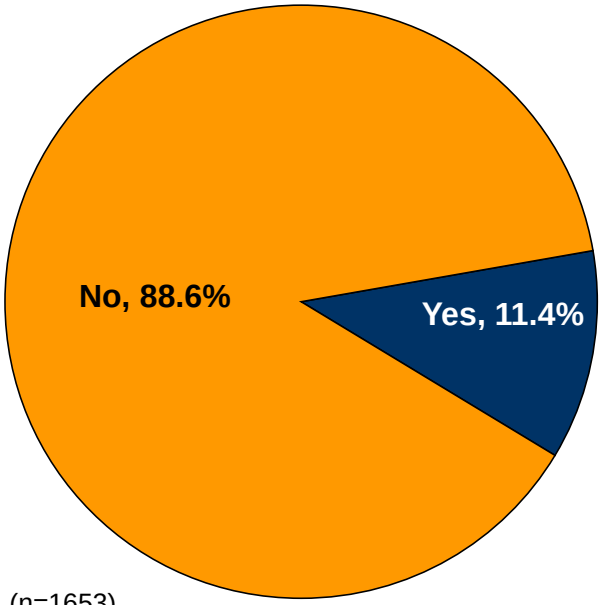
No Coverage by Demographics



More than one in ten (11.4%) area adults have foregone health care in the past 12 months because of cost. For those who delayed needed medical care this past year, there are myriad reasons cited, however **cost**, either in general terms or for co-pays and deductibles, is the greatest factor. Further, 7.8% could not take prescribed medication due to cost.

Problems Receiving Healthcare

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

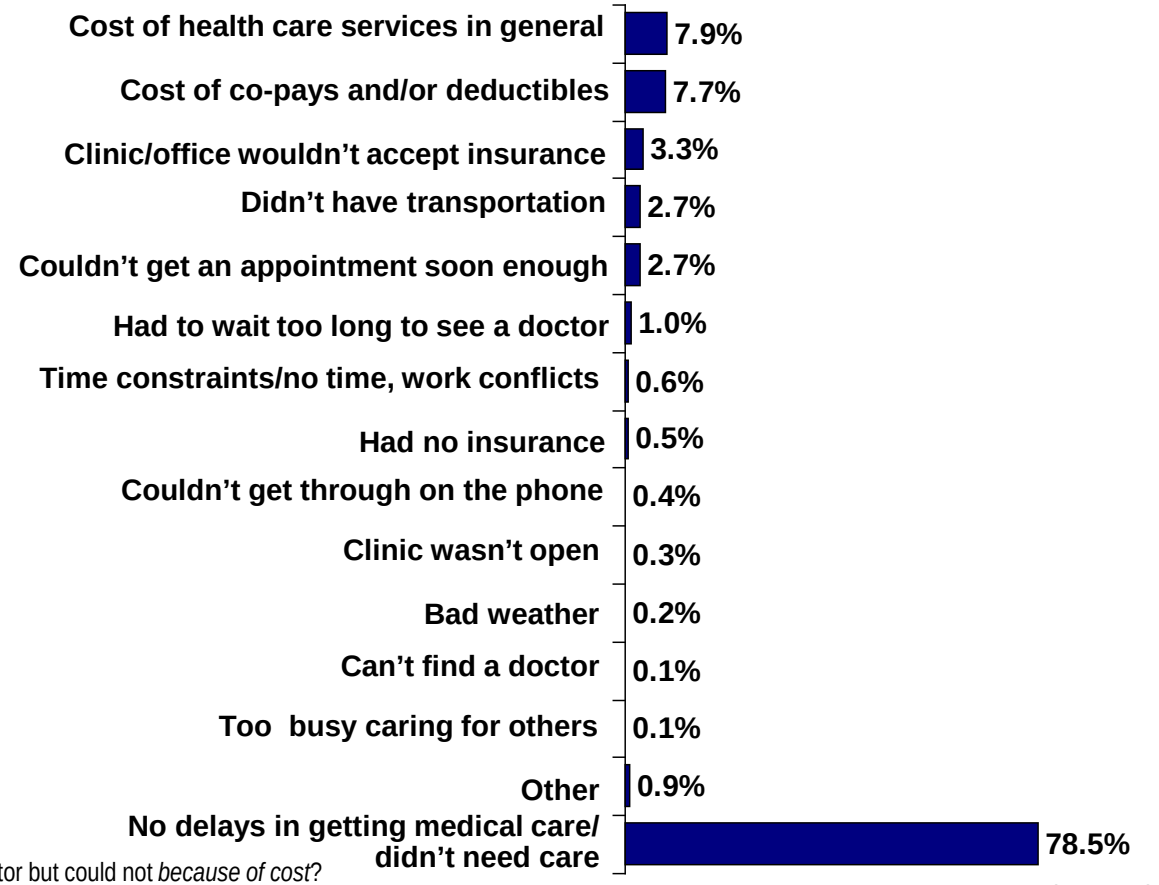


(n=1653)

Could Not Take Medication Due to Cost = 7.8%

(n=1653)

Reasons for Delays in Getting Needed Medical Care



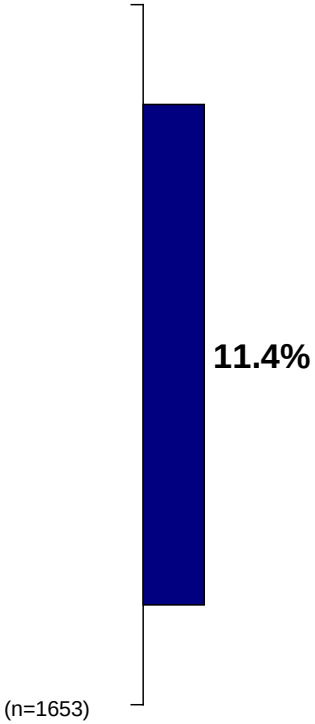
(n=1653)

Q3.4: Was there a time in the past 12 months that you needed to see a doctor but could not *because of cost*?
Q3.5: There are many reasons people delay getting needed medical care. Have you delayed getting needed medical care for any of the following reasons in the past 12 months?
Q3.9: Was there a time in the past 12 months when you did not take your medication as prescribed because of cost? Do not include over the counter (OTC) medication.

Cost, as a barrier to health care, is inversely related to income; those who most often find it a barrier come from groups that have incomes below $20K and are below the poverty level. Conversely, those who experience few problems receiving health care due to costs typically have household incomes $50K or above.

Problems Receiving Health Care Due to Cost

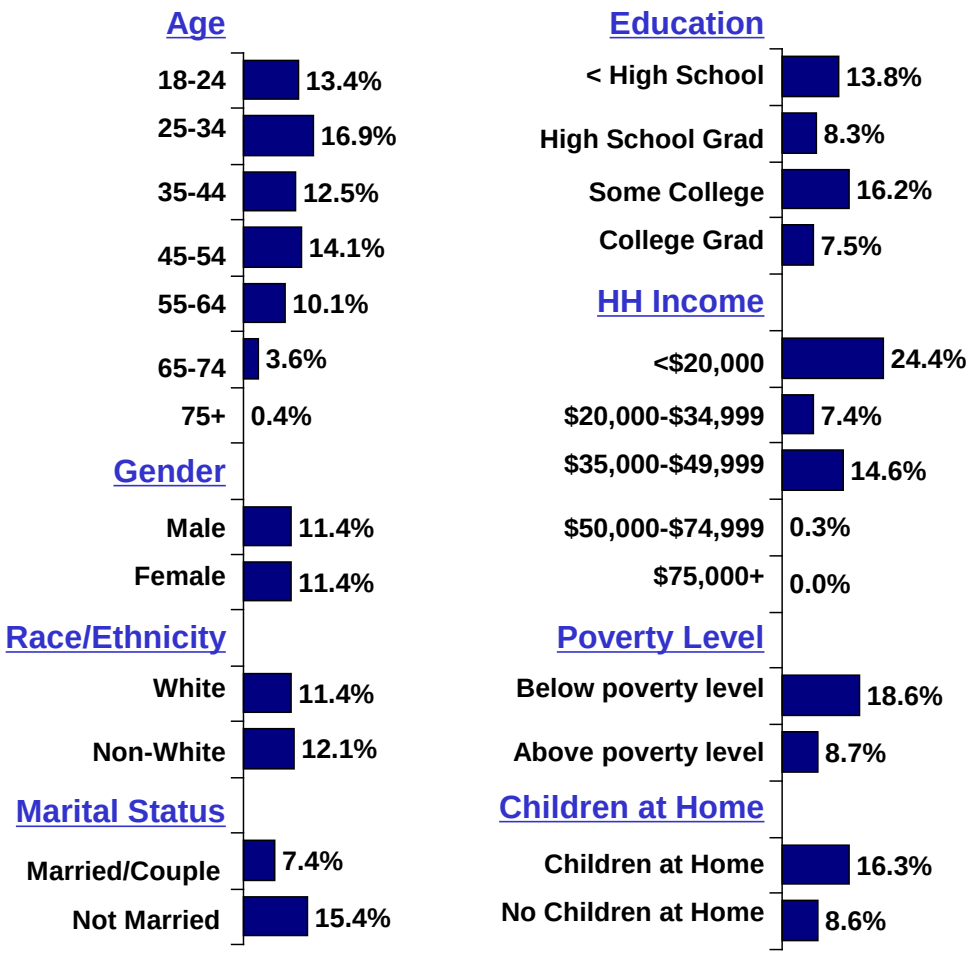
No Health Care Access During Past 12 Months Due to Cost* (Total Sample)



(n=1653)

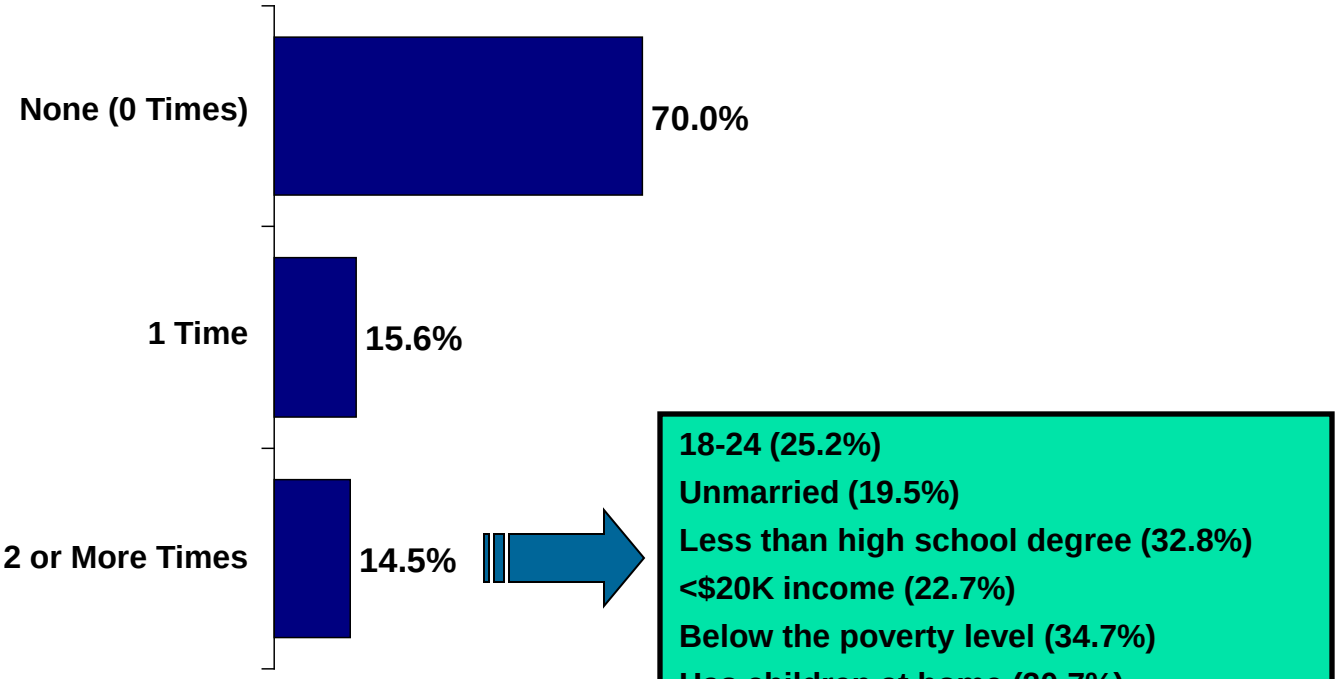
*Among all adults, the proportion who reported that in the past 12 months, they could not see a doctor when they needed to due to the cost.

No Health Care Access Due to Cost by Demographics



Among SHBRH area adults, three in ten (30.0%) visited an ER/ED in the past 12 months. Those who used these facilities averaged more than two visits during the year. Those who use the ER the most come from groups that are the youngest (18-24), unmarried, have less than a high school diploma, have children at home, and are in the lower income groups.

Number of Times Visited ER/ED in Past 12 Months

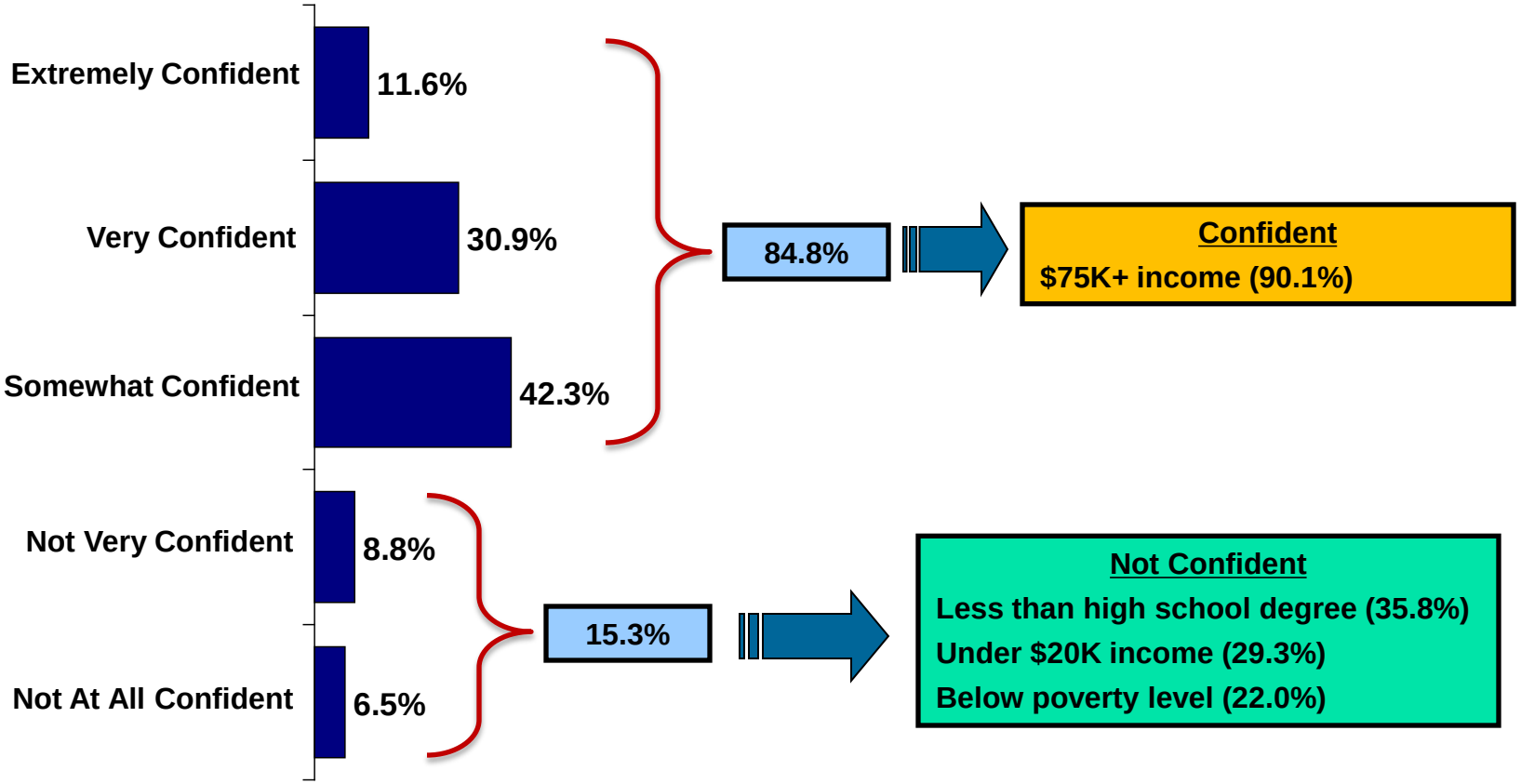


(n=1648)

Q3.8: How many time have you been to an Emergency Department/Room in the past 12 months?

A large majority (84.8%) of adults are at least somewhat confident they can successfully navigate the health care system, however, 15.3% are not very or not at all confident. The most confident groups are those with the highest incomes, while the least confident groups are those with less than a high school degree and the poorest.

Confidence in Navigating the Health Care System



(n=1625)

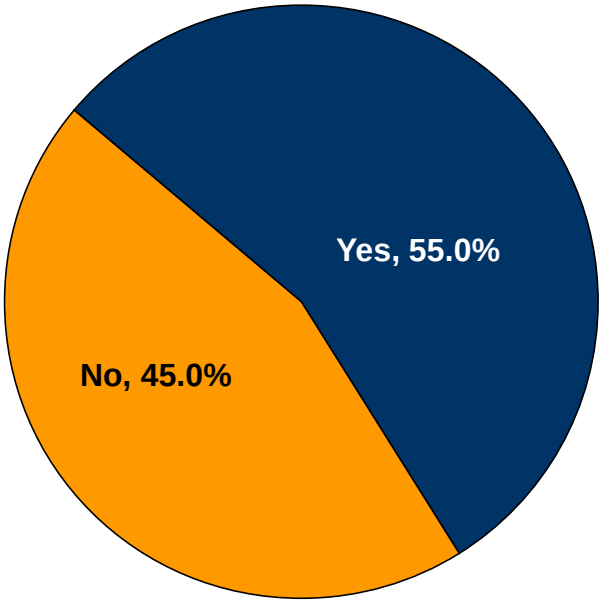
Q3.10: How confident are you that you can successfully navigate the health care system? Would you say….?

Risk Behavior Indicators

More than half (55.0%) of area adults participate in leisure time physical activity such as running, walking, or golf. Of those who do, three-fourths (74.1%) participate at least three times per week. Additionally, three-fourths (74.0%) participate for less than four hours per week, while 13.6% participate for six hours or more.

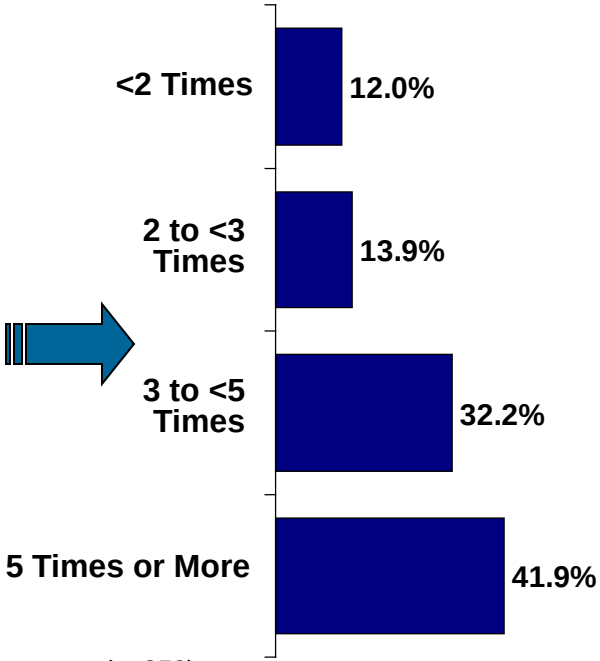
Participation in Physical Activity

Participation in Leisure Time Physical Activity/Exercise



(n=1650)

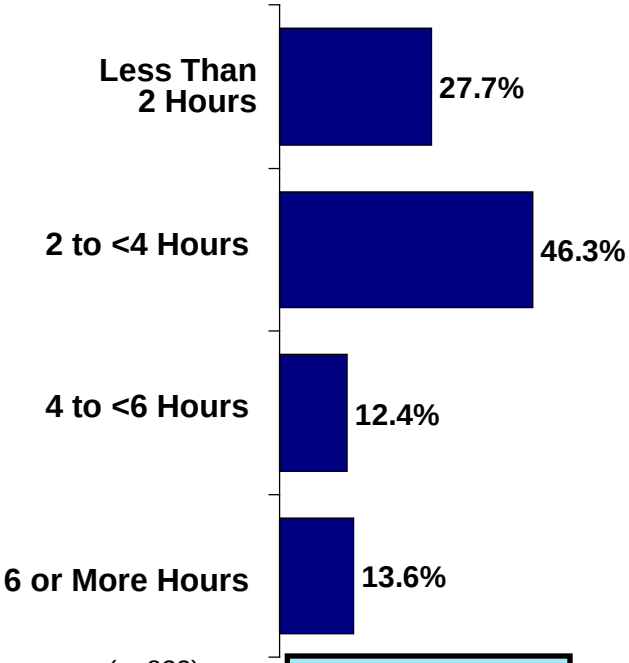
Number of Times Performed Physical Activity Per Week (Among Those Who Participate)



(n=850)

Mean = 4.2
Median = 4.0

Number of Hours Performed Physical Activity Per Week (Among Those Who Participate)



(n=822)

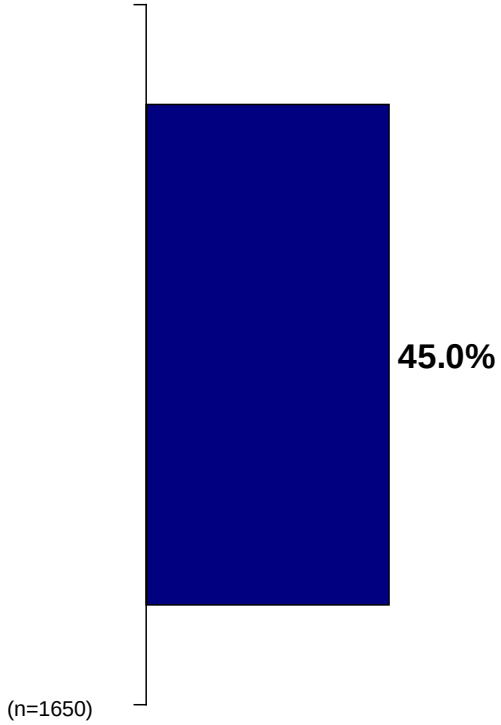
Mean = 4.3
Median = 2.5

Q18.1: During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?
Q18.2: (If yes) How many times per week or per month did you take part in physical activity during the past month?
Q18.3: And when you took part in physical activity, for how many minutes or hours did you usually keep at it?

The amount of leisure time physical activity area adults engage in is directly related to education and strongly associated with income; those with the most education and highest incomes are most active and those with the least education and income are least active. The least active groups include adults with less than a high school diploma and those with annual incomes below $20K.

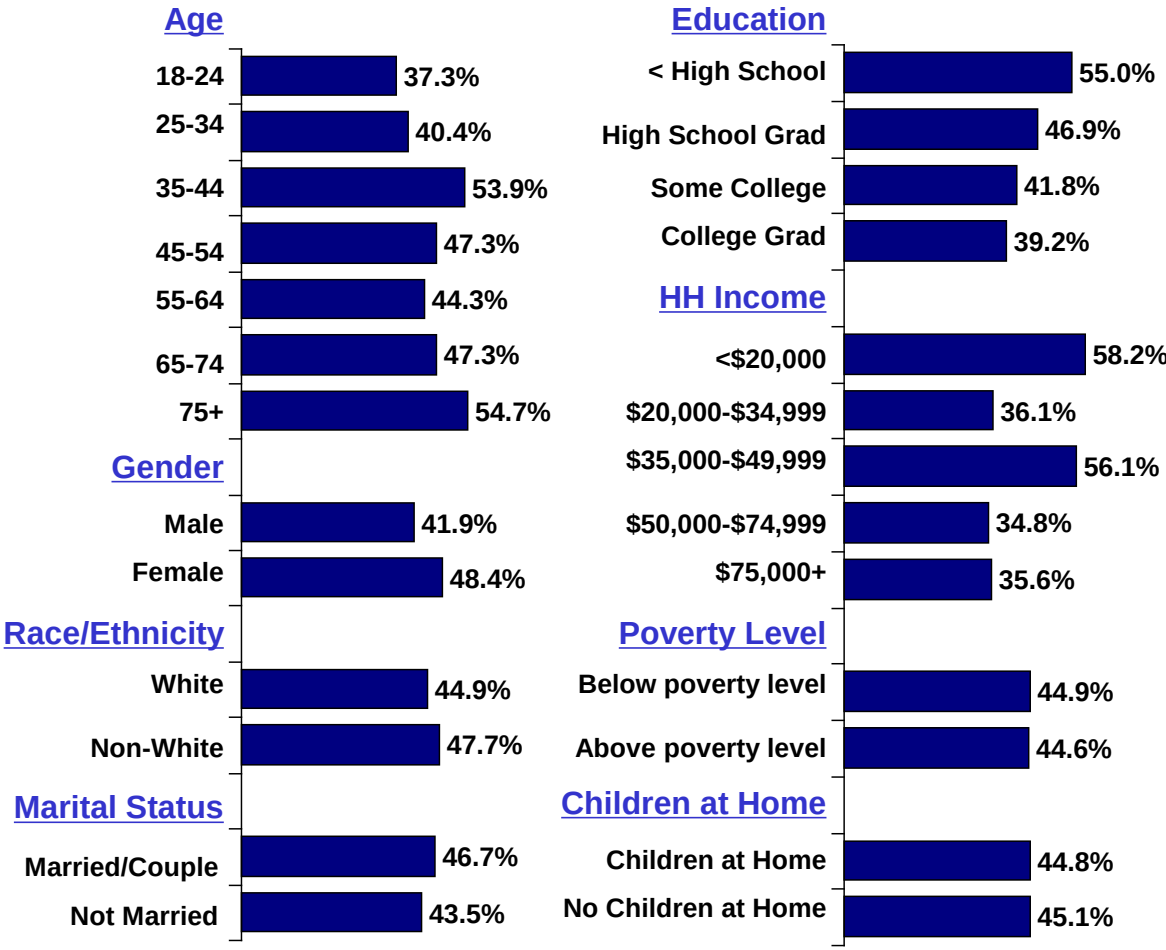
Leisure Time Physical Activity

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.

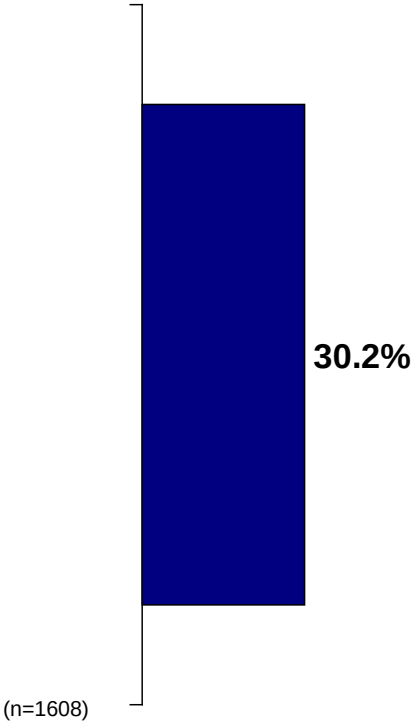
No Leisure Time Activity by Demographics



For SHBRH area adults, participating in adequate amounts of aerobic physical activity is less related to education and income. Adults participating in adequate amounts of activity tend to be younger (18-34) or male.

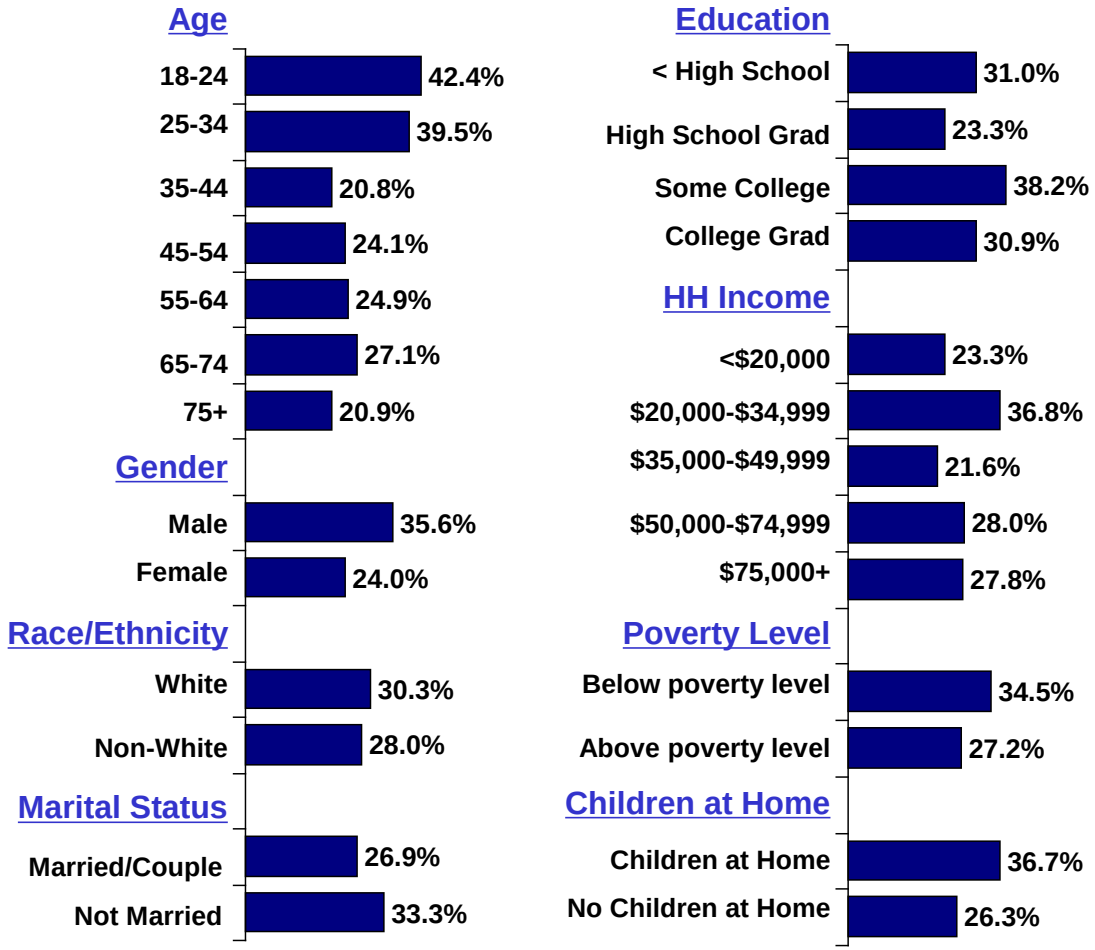
Leisure Time Physical Activity (Cont'd.)

Adequate Aerobic Physical Activity* (Total Sample)



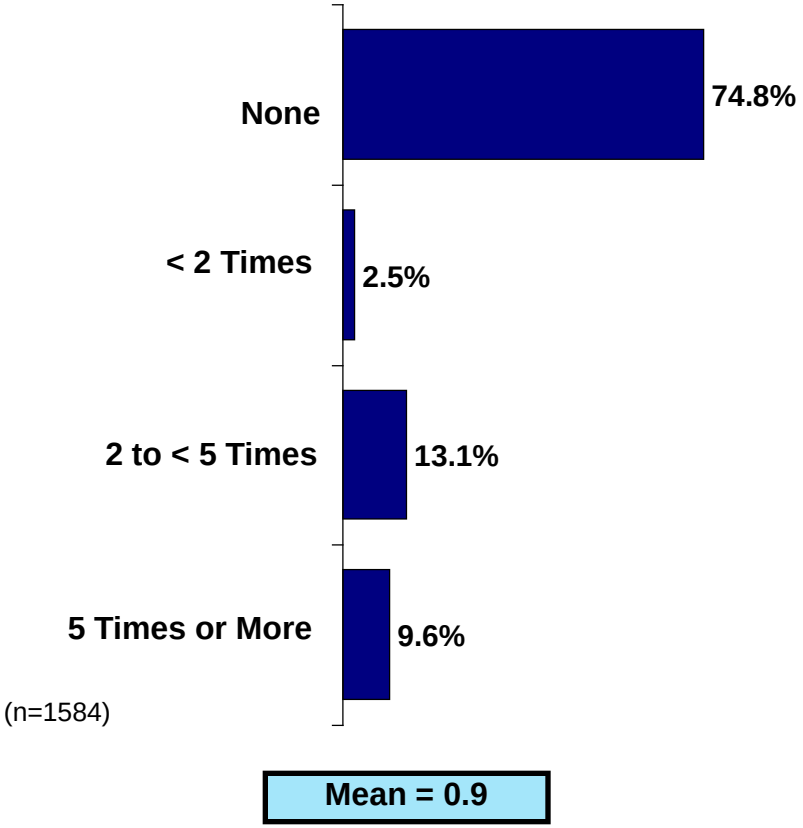
*Among all adults, the proportion who reported that they do either moderate physical activities for at least 150 minutes per week, vigorous physical activities for at least 75 minutes per week, or an equivalent combination of moderate and vigorous physical activities.

Adequate Aerobic Physical Activity by Demographics



Among SHBRH area adults, three-fourths (74.8%) do not engage in muscle strengthening activities. On the other hand, more than one in five (22.7%) perform muscle-strengthening activities at least twice a week.

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

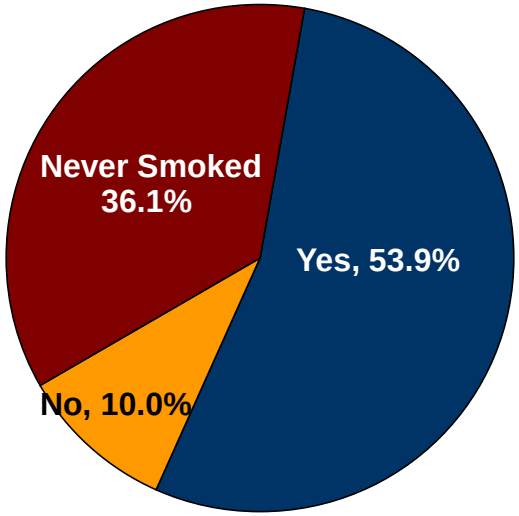


Q18.4: During the past month, how many times per week, or per month, did you do physical activities or exercises to STRENGTHEN your muscles? DO NOT count aerobic activities like walking, running, or bicycling. Count activities using your body weight like yoga, sit-ups or push-ups and those using weight machines, free weights, or elastic bands.

More than half (53.9%) of area adults have smoked at least 100 cigarettes in their lifetime. Of these, 48.4% currently smoke every day and 6.0% smoke some days; these individuals are classified as smokers. Three in ten (29.3%) area adults are considered to be smokers and 24.6% are former smokers (smoked at least 100 cigarettes in their life but currently do not smoke at all).

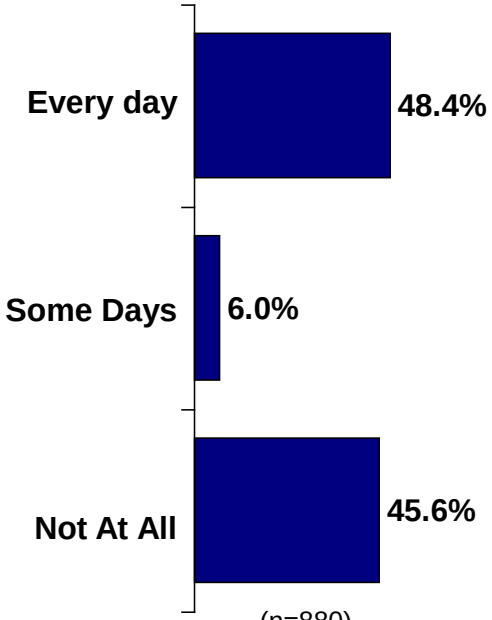
Cigarette Smoking

Smoked 100 Cigarettes in Lifetime



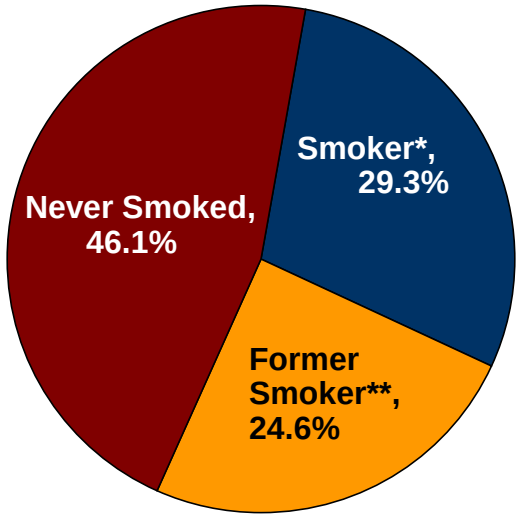
(n=1648)

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



(n=880)

Smoking Status



(n=1648)

Q12.1: Have you smoked at least 100 cigarettes in your entire life?
Q12.2: Do you now smoke cigarettes everyday, some days, or not at all?

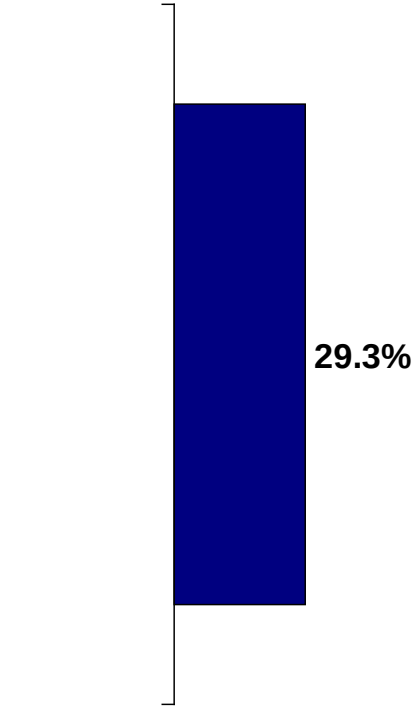
*Among all adults, the proportion who reported that they had ever smoked at least 100 cigarettes (5 packs) in their life and that they smoke cigarettes now, either every day or on some days.

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

Cigarette smoking is inversely related to education and income. Smokers are most likely found among adults who: are men, are unmarried, have less than a high school diploma, live under the poverty level, and earn less than $20K per year.

Cigarette Smoking (Cont'd.)

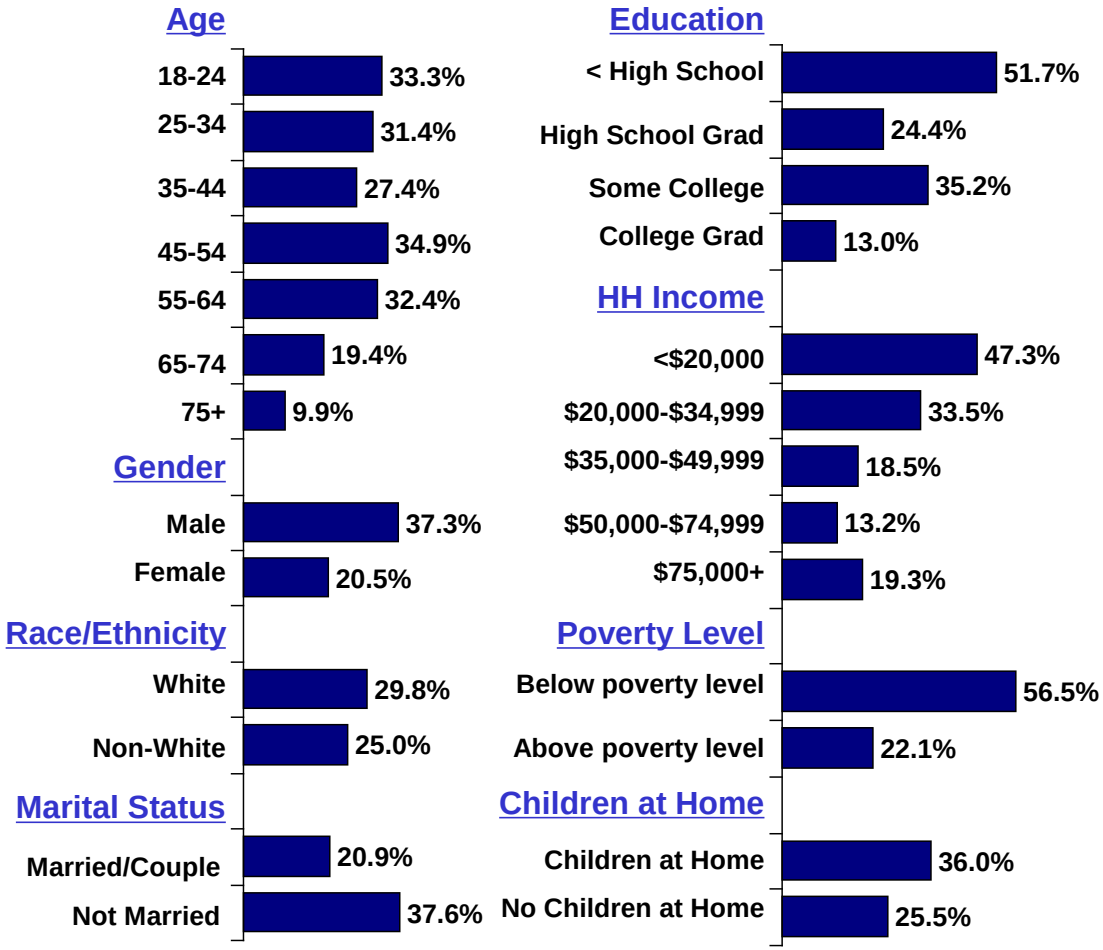
Current Cigarette Smoking* (Total Sample)



(n=1648)

*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.

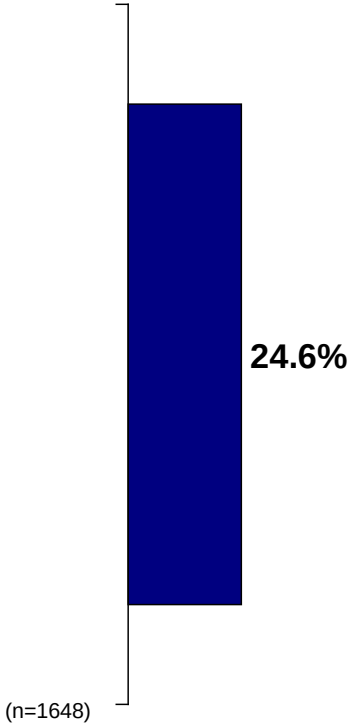
Current Cigarette Smoking by Demographics



Area adults most likely to be former smokers come from groups that are female, non-White, married, have no children at home, and live above the poverty level. Being a former smoker is also directly related to age.

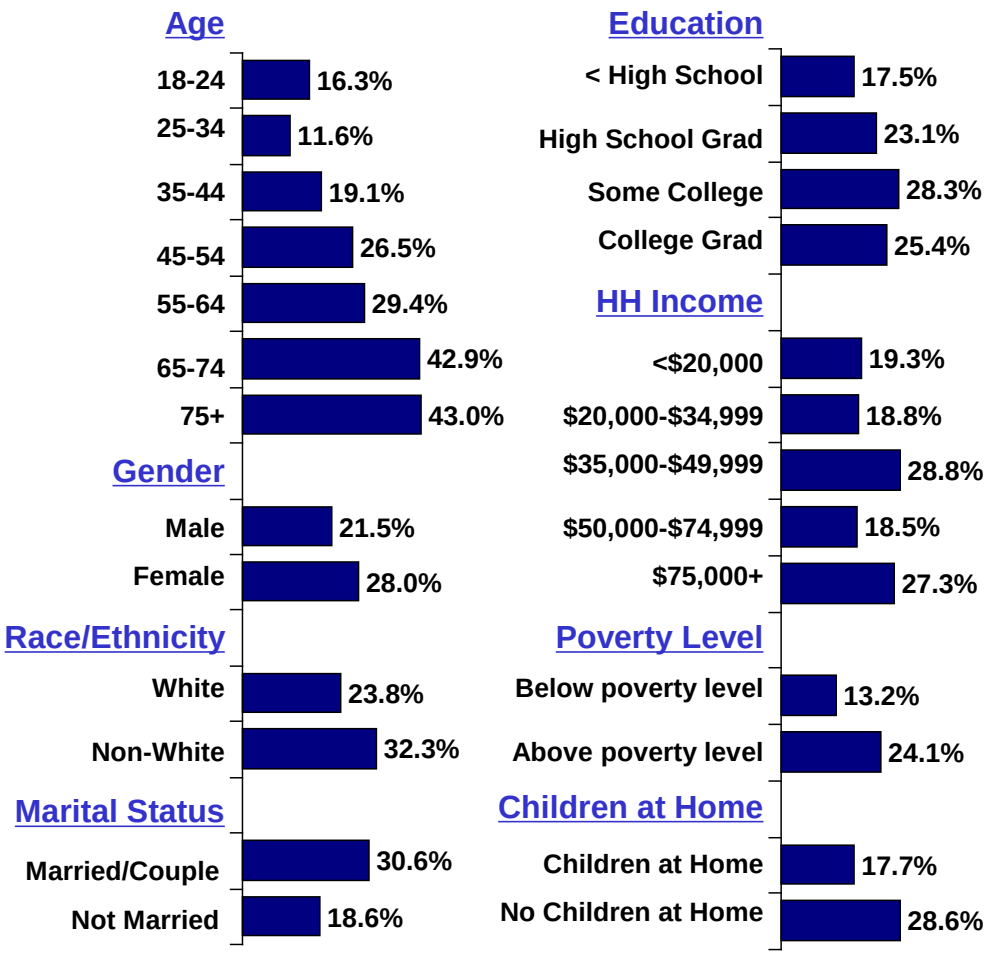
Cigarette Smoking (Cont'd.)

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.

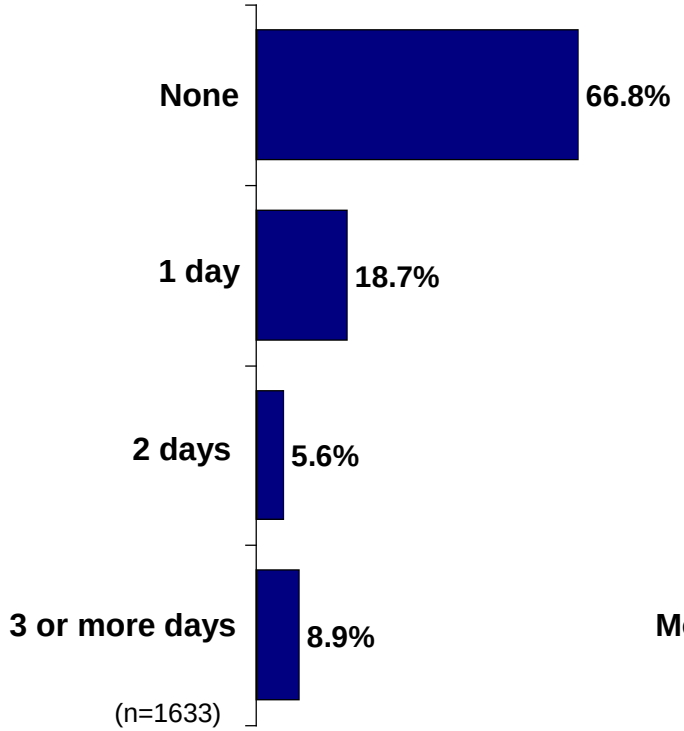
Former Cigarette Smoking by Demographics



With regard to alcohol consumption, two-thirds (66.9%) area adults are considered non-drinkers because they reported having no alcoholic drinks in the past 30 days. Additionally, 28.3% are considered to be light to moderate drinkers. Heavy drinkers comprise 4.7% of area adults, meaning they consume an average of more than eight (if female) or fourteen drinks (if male) per week.

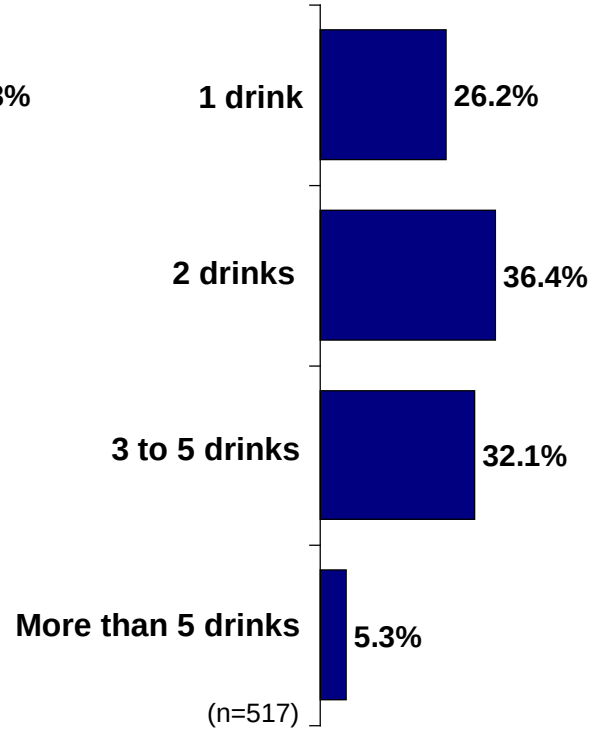
Alcohol Consumption in Past 30 Days

Number of Days Per Week Drank Alcohol in Past 30 Days



Mean (All) = 0.7
Mean (Drinkers) = 2.1

Average Number of Drinks When Drinking



Mean = 2.5

Drinking Status

Non Drinker	66.9%
Light/Moderate Drinker	28.3%
Heavy Drinker	4.7%

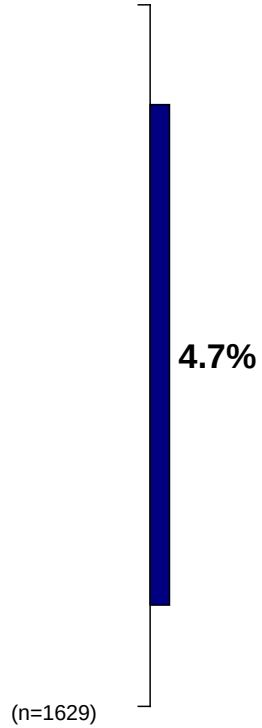
(n=1629)

Q20.1: During the past 30 days, how many days per week, or per month did you have at least one drink of any alcoholic beverage such as beer, wine, a malt beverage, or liquor?
Q20.2: One drink is equivalent to a 12-ounce beer, a 5-ounce glass of wine, or a drink with one shot of liquor. During the past 30 days, on the days when you drank, about how many drinks did you drink on the average?

Heavy drinking appears to follow little pattern for adults in the SHBRH service area. Non-Whites are more likely than Whites to engage in heavy drinking, as are those with no children at home vs. those with children at home. Adults most likely to engage in heavy drinking face the greatest financial limitations (below $20K in income, below the poverty line).

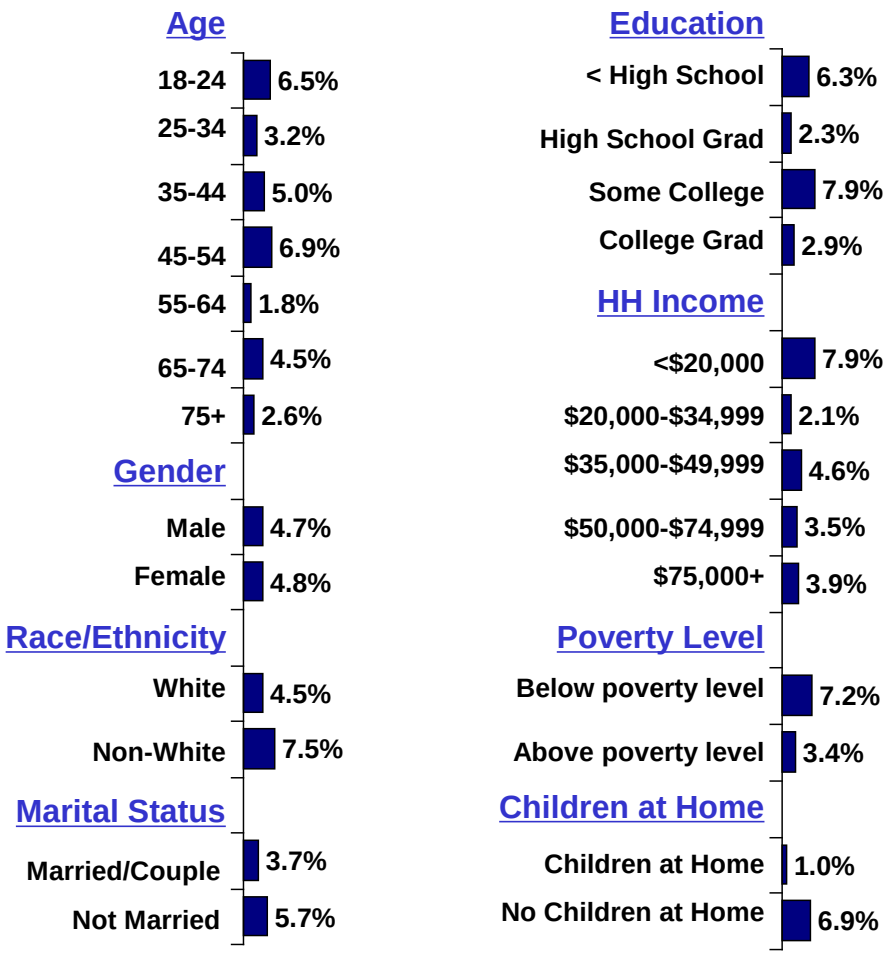
Alcohol Consumption (Cont'd.)

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.

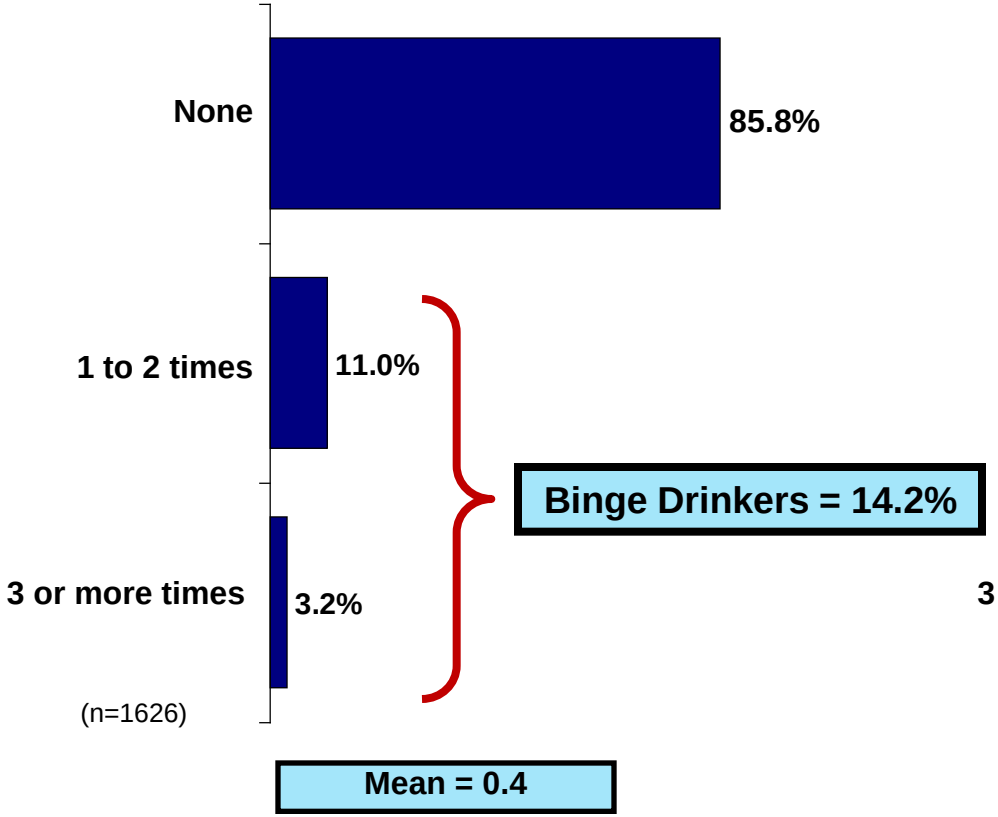
Heavy Drinking by Demographics



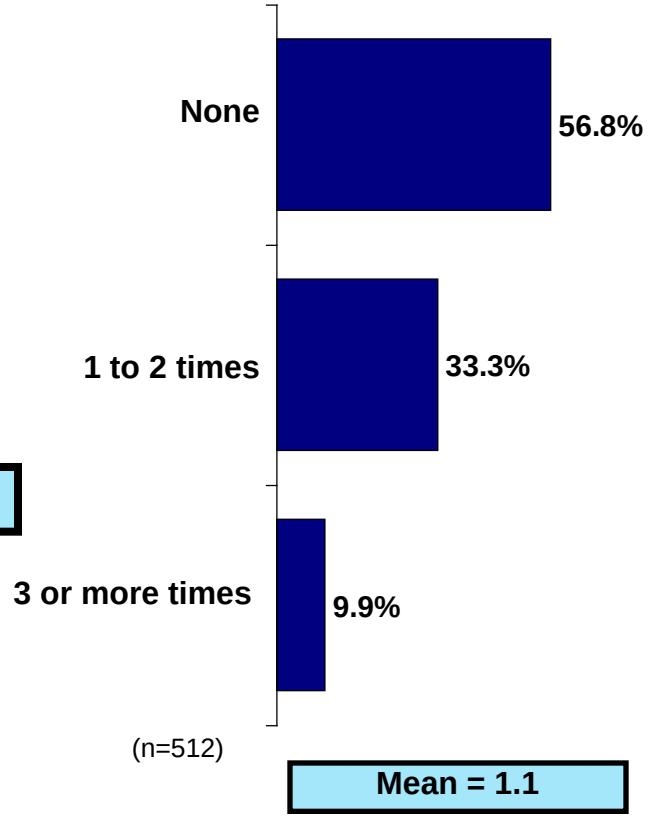
Among all adults, more than one in ten (14.2%) have engaged in binge drinking in the past 30 days. **Among those who drink, this proportion rises to 43.2%**.

Binge Drinking

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



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

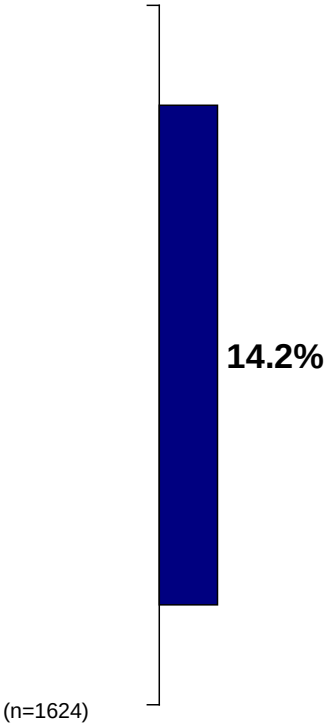


Q20.3: Considering all types of alcoholic beverages, how many times during the past 30 days did you have X (x=5 for men, x=4 for women) or more drinks on an occasion?

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 not associated with any particular levels of education or income.

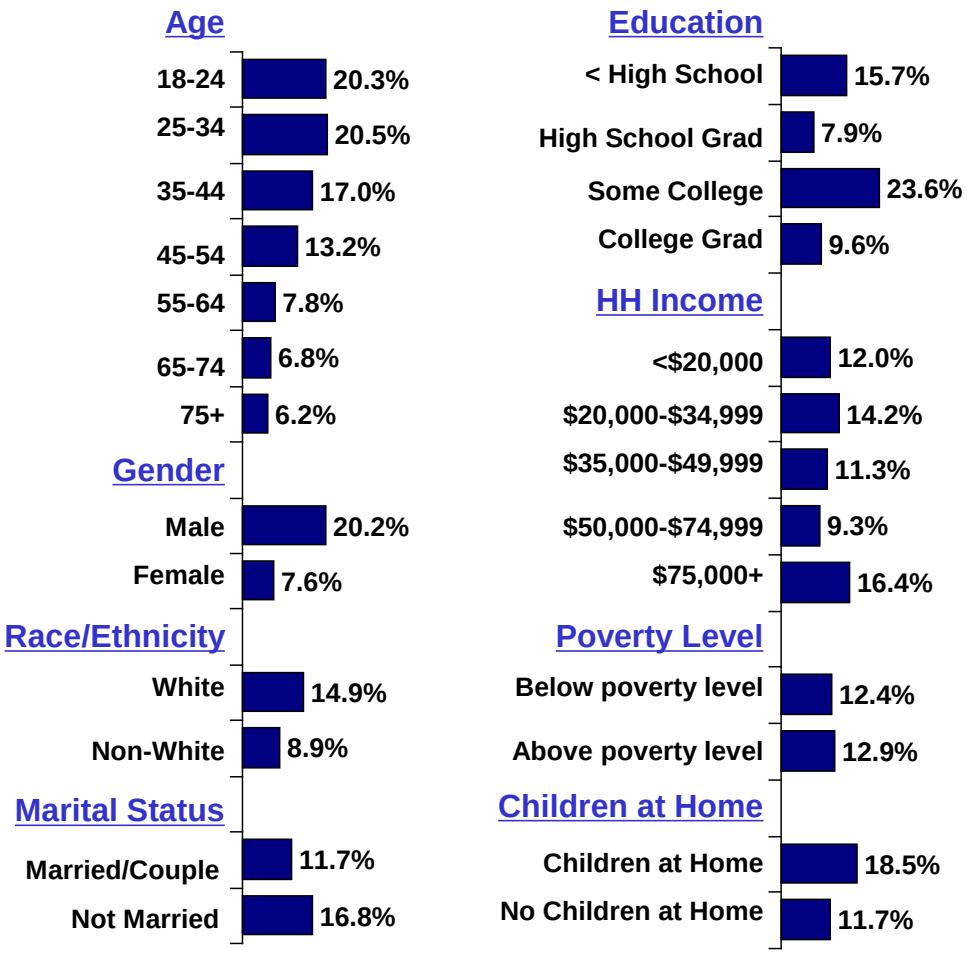
Binge Drinking (Cont'd.)

