Community Health Needs Assessment for:

Memorial Medical Center of West Michigan d/b/a Spectrum Health Ludington 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 Ludington Hospital Community-Wide Health Needs Assessment

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

A Research Project for

SPECTRUM HEALTH
Ludington Hospital

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VP RESEARCH AND EVALUATION
VISION · INSIGHT · PRAXIS

May 3, 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 Ludington Hospital (SHLH).

- 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 Ludington 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 SHLH 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 Ludington Hospital, including Mason County, northern Oceana County, and western Lake County
  - Determine positive and negative health indicators
  - Identify risk behaviors
  - Discover clinical preventive practices
  - Measure the prevalence of chronic conditions
  - Establish accessibility of health care
  - Ascertain barriers and obstacles to health care
  - Uncover gaps in health care services or programs
  - Identify health disparities

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 Ludington Hospital (SHLH).

The primary goal of the study was to identify key health and health service issues in the SHLH service area, which included primarily Lake, Mason, and Oceana 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=1,128) of the broader adult population in the SHLH area, as well as a self-administered survey (n=44) to more targeted subpopulations of underserved or vulnerable residents (e.g., single mothers with children, uninsured/underinsured/ Medicaid). Health care professionals and other community leaders, known as Key Stakeholders or Key Informants, provided input via in-depth interviews (n=6) and an online survey (n=56). Secondary data gathered from state and national databases was also used to supplement the overall findings.

Executive Summary (Cont'd.)

Some of the characteristics that make the SHLH area a great place to live and raise a family, such as being a small, close-knit rural community with farm fresh food/gardens, parks, recreation areas, a state park, and lakes, also contribute to problems of high unemployment and poverty rates and lead to transportation issues for many.

On the positive side, most adult residents in the SHLH area report their general overall health status to be good to excellent. Most adults also report good physical health. That said, the proportion of adults in fair/poor general health and in poor physical health are greater than the state or the nation.

Residents are satisfied with their lives and most often receive the social and emotional support they need.

Area adults have lower life expectancy rates (both men and women) and higher age-adjusted mortality rates than adults across the nation. Death rates from cancer and chronic lower respiratory disease are higher than MI or the U.S.

Chronic conditions, such as diabetes, angina/coronary heart disease, and skin cancer are more prevalent among adults in the area than in Michigan and the U.S. Further, 13.1% of adults has diabetes, a rate higher than the last time this research was conducted, in 2011.

Executive Summary (Cont'd.)

On the other hand, chronic conditions such as asthma and stroke are less prevalent than in MI or the U.S.

More than two-thirds (67.6%) of area adults are overweight or obese and the obesity rate (34.1%) for adults in the area is greater than the state or the nation. Further, local health professionals perceive obesity to be the top health issue and they believe the community response to this issue has been insufficient.

More than one-third of adults have high blood pressure and this rate is worse than the state or the nation. The rate for high cholesterol is lower than the state or the nation, however, not as many adults have their cholesterol checked as they should.

In terms of risk behaviors, smoking is problematic, with more than one-fifth (21.7%) of area adults classified as smokers, a rate higher than MI, the U.S., and peer counties. Area health professionals, especially Key Informants, feel that the high incidence of smoking is not being adequately addressed in the community.

Adult rates for heavy drinking and binge drinking are lower than the state and nation and both of these rates are significantly lower than 2011.

Area youth have lower rates of risk behavior, such as smoking, binge drinking, and marijuana use compared to MI or the U.S.

Executive Summary (Cont'd.)

Area adults and children also consume inadequate amounts of fruits and vegetables and do not engage in physical activity as much as they should.

There is a direct relationship, or at the very least a strong association, between positive health outcomes and both education and income; those with higher incomes and more education are more 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.

Health care coverage has expanded in the last several years to where more than nine in ten area adults have health care coverage and almost nine in ten have a medical home (primary care provider). Both of these proportions are much better than state and national levels.

Most adults engage in clinical preventive practices such as routine physical checkups and cancer screenings. Still, the proportion of women that get screened for cervical cancer lag behind state and national averages.

Dental care is a preventive practice that many neglect, with three in ten area adults reporting no dental cleanings in the past year.

Executive Summary (Cont'd.)

Despite an increase in insured residents, almost 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.

These barriers are particularly prominent among the vulnerable/underserved population, such as the uninsured, underinsured, those on Medicaid, those with low incomes, and residents facing language barriers.

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

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

Additional barriers to care include transportation, lack of awareness of existing programs and services, cultural (fear of system, public misperception of the underserved), language barriers (e.g., Hispanics), and the inability of some residents to secure appointments or get referrals.

Executive Summary (Cont'd.)

In sum, having health care coverage does not necessarily translate into utilization of needed services.

Additional areas identified by Key Stakeholders, Key Informants, and residents as needing more services and programming are:

- Health services in general throughout Lake County
- General lack of primary care, dental care, mental health care, and substance abuse treatment for the underserved (uninsured, underinsured, Medicaid, low income)
- General lack of mental health services for people with mild to severe conditions
- Affordable behavioral health services for those who are not chronically mentally ill
- Specialty and subspecialty services such as cardiology, dermatology, and oral surgery
- Coordination and collaboration of services
- Prevention and wellness
- Services addressing and coordinating the physical and mental health of adolescents in Mason County (Oceana and Lake counties have adolescent clinics)
- Community programs accessible to those with transportation/income barriers
- Higher quality food for those relying on food pantries
- Substance abuse treatment, especially in Lake County
- Programs targeting obesity reduction
- Programs that teach people how to cook/cook healthy foods
- Urgent care

Executive Summary (Cont'd.)

Since the last CHNA conducted in 2011, Key Stakeholders report an improvement in residents' health awareness and making better lifestyle choices, and this is most evident in area youth. There have also been a number of initiatives/programs implemented to address obesity, such as Fit Kids, Win With Wellness, the Live Well campaign, and the Prescription for Health program. Moreover, there has been strengthening of dialogue between public health and the hospital community. Additional initiatives include:

- Addressing poverty through the Employer Resource Network
- Converting private practices to employee practices where providers no longer have to worry about managing the payer mix
- Foundation endowment created when the hospital joined Spectrum – to be used for population health improvement programming
- Implementation of wellness and prevention programming such as breast cancer screening
- Increased collaboration and coordination between and among agencies to address community health issues and needs
- More community outreach programs
- Trail development

Executive Summary (Cont'd.)

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

- Several Stakeholders suggest that, even though coordination and collaboration among area service has improved over the last three years, further efforts are needed to maximize the effectiveness of current services and to improve service provider/patient relationships, while creating more client-centered services during "front line" interactions
- Implementing telemedicine and telepsychiatry
- Making programs accessible to all residents including those with limited incomes and/or means of transportation
- Finding creative ways to secure funding for health and health care initiatives
- Fostering partnerships between the hospital and dentists and chiropractors
- More widespread partnering between the hospital and other community organizations in general
- Adding a Spanish speaking employee for obstetrics patients in Oceana County
- Incorporating further plans for health-promoting public spaces during city/town planning (e.g., biking/walking paths) as well as increased access to exercise facilities, particularly in the winter months
- Including more community residents is needed in health care planning and decision making
- Providing more prevention education
- Increasing awareness of existing programs and services
- Creating a culture of health mindset early on in the life cycle by working closely with families and schools
- Offering more community exercise programs
- Prioritizing creative transportation ideas/services, investigate possible grant opportunities, and reallocating resources similar to what was done in Lake County

Executive Summary (Cont'd.)

Community members (both residents and health care professionals) suggested strategies to improve the health care landscape (cont'd.):

- Making better use of services and programs that are currently in place – through increased access (e.g., transportation; flexible hours; outreach services to rural areas), increased awareness among residents about available services, and stronger partnerships among existing services/providers
- Finding ways to offer more affordable health care (e.g., offering sliding scale fees)
- Increasing mental health services (particularly outpatient services) and substance abuse services (because of high co-morbidity)

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 – **Strengths**

Health Care Access

- ✓*Very good health resources, services, and programs in Mason County*
- ✓*Key Informants see top services as in-home care, nursing home care, ophthalmology, orthopedics, and general surgery*
- ✓*More residents have health insurance and medical home (PCP) than MI/US*
- ✓*Proportion with health coverage significantly better than 2011*
- ✓*Fewer have had to forego medical care due to cost than MI/US*
- ✓*Health partnerships are collaborative and cooperative (but could do better)*

Health Indicators

- ✓*Lower infant mortality rates (Mason, Lake) than MI/US*
- ✓*Proportion of low birth weight lower in Mason County than MI/US*
- ✓*Death rates from heart disease lower than in Mason and Oceana counties compared to MI/US*
- ✓*Mental health better than MI/US*
- ✓*High satisfaction with life, higher than MI/US, significantly better than 2011*
- ✓*Strong social and emotional support, better than MI/US/peer counties*
- ✓*Prevalence of overweight adults lower MI/US*
- ✓*Lower prevalence of chronic disease such as asthma and stroke compared to MI/US*
- ✓*Prevalence of asthma and arthritis significantly lower than 2011*

Risk Behaviors

- ✓*Lower prevalence of youth risk behaviors such as smoking and binge drinking compared to MI/US, and lower prevalence of marijuana use vs. US*
- ✓*Lower prevalence of adult heavy drinking and binge drinking compared to MI/US, both significantly lower than 2011*
- ✓*Youths more active and consume more fruits and vegetables than MI/US*
- ✓*Lower prevalence high cholesterol than MI/US and better than 2011*

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

Social Indicators

- ✓*Lower violent crime rates than MI/US*
- ✓*Lower homicide rates than MI*
- ✓*Access to parks better than peer counties*
- ✓*Safe, walkable, and family-friendly community*
- ✓*Active organizations that promote health - Fitness centers, senior centers, beaches, trails, parks, Lake Michigan, Hamlin Lake, state park*
- ✓*Caring and compassionate community*
- ✓*Strong volunteer force*

Preventive Practices

- ✓*Most women 40+ have mammograms and have timely ones more than MI*
- ✓*Having a routine checkup better than MI/US*
- ✓*Higher proportion of immunized children than MI/US*
- ✓*Majority have routine checkups and health screenings/tests*
- ✓*Prostate and colorectal cancer screenings higher than MI*
- ✓*Flu vaccines for 65+ higher than MI/US*
- ✓*Almost all pregnant woman have prenatal care and at least two-thirds begin in the first trimester*

Executive Summary – **Opportunities for Improvement**

Health Care Access

- ✓*Even though more insured, high deductibles and co-pays preventing many residents from utilizing coverage*
- ✓*Far fewer PCPs per capita than MI, especially in Lake County*
- ✓*Lack of adequate mental health care services in general and those that accept multiple forms of insurance*
- ✓*Lack of affordable oral health care and available dentists for uninsured, low income, and Medicare/Medicaid residents*
- ✓*Lack of health care access for unemployed, uninsured, and Medicare/Medicaid residents*
- ✓*Key Informants report a lack of services such as dermatology, mental treatment for mild to severe, oral surgery, substance abuse treatment, and urgent care*
- ✓*Greater proportions of patients receiving Medicaid in all three counties vs. MI/US*
- ✓*Need for more focus on prevention and wellness, self-care, and general health literacy through community programming*
- ✓*Lack of programs/services for substance abuse in general and those that accept multiple forms of insurance*
- ✓*Not enough health care services to meet community demand for uninsured residents*
- ✓*Shortage of physicians accepting Medicare/Medicaid, and a shortage of specialists*
- ✓*Transportation continues to be a barrier to access*

Health Indicators

- ✓*Life expectancy rates slightly lower than US for both men and women*
- ✓*Age adjusted mortality rate higher in Mason and Lake County than MI/US*
- ✓*Age adjusted mortality rate higher in Oceana than US and infant mortality rate higher than MI/US*
- ✓*Proportion of births with low birth weight higher in Lake and Oceana County vs. MI/US*
- ✓*General health status and physical health worse than MI/US*
- ✓*Prevalence of adults with activity limitation higher than MI/US*
- ✓*Prevalence of chronic conditions such as diabetes, angina/CHD, and skin cancer higher than MI/US*
- ✓*Cancer diagnosis rates lower in Mason County than MI/US but cancer death rates higher than MI/US*
- ✓*Death rates from cancer and heart disease are higher in Lake County vs. MI/US*
- ✓*Death rates from Chronic Lower Respiratory Disease (CLRD) higher in Mason and Lake counties vs. MI/US*
- ✓*One in three youths reporting depression, as high or higher than MI/US*
- ✓*Prevalence of youths attempting suicide higher in Oceana County than MI/US*
- ✓*Prevalence of adult obesity higher, and prevalence of adults at healthy weight lower, than MI/US*
- ✓*Key Informants consider obesity to be the top health issue in the region, but are dissatisfied with the community response to the condition*
- ✓*Youth obesity rates higher than MI/US*

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

Social Indicators

- ✓*Higher child abuse/neglect rates for all three counties compared to MI/US*
- ✓*Unemployment rates for all three counties higher than US and two of the three higher than MI*
- ✓*Unemployment rate in Mason County higher than peer counties*
- ✓*Mason County worse than peer counties with regard to on-time high school graduation rates*
- ✓*Poverty rates higher in all three counties than US and two of the three higher than MI*
- ✓*Proportion of children in poverty higher in all three counties than MI*
- ✓*More students eligible for free/reduced lunch than MI/US*
- ✓*At least three-fourths of single female families with children under 5 live in poverty, higher rates than MI/US*
- ✓*Proportion of children age 1-4 receiving WIC is higher in Mason County vs. MI*
- ✓*Proportion of Medicaid paid births higher in all three counties compared to MI*
- ✓*In general, adults are less educated (more have only high school education, fewer have college/graduate degrees) than MI/US*

Risk Behavior Indicators

- ✓*Fewer adults physically active compared to MI/US**
- ✓*Prevalence of high blood pressure higher than MI/US*
- ✓*Proportion of pregnant woman who smoke during pregnancy higher in all three counties compared to MI/US, Lake County far higher*
- ✓*Teen births rates higher than MI/US*
- ✓*Teens more sexually active in Lake and Mason counties compared to MI/US*
- ✓*Lack of adequate fruits and vegetables in diets of both youth and adults, combined with a lack of affordable, healthy food*
- ✓*Prevalence of adult smoking higher than MI/US*
- ✓*Lack of personal responsibility and motivation to engage in behavioral changes*
- ✓*Key Informants consider substance abuse of both licit (prescription drugs, alcohol, tobacco) and illicit drugs to be the top health behavior issue in the region and they are dissatisfied with the community response to these issues*

Preventive Practices

- ✓*Screening for cervical cancer (both ever and timely) worse than MI*
- ✓*Further, screenings for breast, cervical, prostate, and colon cancer all down from 2011*
- ✓*One in three have not visited dentist in past year for a cleaning, worse than MI/US*
- ✓*Proportion of 65+ vaccinated against pneumonia lower than MI/US*

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

Key Findings

Health Care Access

+ Nine in ten adults in the SHLH area have health insurance, and nearly nine in ten have a medical home – both of these rates are higher than state and national averages. Health care coverage has expanded since 2011, largely due to the Affordable Care Act and the Healthy Michigan Plan.
- The SHLH area suffers from a shortage of providers and services, and Key Stakeholders agree that existing programs and services are limited in their ability to meet the needs and demands of community residents.
- The area has far fewer primary care physicians per capita than Michigan as a whole. Lake County faces a particularly stark shortage, with fewer than one-fourth the number of PCPs per capita compared to Michigan overall.
- In addition, the area lacks mental health and substance abuse services, as well as local access to medical specialists. In Lake County, dental care is also lacking.
- Further, even though more than one in five residents has Medicaid, provider options for this group are especially limited.
- 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.

Key Findings (Continued)

Health Care Access (Continued)

- 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.
- Transportation is another major barrier, particularly with Mason County having no public transportation system.
+ Key Informants find the SHLH area strong in services such as in-home care, nursing home care, ophthalmology, orthopedics, and general surgery.
- Conversely, Key Informants see a need for dermatology, mental health treatment from mild to severe, oral surgery, substance abuse treatment, and urgent care.
- Further service gaps identified by health care workers as most critical include programs focusing on prevention and wellness, programs targeting obesity, and a general lack of primary care, dental care, mental health care, and substance abuse treatment for the underserved/vulnerable population (uninsured, underinsured, Medicaid, low income).
- While Key Stakeholders and Key Informants are cognizant of service gaps, they also stress that existing programs and services could be better utilized by: (1) increasing awareness of their existence, how they work, and who they serve; (2) making transportation available to all residents; (3) enhancing service hours to enable more residents to access services; and (4) increasing coordination among providers, agencies, and community programs that support health.

Key Findings (Cont'd.)

Health Status

+ SHLH area adults report higher levels of life satisfaction than those in Michigan and the U.S., and this measure is significantly better than 2011.
+ Area adults also report strong social and emotional support networks and better than MI, the U.S., and peer counties.
- While fewer adults report poor mental health compared to Michigan overall, almost one in five report mild to severe psychological distress. In addition, youth mental health is a significant concern, with roughly one in three youths reporting depression.
- Worse, four in ten adults classified as having "mild to severe psychological distress" and/or "poor mental health" do not receive medication or treatment for their condition.
- Life expectancy among area residents is lower than the national averages, and a higher proportion of adults report fair or poor overall health and poor physical health compared to the state and nation.
- Age adjusted mortality rates are also higher in Lake and Mason counties than in Michigan and the U.S.
- One-third of adult residents are obese, and another third are overweight, putting healthy weight rates below the state and nation.

Key Findings (Cont'd.)

Health Status (Cont'd.)

- \- Youth obesity rates are higher than state and national rates, especially in Lake County, where nearly one in four youth are obese.
- \- Key Informants consider obesity to be the top health issue in the SHLH area and they believe the community has inadequately addressed this problem.
- \+ Infant mortality rates are lower in Lake and Mason counties compared to MI and the U.S.
- \+ The proportion of births with low birth weight is lower in Mason County compared to state or national averages.
- \- However, the proportion of births with low birth weight is higher in both Lake and Oceana counties compared to MI or the U.S.

Key Findings (Cont'd.)

Chronic Disease

+ Area adults have lower prevalence of asthma and stroke compared to those across the state and nation.
- However, rates of diabetes, angina/coronary heart disease, and skin cancer are higher than Michigan and the U.S.
- More than one in ten adults (13.1%) has diabetes, a rate higher than 2011.
+ The prevalence of adult asthma and arthritis is significantly lower than 2011.
- That said, three in ten adults have arthritis.
+ Cancer diagnosis rates are lower in Mason County vs. MI or the U.S.
- However, death rates from cancer are more prevalent in Lake and Mason counties than in the state and nation, as are Lake County heart disease deaths.
+ Death rates from heart disease are lower in Mason and Oceana County vs. MI or the U.S.
- Death rates from Chronic Lower Respiratory Disease (CLRD) are higher in Lake and Mason County compared to the state or the nation.

Key Findings (Cont'd.)

Clinical Preventive Practices

+ More than 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.
+ The majority of older adults recommended to receive cancer screening (breast, cervical, prostate, and colon) are doing so, and rates for appropriately timed mammograms, having a prostate cancer screening, and having a colon cancer screening in the past five years are better than the state and nation.
- However, fewer women are having appropriately timed (last three years) cervical cancer screening compared to the state as a whole.
+ Most adults age 65 or older have received a flu vaccine in the past year and the rates are higher than MI or the U.S. In addition, most have received a pneumonia vaccine at some time, although the rate is lower than MI or the U.S.
- Dental care lags behind the state and nation, with three in ten area adults having had no dental cleaning within the past year.
+ The proportion of immunized children is higher in the SHLH area compared to MI and the U.S.
+ Almost all pregnant women have prenatal care and at least two-thirds have care in the first trimester.

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 lack of energy, cost, and lack of 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

+ The SHLH area has lower rates of adult heavy drinking and binge drinking compared to the state and the nation, and these rates are significantly lower than 2011.
+ Fewer adults have high cholesterol compared to the state and nation, and the rate is lower than in 2011.
- On the other hand, more area adults have high blood pressure compared to Michigan and the nation overall.
+ Area youth are more active than those across the state and nation.
- However, area adults are far less active compared to those statewide or nationwide.* (see note/caveat, page 95)
- More than one in five area adults are smokers, a rate higher than statewide and nationwide rates. Further, smoking during pregnancy is more prevalent in all three SHLH area counties compared to Michigan in general.
+ Area youth participate less in risk behaviors such as smoking and binge drinking compared to youth across MI, and participate less in marijuana use vs. youth across the U.S.
- Nearly nine in ten area adults and two-thirds of area youth consume inadequate amounts of fruits and vegetables daily.

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, at least a strong association, 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 free of psychological distress
  - Be satisfied with life
  - Receive adequate social and emotional support
  - Have health coverage and a personal health care provider
  - Avoid visiting the ER/ED
  - Exercise adequately
  - Refrain from smoking cigarettes
  - Consume adequate amounts of fruits and vegetables
  - Be screened at appropriate intervals for cervical, prostate, and colon cancer
  - Visit a dentist and have their teeth cleaned
  - Avoid chronic health conditions such as cancer, COPD, diabetes, and heart disease
- The link between both education and income and health outcomes goes beyond the direct relationship. Those in the very bottom groups, for example, having no high school education and/or earning less than $20K in household income, are most likely to experience the worst health outcomes.