Binge Drinking* (Total Sample)



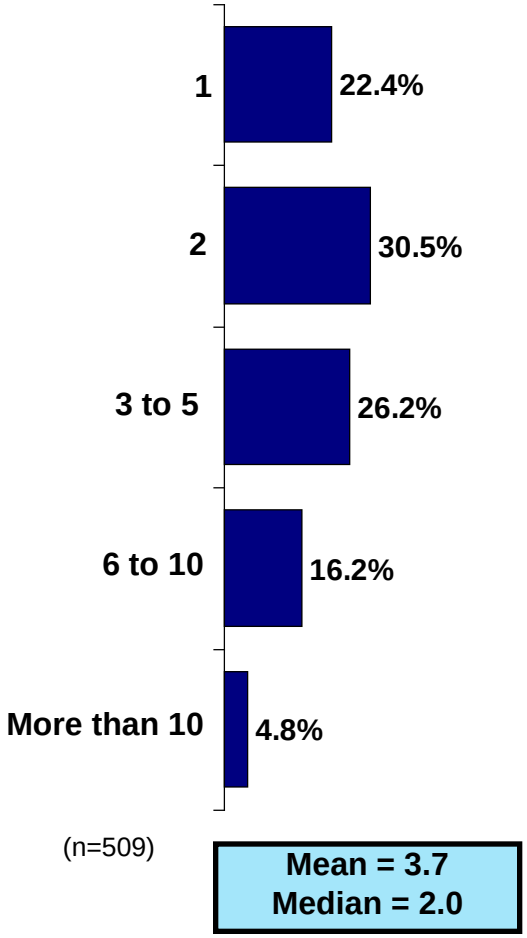
*Among all adults, the proportion who reported consuming five or more drinks per occasion (for men) or four or more drinks per occasion (for women) at least once in the previous month.

Binge Drinking by Demographics



Among SHBRH area adults who drink alcohol, half (52.9%) have at most consumed one to two drinks on any occasion in the past 30 days, while 21.0% have consumed six or more drinks.

Largest Number of Drinks Consumed on One Occasion in Past 30 Days (Among Drinkers)

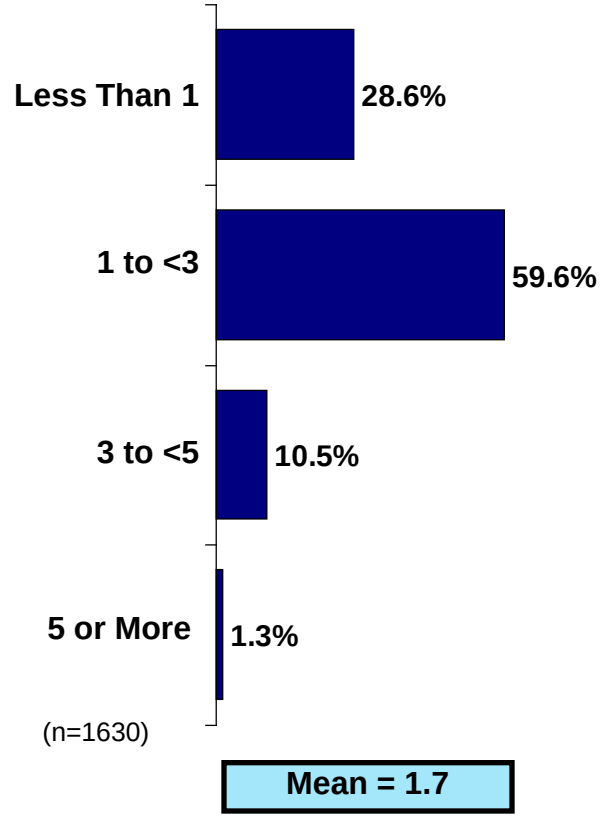


Q20.4: During the past 30 days, what is the largest number of drinks you had on any occasion?

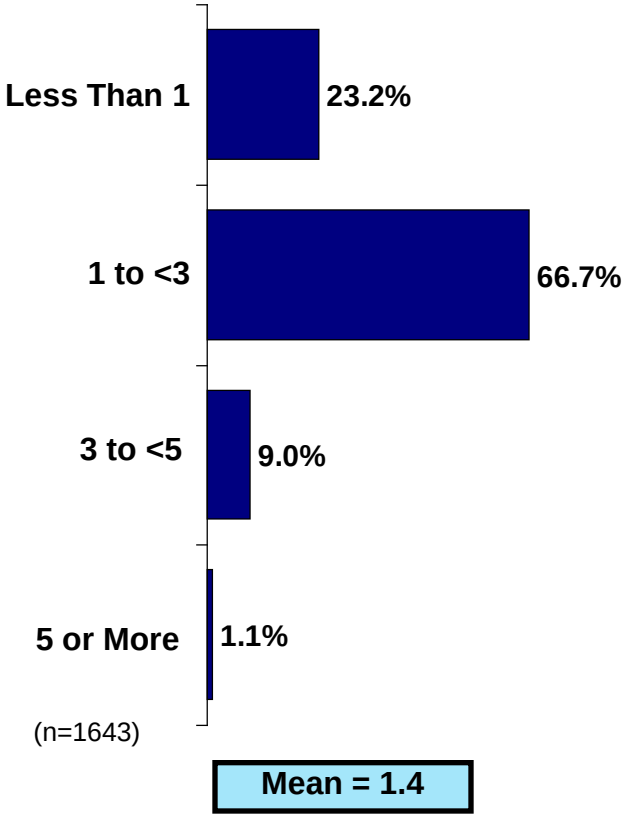
Area adults consume minor quantities of fruit (including 100% fruit juice) and vegetables per day, averaging less than two times a day for each. Taken together, fruits and vegetables are consumed on average of just under three times per day. Still, only 12.8% of adults consume adequate amounts (five times) of fruits and vegetables per day.

Consumption of Fruit and Vegetables

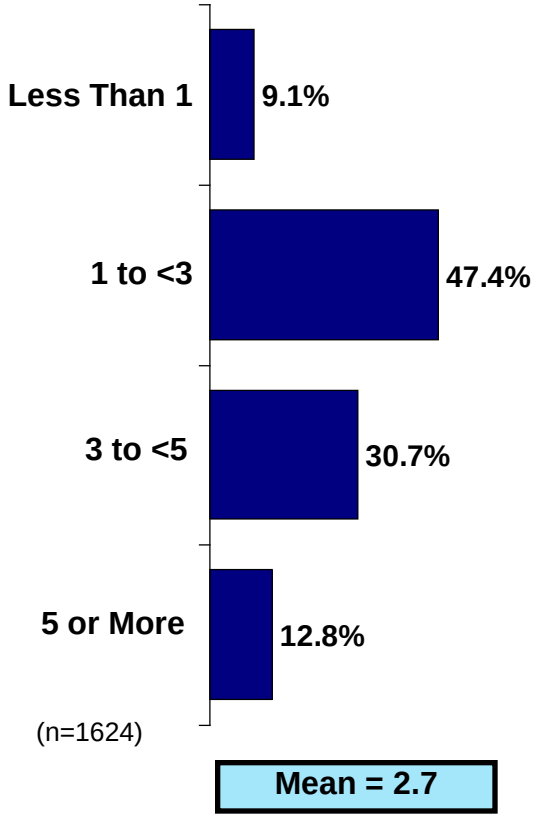
Number of Times Consumed Fruit/Fruit Juice Per Day



Number of Times Consumed Vegetables Per Day



Number of Times Consumed Fruits or Vegetables Per Day



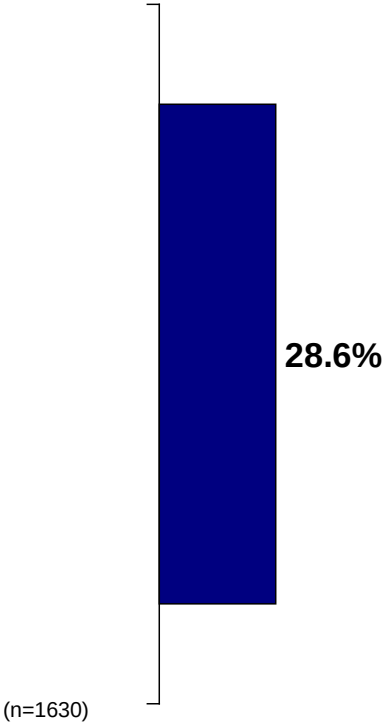
Q15.1: During the past month, how many times per day, week, or month did you eat fruit or drink 100% PURE fruit juices? Do not include fruit flavored drinks with added sugar or fruit juice you made at home and added sugar to. Only include 100% juice.

Q15.2: During the past month, how many times per day, week, or month did you eat vegetables, for example broccoli, sweet potatoes, carrots, tomatoes, V-8 juice, corn, cooked or fresh leafy greens including romaine, chard, collard greens, or spinach?

Adults most likely to consume fruits less than one time per day come from groups that are limited financially (make less than $20K annually, below the poverty level) and have no high school diploma. Additionally, men are more likely to consume fruit less than once a day compared to women.

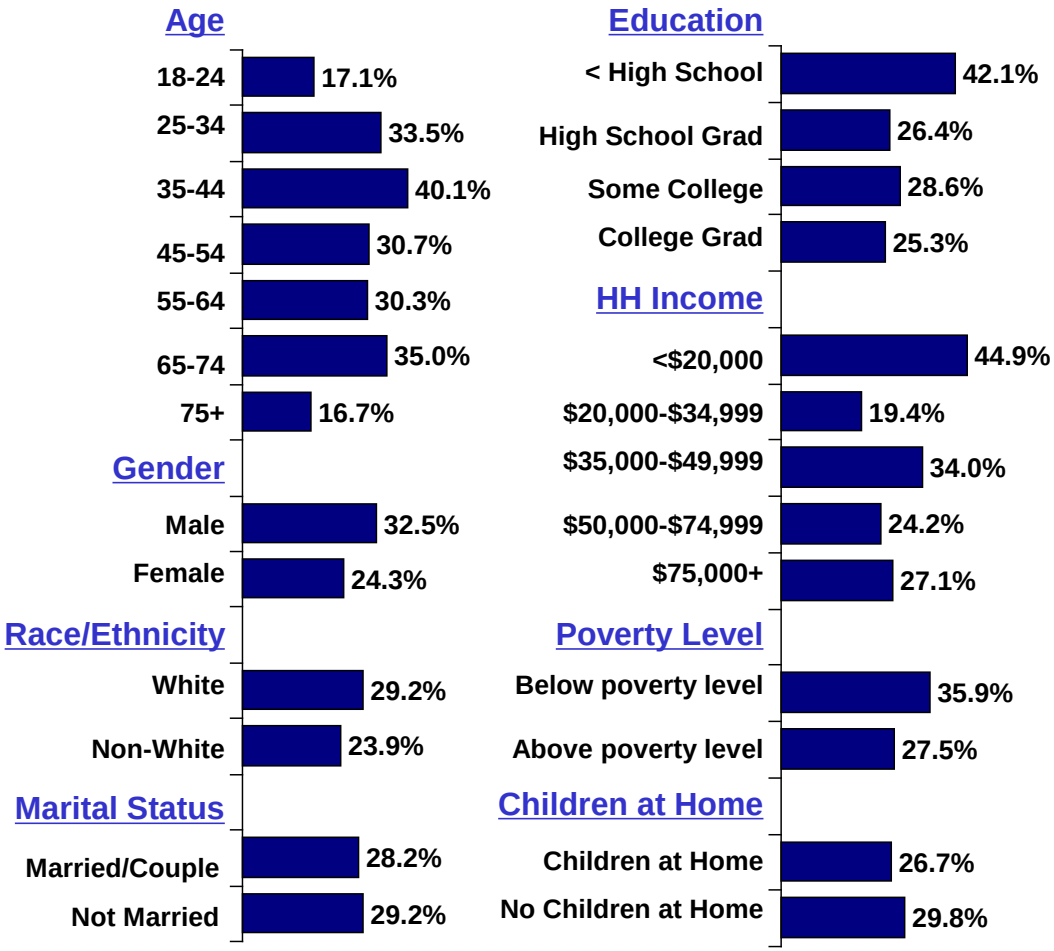
Fruit Consumption

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.

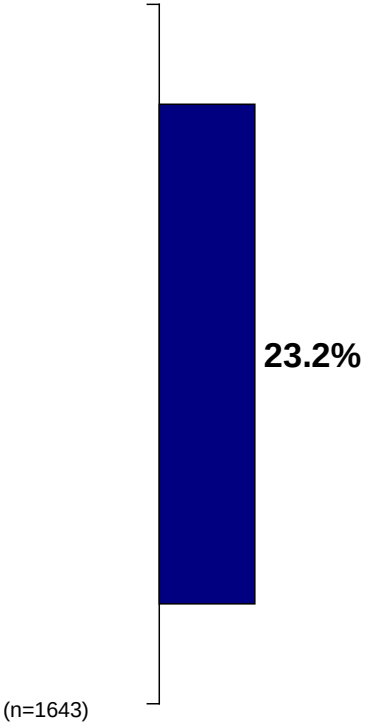
Consumed Fruits <1 Time Per Day by Demographics



Similarly, those most likely to consume vegetables less than one time per day have lower incomes, but also come from groups that are the youngest (18-24), male, unmarried, and have less than a high school diploma.

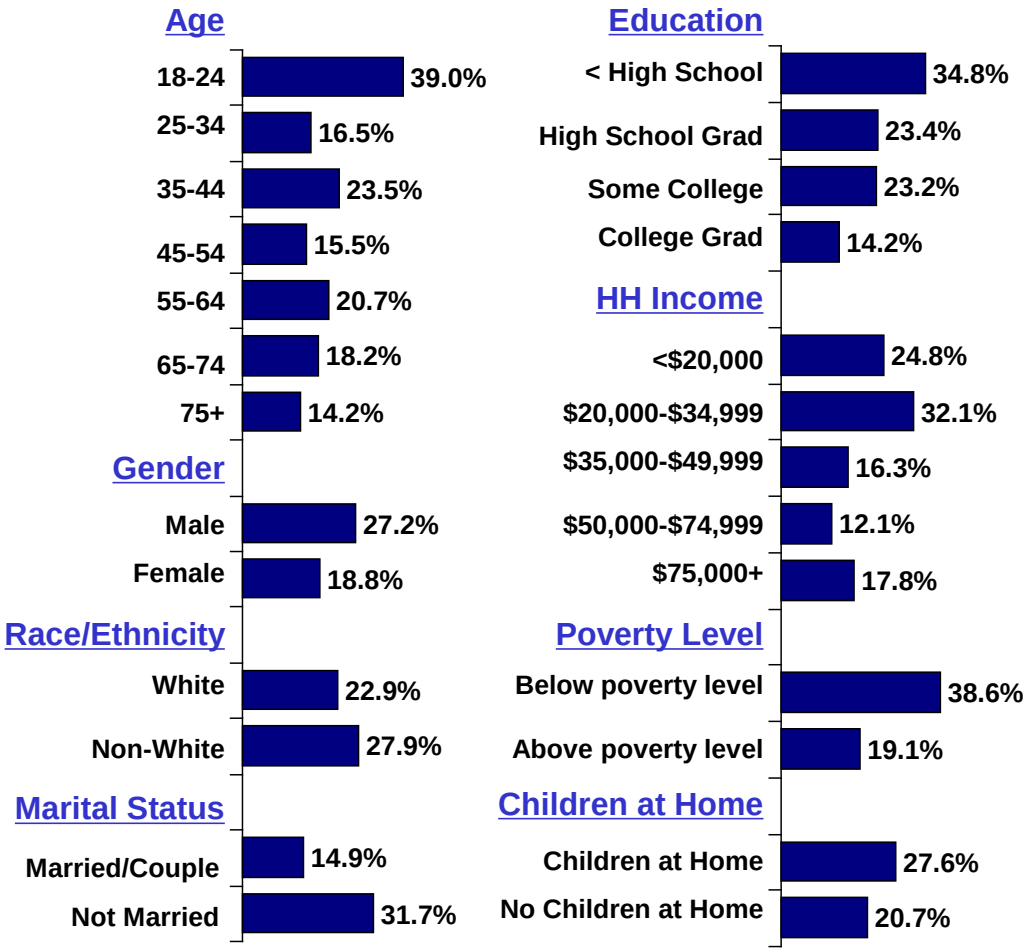
Vegetable Consumption

Consumed Vegetables <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.

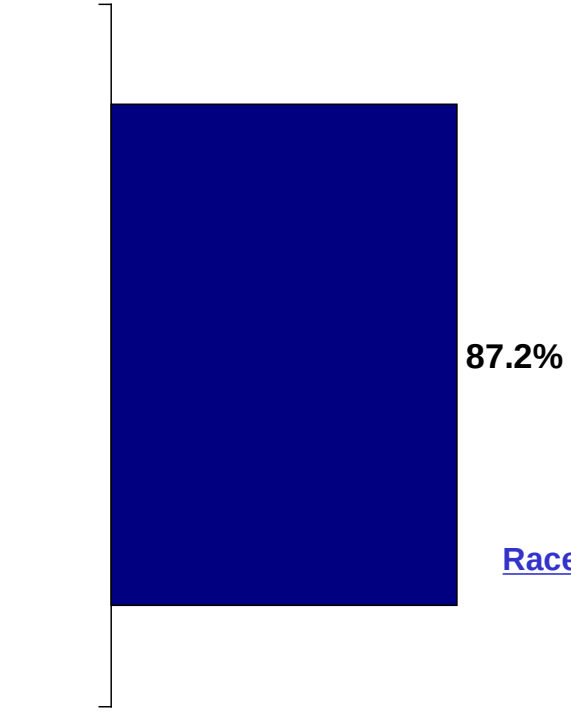
Consumed Vegetables <1 Time Per Day by Demographics



Inadequate fruit and vegetable consumption is prevalent in the SHBRH area across demographics. Adequate fruit and vegetable consumption is directly related to education and income, and women tend to consume more fruits and vegetables than men.

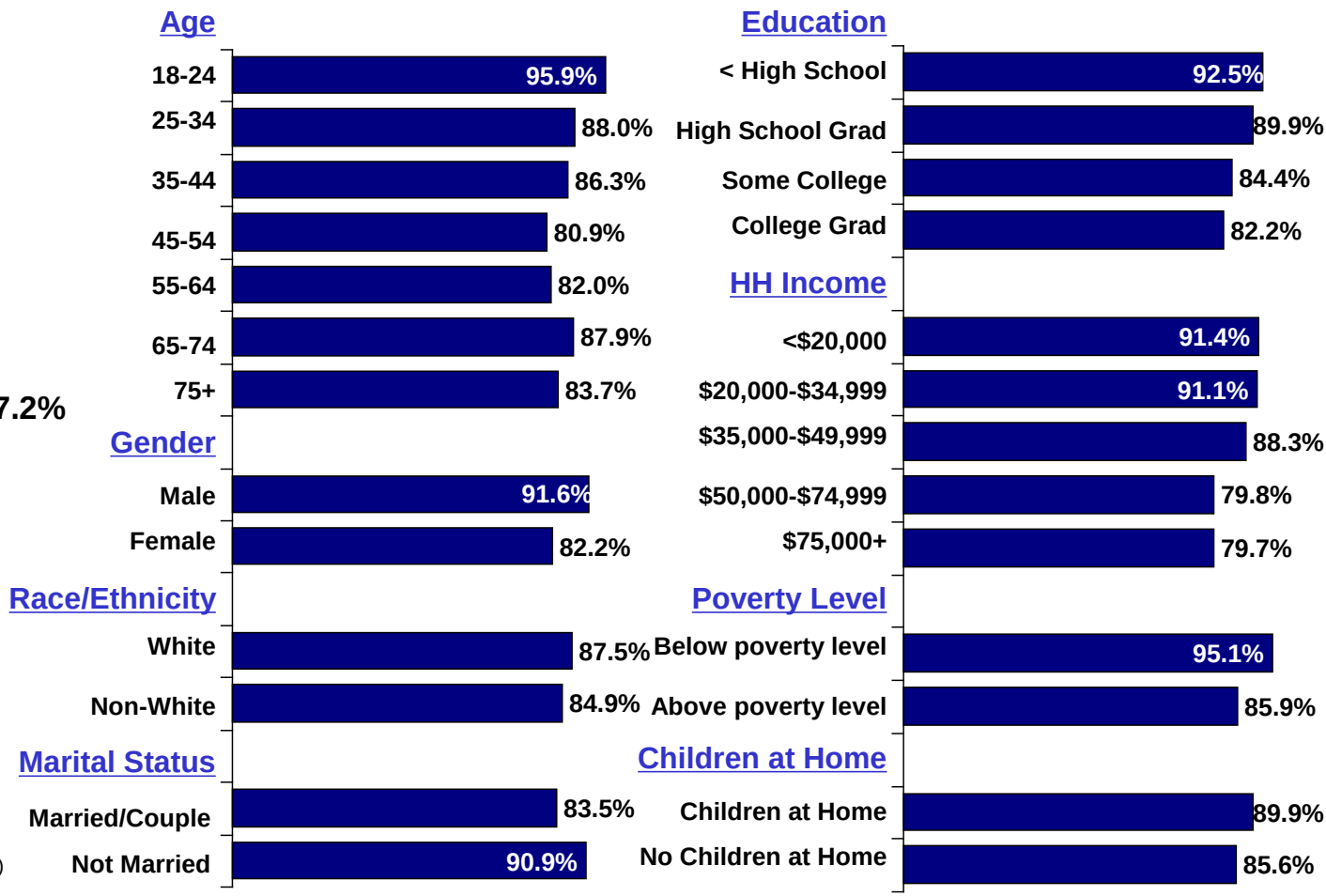
Fruit and Vegetable Consumption

Inadequate Fruit and Vegetable Consumption* (Total Sample)



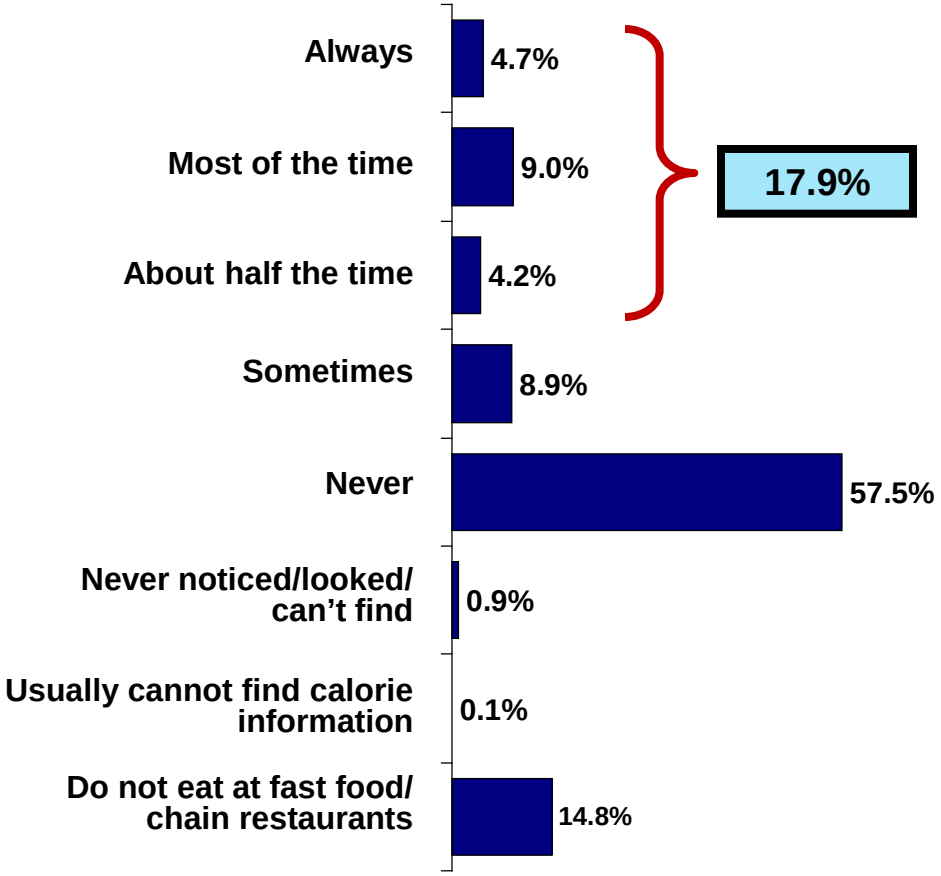
*Among all adults, the proportion whose total frequency of consumption of fruits (including juice) and vegetables was less than five times per day.

Inadequate Consumption by Demographics



Fewer than one in five (17.9%) adults report that when eating at fast food restaurants, listed calorie information impacts their decision on what to order at least half the time. However, more than half (57.5%) say calorie information never impacts their decision.

Frequency Calorie Information Helps in Deciding What to Order When Dining Out



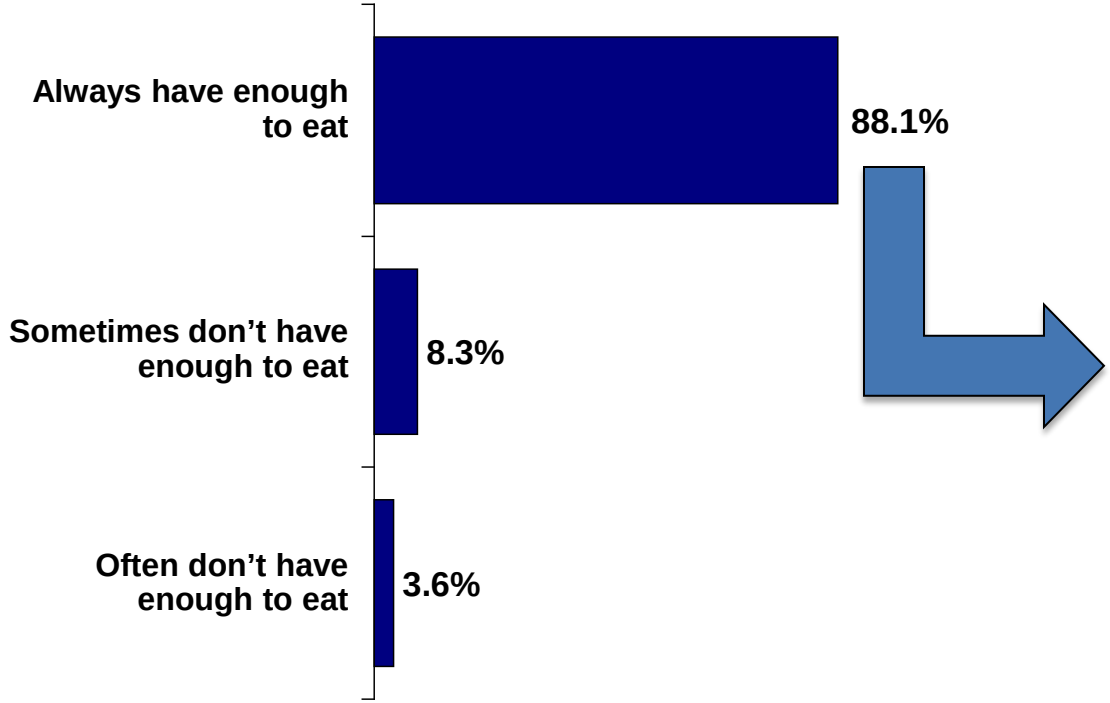
(n=1649)

Q16.1: The next question is about eating out at fast food and chain restaurants. When calorie information is available in the restaurant, how often does this information help you decide what to order?

Almost nine in ten adults (88.1%) say they always have enough to eat and almost all (94.3%) say they are able to eat the foods they want.

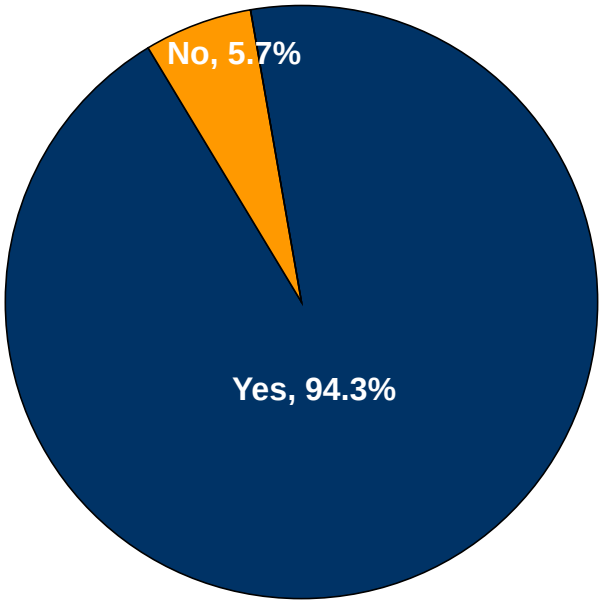
Food Access and Sufficiency

Food Sufficiency



(n=1649)

Access to Foods Wanted



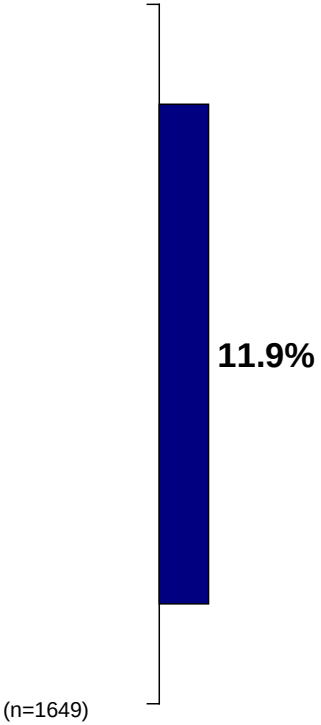
(n=1512)

Q17.1: Which of the following statements best describes the food eaten in your household within the last 12 months? Would you say that…
Q17.2: Were these foods always the kinds of foods that you wanted to eat?

Among area adults, the groups most likely to experience food insufficiencies are: non-White, have less than a high school degree, and live in households with limited incomes. More alarmingly, households with children at home more often experience times when they lack enough food to eat compared to those without children.

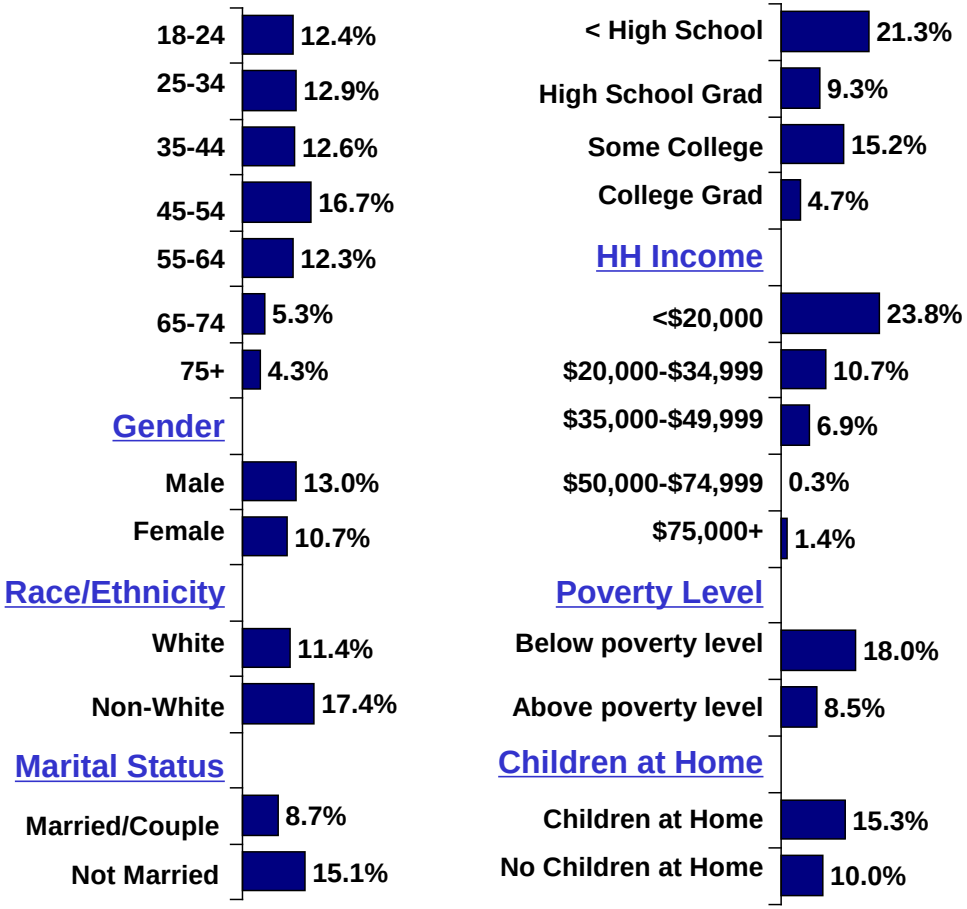
Food Sufficiency

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



*Among all adults, the proportion who reported they sometimes or often did not have enough to eat.

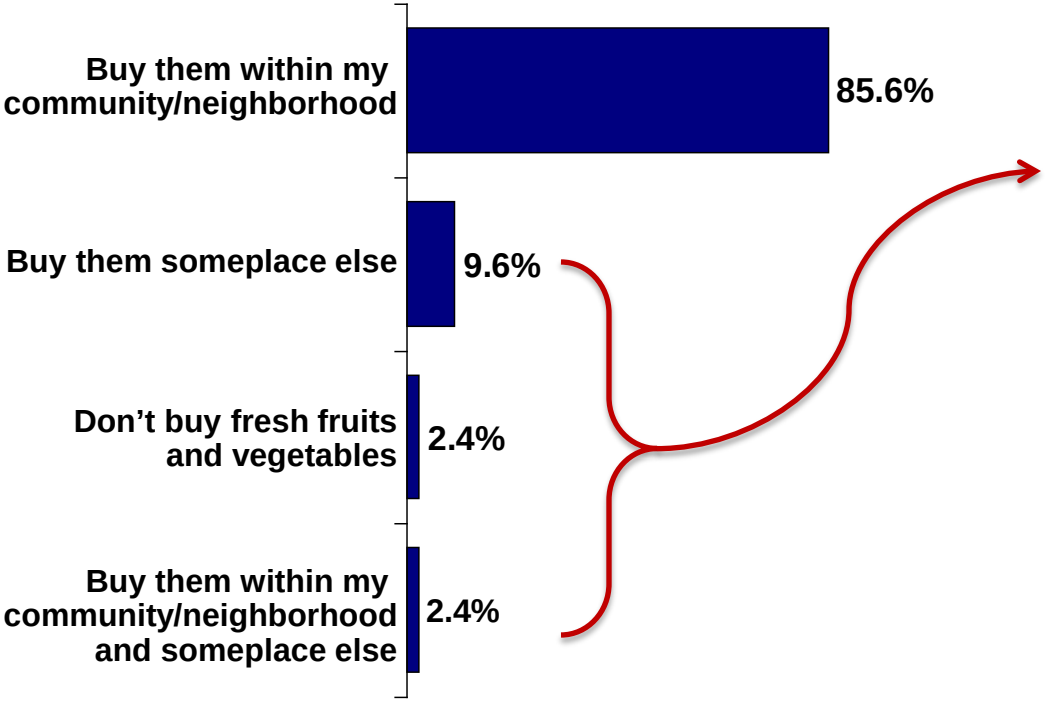
Sometimes/Often Don't Have Enough to Eat by Demographics



Almost nine in ten adults (85.6%) say they purchase fresh fruits and vegetables within their community. Those who don't say there are **no stores in their community** or that existing stores are **too expensive** or have **poor quality produce**.

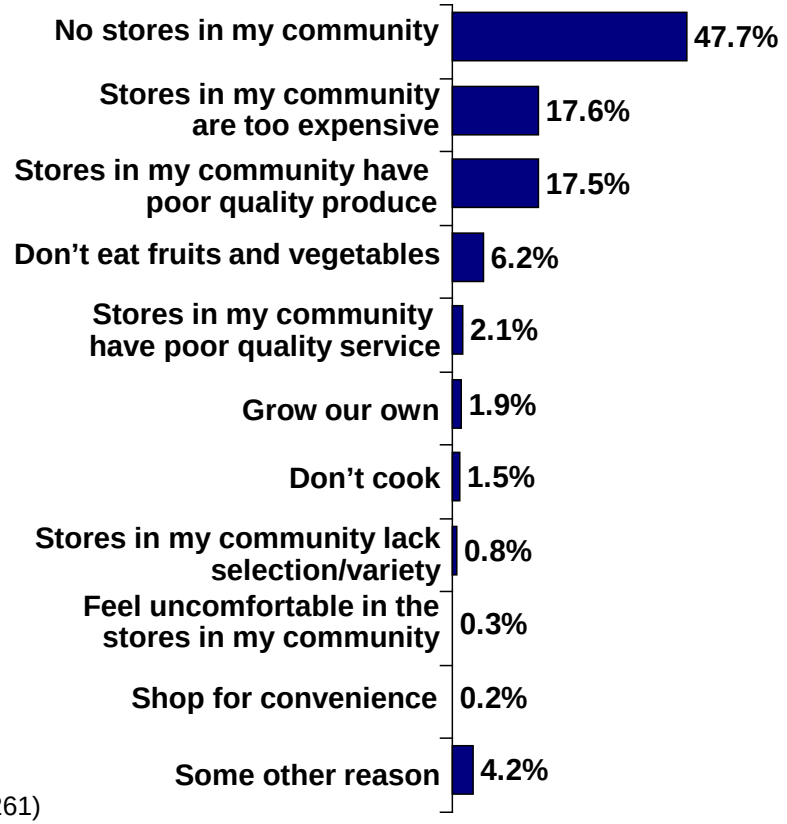
Purchasing Fresh Fruits and Vegetables

Location of Fresh Fruits/ Vegetables Purchased



(n=1645)

Reasons for Not Purchasing All Fresh Produce Locally



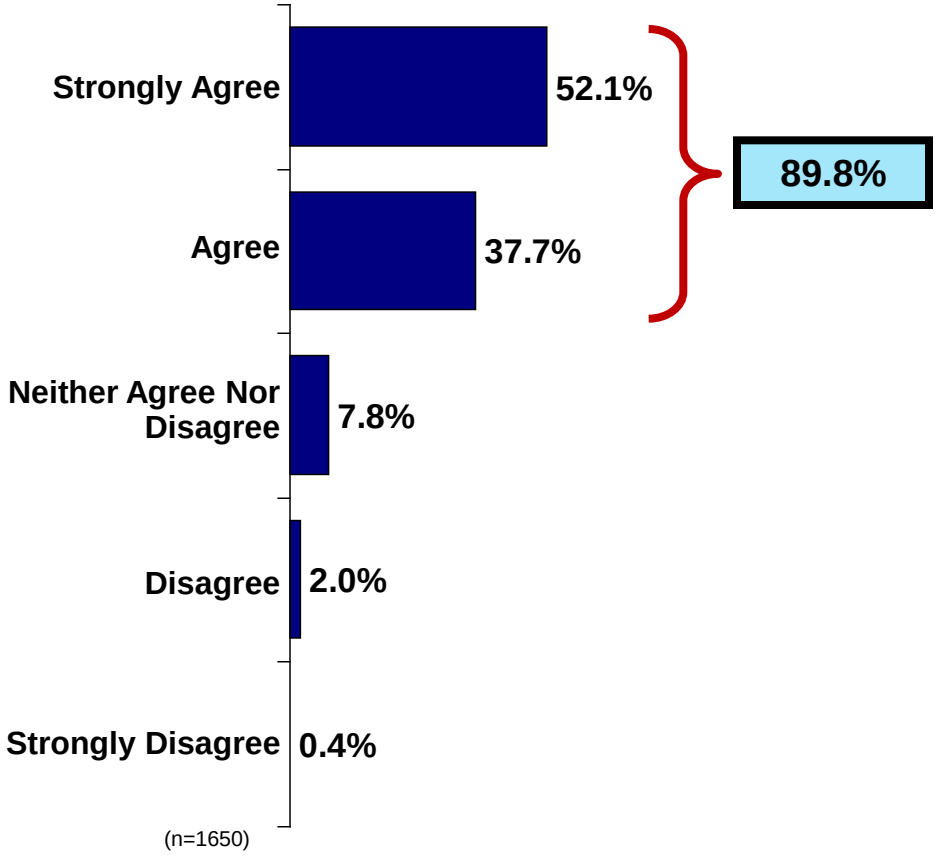
(n=261)

Q17.3: When you or someone in your household shops for fresh fruits and vegetables, would you say that…Which of the following statements best describes the food eaten in your household within the last 12 months? Would you say that…

Q17.4 What is the main reason you or someone in your household does not buy all your fresh fruits and vegetables within your community or neighborhood?

Nine in ten (89.8%) report that fruits and vegetables are easy to find in their community or neighborhood.

Availability of Fruits and Vegetables in the Community

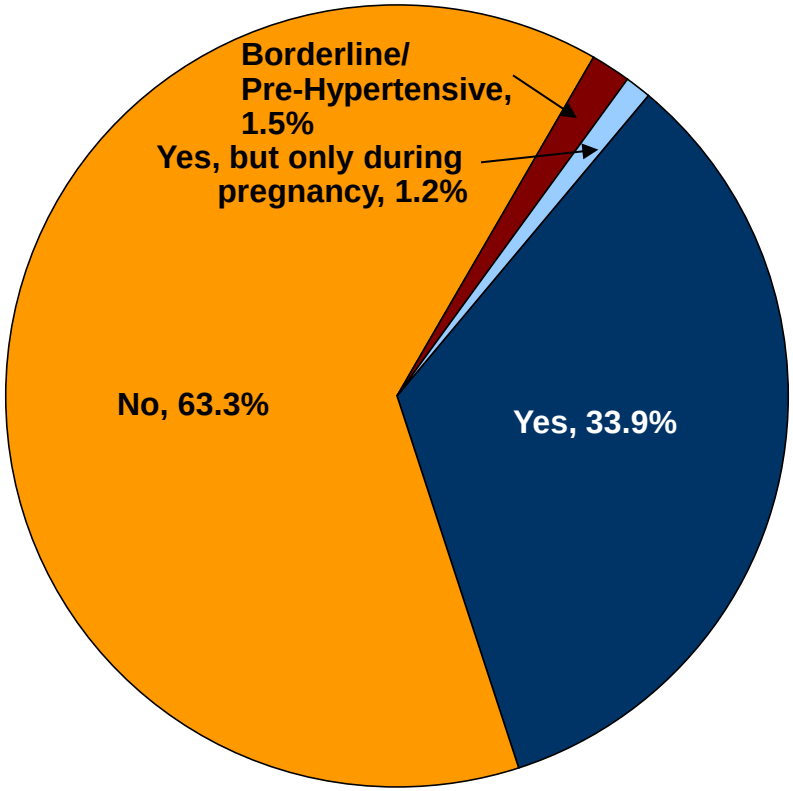


Q17.5: Please tell me how much you agree or disagree with the following statement. "It is easy to find fresh fruits and vegetables within your community or neighborhood." Would you say that you…

One-third (33.9%) of area adults have been told by a health care professional they have high blood pressure (HBP). Among those who have HBP, **more than one-fourth (27.2%) are not currently taking medication for it**.

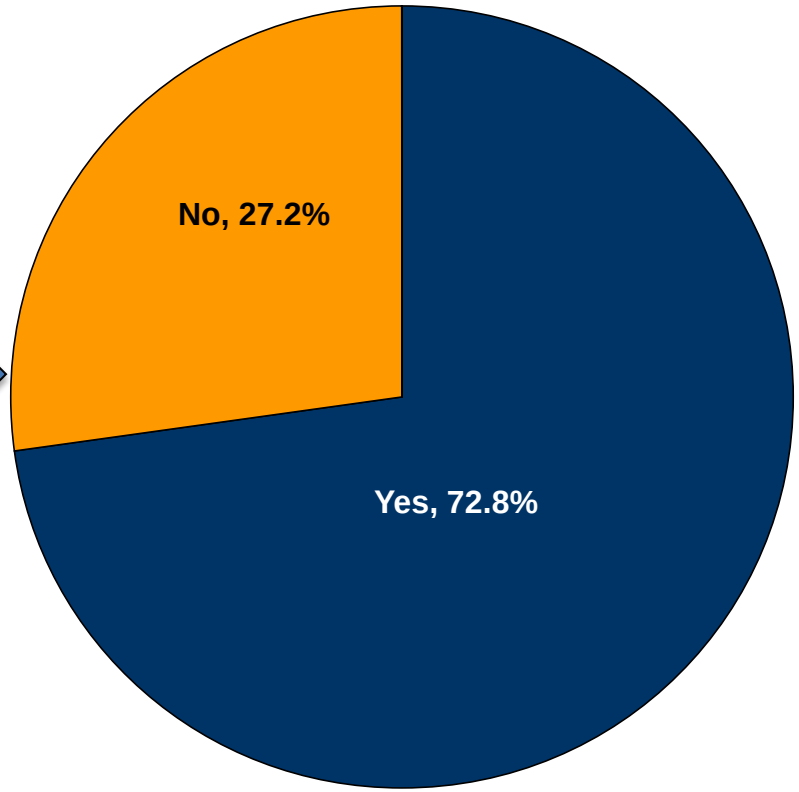
Hypertension Awareness

Ever Been Told You Have High Blood Pressure (Total Sample)



(n=1649)

Currently Taking Medication for HBP (Among Those Who Have Been Told They Have HBP)



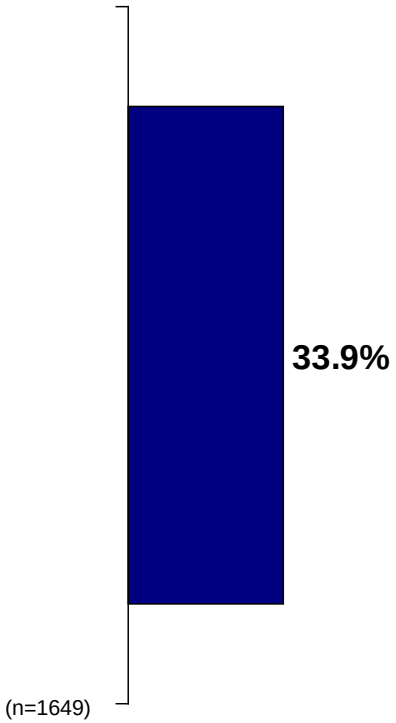
(n=809)

Q4.1: Have you EVER been told by a doctor, nurse, or other health professional that you have high blood pressure?
Q4.2: (IF YES) Are you currently taking medicine for your high blood pressure?

HBP is directly related to age. It is also significantly more common in adults with no high school degree vs. those with a college education, and more common in adults with annual incomes below $20K compared to those with higher incomes.

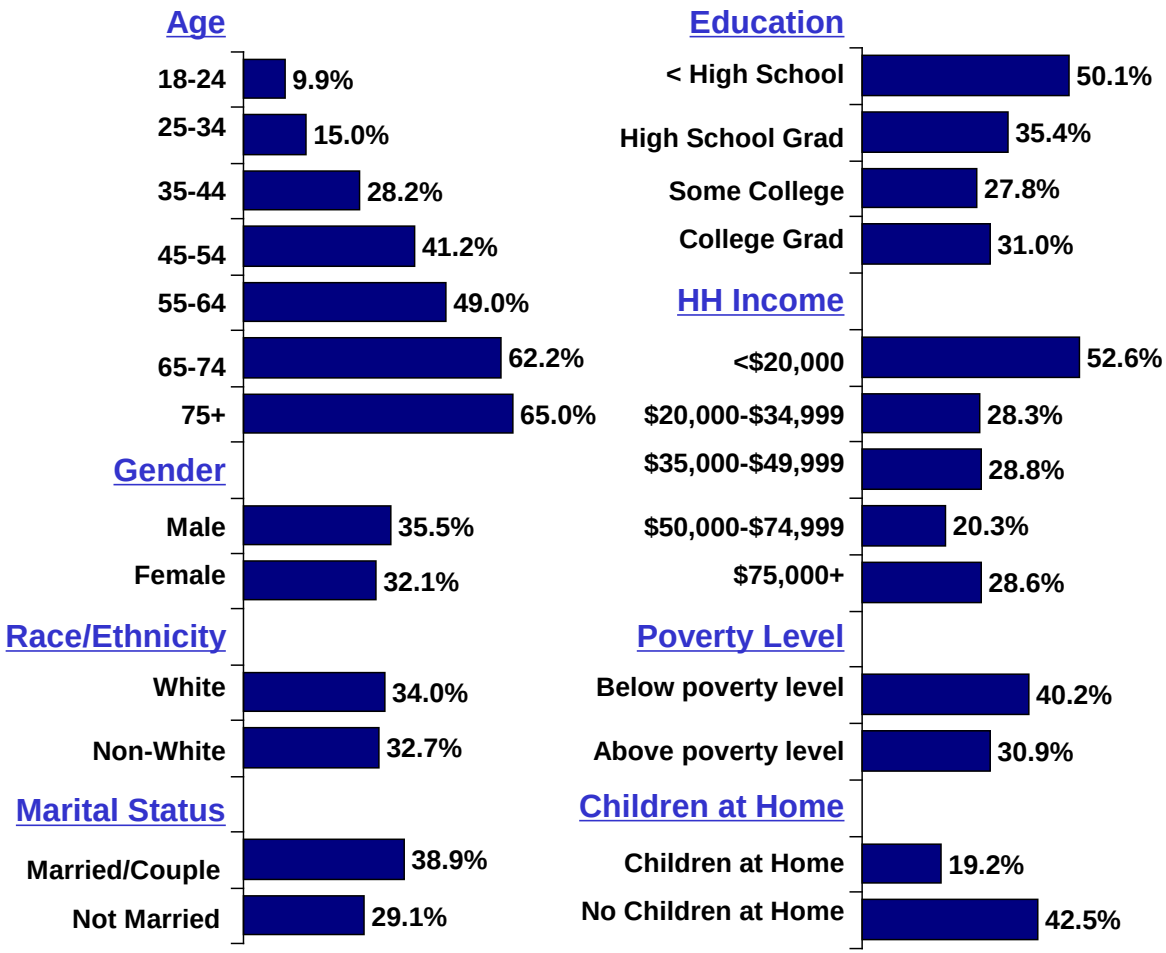
Hypertension Awareness (Cont'd.)

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



*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.

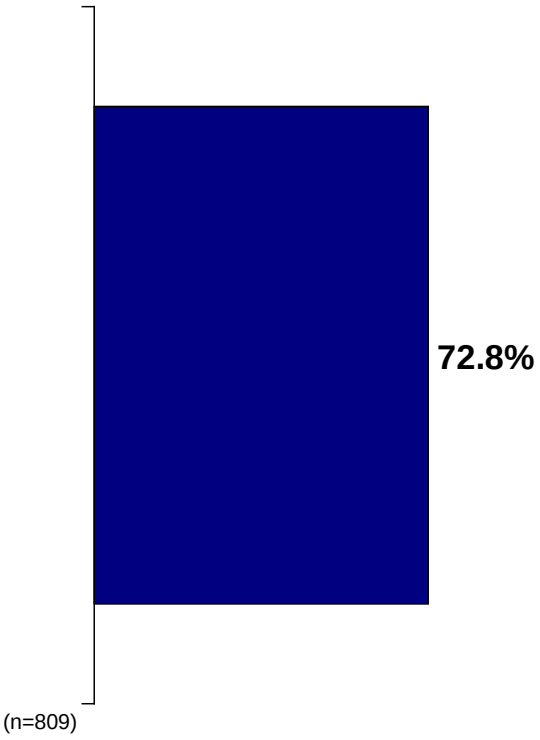
Ever Told HBP by Demographics



Area adults most likely to take medication for their HBP are: 55 years or older, female, married, and live in households with no children at home.

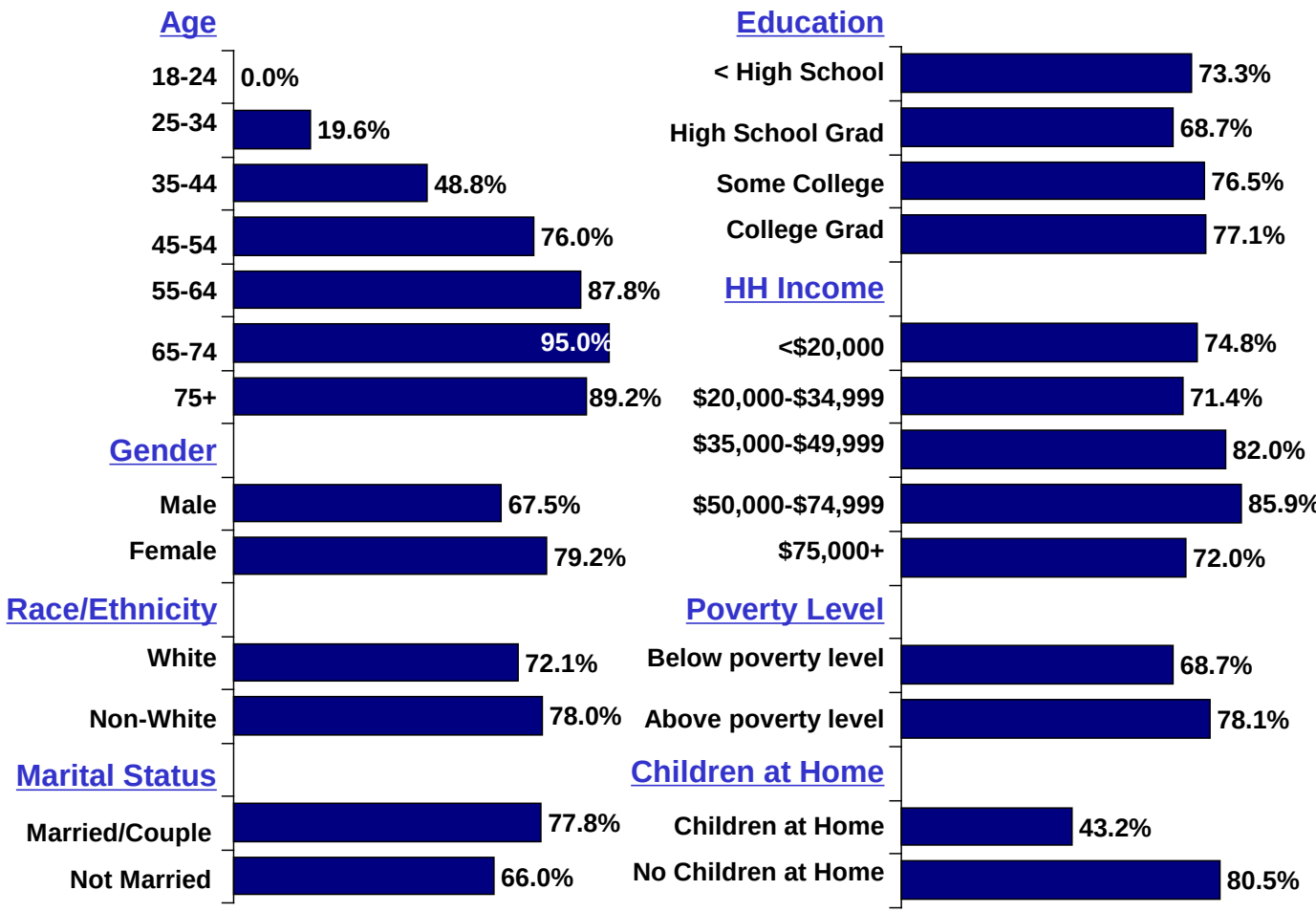
Hypertension Awareness (Cont'd.)

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



*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.

Currently Take Medication for HBP by Demographics

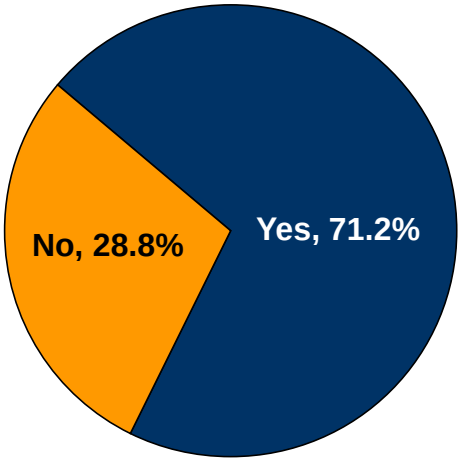


Clinical Preventative Practices

Seven in ten (71.2%) area adults have had their cholesterol checked, and the vast majority of them have had it done within the past year. More than one-third (36.8%) have been told by a health care professional that their cholesterol is high. Of these, two-thirds (67.8%) are currently taking medication to lower their cholesterol.

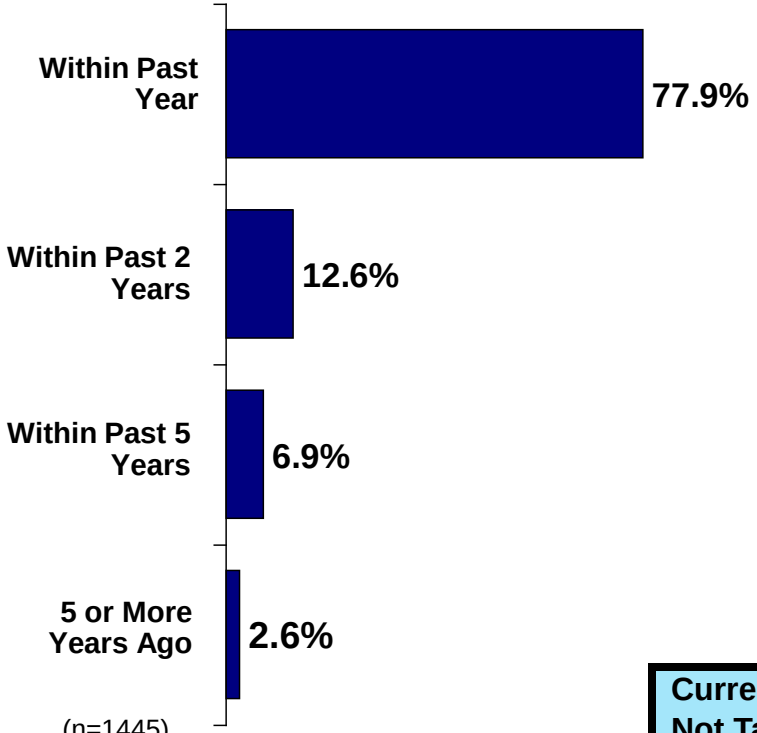
Cholesterol Awareness

Ever Had Blood Cholesterol Checked



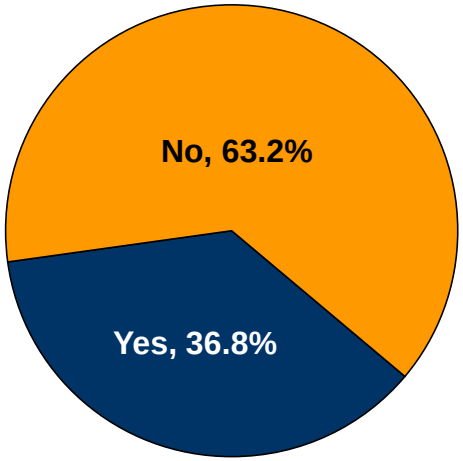
(n=1632)

Last Time Had Blood Cholesterol Checked



(n=1445)

Ever Told Blood Cholesterol is High



(n=1446)

Currently Taking Medication = 67.8%
Not Taking Medication = 32.2%

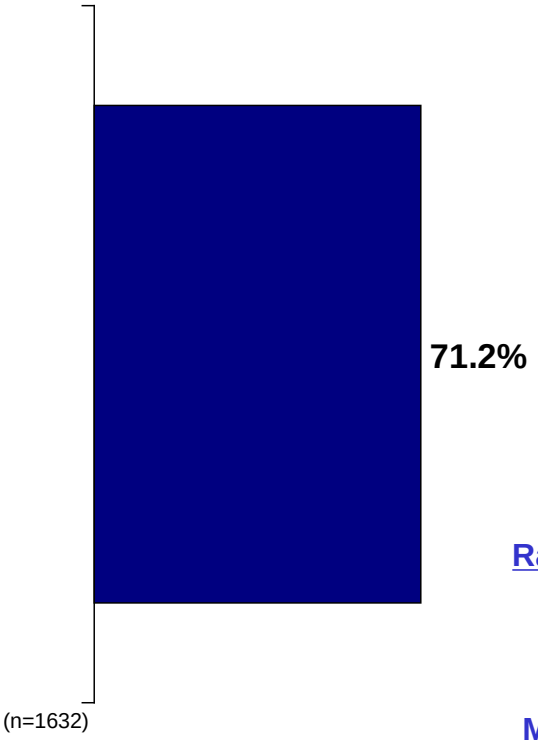
(n=634)

Q5.1: Blood cholesterol is a fatty substance found in the blood. Have you EVER had your blood cholesterol checked?
Q5.2: (If yes) About how long has it been since you last had your blood cholesterol checked?
Q5.3: (If yes) Have you EVER been told by a doctor, nurse or other health care professional that your blood cholesterol is high?
Q5.4: (If yes) Are you currently taking medicine for your high cholesterol?

Area adults most likely to have their cholesterol checked are found among those age 45+, college graduates, and with incomes below $20K. Whites and married adults are more likely to have their cholesterol checked than non-Whites and unmarried adults, respectively.

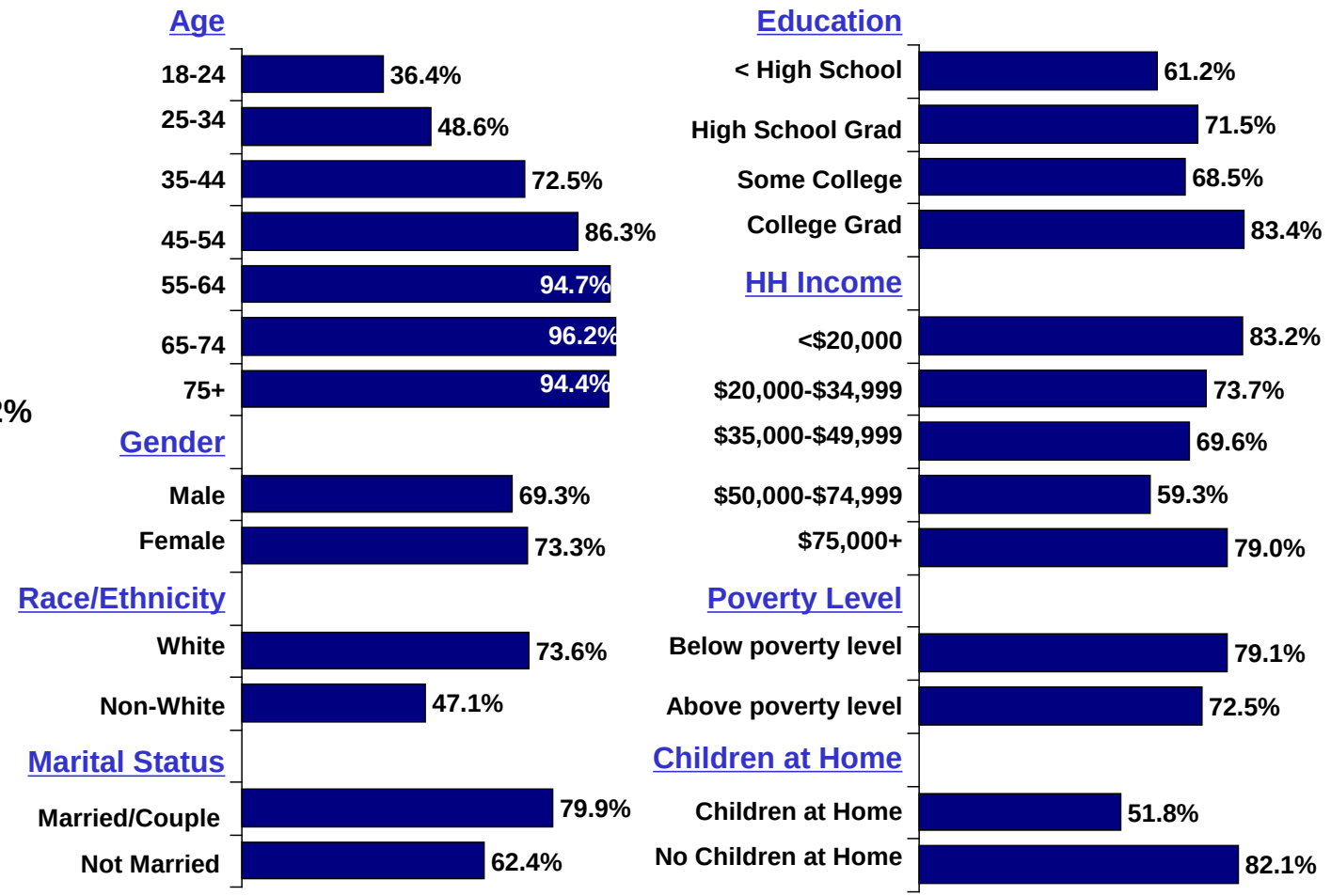
Cholesterol Awareness (Cont'd.)

Ever Had Blood Cholesterol Checked* (Total Sample)



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

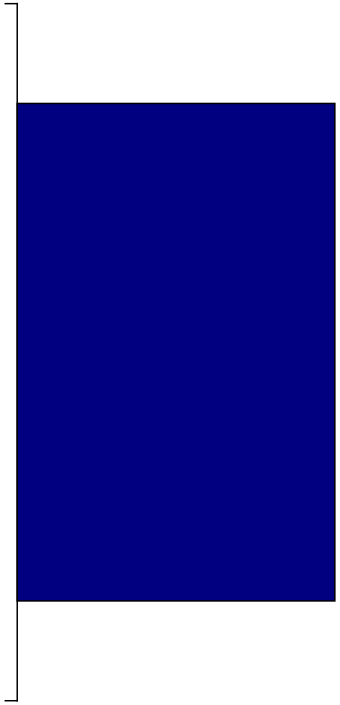
Ever Had Blood Cholesterol Checked by Demographics



Similarly, adults most likely to have their cholesterol checked within the past five years are from the following groups: age 45+, White, married, and college graduates.

Cholesterol Awareness (Cont'd.)

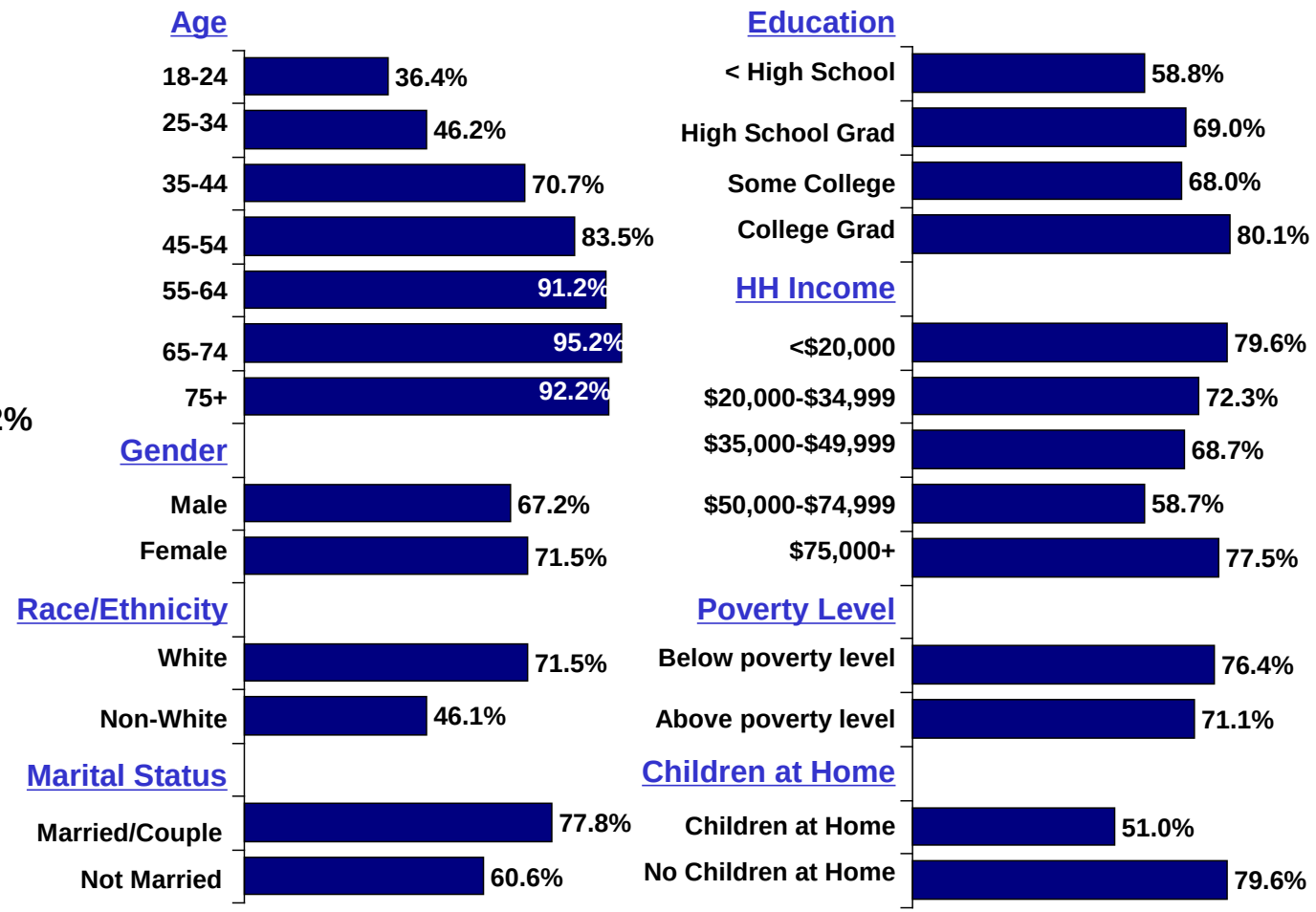
Had Blood Cholesterol Checked Within Past Five years* (Total Sample)



(n=1619)

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

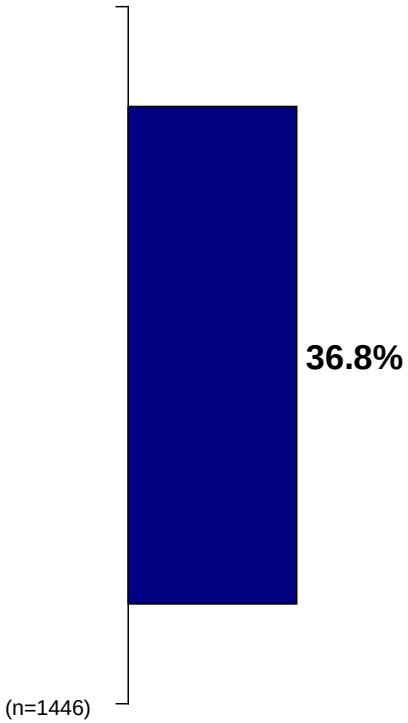
Had Blood Cholesterol Checked Within Past Five Years by Demographics



Area adults most likely to have high cholesterol come from groups that are age 55 or older, female, non-White, have no high school diploma, and have incomes below $20K.

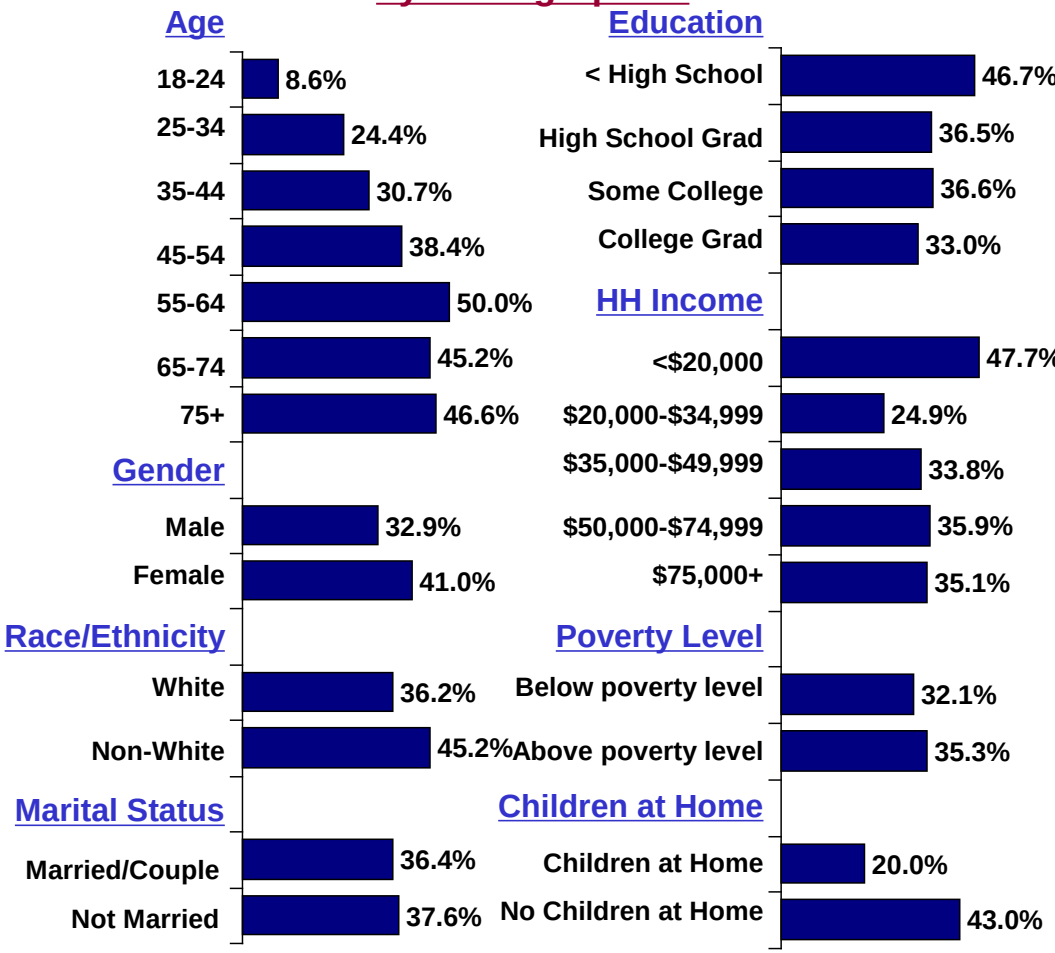
Cholesterol Awareness (Cont'd.)

Ever Told Blood Cholesterol High* (Total Sample)



*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.

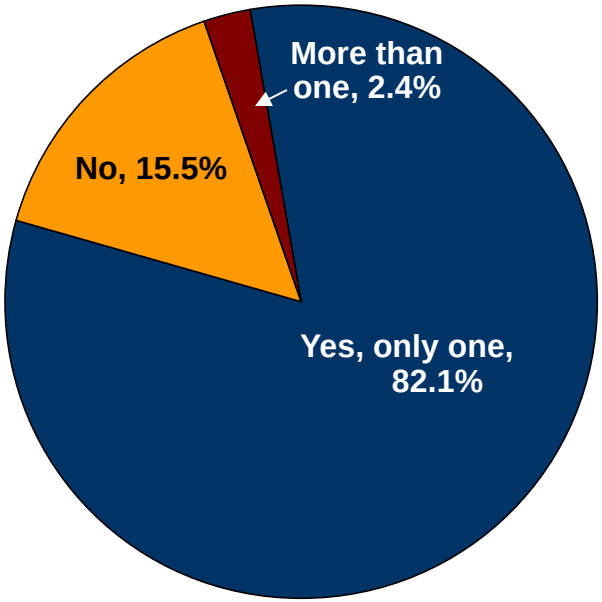
Ever Told Blood Cholesterol High by Demographics



More than eight in ten adults (84.5%) have a medical home (personal health care provider/physician) and eight in ten (81.1%) have visited a physician for a routine checkup within the past year.

Personal Physician and Routine Checkups

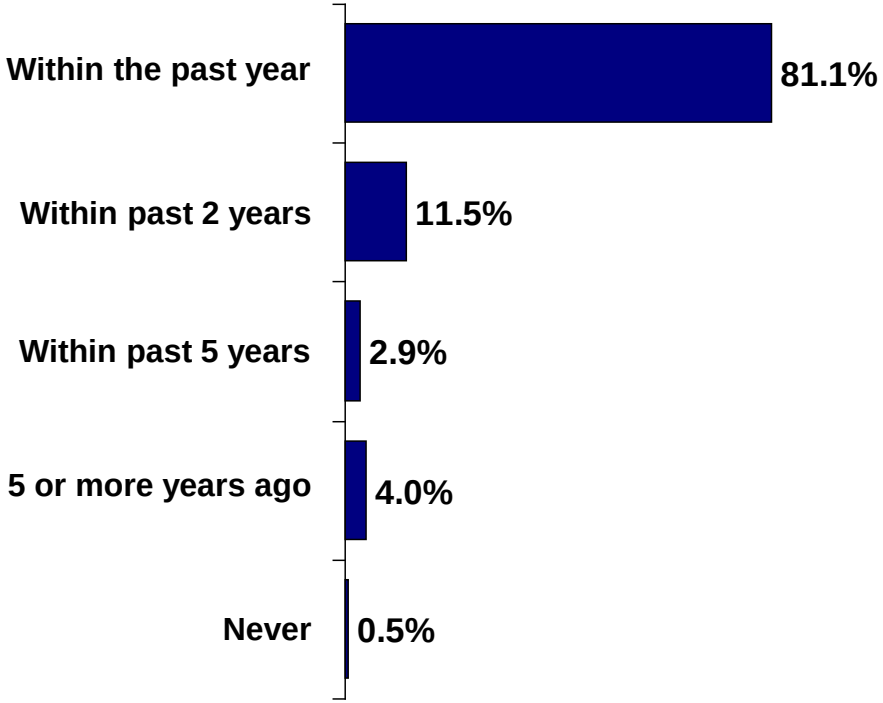
Currently Have Personal Doctor/Health Care Provider



84.5% have medical home

(n=1648)

Last Time Visited Doctor for Routine Checkup



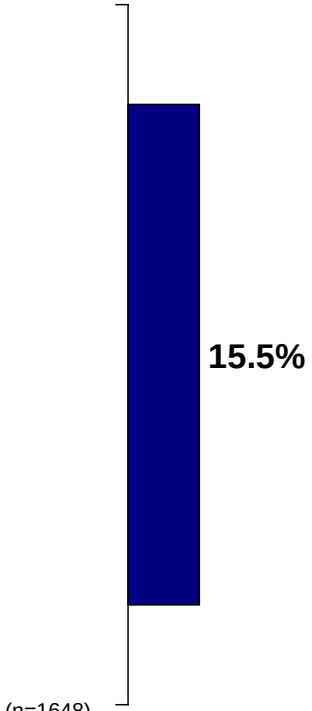
(n=1649)

Q3.3: Do you have one person you think of as your personal doctor or health care provider?
Q3.6: About how long has it been since you last visited a doctor for a routine checkup? A routine checkup is a general physical exam, not an exam for a specific injury, illness, or condition.

Approximately, one in seven (15.5%) area adults have no medical home (no personal health care provider). Adults least likely to have a medical home are younger (aged 18-44), men, White, unmarried, and have children at home. Adults most likely to have their own PCP are age 65 or older and/or have incomes of $50K or more.

Personal Health Care Provider

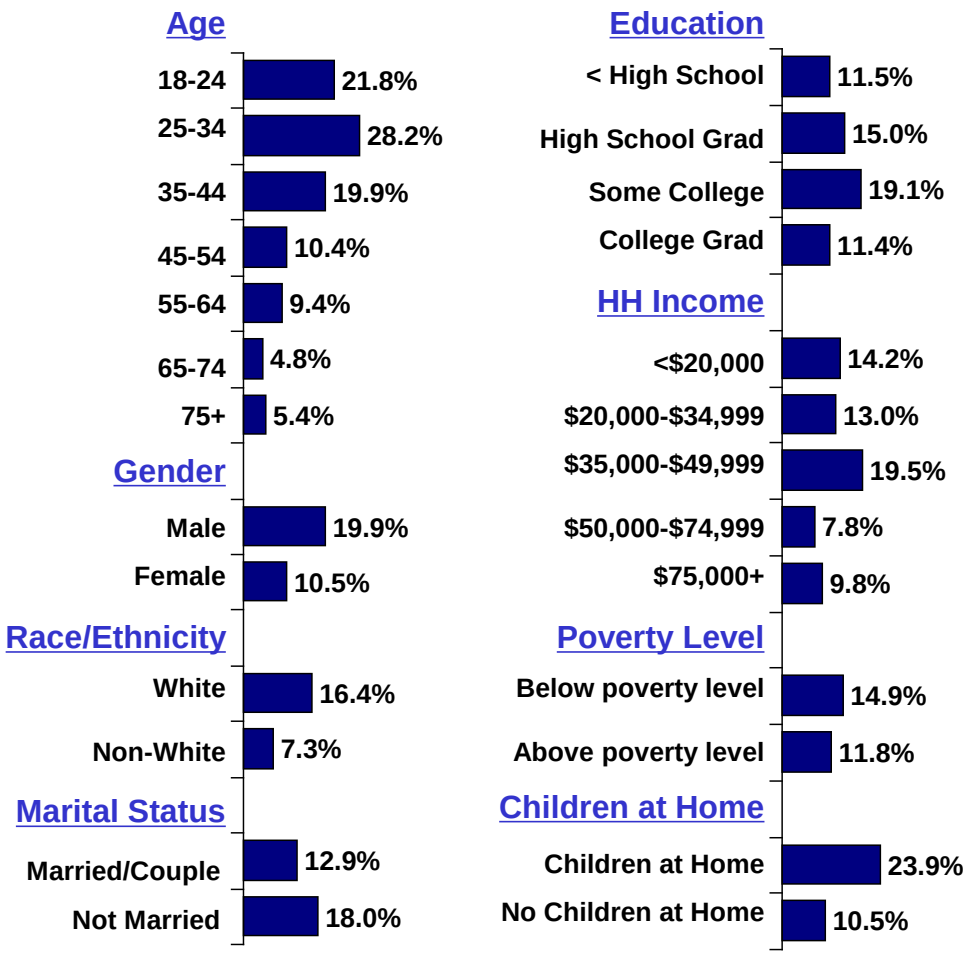
No Personal Health Care Provider* (Total Sample)



(n=1648)

*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.

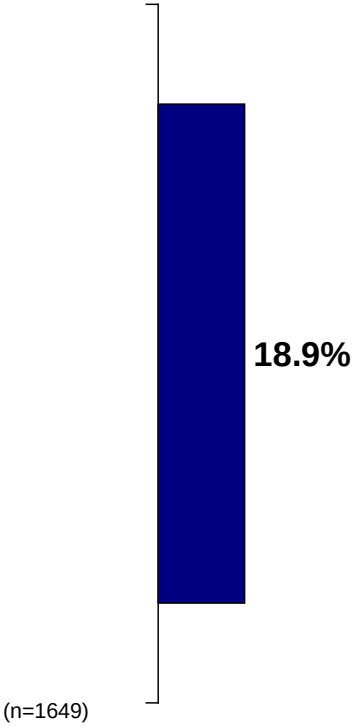
No Provider by Demographics



Almost one in five (18.9%) adults have not had a routine physical checkup in the past year. Having a timely routine physical checkup is directly related to age and level of education. For example, 29.7% of adults with no high school degree have not had a routine checkup in the past year, compared to 10.1% of adults with a college degree.

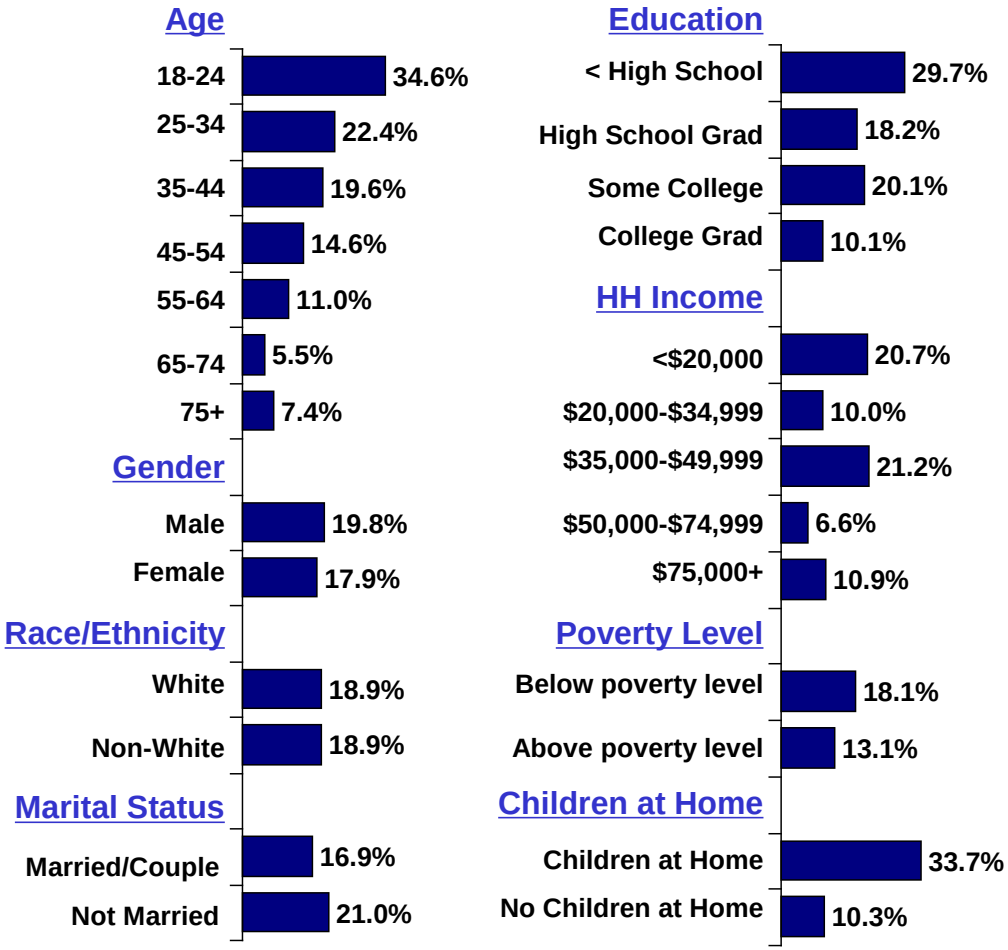
Routine Physical Checkup in Past Year

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.

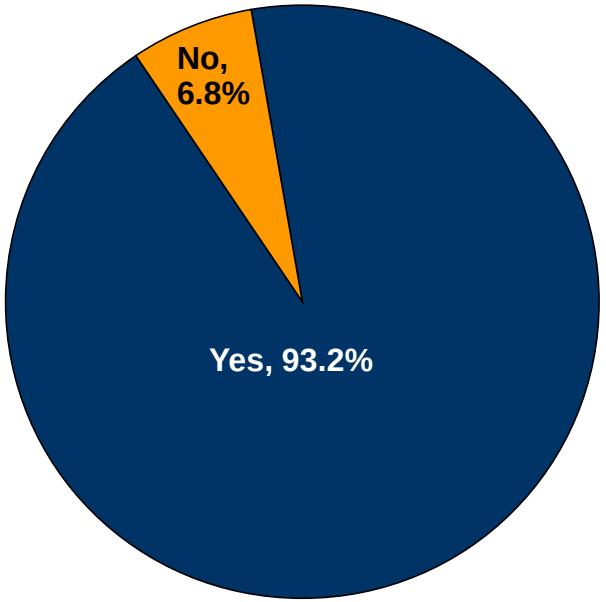
No Checkup by Demographics



More than nine in ten (93.2%) SHBRH area women aged 40+ have had a mammogram to screen for breast cancer. Of those, the vast majority (70.9%) have had one within the past year. Of all women aged 40+, 66.0% have had a mammogram in the past year.

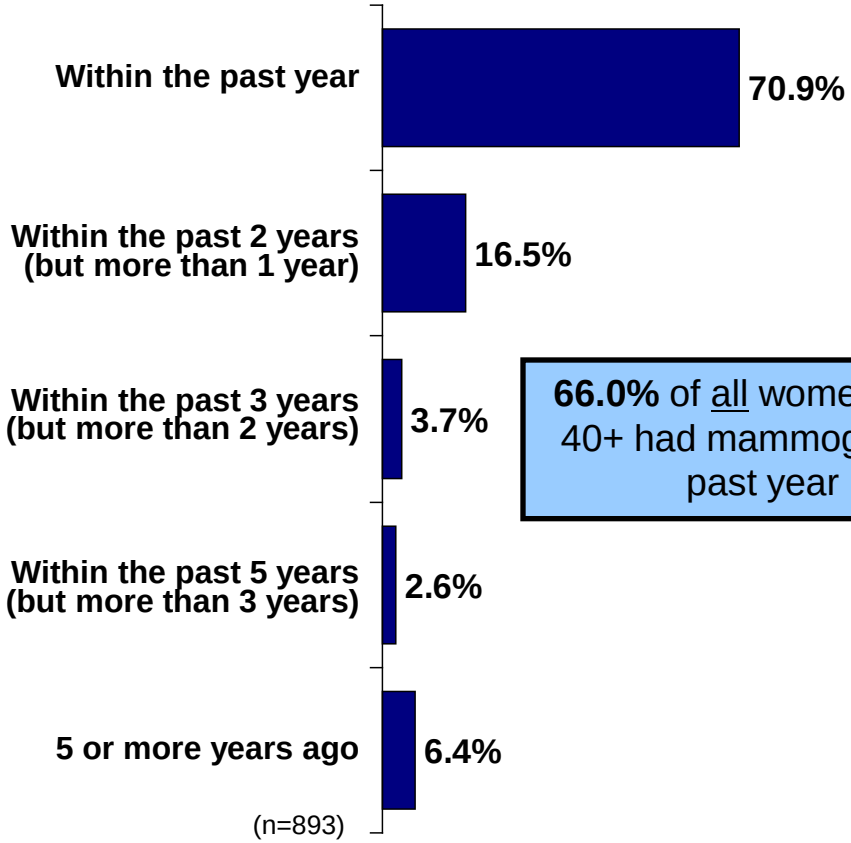
Breast Cancer Screening Among Adult Females Aged 40+

Have Had a Mammogram



(n=947)

Last Time Had Mammogram



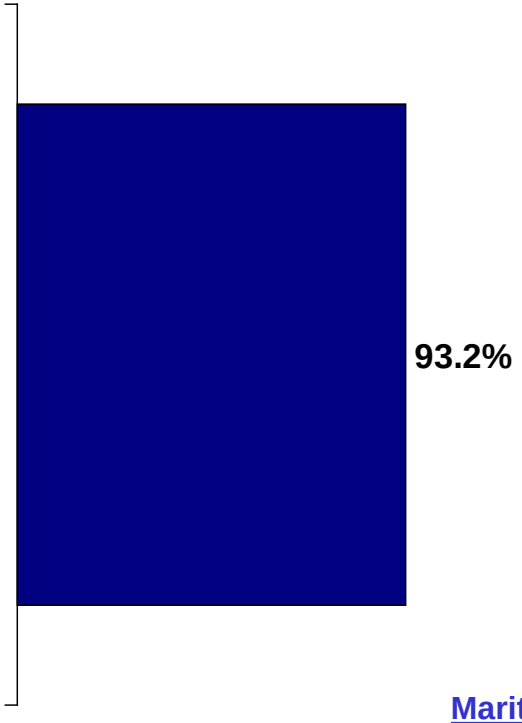
66.0% of all women aged 40+ had mammogram in past year

Q6.1: A mammogram is an x-ray of each breast to look for breast cancer. Have you ever had a mammogram?
Q6.2: (If yes) How long has it been since you had your last mammogram?

Since most women 40 years of age or older in the SHBRH area have had a mammogram at some point, there is very little difference among demographic groups. Women age 40-44 are least likely to have a mammogram compared to older women. White women are more likely to receive mammograms than non-White women.

Mammography Indicators Among Women Aged 40 Years or Older

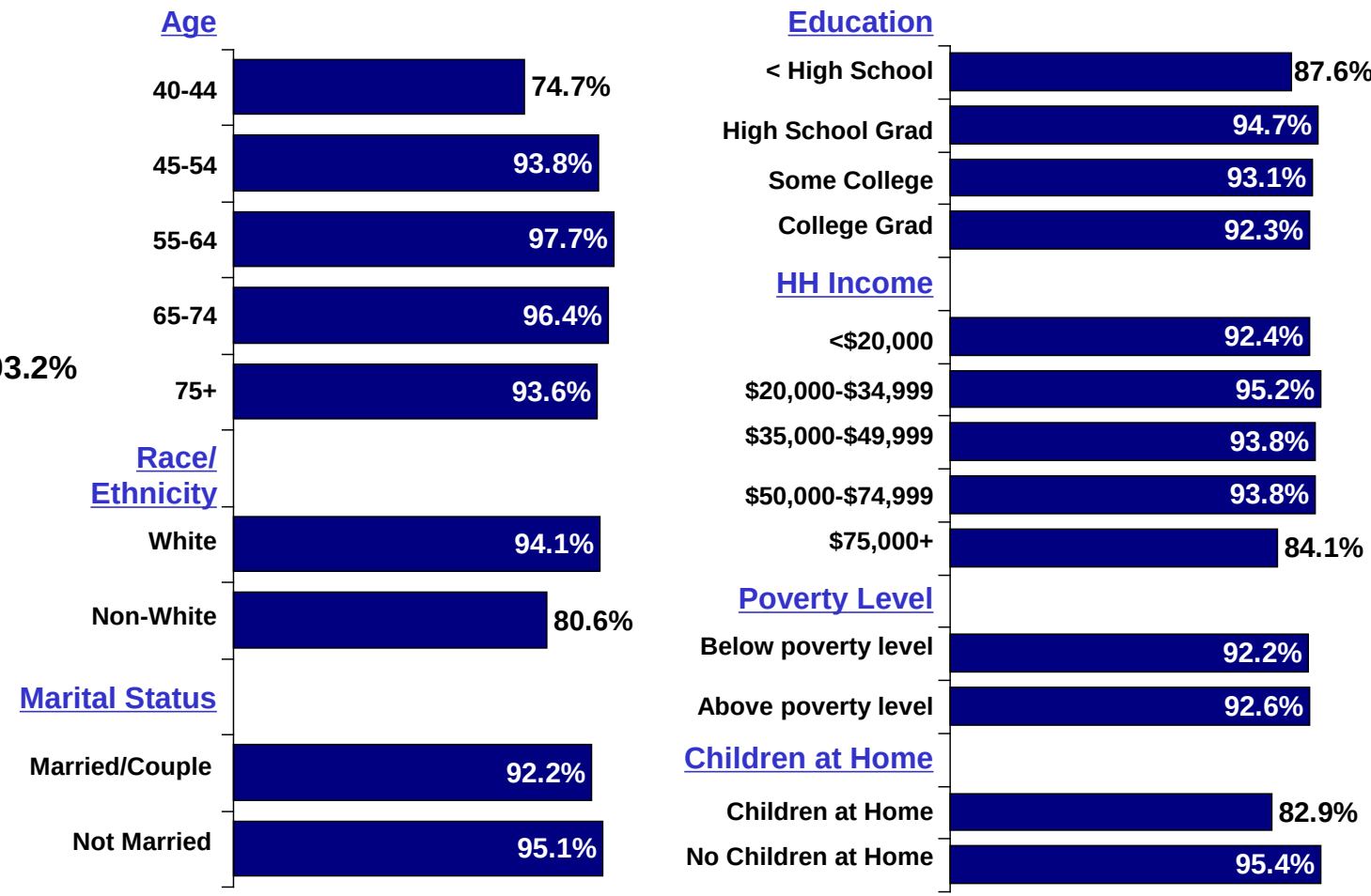
Ever Had Mammogram* (Total Sample)



(n=947)

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

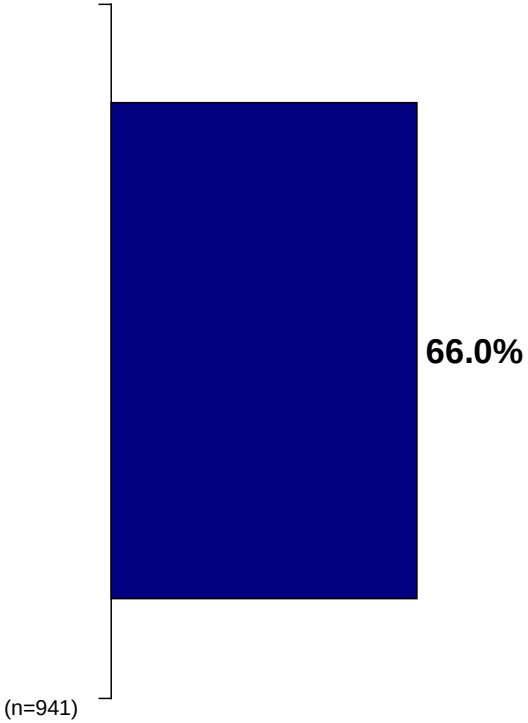
Ever Had Mammogram by Demographics



Having a timely mammogram is directly related to education; 56.5% of women with no high school degree have had a mammogram within the past year, compared to 74.3% of women with college degrees. White women are more likely to have a timely mammogram compared to non-White women.

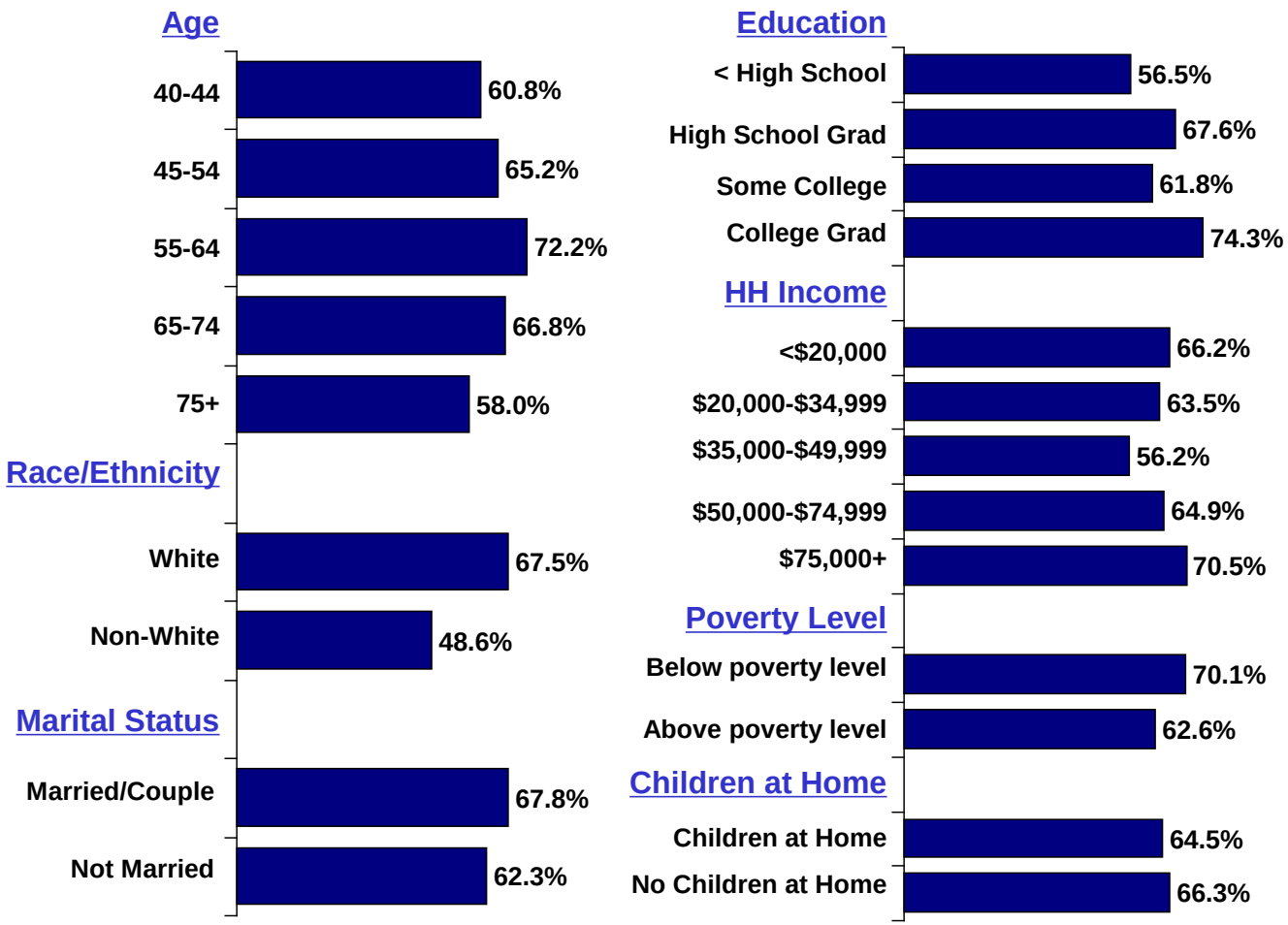
Mammography Indicators Among Women Aged 40 Years or Older (Cont'd.)

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.

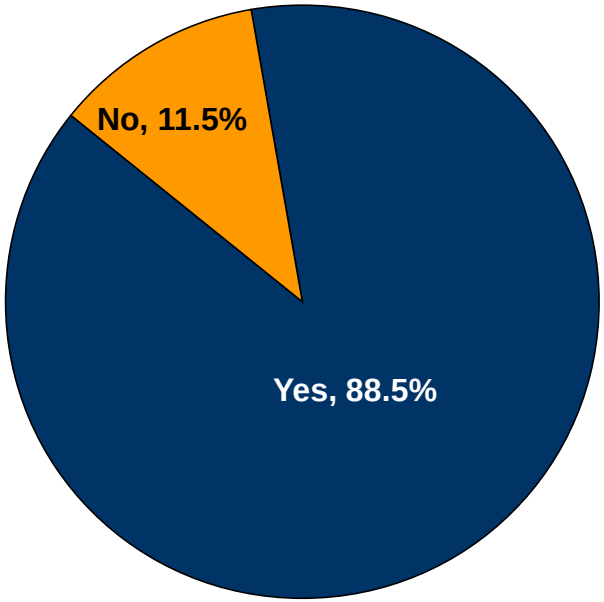
Had Mammogram in Past Year by Demographics



Almost nine in ten (88.5%) area adult women have had a Pap test to screen for cervical cancer. Of those, half have had one within the past year and 78.3% have had one in the past three years. Of all adult women, 69.1% have had a Pap test within the past three years.

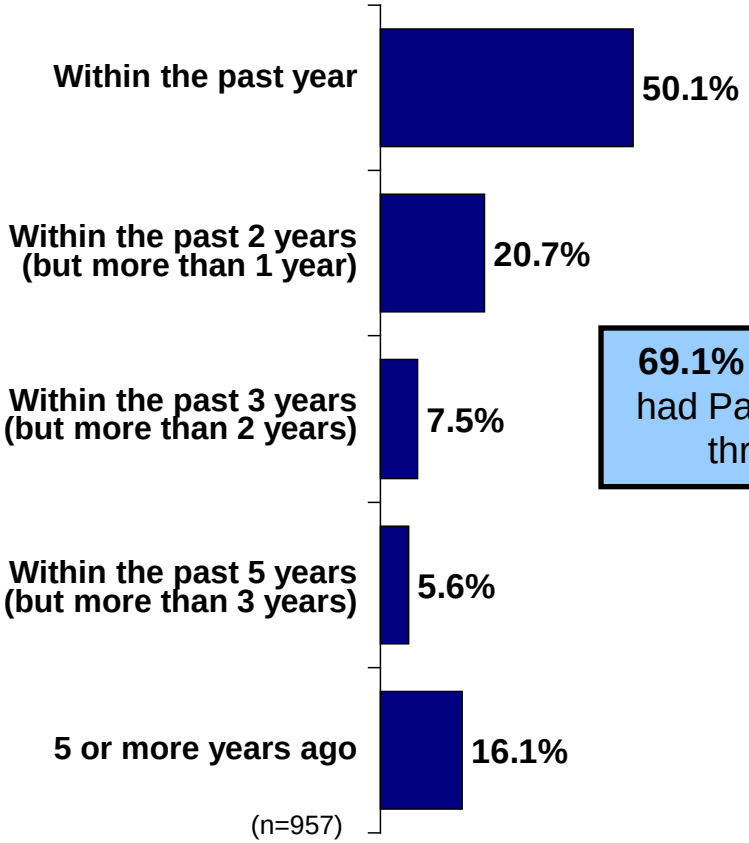
Cervical Cancer Screening Among Adult Females

Have Had a Pap Test



(n=1047)

Last Time Had Pap Test



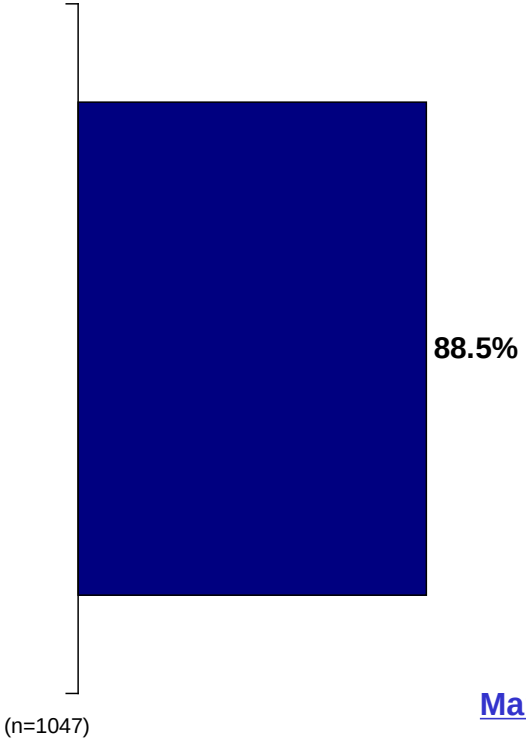
69.1% of all women had Pap test in past three years

Q6.3: A Pap test is a test for cancer of the cervix. Have you ever had a Pap test?
Q6.4:(If yes) How long has it been since you had your last Pap test?

Pap test rates are lowest among women aged 18-24 and those with less than a high school degree. Rates are also higher for married women compared to those who are unmarried.

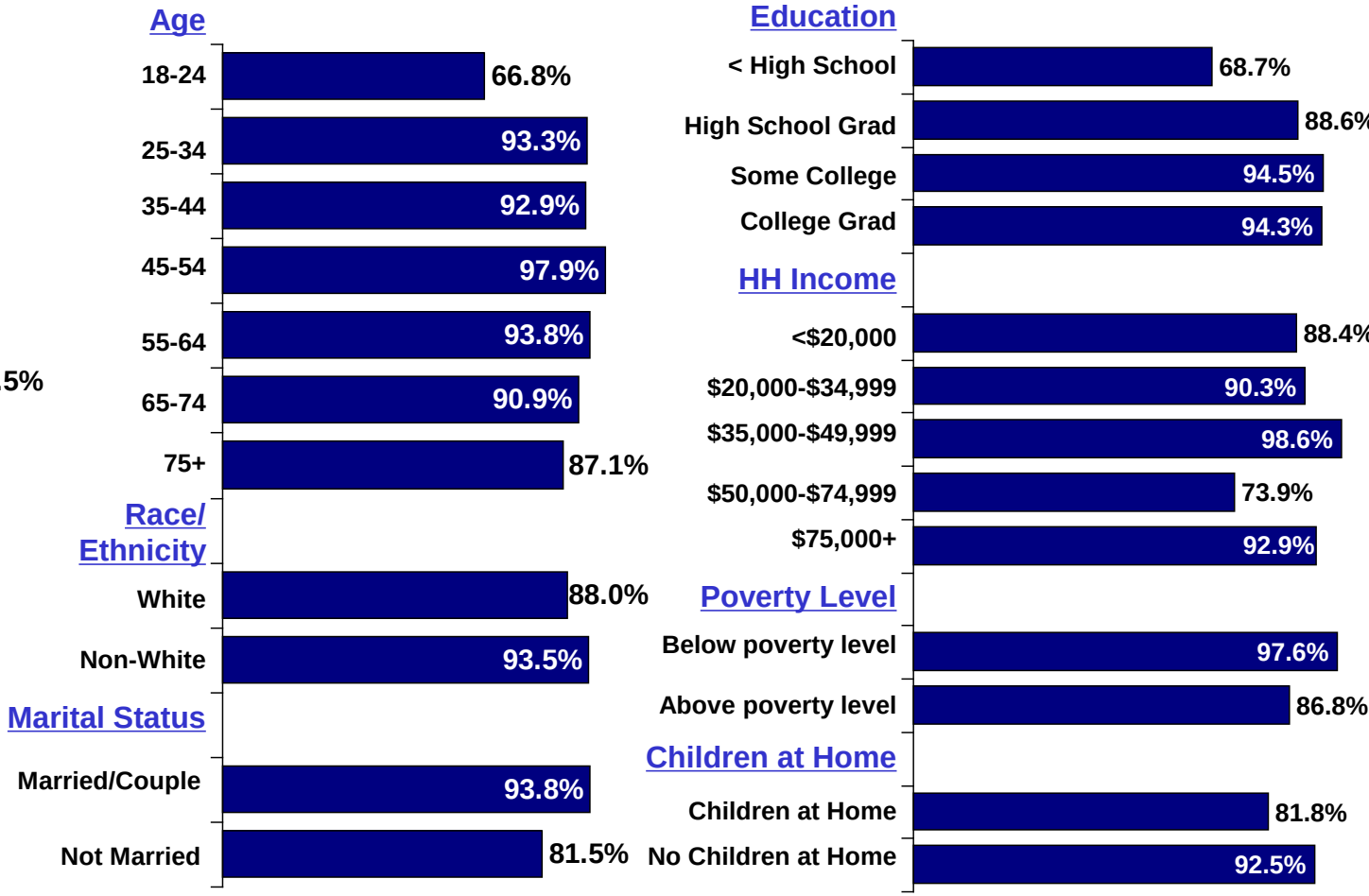
Cervical Cancer Screening (Cont'd.)

Ever Had Pap Test* (Total Sample)



*Among women aged 18 years and older, the proportion who reported ever having a Pap test.

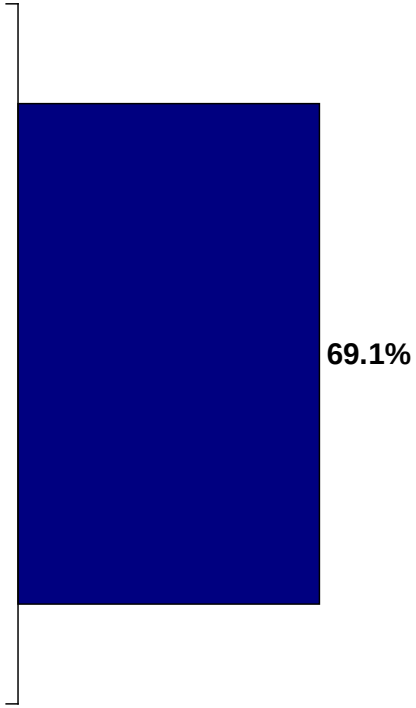
Ever Had Pap Test by Demographics



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-White. Further, having an appropriately timed Pap test is directly related to level of education.

Cervical Cancer Screening (Cont'd.)

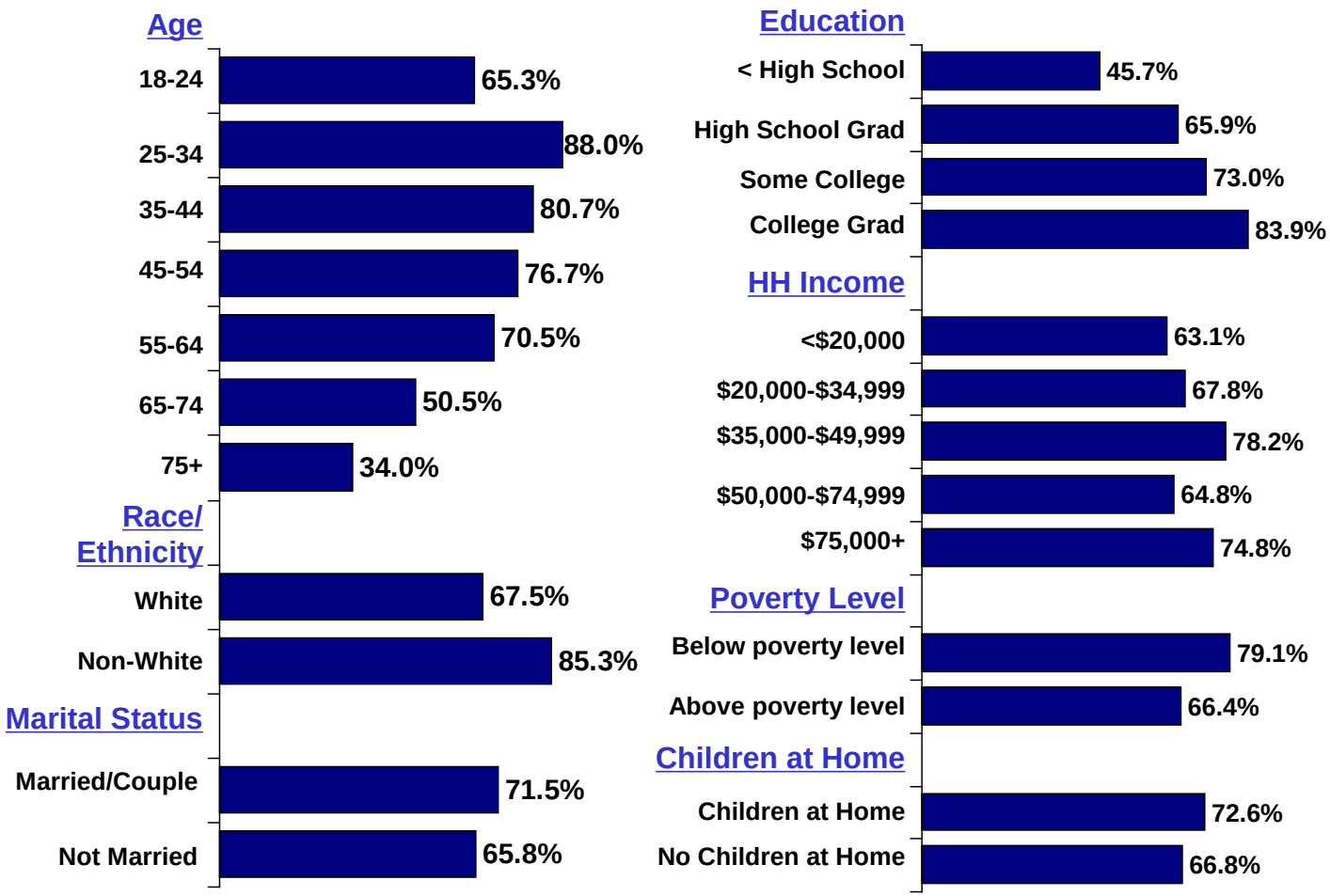
Had Appropriately Timed Pap Test* (Total Sample)



(n=1028)

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

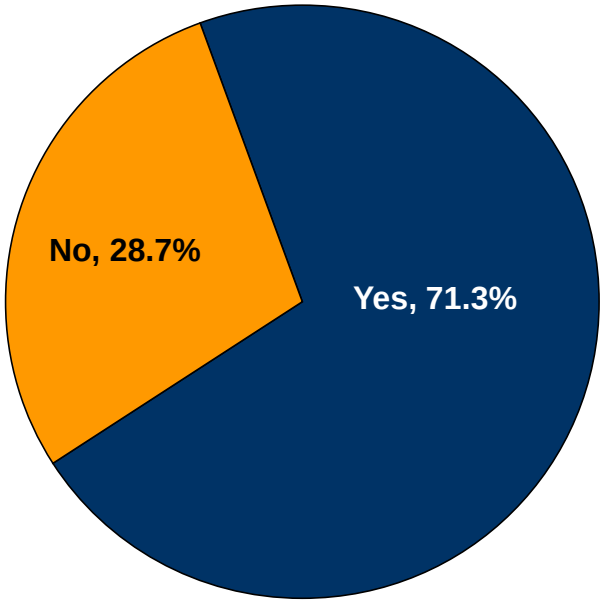
Appropriately Timed Pap Test by Demographics



More than seven in ten area men aged 50 or more have had a doctor recommend a prostate screening test such as PSA and a comparable proportion have actually received the test.

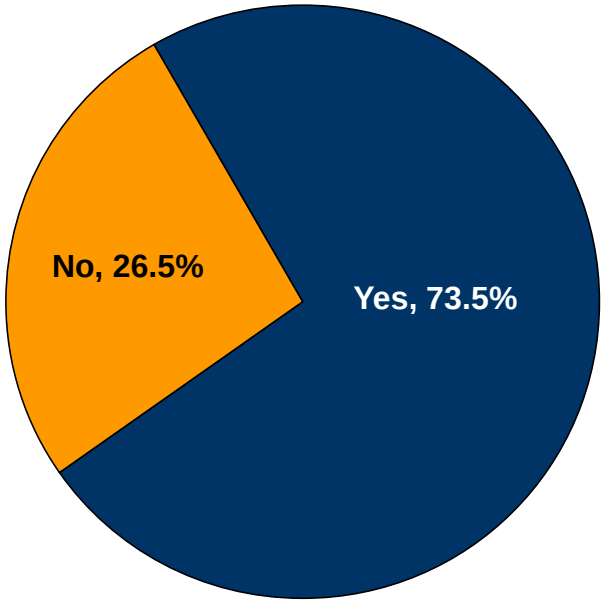
Prostate Cancer Screening Among Adult Males Aged 50+

PSA Test Ever Recommended



(n=413)

Ever Had PSA Test



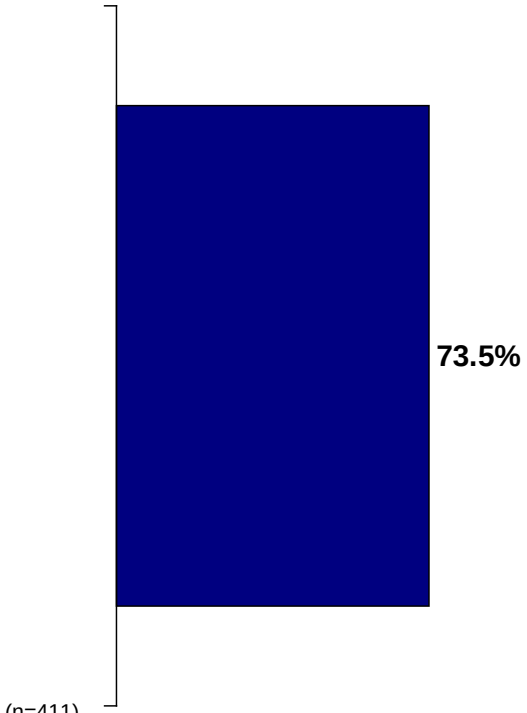
(n=411)

Q7.1: A prostate-specific antigen test, also called a PSA test, is a blood test used to check men for prostate cancer. Has a doctor EVER recommended that you have a PSA test?
Q7.2: Have you EVER had a PSA test?

Almost three-fourths (73.5%) of men in the SHBRH area, aged 50 years or older, have had a PSA test screening for prostate cancer. The rate is directly related to education and income.

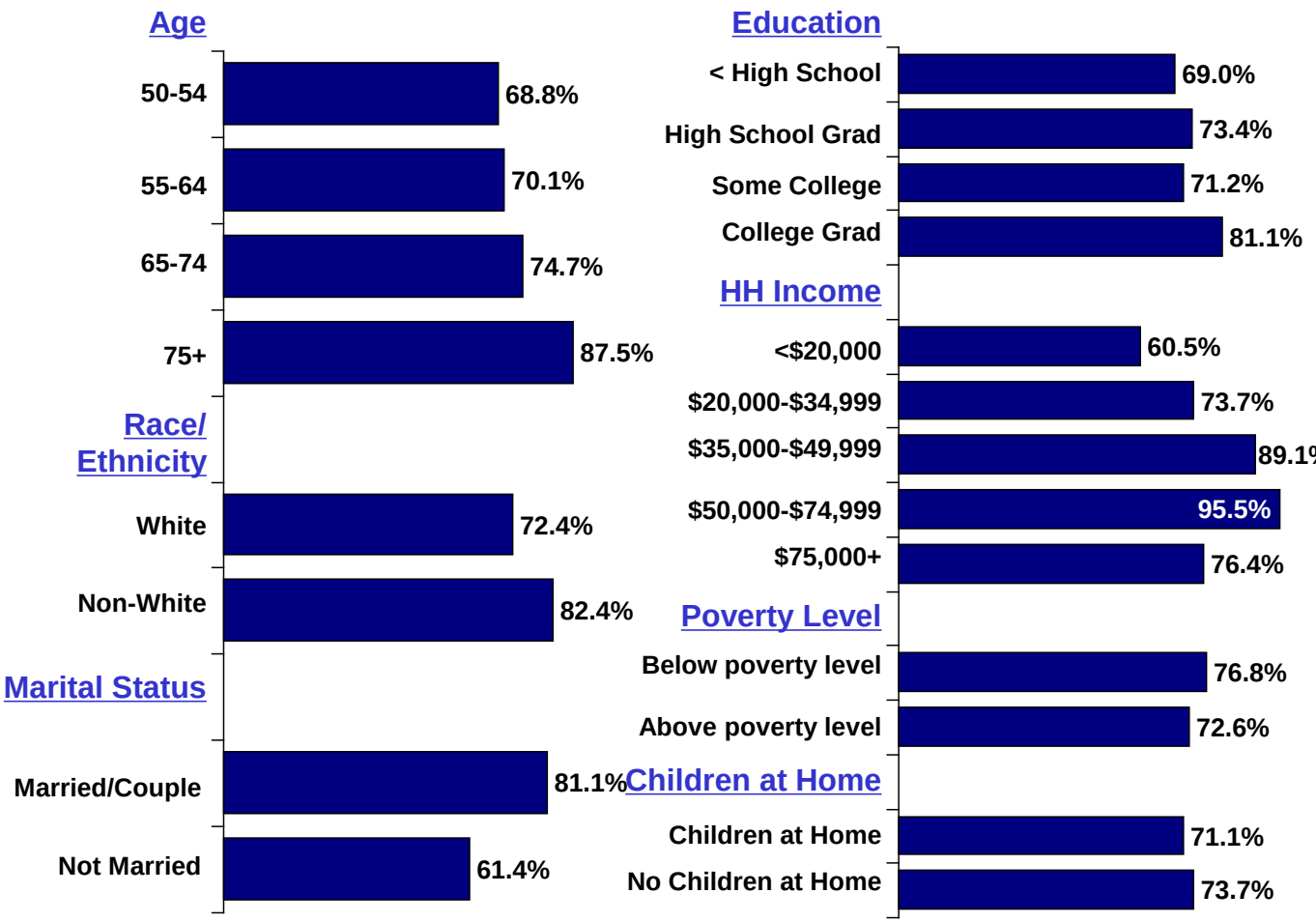
Prostate Cancer Screening Among Men Aged 50 Years and Older

Ever Had PSA Test* (Total Sample)



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

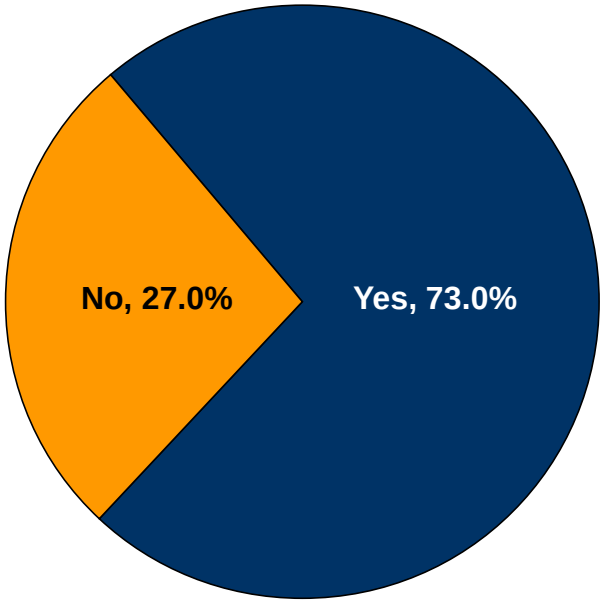
Had PSA Test by Demographics



Almost three-fourths (73.0%) of area adults aged 50 or more have had an exam to screen for colon cancer. Almost six in ten (59.5%) of those who have had an exam have had one in the past three years, while 81.8% have had one within the past five.