Summary Tables – **A Comparison of Mason County to Peer Counties**

	Better (Most Favorable Quartile)	Moderate (Middle Two Quartiles)	Worse (Least Favorable Quartile)
MORTALITY	Unintentional injury (including motor vehicle)	Cancer deaths	Alzheimer's disease deaths
		Chronic kidney disease deaths	
		Chronic lower respiratory deaths (CLRD)	
		Coronary heart disease deaths	
		Diabetes deaths	
		Female life expectancy	
		Male life expectancy	
		Motor vehicle deaths	
		Stroke deaths	

	Better (Most Favorable Quartile)	Moderate (Middle Two Quartiles)	Worse (Least Favorable Quartile)
MORBIDITY	Cancer	Adult diabetes	Adult overall health status
	Syphilis	Adult obesity	Alzheimer's disease/dementia
		Gonorrhea	Older adult depression
		HIV	Preterm births
		Older adult asthma	

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

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

ACCESS

Better (Most Favorable Quartile)	Moderate (Middle Two Quartiles)	Worse (Least Favorable Quartile)
	Cost barrier to care	
	Older adult preventable hospitalizations	
	Primary care provider access	
	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 inactivity		Adult smoking
		Teen births

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

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

SOCIAL FACTORS

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

ENVIRONMENT

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

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

DETAILED FINDINGS

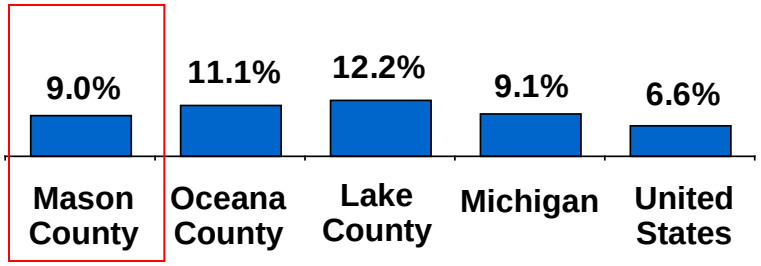
Secondary Data Sources

Social Indicators

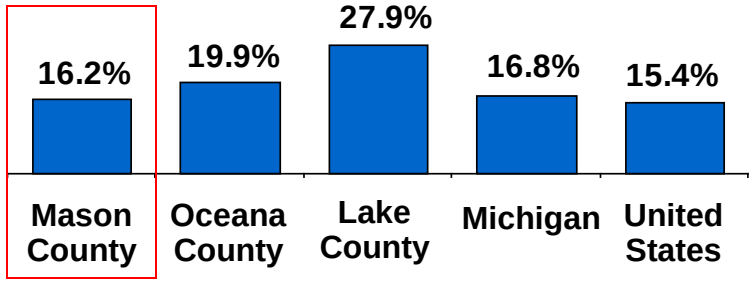
While the unemployment rate in Mason County is on par with the state, the rate is much higher in both Oceana and Lake counties compared to Michigan or the U.S. Moreover, one in five Oceana County residents and more than one in four Lake County residents live in poverty, a rate much higher than the state or nation. The proportion of people living in poverty in Mason County is lowest of the three counties representing the SHLH area, but still higher than the U.S.

Unemployment and Poverty Rates

Population Age 16+ Unemployed and Looking for Work



Percentage of People in Poverty

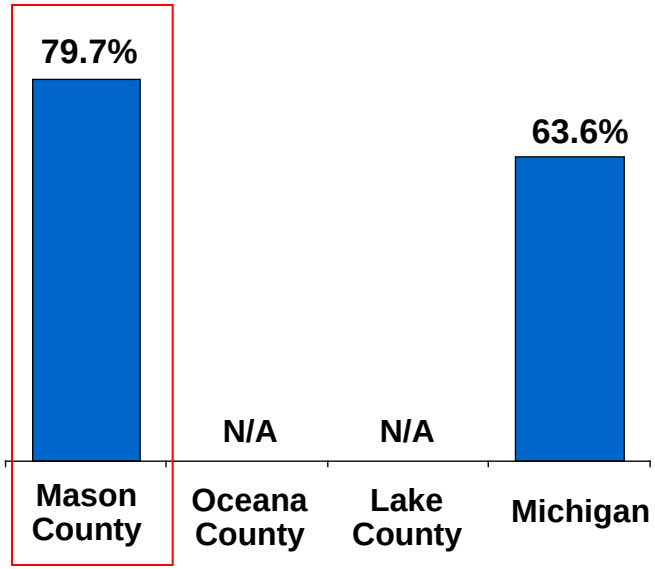


Source: Bureau of Labor Statistics, Local Area Unemployment Statistics, County Health Rankings. 2009-2013 American Community Survey 5-Year Estimates. Counties and MI and US 2014. Data compiled from various sources and dates.

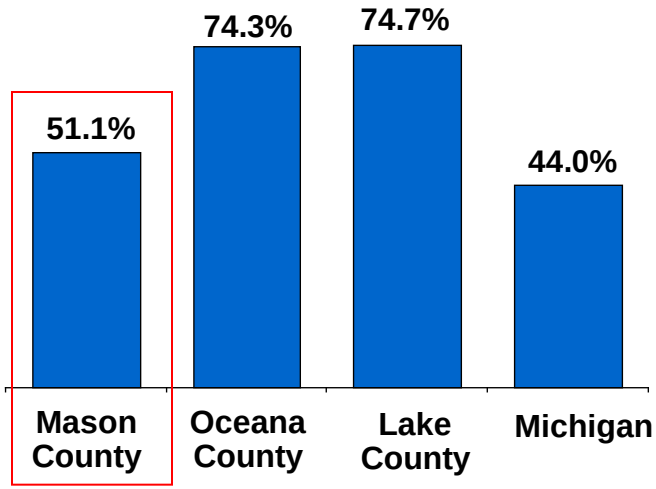
The proportion of children aged 1-4 receiving WIC is higher in Mason County compared to the state. Data for Oceana and Lake counties are unavailable. The proportions of Medicaid paid births are much higher in Oceana and Lake counties and slightly higher in Mason County compared to the proportion in Michigan.

Children Born Into Poverty

Children Ages 1-4 Receiving WIC (2013)



Medicaid Paid Births (2012)



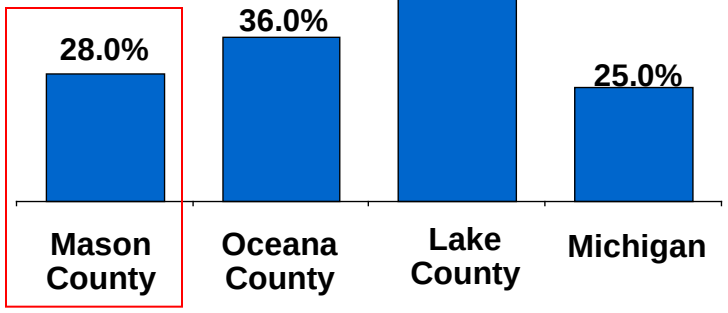
Source: Kids Count Data Book. Counties and MI 2013.

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 Oceana and Lake, are not available.

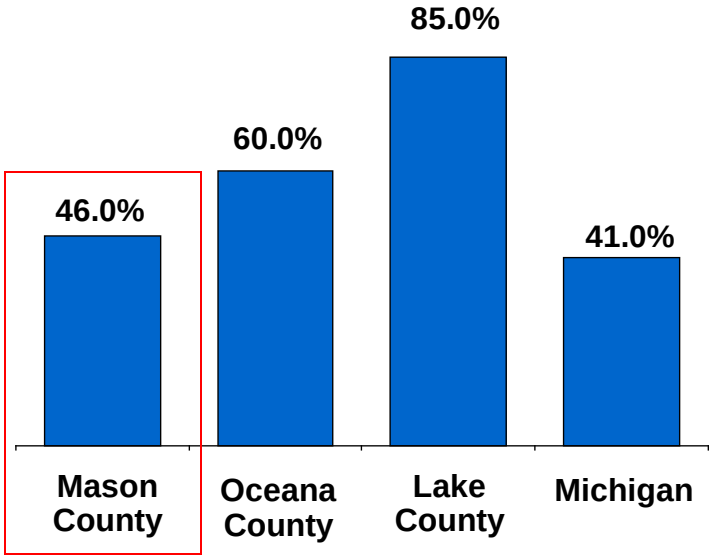
Compared to MI, the proportion of children living in poverty is greater in the three SHLH area counties, especially Lake and Oceana. The proportion of students eligible for free or reduced price school lunches is somewhat higher in Mason County compared to the state; Lake and Oceana percentages are substantially higher than the state.

Children Living in Poverty

Percentage of Children (< Age 18) in Poverty



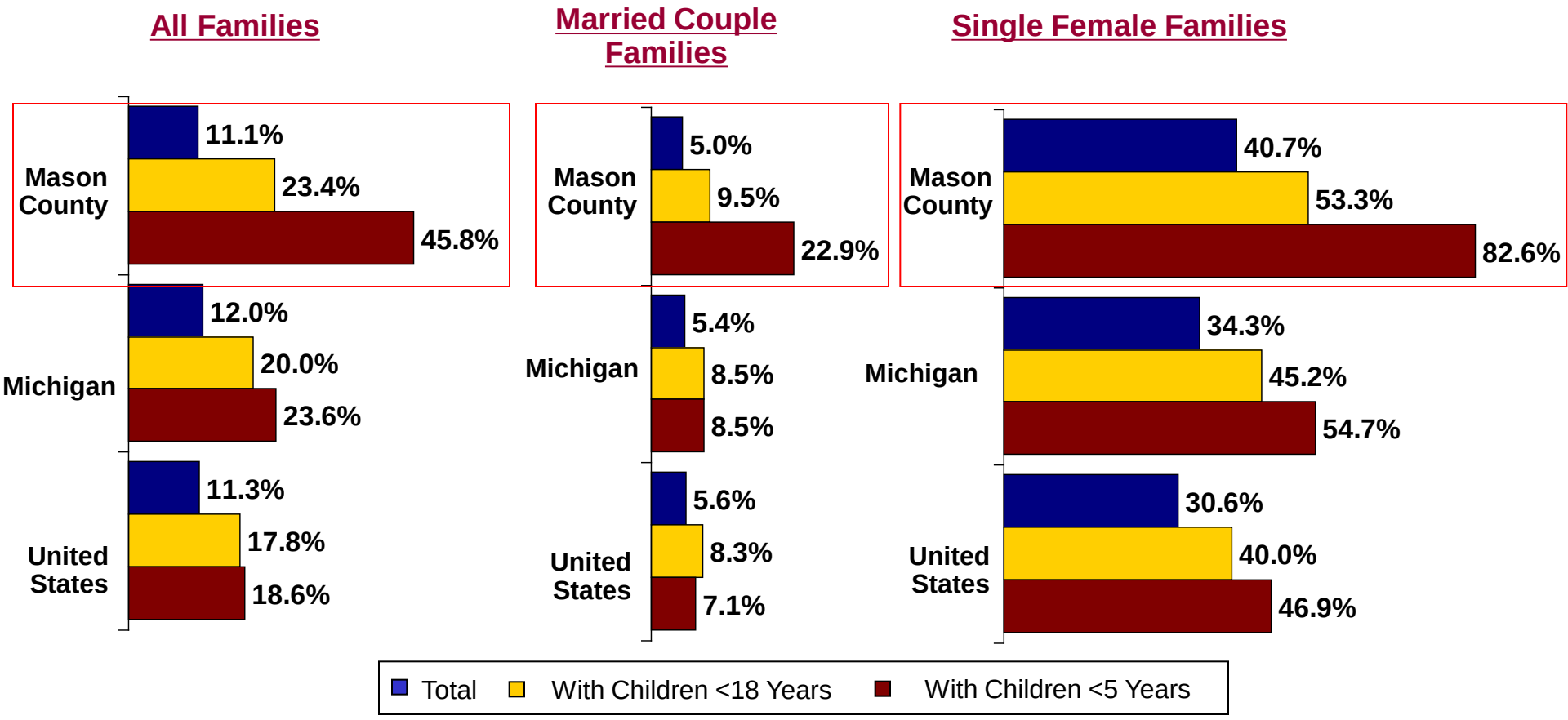
Percentage of Students Eligible for Free/Reduced Price School Lunches



Source: 2014 County Health Rankings

In general, more families with children under age 18 live below the poverty line in Mason County compared to the state or nation. Further, poverty rates for single female families with children are much higher in Mason County than in MI or the U.S. For example, over half (53.3%) of single female families with children under 18 live in poverty in Mason County vs. 45.2% for MI and 40.0% for the U.S. More than eight in ten single female families with children under age 5 in Mason County live in poverty.

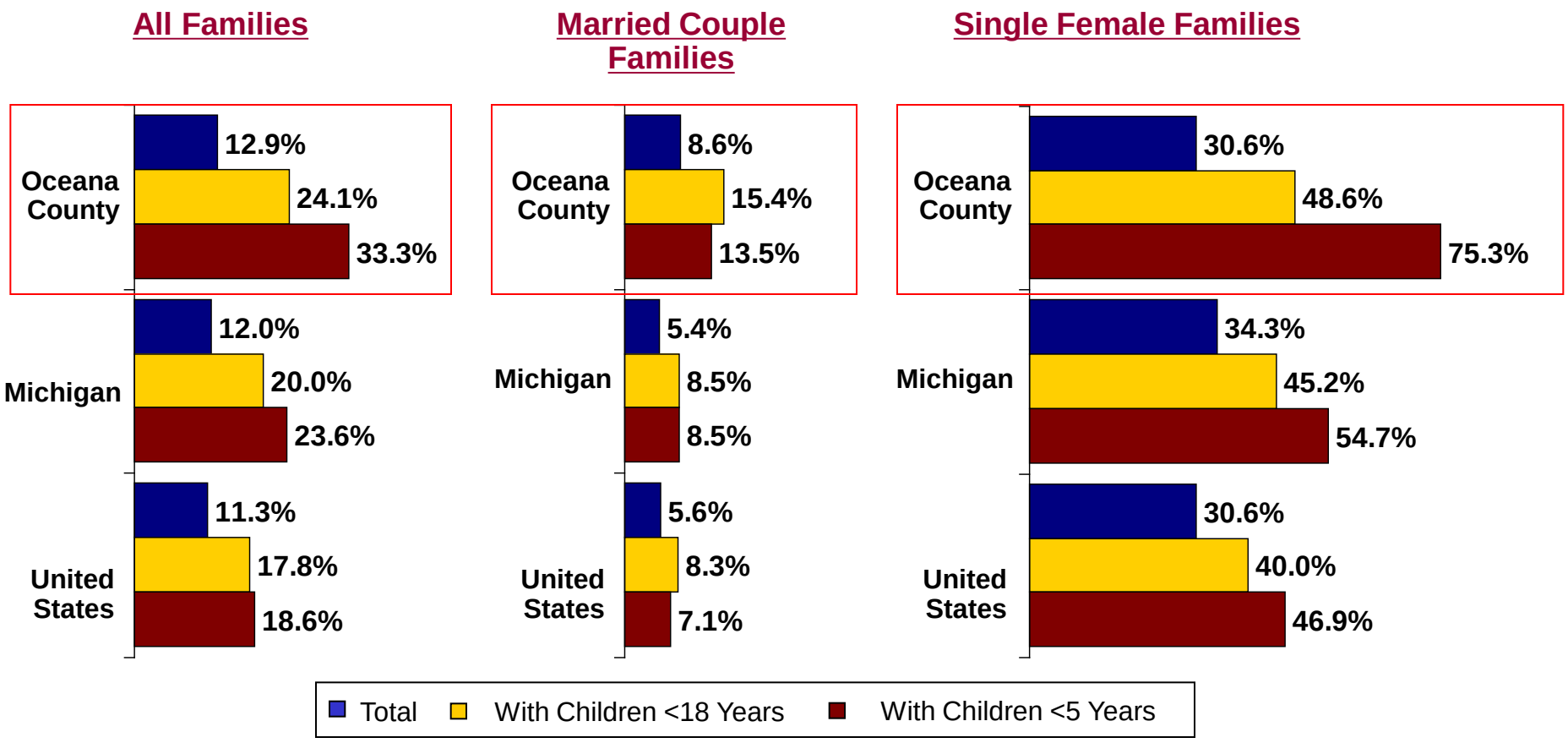
Poverty Status of Families by Family Type in Mason County (% Below Poverty)



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 Oceana County is higher than in Michigan and the U.S. Further, poverty rates for Oceana County married couples with children and single female families with children are higher, and in some cases much higher, than state or national rates. Three-fourths (75.3%) of single female families with children under age 5 in Oceana County live in poverty.

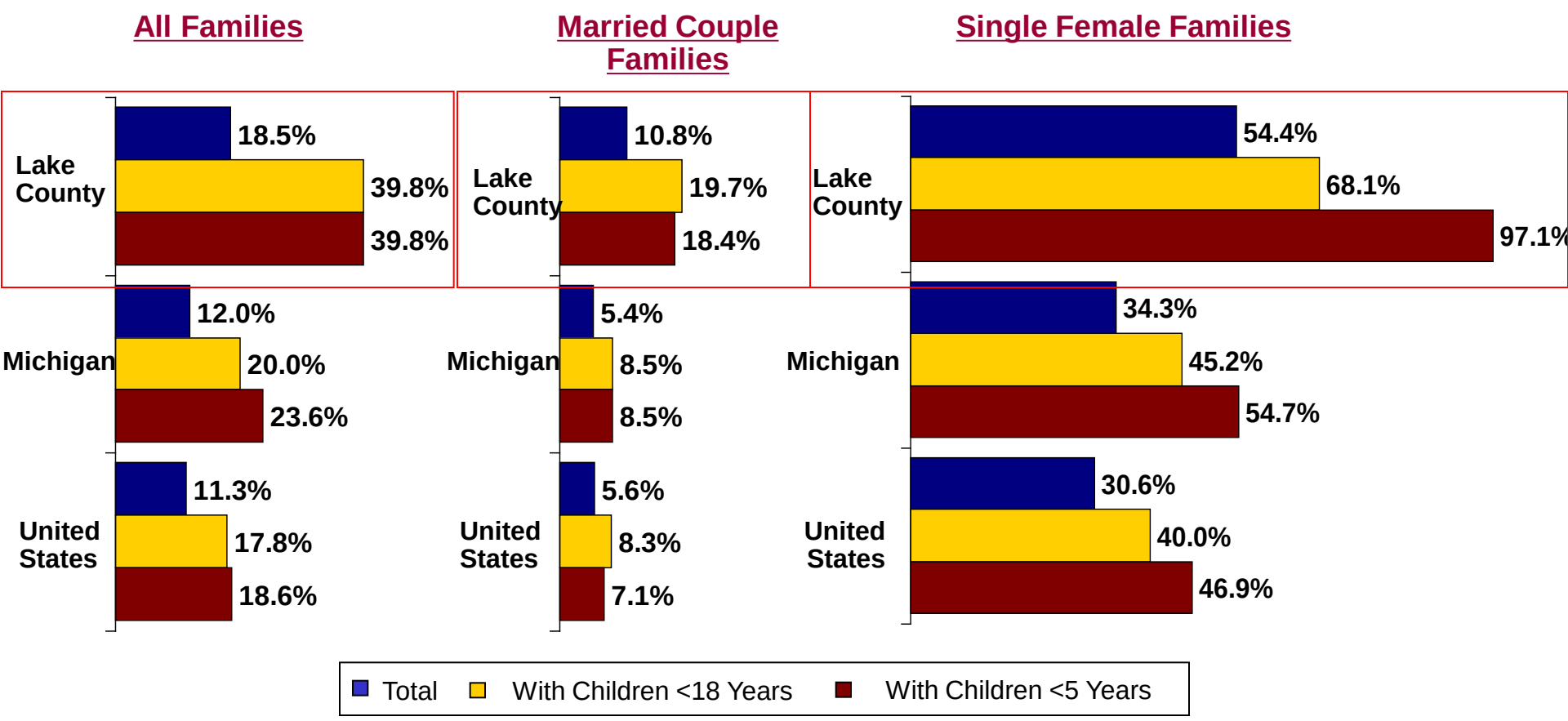
Poverty Status of Families by Family Type in Oceana County (% Below Poverty)



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

The proportion of families living in poverty in Lake County is higher than in MI and the U.S. Four in ten Lake County families with children live in poverty. The county exceeds both the state and nation in families living in poverty with children under 18 years of age. Most alarmingly, almost all (97.1%) single female families with children under age 5 live in poverty.

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 Oceana County and Lake County men and women have not graduated from high school in comparison to Michigan and the U.S. All three counties have lower proportions of residents with Bachelor's and higher degrees than the state or nation. The greatest disparity in Bachelor degrees is seen between Lake County residents and their state and national peers.