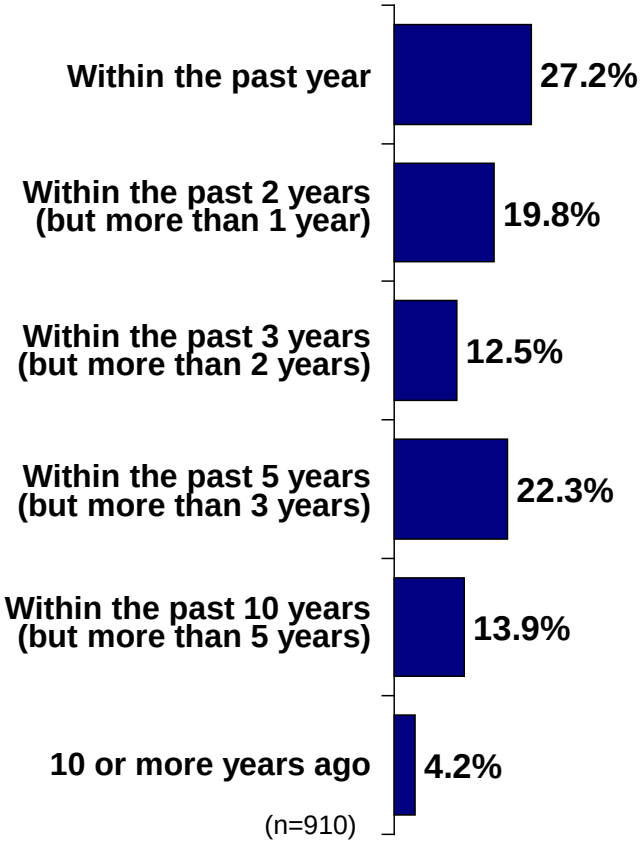
Colorectal Cancer Screening Among Adults Aged 50+

Have Had Sigmoidoscopy or Colonoscopy Exam



(n=1220)

Last Time Had Exam



(n=910)

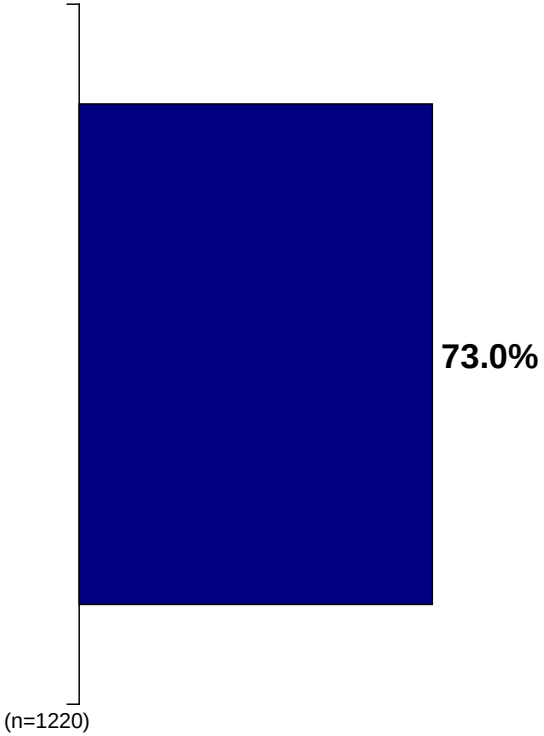
Q8.1: Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems. Have you ever had either of these exams?

Q8.2:How long has it been since you had your last sigmoidoscopy or colonoscopy?

Demographic groups least likely to be screened for colorectal cancer include people who: are aged 50-54, are unmarried, have children at home, and have no high school degree.

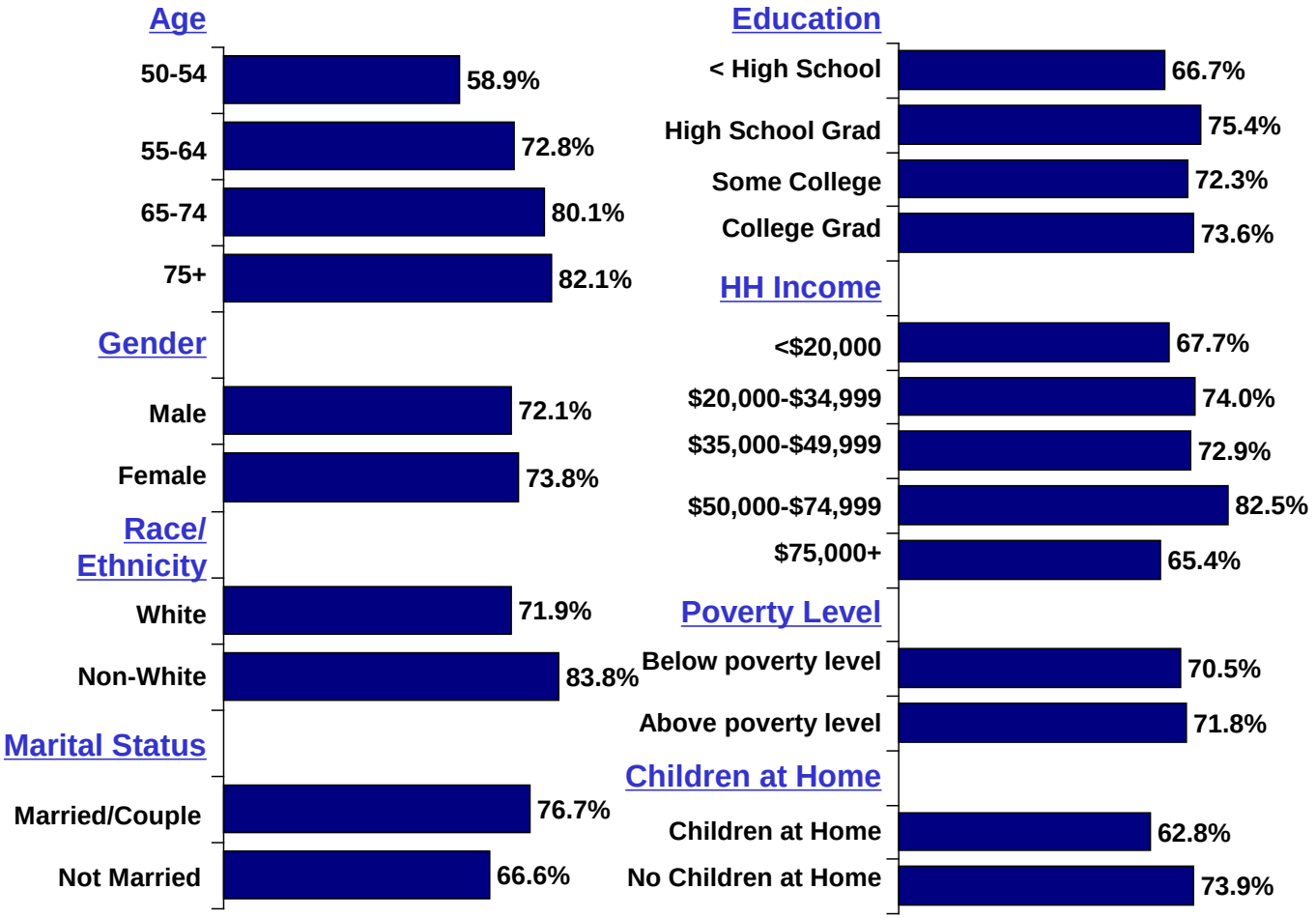
Colorectal Cancer Screening (Sigmoidoscopy/Colonoscopy) Among Adults Aged 50 Years and Older

Ever Had Sigmoidoscopy or Colonoscopy* (Total Sample)



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

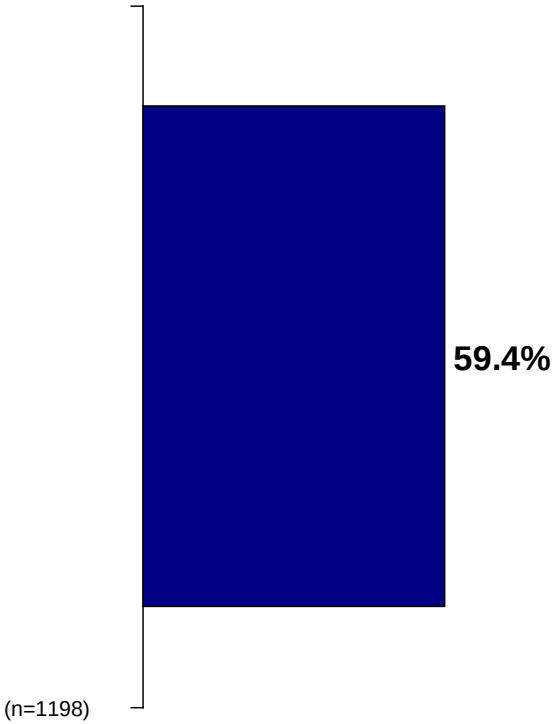
Had Sigmoidoscopy/Colonoscopy by Demographics



When looking at all adults aged 50 or older, six in ten (59.4%) have been screened for colorectal cancer in the past five years. Adults least likely to have been screened in the past five years include people who: are aged 50-54, are unmarried, have children at home, are college graduates, and who have incomes of $75 or more.

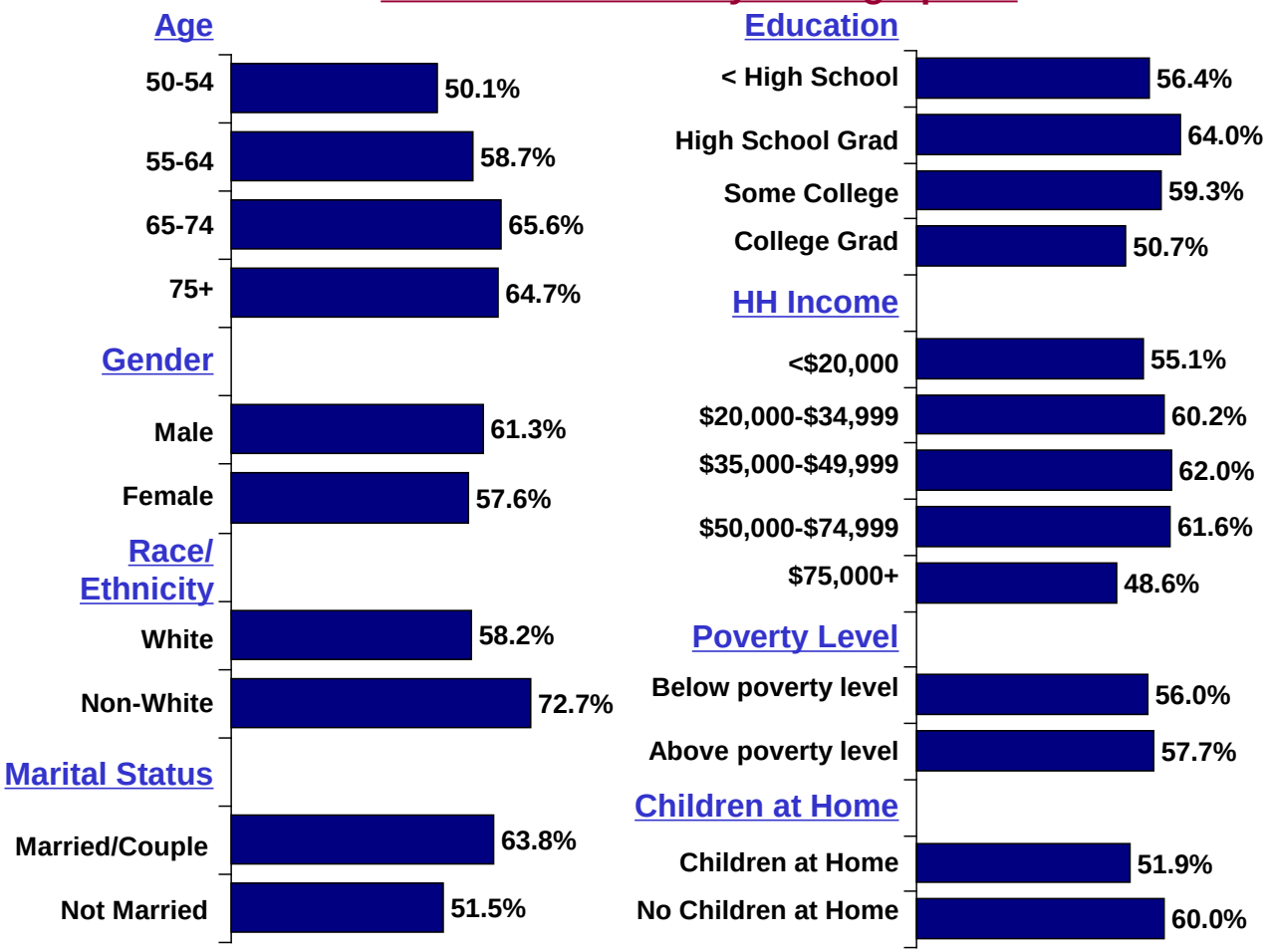
Colorectal Cancer Screening (Sigmoidoscopy/Colonoscopy) Among Adults Aged 50 Years and Older (Cont'd.)

Had A Sigmoidoscopy or Colonoscopy in Past Five Years* (Total Sample)



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

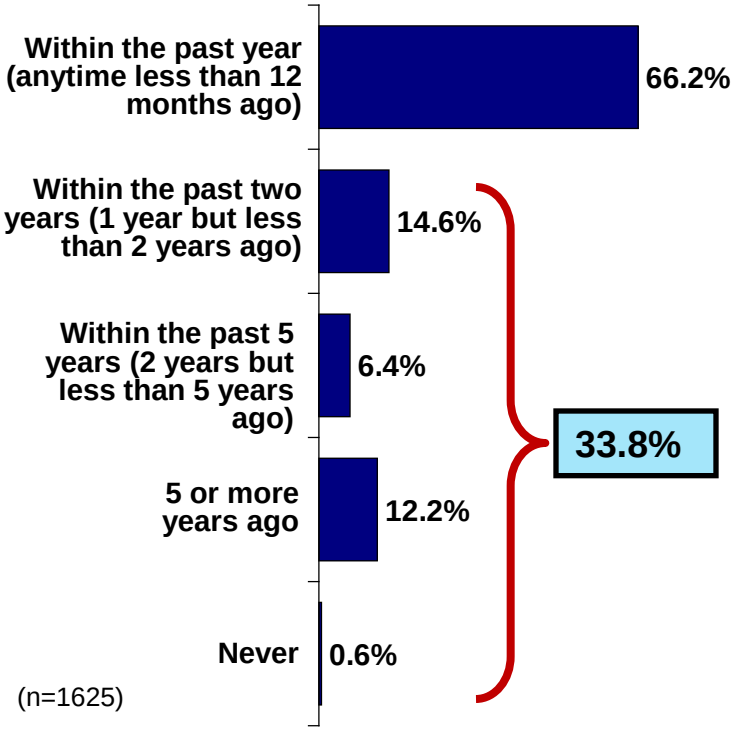
Had Sigmoidoscopy/Colonoscopy in Past Five Years by Demographics



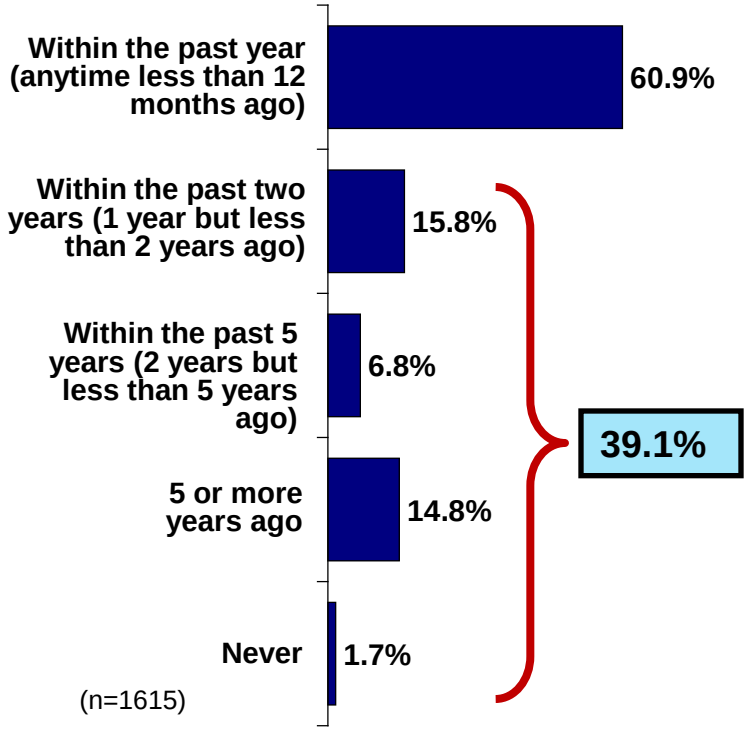
Two-thirds of area adults have visited a dentist or dental specialist in the past year. However, four in ten (39.1%) are not exercising preventive oral health care, in other words, have not visited the dentist in the past year for a teeth cleaning.

Oral Health

When Last Visited Dentist for Any Reason



When Last Visited Dentist for Teeth *Cleaning*

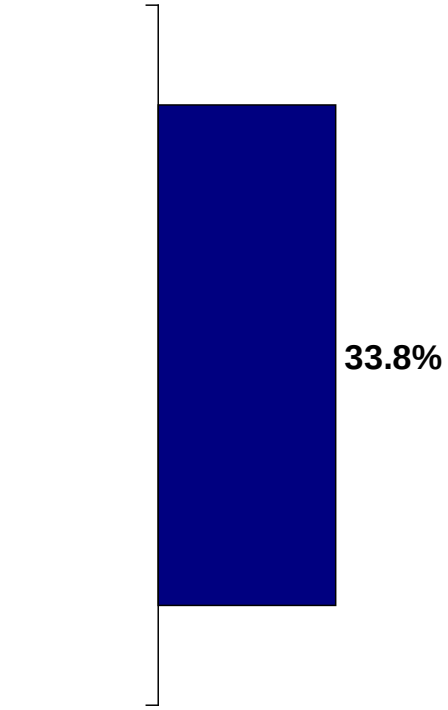


Q23.1: How long has it been since you last visited a dentist or dental clinic for any reason? Include visits to dental specialists, such as orthodontists.
Q23.2: How long has it been since you had your teeth cleaned by a dentist or dental hygienist?

Visiting a dentist in a timely manner is directly related to education and income. In fact, more than half (55.8%) of adults with less than a high school education and/or living in a household with income less than $20K (55.7%) have not visited a dentist in the past year. Compare the latter to 19.7% for those with household incomes of $75K or more. Whites are also less likely to have a timely dental visit/check-up compared to non-Whites.

Oral Health (Cont'd.)

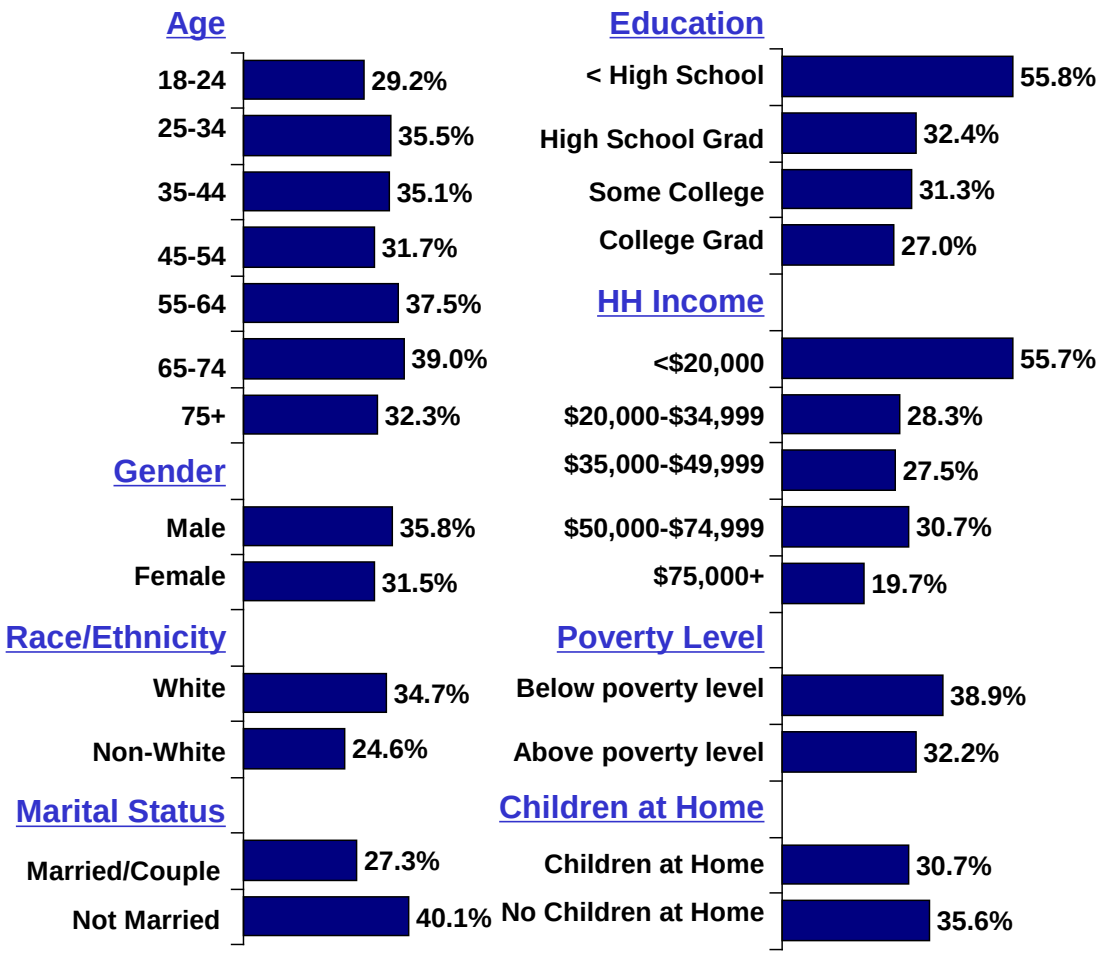
No Dental Visit in Past Year* (Total Sample)



(n=1625)

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

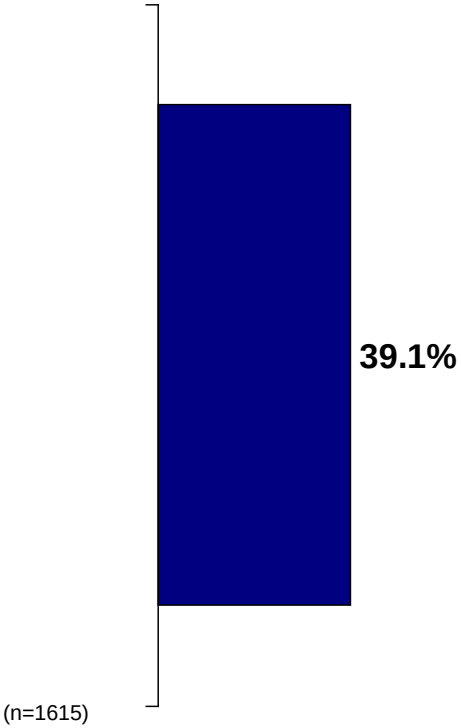
No Dental Visit in Past Year by Demographics



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 with financial restraints (income below $20K, living below poverty line). Also, Whites are less likely to have a timely cleaning compared to non-Whites, and men are less likely to have a cleaning vs. women.

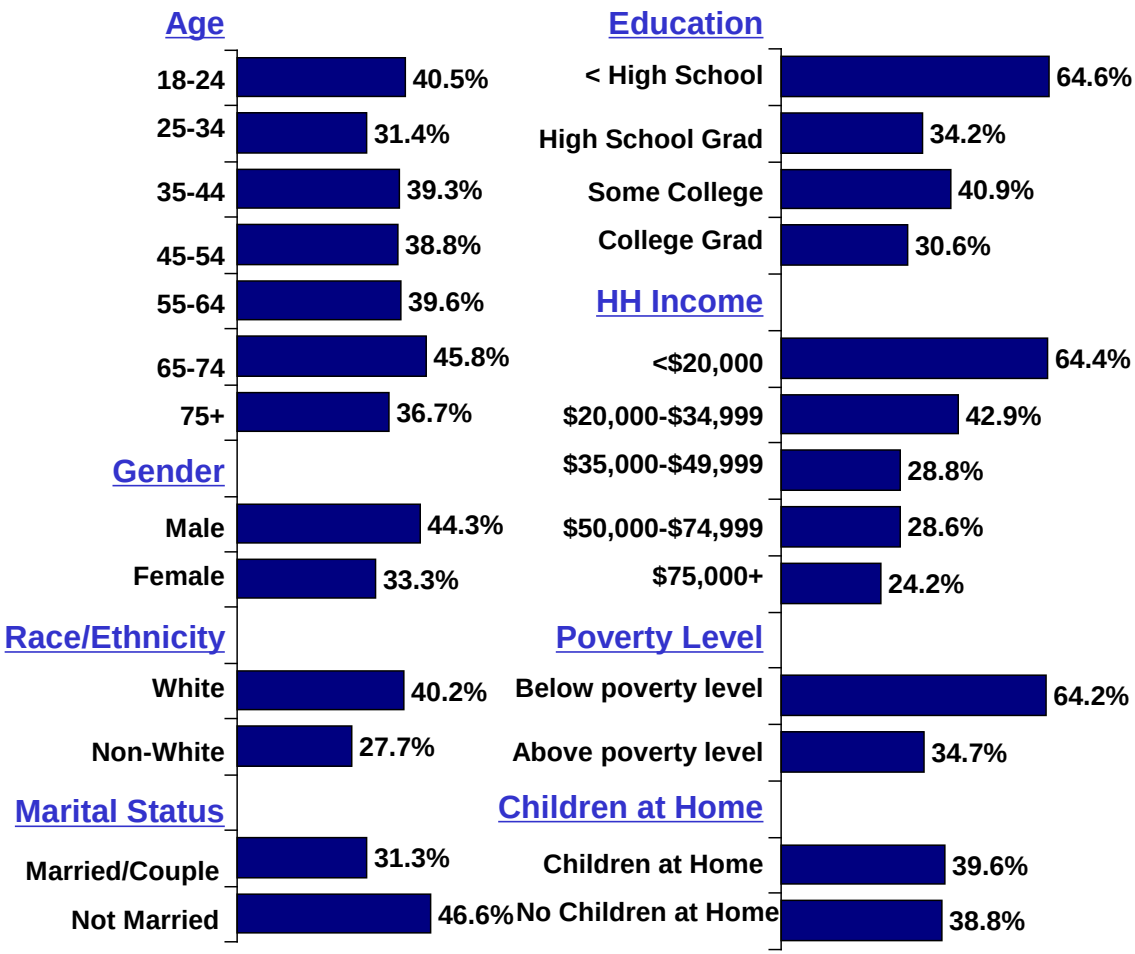
Oral Health (Cont'd.)

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.

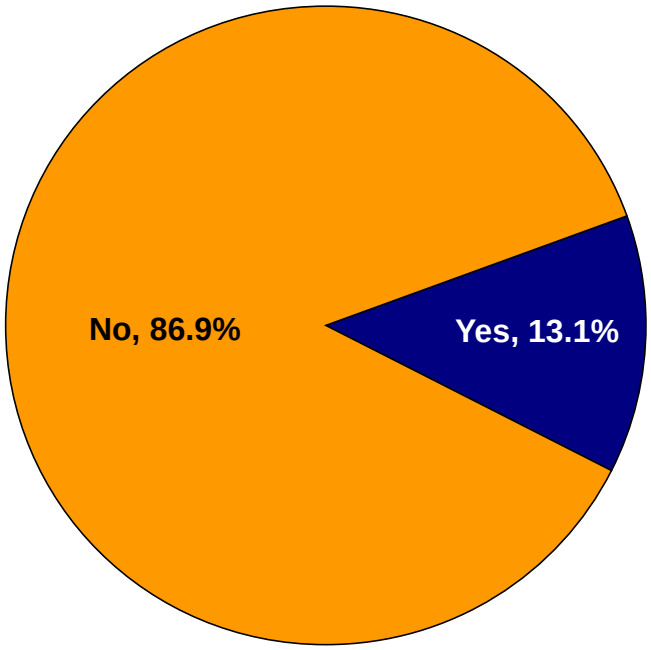
No Teeth Cleaning in Past Year by Demographics



More than one in ten (13.1%) area adults have experienced problems receiving needed dental care. Those who have had problems cite an **inability to pay** for services and **lack of insurance** as the top barriers to receiving dental care. Other barriers include an **inability to afford out-of-pocket expenses such as co-pays and deductibles**, **providers not accepting certain insurance coverage**, and **transportation** issues.

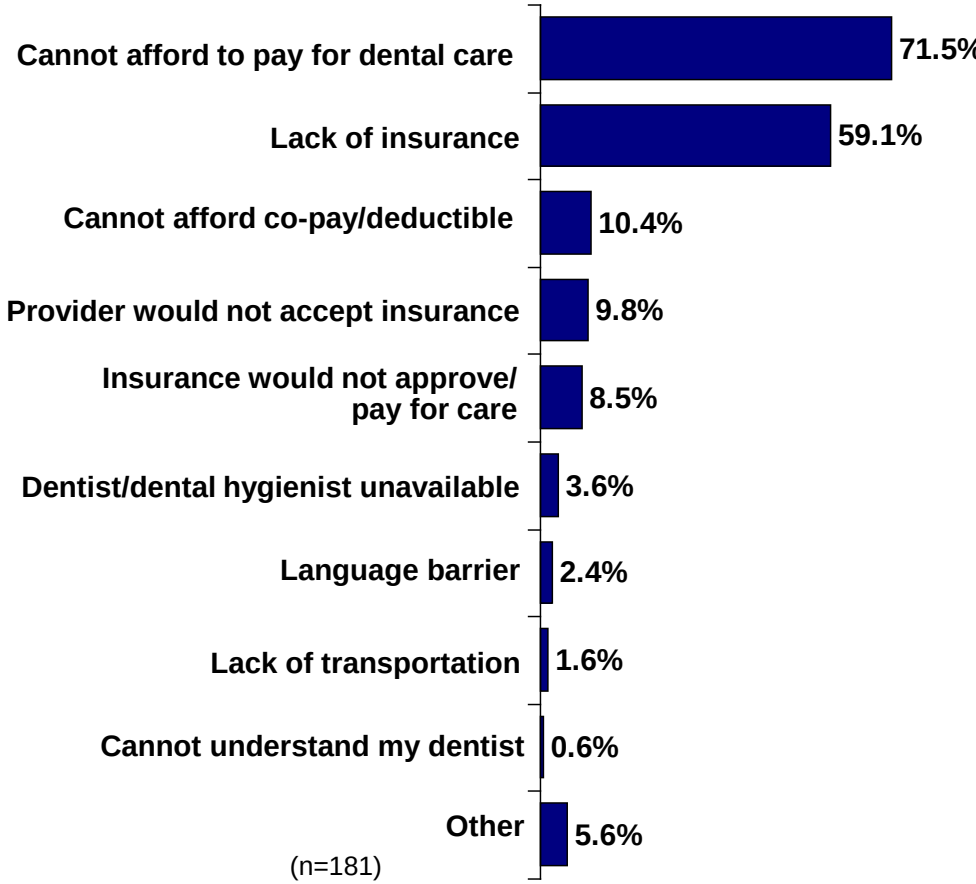
Barriers to Dental Care

Problems Getting Needed Dental Care



(n=1630)

Reasons for Difficulty in Getting Dental Care



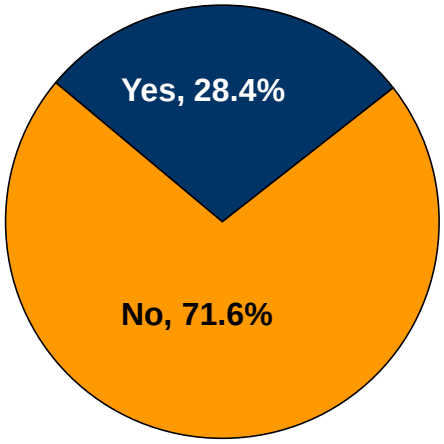
(n=181)
Base=had trouble getting needed dental care

Q23.3: In the past 12 months, have you had problems getting needed dental care?
Q23.4: Please provide the reason(s) for the difficulty in getting dental care. (Multiple responses allowed)

Among all area adults, 28.4% have received a pneumonia shot at some point. More than one-third (37.7%) have received a flu shot or vaccine in the past 12 months, and over half of them (52.1%) got it at a physician's office/HMO. Other common places to receive flu shots are at a store or at work.

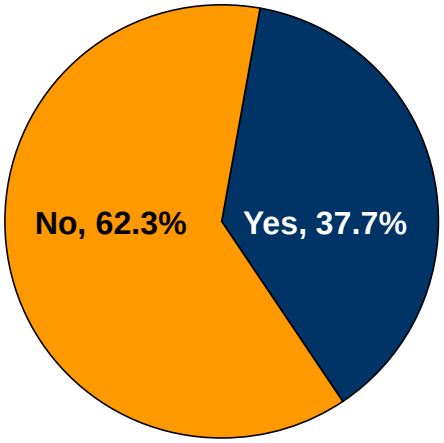
Flu and Pneumonia Immunization

Ever Had a Pneumonia Shot



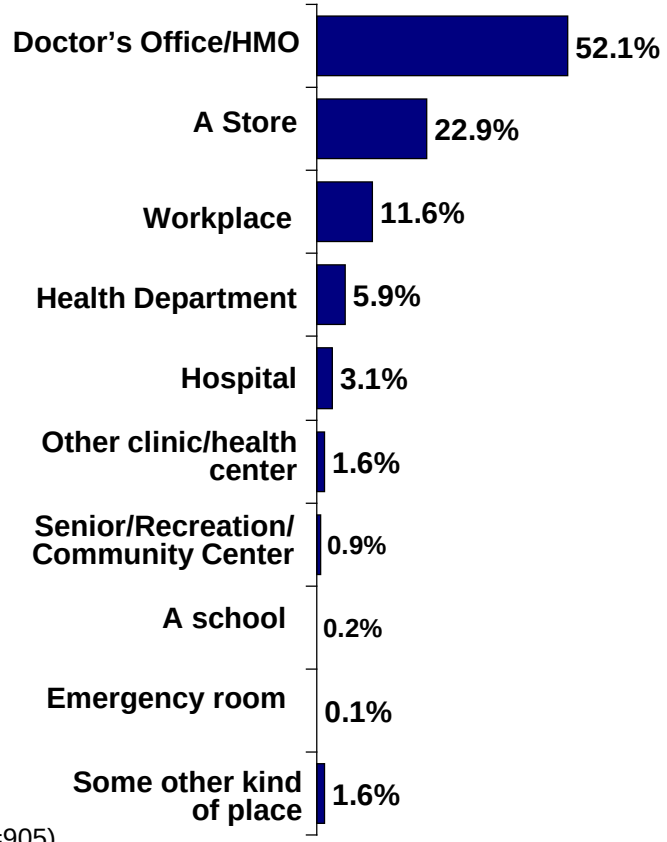
(n=1618)

Had Flu Shot/Vaccine in Past 12 Months



(n=1649)

Place Where Received Flu Shot/Vaccine



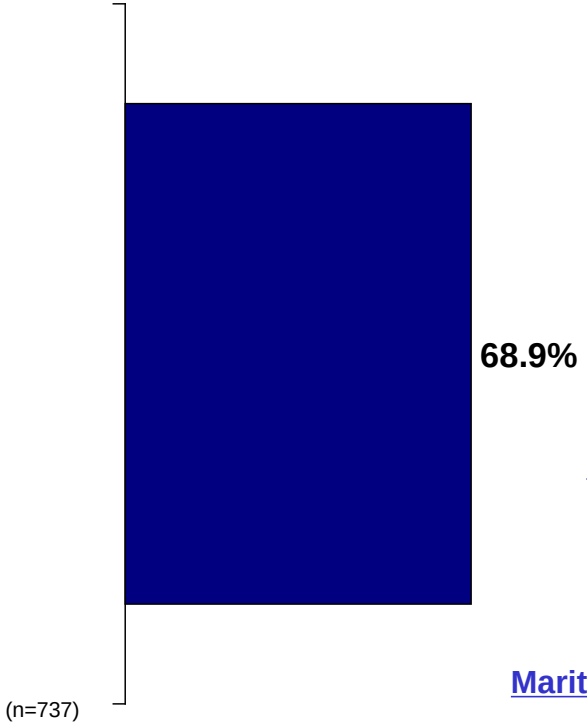
(n=905)

Q19.3: A pneumonia shot or pneumococcal vaccine is usually given only once or twice in a person's lifetime and is different from the flu shot. Have you ever had a pneumonia shot?
Q19.1: During the past 12 months, have you had either a seasonal flu shot or a seasonal flu vaccine that was sprayed in your nose?
Q19.2: At what kind of place did you get your last seasonal flu shot/vaccine?

Two-thirds (68.9%) of adults aged 65 or older have received a flu vaccine in the past year. Adults aged 75+ are more likely to receive one in the past year than those aged 65-74. Senior non-Whites are less likely than Whites to receive a flu vaccine in the past year. Having a flu vaccine is directly related to level of income.

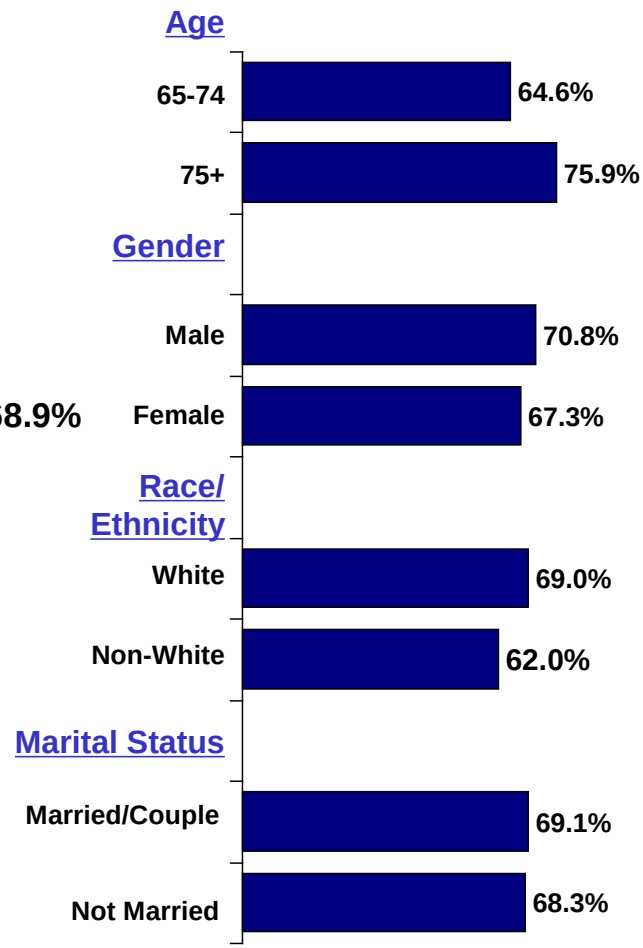
Immunizations Among Adults 65 Years and Older

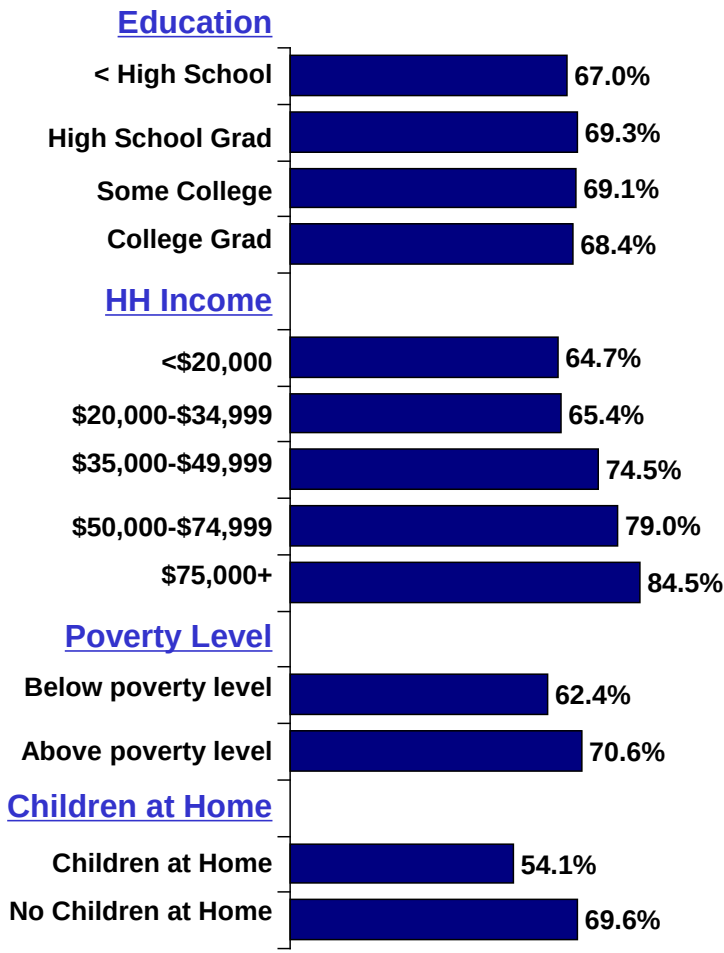
Had Flu Vaccine in Past Year* (Total Sample)



*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

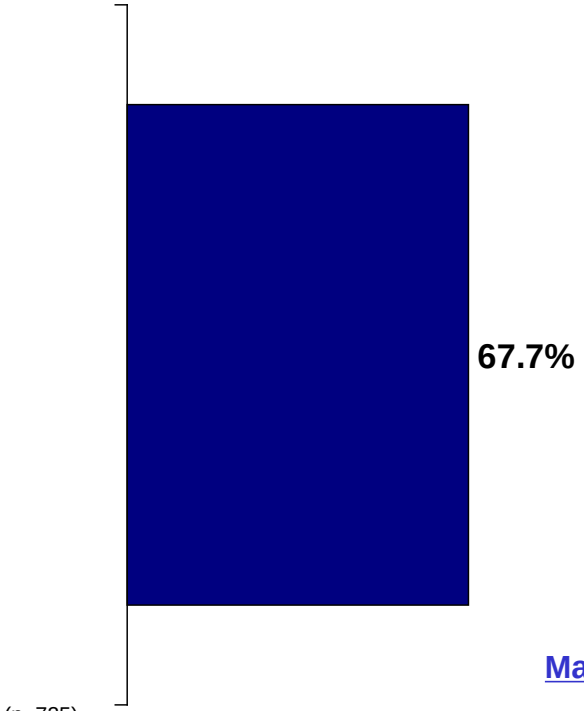




Additionally, two-thirds (67.7%) adults aged 65 or older received a pneumonia vaccine at some point and this rate is higher for those aged 75 or older. Adults most likely to have a pneumonia vaccine have incomes of $75K or more and/or have children at home.

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

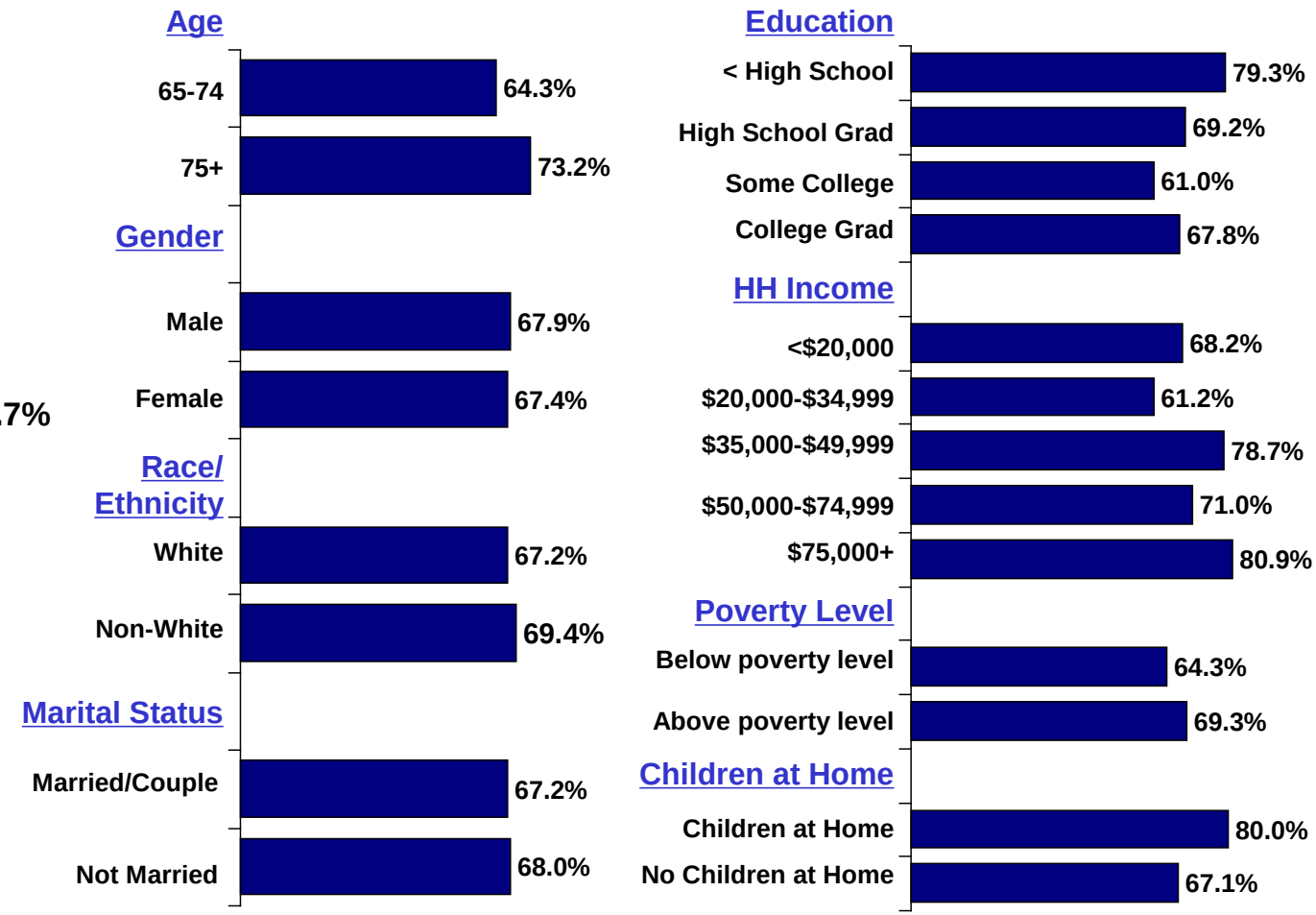
Ever Had Pneumonia Vaccine* (Total Sample)



(n=725)

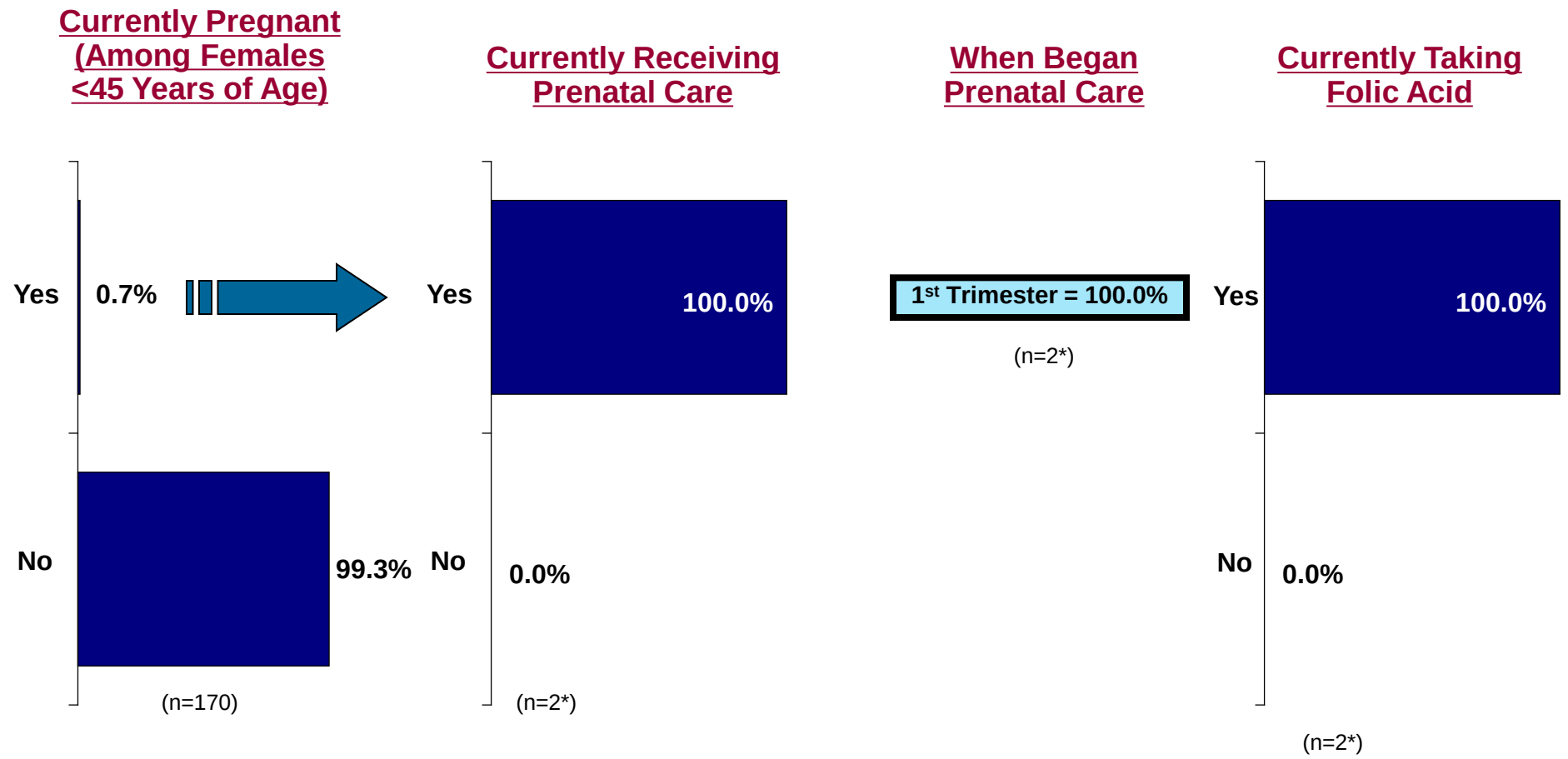
*Among adults aged 65 years and older, the proportion who reported that they ever had a pneumococcal vaccine.

Had Pneumonia Vaccine by Demographics



Among pregnant females, all are currently receiving prenatal care, all began their care in the first trimester, and all take a vitamin or supplement that contains folic acid.

Pregnancy and Prenatal Care



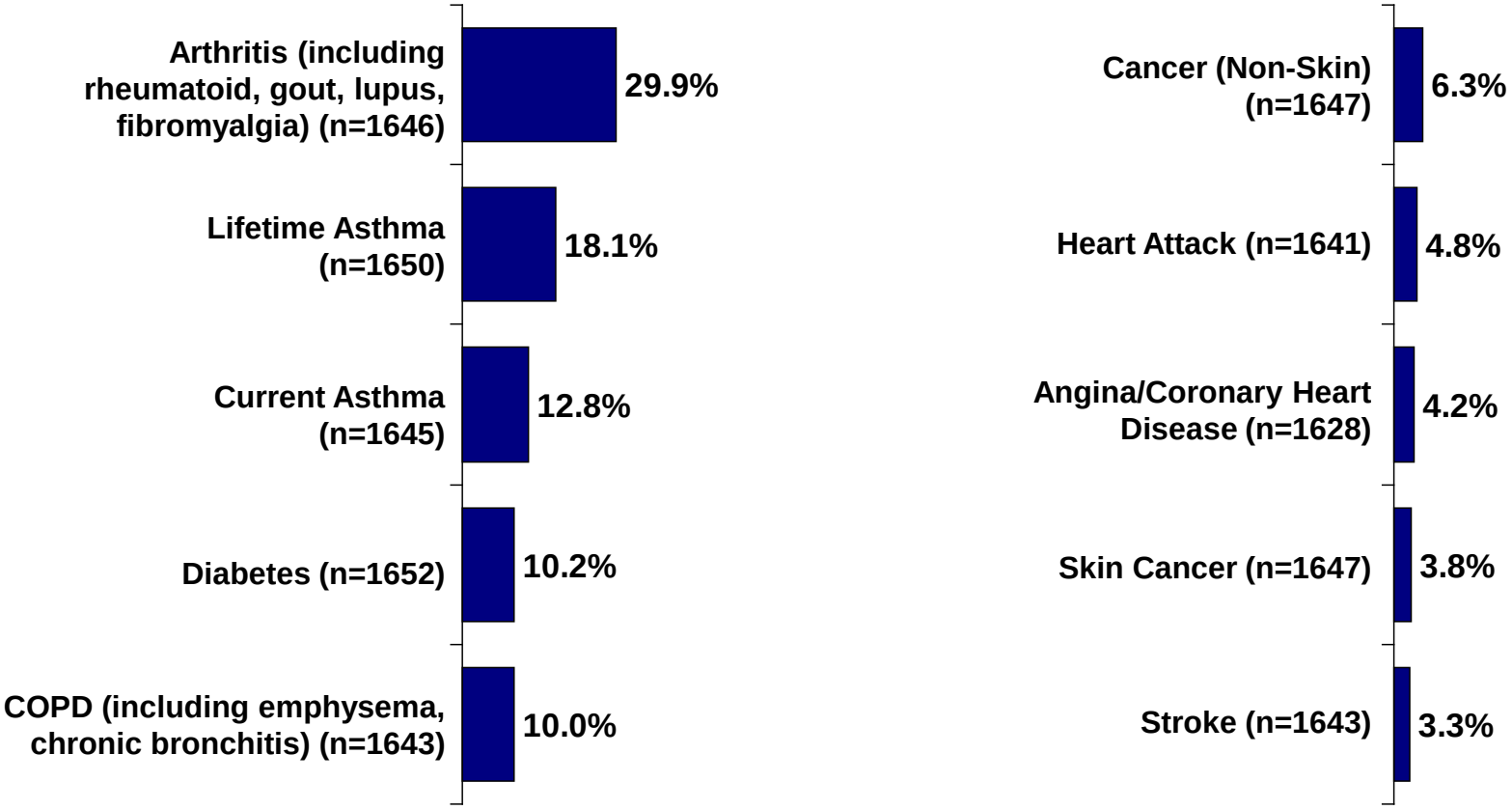
Q13.17: To your knowledge, are you now pregnant?
Q14.1 (If yes) Are you currently receiving prenatal care?
Q14.2: (If yes) When did you start receiving prenatal care?
Q14.3: (If yes) Are you currently taking a vitamin or supplement that contains folic acid?

*Caution: small n size

Chronic Conditions

Arthritis-related conditions are the most prevalent chronic conditions among SHBRH area adults, followed by asthma and diabetes. Prevalence is low for heart conditions, skin cancer, and stroke.

Prevalence of Chronic Health Conditions (% Have Been Told They Have)

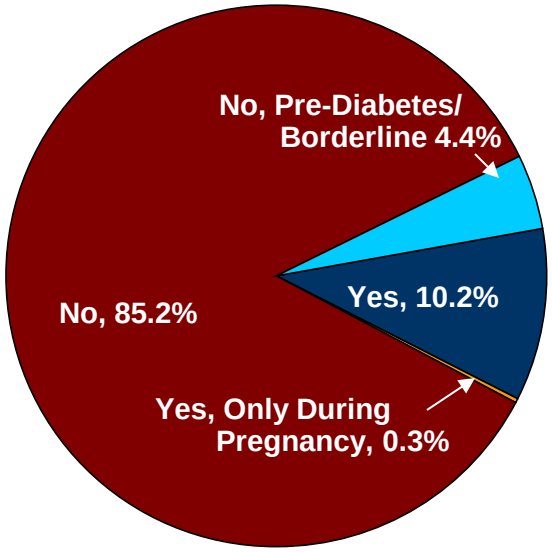


Q9.1-Q9.10: Has a doctor, nurse, or other health professional EVER told you that you had….
Q9.2: Do you still have asthma?

One in ten (10.2%) area adults has ever been told by a health care professional they have diabetes. On average, those with diabetes see a health professional and/or are checked for A1c between three and four times per year.

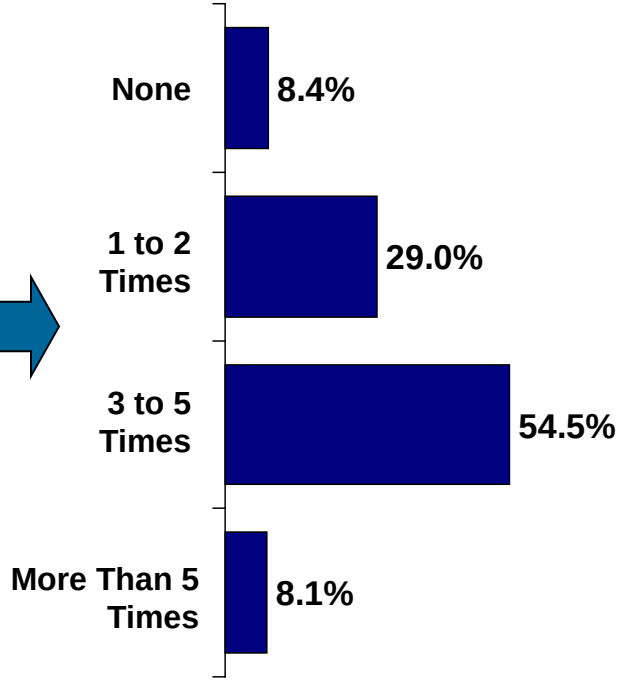
Prevalence of Diabetes

Ever Told Have Diabetes



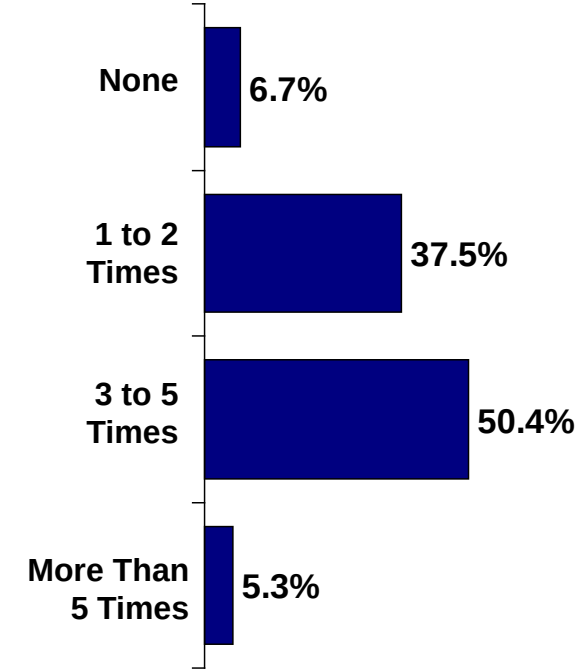
(n=1652)

Number of Times in Past 12 Months Seen Health Professional for Diabetes



(n=276) **Mean = 3.4**

Number of Times in Past 12 Months Checked for A1c



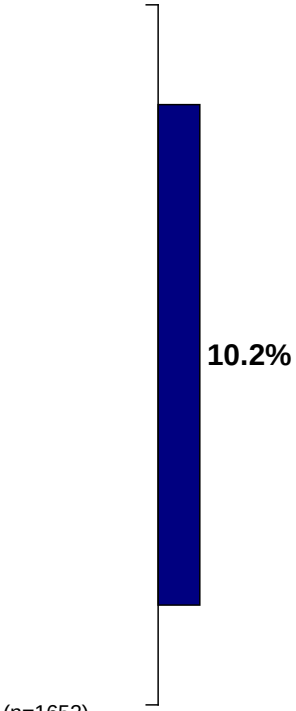
(n=270) **Mean = 3.8**

Q9.10: Has a doctor, nurse, or other health professional EVER told you that you had diabetes?
Q10.1: About how many times in the past 12 months have you seen a doctor, nurse, or other health professional for your diabetes?
Q10.2: A test for "A one C" measures the average level of blood sugar over the past three months. About how many times in the past 12 months have a doctor, nurse, or other health professional checked you for "A one C?"

The prevalence of diabetes is greater for older adults (55+), those with incomes less than $20K, and those with less than a high school diploma. The prevalence of diabetes is indirectly related to level of income.

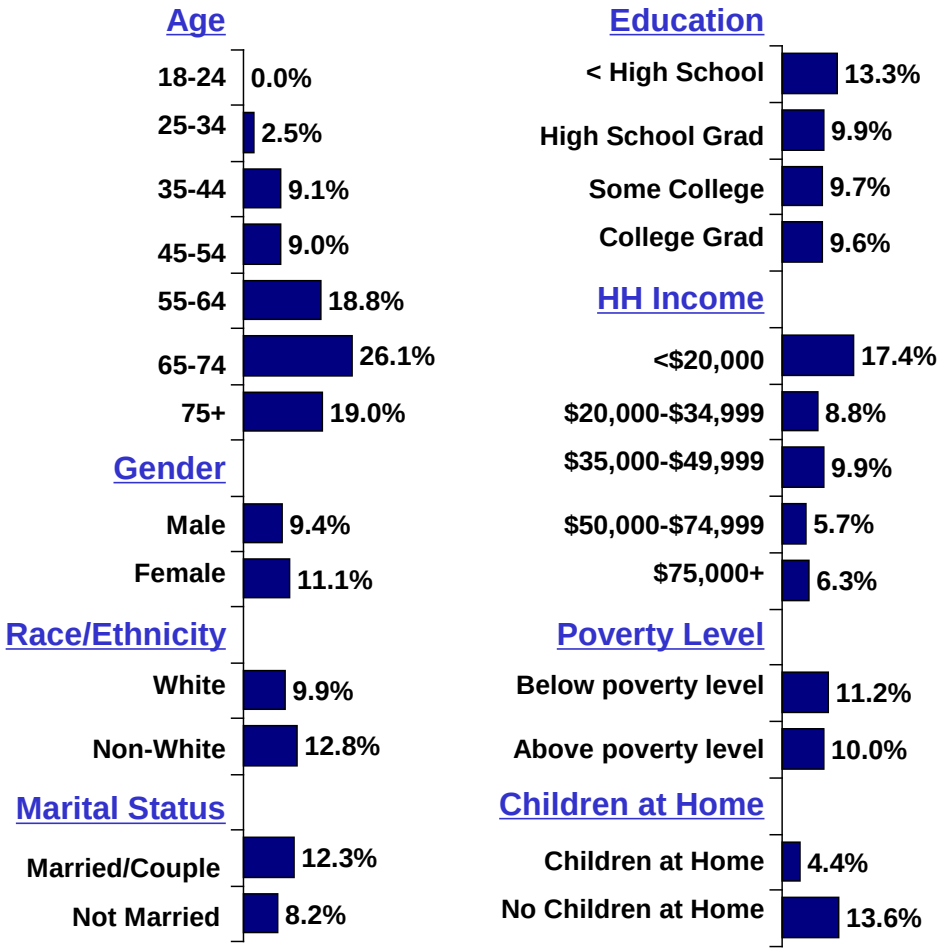
Diabetes

Ever Told Have Diabetes* (Total Sample)



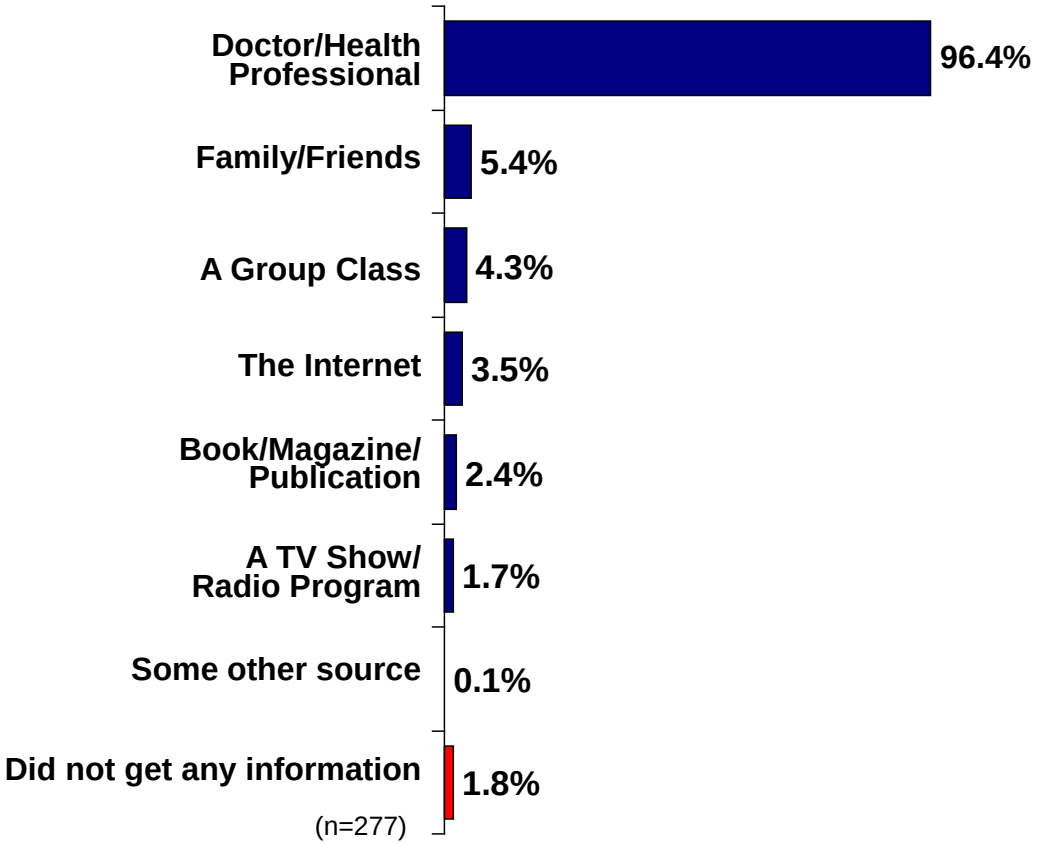
*Among all adults, the proportion who reported that they were ever told by a doctor that they have diabetes. Adults who had been told they have prediabetes and women who had diabetes only during pregnancy were classified as not having been diagnosed.

Told Have Diabetes by Demographics



Almost all (98.2%) adults who have diabetes have received information in the past 12 months on how to care for the condition and most, by far, have received it from a doctor or health care professional. Still, several other sources have been used.

Information Sources for Management of Diabetes

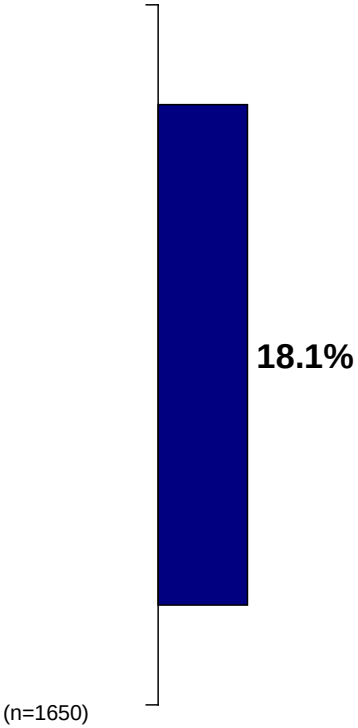


Q11.1: During the last 12 months, where did you get information about taking care of your [INSERT DISEASE]?

Almost one in five (18.1%) adults in the area have been diagnosed with asthma in their lifetime. This rate is highest for adults age 18-24 and lowest for those 65 or older. Lifetime asthma rates are higher for adults without a high school diploma or those with annual incomes under $20K. Non-Whites are far more likely than Whites to have been diagnosed with asthma in the lifetime.

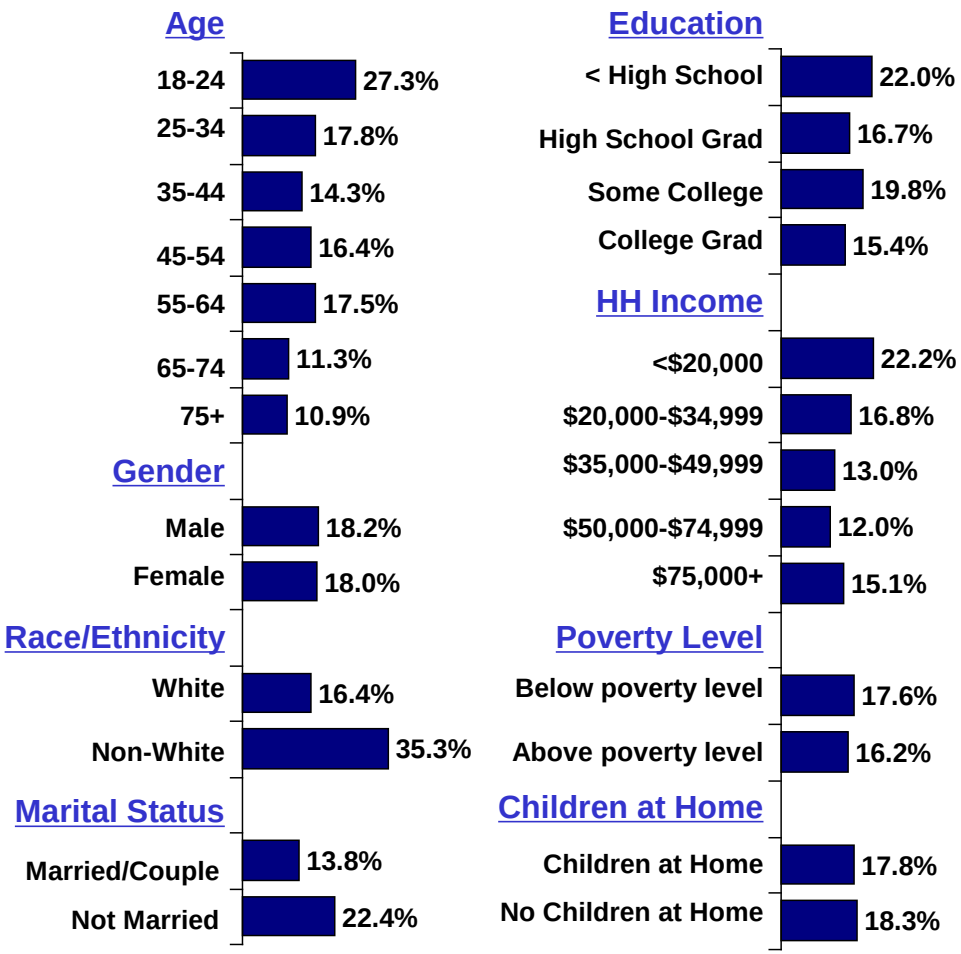
Asthma Among Adults

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.

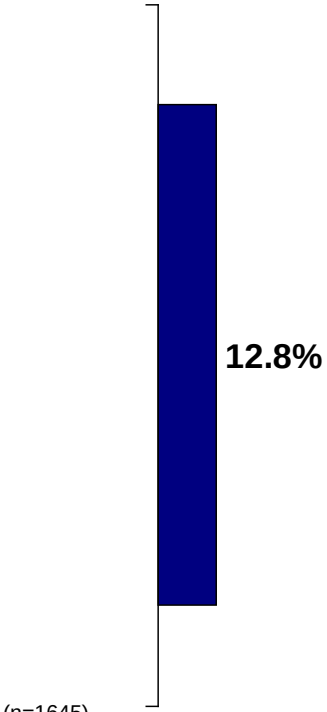
Lifetime Asthma by Demographics



Fewer (12.8%) adults in the SHBRH area currently have asthma, although still more than one in ten. Adults most likely to have asthma are without a high school diploma, living in households with annual incomes less than $20K, or living below the poverty line.

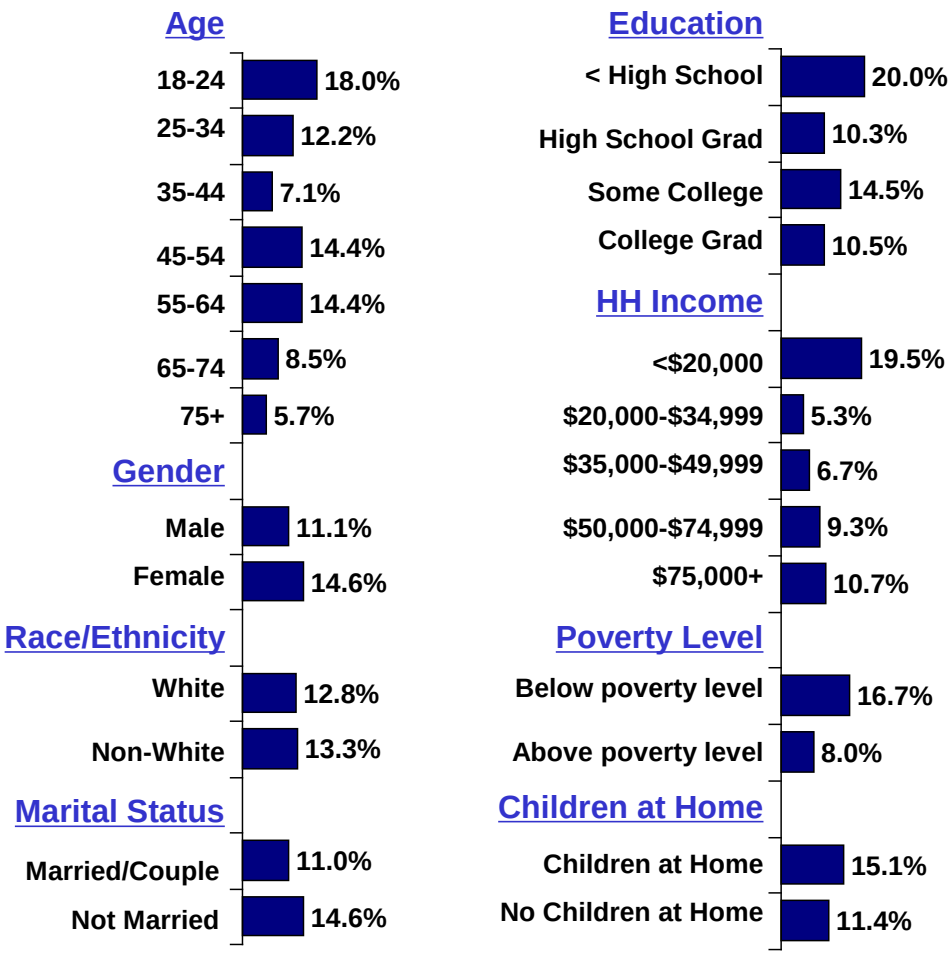
Asthma Among Adults (Cont'd.)

Current Asthma Prevalence* (Total Sample)



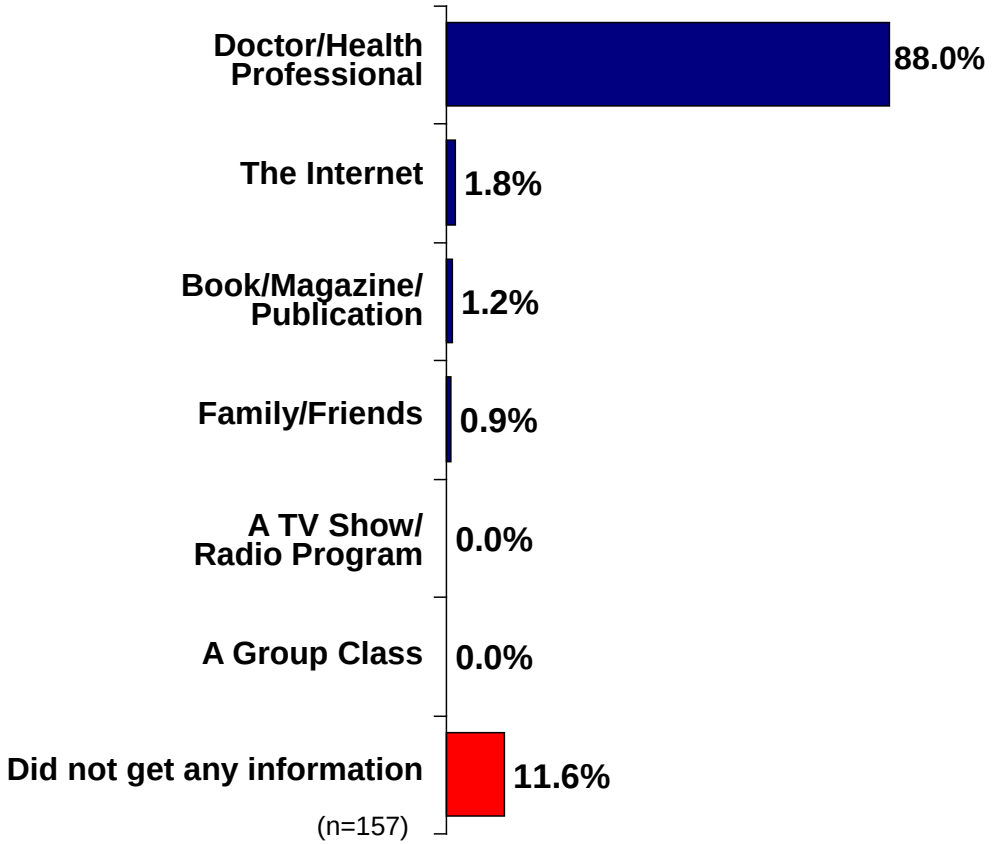
*Among all adults, the proportion who reported that they still had asthma.

Current Asthma by Demographics



Almost nine in ten (88.4%) adults who have asthma have received information in the past 12 months on how to care for the condition. The greatest information source is the physician or health care professional.

Information Sources for Management of Asthma

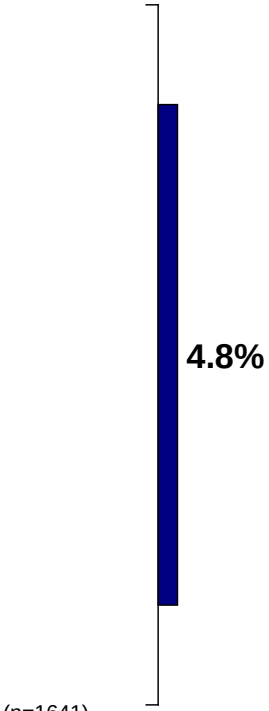


Q11.1: During the last 12 months, where did you get information about taking care of your [INSERT DISEASE]?

Very few area adults have had a heart attack and this is true regardless of demographics. That said, having a heart attack is directly related to age and inversely related to education and income. Further, heart attacks are more common among men than women and more common among non-Whites than Whites. Heart attacks are least common among adults from groups with college degrees or incomes of $75K or more.

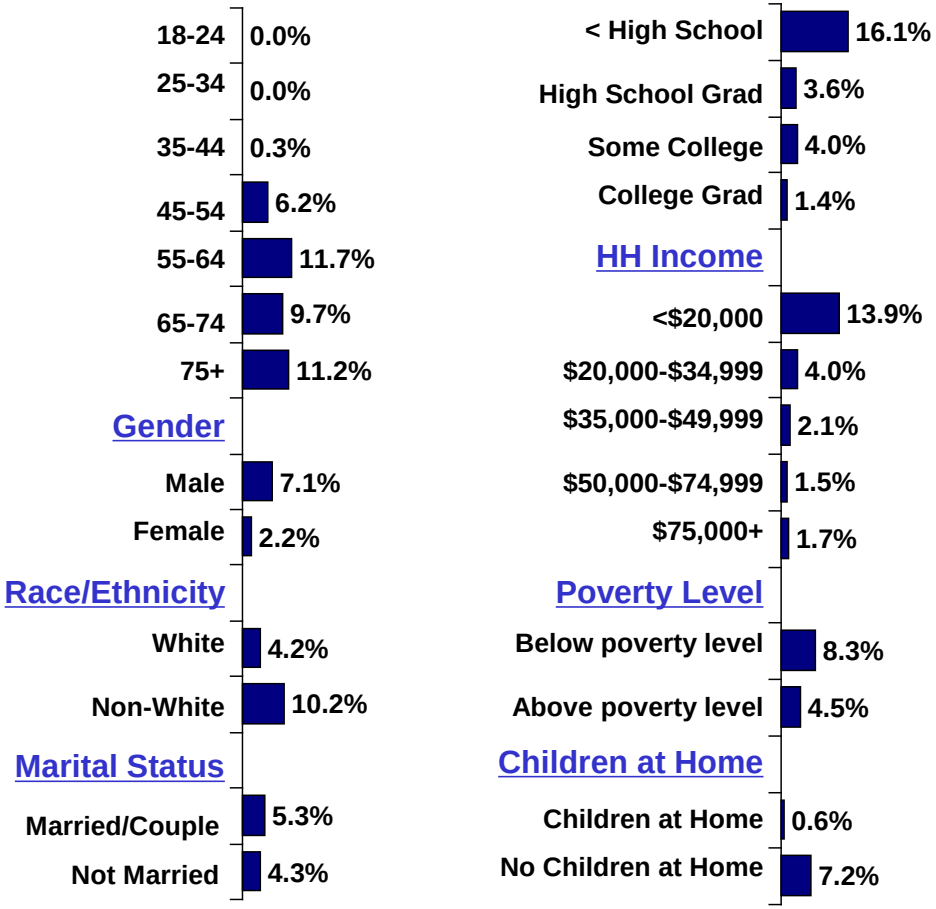
Cardiovascular Disease

Ever Told Had Heart Attack* (Total Sample)



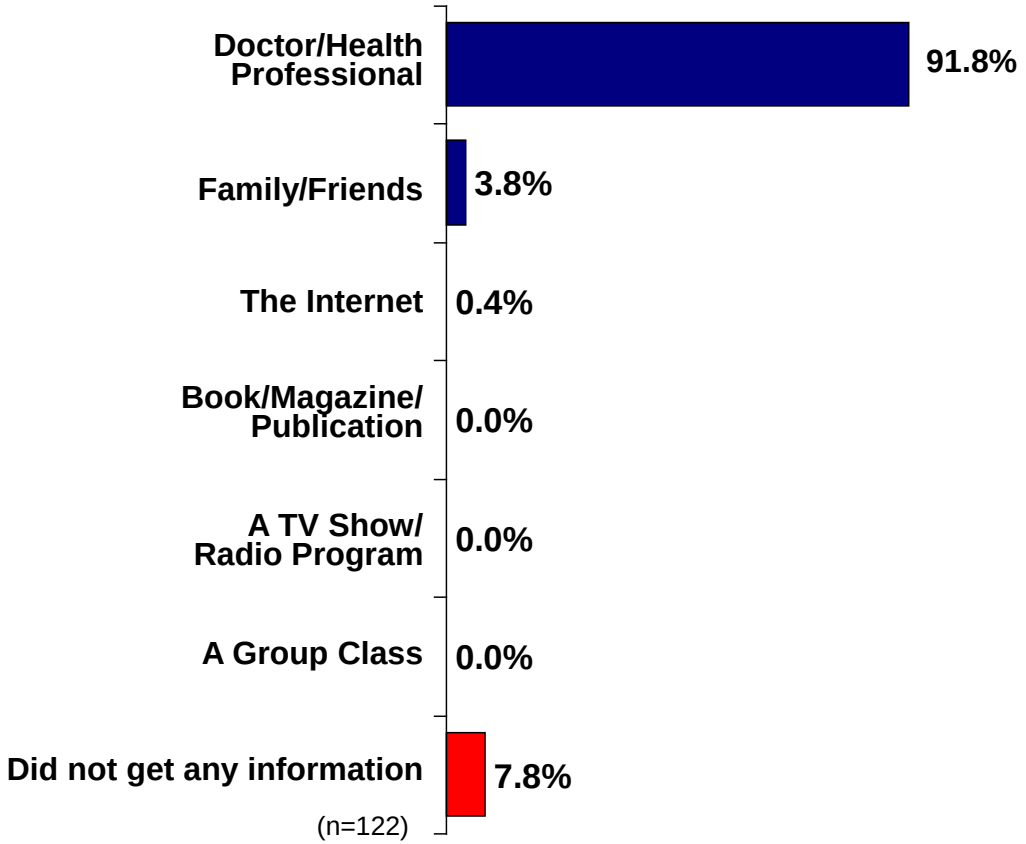
*Among all adults, the proportion who had ever been told by a doctor that they had a heart attack or myocardial infarction.

Told Had Heart Attack by Demographics



More than nine in ten (92.2%) area adults who have had a heart attack have received information in the past 12 months on how to care for the condition. The greatest information source is the physician or health care professional.

Information Sources for Management of Heart Attack/ Cardiovascular Disease

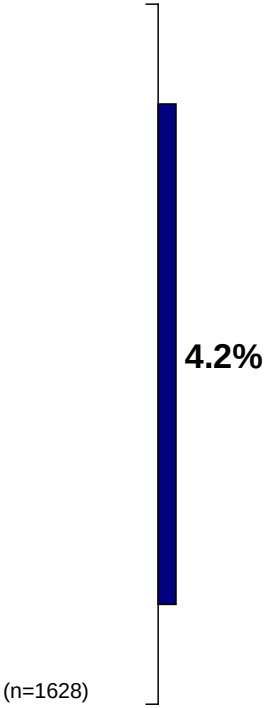


Q11.1: During the last 12 months, where did you get information about taking care of your [INSERT DISEASE]?

Very few area adults have ever been told by a health care professional they have angina or coronary heart disease. The rate is higher for adults aged 55+, without a high school diploma, or living in households with incomes less than $20K. It is also slightly more common among men than women, and slightly more common among non-Whites than Whites.

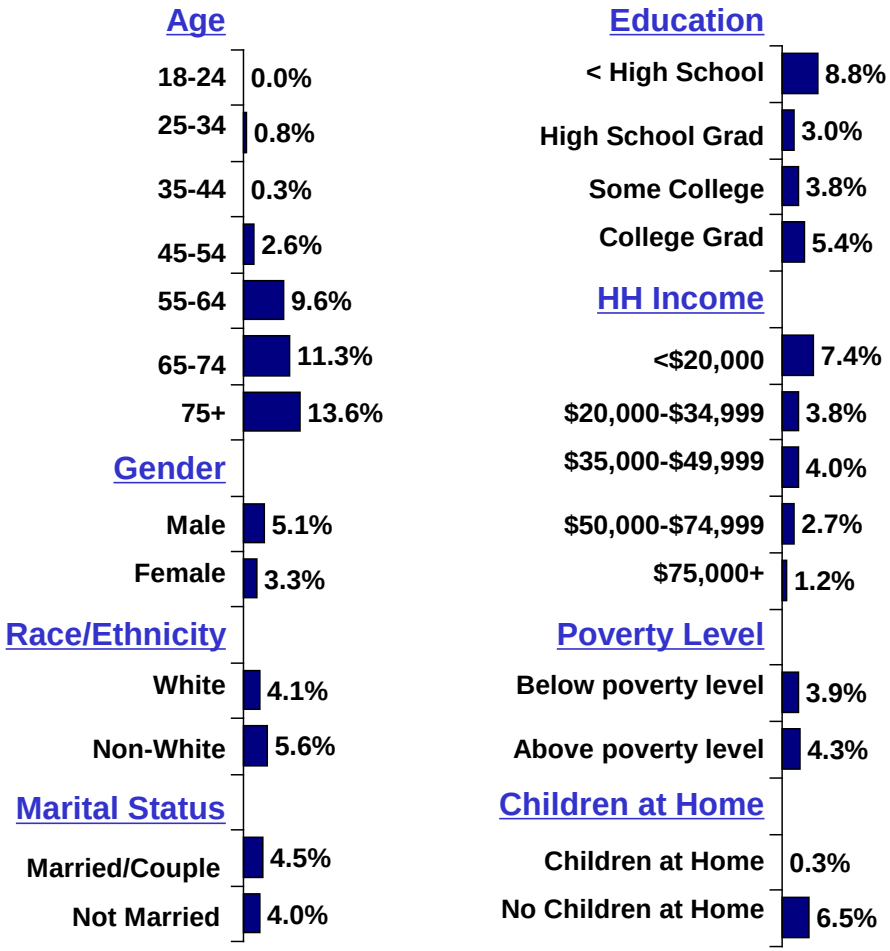
Cardiovascular Disease (Cont'd.)

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



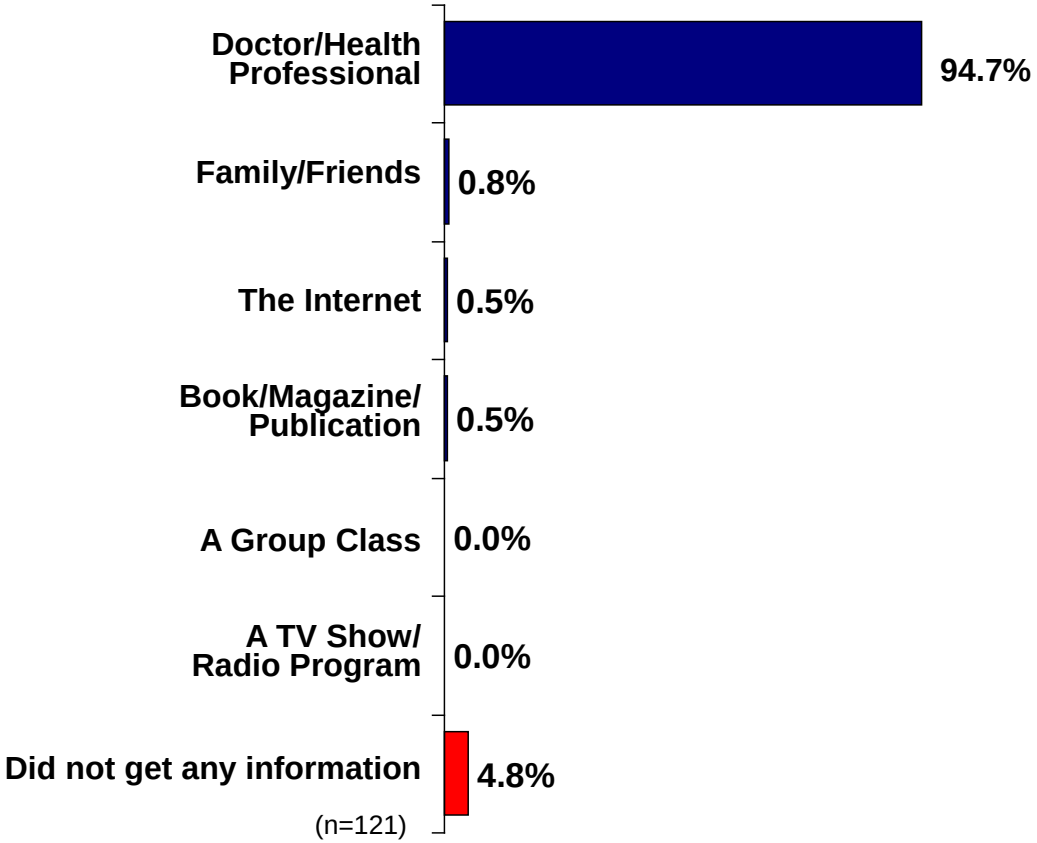
*Among all adults, the proportion who had ever been told by a doctor that they had angina or coronary heart disease.

Told Have Angina/Coronary Heart Disease by Demographics



Almost all (95.2%) SHBRH area adults who have angina or coronary heart disease have received information in the past 12 months on how to care for these conditions. The greatest information source is the physician or health care professional.

Information Sources for Management of Angina

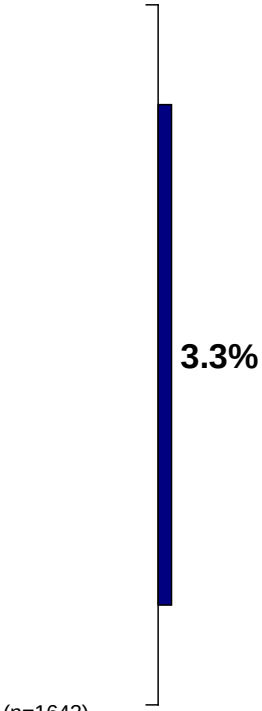


Q11.1: During the last 12 months, where did you get information about taking care of your [INSERT DISEASE]?

Few area 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.)

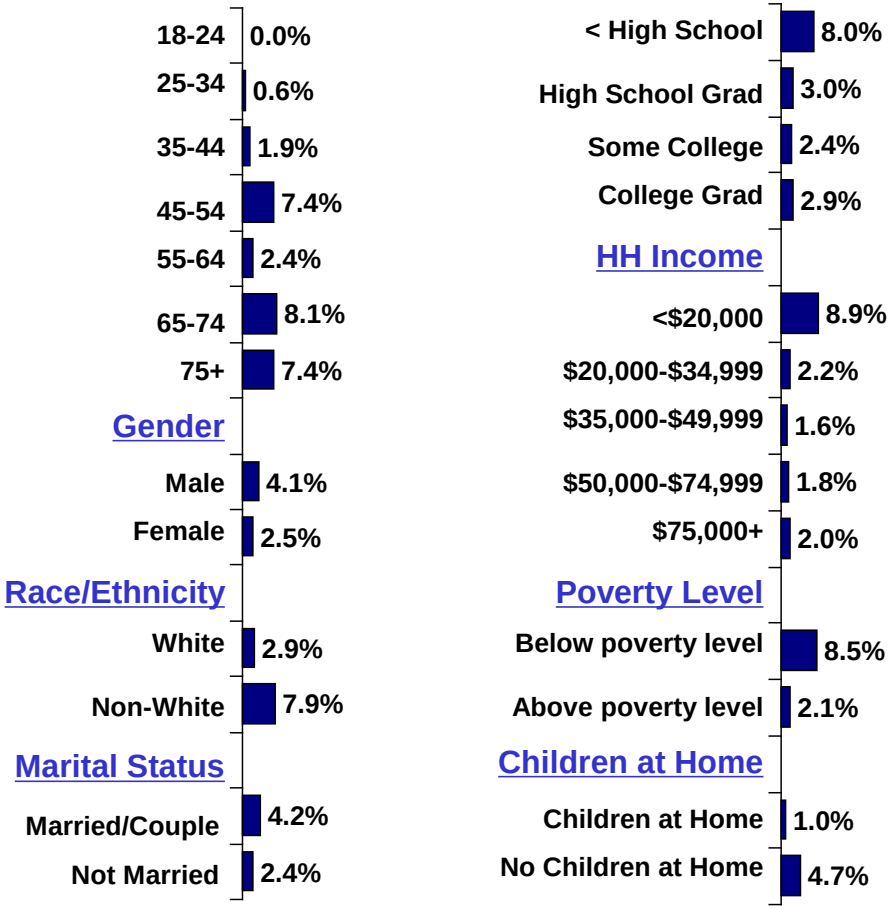
Ever Told Had a Stroke* (Total Sample)



(n=1643)

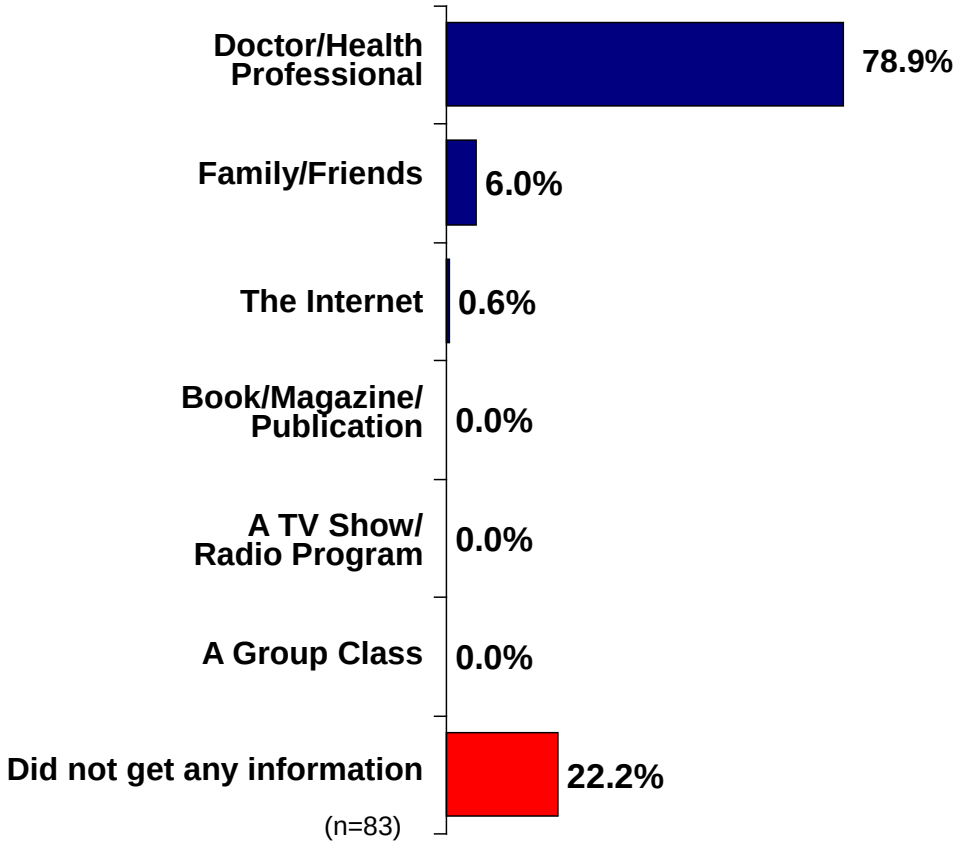
*Among all adults, the proportion who had ever been told by a doctor that they had a stroke.

Told Had Stroke by Demographics



Three-fourths (77.8%) of area adults who have had a stroke have received information in the past 12 months on how to care for the condition and they received their information solely from health care professionals, family, or friends.

Information Sources for Management of Stroke

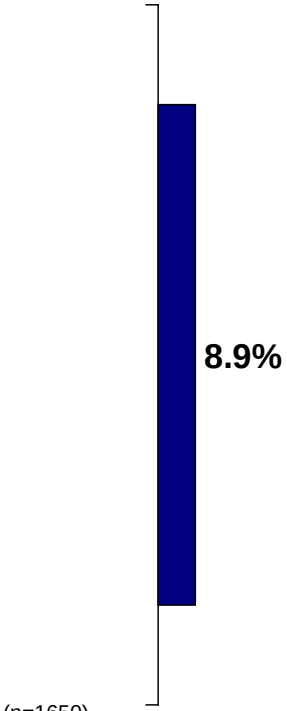


Q11.1: During the last 12 months, where did you get information about taking care of your [INSERT DISEASE]?

Having any form of cardiovascular disease (heart attack, angina, stroke) is directly related to age and inversely related to education and income. For example, 3.4% of adults with annual incomes of $75 or more have experienced heart disease in some form, compared to 19.7% of those with incomes below $20K. Men are more likely than women, and non-Whites are more likely than Whites, to have some form of heart disease.

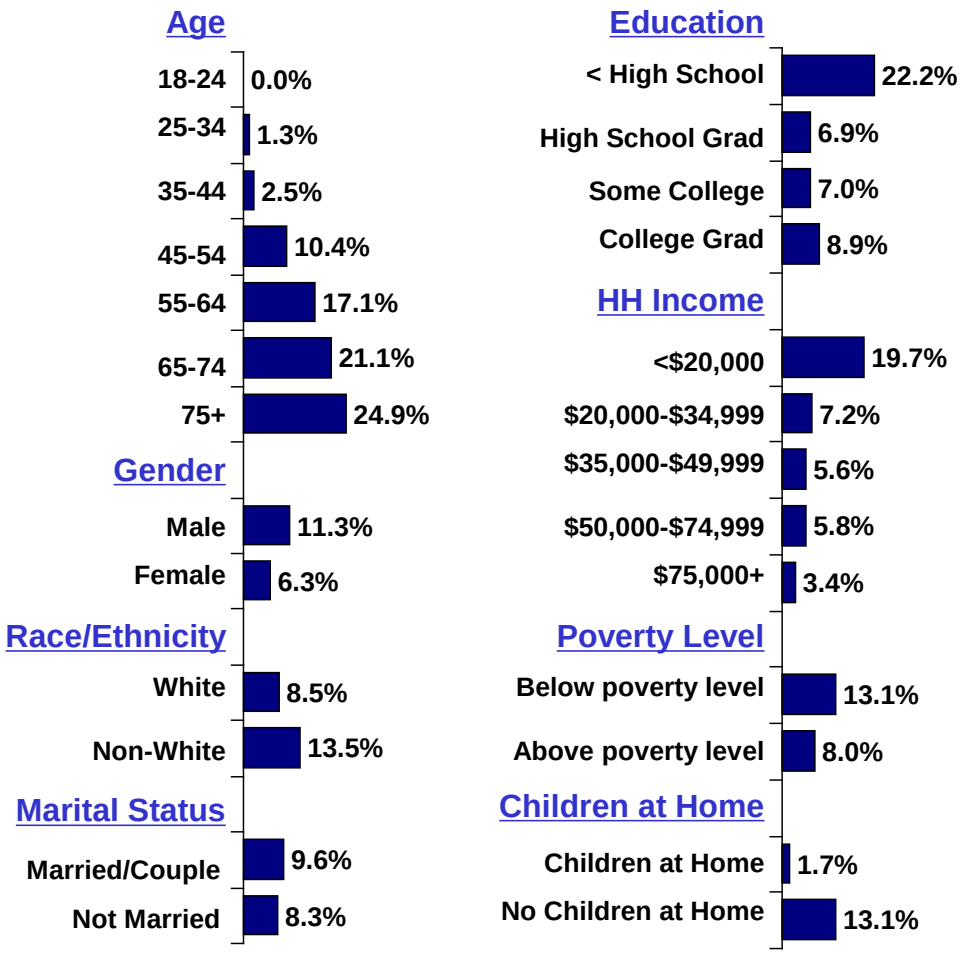
Any Cardiovascular Disease

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.

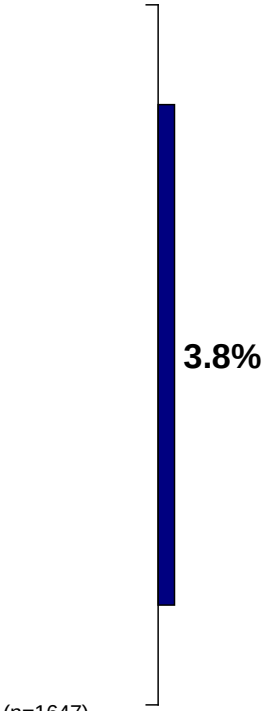
Told Had Heart Attack, Angina, or Stroke by Demographics



Few (3.8%) area adults have been told by a doctor they have skin cancer. Expectedly, this proportion rises dramatically with age; 16.9% of people aged 75 or older have been told they have skin cancer. There are no further differences between demographic groups with regard to having skin cancer.

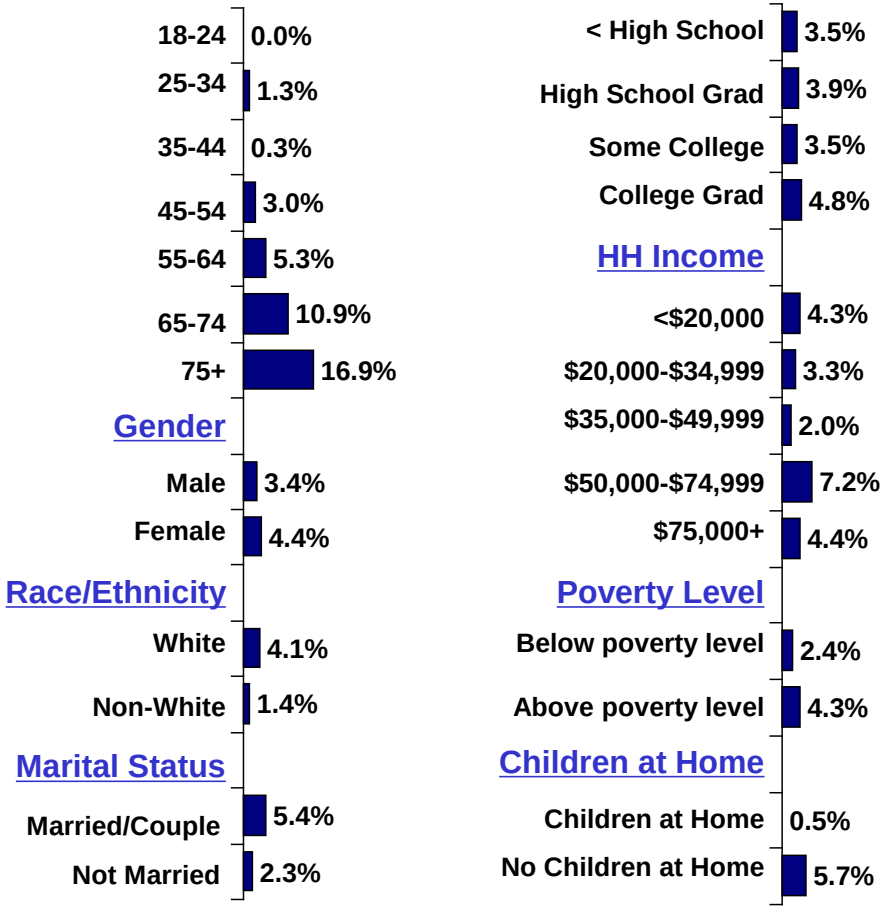
Skin Cancer

Ever Told Have Skin Cancer* (Total Sample)



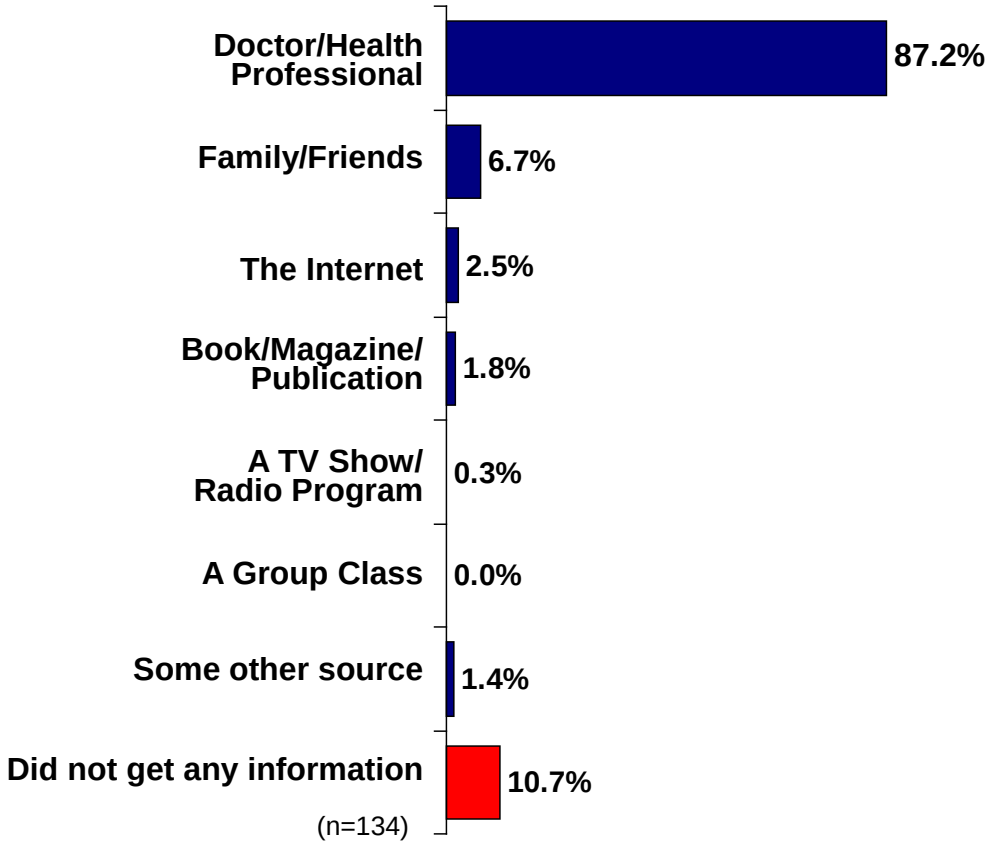
*Among all adults, the proportion who reported that they were ever told by a doctor that they have skin cancer.

Told Have Skin Cancer by Demographics



Almost nine in ten (89.3%) area adults who have skin cancer have received information in the past 12 months on how to care for the condition and get the information primarily from physicians and health care professionals. To a much lesser degree, information also comes from family and friends.

Information Sources for Management of Skin Cancer

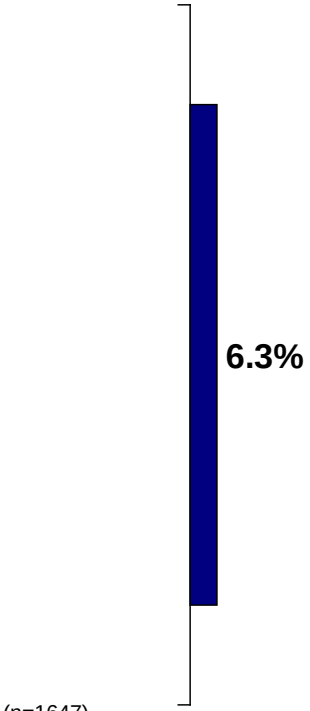


Q11.1: During the last 12 months, where did you get information about taking care of your [INSERT DISEASE]?

Almost one in sixteen (6.3%) adults have been told by a doctor they have non-skin cancer. This proportion also rises dramatically with age; 19.1% of residents aged 75 or older have been diagnosed with some form of non-skin cancer. Cancer is also most prevalent in groups of adults with less than a high school degree and those with household incomes less than $20K.

Cancer (Other Than Skin)

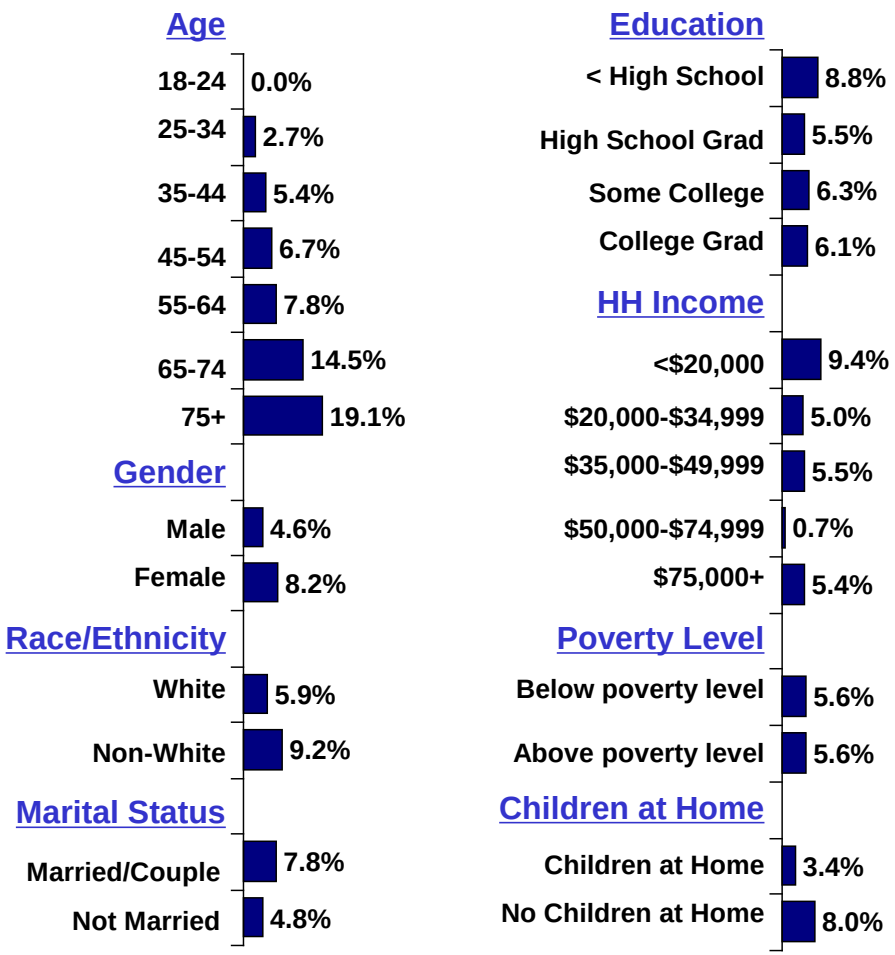
Ever Told Have Cancer (Other Than Skin)* (Total Sample)



(n=1647)

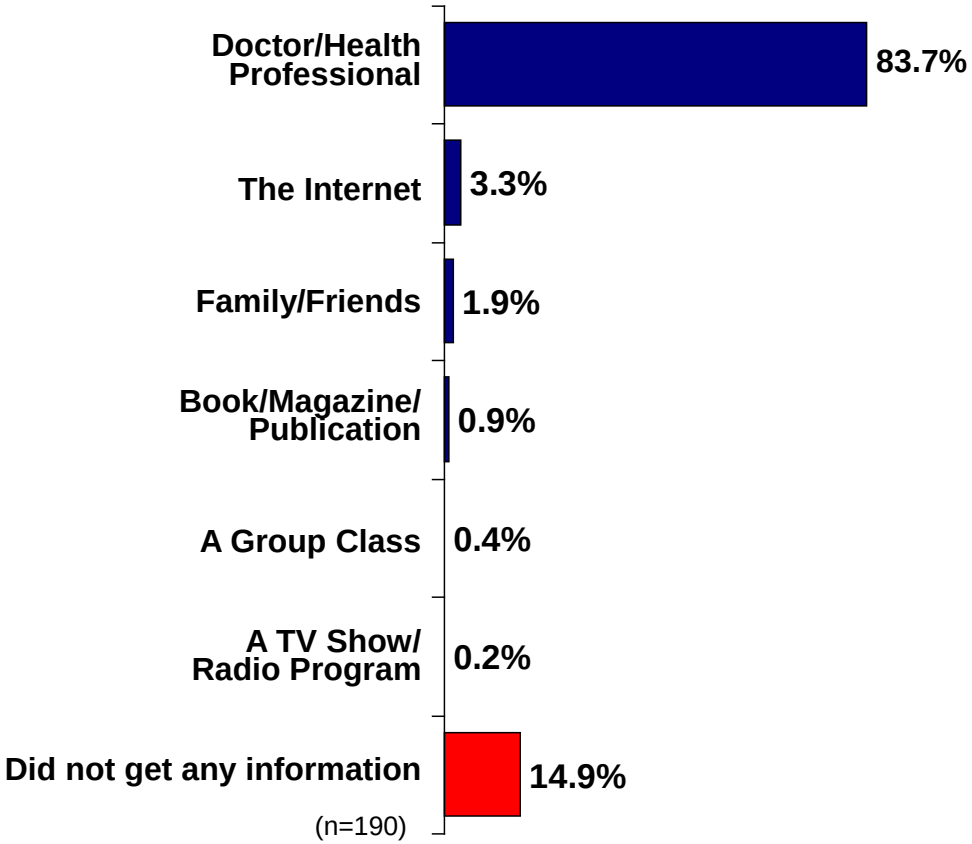
*Among all adults, the proportion who reported that they were ever told by a doctor that they have cancer (other than skin).

Told Have Cancer by Demographics



More than eight in ten (85.1%) adults who have cancer (other than skin) have received information in the past 12 months on how to care for the condition. Physicians and health care professionals top the list of sources.

Information Sources for Management of Cancer (Other Than Skin)

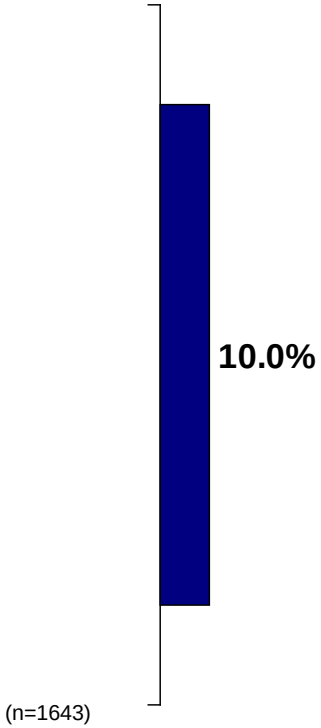


Q11.1: During the last 12 months, where did you get information about taking care of your [INSERT DISEASE]?

One in ten (10.0%) area adults have been told they have chronic obstructive pulmonary disease (COPD). The disease is more common among adults who are older (45+), have less education, and have financial limitations.

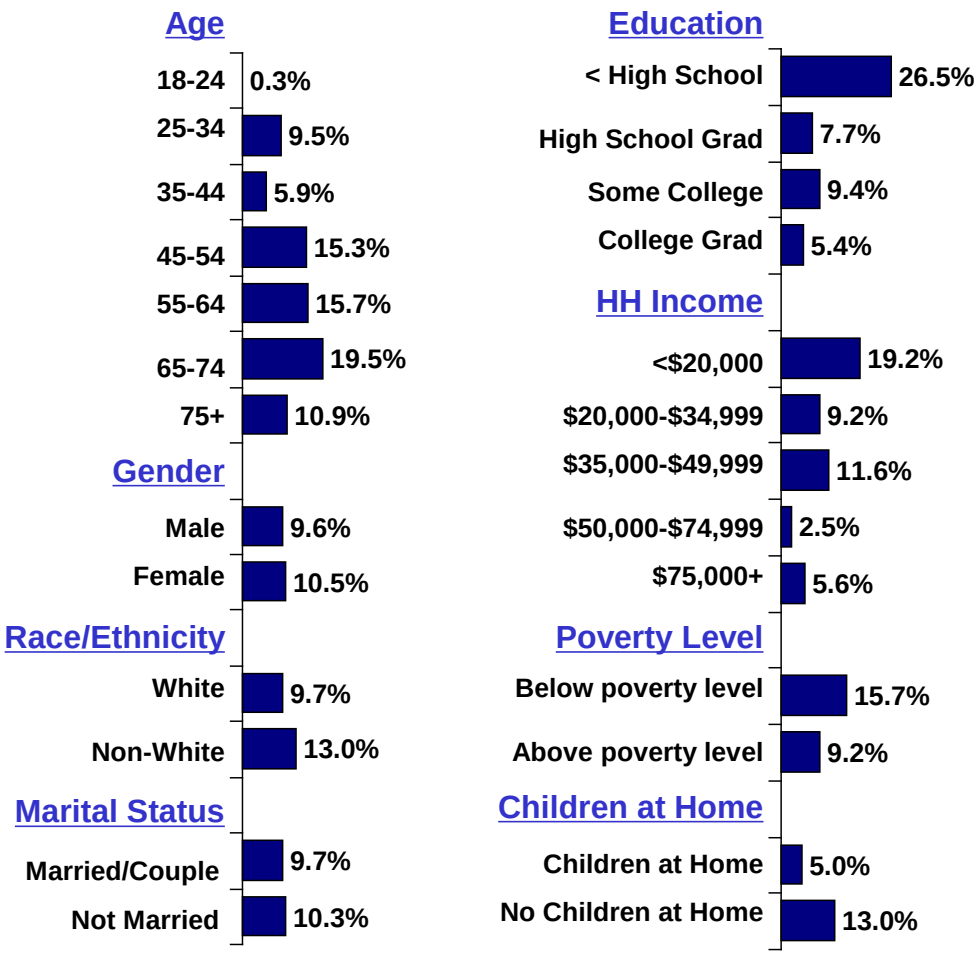
COPD

Ever Told Have COPD* (Total Sample)



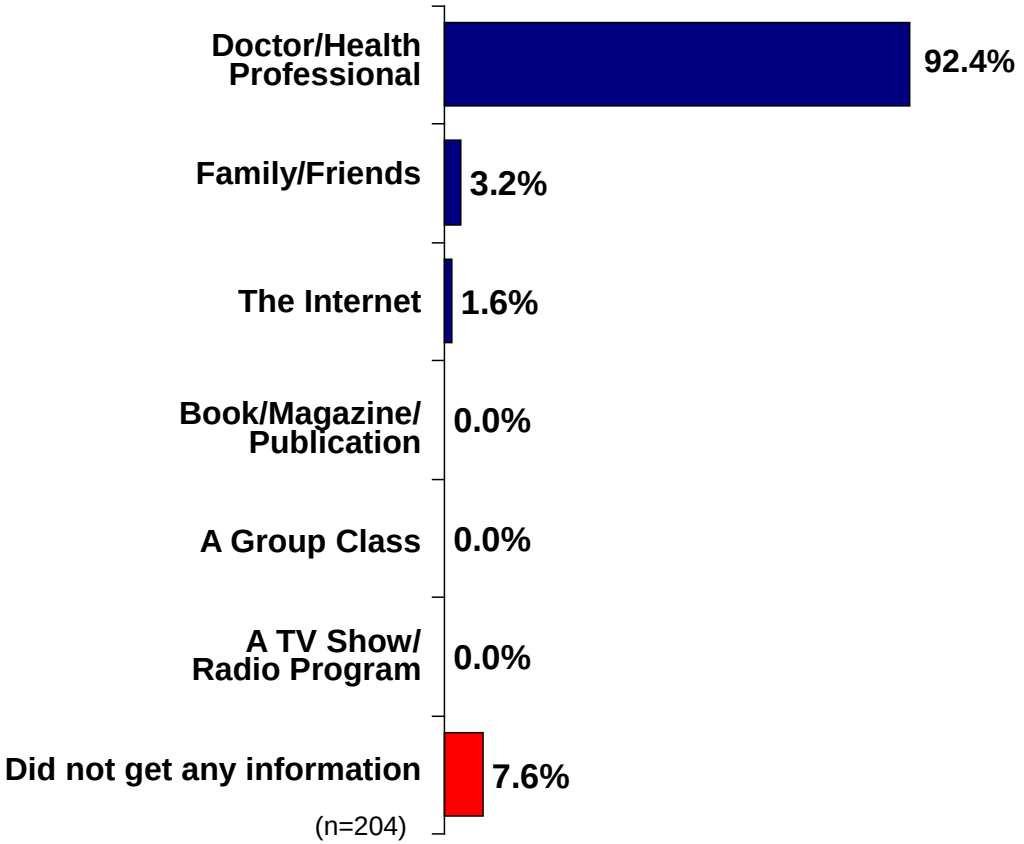
*Among all adults, the proportion who reported that they were ever told by a doctor that they have chronic obstructive pulmonary disease (COPD), emphysema, or chronic bronchitis.