Educational Level Age 25+

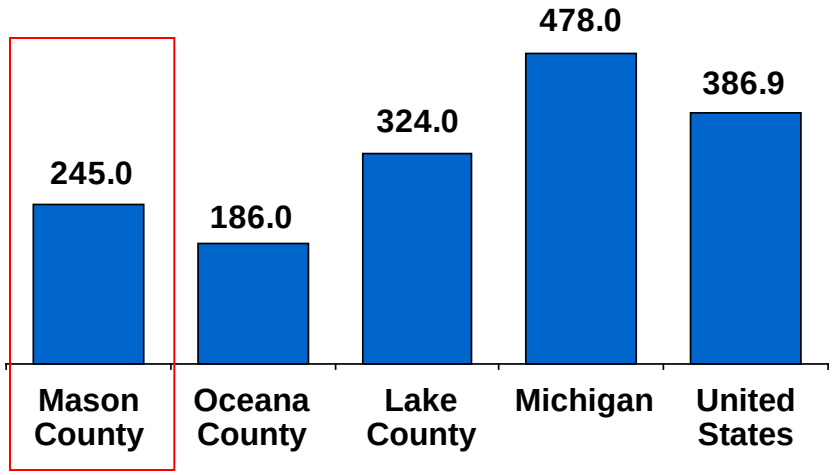
	Men					Women				
	Mason	Oceana	Lake	MI	U.S.	Mason	Oceana	Lake	MI	U.S.
No Schooling Completed	0.7%	1.6%	1.2%	3.6%	1.4%	0.7%	1.5%	1.3%	1.0%	1.4%
Did Not Graduate High School	11.2%	15.0%	20.6%	8.4%	12.6%	8.4%	13.7%	16.0%	7.3%	11.4%
High School Graduate, GED, or Alternative	34.9%	37.7%	40.7%	30.9%	28.4%	33.6%	34.6%	41.5%	30.6%	27.2%
Some College, No Degree	26.1%	23.5%	24.3%	23.8%	20.8%	26.7%	22.7%	25.5%	24.2%	21.4%
Associate's Degree	7.5%	7.6%	4.6%	7.2%	7.2%	10.5%	12.1%	7.4%	9.5%	8.9%
Bachelor's Degree	12.5%	8.3%	5.6%	15.8%	18.3%	12.8%	10.0%	4.7%	15.7%	18.6%
Master's Degree	4.9%	4.2%	2.6%	6.9%	7.3%	6.1%	4.6%	3.2%	7.8%	8.5%
Professional School Degree	1.5%	1.2%	0.3%	2.1%	2.3%	0.6%	0.6%	0.1%	1.2%	1.6%
Doctorate Degree	0.7%	0.9%	0.0%	1.4%	1.7%	0.5%	0.3%	0.1%	0.7%	1.0%

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

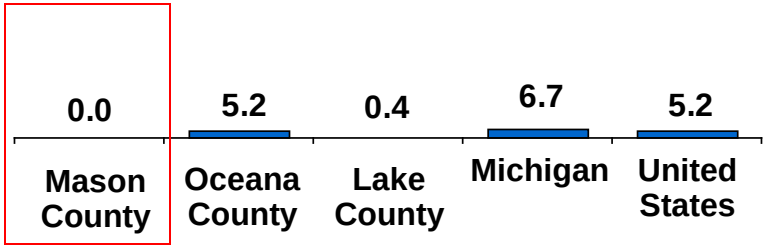
According to violent crime and homicide rates, Mason, Oceana, and Lake counties are safer communities than the state and nation overall. However, child abuse/neglect rates in Mason and Oceana counties are higher than the national average, and the rate in Lake County is alarmingly high.

Crime Rates

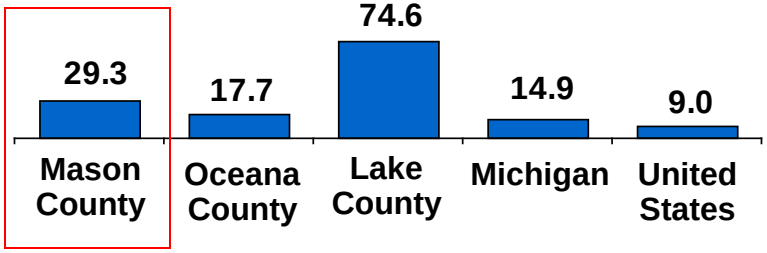
Violent Crime Rate Per 100,000 Population



Homicide Rate Per 100,000 Population



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

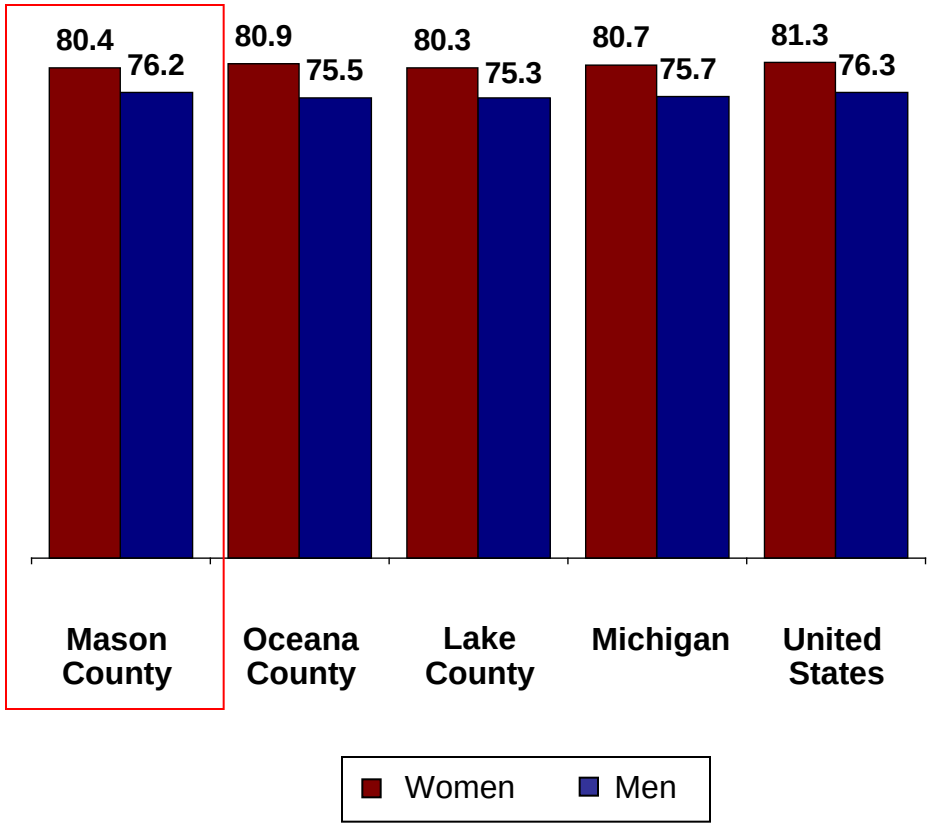


Source: County Health Rankings. Counties and MI 2013, US FBI Website 2012; MDCH, Division of Vital Records, Counties and MI 2012, United States Census Bureau 2012; Kids Count Data Book. 2012, 2013. Note: Data compiled from various sources and dates

Health Indicators

The average life expectancy for both men and women in Mason, Oceana and Lake counties is roughly on par with Michigan. However, life expectancies in all three counties are lower than the national averages.

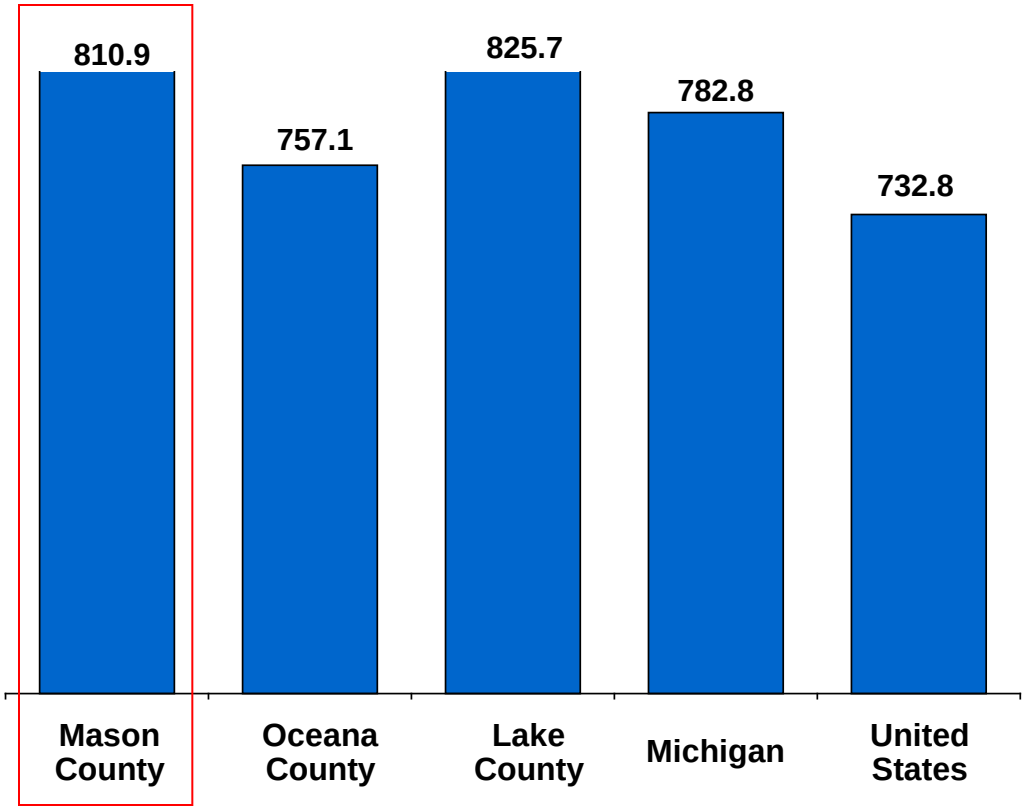
Life Expectancy (Average Age)



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

Mason, Oceana, and Lake counties have higher age adjusted mortality rates than the U.S. average. However, Oceana County has a lower age-adjusted mortality rate than the state, unlike Mason and Lake counties.

Mortality Rates, Age Adjusted Per 100,000 Population

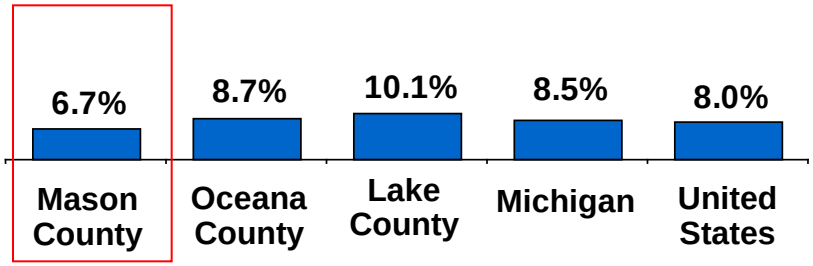


Source: Michigan Resident Death File, Vital Records & Health Statistics Section, Michigan Department of Community Health. Counties and MI 2013; US 2012;

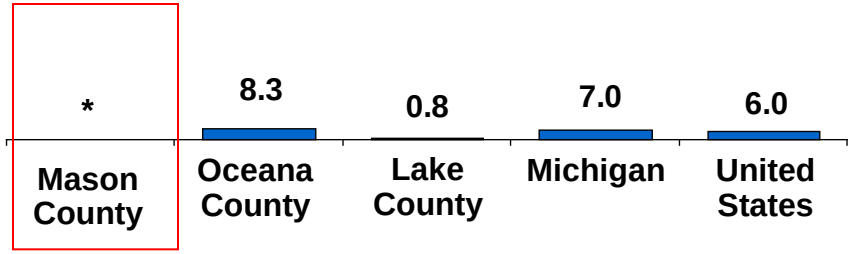
Mason County has a slightly lower proportion of live births with low birth weight than Oceana and Lake Counties, the state and nation. Lake County's infant mortality rate is significantly lower than that of MI or the U.S., and Oceana County's rate is slightly higher than both MI and the U.S.

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 – heart disease and cancer – are the same for all three counties, Michigan, and the U.S. Deaths from CLRD are over 60% more prevalent in Mason County than in the U.S. or Michigan. Further, kidney disease is the fifth leading cause of death in Oceana County but outside the top five in Mason and Lake counties, Michigan, and the U.S.

Top 5 Leading Causes of Death

	Mason County		Michigan		United States	
	RANK	Rate	RANK	Rate	RANK	Rate
Cancer	1	184.4	2	174.9	2	168.6
Heart Disease	2	170.0	1	197.9	1	173.7
Chronic Lower Respiratory Diseases (CLRD)	3	73.5	3	45.2	3	42.7
Diabetes Mellitus	4	*	7	15.5	7	21.5
Stroke	5	*	4	37.2	5	37.9

	Oceana County		Michigan		United States	
Heart Disease	1	170.1	1	197.9	1	173.7
Cancer	2	135.3	2	174.9	2	168.6
Unintentional Injuries	3	*	5	36.6	4	38.0
Chronic Lower Respiratory Diseases (CLRD)	4	*	3	45.2	3	42.7
Kidney Disease	5	*	8	13.5	9	13.4

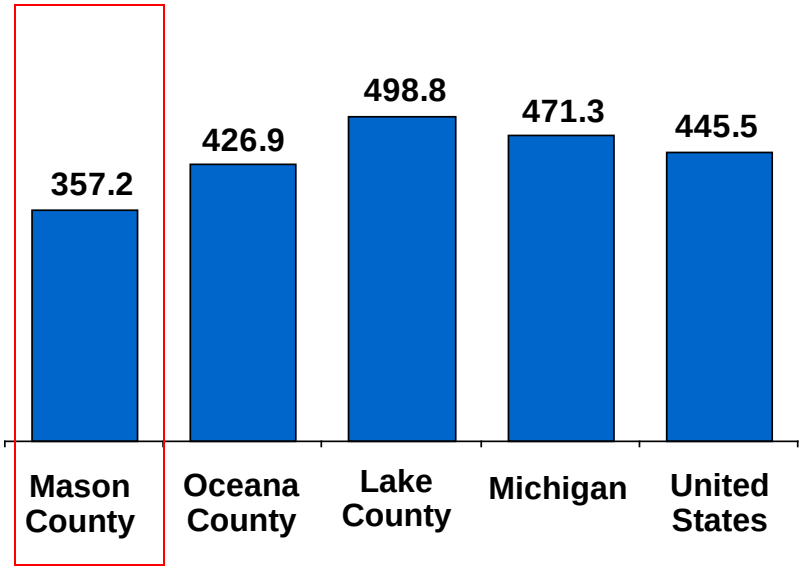
	Lake County		Michigan		United States	
Heart Disease	1	282.5	1	197.9	1	173.7
Cancer	2	179.3	2	174.9	2	168.6
Chronic Lower Respiratory Diseases (CLRD)	3	61.1	3	45.2	3	42.7
Diabetes Mellitus	4	61.1	7	15.5	7	21.5
Unintentional Injuries	5	61.1	5	36.6	4	38.0

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

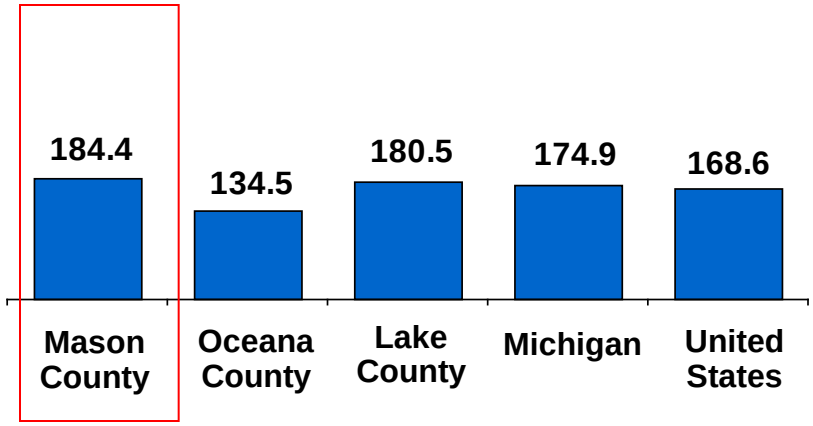
Compared to MI or the U.S., cancer diagnosis rates are lower in Mason and Oceana counties, while the Lake County rate is higher. In addition, the death rate is slightly higher for Mason and Lake counties compared to MI and the U.S., and is notably higher than that of Oceana County. These figures are key since it is an indication that local 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 Mason and Lake counties, followed by ***chronic obstructive pulmonary disease (COPD)*** and ***congestive heart failure***, the latter of which is the leading cause in Oceana County and in Michigan. ***Diabetes*** ranks fifth or sixth for preventable hospitalization in SHLH area counties and ranks sixth statewide.

Top 10 Leading Causes of Preventable Hospitalizations

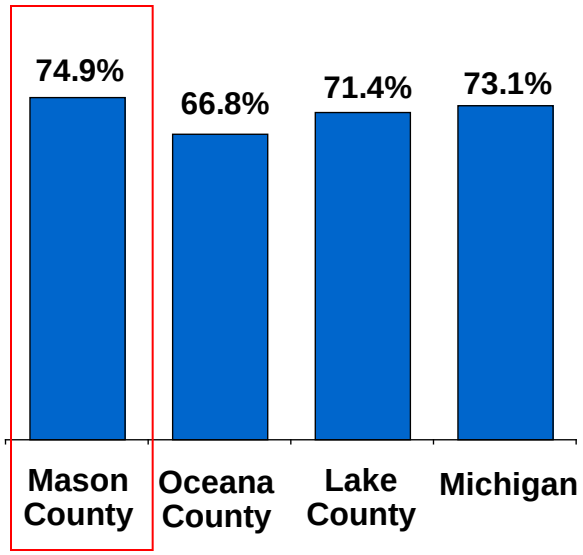
	Mason County		Oceana County		Lake County		Michigan	
	RANK	% of All Preventable Hospitalizations	RANK	% of All Preventable Hospitalizations	RANK	% of All Preventable Hospitalizations	RANK	% of All Preventable Hospitalizations
Bacterial Pneumonia	1	21.5%	2	10.7%	1	15.6%	2	10.7%
Chronic Obstructive Pulmonary Disease (COPD)	2	14.0%	3	9.8%	3	11.2%	3	9.8%
Congestive Heart Failure	3	13.5%	1	12.8%	2	15.3%	1	12.8%
Kidney/Urinary Infections	4	4.8%	4	7.1%	5	4.8%	4	7.1%
Diabetes	5	4.7%	6	5.6%	6	4.1%	6	5.6%
Cellulitis	6	4.5%	5	6.5%	4	6.1%	5	6.5%
Grand Mal and Other Epileptic Conditions	7	2.3%	8	3.2%	8	3.2%	8	3.2%
Gastroenteritis	8	1.3%	10	2.9%	10	2.2%	10	1.6%
Asthma	9	1.2%	7	5.3%	7	3.8%	7	5.3%
Severe Ear, Nose, & Throat Infections	10	1.1%	--	--	--	--	--	--
Convulsions	--	--	10	1.1%	--	--	--	--
Dehydration	--	--	9	2.2&	9	2.2%	9	2.2%
All Other Ambulatory Care Sensitive Conditions		30.9%		35.3%		31.5%		35.3%
Preventable Hospitalizations as a % of All Hospitalizations		18.5%		16.0%		20.9%		20.2%

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

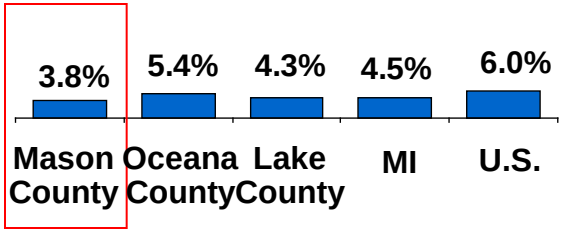
Mason and Lake counties are on par with Michigan in the proportion of women receiving prenatal care in the first trimester, while Oceana County lags behind. More importantly, most women have timely prenatal care, and the proportion of women having late or no prenatal care in the three county area is better than the national average. Oceana and Lake counties fully immunize the same proportion of children aged 19-35 months as the state. Mason County does a better job of immunizing children than Oceana and Lake counties, and all three counties exceed national rates.