Told Have COPD by Demographics



More than nine in ten (92.4%) adults who have COPD have received information in the past 12 months on how to care for the condition. The greatest information source for management of COPD is health care professionals.

Information Sources for Management of COPD

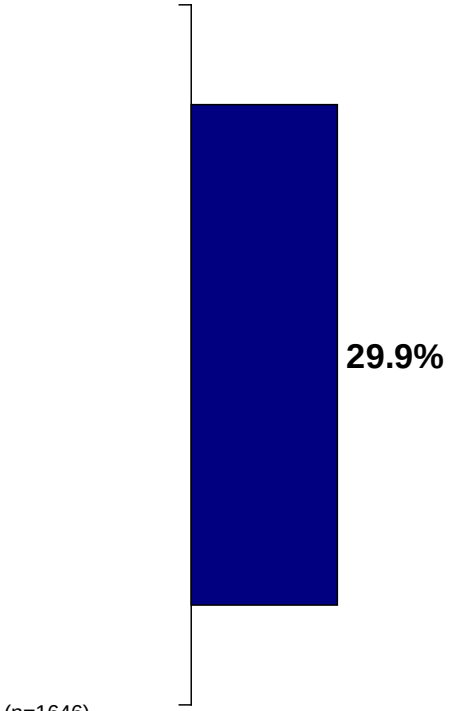


Q11.1: During the last 12 months, where did you get information about taking care of your [INSERT DISEASE]?

Three in ten (29.9%) area adults have ever been told by a health care professional they have arthritis. This rate, not surprisingly, rises dramatically with age. Non-Whites are likely to have arthritis than Whites. Having arthritis is more prevalent among adults with the least education and in the lowest income groups.

Arthritis

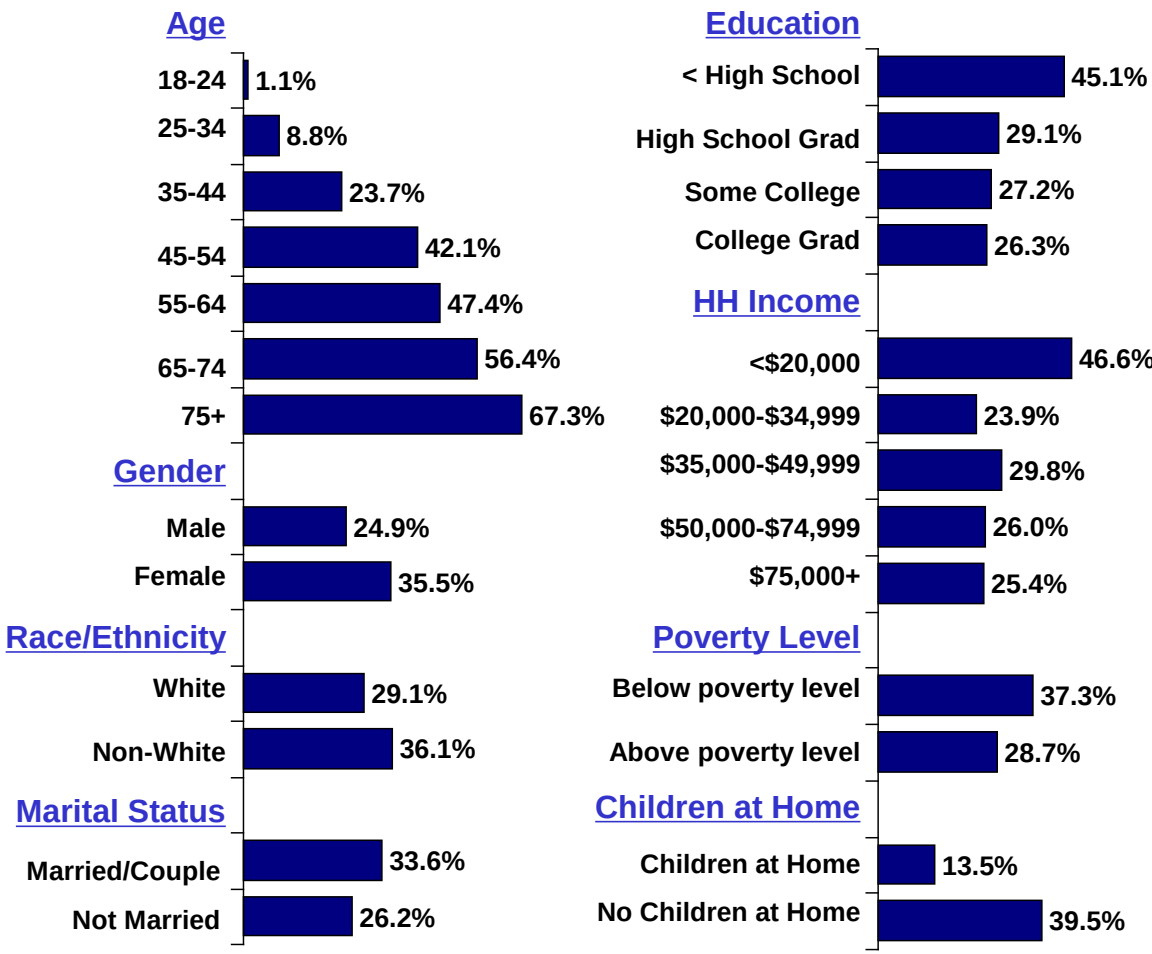
Ever Told Have Arthritis* (Total Sample)



(n=1646)

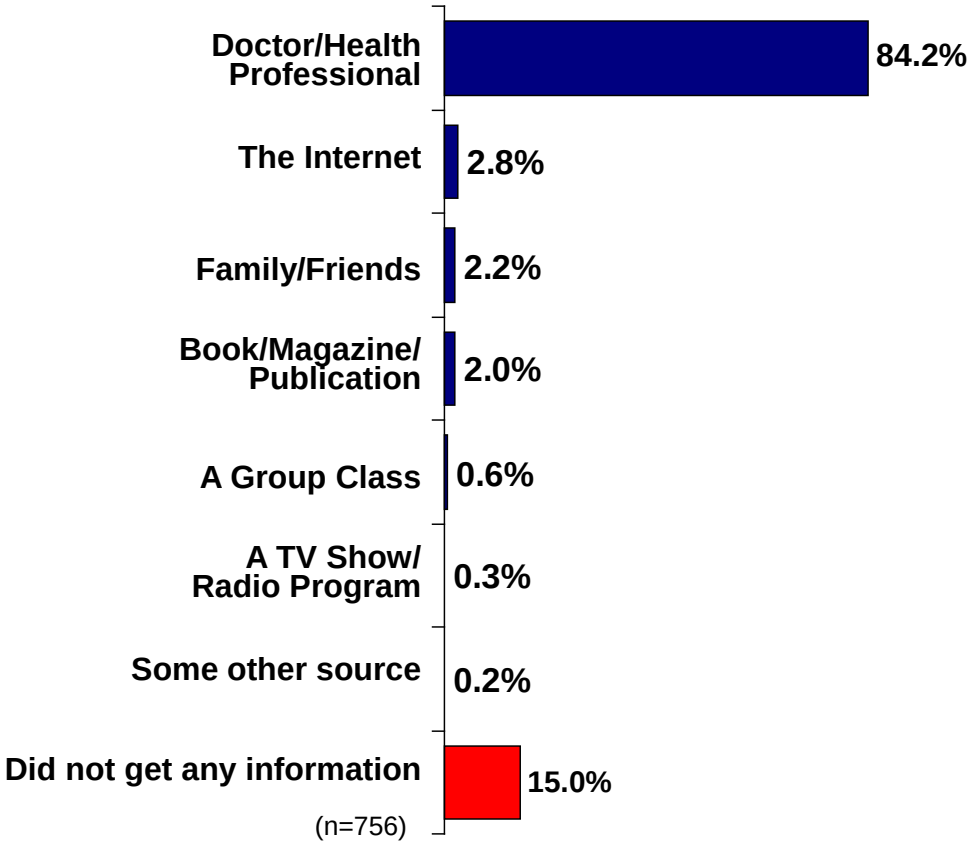
*Among all adults, the proportion who reported ever being told by a health care professional that they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia.

Told Have Arthritis by Demographics



More than eight in ten (85.0%) adults who have arthritis have received information in the past 12 months on how to care for the condition. In addition to physicians and health care professionals, other sources include the Internet, family/friends, and publications, although the latter are used far less often.

Information Sources for Management of Arthritis



Q11.1: During the last 12 months, where did you get information about taking care of your [INSERT DISEASE]?

Comparison of BRFS Measures Between Spectrum Health Big Rapids Hospital Service Area, Michigan, and the United States

Health Status Indicators

	SHBRH/SHRCH Service Area	Michigan	U.S.
General Health Fair/Poor	21.3%	17.7%	16.9% (2013)
Poor Physical Health (14+ days)	18.8%	12.7%	--
Poor Mental Health (14+ days)	11.8%	12.0%	--
Activity Limitation (14+ days)	13.1%	8.8%	--
Dissatisfied/Very Dissatisfied with Life	5.3%	6.1% (2010)	--
Rarely/Never Receive Social and Emotional Support	10.1%	6.5% (2010)	--
Obese	27.5%	31.5%	28.9% (2013)
Overweight	33.7%	34.7%	35.4% (2013)
Healthy Weight	36.8%	32.5%	33.4% (2013)
No Health Care Coverage (18-64)	13.3%	17.4%	20.0% (2013)
No Personal Health Care Provider	15.5%	17.0%	22.9% (2013)
No Health Care Access Due to Cost	11.4%	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 Spectrum Health Big Rapids Hospital Service Area, Michigan, and the United States (Cont'd.)

Risk Behavior Indicators

	SHBRH/SHRCH Service Area	Michigan	U.S.
No Leisure Time Physical Activity	45.0%	24.4%	25.5% (2013)
Inadequate Fruit and Vegetable Consumption (<5 Times Per Day)	87.2%	84.7%	76.6% (2009)
Consume Fruits <1 Time Per Day	28.6%	37.5%	39.2%
Consume Vegetables <1 Time Per Day	23.2%	23.9%	22.9%
Current Cigarette Smoking	29.3%	21.4%	19.0% (2013)
Former Cigarette Smoking	24.6%	27.0%	25.2% (2013)
Binge Drinking	14.2%	18.9%	16.8% (2013)
Heavy Drinking	4.7%	6.2%	6.2% (2013)
Ever Told High Blood Pressure	33.9%	34.6%	31.4% (2013)
Cholesterol Ever Checked	71.2%	83.2%	80.1% (2013
Ever Told High Cholesterol	36.8%	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 Spectrum Health Big Rapid Hospitals Service Area, Michigan, and the United States (Cont'd.)

Clinical Preventive Practices

	SHBRH/SHRCH Service Area	Michigan	U.S.
No Routine Checkup in Past Year	18.9%	30.1%	31.8% (2013)
Ever Had Mammogram (Females, 40+ only)	93.2%	94.5% (2012)	--
Had Mammogram in Past Year (Females, 40+ only)	66.0%	59.2% (2012)	--
Had Mammogram in Past 2 Years (Females, 40+ only)	81.4%	76.6% (2012)	75.6% (2010)
Ever Had Pap Test	88.5%	92.1% (2012)	--
Had Appropriately Timed Pap Test	69.1%	79.4% (2012)	--
Ever Had PSA Test (Males, 50+ only)	73.5%	72.2% (2012)	--
Ever Had Sigmoidoscopy or Colonoscopy (50+ only)	73.0%	74.0%	--
Had Sigmoidoscopy /Colonoscopy in Past 5 Years (50+)	59.4%	56.4%	52.8% (2010)
No Dental Visit in Past Year	33.8%	32.0% (2012)	30.0% (2008)
No Teeth Cleaning in Past Year	39.1%	29.2% (2010)	28.7% (2008)
Had Flu Vaccine in Past Year (65+ only)	68.9%	56.8%	62.6% (2013)
Ever Had Pneumonia Vaccine (65+ only)	67.7%	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 Spectrum Health Big Rapid Hospitals Service Area, Michigan, and the United States (Cont'd.)

Chronic Conditions

	SHBRH/SHRCH Service Area	Michigan	U.S.
Lifetime Asthma Prevalence	18.1%	15.2%	14.1% (2013)
Current Asthma Prevalence	12.8%	10.9%	9.0% (2013)
Ever Told Had Arthritis	29.9%	31.3%	25.1% (2013)
Ever Told Had Heart Attack	4.8%	5.2%	4.4% (2013)
Ever Told Had Angina/Coronary Heart Disease	4.2%	5.2%	4.1% (2013
Ever Told Had Stroke	3.3%	3.6%	2.8% (2013)
Ever Told Had Diabetes	10.2%	10.4%	9.8% (2013)
COPD	10.0%	8.8%	6.3% (2013)
Skin Cancer	3.8%	5.4%	6.0 (2013)
Other Cancer	6.3%	7.7%	6.7 (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

Key Stakeholder Interviews

Health Care Issues and Accessibility

Key Stakeholders identify **access to care** and **health/health care awareness** as pressing community health needs, in addition to a wide array of other issues.

Most Pressing Health Needs or Issues

- Several Stakeholders report access challenges due to a shortage of providers or long wait times for an appointment.
  - A shortage of providers who accept Medicaid is of particular concern.
  - Lack of transportation is another factor that limits access.
- The need to spread awareness about the availability of the Healthy Michigan Plan, as well as awareness of healthy behaviors and preventative measures, is also considered critical.
- Other community needs or issues are:
  - Mental health – need for increased awareness and services
  - Women's and children's health needs
  - The need to travel out of the area for some services
  - Inability to afford medications due to high co-pays, especially for those with chronic illnesses
  - Obesity, diabetes, and hypertension
  - Poverty
  - Lack of affordable housing, especially for those ineligible for public housing due to credit or criminal history
  - Low value placed on education by community youth

Q1: What do you feel are the most pressing health needs or issues in your community?

Verbatim Comments on Most Pressing Health Needs or Issues

"Folks are coming to the hospital [because they] are having trouble getting into primary care."

"There still is a significant number of physicians who don't want to serve the Medicaid population even though they have coverage now."

"Awareness of what's available, especially since the expanded Medicaid occurred. [Awareness of] what people can receive outside of going to the Marketplace to get insurance, for people who are lower income and who have less access to computers or do not read the newspaper."

"How do we change the community norm that it's not acceptable to smoke during pregnancy, or what are the health risks of smoking, what are the risk factors related to not exercising?"

"More mental health awareness. Ten Sixteen Recovery has mental health and of course Community Mental Health has mental health. Then again, If you're living up in northern Osceola County, how do you get there? They can't go into town to get it. They can't even go to the next town to get it. Mental health is a big area I think that every area could use some help with."

"People being able to afford their medication is a huge issue, partly because some of the co-pays are outrageous, especially if they have a chronic illness such as diabetes or asthma. It's not just the people who are uninsured. I hear people cutting pills in half and skipping doses because they just can't afford to get their prescriptions refilled."

"The [other] issue with people in rural areas is transportation."

Q1: What do you feel are the most pressing health needs or issues in your community?

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

Issue	Programs/Plans Aimed at Addressing Issue
Access to providers/services	• Conversion of physician offices to rural health centers with extended hours • Health department attempting to address children's needs • Digital mammogram machines
Health and health care awareness/education / prevention	• Community rallying to help residents obtain health care coverage – free health clinic registers clients; library offers assistance; newspaper notices alert residents to resources for obtaining assistance • Fit Kids program • Community gardens; efforts aimed at improving access to healthy foods
Mental health access/awareness	• Ten Sixteen Recovery • Community Mental Health services
Housing needs	• Homeless shelter opened recently – staff strives to connect people with services in the community • Continuum of Care committee assists Community Mental Health clients with housing needs and eligibility for programs

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

"Access to care was on the needs assessment last time, so they started converting the physicians' offices to rural health centers. The reimbursement is better. It gave them a platform to be able to say to the doctors, 'We're extending hours.' Some of them are open at seven, staying open until seven at night, opening on Saturdays – things like that. [There was] resistance to do that initially but that rural health status really helped make an argument for it."

"On the awareness issue, we have someone who comes to the clinic [to help] new patients [determine if] they are eligible for Healthy Michigan. She saw six patients for us yesterday and four out of the six were eligible for the Medicaid. The community is aware and trying to help, but there's a lot of places that you have to think about that you can spread the word. We happen to have a common wall with the shelter, and there's twenty people over there and I bet nineteen out of the twenty have no insurance."

"We have all kinds of work groups and committees. There's a homeless shelter now that has opened up over the last couple years. They try to do linking in the community."

"We've made some great strides. For the health department, we have been the recipient of the governor's four by four health and wellness grant."

"I'd like to see some sort of newsletter. I've seen that in the past at hospitals – [a newsletter] that they send out to the public, that [addresses] women's issues, e.g., 'Here is what you should have done."

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?

Key Stakeholders list a wide array of important outcome measures, particularly in the areas of health behaviors, preventative care, and access to care.

Important Health Outcomes

- Key Stakeholders identified the following *as important measures for health-related outcomes*:
  - Health behavior data from behavioral health risk assessments
  - Smoking rates
  - Infant mortality rates
  - Incidence of diabetes
  - Immunization indicators
  - Levels at which adults are obtaining recommended preventative care
  - Access to dental care
  - Availability of care for those in very rural areas
  - Number of visits to ER resulting from inability to obtain care in physician's office
  - Rates of hospitalization for illnesses that have gone unchecked, e.g., patient with diabetes who has gone without care
  - Level of reduction in visits to free clinic as more residents become insured through Medicaid
  - Success rates in resolving residents' transportation and housing issues
  - Level of satisfaction of consumers who use services
  - Graduation rates

Q2. What are the outcomes that should be evaluated?

The area has seen an increase in insured residents. However, a shortage of physicians, a lack of low-cost dental care, high out-of-pocket costs for the insured, and limited transportation options continue to pose barriers to care.

The State of Health Care Access

- The Healthy Michigan Plan and the Affordable Care Act have resulted in more residents with health insurance.
- However, Stakeholders reported a shortage of primary care physicians, especially those who accept Medicaid, treat the uninsured, and/or practice in the more rural areas.
  - There is an impression that wait times for an appointment are excessive and may be resulting in visits to the hospital emergency room for non-emergency conditions.
  - Some Stakeholders feel that Big Rapids/Mecosta County has a sufficient number of providers.
- In addition to primary medical care, several Stakeholders reported that dental care for uninsured residents is another pressing need.
- Most Stakeholders agree that high insurance deductibles and co-pays present a barrier to care for some insured residents.
- Lack of transportation is another challenge.

Q3. Describe the current state of health care access in your community. 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 co-pays and deductibles?

Verbatim Comments on the State of Health Care Access

"Where we've made progress is in the area of health care coverage. The next step for communities will be to look at how accessible is that provider, and is there access to specialists, and the transportation piece."

"Big Rapids is fortunate in that they have quite a few primary care providers. I don't know how many of them are accepting new patients right now. We're hearing that the large majority are, however we're also hearing that it's three or four months before you can get an appointment."

"We're looking at a million different ways of how we can recruit [primary care physicians] more creatively. It's hard to compete with an urban setting."

"Our dental care providers did a wonderful event where many people were served that didn't have insurance. You had one day that you could come and be screened and evaluated and then have filings or whatever was needed. That's kind of a drop in the bucket. We need more."

"One of the other pieces of health care access right now is those individuals that do have coverage but their deductibles are so high – they may put off care because they feel they don't have the dollars to meet that five thousand dollar deductible."

"The transportation issue is huge. Someone who gets assigned to the Baldwin clinic, for instance, but they don't live in proximity, they have no transportation – that doesn't help them. We're lucky here in Big Rapids that we do have a system, but then they don't have the money for the tickets."

Q3. Describe the current state of health care access in your community. 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 co-pays and deductibles?

Existing Programs and Services

Stakeholder opinions vary with regard to how well existing programs and services meet the community's needs. A wide array of gaps in service are cited, from **transportation** to **programs addressing wellness**, **prevention**, and **education**.

Programs/Services Meeting Needs & Programs/Services Lacking

- Stakeholders listed the following programs or services as lacking within the community:
  - Transportation
  - Women's preventative health and education; a women's health clinic
  - More free clinics for children
  - Free flu shots
  - Gyms and community programs focusing on activity
  - Outreach and awareness programs addressing diabetes, obesity, and hypertension
  - Adolescent health services
  - Coordinated effort to ensure that all service providers and residents are aware of the services that do exist
  - Affordable dental care
  - Low-cost housing
  - More not-for-profits and programs in general

- Strengths of the existing network of programs/services include strong relationships among those in the care community and an effort to listen to and address clients' concerns.

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 challenge had been psychiatric and that would be for people with private insurance and people who have Medicaid, Medicare. That's improved just recently, but we had to get resources from out of state. We have to do video conferencing. Mecosta finally has enough coverage."

"Being a small community you have a lot of interaction and the professionals all communicate. I think we have really good relationships with all of our community partners. Also, we're hearing from the people we serve that they're pleased. When we do get complaints or concerns from the people that we serve, we really do try to fix those issues."

Programs/Services Lacking

"I think we do a really good job with [young] kids. Sometimes once kids get into school we don't do such a good job."

"At one time, [there was] a big grant for flu shots, and we hardly had any flu in these counties. Now they cost twenty bucks apiece – Walgreens and Rite Aid have flu shots, but people can't pay for that with a big family and limited income."

"We have the dental clinic now, but that, too, is not inexpensive, and it's difficult to get into that clinic when you have Medicaid."

"We do not have a coordinated effort in this community to link one another to the various things available. I was at a meeting with several others from other community groups. They were saying that people felt there was a stigma to going to Ferris to have their teeth cleaned and that it takes too long. I didn't know that they even had that to offer people. We get pigeonholed or siloed into not reaching out beyond what our various organizations do. I think there are five places that have free meals every week. How do you know that, and how do you get that information to people who need that? That's where I think we fall down."

"There's few programs and few dollars. I'm not sure that there is a clear picture of what the need is. Big Rapids is quick to roll up their sleeves, but there's not a lot of not-for-profits to team up with."

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?

Existing services can be improved by increasing coordination among providers.

Recommendations for Service Improvement

- Several Stakeholders would like to see more coordination and information sharing among service providers.
- Additional suggestions include:
  - Increase focus on preventative practices among providers
  - Minimize paperwork requirements and online registration requirements for those seeking services
  - Implement processes for measuring outcomes of existing programs

"Moving towards electronic medical records and how information is shared, and providers encouraging individuals to participate in preventative practice, and how we can come together. I know providers are tracking individuals with elevated cholesterol, elevated blood pressure, but how do we also roll in that community piece? I think there's some work being done, but I think that's an area where there is a need for more work."

"I just think that it would be nice to have a council of some kind, where we talk to each other face to face."

"A challenge I've seen is the paperwork requirements of agencies – that's hard for a lot of the people we serve; it can be very confusing. Not everybody is computer literate, and now you've got a lot of forms that you complete online, and if you don't there are penalties because your application is processed slower."

"They do a Teddy Bear clinic but, while they know how many kids come, we don't [track] any other outcomes. It's an opportunity to couple some awareness and assessment with a family, and that's not being done. There's not a lot of depth in strategy because there's not a department doing community health improvement."

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

Stakeholders agree that increased partnerships would strengthen community services.

Recommendations for Partnerships

- Partnership ideas include:
  - Partnering with schools
  - More collaboration between hospital and university
  - Partnering between hospital and free clinics
  - Council of non-profit/volunteer organizations – would increase awareness of existing programs and improve ability to direct residents to needed services
  - General increase in awareness of mental health needs and services in the community

- Partnerships currently in place include:
  - Partnership between Community Mental Health and DHS – includes regular monthly meetings as well as additional ad hoc collaboration as needed
  - Partnership between hospital and various community groups
  - Partnership between health department and area hospitals
    - A concern was raised that these partnerships may be compromised as a result of hospitals joining Spectrum.

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 Partnerships

"I think people are really cognizant of the need to work together and try to improve that. Sometimes it's just that collaboration takes a lot of time and it's not just showing up at a meeting. It's truly collaborating and having some shared responsibilities."

"I think we should have a partnership among all of the things that are volunteer. I think the hospital here really works at trying to lift up the community and partner with various groups here. That can always be strengthened – a little more awareness, especially with free clinics – that's such a logical extension of what the hospital does and what the needs in the community are."

"Ferris State is four blocks away. There's been a very minimal relationship. We have put a task force together and are exploring a million things we can do, so they are going to be a really good resource for us [hospital]."

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

Barriers to health care include transportation challenges, poverty, and the absence of a health-promoting culture.

Barriers & How They Can Be Addressed

- Key Stakeholders identified the following barriers or obstacles to obtaining care:
  - Lack of transportation
  - Poverty
  - Absence of a health-conscious mindset/"culture of health"
  - Cultural divide between those living in poverty and those who don't
  - Restrictions on Community Mental Health agency regarding allowed services (i.e., cannot serve the uninsured; cannot provide transportation to medical appointments)
  - Healthy Michigan Plan application process – requires information that applicants might not have access to (e.g., social security numbers and/or income of family/household members)
- Current programs aimed at alleviating barriers include:
  - Online system for collecting bus fare donations for those in need of transportation to free clinic
  - Senior center volunteer pool to transport elderly to free clinic
  - Simulations to raise awareness among community partners of the impacts of living in poverty
  - Variety of grassroots giving groups
- Additional suggestions for alleviating barriers include:
  - Hospital connecting with the community's food banks, churches, and non-profits
  - Incorporating health-promoting public spaces into city/town planning (e.g., bike/walking paths)

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

"The transportation piece is the biggest barrier."

"Osceola County only has a county bus, and you get dropped off maybe at eight o'clock in the morning and they're not going to come back and get you until five. That's an awful long time to have to sit just to go to an hour appointment."

"The community is fairly homogeneous. Not so much a language barrier – cultural is probably the biggest. [The hospital] makes lunches with really heavy foods that don't feel healthy. That's the culture. There is a lot of the potatoes and snacks and things like that. The only people out jogging are the people from Ferris. It's the lifestyle."

"Trying to create the awareness that building healthy communities is not just public health, it's not just the hospitals, it's not just about having a doctor. It's creating that culture of health. Ann Arbor has a highly educated group of individuals living in the community that really have that sense of wanting a healthy community. They want places to ride their bike. They want to be able to walk. That culture of health is another [thing] that we don't have."

"We have had challenges if someone speaks Spanish. Then we have to find an interpreter, and getting that has always been challenging, but it's a requirement of our agency so we figure it out."

Addressing Barriers

"We have a unique partnership with the students at Ferris in the pharmacy department. They set up a website where people can donate money to be used to provide bus tickets for people to get back and forth to the clinic."

"Townships and cities are starting to realize that they need to think about creating a healthy environment in their recreation plans. I think some of that is gradually occurring."

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?

Key Stakeholders agree that consumers of health services should be involved in planning and decision-making.

Involvement of Relevant Stakeholders/Community Residents

- Stakeholders express a desire to have community residents/consumers involved in planning and decision making.
  - Several report that participation exists currently to some extent.

"That's an area that can always be improved. We have a consumer advisory group, and the honor committees. We try to always have consumer involvement, but people should always have that at the forefront because that's who we serve, and if you don't have their voice, you probably are not meeting their needs."

"Sometimes the community rep that we get to the table is the more articulate consumer. That is an area that we definitely could strengthen – getting more input from the individuals who need the service."

"Yes. I think it's the community pride that drives them, that wants to make sure that their community is healthy."

"When a hospital is in a community and then is bought out by a bigger corporation, the decision makers are going to be down where the corporate is, [so the community has] maybe less say in things."

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 describe high levels of civic spirit and volunteerism as important resources. The university is another asset.

Community Resources & Resource Limitations

- Big Rapids is described as a community with a high degree of civic spirit and volunteerism.
- Resources that support health needs include:
  - Volunteer base from the university and the community at large
    - Volunteer efforts include providing weekend foods packs for children, Big Brothers and Big Sisters, and university students interning with local agencies.
  - Monetary donations from community residents
  - Community foundations
    - The Mecosta County Community Foundation runs Match Day, through which a portion of funds raised by area non-profits is matched by the Foundation.
  - United Way
  - University students providing low-cost dental care and eye care
  - Collaboration among service providers
- Resource limitations include insufficient funding, a need for more grant-writing expertise, limited personnel, and a lack of affordable housing.

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

"There is a culture of wanting to help and a strong sense of community."

"The people in this community are some of the most giving people that I have ever worked with. The volunteers I work with are all eager to be there and help."

"Match Day brought in over a million dollars to this little Mecosta County. Match Day [is run by] the Mecosta Community Foundation. You try to raise as much money as you can and have it delivered to you on the day of Match Day, and then the Foundation has a pool of money that is donated by local business people, philanthropists – last year it was over seventy-five thousand dollars – and that money is then split up according to how much you raise."

"We're fortunate with the college – a lot of our agencies have volunteers and interns that are willing to help out."

"One huge asset to the people here is the university. The ophthalmology school and the hygienists from the dental school – those are all boons to this community and provide really good low-cost care."

"United Way has been a huge assistant. They fund a lot of nonprofit agencies within our community, so we've been able to get assistance with heating for people who don't have any, and electric, and sometimes housing – just putting somebody for a day in a motel on an emergency basis."

Q7. What resources currently exist in your community beyond programs/services just discussed?

Verbatim Comments on Resource Limitations

"We do a lot of work that's based on categorical funding, so if someone doesn't meet the guidelines or the requirements of that program, they're not eligible."

"We're constantly looking for grants to help pay our bills. At the free clinic, the doctors and everyone work for free, but we have to pay heat and everything like that. One thing that I think might be helpful to all of these volunteer programs would be to have some sort of a workshop to help people learn how to [write] grants."

"It would be good to have someone with a clinical background that can come at this and put the dots together and say, 'Oh, a high amount of diabetes – that's going to lead to [other things]," and try to get ahead of it and help people manage their disease and maybe prevent the disease [by addressing] obesity."

"Lack of appropriate housing. Being in Big Rapids, being a college town, the rent can be high because they can bring that in from college students. Then, for those that do find housing, it's usually substandard."

Q7a. What are any resource limitations, if any?

Impact of Health Care Reform

Key Stakeholders find the immediate impact of the Healthy Michigan Plan and the Affordable Care Act to be positive.

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

- The Healthy Michigan Plan and the Affordable Care Act have resulted in more residents with health insurance and more residents able to get the care they need.
- Other current or expected consequences of the reforms include the following:
  - \+ Adults who have been relying on Health Department services now eligible for coverage under Healthy Michigan Plan
  - \+ Less bad debt write-off for hospitals
  - \+ Doctors receptive to accepting newly-insured patients
  - \- Strain on providers in terms of accommodating influx of new patients
  - \- Uninsured residents no longer able to receive services from Community Mental Health
  - \- Health Marketplace confusing to residents and too expensive between premiums, co-pays, and deductibles
- One Stakeholder noted that some residents choose not to apply for health insurance.

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

"The impact has been huge here in Mecosta County. Just in my little clinic alone we have aided over a hundred people through that system. They have adequate medical care now."

"We're seeing more people come in for care. We're seeing more people have coverage and our charity care is starting to go down."

"I think that the doctors here have been very receptive to taking in the patients that we are getting the insurance for. We've been rather fortunate."

"We've had good uptake of the Healthy Michigan Plan. We've had pretty good uptake of the Affordable Health Care Act. I think it has put a stretch on some of the providers. We have not necessarily seen new primary care doctors coming into our area."

"When they initiated Healthy Michigan, they took our [Community Mental Health] monies from our general fund and put them into Healthy Michigan, because their thought was everyone then would have coverage. Well, that's not the case, and so we now cannot serve people who do not have insurance. We used to see indigent people who didn't have insurance because we had dollars that paid for that, and now we don't."

"The Marketplace has been a huge confusing mess for people. Some of them have given up trying to find a plan that they feel they can afford after they pay the payments every month, the co-pays, and the deductibles. I think they're going to have to tune that up a little bit to make it more available for people."

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 2011 Community Health Needs Assessment

Current Stakeholders as a whole report limited involvement with the 2011 Community Health Needs Assessment; several are new to their positions since 2011.

Impact of 2011 Community Health Needs Assessment

- Several Stakeholders are new to their positions or were not involved with the 2011 Community Health Needs Assessment.
- Those that have been involved report the following new programs/initiatives underway:
  - Live Well campaign
  - On-site programming addressing diabetes prevention and management
  - Wellness programs addressing obesity
  - More integrative approach to treatment – including mental health, substance abuse, etc.

"With diabetes, our cooperative extension now is offering classes, and our hospital does, and they're going to the sites where people are served instead of making people come to them. We have a New Journey Clubhouse that serves both Mecosta and Osceola – those individuals have severe and persistent mental illnesses and they're on psychotropic medications which make them more at risk for diabetes because there's associated weight gain from those medications. They come and do programs with those individuals to enhance their understanding and ways of preventing diabetes, or if they have diabetes, what are some steps they can take. It has been awesome watching those transformations happen. With obesity it's the same thing. There are a lot of wellness programs. Again, it's looking at the whole person. Even a few years ago, health needs were not as integrated. Mental health did their thing; substance abuse did their thing. Now it's really becoming the community's responsibility to wrap around these individuals to make sure that their needs are getting met."

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 residents in your community?

Community Preparedness for a Communicable Disease Outbreak

Stakeholders describe drills and role plays aimed at preparing health care workers for an infectious disease outbreak such as Ebola. Impressions of the community's level of preparedness vary.

Community Preparedness for a Disease Outbreak

- Stakeholders express varying degrees of confidence in the community's level of preparedness to handle an infectious disease outbreak.

"Very well prepared. We were living Ebola for a while and just trying to figure out the system and how we would manage it and had people practice donning and doffing and that whole thing. We put a lot of intention into that."

"They really work at trying to be [prepared, but] our plans are on paper a lot of times. You have your drills and et cetera, but to really actually have one like we're having right now with the flu epidemic, I think we're going to learn a lot in the next couple of months. It's going to be more helpful than any drill we've ever done."

"We have emergency management teams. Mecosta's team is not very active and so I think we would have struggles here."

"I think that overall there's been a lack of emphasis on the importance of strategies that we can use to prevent some of the communicable diseases and the infectious diseases. Michigan right now is experiencing a significant outbreak of pertussis. How do we as a community come together to try to promote the vaccination? I think to me the biggest challenge in terms of population health is that people don't value the science."

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?

Stakeholders' Closing Comments

"I'm glad to see that Spectrum Health is embracing care managers. We are as well at Mental Health, and I think that gives the person a designated individual to help make sure all their needs are met."

"I'm grateful that Spectrum is here. I think we're going to get better care and better access to it. We're going to lose maybe the hometown touch a little bit, but that's the price you have to pay."

"We will continue to try to move forward – it's just a slow process. Our governor thought he was going to reduce obesity in a year or whatever. It's taken forty years for tobacco uptake to come down. That type of behavior change takes time."

"I hope that this time this information is either published or put on the Internet somehow so that we can focus more, find out what people are thinking about in Mecosta County and the surrounding counties, and see what we can do to try to make things a little bit better for the people here."

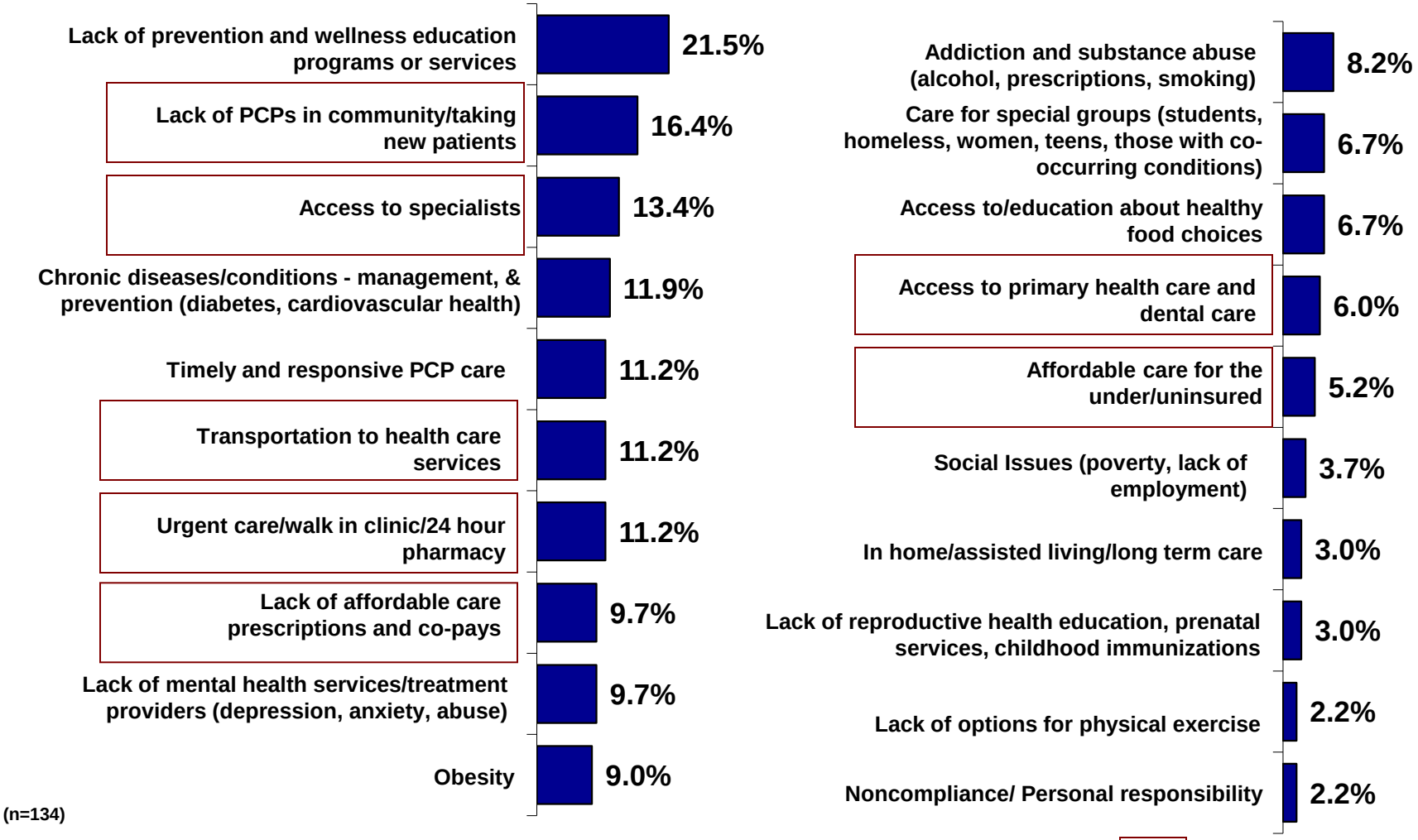
Q12. In concluding, do you have any additional comments on any issues regarding health or health care in your community that we haven't discussed so far?

Key Informant Survey

Health Conditions

When asked to cite, top of mind, the most pressing health issues or needs in the SHBRH Service Area, Key Informants most often report issues revolving around **access to care**, **increased prevention education and programming** that they perceive to impact health or health care access, and the **management and prevention of chronic disease/health conditions**. More specific areas of concern are **timely, responsive care**, **obesity**, **mental health services**, and **transportation**.

Most Pressing Health Needs or Issues in SHBRH Service Area (Volunteered)



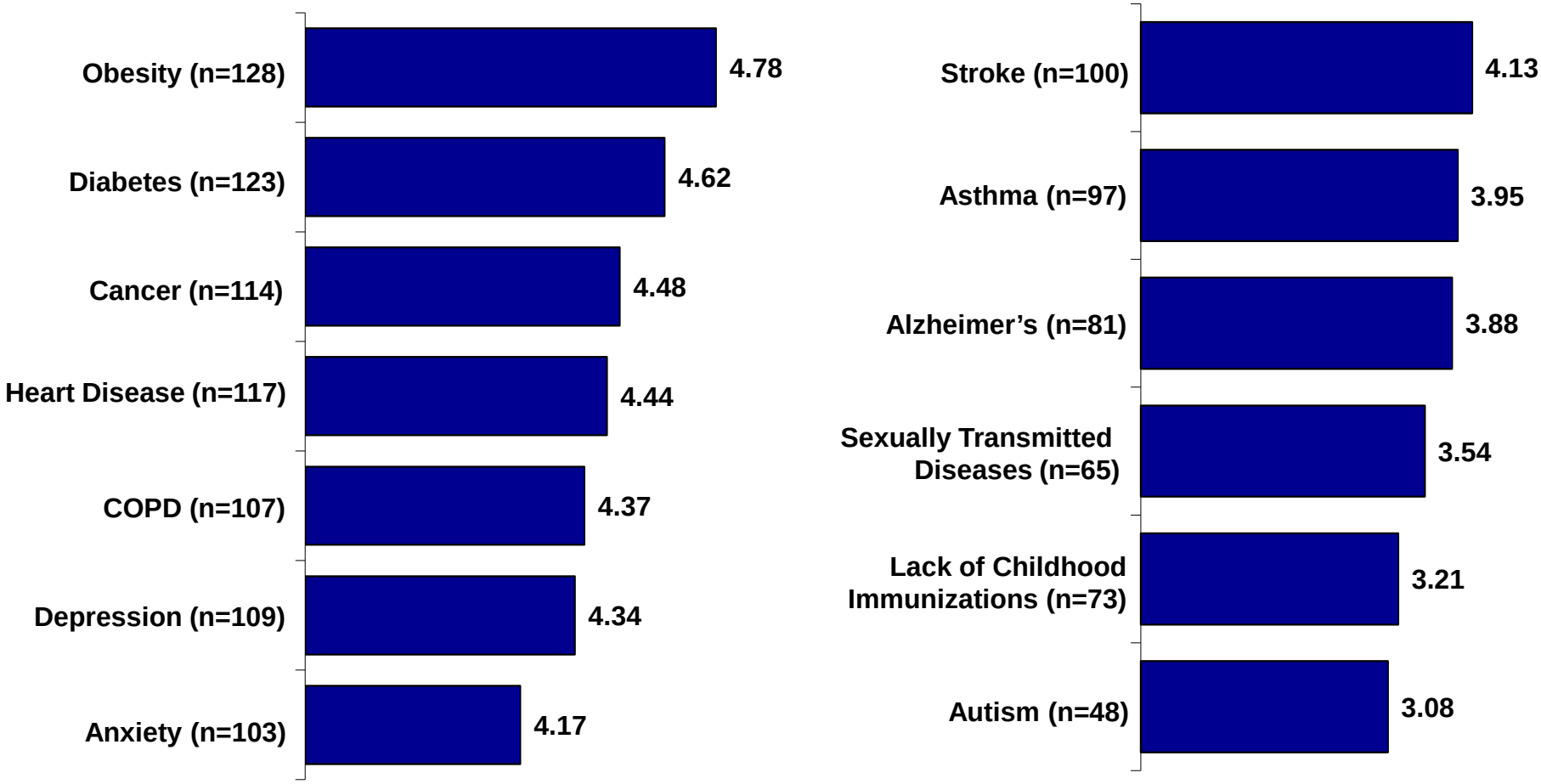
(n=134)

Q1: What do you feel are the most pressing health needs or issues in your community? Please be as detailed as possible.

= issues of health care access

Key Informants view **obesity** as the most prevalent health issue in the SHBRH service area, followed by **diabetes**, **cancer, heart disease**, **COPD**, and **depression**. Lack of childhood immunizations and cases of autism are viewed as less prevalent in the community.

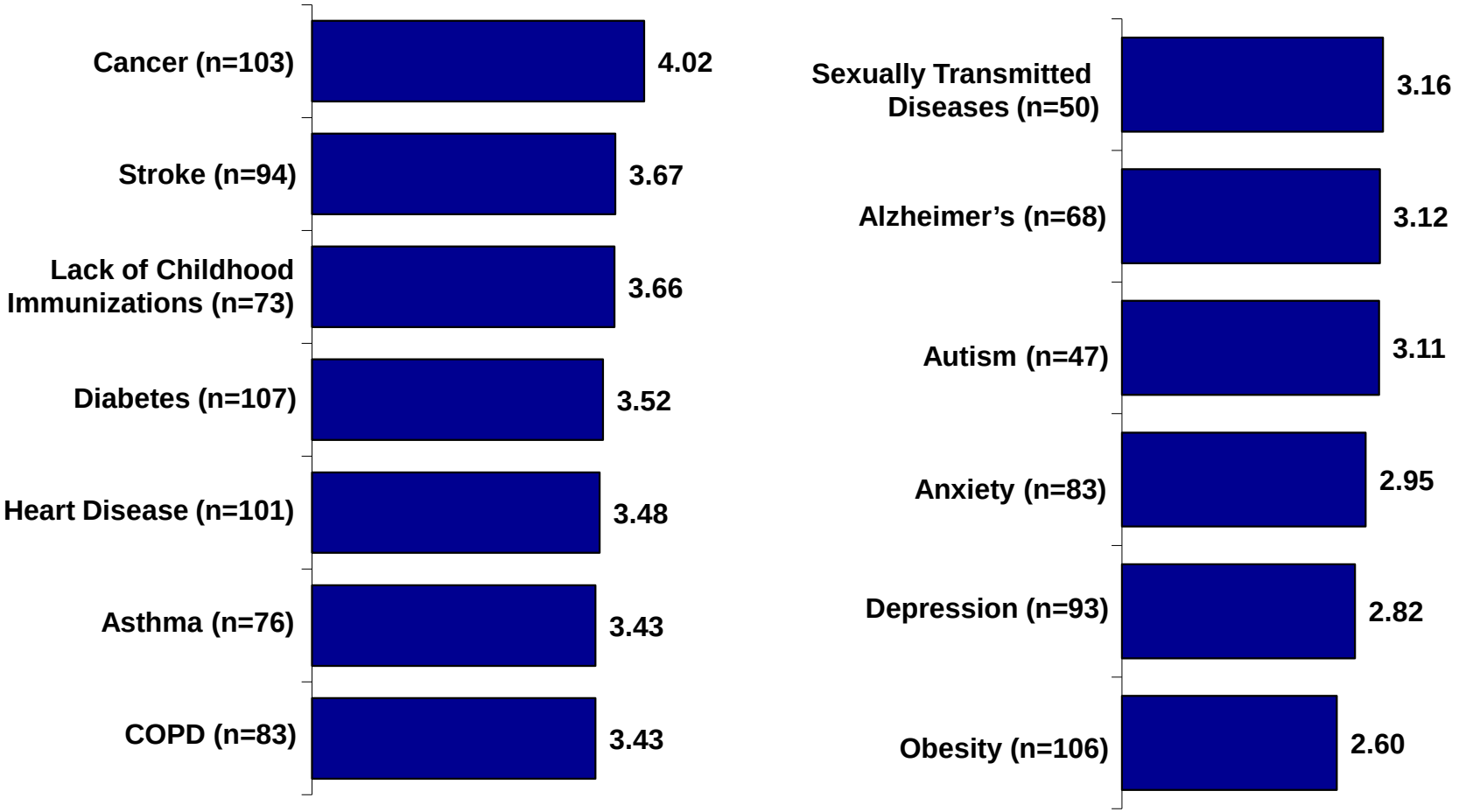
Perception of Prevalence of Health Issues in SHBRH Service Area



Q2: Please tell us how prevalent the following health issues are in your community. (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 **cancer**, **stroke**, **childhood immunizations**, and **diabetes** followed by **heart disease**, **asthma**, and **COPD**. They are least satisfied with the community response to **obesity**, **depression**, and **anxiety**.

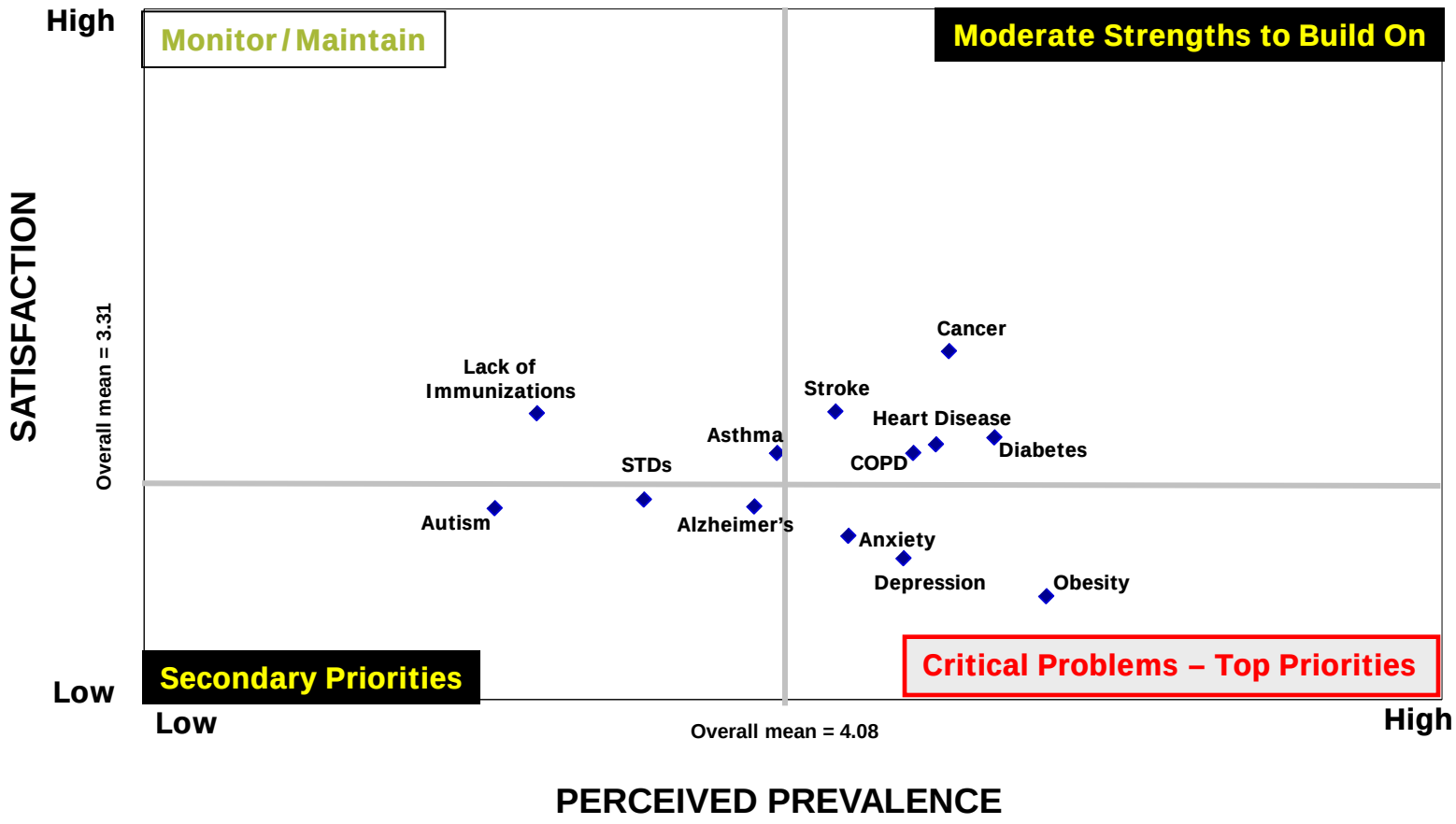
Satisfaction with Community's Response to Health Issues in SHBRH Service Area



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 **cancer, stroke, heart disease**, **COPD** and **diabetes** 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 perceived to be prevalent, but the perceived response is less than satisfactory.

Perceived Performance of Community in Response to Health Issues in SHBRH Service Area



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

Additional health issues viewed as prevalent in the SHBRH area are those involving **mental health** and **substance abuse**. Specifically, there is a lack of treatment options and lack of care coordination to adequately meet the demand for these services. Key Stakeholders also view **obesity** as an important health issue to address in their community.

Additional Health Issues Prevalent in SHBRH Service Area

Substance Abuse

*"Alcoholism and drug use**. I'm not so satisfied with the community's response due to those who believe it's normal or a fact of life. Counselors and caregivers try to help, but ultimately, it's up to the individual to stop the behavior**."***

"Drug abuse - not very satisfied. We have a recurring issue where pts. are admitted requiring pain medication and it is not known till post admission that said pt. is a recovering addict to prescribed medications etc. So basically we are re-addicting or at least hindering these pts."

*"Narcotic abuse. **Our office has added a RN to work with patients with substance abuse, which has really helped**."*

Mental Health

*"Overall mental health treatment options, both within and outside of the community. **Mental health crises are difficult to manage with inadequate resources, and shortage of inpatient treatment options throughout the region/state**."*

"Psych-suicide attempts and actual. There is no response, dissatisfied."

*"Mental health issues - **lack of providers in the area that accept Medicare and depression is very prevalent in the elderly in this community**."*

Obesity

"Childhood obesity is not addressed enough."

"Obesity and general fitness. We need to have community walking paths and/or free community access for walking tracks/fitness centers."

*"**Smoking/obesity - I am not aware of any outreach in this area**."*

Q2b: What additional health issues are prevalent in your community, 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 **general health** and **on risky behaviors**, specifically concerning risky sexual behaviors and teen pregnancies. Other opportunities for improvement are in **addressing chronic pain management**, and **lack of access** to primary as well as specialty health care services.

Additional Health Issues Prevalent in SHBRH Service Area (Cont'd.)

Education

"Teen pregnancy had been down, however lack of funding has kept prevention programs out of the school."

*"Our **outreach to our community as far as chronic illnesses and well being is an issue**. I am not satisfied with this need. We can do more in reaching out to our community to provide patient centered care and help our community residents be the best that they can be."*

"Health education, counseling services needed locally for health issues, fitness."

*"**Educating folks to be proactive about their health to see the advantages and take action in a preventative way** to maintain their health."*

Pain Management

"Prescription drug abuse for pain. Somewhat satisfied."

"Pain control and drug addiction are another issue our residents struggle with. I'm not sure what kind of resources are available in the community in this area."

"Lack of good options for pain management besides narcotics."

Access

"Unemployment may lead to less health care visits well and ill care visits."

*"Assistance for truck drivers requiring medical cards. **Recent regulation changes have been devastating to this population**, leaving many of the drivers jobless since medically they do not qualify for a DOT medical card."*

"Many people do not have sufficient insurance coverage. Medicaid spend-downs prohibit people from necessary services."

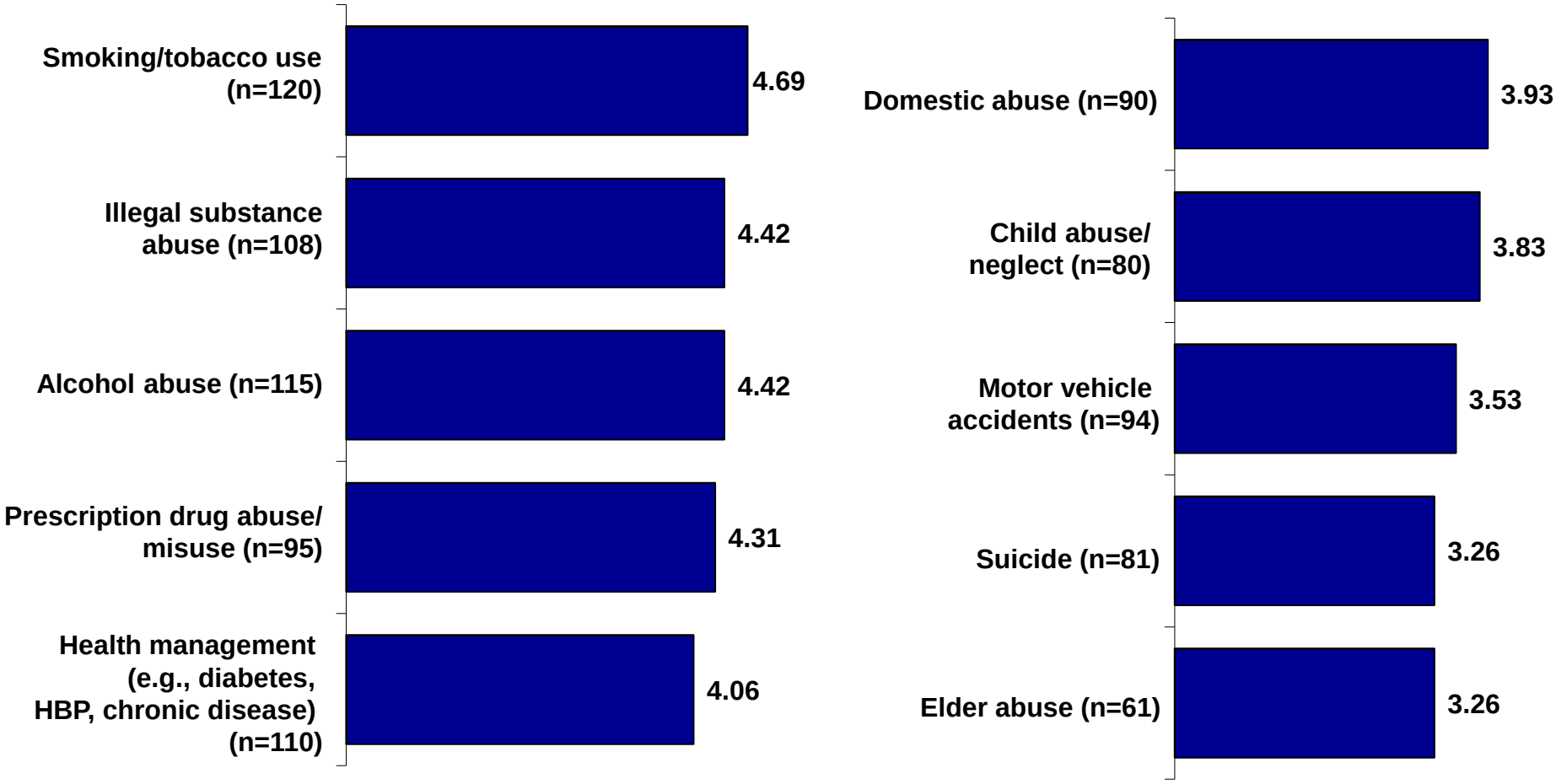
*"**Community mental health and primary care are saturated**. No ability to see more patients, resources scarce."*

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

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 in the SHBRH service area.