Prenatal Care and Childhood Immunizations

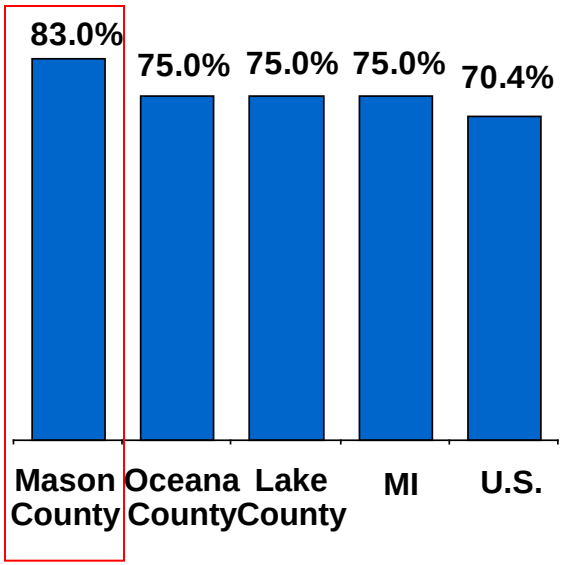
Proportion of Women Who Begin Prenatal Care in First Trimester



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



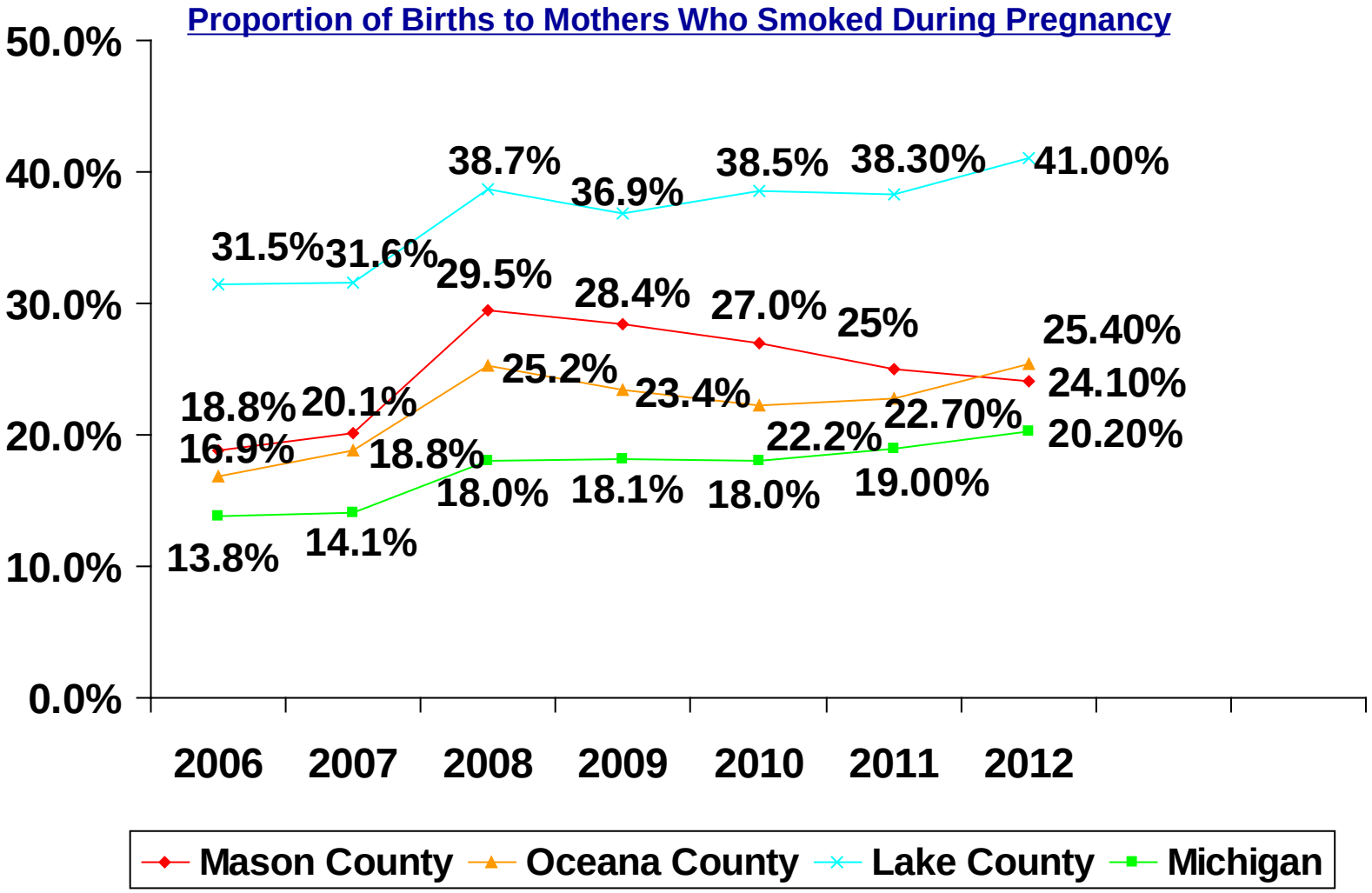
Proportion of Children Aged 19-35 Months Fully Immunized



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 Mason and Oceana County births to mothers who smoke is also higher than for Michigan. Although rates for Mason County have been steadily decreasing since 2008, rates for Oceana County and the state have been trending slightly upward since 2010.



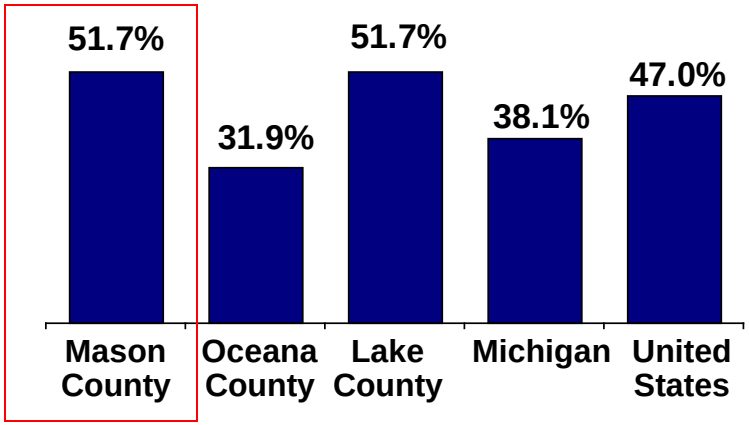
Source: Michigan League for Human Services; Mason and Oceana counties Health Profile, District Health Department #10, 2011 (2005-2008). Kids Count Data, 2009-2012.

Youth Risk Behaviors

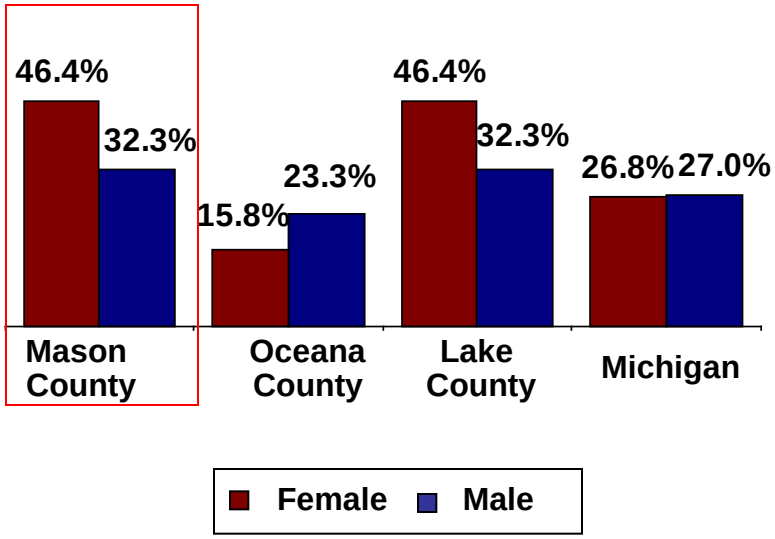
Teens in Mason and Lake counties are more likely to engage in sexual intercourse than teens in Oceana County, MI, or the U.S. Furthermore, almost half of female teens in Mason and Lake counties had sexual intercourse in the past three months, compared to only 15.8% of Oceana County female youths.

Teenage Sexual Activity

Youth Who Have Ever Had Sexual Intercourse



Youth Who Have Had Intercourse in Past 3 Months

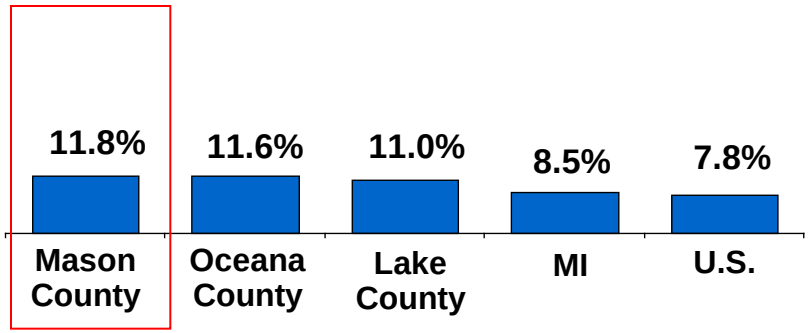


Source: Michigan YRBS; Mason, Oceana and Lake Co: MiPhy 2013-2014- Sexual Behavior. NOTE: YAS includes grades 8, 10, and 12, while MiPhy includes grades 9 and 11. MiPhy Data groups Lake and Mason Co. information together. MI & US Data: YRBS 2013

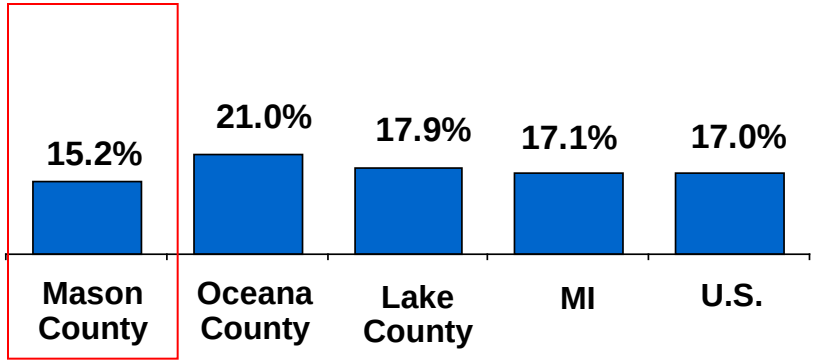
Teen births are slightly higher in Mason, Oceana, and Lake counties compared to Michigan or the U.S. Repeat teen births in Mason County are lower than both the state and national figures, while Oceana County rates of repeat teen births are higher.

Teenage Pregnancy

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



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

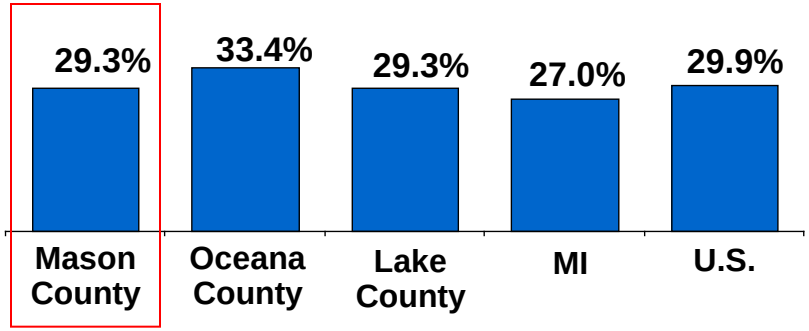


Source: MDCH Vital Records. Mason Co. and MI 2013. Kids Count Data Book. Counties, MI, and US 2012.

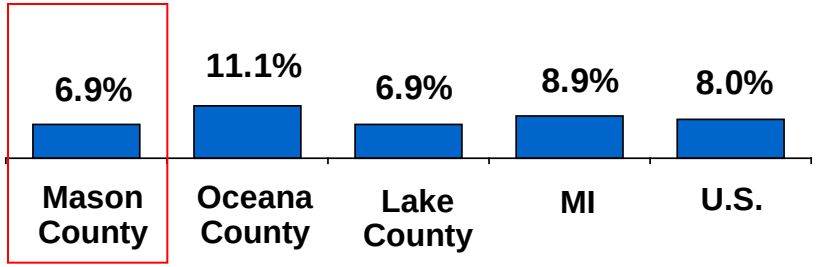
The prevalence of depression among youth is higher in the SHLH area than in Michigan, with approximately three in ten reporting depression. Youth suicide attempts are also less prevalent in Mason and Lake counties vs. the state or nation, but suicide attempts are distressingly high in Oceana County, with more than one in ten youths reporting an attempt 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

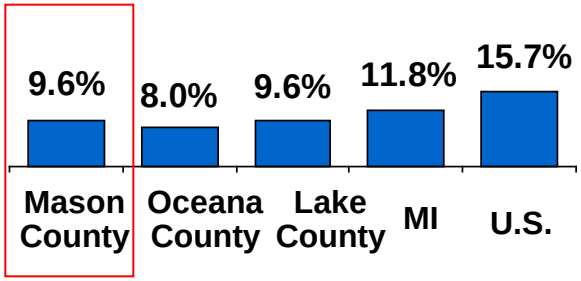


Source: MiPHY, 2013-2014, Mason and Lake reported together. National YRBS, 2013.

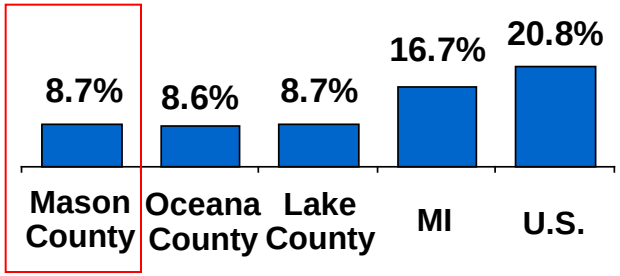
Far fewer youth in Mason, Oceana, and Lake counties currently smoke cigarettes or engage in binge drinking compared to youth across Michigan or the U.S. The percentage of youth reporting marijuana use in Mason and Lake counties is on par with MI but less than the U.S., while reported use among Oceana County youth is much lower compared to Mason and Lake counties, MI, and the U.S.

Tobacco, Alcohol and Marijuana Use Among Youth

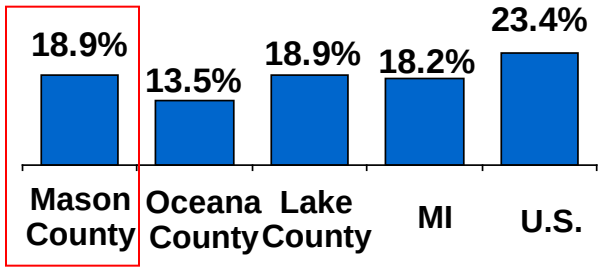
Proportion of Youth Who Report Current Smoking (Past 30 Days)



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



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

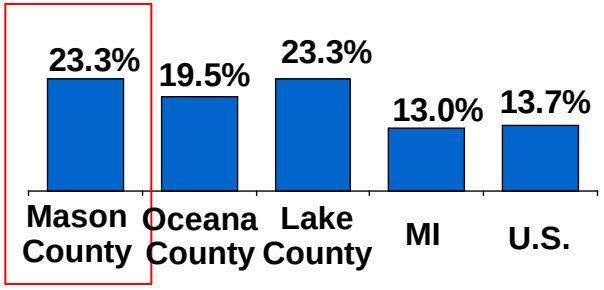


Source: MiPHY, Mason and Lake Counties reported together, 2013-2014. MI & US: Youth Risk Behavior Survey (YRBS), 2013.

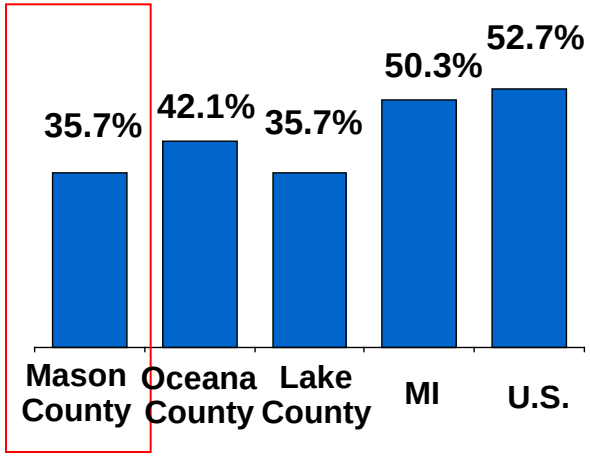
The proportion of obese youth in the SHLH area far exceeds that of the state or the nation. On the plus side, youth in Mason, Oceana, and Lake counties report higher levels of leisure time physical activity and higher fruit/vegetable consumption than their Michigan and U.S. peers.

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

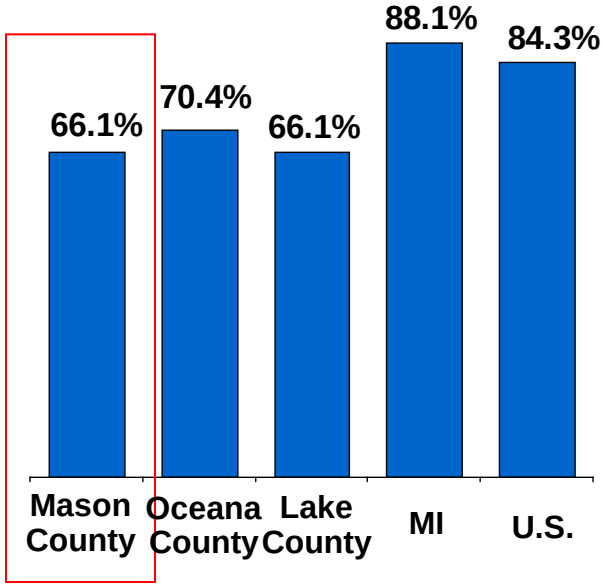
Youth Who Are Obese (> 95th Percentile BMI for Age and Sex)



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



Youth Reporting Inadequate Fruit & Vegetable Consumption (< 3-5 Servings Per Day in Past 7 Days)



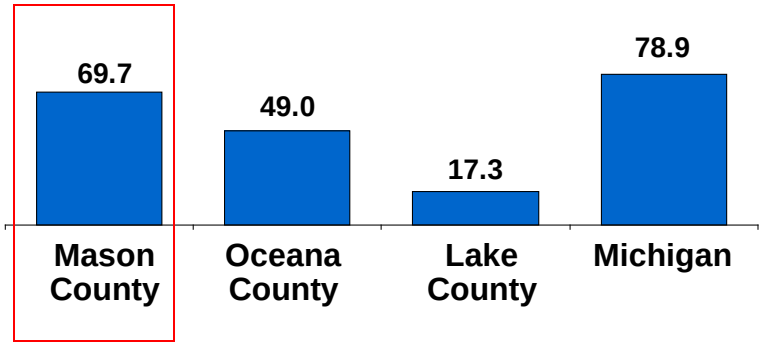
Source: Michigan Profile for Healthy Youth (MiPHY) 2013-2014 cycle. Mason and Lake Counties are reported in combined format. Counties: <5 Servings Fruit/Veg per day; MI and US from 2013 YBRS, < 3 Servings Fruit/Vegetable per day

Health Care Access

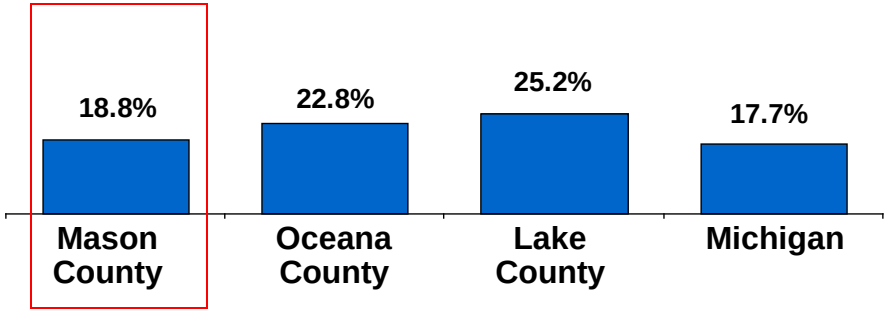
Mason, Oceana, and Lake counties have far fewer PCPs per capita compared to the state of Michigan. However, the greatest disparity is between Lake County and the state, where the latter has over four times as many PCPs per capita as the former. The proportion of residents with Medicaid for health care coverage is higher in all three counties compared to the state.

Primary Care Physicians and Medicaid Patients

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



Proportion of Residents Receiving Medicaid



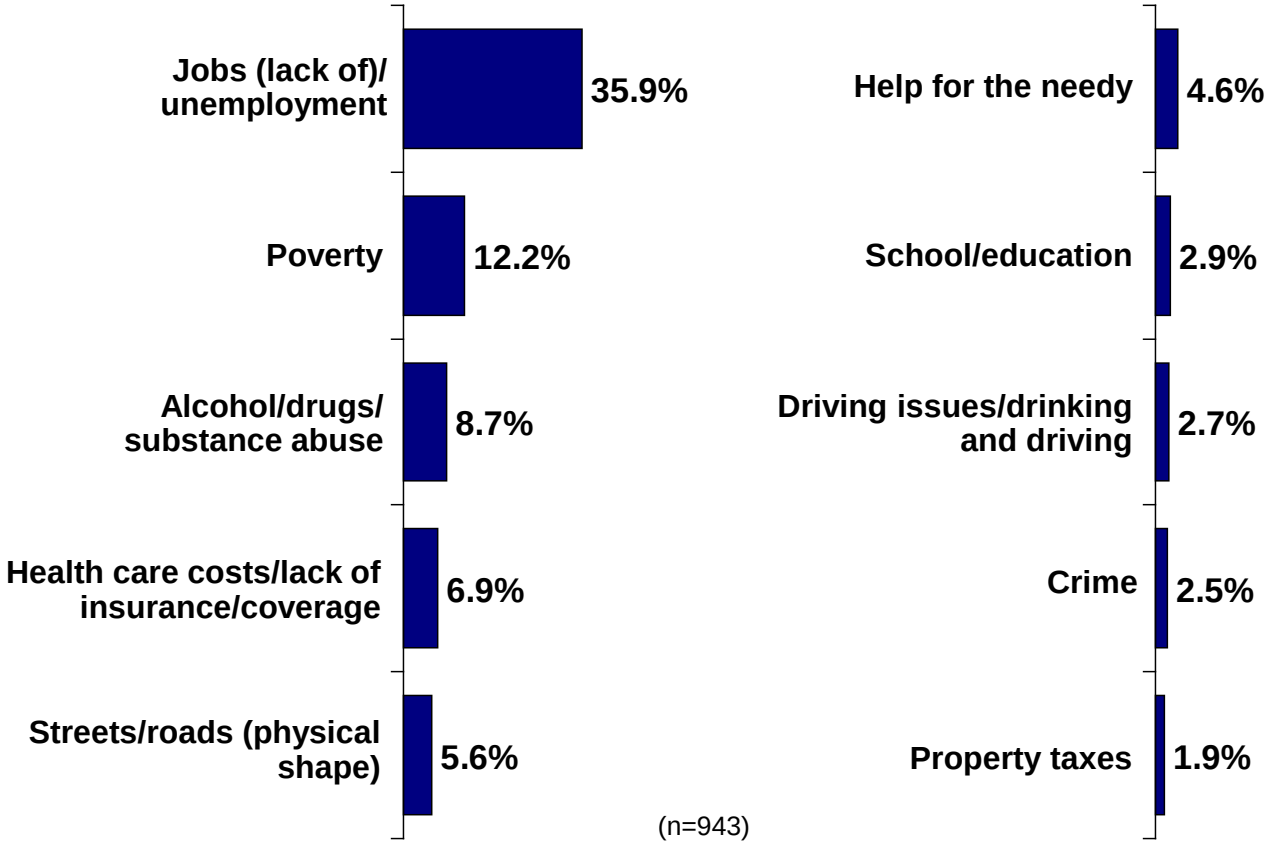
Source: PCP: County Health Rankings, 2013. Medicaid: US Census, Green Book (Dec 2014), 2014 estimate.

Behavioral Risk Factor Survey

Perception of Community Problems

When asked to give their top of mind response in addressing the community's most important problems, Spectrum Health Ludington Hospital (SHLH) area adults report a wide array of issues, with **lack of jobs or the economy** emerging as the top concern by far. Other problems include **poverty**, **substance abuse**, **health care costs or lack of health insurance**, and the **physical conditions of roads/streets**.

Top 10 Most Important Problems in the Community Today

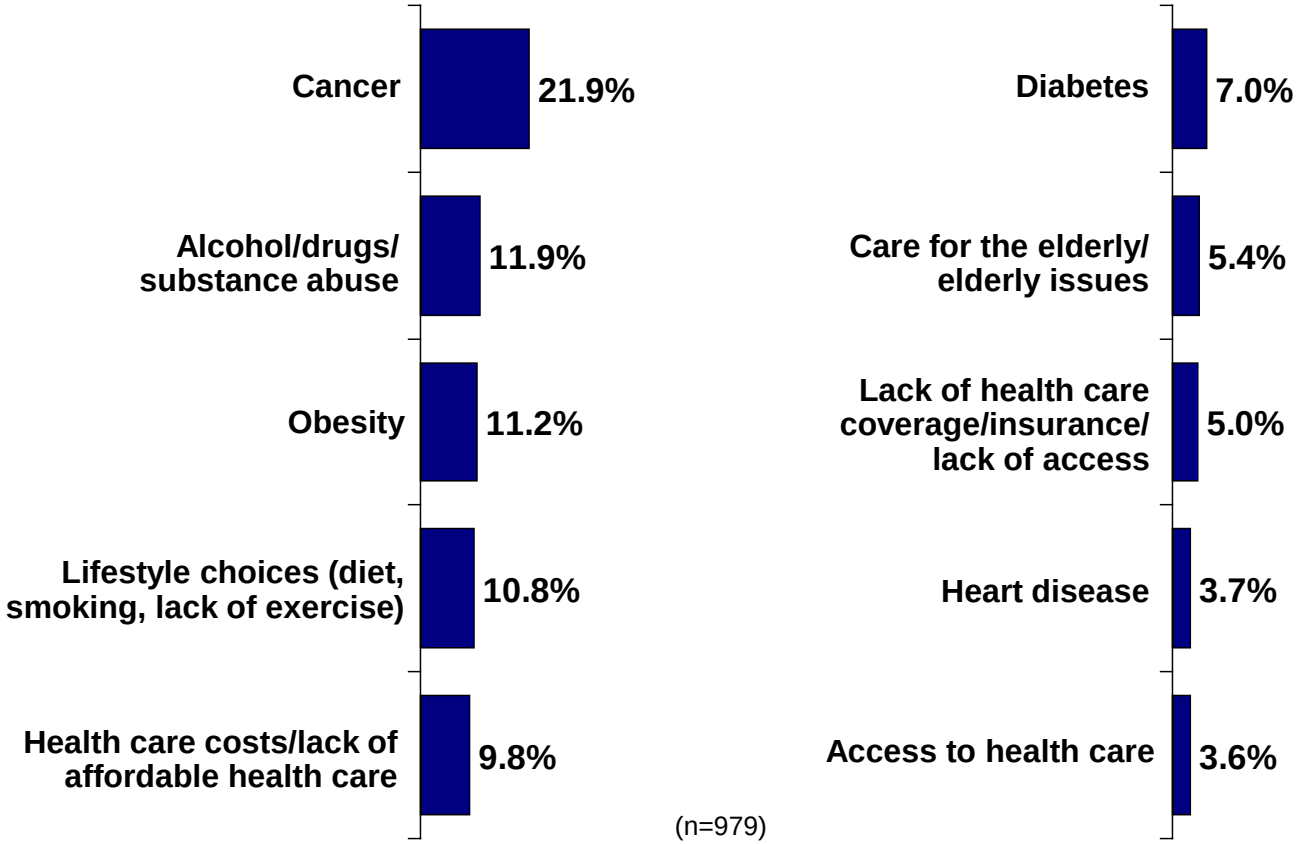


(n=943)

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 **substance abuse**, **obesity**, **lifestyle choices**, and **health care costs**. In addition to health care costs there is a general issue with **health care access** and this is exacerbated by a **lack of health care coverage/insurance**.

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



(n=979)

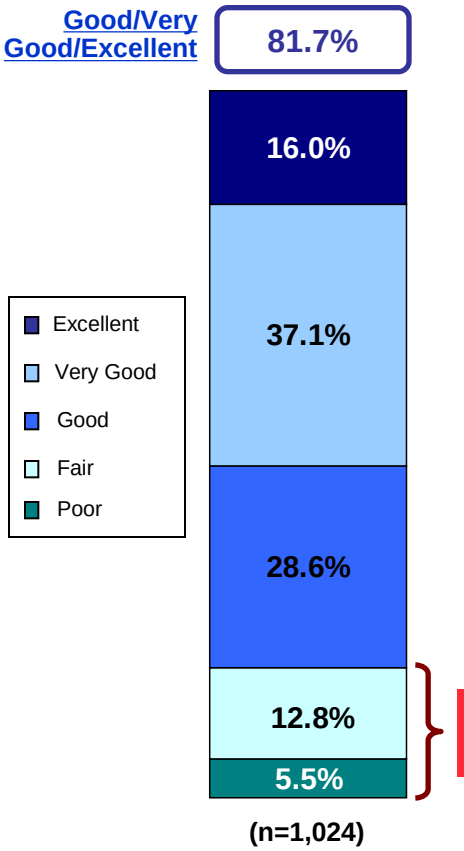
Q1.2: What do you feel is the most important health problem in your community today?

Health Status Indicators

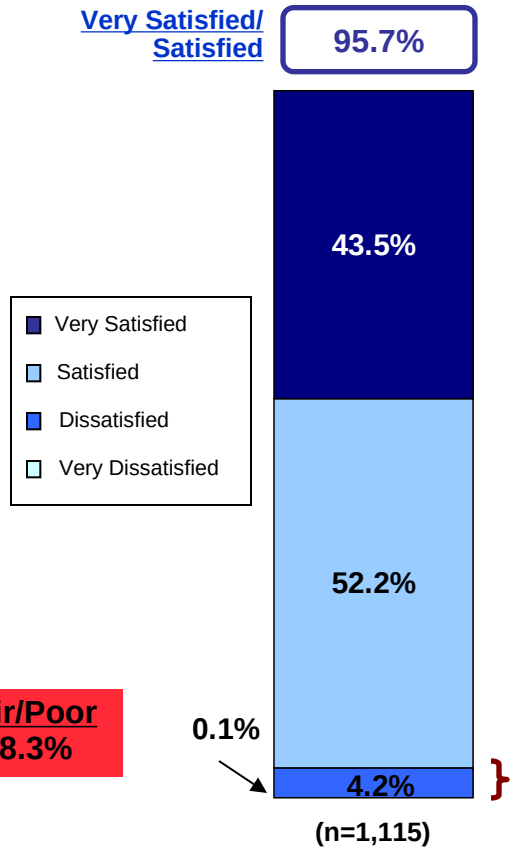
Eight in ten (81.7%) SHLH area adults cite good or better general health and 95.7% say they are satisfied with their lives. More than eight in ten say they usually or always receive the emotional support they need. Almost one in five report fair or poor health, 4.3% report dissatisfaction with life, and 5.6% rarely or never receive the emotional support they need.

Perception of General Health, Life Satisfaction, and Social Support

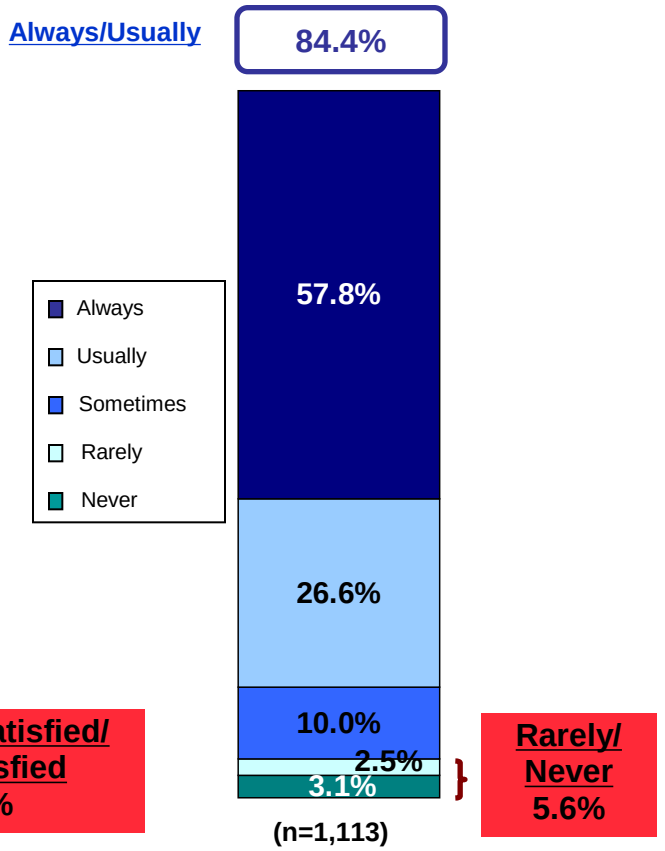
Perception of General Health



Overall Satisfaction with Life



Frequency of Emotional Support

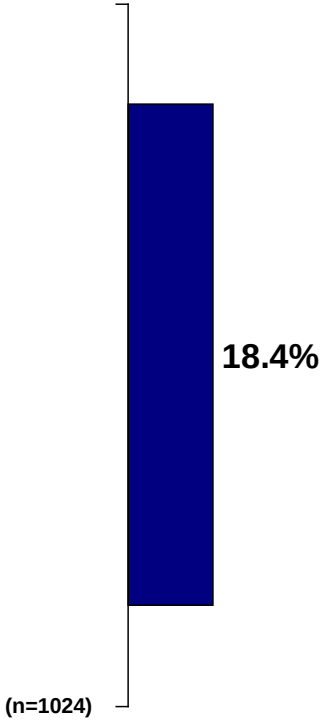


Q1.3: Would you say that in general your health is…
Q21.2: In general, how satisfied are you with your life?
Q21.1: How often do you get the social and emotional support you need?

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 under the age of 35 are less likely to report fair or poor health than older adults.

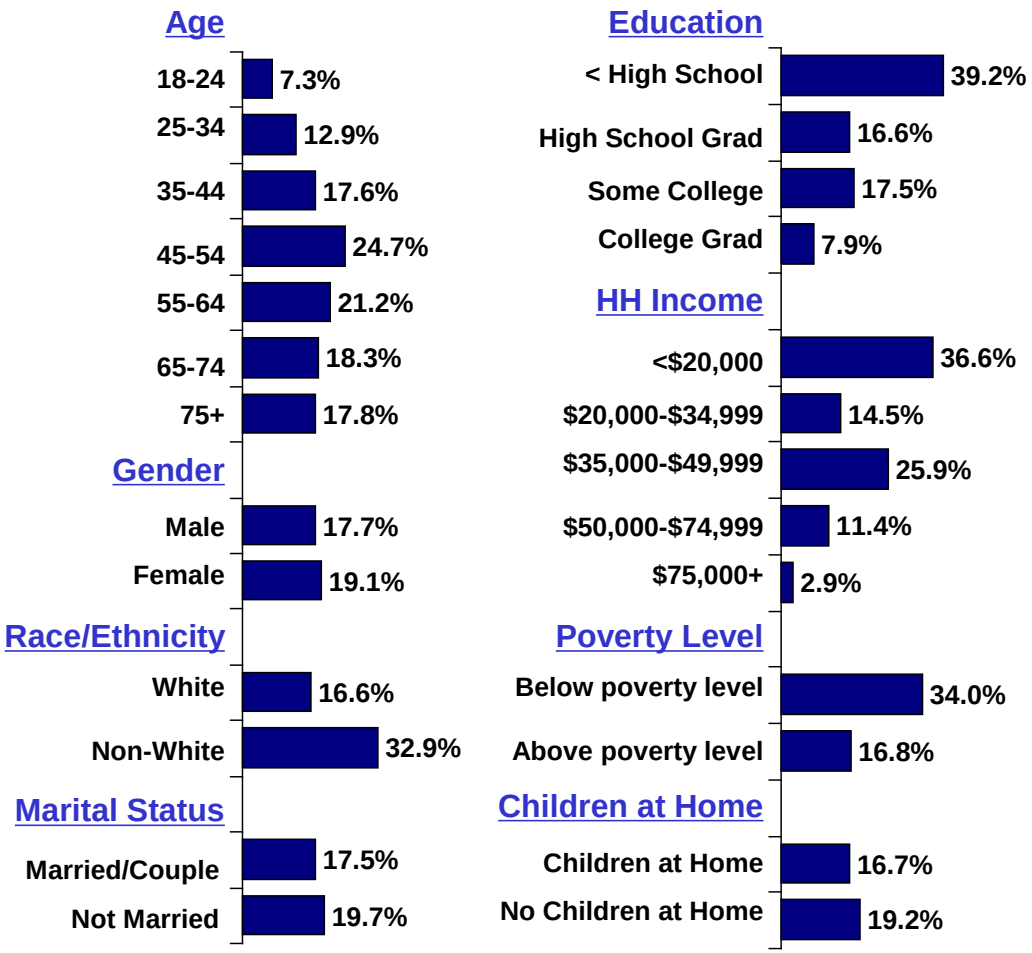
General Health Status

General Health Fair or Poor* (Total Sample)



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

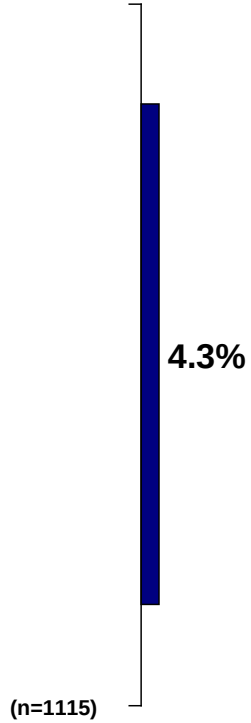
Health Fair or Poor by Demographics



SHLH area adults without a high school diploma and/or in households with incomes below $20,000 are least likely to be satisfied with their lives. Adults under age 35, college graduates, and those with household incomes of at least $75K are most likely to be satisfied with their lives.

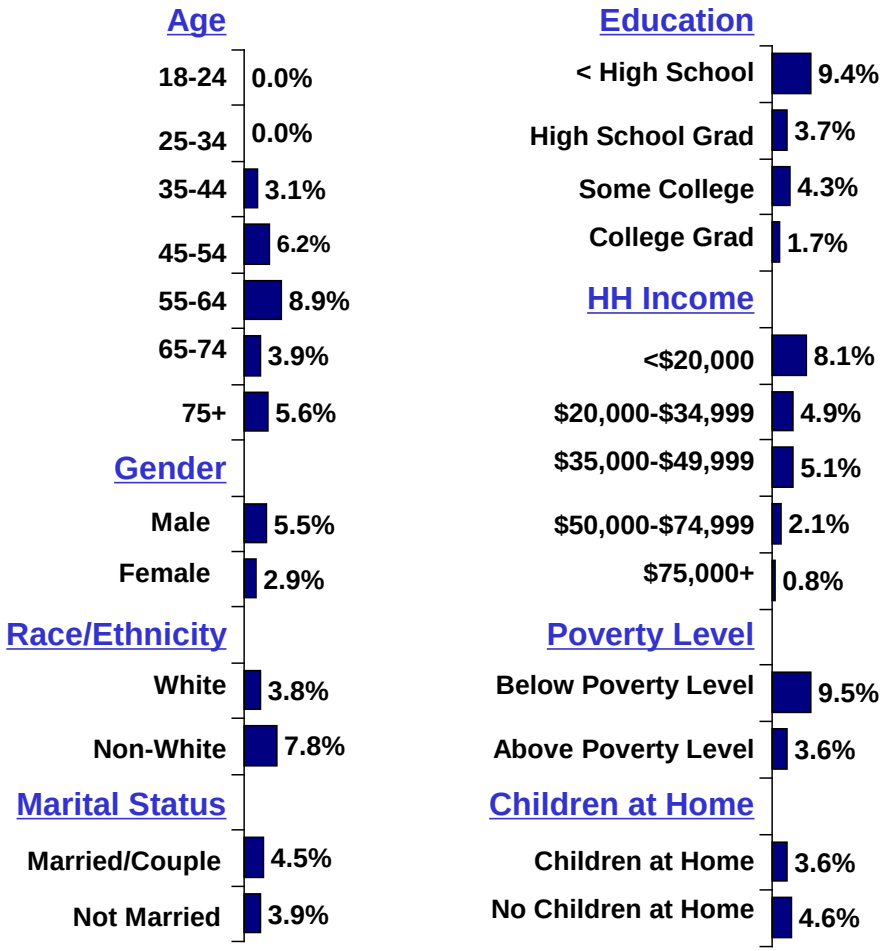
Life Satisfaction

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?"

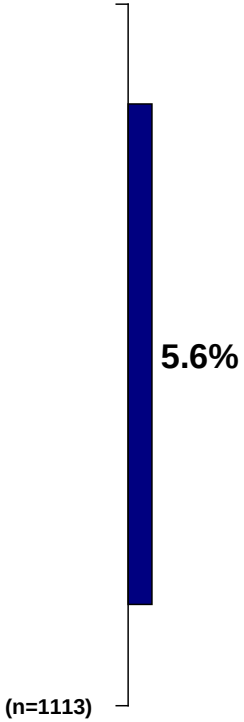
Dissatisfied/Very Dissatisfied by Demographics



Adults who more often lack the social and emotional support they need come from groups that are non-White, have less than a college education, have household incomes less than $20,000, and are living below the poverty line.

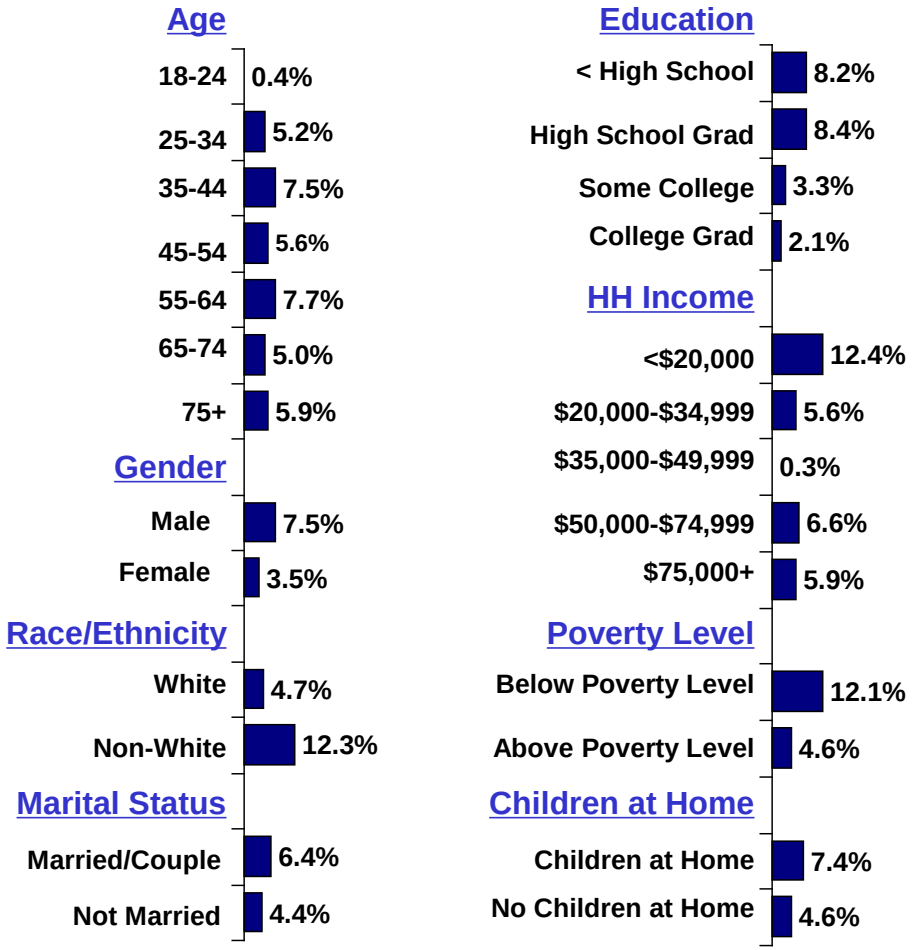
Social and Emotional Support

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?"