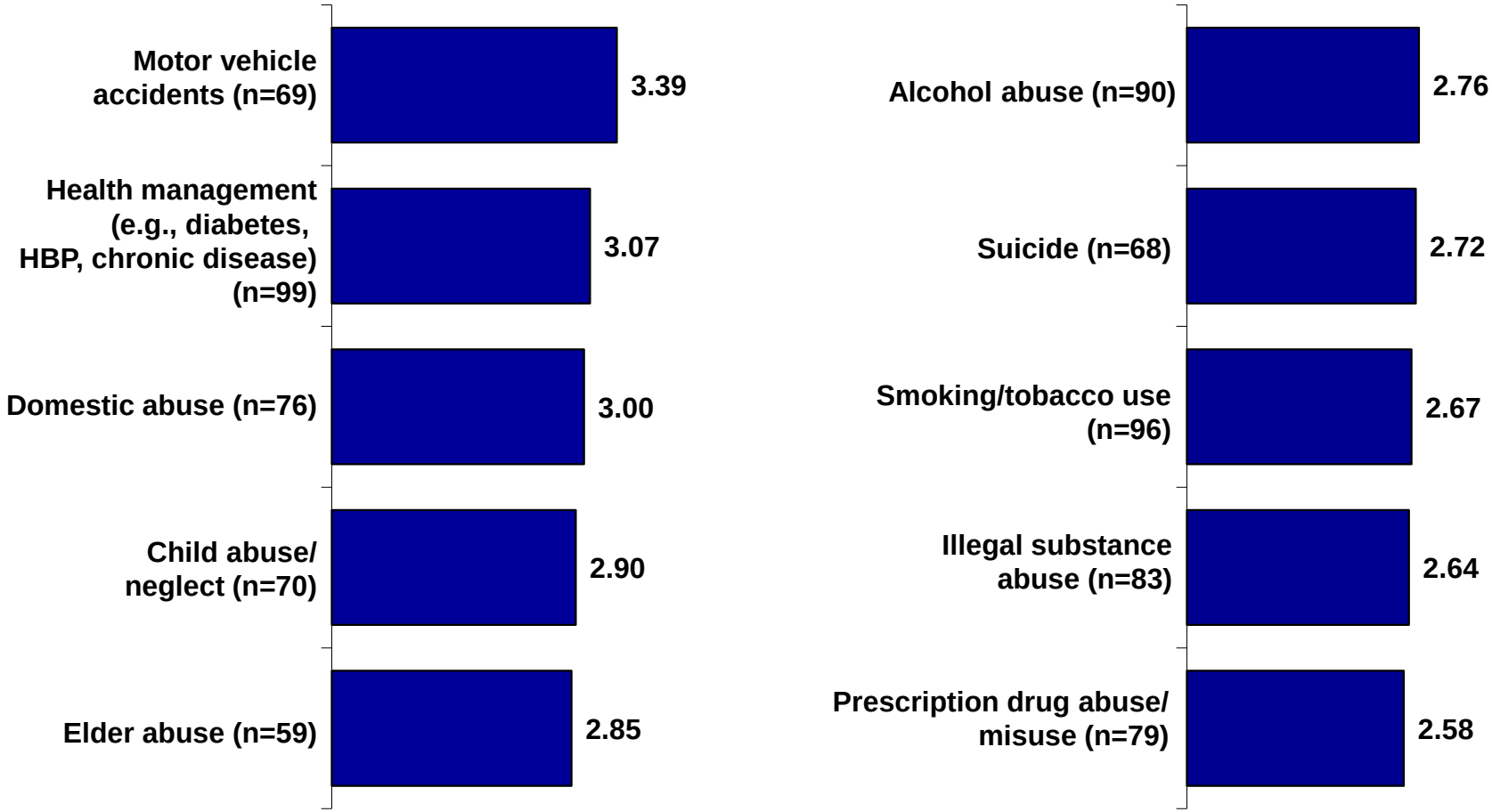
Perception of Prevalence of Health Behaviors in SHBRH Service Area



Q3: Please tell us how prevalent the following health behaviors are in your community.

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).

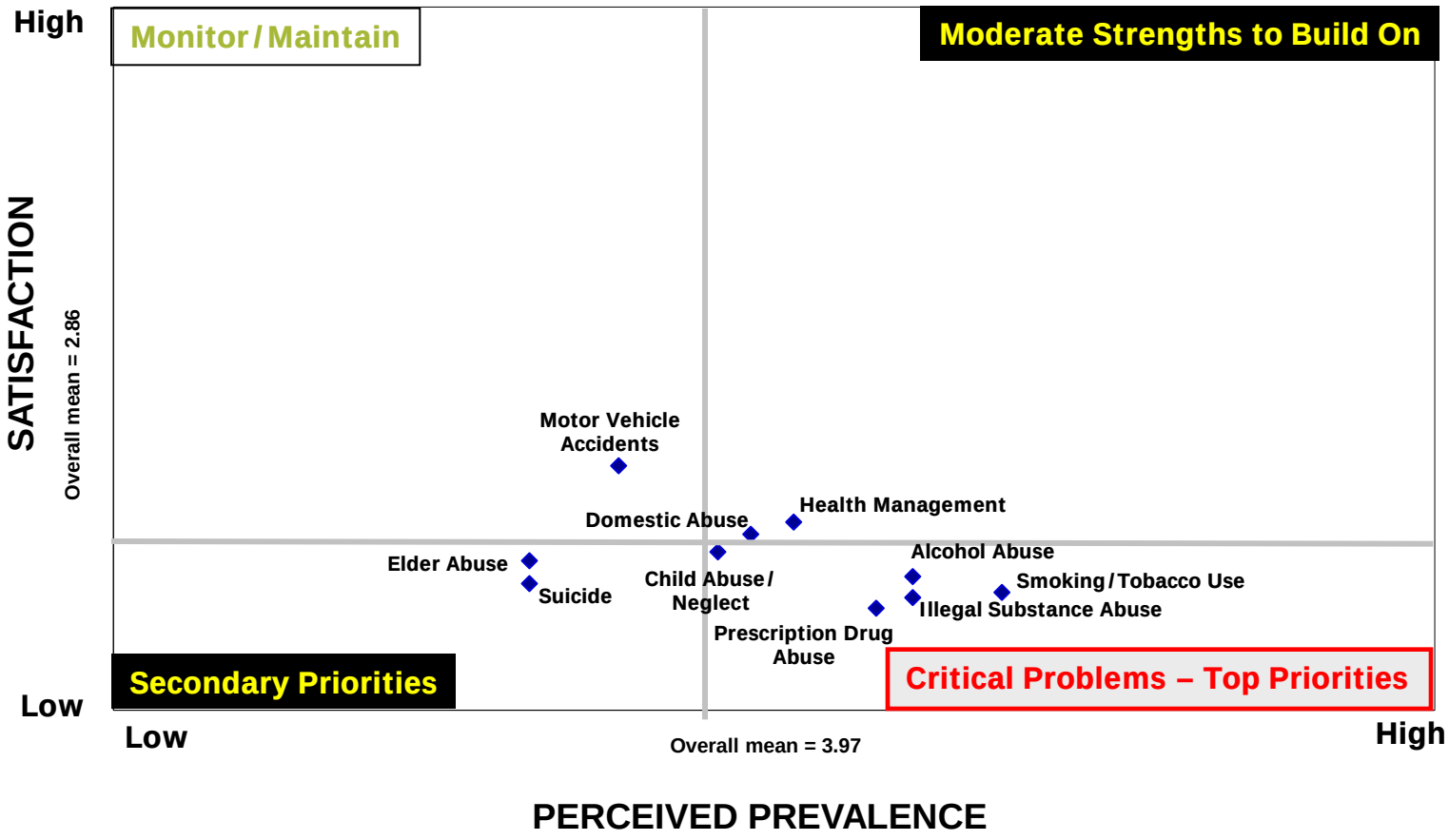
Satisfaction with Community's Response to Health Behaviors in SHBRH Service Area



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

The quadrant chart shows the most dissatisfaction and concern with responses to **prescription drug abuse**, **illegal substance abuse**, **smoking/tobacco use**, and **alcohol abuse**. Additionally, low satisfaction exists with the response to **child abuse/neglect**, **suicide**, and **elder abuse -** which represent important, secondary priorities.

Perceived Performance of Community in Response to Health Behaviors in SHBRH Service Area



Q3: Please tell us how prevalent the following health behaviors are in your community. Q3a: How satisfied are you with the community's response to these health behaviors?

Key Informants believe **lifestyle choices**, including a lack of education and resources to provide such education, **substance abuse and addiction rates**, and **mental health issues** warrant further attention.

Additional Health Behaviors Prevalent in SHBRH Service Area

Lifestyle Choices

"Lack of education on how to lead a healthy lifestyle and the resources to obtain this. Such a poor community and people can only afford unhealthy food and no activity."

*"Childhood **obesity** is common, need more collaboration with schools to push physical education."*

"Parental support groups to dissolve family conflict, parent education classes, etc."

Substance Abuse/Addiction

*"There is a **high rate of people looking to go to Detox for alcoholism** and once they make the call to get help they have no way to get to Detox and there is not a service that provides this. There are also not many programs to keep them sober once done with Detox."*

"Tobacco abuse is poorly addressed, especially in chronic disease."

Mental Health Issues

"Mental health issues. I am unaware what community resources are available for these residents."

*"We see a great deal of suicidal and delusional people. **The only service available to them is Community Mental Health if you have Medicaid. There are no services here for people with private insurance**."*

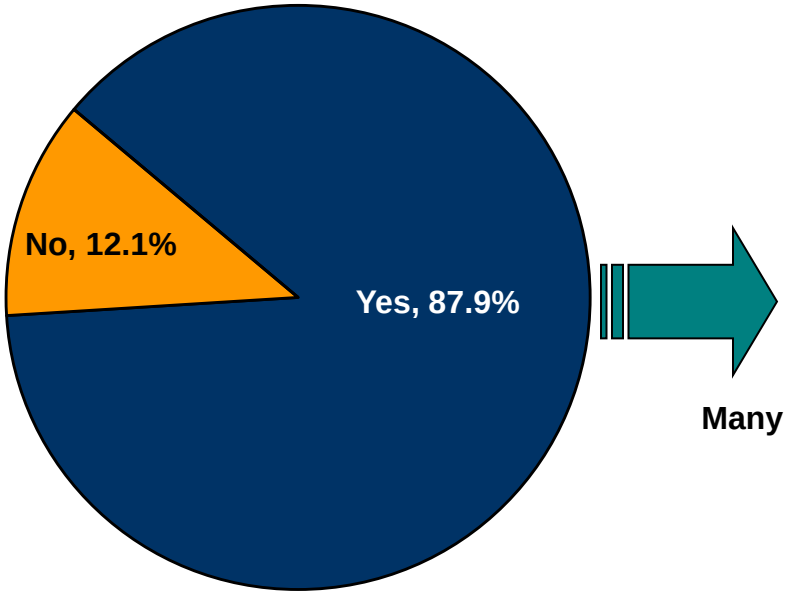
Q3b: What additional health behaviors are prevalent in your community, if any? For each listed, tell us how satisfied you are with the community's response to the health issue.

Access to Health Care

Almost nine in ten (87.9%) Key Informants believe access to health care is a pressing and prevalent issue in the SHBRH area. The greatest barriers to health care access center on inability to **afford out-of-pocket expenses such as co-pays/deductibles**, **transportation**, **a lack of available options due to a limited number of providers** – **especially primary care providers**, and **limited community resources**.

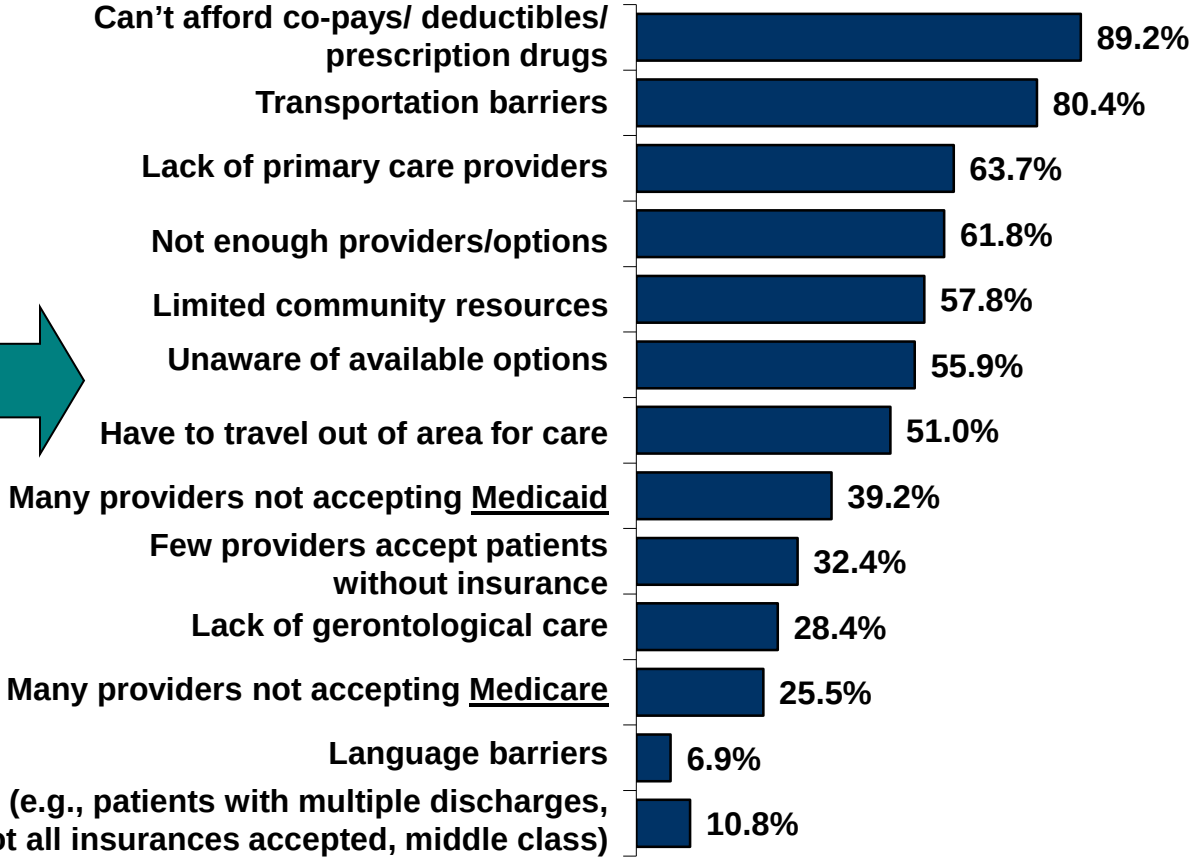
Access to Health Care

Is Access to Health Care a Pressing and Prevalent Issue in SHBRH Service Area



(n=116)

Reasons Access to Health Care is an Issue



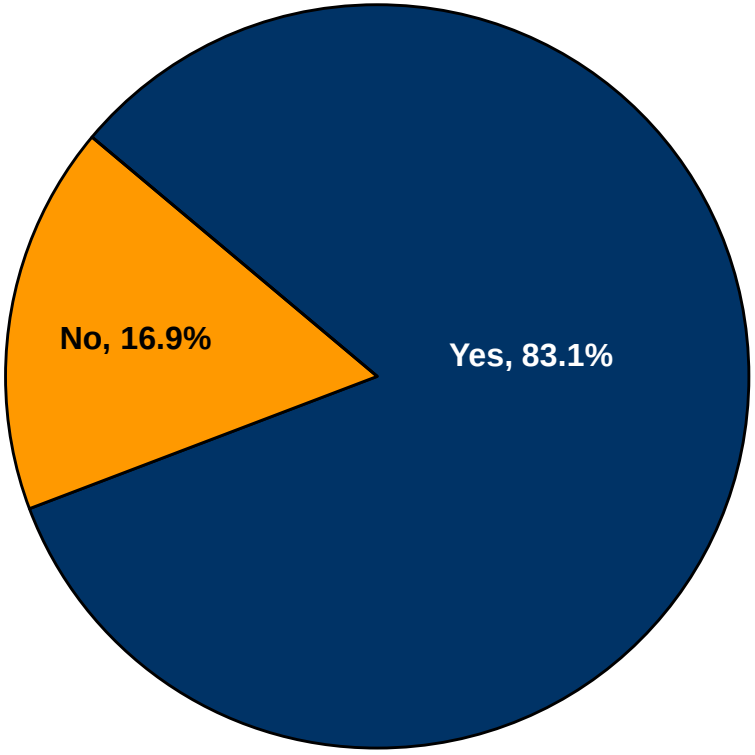
(n=102)

Q4: Do you believe that access to health care is a pressing and prevalent issue for some residents in your community?
Q4a: (If yes) In your opinion, why is access to health care an issues for some residents in your community? (Multiple responses allowed)

Almost half of Key Informants were unsure if specific subpopulations are underserved. However, of those who thought they knew, more than eight in ten (83.1%) recognize that certain subpopulations or groups in the SHBRH area are underserved with respect to health care. Those most at risk **lack insurance (completely or partially)**, or are **senior adults**, **disabled**, or **children.**

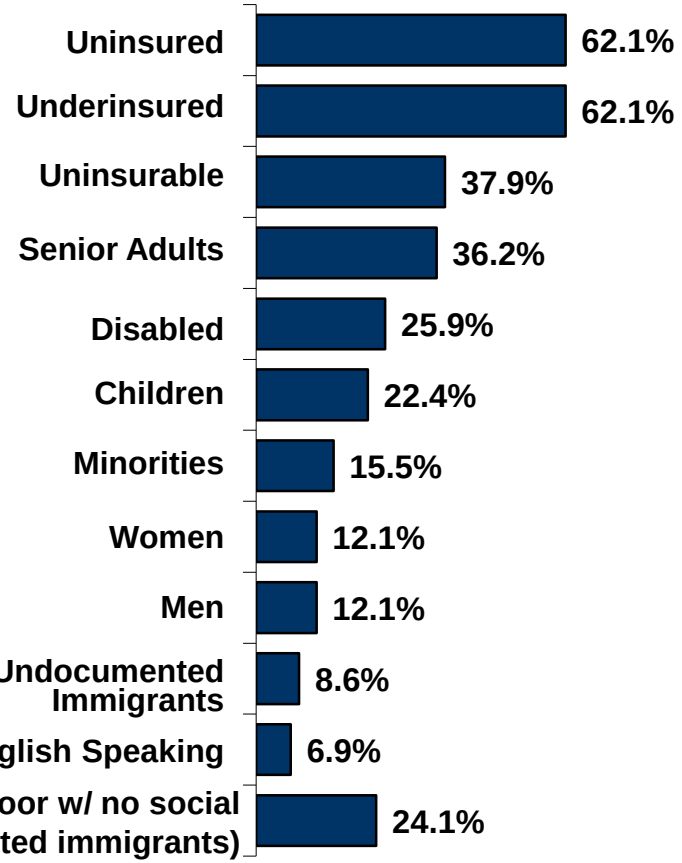
Subpopulations Underserved with Regard to Health Care

Are Specific Subpopulations or Groups Underserved?



(n=71)

Subpopulations or Groups Underserved



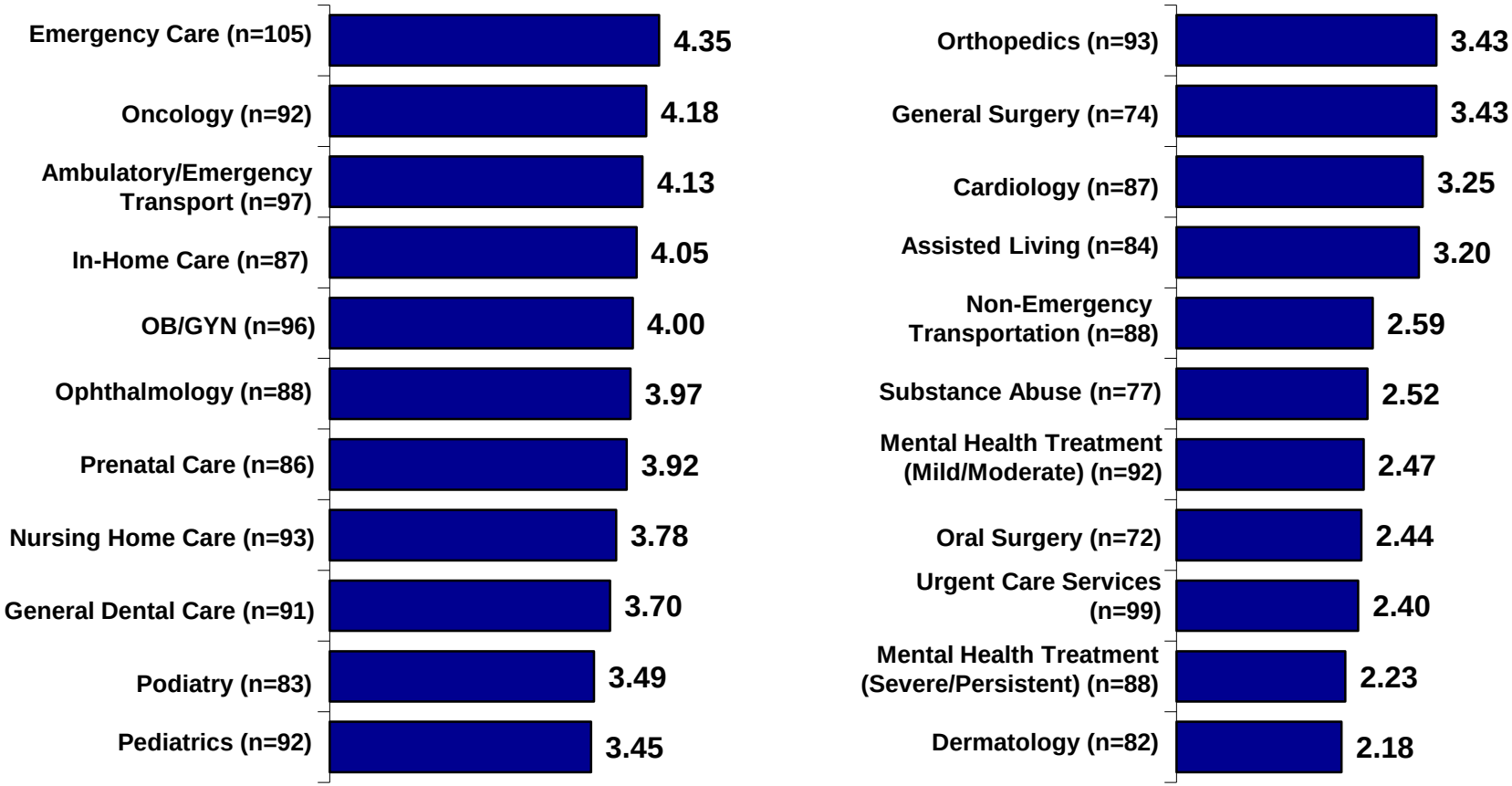
(n=58)

Q5: Are there specific subpopulations or groups of people in your community that are underserved with regard to health care?
Q5a: (If yes) Which of the following subpopulations are underserved? (Multiple responses allowed)

Gaps in Health Care

SHBRH service area programs and services perceived to meet the needs/demands of residents well are **emergency care**, **oncology**, **ambulatory/emergency transport**, **in-home care**, and **OB/GYN**. Programs and services targeting **urgent care**, **mental health treatment (mild to severe), substance abuse**, **dermatology**, and **oral surgery** are perceived to be lacking.

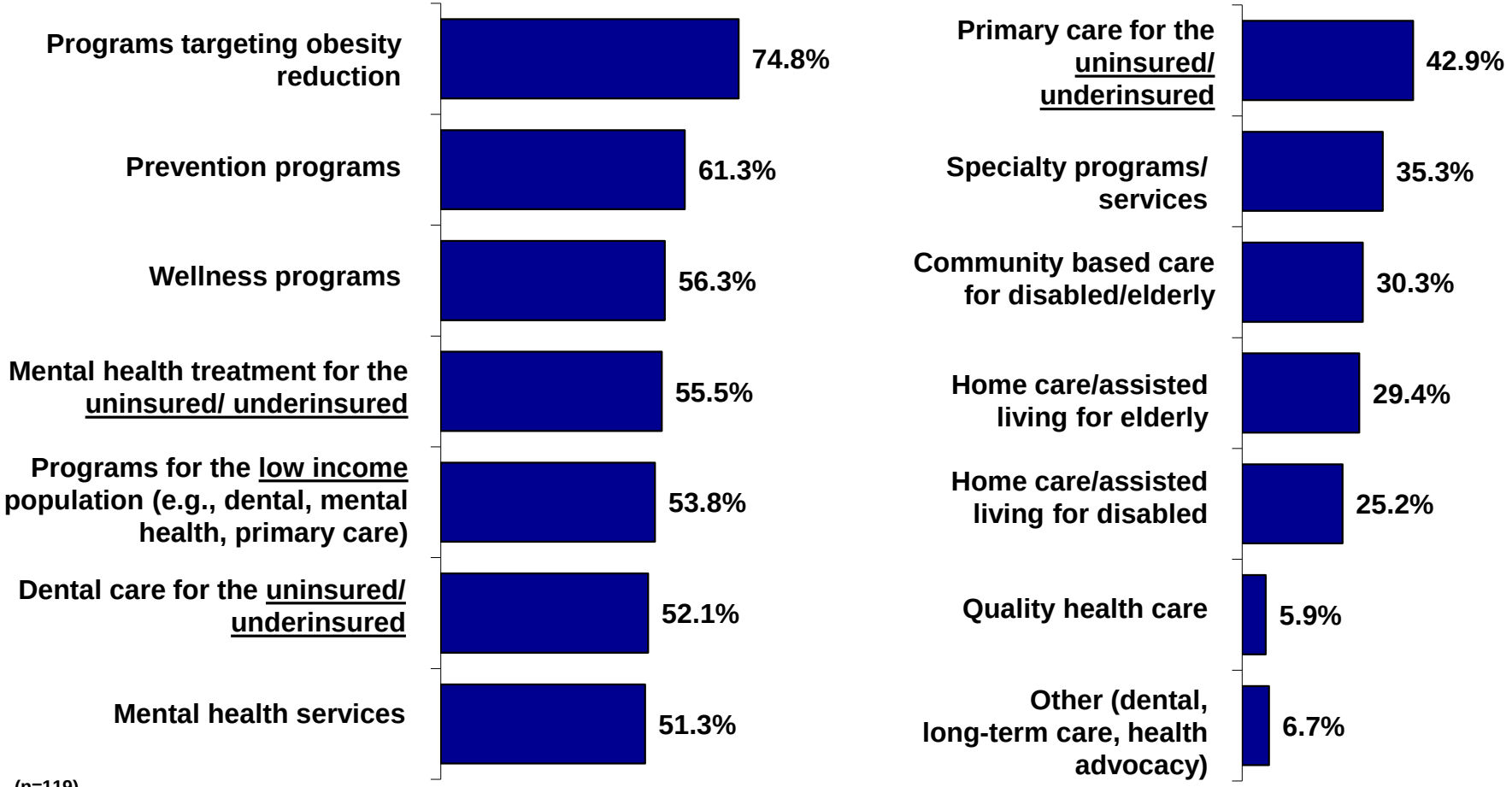
Degree to Which Programs/Services Meet the Needs/Demands of SHBRH Service Area Residents



Q6: How well do the following programs and services meet the needs and demands of residents in your community?

Key Informants report that the greatest void is found in **programs targeting obesity reduction**, followed by **prevention and wellness programs**, **mental health services**, and programs targeting **uninsured/underinsured** and **low income residents**.

Programs/Services Lacking in SHBRH Service Area



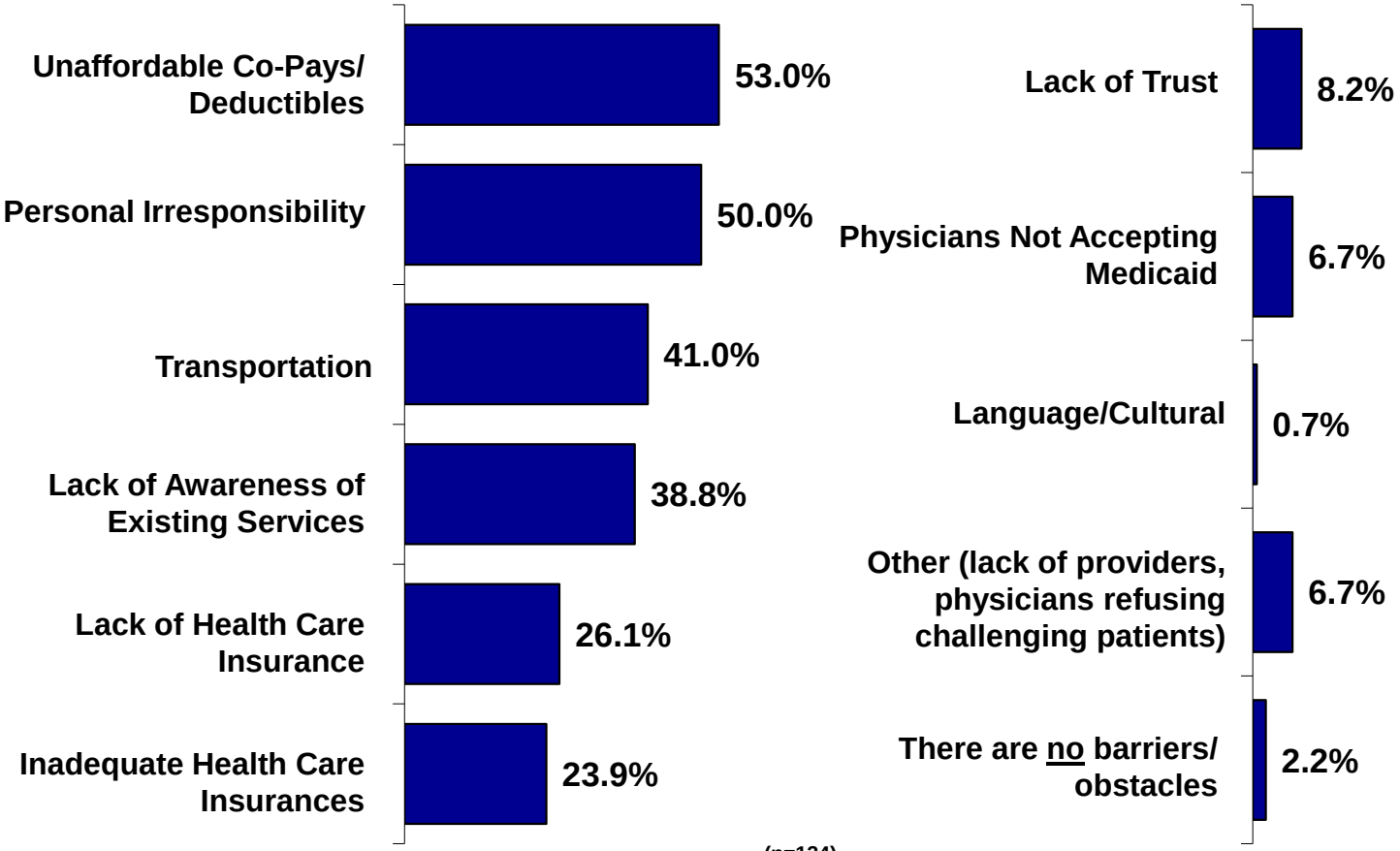
(n=119)

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, an **inability to afford** out-of-pocket expenses such as **co-pays and deductibles**, **personal irresponsibility**, **transportation**, and a **lack of awareness of existing services** are top barriers or obstacles to health care programs and services. **Lack of trust** or **language/cultural barriers** are not considered to be much of an obstacle while **a lack of primary care providers as well as specialists or physicians refusing challenging patients** are considered an additional barrier to accessing health care in the community.

Barriers and Obstacles to Health Care Programs/Services



(n=134)

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. Solutions to the top barriers rated, unaffordable co-pays and deductibles, personal irresponsibility, and transportation, involve: **lowering costs** (e.g., single payer, sliding scale, PCPs accepting more insurances), **increasing the number of prevention and wellness services** offered to the community, and providing a **hired or volunteer-based transportation service**.

Effective Solutions to Barriers and Obstacles to Health Care
Verbatim Comments

Unaffordable Co-Pays/Deductibles

"Lower deductibles and more urgent care centers who take all insurances."

"The only solution I personally see to inadequate insurance/co-pay/deductible issues is to go with single payer across the country (e.g., Medicare for all). By including ALL in one system, co-pays/deductibles should be able to be reduced."

*"**So many people are on state insurance and many doctors will not accept**."*

Personal Irresponsibility

"Educating our population on programs and services available. Providing transportation to and from appointments. Having a community based health and wellness program."

"More self management workshops for people to attend!"

*"Personal irresponsibility - **develop more wellness awareness programs and use media to encourage participation** - may help with #3 lack of trust as well."*

Transportation

"We can solve the transportation issue by providing: 1. Transportation within the local community, 2. Bring services that our community is travelling to a bigger city to our area."

*"Adults who have insurance with significant co-pays and deductibles are also at times in need of additional transportation options. **Can MOTA be engaged in dialogue regarding these barriers?**"*

"Providing more drivers to take patients to appointments and to specialists in other communities would be of help to some who have no family or friends able to take them to appointments during the day."

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.

Key Informants also want to see an **increase in outreach on existing services**, more **support provided to those who have no insurance or inadequate insurance**, particularly the uninsured, elderly, and veterans, and **improved community collaboration and response** to these issues. More practitioners to meet the community's physical and mental health needs is also emphasized as important.

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

Affordable Health Care for Under/Uninsured

"Working with insurances on increasing co-pays for commercial insurances to cover the underinsured."

*"**Encouragement to lower income people to enroll in insurance offered by Affordable Care Act.**"*

"A revised version of the ACA, lowering insurance costs"

"Giving self pay patients same discounts as big insurance companies receive."

Lack of Awareness of Existing Services

*"**Targeted advertising of services available**, such as Call 211, making known the Community Resources listed in the front of a telephone book, and placing Listings in MD/DDS/DHS waiting rooms, homeless shelters, etc."*

"Education and increasing awareness of how to access care."

*"Many of my patients do not have the internet or media resources. Other then mailers, I don't see how to get the info to them unless we had **a health fair where they could get the information at one time** or maybe do something in the surrounding communities."*

Community Coordination/Collaboration

"Continue to meet as organizations and band together to come up with viable working solutions."

"Creating a more active and educated community. Better collaboration of resources."

*"**In order to resolve the barriers that this community faces in regards to health care information and resources we need to recognize the need and collaborate as a community**."*

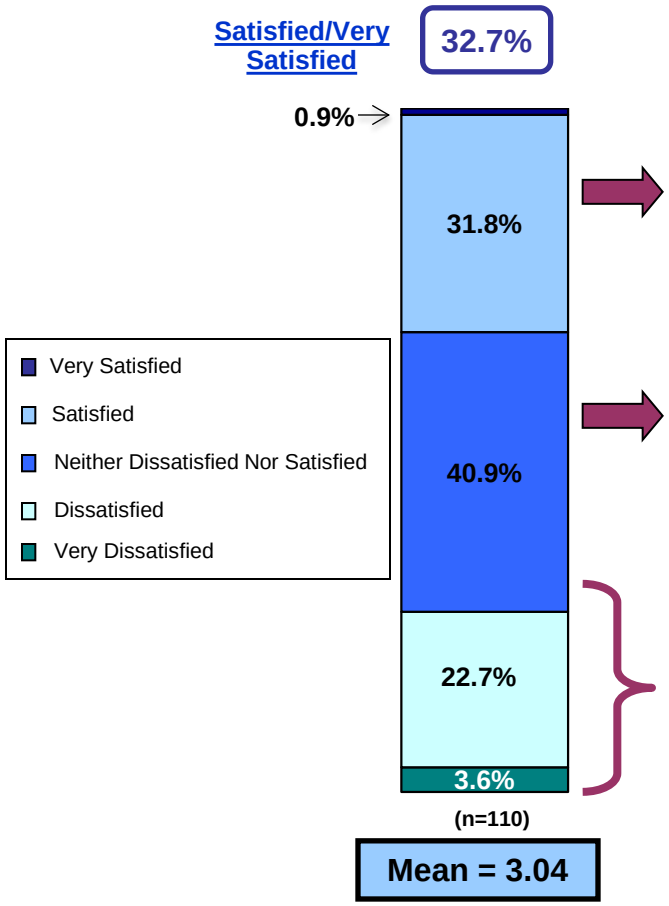
Q8a: What, if any, are the effective solutions to these barriers? Please be as detailed as possible and identify which problems you are referring to when discussing solutions.

Identifying and Addressing Needs

About one third (32.7%) of Key Informants are satisfied overall with the health climate in the SHBRH area, while about one quarter are dissatisfied with the health climate. Those who are satisfied cite **good care**, **affiliation with Spectrum**, and **an improved response to health care needs**. Those dissatisfied cite **lack of access to affordable, high quality care**, **lack of prevention programming**, and **lack of access to PCPs and specialists.**

Overall Satisfaction with Health Climate in SHBRH Service Area

Level of Satisfaction



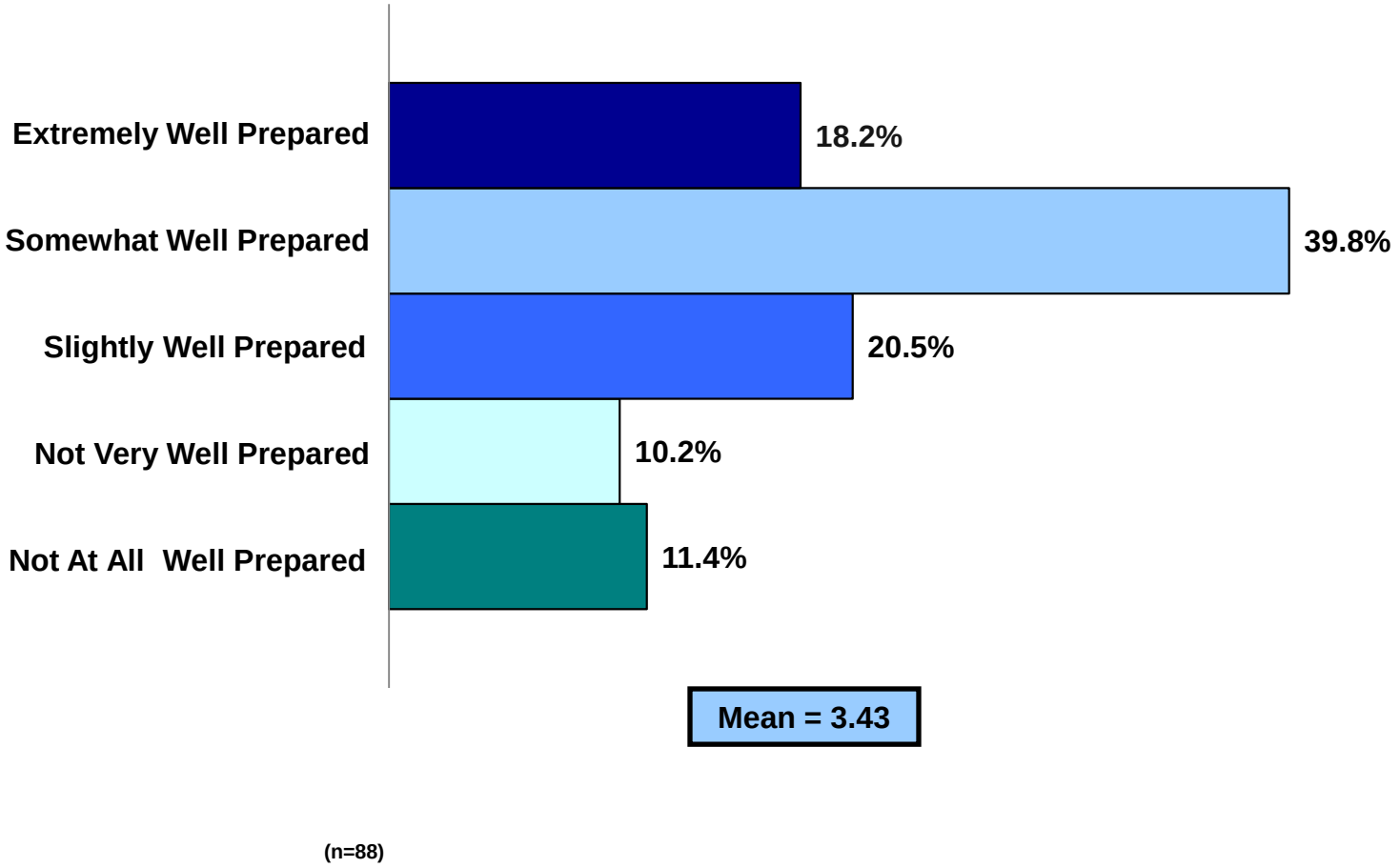
Reasons for Rating

✓ Community working on improving access ✓ Dedicated, caring practitioners ✓ Doing best they can with available resources ✓ Doing well compared to other small communities	✓ Have personally experienced satisfactory care ✓ People do not want to travel for care ✓ Spectrum affiliation very helpful
✓ Community does great job but far from where it needs to be ✓ Lack of specialists ✓ Many use ER due to lack of access to PCP ✓ Need more mental health services ✓ Need more wellness programming	✓ Out-of-pocket expenses create barrier to care ✓ Patient noncompliance/Lack of self-responsibility for good health ✓ Quality of care needs improvement – PCPs are overworked
✓Children can't be easily served ✓Difficult for new residents to receive care ✓Difficult to get appointments for routine care ✓High deductibles make care unaffordable ✓Hospital insurance is poor ✓Lack of support for prevention programming	✓Lack of transportation ✓Long delays receiving follow-up care ✓Majority of health care needs can't be treated locally ✓Many referrals to ER could be taken care of by PCP ✓No urgent care services

Q9: 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 your community? Q9a: Why do you say that? Please be as detailed as possible.

Almost six in ten Key Informants (58.0%) feel local health care professionals in the SHBRH area are at least “somewhat well” prepared to deal with a communicable or infectious disease outbreak such as Ebola. Almost one in five Key Informants feel health care professionals are “extremely well” prepared to handle such an outbreak.

Preparedness to Address Communicable Disease Outbreak in SHBRH Service Area



(n=88)

Q12: How well prepared are local health care professionals to deal with a communicable or infectious disease outbreak such as Ebola?

When asked about the impact of Federal Health Care Reform or the Healthy Michigan Plan, Key Informants are much more likely to cite negative, mixed, or no observable results, compared to positive results. Those who view the legislation as positive point to a **greater access to health care for the uninsured or underinsured**, which translates into greater access to needed health services and an expectation to see improved health outcomes in the future.

Impact of Federal Health Care Reform/Healthy Michigan Plan in SHBRH Service Area
Positive Results Verbatim Comments

"I believe more folks are talking about health insurance as a necessity and many of our community members have taken advantage of the ACA, however I have yet to see it impact the access to health care, a change in services provided or more healthy outcomes... I do believe it has the potential to get there, but it has only been 1 year."

"Improved access to care. It has not really changed health outcomes."

*"**I believe more patients have access to health care and those patients are now receiving better health outcomes because of the availability of it for them**."*

"I think it's too early to say what the outcome will be. But I believe overall it's good that these steps are being taken."

"Access has improved. It is difficult to evaluate or assess outcomes at such an early stage."

"I believe it has given lower income people access to affordable health care thus improving delivery and resulting in healthier outcomes."

*"**Initially I do not think that it had any impact, however, over the last year, I have seen a little more activity in visits to the physician as a result of health care reform**."*

"It seems access has actually increased due to expansion of Medicaid. At present is has cast uncertainty on service delivery as providers adjust to new realities and develop new service delivery methods. I think it is too early to determine impact on health outcomes but logic seems to point toward improvement as more people go to the doctor that did not do so before."

*"The immediate impact of the PPACA is **the access for those who are uninsured to obtain insurance to seek services. It has not or has slowly happened, but I look to the future of a true population health/patient centered care program for our community.**"*

Q11: 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 three reasons: (1) many people are purchasing insurance at an affordable premium yet this often comes with **high-deductibles and co-payments they cannot afford**, resulting in their reluctance to use coverage for needed health services, (2) **simply having coverage doesn't mean a provider will accept it** and (3) **slower service delivery** and **lack of PCPs** to adequately address the community's health needs still present barriers to access.

Impact of Federal Health Care Reform/Healthy Michigan Plan in SHBRH Service Area
Mixed Results Verbatim Comments

1) More people with insurance - Not enough primary providers to see patients. 2) Longer wait time for patient to be scheduled. But I think overall our facility does well. 3) Not sure."

*"**I think it has decreased access to care because there are more people seeking care and still the same number of physicians who now get less reimbursement** and that decreases the number of physicians who want to go into private practice. **It has also increased the deductibles for the private insurances and this in turn has actually decreased their ability to afford care**. At this point I am unsure how or if it has affected health outcomes."*

"Less access to providers because they have to see more patients in order to get paid, more patients equals less availability. The providers do not have time to spend with the patients which means some of the more serious underlying problems are not being taken care of and then manifest into larger issues."

*"I think more people are trying to get health care. I know from my employment that services are up more than ever and **people are wanting us to do way more with less resources and even less people. There may become a time when that is just not good patient safety.**"*

"More people are insured but not necessarily able to afford health care now - no longer charity care or Medicaid eligible and higher co-pays are keeping people away."

"Provider capacity is an issue so while the HMP may have provided coverage options for residents they still have trouble accessing a provider."

*"**The insurance premiums so high that many can't afford co-pays so less health care therefore lowering health outcomes. Don't believe has affected servic**e."*

Q11: 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 or limited coverage.** Some Key Informants also feel it has **worsened access issues**, **taken the focus off the individual patient's needs**, and **increased use of the ER for non-emergency conditions**.

Impact of Federal Health Care Reform/Healthy Michigan Plan in SHBRH Service Area
Negative Results Verbatim Comments

*"1. No change in access noted 2. Change in delivery- **we seem to be more like the Hilton** instead of serious professionals imparting knowledge 3. Outcomes I believe are declining because we have had our focus changed on how well we are liked instead of how well / knowledgeable our care was provided."*

*"**Has forced people to purchase health care who can NOT afford** it, and makes employers provide catastrophic health insurance at outrageous cost to workers who can barely get by!"*

"Some people that were 'forced' to take the insurance even though they were paying for their own, have deductibles that are ridiculous ($15,000)."

*"I hear people say that they are worse off because of it. Premiums are too high and **the policy they once had is no longer offered.**"*

*"It has complicated **an** all ready overburdened emergency room with non-emergency needs and done little to improve access to primary care."*

*"It does seem **in the ER that we see sicker patients, who wait longer because of financial reasons**, so I am thinking it is not doing well."*

*"It has put more strain on an already strained health care system, both by volume as well as financially. **Health care providers are expected to do more with less,** and are required to expand additional resources to meet reporting standards, which takes resources away from patient care."*

Busier in the ER. More non-emergent cases. Longer wait times for appointments.

Q11: 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 the SHBRH service area. More **community-wide prevention programs teaching healthy lifestyles** and **raising awareness of existing services** top the list and suggestions include exercise events, active lifestyle promotion, cooking classes, and nutrition education events. Additionally, Key Informants value **adding and retaining more PCPs in the community**, which they acknowledge is difficult to do in rural communities like their own.

Suggested Strategies to Improve the Overall Health Climate in SHBRH Service Area Verbatim Comments

*"**Accessibility of care for ALL and more information in non-traditional ways to the community so they know what is available and how to access quality care**."*

*"Educating the community on realistic things they can do to improve their health. Everyone knows we should "eat healthy." **Let's SHOW the community what that means - and how to do it with the limited income many have. The same thing for physical activity**. Lets build some fun family programs in the area so that families get out and do something physical - walking programs, biking programs etc."*

"Drawing more doctors to the area, but considering we're a rural, poor community, that is not always possible."

"More free programming More connection with community collaborations to instill an overall wellness/trust/and sustainable approach & atmosphere."

"Increase providers for primary care, it is hard to get into them. Not even talking insurance, but just physically hard to get in for follow up care."

"Having a community based health and wellness program that gets people eating healthy and physically active."

*"**Maybe a walking program with healthcare volunteers for those that are nervous about walking by themselves**. Actual cooking demonstrations that prove eating healthy can be enjoyable."*

"More providers. More programs aimed at wellness or prevention of chronic disease."

"Provide shopping classes and offer discounts (rebates/rewards) on healthy choices. Also provide education on various diseases and offer inexpensive solution (exercise/diet) and place to do. Perhaps in conjunction with schools."

*"**Recruiting more primary care providers and specialists** as part of the community would be helpful."*

Q10: What one or two things could be done in your community that would improve the overall health climate in your community? Please be as detailed as possible.

Additionally, Key Informants suggest that the community needs **access to more specialists** locally, options for **urgent care** (e.g., walk-in clinic), and **increased mental health services** – specifically concerning outpatient mental health. **Transportation** is also considered a priority with Key Informants suggesting increased coordination of resources across agencies, increasing home visits, and creating a volunteer network to provide transportation services.

Suggested Strategies to Improve the Overall Health Climate in SHBRH Service Area Verbatim Comments (Cont'd.)

"Adding providers would be the first step and the second finding transportation resources as Commission on Aging will not transport patients home from the hospital, taxis are expensive, and many seniors can not afford the cost."

"I have felt that this town would benefit greatly with an urgent care clinic. ***There is nowhere to go on non-business hours except ER which is a great expense****."*

"Improve availability of counseling/mental health resources and access to specialists."

"Mental health awareness, ***more pediatric specialists, allergists****."*

"Establish a health care office for after hours outside of the emergency room."

"More access to providers and better mental health options for the non-CMH participants."

*"****Provide some urgent care service or minute care services*** *at different areas in the community."*

"More surgical specialties."

"Mental health facilities - not just out patient treatment education early in the schools and for parents."

"Instead of having doctors come to BR once a week, have a few that are here everyday - then patients do not have to drive to Grand Rapids."

Q10: What one or two things could be done in your community that would improve the overall health climate in your community? Please be as detailed as possible.

Finally, **increasing health care support and access** to the uninsured, poor, military veterans, and elderly through reduced rates, more affordable prescription coverage, and improved insurance plan coverage as well as **expanded senior services**, such as in-home care and help navigating the health care system, are suggested as strategies to improve the overall health climate of the community.

Suggested Strategies to Improve the Overall Health Climate in SHBRH Service Area Verbatim Comments (Cont'd.)

*"**More options for seniors to have resources at home to stay in there home. Options that can be afforded by the patient**. More facilities like the Brook for seniors. More education about Medicaid for Seniors."*

*"For starters **discount physicals for those who cannot afford them**, try to get to them while they are still healthy not after they call with an illness."*

*"**Help for Medicare patients, especially the elderly. Getting their medications can be such a nightmare for them, especially the patients who must use the mail-away pharmacies**. They must try to communicate with these companies over the phone and that is most difficult when their hearing is impaired and the person on the other end is difficult to understand due to a foreign accent. Maybe some type of person who could specialize in sorting out problems of this nature for elderly patients."*

"More services for vets and seniors that accommodate their needs and limitations."

*"The free medical clinic is a great resource for those who don't have insurance. **Medicaid gets RX, it's those with insurance and co-pays who do not in some cases.**"*

"Resources for those with lack of funds/knowledge."

"Providing more services for caregivers providing in-home care for Alzheimer's/dementia patients."

"More dental clinics for low income or Medicaid patients."

*"**Help for the working poor and homeless in our community**."*

"Find affordable and convenient means of treatment for those who can not afford healthcare."

Q10: What one or two things could be done in your community that would improve the overall health climate in your community? Please be as detailed as possible.

Since the last CHNA conducted in 2011, Key Informants report **increased agency collaborative efforts** to address health issues, followed **by increased community-based wellness activities**, specifically citing **programming to address obesity**, **diabetes**, and **strokes**. Key Informants also cite the **merger of the local hospital with Spectrum Health** as increasing access to many services and the **creation of the Cancer Center** in Reed City as helping to improve response to this health concern.

Activities Since CHNA Conducted in 2011
Verbatim Comments

"I believe there is more of an effort to host wellness activities and offer educational opportunities."

*"**Development of a local health coalition group to look at addressing healthy lifestyle issues, enhanced cancer treatment services in Reed City for individuals to access**."*

"I feel that they have heard the concerns for better cancer care for this community and the Susan Wheatlake Cancer Center is now a reality."

"Local county hospital with limited resources became part of the Spectrum network"

*"**I have seen that both MSUE, DPH#10 and some of the Reed City Campus Spectrum really go all out in the areas of: diabetes education, obesity education, increasing physical activity. These community collaborators work well with Spectrum Health Reed City Campus**."*

"The DHD#10 is working on a Live Well program that is now being implemented."

"Diabetes prevention, better coalition between CMH and the hospital."

"Yes I do see agencies working to combat the health needs of our community."

"Increased some services that benefit the community in general at no cost to the participants."

"VA access, local clinic availability. Beyond this I am uncertain. This brings up a key question - does the community know about the resources available and the improved programming and access?"

*"**Merger with Spectrum means more access to providers and services more community awareness**."*

"I think that more doctors come up from Grand Rapids. More full time doctors have been recruited for the Reed City Family Practice."

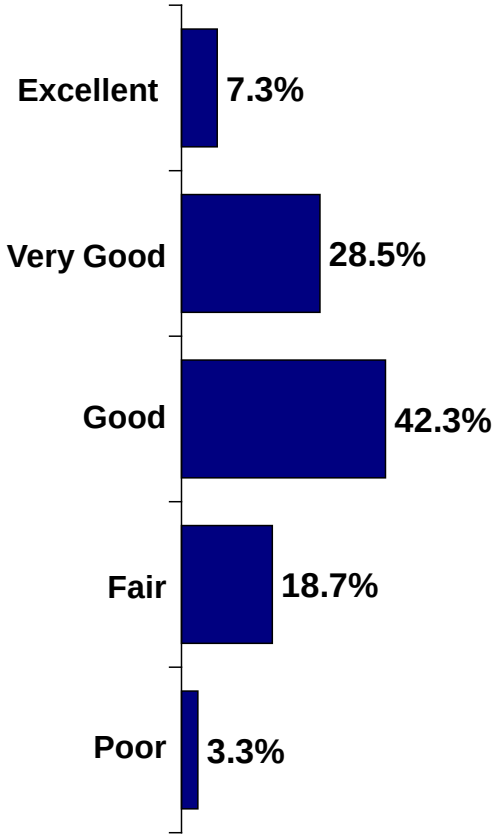
Q13: Since the Community Health Needs Assessment conducted three years ago in 2011, what has been done locally to address any issues relating to the health or health care of residents in your community? Please be as detailed as possible.

Underserved Resident Survey

Health Status

More than one in five (22.0%) residents in the targeted subpopulations report their health as fair or poor and this is consistent with the general resident feedback from the BRFS.

Perception of General Health



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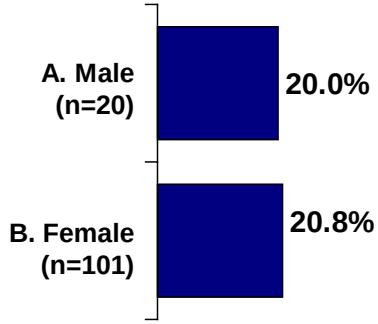
Q1: To begin, would you say your general health is….

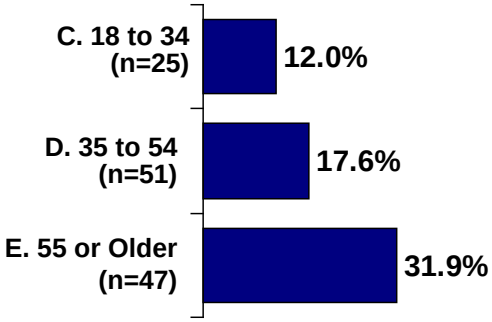
Among the underserved subpopulation, those most likely to report their general health as fair or poor come from the following groups: 55 years or older, have no college education, live in households with incomes less than $25K, and have government funded health insurance.

Perception of General Health as Fair/Poor by Social Factors

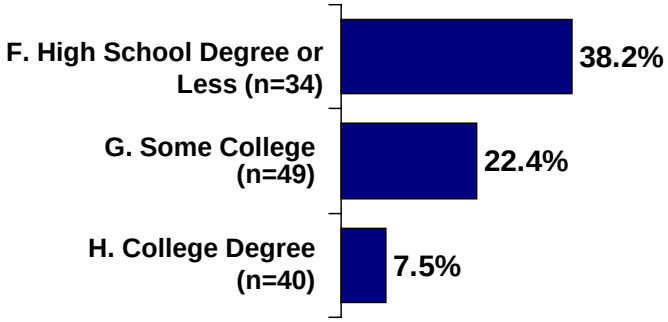
Gender



Age



Education



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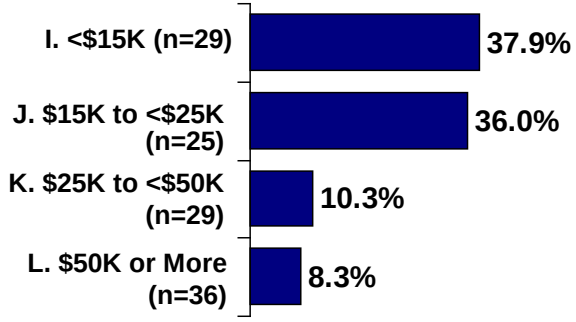
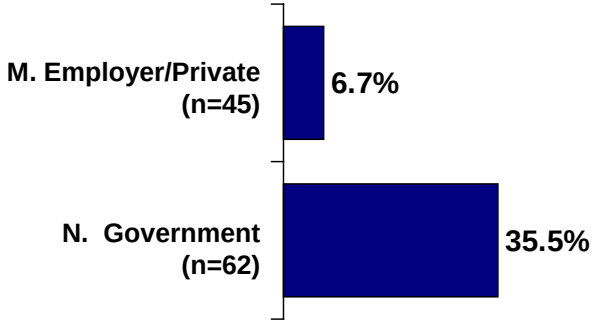


Type of Insurance

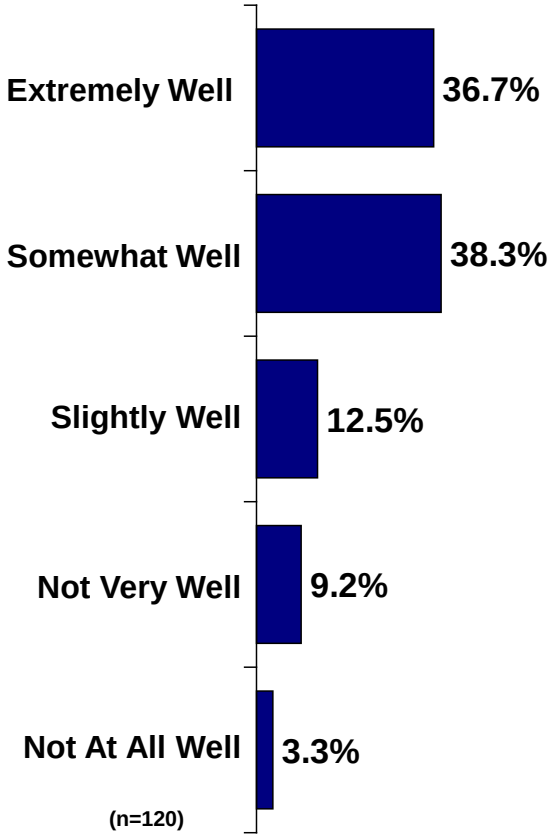


Q1: To begin, would you say your general health is….

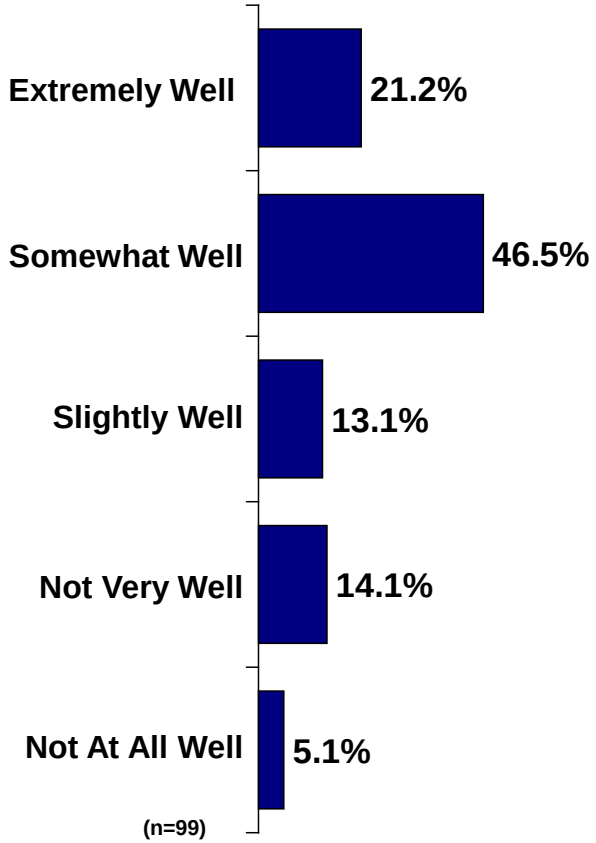
Three-fourths (75.0%) believe health care providers communicate somewhat or extremely well with them about their health, while two-thirds (67.7%) believe they communicate well with each other about patients' health.