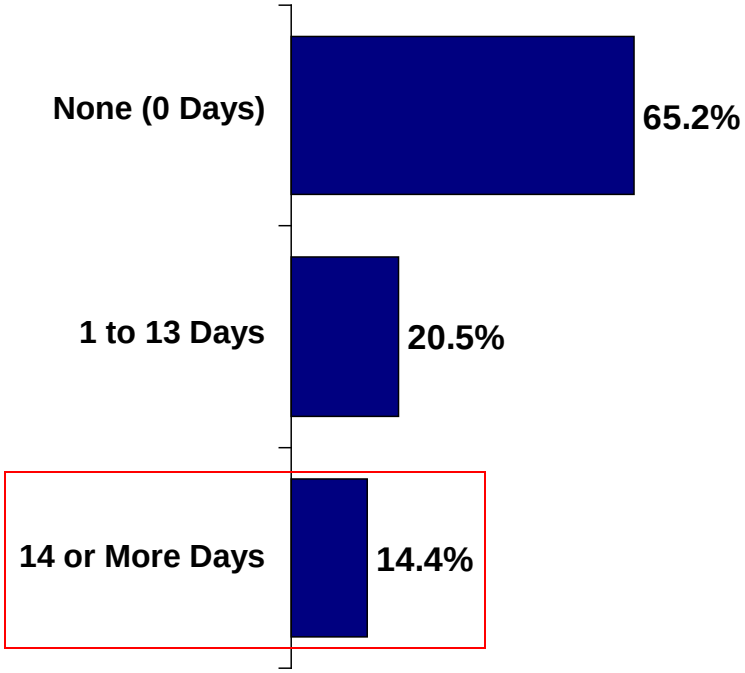
Rarely/Never Receive Support by Demographics



Between one-fourth and one-third of SHLH area adults have experienced at least one day in the past month when their physical health and mental health, respectively, was not good. Further, 14.4% and 8.0% are classified as having poor physical and mental health, respectively. Adults overall average 4.5 and 2.9 days when their physical or mental health is not good, respectively.

Physical and Mental Health During Past 30 Days

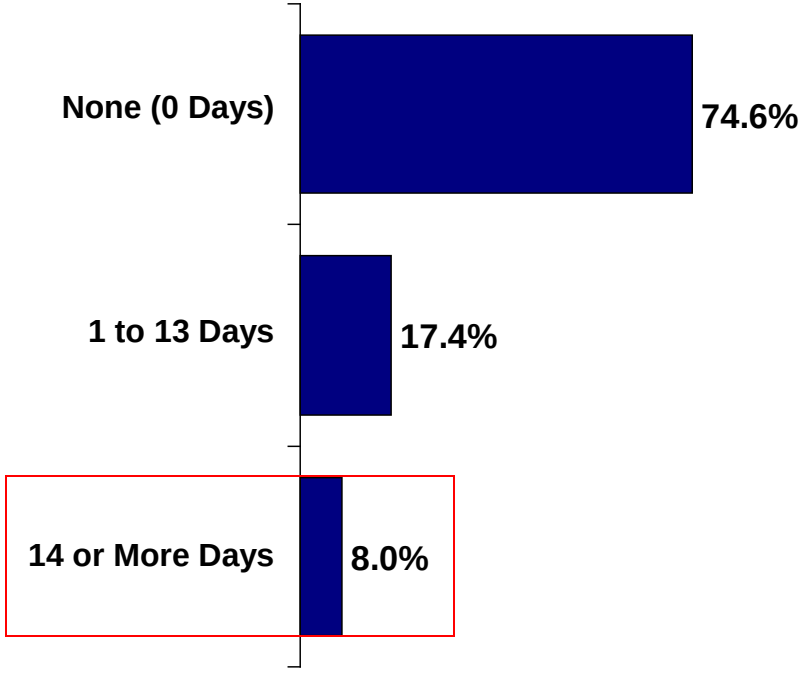
Number of Days Physical Health Was Not Good in Past 30 Days



Mean Days (Including Zero) = 4.5
Mean Days (Without Zero) = 12.9

(n=1119)

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



Mean Days (Including Zero) = 2.9
Mean Days (Without Zero) = 11.3

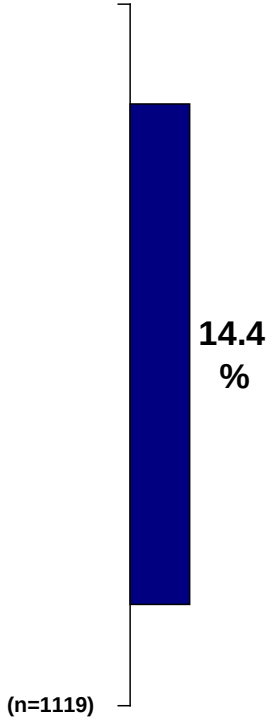
(n=1125)

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 related to age, where it is more common among adults at 45 years old and above. It is more common among non-Whites compared to Whites. It is also highest among adult residents with the lowest household incomes (23.5%) and those with less than a high school diploma (31.7%). Prevalence is lowest among adults under age 45, college graduates, and those with incomes $50K or more.

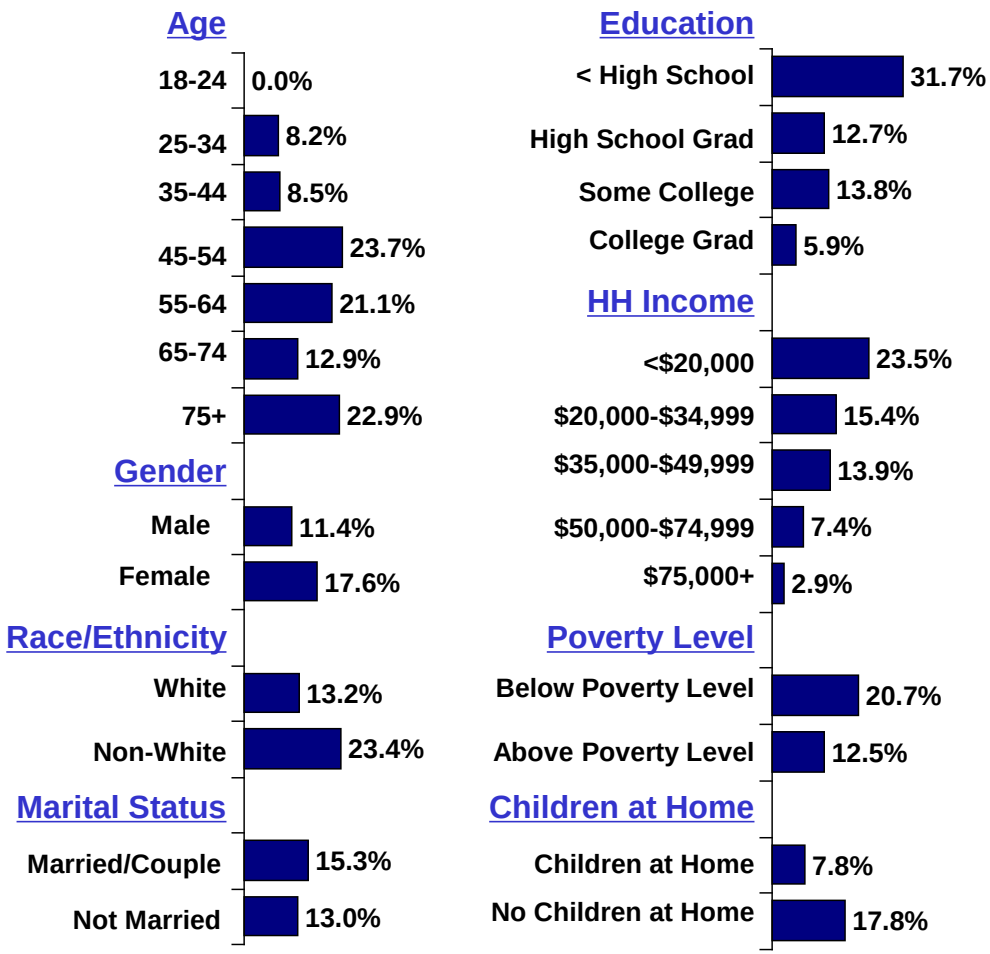
Physical Health Status

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.

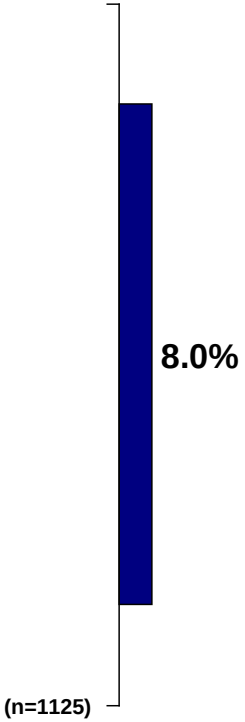
Poor Physical Health by Demographics



The prevalence of poor mental health is inversely related to education, where those without a high school diploma are most likely to report poor mental health and those with a college degree are least likely. Also, non-Whites are more likely than Whites to experience poor mental health. The smallest proportions of those with poor mental health are found among adults from households with incomes of $50K or more.

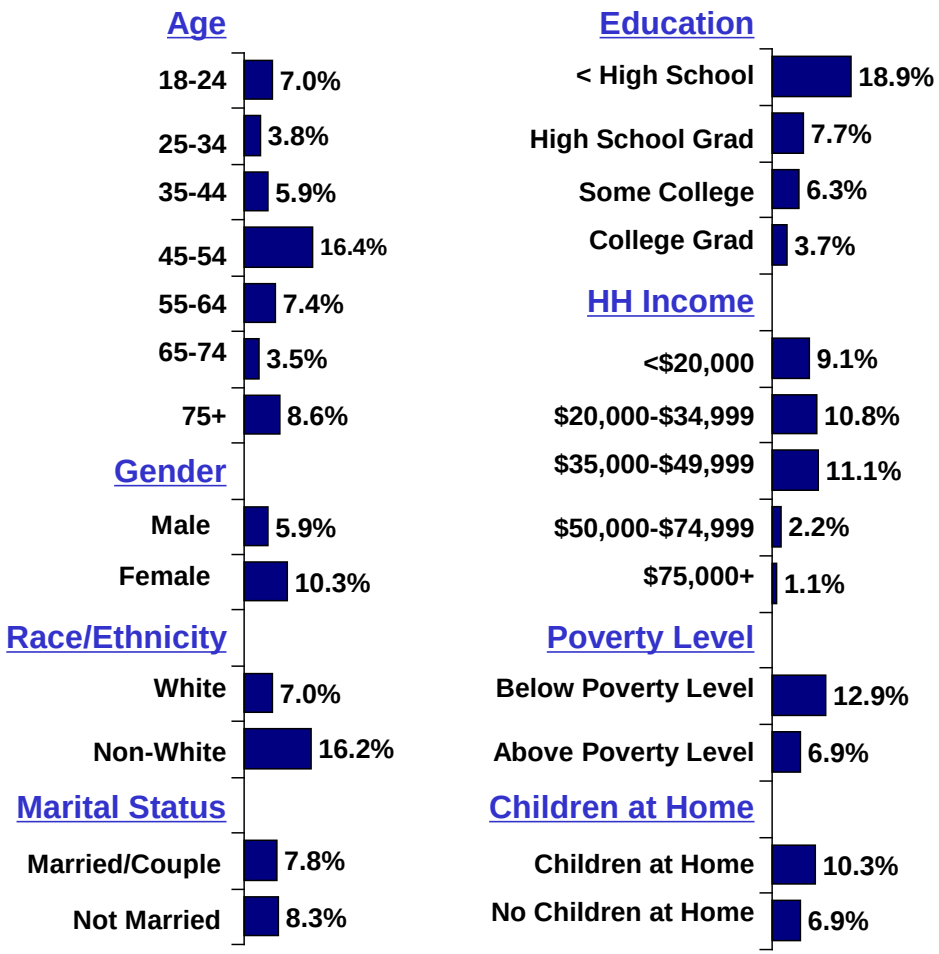
Mental Health Status

Poor Mental Health* (Total Sample)



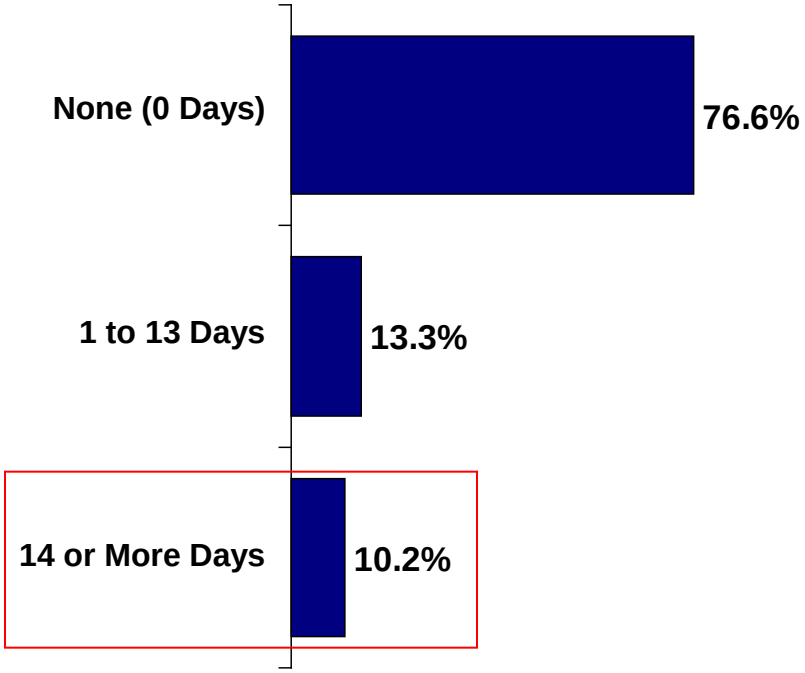
*Among all adults, the proportion who reported 14 or more days of poor mental health, which includes stress, depression, and problems with emotions, during the past 30 days.

Poor Mental Health by Demographics



One in ten (10.2%) area adults experience limited activity (i.e., 14 or more days per month when activities are restricted) due to poor physical or mental health. Those who experience any limitation (at least one day) average almost half the days each month (13.3 days) when they are prevented from doing their usual activities.

Activity Limitation During Past 30 Days



Mean Days (Including Zero) = 3.1
Mean Days (Without Zero) = 13.3

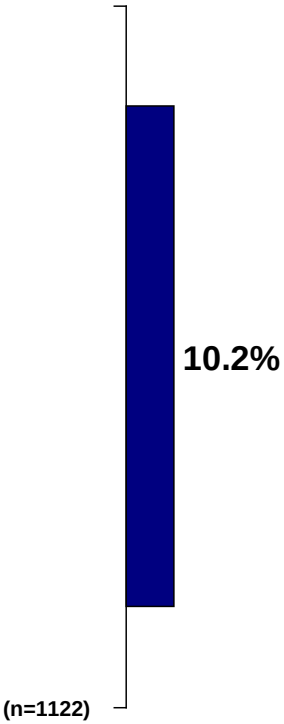
(n=1122)

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 among adults without a high school diploma. Secondly, large proportions of adults who experience activity limitation are found among the poorest adults, specifically those with incomes less than $20K (18.1%) and those living below the poverty line (18.1%).

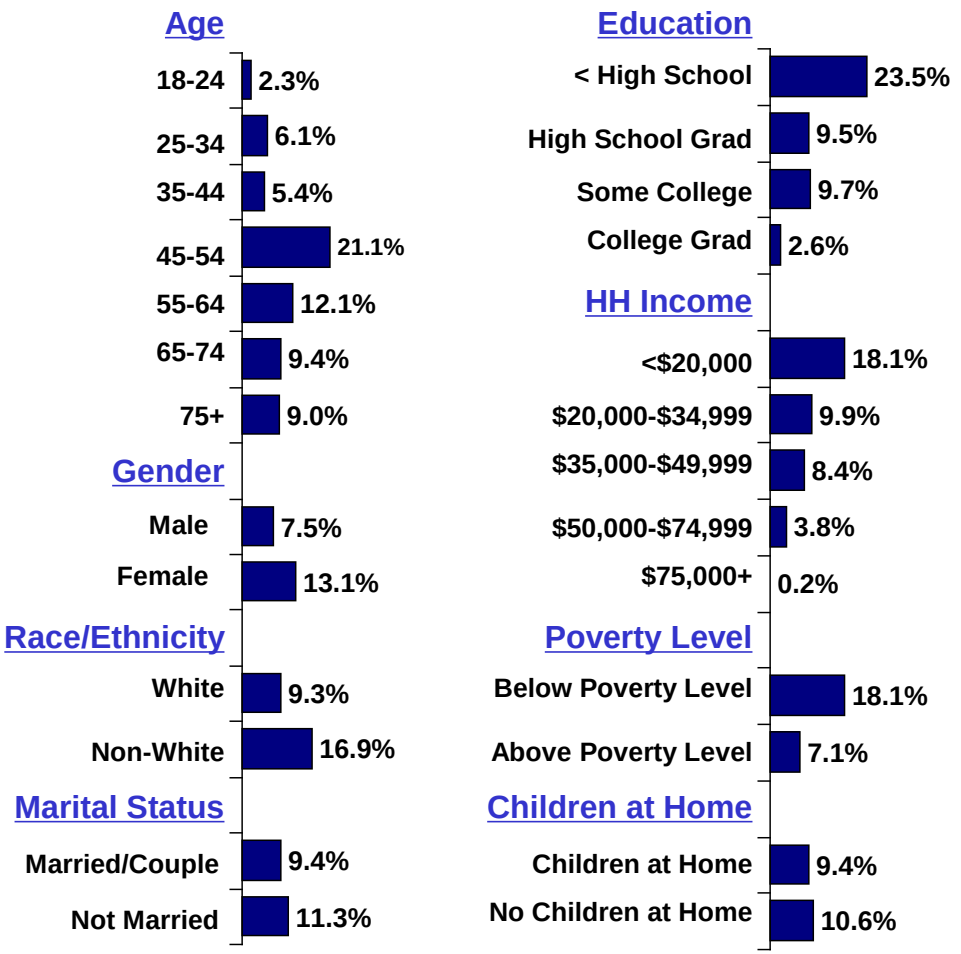
Activity Limitation (Cont'd.)

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 (82.0%) area adults are considered to be mentally healthy according to the Kessler 6 Psychological Distress Questionnaire. Conversely, 16.1% experience mild to moderate psychological distress while 1.9% are severely distressed.

Psychological Distress*

	During the Past 30 Says, About How Often Did You….					
Frequency of Feeling	**Feel Nervous (n=1125)**	**Feel Hopeless (n=1124)**	**Feel Restless or Fidgety (n=1117)**	**Feel So Depressed That Nothing Could Cheer You Up (n=1122)**	**Feel That Everything Is An Effort (n=1119)**	**Feel Worthless (n=1122)**
None of the time	**47.0%**	**80.0%**	**54.9%**	**85.5%**	**67.2%**	**90.1%**
A Little	**32.1%**	**10.1%**	**23.1%**	**9.8%**	**13.5%**	**5.4%**
Some of the time	**14.4%**	**6.4%**	**13.9%**	**3.0%**	**12.1%**	**3.5%**
Most of the time	**4.4%**	**1.2%**	**5.3%**	**1.4%**	**2.9%**	**0.6%**
All of the time	**2.2%**	**2.3%**	**2.9%**	**0.3%**	**4.3%**	**0.3%**

Mentally Healthy (Well) = 82.0%

Mild to Moderate Psychological Distress = 16.1%

Severe Psychological Distress = 1.9%

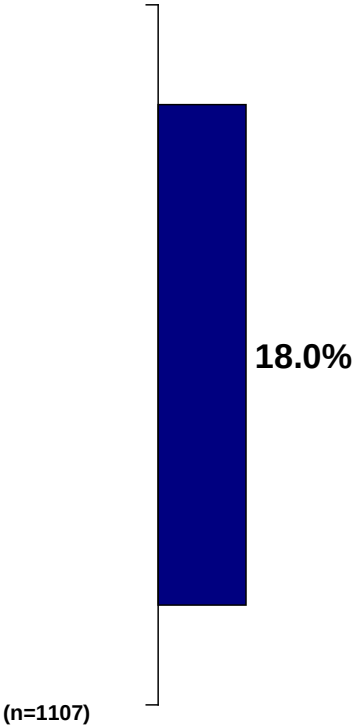
*Calculated from responses to Q. 22.1- 22.6, where none of the time = 1, a little = 2, some of the time = 3, most of the time = 4, and all of the time = 5. Responses were summed across all six questions with total scores representing the above categories: mentally well (6-11), mild to moderate psychological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

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

Among SHLH area adults, the groups most likely to be diagnosed with mild to severe psychological distress include those who: are youngest (18-24), unmarried, have less than a high school education, and have household incomes less than $35K. Conversely, those least likely to have psychological distress are found in groups that have a college degree and/or have incomes of $50K or more.

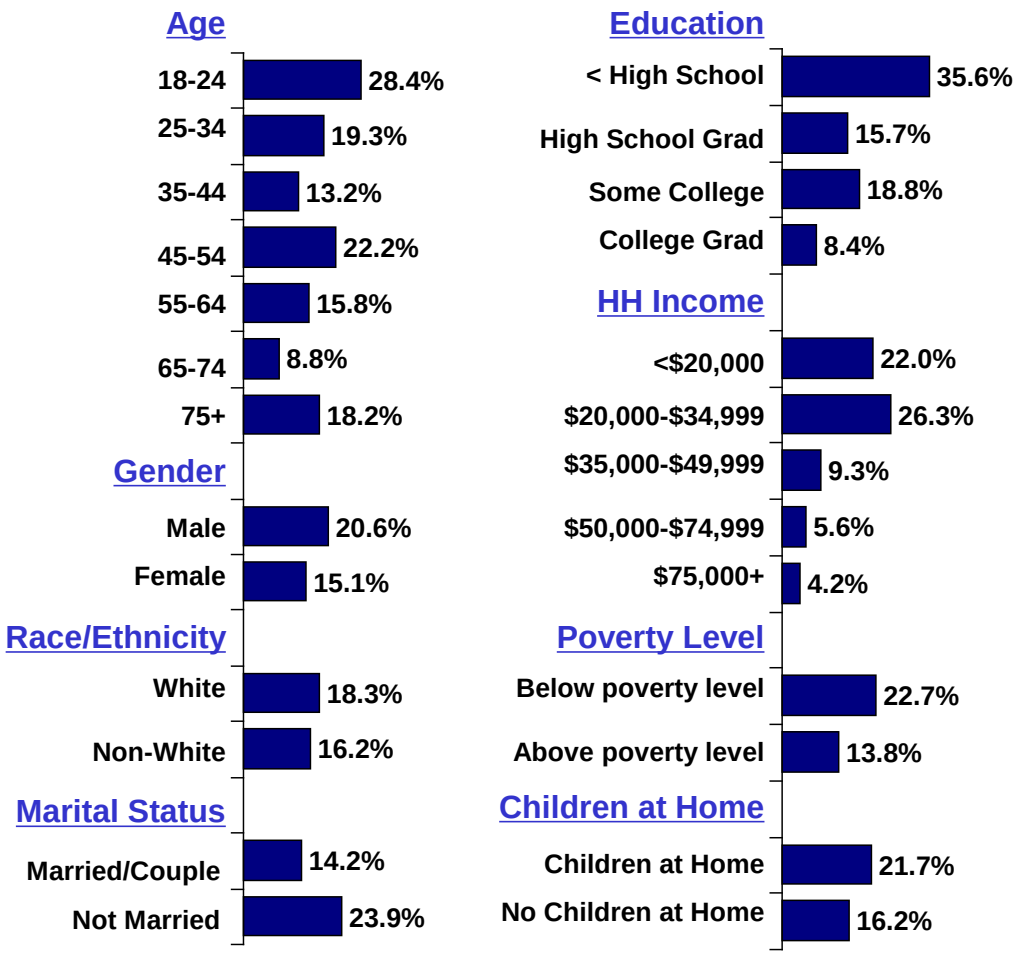
Psychological Distress (Cont'd.)

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.

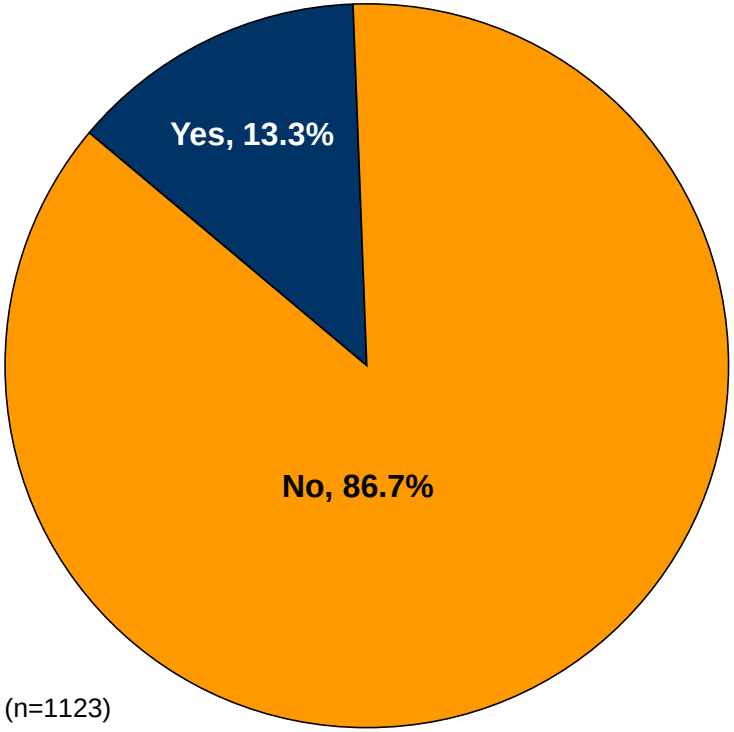
Mild to Severe Psychological Distress by Demographics



Of all SHLH 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 six 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.

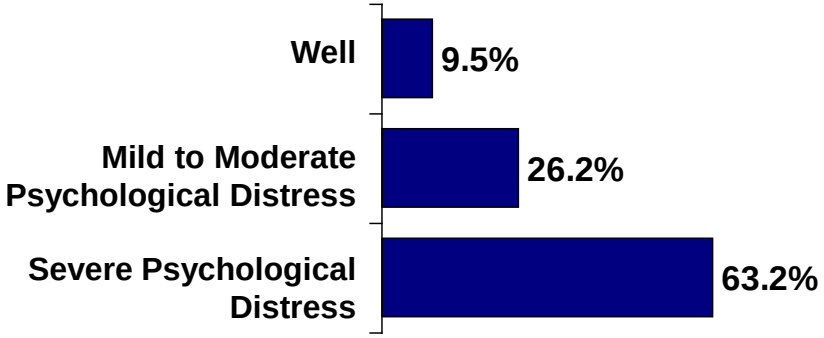
Medication and Treatment for Psychological Distress

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



(n=1123)

Percent Taking Medication/Receiving Treatment by Psychological Distress Category



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

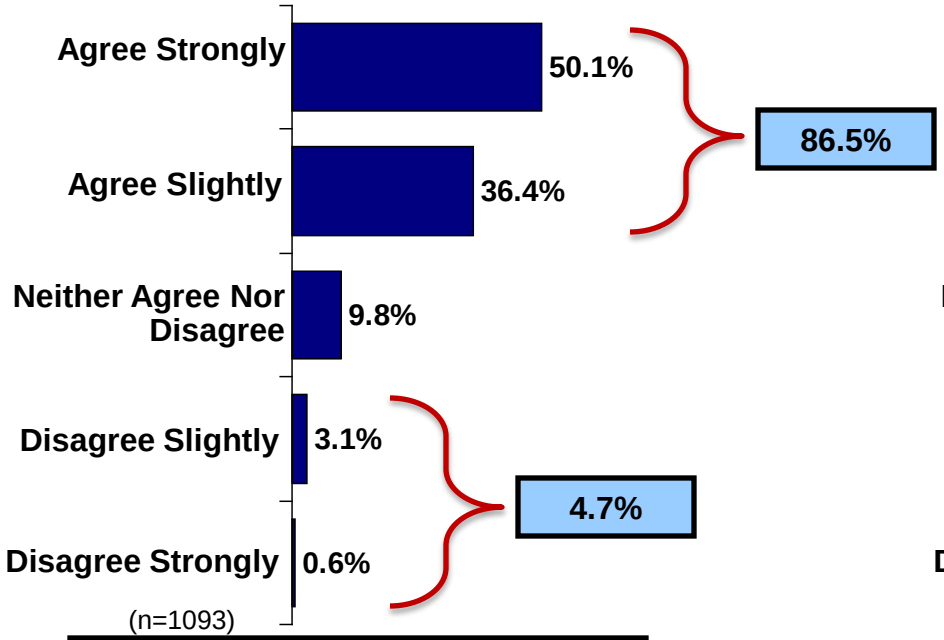
60.1%

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 (86.5%) of area adults believe treatment can help people with mental illness lead normal lives. On the other hand, less than half (44.2%) think people are generally caring and sympathetic toward people with mental illness and this drops to 28.3% 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.

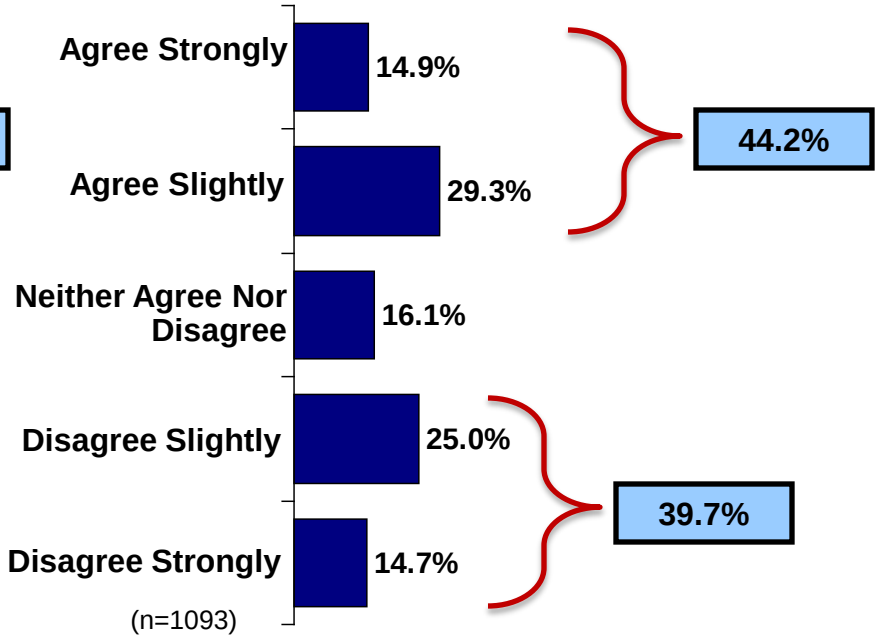
Perceptions of Mental Health Treatment and Mental Illness

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



Agree by Psychological Distress
- Well (87.4%)
- Mild to Moderate (81.9%)
- Severe (90.6%)

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



Agree by Psychological Distress
- Well (41.4%)
- Mild to Moderate (60.0%)
- Severe (28.3%)

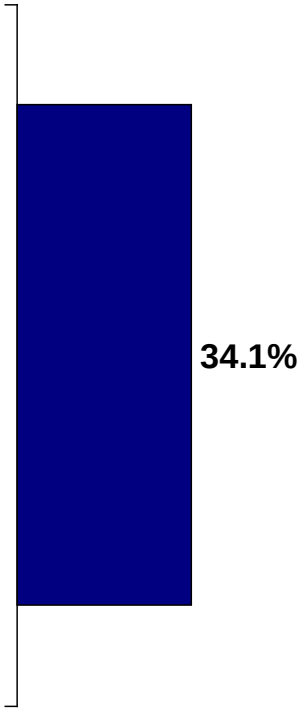
22.8 What is your level of agreement with the following statement? "Treatment can help people with mental illness lead normal lives." Do you – agree slightly or strongly, or disagree slightly or strongly?

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?

Two-thirds (67.6%) of SHLH area adults are considered to be either overweight or obese per their BMI. Three in ten (30.1%) are at a healthy weight.

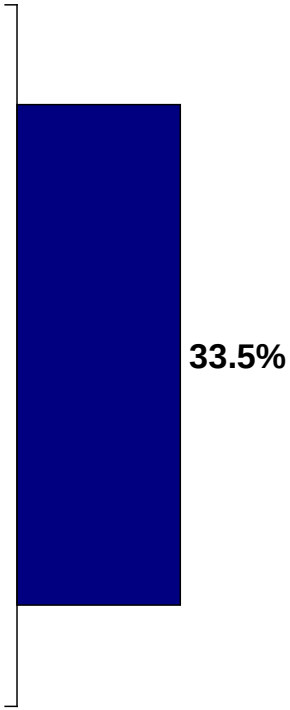
Weight Status

Obese* (Total Sample)



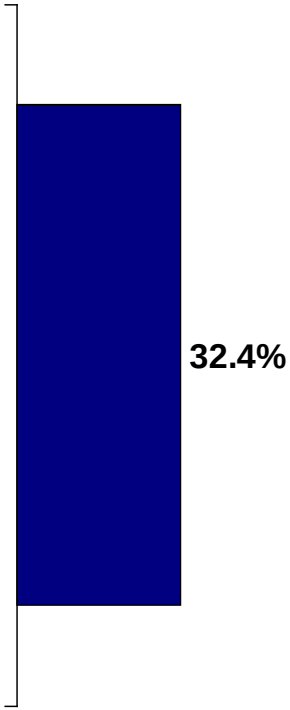
*Among all adults, the proportion of respondents whose BMI was greater than or equal to 30.0.

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 = 30.1%
Underweight = 2.3%

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

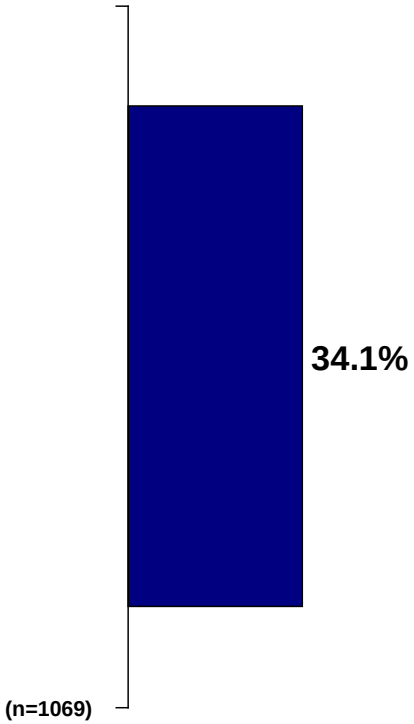
Q13.10: About how much do you weigh without shoes?
Q13.11: About how tall are you without shoes?

(n=1069)

Obesity is a condition that affects adults regardless of socioeconomic or socio-demographic characteristics. That said, adults most likely to be obese include those with less than a high school diploma and those with incomes less than $20K. Obesity also tends to be a health problem for adults between the ages of 55-74 and those who are non-White.

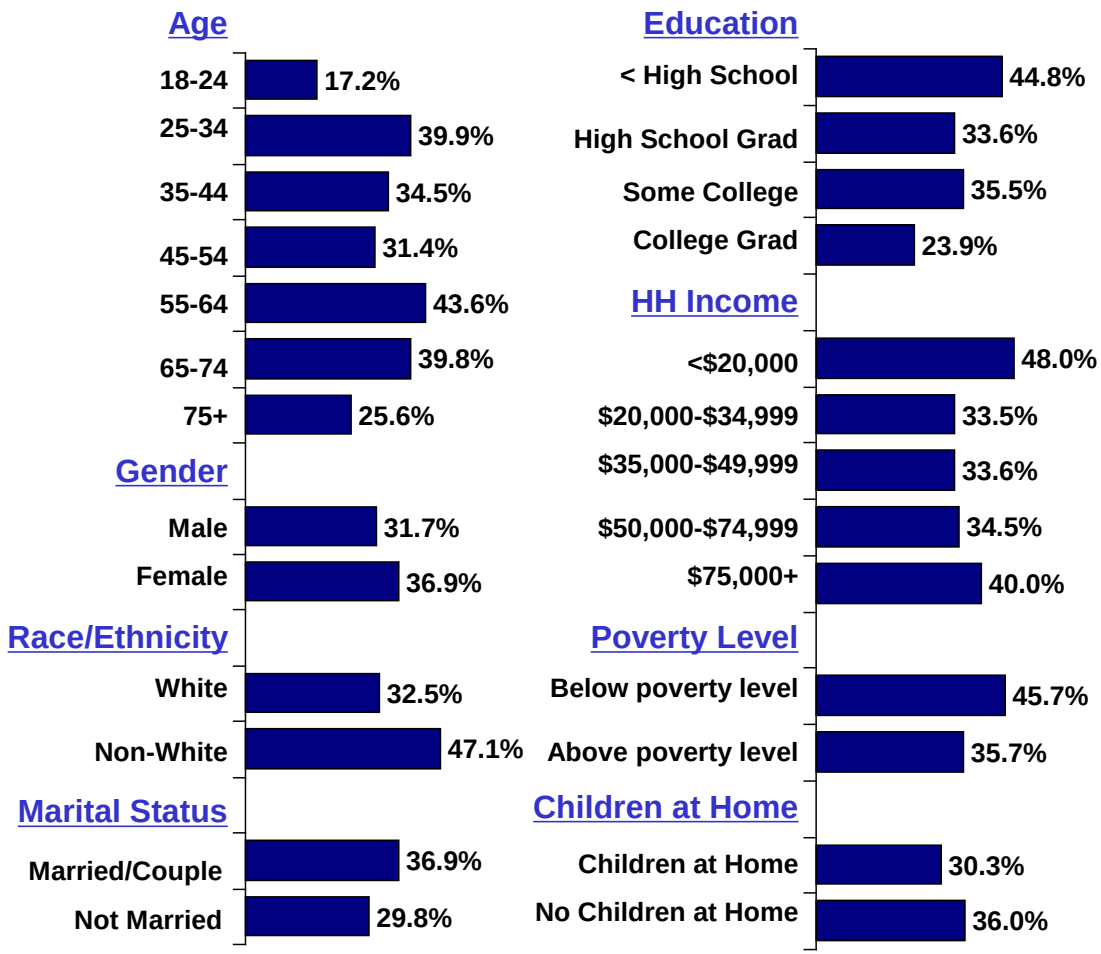
Weight Status (Cont'd.)

Obese* (Total Sample)



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

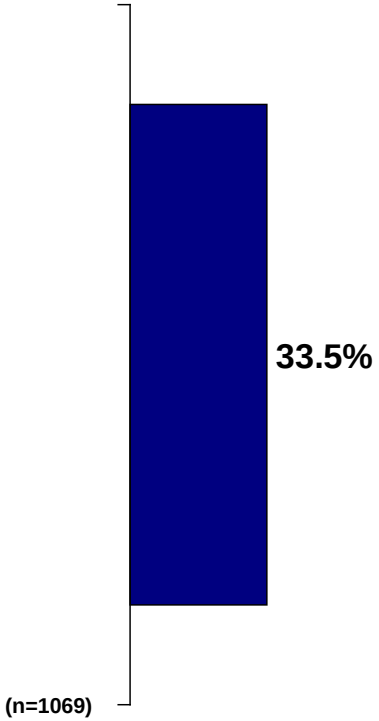
Obese by Demographics



Men are far more likely to be considered overweight (but not obese) than women. Adult residents with the lowest incomes and/or lowest level of education are less likely to be overweight than those who are better off financially or have more education.

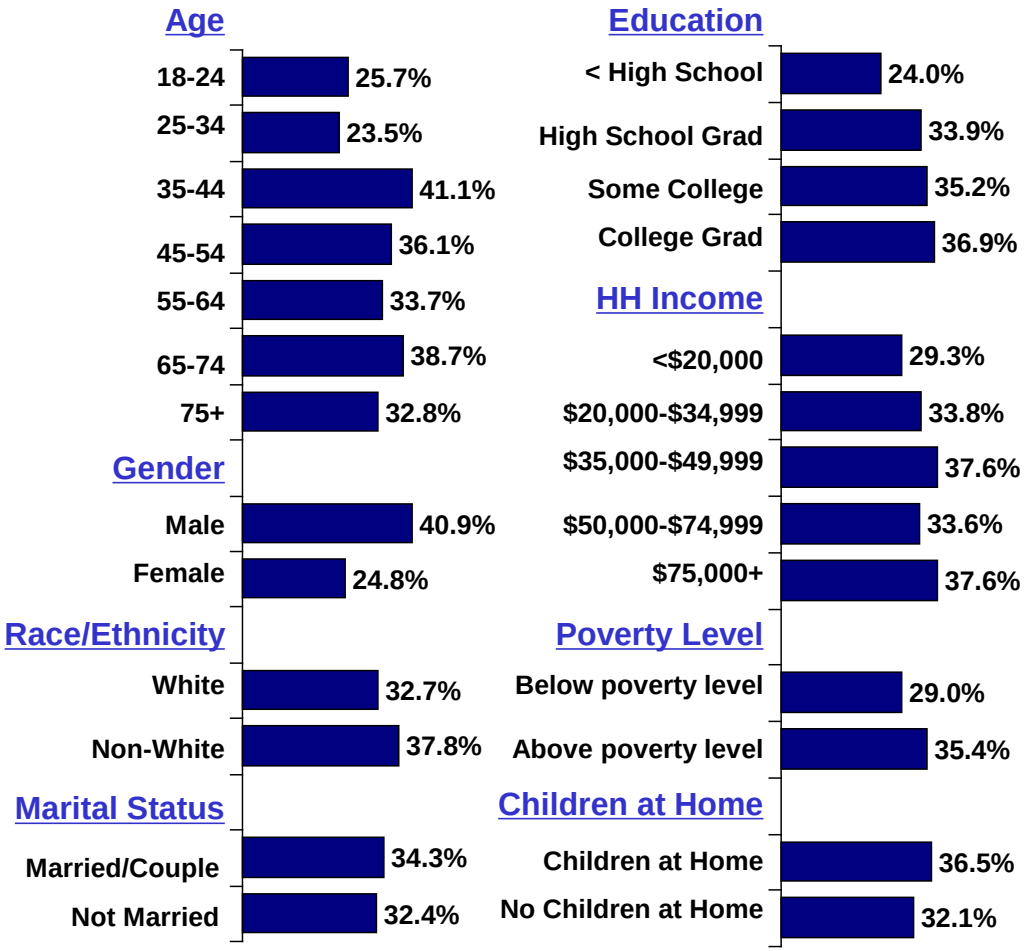
Weight Status (Cont'd.)