Quality of Communication Among Health Care providers

Communication With *You* About Your Health



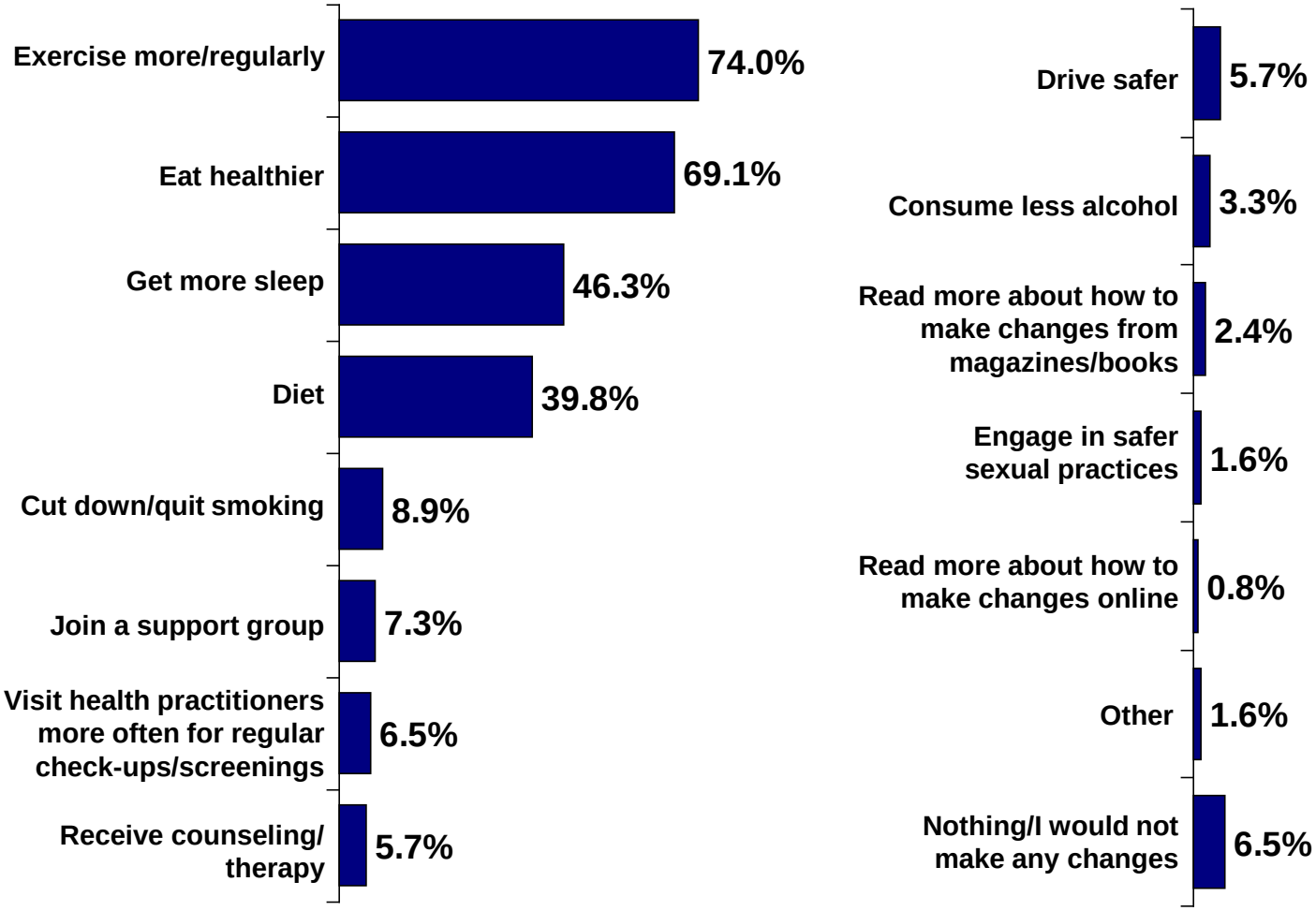
Communication With *Each Other* About Your Health



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**, **exercise more regularly**, **get more sleep**, and **diet**. To a lesser degree, they are also willing to cut down or quit smoking, join support groups, and visit health practitioners.

Behavioral Changes Needed to Improve Health



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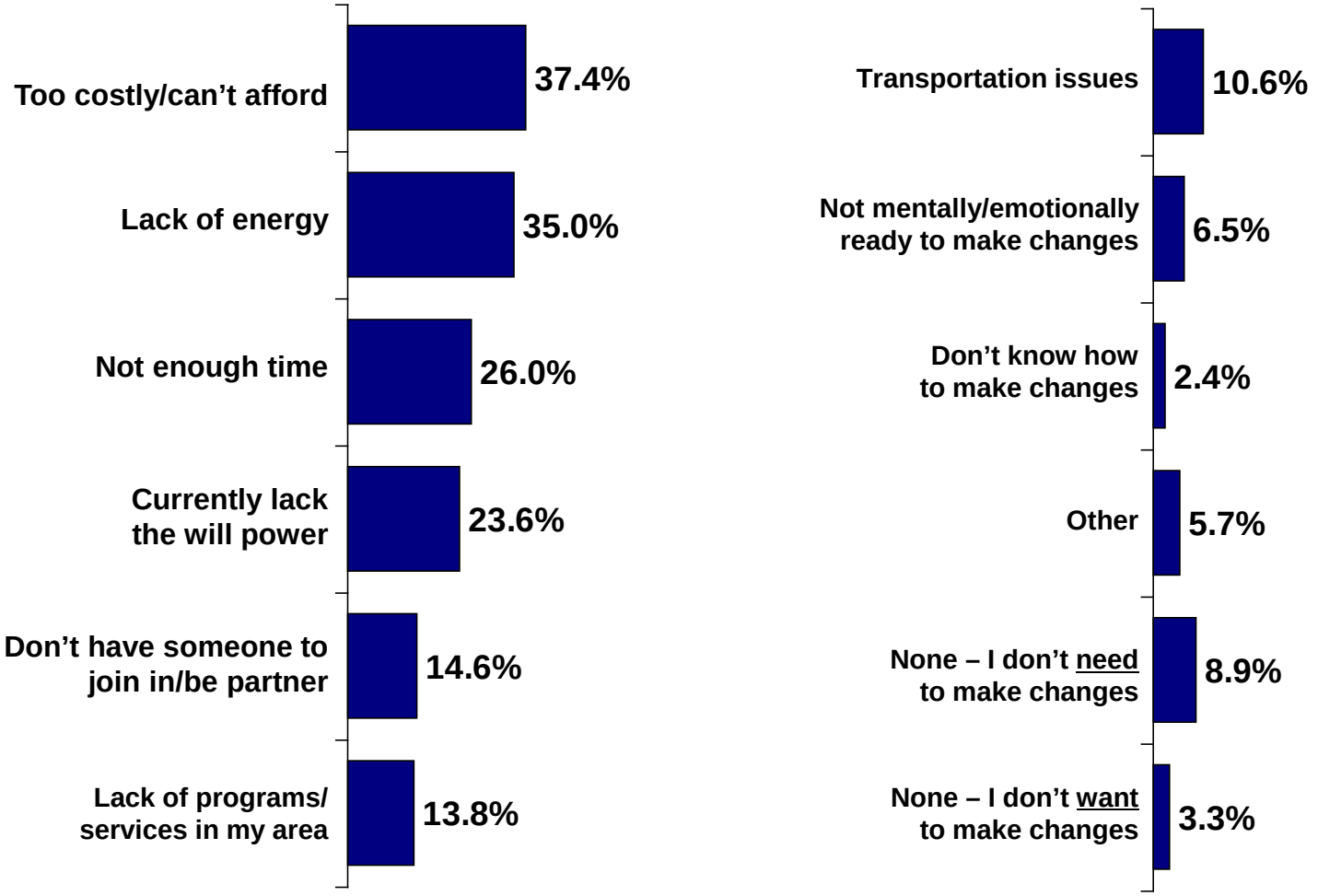
Q17: Which of the following behavioral changes do you believe you need to make to improve your health? (*Select all that apply*)

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**. Less than one in ten (8.9%) say they do not need to make any changes.

Barriers Preventing Living a Healthier Lifestyle



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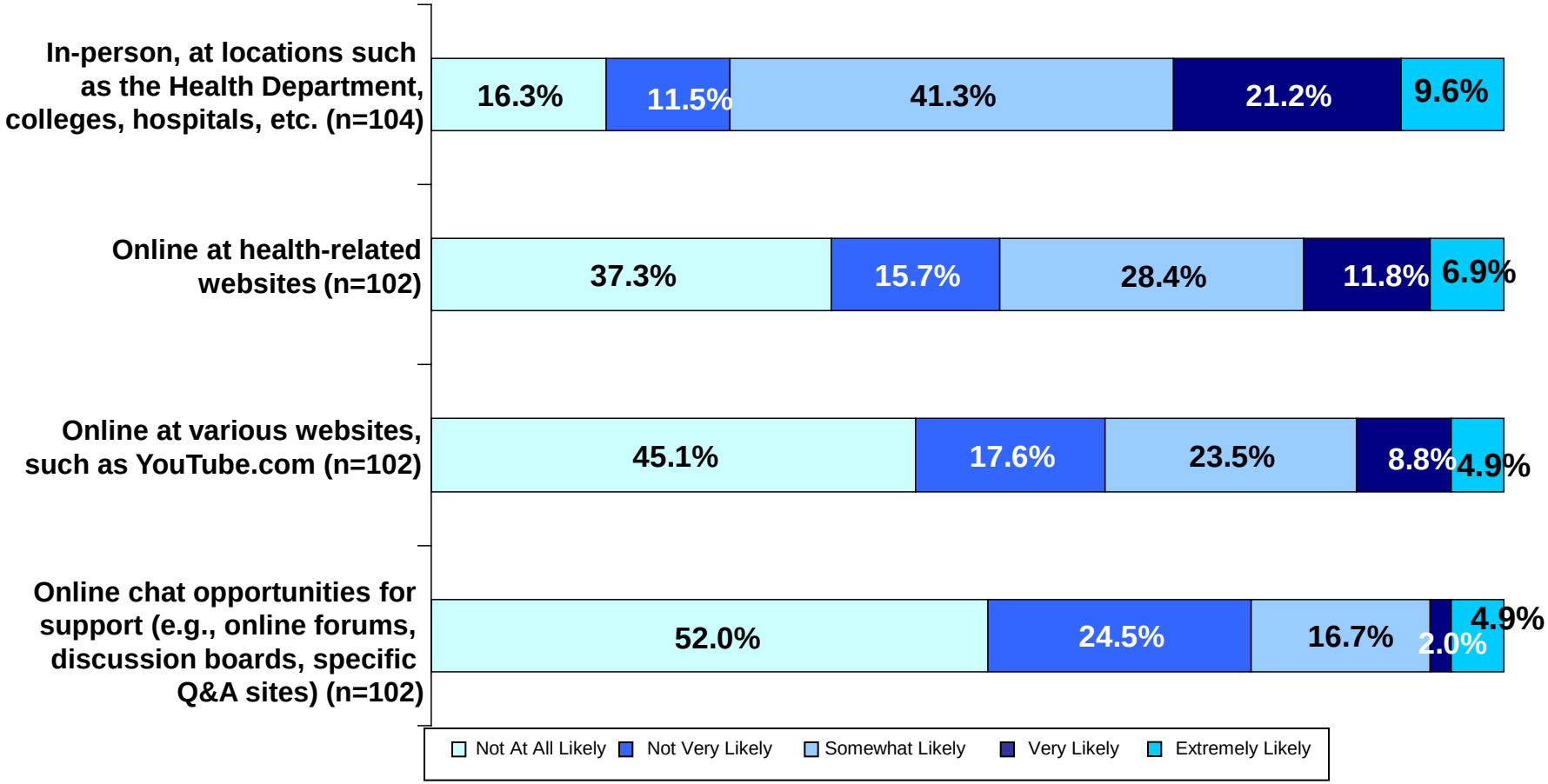
Q18: What are some of the barriers you face when trying to live a healthier lifestyle? (*Select all that apply*)

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. That said, the majority are not yet ready to participate in educational instruction via an online medium.

Likelihood to Participate in Education/Instruction on Leading Healthier Lifestyles



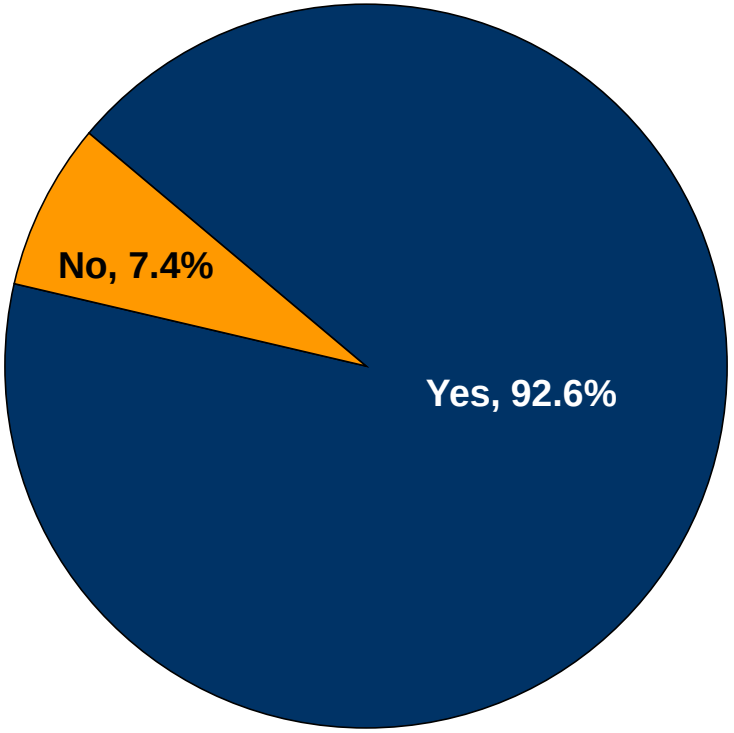
Q19: If education or instruction on how to lead a healthier lifestyle were available in different formats (below), please tell us how likely you would be to participate in these activities.

Health Care Access

Nine in ten (92.6%) underserved residents report having a primary care physician (medical home) that they can visit with any questions or concerns about their health. Those most likely to have a medical home are 35 years or older and/or have incomes of $50K or more.

Health Care Providers

Have Primary Care Physician



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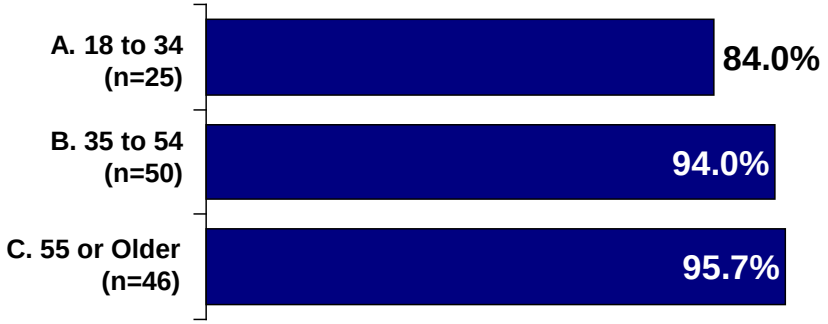
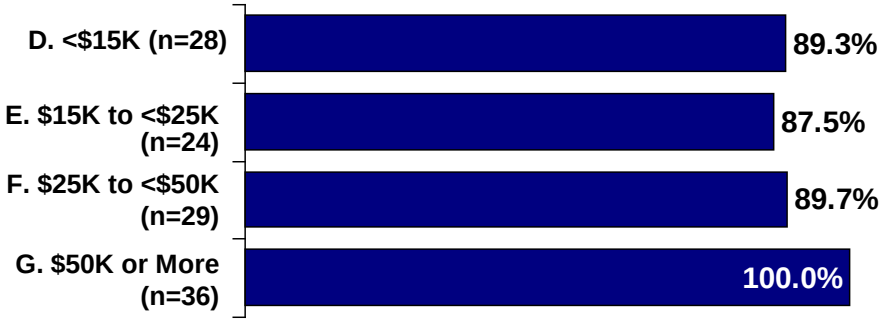
Age



Income



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

Underserved residents seek providers who are: **knowledgeable**, **good listeners**, **caring**, **honest**, **nice**, **kind**, **friendly**, **patient**, and **available** (can get an appointment quickly if needed). Additionally, they should **show genuine concern**, are **detail-oriented**, have **a good bedside manner**, have a good **sense of humor**, and **take time to visit with patients without making them feel rushed**. Patients also want health care professionals to **show them respect**.

Most Important Qualities in a Health Care Provider

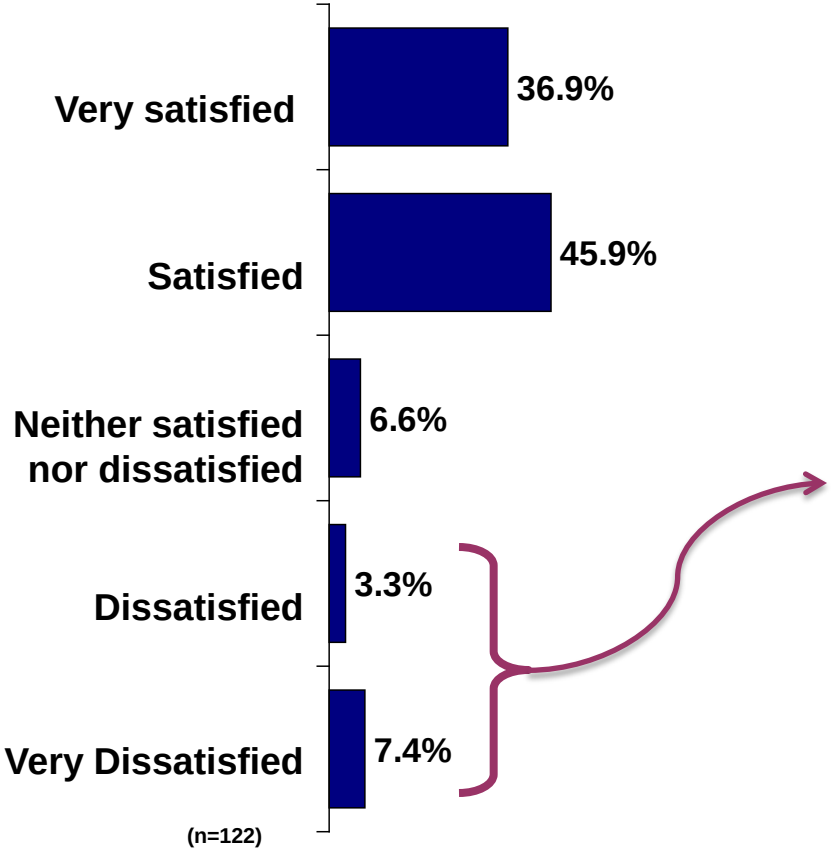
(n=123)

Q3: What is the most important quality you look for in a health care provider? (open end)

The vast majority (82.8%) 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) taking too long to receive care, (3) not listening to patient, (4) rude or unprofessional behavior, (5) and lack of empathy, concern, urgency, or seeming uncaring.

Satisfaction with Last Health Care Visit and Reason for Rating

Satisfaction with Last Visit



Reasons for Dissatisfaction with Last Visit

*"The nurses and doctors were **rude** and treated me as if the extreme pain in my back was **all in my head**."*

*"She should have sent me to a dermatologist. **Misdiagnosed me** and **cost me and my plan money** that was unnecessary."*

*"Because the doctor was **too busy to talk to me**.*

*"My oldest son's face was very swollen and he had flu-like symptoms. I took him to the doctor and the **doctor refused to do a test for mumps** when it was requested by myself (mom) and the health department."*

*"Always, **1-1/2 hours behind appointment**."*

"No help."

"Saw a different doctor because our original doctor was on vacation."

*"**Don't listen**."*

*"They **took far too long**."*

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), an**swer as well as ask questions**, are **knowledgeable** and treat patients with **respect**. Above all, they expect health care professionals to **make correct diagnoses**.

Reasons for Satisfaction with Last Health Care Visit
Verbatim Comments

*"Our doctor **listens** to me as a parent and takes what I say seriously."*

*"I felt he **cared** about what I was going through and was as **gentle** as possible."*

*"My doctor **takes the time** to **listen**."*

*"Because my doctor is very **caring** and **thorough**."*

*"**Smart**, **caring**, **professional**, **courteous**."*

*"Our doctor is very good with us, very **friendly** and makes you feel **comfortable**."*

*"Staff were **professional** and **knowledgeable** and didn't act like they were in a hurry to get me out of there."*

*"They always know what needs to be done and are always **great with the kids**."*

*"My doctor is very **thorough**, **friendly**, **knowledgeable**, she **listens** and **answers** so you can understand."*

*"Provider **cares** for family, **listens** to concerns, and provides **advice**."*

*"They were able to get us in and out **quickly**, they were very **friendly**."*

*"She was **thorough**, I was **comfortable**."*

*"Because of his response to my labs and other tests. He gave **feedback** and **gave me credit for my efforts**."*

*"**Not a long wait**, felt **comfortable** asking questions, **questions were answered**."*

*"The PA gave me her **full attention** and **thoroughly discussed** my schedule for appointments. I got in at the appointment times. She electronically submitted my prescriptions as I sat there."*

*"My PHCP is **friendly**, **not judgmental**, **knowledgeable**, **recommends natural remedies when possible**."*

*"Doctor **explained my illness**, **offered me options** for treatment so I could make an informed choice, and **didn't push medications**."*

"I feel very validated and respected there."

*"Because my treatment was **prompt**, **professional**, **thorough**, and **courteous**."*

*"Provider **listened**, willing to **consider my suggestions**/ requests."*

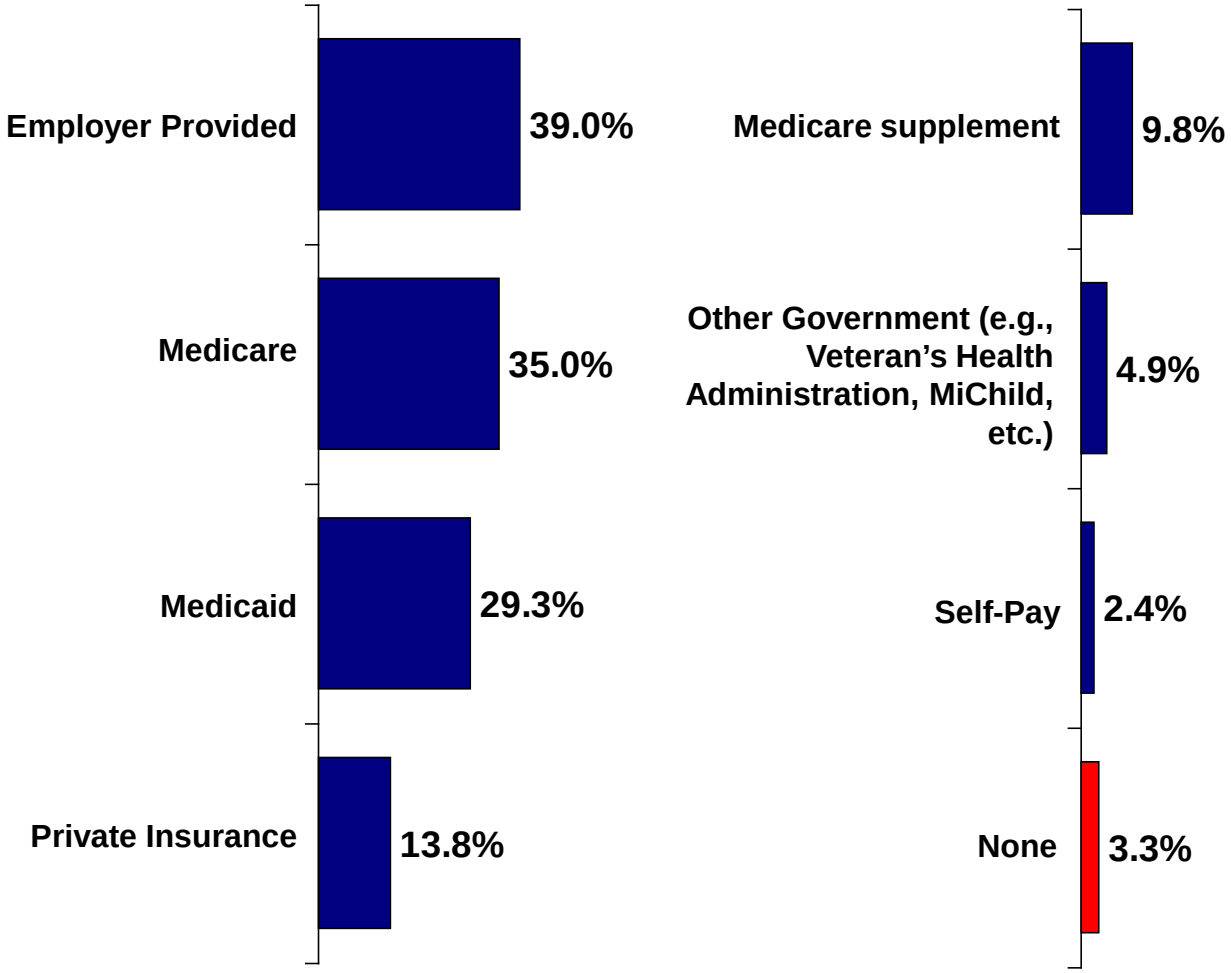
*"I felt the doctor **diagnosed correctly** and made a plan to resolve."*

*"They are **able to get me in**, the staff are **friendly**."*

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

Almost four in ten (39.0%) of the underserved residents have employer provided insurance, while 35% have Medicare and 29.3% have Medicaid. Seven in ten (69.2%) have health insurance that is a government sponsored plan.

Current Health Insurance



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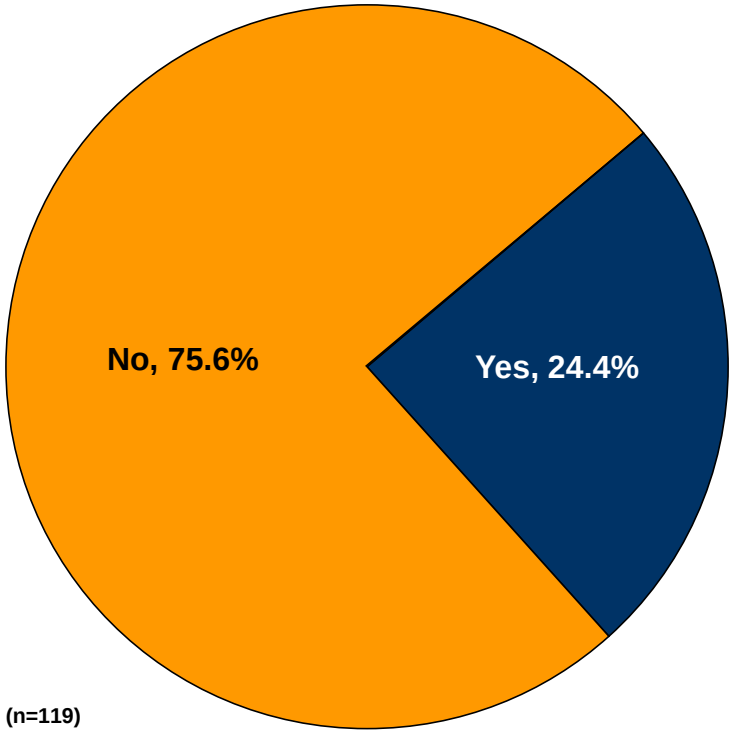
Q8: Which of these describes your health insurance situation? (*Select all that apply*)

Nearly one-quarter (24.4%) of the underserved have had trouble getting needed health care for themselves or their family in the past two years. The most prominent reason for this is the i**nability to afford out-of-pocket expenses such as co-pays and deductibles**. Other barriers to care include **lack of health insurance**, **transportation** issues, and an **inability to get an appointment**.

Barriers to Meeting Health Care Needs

Had Trouble Meeting Health Care Needs in the Past Two Years



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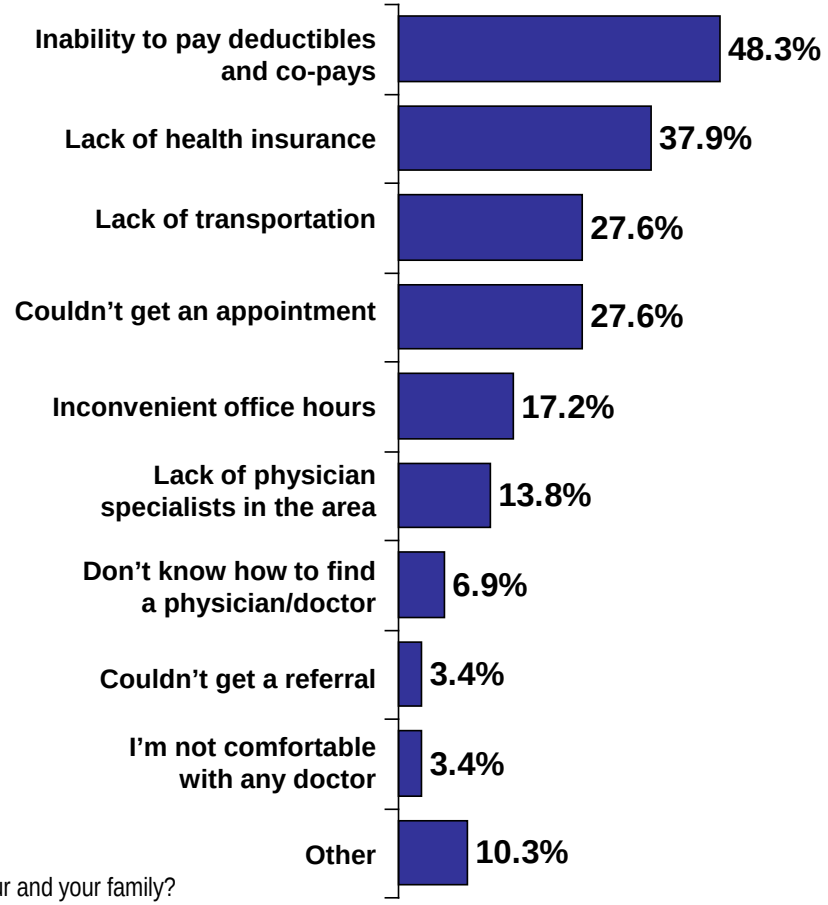
Reasons for Not Receiving Needed Health Care



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Q9: In the past two years, was there a time when you had trouble meeting the health care needs of your 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)

In general, underserved residents seek **easier access to health care services** through extended hours or more walk-in clinics and by offering more affordable options for health and dental care. Residents would like to see **more education (classes/workshops)** made available for mental health issues, diabetes, hypertension, wellness, CPR, healthy cooking, healthy eating, and weight management. Further, there is a need for support groups for mental health issues and for families with members who have chronic diseases. Residents would welcome easier access to gyms and exercise programs so that they have the best chance of living a healthy lifestyle.

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

*"**Educating** people on the **multiple mental health issues** would be nice. That is free."*

*"**Extended** WIC and health department **hours**."*

*"**Hypertension**, **healthy eating**, **diabetes**, **wellness**."*

*"**Support group** for **mental health**."*

*"**Dentists covered by Medicaid**; there are some but they are so over worked and you have to wait a long time to get in."*

*"**More Medicaid doctors and services available**."*

*"I am **not sure what programs are available**, they are not advertised enough."*

*"**CPR** classes."*

*"**Walk-in clinics** with good doctors, 24 hour pharmacy; **something besides ER**, with after hours."*

*"**Mental health services for those with Medicaid** or those uninsured."*

*"More **affordable dental care**."*

"Parenting classes. OBGYN care."

*"**Transportation** for underserved to medical appointments, mental health appointments, weight loss classes/clinic, etc."*

*"**Juvenile diabetes support**."*

*"**Open gyms** for families."*

*"**Specialist in pediatric behavioral care** without having to travel over an hour."*

*"We need to have some **health fairs**, so people can go there and get their cholesterol checked, BP number, diabetes numbers, etc."*

*"**Support group for families with members with chronic health problems** such as cancer, kidney disease."*

*"I feel **ER doctors should be more knowledgeable and helpful** for children under the age of 5."*

*"There are **healthy cooking classes** in Big Rapids but I would prefer something closer."*

*"**Diet education**, **diabetes education**, **smoking cessation**."*

*"More **diet classes**, **weight loss programs**."*

*"Sometimes I **can't get into my primary care physician and have to go to the emergency room**."*

*"**Free exercise programs**."*

*"**Weight management**, **physical activity**, **nutrition-I** have a potential location for providing services."*

*"**Diabetes education**, **CPR**."*

*"**Farmer's markets**, **organic foods**."*

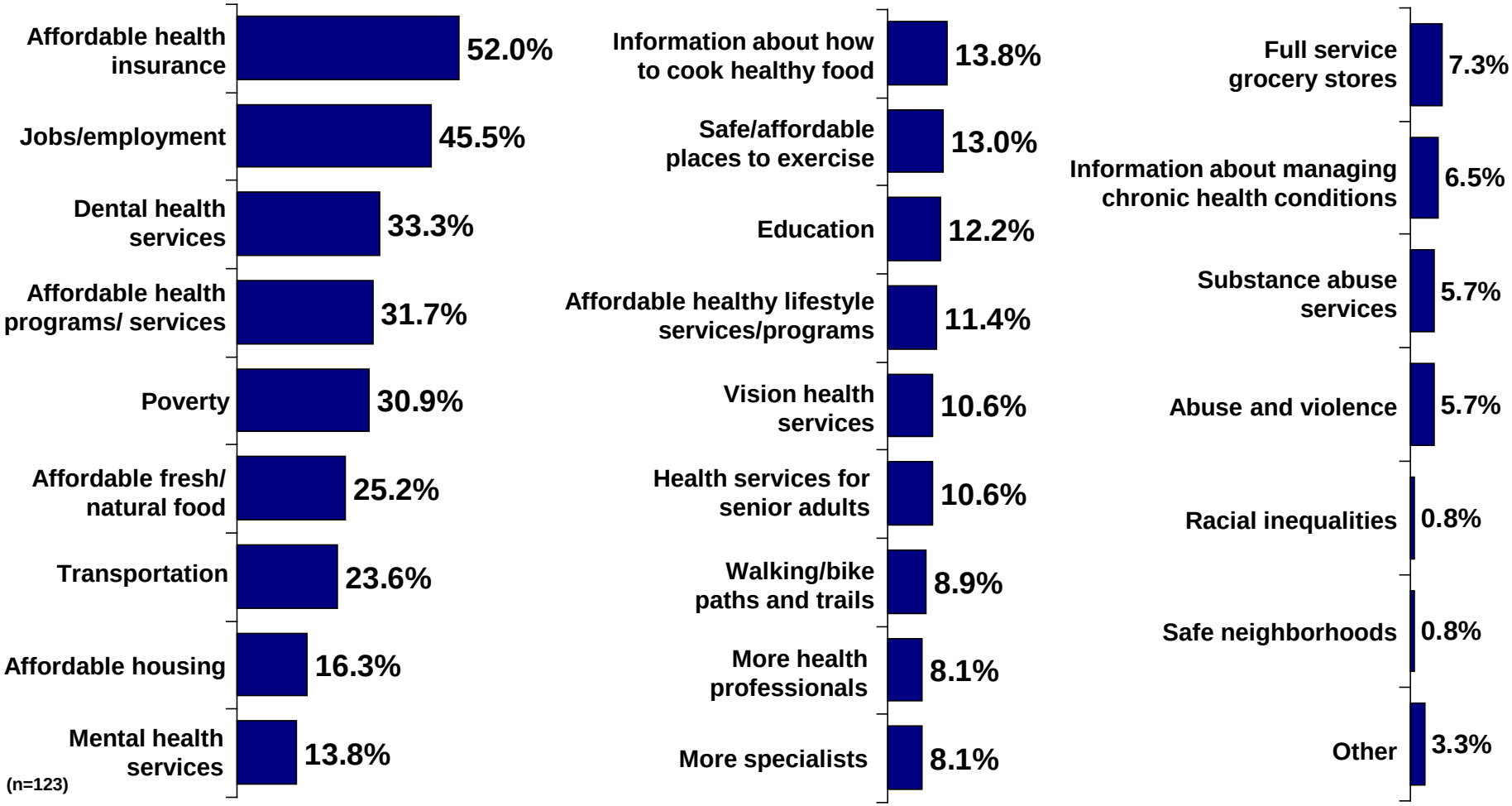
*"**Senior exercise**."*

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 **jobs/unemployment/the economy**. Other impactful issues include **dental services**, **affordable health programs/services**, **poverty**, **affordable fresh/natural food**, **transportation**, **affordable housing**, and **mental health services**. Racial inequalities and safe neighborhoods are nonissues.

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** that are well lit and very conducive to walking, biking, and socializing, **clean air and environment**, and a **strong sense of community** because the small size/rural aspect. Further, there are many healthy aspects about the community that are free, such as **accessible walking/hiking/biking/snowmobiling 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

*"We have **Lifestyles** and **Curves** and a **fitness program**."*

*"My doctor works at the hospital where I get all my tests done or any procedures done; **a one-stop convenience**."*

*"There are **several exercise facilities and trails that can be used for all seasons**."*

*"**Spectrum**, **clinics**, **hospital**, **eye doctor** in Reed City, good **bike trails**."*

*"**Easy access to bike/walking trails**, **local gym**, **Farmer's Market** in the summer."*

*"**Safe neighborhoods**, **affordable foods**, **walking trails**."*

*"**Access to parks and trails**, **Farmer's Market**, **safety** of our community."*

*"**Safe** area, **many doctor's offices**, **senior centers** in Mecosta and Mt. Pleasant."*

*"**Lots of outdoor activities**, although poor winter alternatives. **Senior Center** offers host of activities."*

*"It's **rural, small town**. **Great feeling of community**. Excellent **access to outdoor exercise**."*

*"**Rural**, spaces for **outdoor activity**, the **senior center** is a great place to socialize and stay active. A **small town feeling of community**."*

*"**Fresh air**, **medical facilities**, **no crime**."*

*"**Safe** community, **rails to trails**."*

*"**Free health information** and **social security assistance**."*

*"Fresh, **clean air**, **farmers market**, **good CMH program**, two **walking trails**."*

*"I live in a community where the road speed is 25 mph. **Safer roads to walk, run, jog on** than the community in general."*

*"Rural community; **farm/garden foods readily available** and easy to grow."*

*"**Wellness** programs, **access to care**."*

*"Local **trails for walking**, **running**, **biking**, **softball fields**, **parks**, **farmers market**."*

*"**Trails** to walk/run, several 5k events, **well lit areas**, **healthy options at restaurants**."*

*"All the **programs** you need to learn to be healthy."*

*"We have a **24-hour gym** and a **bike path** right in town."*

*"**Safe** neighborhoods, **gym available**, **doctors close** by."*

*"**Recreational opportunities for exercise**, **rails to trail**, **gym** in Justin."*

*"**Fresh air**, open space, **walking/biking/snowmobile trails** close by, **nature**, own water well (**fresh water**)."*

*"**Walking**, **bike paths**, **fresh food**, **health clinics**."*

Q13: What are the primary characteristics of your community that make it easy to be healthy? Please be as detailed as possible.

Conversely, community characteristics that some people think are great also make it hard for residents to lead healthy lifestyles. For example, **the rural nature** of the county is a barrier to having an effective and efficient public transportation system, and transportation is a major issue. There are also an **abundance of fast food restaurants** or **stores that sell plenty of cheap, unhealthy food**. Other barriers to living healthy lives include: **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. On top of all this, **the local economy (lack of jobs)** contributes to many residents being poor and impoverished.

Community Characteristics That Make it *Hard* to be Healthy

*"A **lot of fast food restaurants**."*

*"**No local store with fresh fruit/vegetables**, being in a rural area it's not easy to go out with a partner."*

*"**No Support groups**, **no weight loss groups** aside from Weight Watchers."*

*"**Rural**."*

*"**Restaurants and stores with a lot of junk food**."*

*"**20 minute drive to get to either senior center**, **lack of sidewalks**, paths, and trails."*

*"**Long, dark winter months**, **lack of outdoor activities**, unable to drive, **lack of transportation**."*

*"**Because it's rural, little or no formal public transportation**."*

*"I don't drive so **little public transportation** is an issue. The **selection of organic produce and dairy is limited**. Thank God for Hometown Health Foods."*

*"**Insurance costs** and **high co-pays**."*

*"**Distance** to medical facilities."*

*"Driving **23 miles one way to a doctor** or to get medicine."*

*"Money -- **everything costs way too much** for all of us on social security."*

*"**Unhealthy foods are usually cheaper**. Those with low incomes don't have ability to grow or use their own food."*

*"The cost of living, food, and housing is **catered to the college Ferris**, instead of the community."*

*"**Transportation**, **lack of referrals**."*

*"**Not walker/bike friendly**, people not clearing sidewalks in winter, **illegal drug and alcohol use**, most **programs are at night** when buses do not run."*

*"**Poverty**, **lack of transportation**, rural area-lack of internet accessibility."*

*"**Poor** community (economically), many **unemployed** and **impoverished**."*

*"**Lack of employment**, or **lack of affordable fresh food** and community fitness center."*

*"**Not enough public transportation**, **costly gyms**, **poverty**, **cost of healthy food**."*

*"**Transportation** for appointments, transportation for shopping, transportation for programs."*

*"All the **fast food places** and **no childcare to be able to work out**."*

*"**Lack of healthy food options**, we need **more fresh affordable food stores**."*

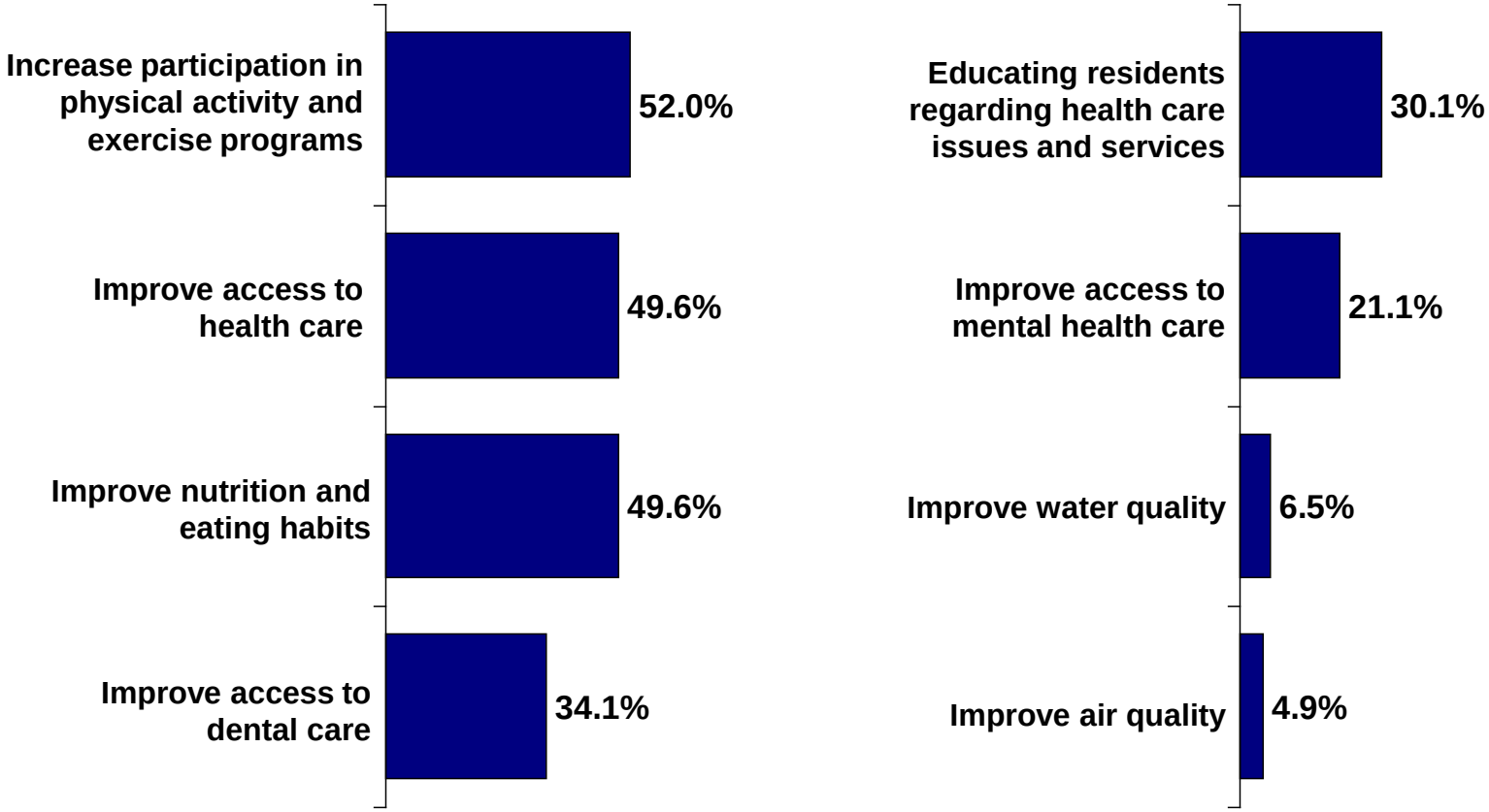
*"**Lack of fresh fruits**, **veggie selections**, **hard to get into PCP**."*

*"**Lack of affordable providers** and **exercise places**, **indoor pool** for exercises."*

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.

Half of the underserved think the most important changes that could make the local community healthier are to **increase participation in physical activity and exercise programs**, **improve access to health care,** and **improve nutrition and eating habits.** Additionally, one third see a need for **improving access to dental care**, three in ten see a need for **more education**, and one in five would like to see **improved access to mental health care**. Improving air and water quality are not considered necessary.

Most Important Actions for Making Community Residents Healthier



(n=123)

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' suggestions for making the community healthier include **more events or activities that will engage and educate the entire family regarding living healthier lifestyles**. Suggestions also focus on **increased access to healthy foods** and classes on **ways to cook/prepare them**. Some residents would like to see more options for **organized, or group, exercise, fitness, and support** for living a healthier lifestyle.

Suggestions for Making Community Residents Healthier

*"Having a **community work-out group** and possibly have some **cooking, nutritious classes** to learn inexpensive ways to eat healthier."*

*"**More community activities**, getting the community involved in fun, family friendly events. It's a chance to educate."*

*"**Too much chlorine in the water**. I can't even drink the water, take a shower. You might as well take one in the pool."*

*"A place to swim, **a more reasonable (cost wise) place to buy fresh fruits and veggies** in the winter months."*

*"**Cooking classes to cook healthier**, **group exercising clubs**."*

*"**Fewer fast food restaurants**."*

"More support groups."

*"**Free classes (fitness)**, **lower priced healthy foods**."*

*"Education, **access to healthy foods**."*

*"**Community events at little or no cost.**."*

*"Have a **walking program in winter indoors**. Make re**creational programs affordable**. Have an **indoor community pool** for cold months."*

*"**Access for kids** whose parents don't/are unable to provide **medical/dental care**."*

*"More family oriented **events** that have to do with **diet** and **exercise**."*

*"I'd like an **activity center** at Lake Isabella."*

*"**Programs** at the Mecosta **Senior Center**."*

*"CSA's, Farmer's Market, **education about prevention**."*

*"More **weight loss support groups** (free)."*

"Community walking program."

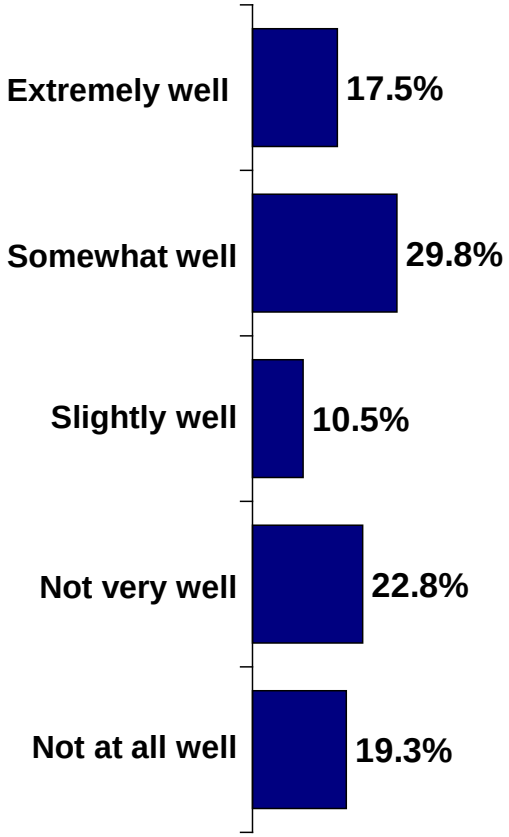
*"More promotion of **organic food** (Farmer's Market, CSAs). More stress on **what we eat** and do for **exercise**. **Prevention**."*

*"More activities and education to **support a healthy active lifestyle**."*

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

When asked how well prepared they think local health professionals are when dealing with communicable or infectious disease outbreaks, many underserved residents are unable to answer. Of those who have an opinion, less than half (47.3%) think they are somewhat or very well prepared. More than four in ten (42.1%) feel they are not very or not at all well prepared.

Preparedness for a Communicable or Infectious Disease Outbreak



(n=57)

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 **access to care**, **affordability**, and **service**. There is also an overriding issue of residents seeking, what should be, the **bare minimum of standards for service**: **listening**, **caring**, **empathy**, **communicating well**, and **accurately diagnosing a patient** with a health problem.

Concluding Verbatim Comments

"I am fortunate to have BCBS of Michigan and now Medicare, as a retired State of MI employee."

*"**Prevention** should be the first priority."*

*"**Eliminate automatic voice answering/calling messages**, use a live person."*

*"We **need 24-hour Urgent Care centers so we don't have to use emergency rooms** when our doctors aren't available or when they can't work you in."*

*"It seems to me that all professionals in Big Rapids area **have an accent and I can't understand them**. The doctors from other countries are **hard to get information from**. When you ask them questions **you get short answers**."*

*"**Having providers that really care would be great and don't judge** the person by their money or lack of and how one may appear."*

*"Overall, I think **Spectrum has good opportunities** to exceed in whatever you want to do. They have **diabetic training**. I really benefitted from all of that. I would still like a refresher course on what breads I can eat."*

*"I would like to see Spectrum Health **offer more weight loss classes locally**, in Evart and Reed City, please?"*

*"I wish somehow **health insurance and gyms were more connected to people who might be able to afford** a membership and also people would be healthier."*

*"Doctors and nurses **need to listen to patients**."*

*"My FIA worker in Big Rapids **makes things very difficult** to figure out, like what's going on with my insurance. She **does not return phone calls** and mails me letters dated August in December. It's a **constant battle** with her."*

*"It's just a shame that it has gotten to a point where people have to deal with, and suffer, with healthcare issues/needs because they **can't afford health coverage and the cost of paying out of pocket is ridiculously over-priced**."*

*"The way my son's possible mump infection was handled **doesn't make me have much faith in our local medical community**."*

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.

APPENDIX

Methodology

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	5
Key Informants	Online Survey	Physicians, Nurses, Dentists, Pharmacists, Social Workers	134
Community Residents (Underserved)	Self-Administered (Paper) Survey	Vulnerable and underserved sub-populations	123
Community Residents	Telephone Survey (BRFS)	SHBRH Area Adults (18+)	1,653

- Secondary data was derived from 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, Kids Count Data, and Bureau of Labor Statistics.

Methodology (Cont'd.)

- A total of 5 *Key Stakeholders* completed an in-depth interview. *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

- A total of 134 *Key Informants* completed an online survey. *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

- There were 123 self-administered surveys completed by *targeted sub-populations* of vulnerable or underserved residents, such as single mothers with children, senior adults, those who are uninsured/underinsured/have Medicaid, and minority populations, if any.

Methodology (Cont'd.)

- A *Behavioral Risk Factor Survey* was conducted in the SHBRH catchment area via telephone with 1,653 adult (18+) residents. The response rate was 38%.

- Disproportionate stratified random sampling (DSS) was used to ensure results could be generalized to the population of each county from which the respondent resided. 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 1,653 completed surveys:
  - 482 are cell phone completes (29.2%), and 1,171 are landline phone completes (70.8%)
  - 280 are cell-phone-only households (16.9%)
  - 346 are landline phone-only completes (20.9%), and
  - 1,027 have both cell and landline numbers (62.1%)

Methodology (Cont'd.)

- For landline numbers, households were selected to participate subsequent to determining that the number was that of an SHBRH area residence. Vacation homes, group homes, institutions, and businesses were excluded.

- Respondents were screened to ensure they were at least 18 years of age and resided in the SHBRH catchment area (determined by zip code). In households with more than one adult, interviewers randomly selected one adult to participate based on which adult had the nearest birthday. In these cases, every attempt was made to speak with the randomly chosen adult; interviewers were instructed to not simply interview the person who answered the phone or wanted to complete the interview.

- Spanish-speaking interviewers were used where Spanish translation/ interpretation was needed.

- Unless noted, as in the Michigan BRFS, respondents who refused to answer a question or did not know the answer to a specific question were normally excluded from analysis. Thus, the base sizes vary throughout the section regarding the BRFS.

Methodology (Cont'd.)

- Data weighting is an important statistical process that was used to remove bias from the BRFS 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 adults from Lake, Mecosta, Montcalm, Osceola, or Newaygo counties
  - Allow the generalization of findings to the adult population of the SHBRH catchment area

- The components of the design weighting formula are as follows:
  - STRWT – accounts for differences in the basic probability of selection among strata (subsets of area code/prefix combinations). STRWT = number of available phone numbers/number of phone numbers selected
  - IMPNPH – the number of residential telephone numbers in the respondent's house
  - NUMADULT – number of adults in the respondent's household

- The formula used for design weighting the BRFS data is:

Design Weight = STRWT * 1/IMPNPH * NUMADULT

Methodology (Cont'd.)

- Raking weighting ensures the data are representative of the population of adults in Lake, Mecosta, Montcalm, Osceola, and Newaygo counties on a number of demographic characteristics, such as age, gender, race/ethnicity, marital status, and education. Raking weighting incorporates the known characteristics of the population into the sample. For example, if the sample is disproportionately female, raking will adjust the responses of females in the sample to accurately represent the proportion of females in the population. This is done in an iterative process, with each demographic characteristic introduced into the sequence. This process may require multiple iterations before the sample is found to accurately represent the population on all of the characteristics named above.

- The formula used for the final weight is: **Design Weight * Raking Adjustment**

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 consume 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 consume 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

Behavioral Risk Factor Survey

Gender	(n=1653)
Male	52.7%
Female	47.3%
Age	**(n=1653)**
18 to 24	23.3%
25 to 34	12.6%
35 to 44	13.6%
45 to 54	17.0%
55 to 64	16.3%
65 to 74	10.7%
75 or Older	6.6%
Race/Ethnicity	**(n=1645)**
White, non-Hispanic	90.6%
Non-White	9.4%
Marital Status	**(n=1650)**
Married	47.8%
Divorced	11.1%
Separated	1.2%
Widowed	4.6%
Never married	33.2%
Member of an unmarried couple	2.1%

Number of Children Less Than Age 18 At Home	(n=1652)
None	63.2%
One	14.6%
Two	11.9%
Three or more	10.2%
Number of Adults and Children in Household	**(n=1652)**
One	13.2%
Two	37.7%
Three	16.9%
Four	13.9%
Five	6.1%
More than five	12.2%
Education	**(n=1649)**
Never attended school, or only Kindergarten	0.0%
Grades 1-8 (Elementary)	2.9%
Grades 9-11 (Some high school)	8.2%
Grade 12 or GED (High school graduate)	41.2%
College 1 year to 3 years (Some college)	33.1%
College 4 years or more (College graduate)	14.6%

Behavioral Risk Factor Survey (Cont'd.)

Employment Status	(n=1648)
Employed for wages	43.6%
Self-employed	4.7%
Out of work for more than a year	2.4%
Out of work for less than a year	2.1%
A homemaker	3.7%
A student	7.2%
Retired	22.0%
Unable to work	14.4%
Household Income	**(n=1126)**
Less than $10,0000	7.5%
$10,000 to less than $15,000	6.5%
$15,000 to less than $20,000	8.7%
$20,000 to less than $25,000	17.7%
$25,000 to less than $35,000	17.2%
$35,000 to less than $50,000	18.7%
$50,000 to less than $75,000	12.7%
$75,000 or more	11.2%
Poverty Status	**(n=1126)**
Income under poverty line	22.0%
Income over poverty line	78.0%

Military Service	(n=1653)
Served	9.9%
Did not serve	90.1%
County	**(n=1653)**
Lake	17.5%
Mecosta	49.4%
Montcalm	0.4%
Newaygo	2.2%
Osceola	30.6%

Zip Code	(n=1632)
49307	16.8%
49677	12.6%
49346	8.6%
49631	8.2%
49304	7.4%
49336	6.8%
49665	4.7%
49332	4.6%
49644	4.2%
49342	4.1%
49340	3.4%
49639	2.9%
49305	2.7%
49642	1.9%
49655	1.9%
49679	1.7%
49688	1.7%
49338	1.4%
49623	1.3%
49656	1.3%
49309	1.2%
Other (49322, 49337, 49657)	0.6%

Key Stakeholder Interviews

Executive Director, Mecosta-Osceola United Way

President, Spectrum Health Big Rapids Hospital and Reed City Hospital

Medical Director, Hope House Free Health Clinic

Executive Director, Community Mental Health for Central Michigan

Health Officer, District #10 Health Department

Key Informant Surveys

Nurse (RN, LPN) (24)	County Commissioner (2) City Employee Manager	Medical Laboratory Scientist
RN Director/Supervisor/Manager (7)	City Employee Manager	Medical Office Specialist
RRT Staff (4)	Deputy Health Officer	Medical Social Worker
Director (4)	Emergency Department Manager	Non-clinical Staff
Health Educator (4)	Emergency Department Technician	Nursing Informatics Coordinator
Manager (3)	EMS Director	Optometric Administrator
MD/MED (3)	Executive Director	Optometrist
Nuclear Medicine Technologist (3)	Executive Secretary	Pastor
Radiographer/Radiology Technologist (3)	Finance	Pharmacist
Respiratory Therapist (3)	Healthcare	Program Manager – Child Welfare
Administrator (2)	Hospital Community Relations/Foundation Director	Property Manager/City Council Member
Care Management Coordinator (2)	Hospitalist	School Administrator
Medical Technologist (2)	Human Resources	Social Worker
Physician Assistant (2)	Leader	Unit Secretary
Social Worker (LBSW, LMSW) (2)	Medical Assistant	

Resident (Underserved) Survey

	TOTAL
Gender	(n=121)
Male	16.5%
Female	83.5%
Age	(n=123)
18 to 24	3.3%
25 to 34	29.3%
35 to 44	15.4%
45 to 54	13.0%
55 to 64	11.4%
65 to 74	16.3%
75 or Older	11.4%
Race/Ethnicity	(n=123)
White/Caucasian	95.1%
Black/African American	3.3%
Hispanic/Latino	0.8%
Other	0.8%
Adults in Household	(n=121)
1	30.6%
2	54.5%
3	13.2%
4 or More	1.6%

	TOTAL
Marital Status	(n=122)
Married	53.3%
Divorced	9.8%
Widowed	12.3%
Separated	0.8%
Never married	18.0%
Member of an unmarried couple	5.7%
Children in Household < 18	(n=122)
None	49.2%
1	12.3%
2	19.7%
3 or More	18.8%
Education	(n=123)
Less than High School	5.7%
Grades 12 or GED	22.0%
College 1 to 3 Years	39.8%
College Graduate	32.5%
County	(n=113)
Mecosta/Osceola	92.9%
Lake	5.3%
Montcalm	1.8%

	TOTAL
Children in Household <5	(n=121)
None	64.5%
1	21.5%
2	12.4%
3 or more	1.7%
Employment Status	(n=123)
Employed for wages	40.7%
Self-employed	2.4%
Out of work less than 1 year	6.5%
Out of work 1 year or more	2.4%
Homemaker	8.9%
Student	1.6%
Retired	26.0%
Unable to work/disabled	11.4%
Household Income	(n=119)
Less than $10K	12.6%
$10K to less than $15K	11.8%
$15K to less than $20K	10.1%
$20K to less than $25K	10.9%
$25K to less than $35K	10.9%
$35K to less than $50K	13.4%
$50K or more	30.2%

Previous Implementation Plan Impact- Exhibit B

Spectrum Health Big Rapids Hospital

This document serves as the tool to identify the impact of actions taken 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		
Recruit and retain family practice physicians, advanced practice providers and an obstetrician	Hire 2 Family Medicine Physicians , 1-2 Physician Assistants, and 1 Obstetrician/Gynecologist	Goals were reached. Two (2) Family Medicine physicians and 1 Obstetrics and Gynecology physician were recruited in 2012 and 1 Family Medicine physician was recruited in 2013. As a result, for the period 2013-2015 year-to-date, 7,146 additional patients have been seen for a total of 12,895 primary care visits.
Support and enhance referrals to the Regional Cancer Center to ensure that patients have access to cancer services within their immediate community	1. Relocate information, referral and travel support services to the Regional Cancer Center 2. Relocate Oncology Clinic services to the Regional Cancer Center	1. Goal achieved. Information and referral functions transitioned to the Regional Cancer Center in 2014. Now, patients receiving radiation and infusion therapies at the Center may also access improved wellness, informational and logistical support in one convenient location. 2. Completed. A local physician moved his Oncology Clinic to the Regional Cancer Center in early 2014. This relocation has resulted in increased community access to cancer care services, especially with regard to radiation oncology services. Overall, regional patient use of radiation oncology services at the Regional Cancer Center remains stable, showing continued benefit to the community by receiving these key services locally instead of traveling to Grand Rapids or Traverse City.
Advocate for more Cardiology coverage	Increase availability of Cardiology clinicians in the Specialty Clinics at Spectrum Health Big Rapids Hospital	Goal achieved. A new Cardiologist began seeing patients in 2012 and an Electrophysiologist Cardiologist moved their clinic to Spectrum Health Big Rapids hospital in 2013. The cardiology clinic days have been expanded from one day per week to four days per week, which allows for more patients to be seen for services.

Previous Implementation Plan Impact- Exhibit B

Spectrum Health Big Rapids Hospital

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

Health Literacy		
Specific Health Need Goal	**Metric**	**Impact of Implementation Plan**
Assist senior citizens in obtaining Medicare insurance information	Provide free office space twice monthly for Michigan Medicare Advising Program (MMAP) counselors at Big Rapids Hospital	This goal was achieved. Michigan Medicare Advising Program services are available on the 2nd and 4th Fridays to seniors on our campus. Service is successful, assisting seniors to understand Medicare Advantage plan programs. 135 consultations have been conducted since January 2014.