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.

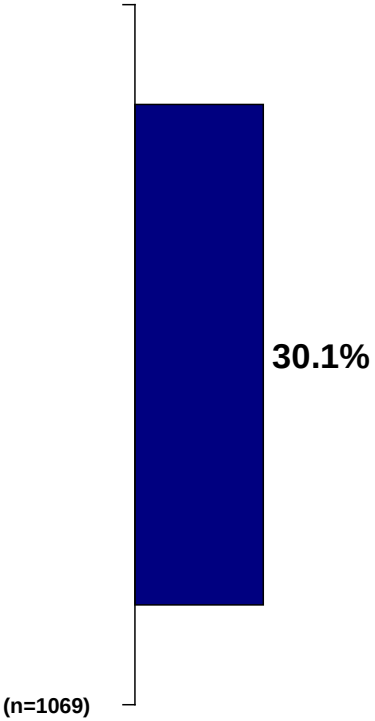
Overweight by Demographics



Women and Whites are more likely to be at a healthy weight than men and non-Whites, respectively. Adults at both ends of the age continuum (18-24, 75+) are also most likely to be at a healthy weight.

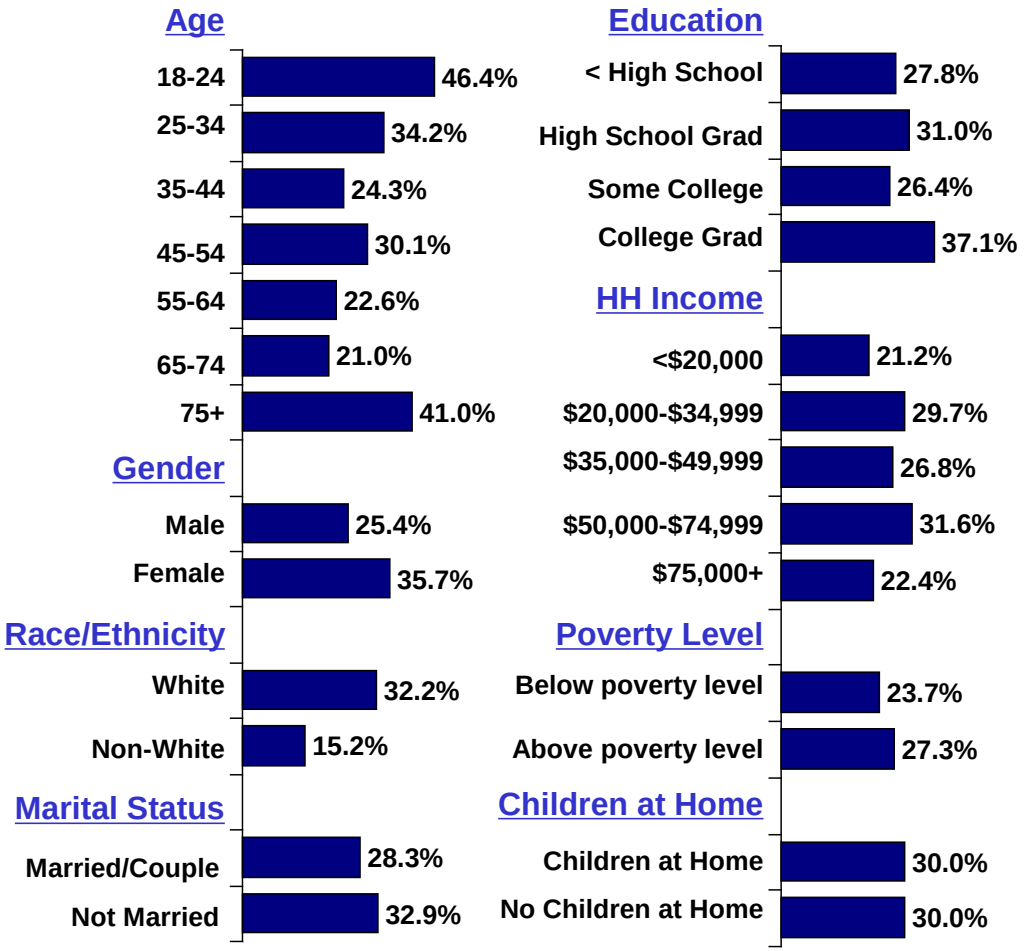
Weight Status (Cont'd.)

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

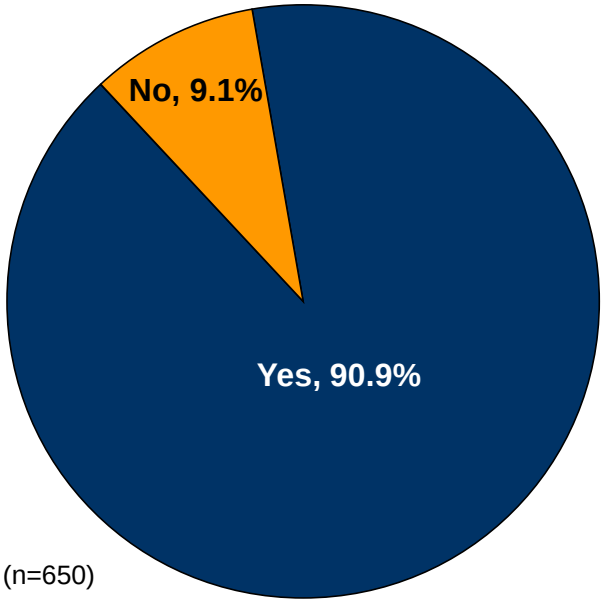


Health Care Access

More than nine in ten (90.9%) adults under age 65 have health care coverage. The primary source of health coverage for all adults, by far, is a plan purchased through an employer or union. Slightly more than one in ten (11.5%) purchase health coverage on their own.

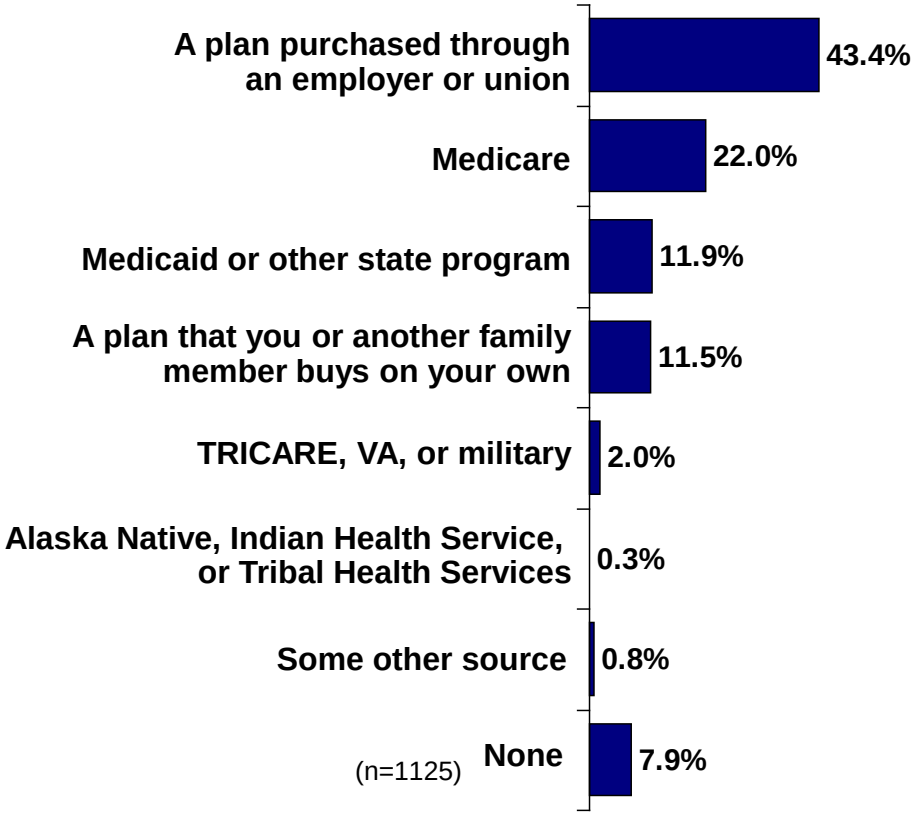
Health Care Coverage

Currently Have Health Coverage (Among Adults 18-64)



(n=650)

Primary Source of Health Coverage (Total Sample)



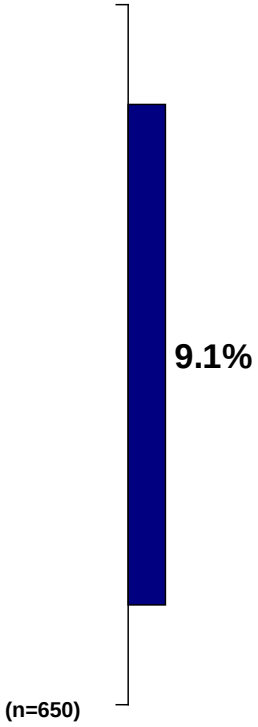
(n=1125)

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 directly related to education and income. Additionally, younger residents (aged 18-34) are more likely to lack coverage than older residents, and non-Whites report lacking coverage more than Whites. Further, and perhaps more alarming, those with children at home are less likely to have coverage than those with no children at home.

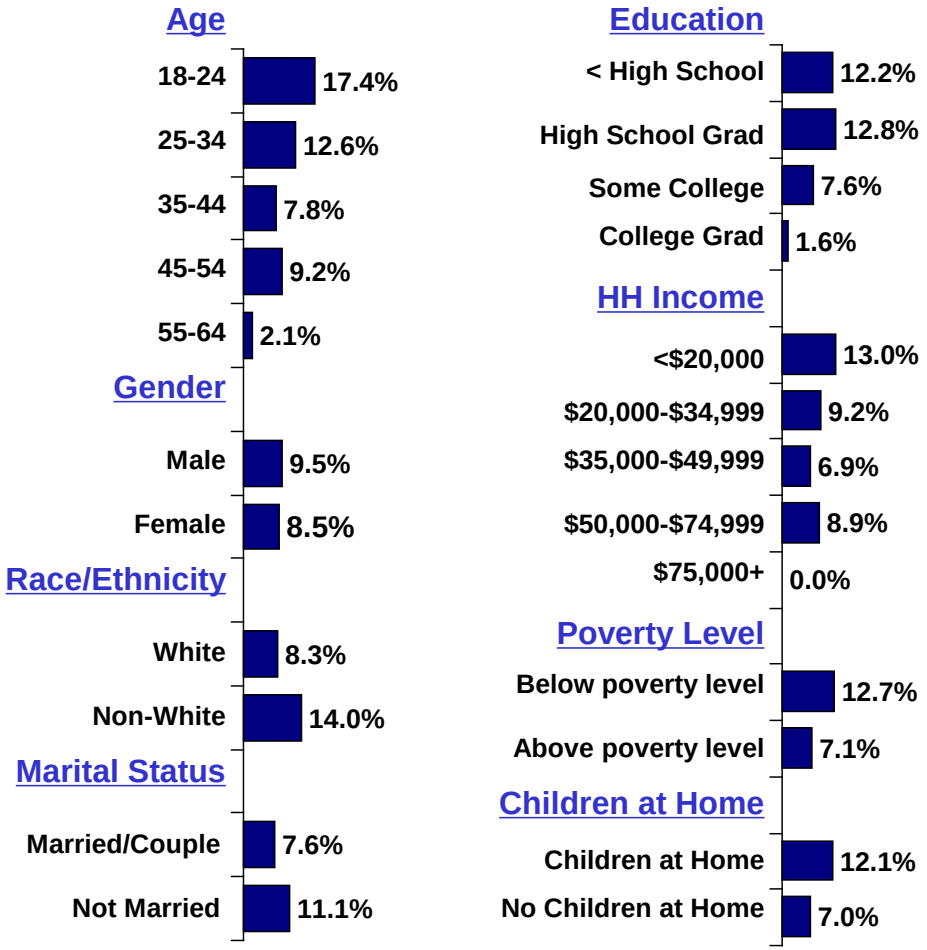
Health Care Coverage Among Adults Aged 18-64 Years

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



*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.

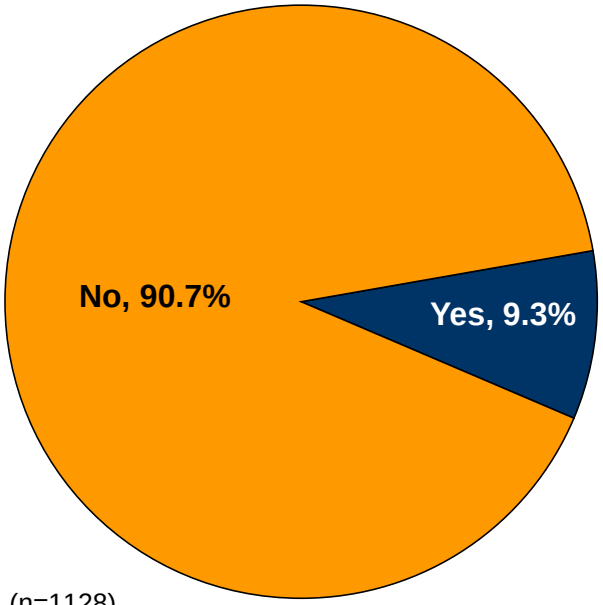
No Coverage by Demographics



Fewer than one in ten (9.3%) 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, 7.3% could not take prescribed medication due to cost.

Problems Receiving Healthcare

Could Not See A Doctor in Past 12 Months Due to Cost

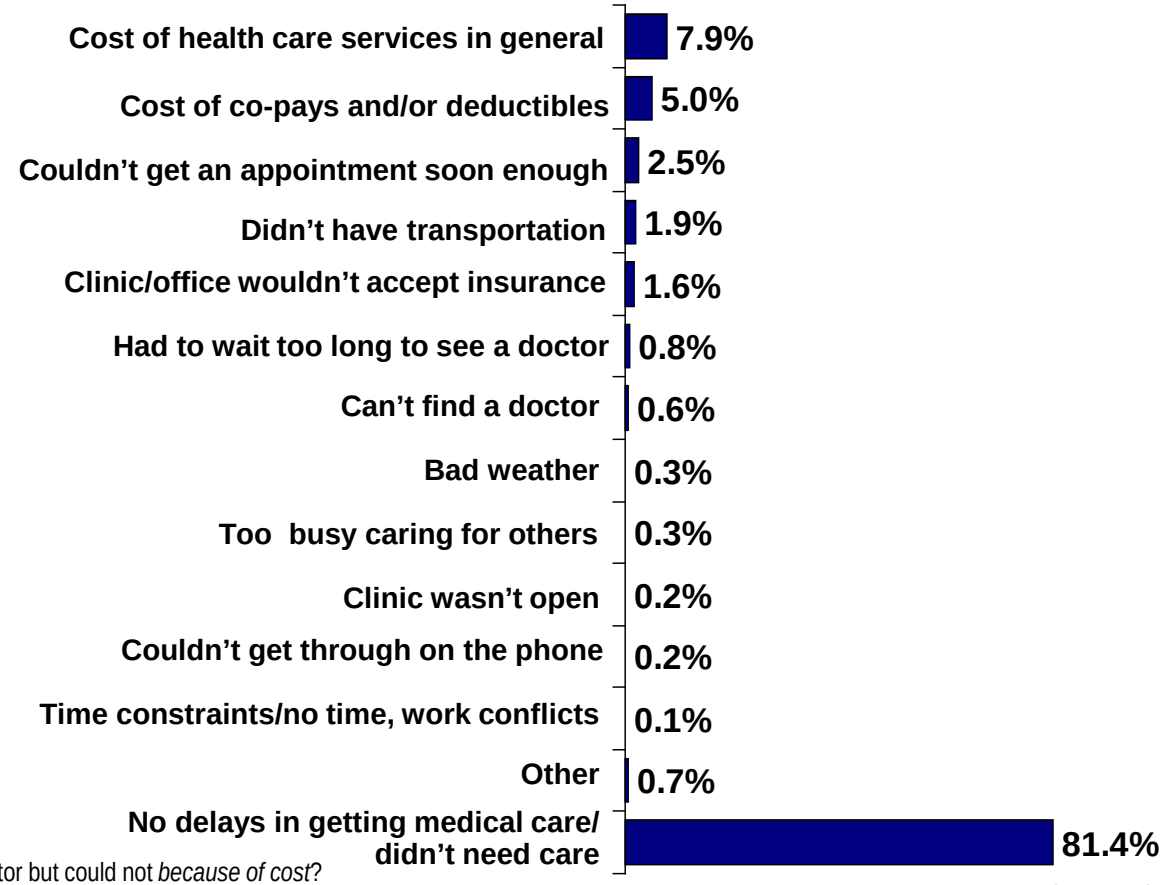


(n=1128)

Could Not Take Medication Due to Cost = 7.3%

(n=1127)

Reasons for Delays in Getting Needed Medical Care



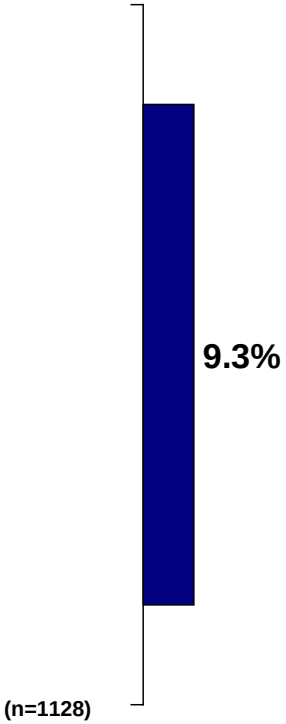
(n=1128)

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 education and income; those who more often find it a barrier are those with less than a high school diploma, with incomes below $20K, and/or below the poverty level. Additionally, costs are more likely to prevent non-Whites from receiving health care compared to Whites.

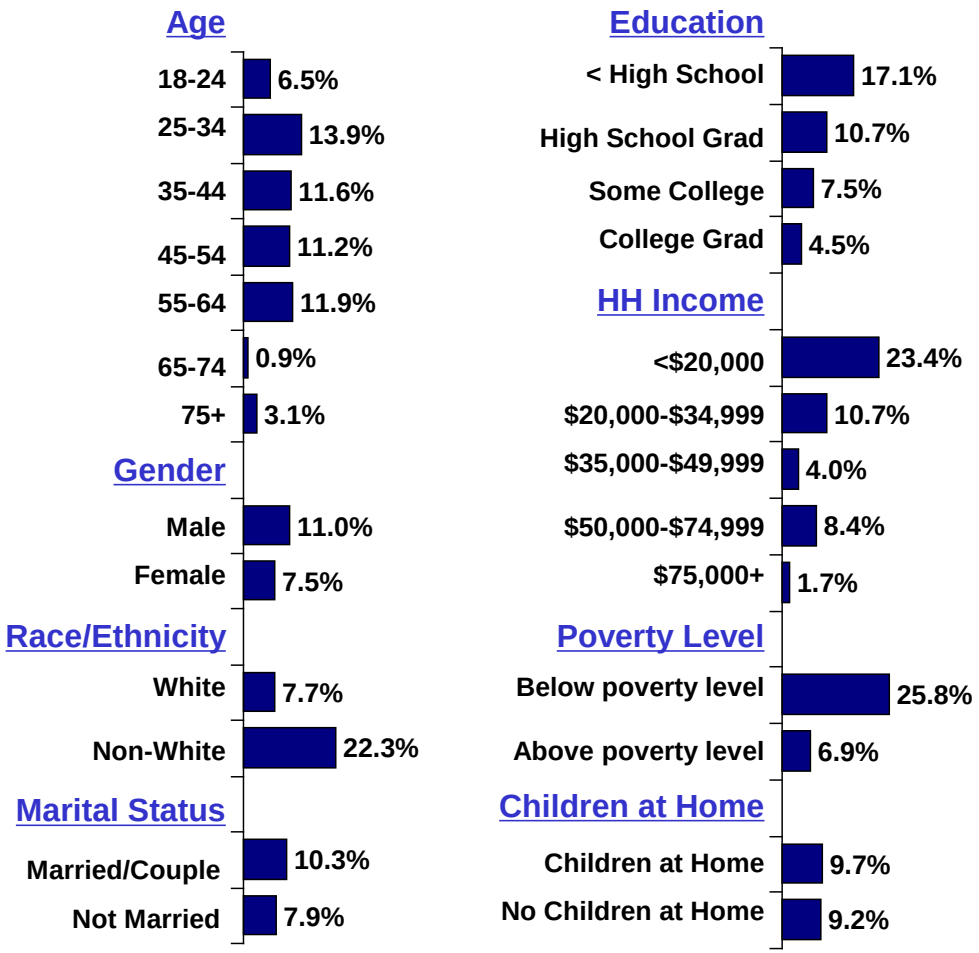
Problems Receiving Health Care Due to Cost

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



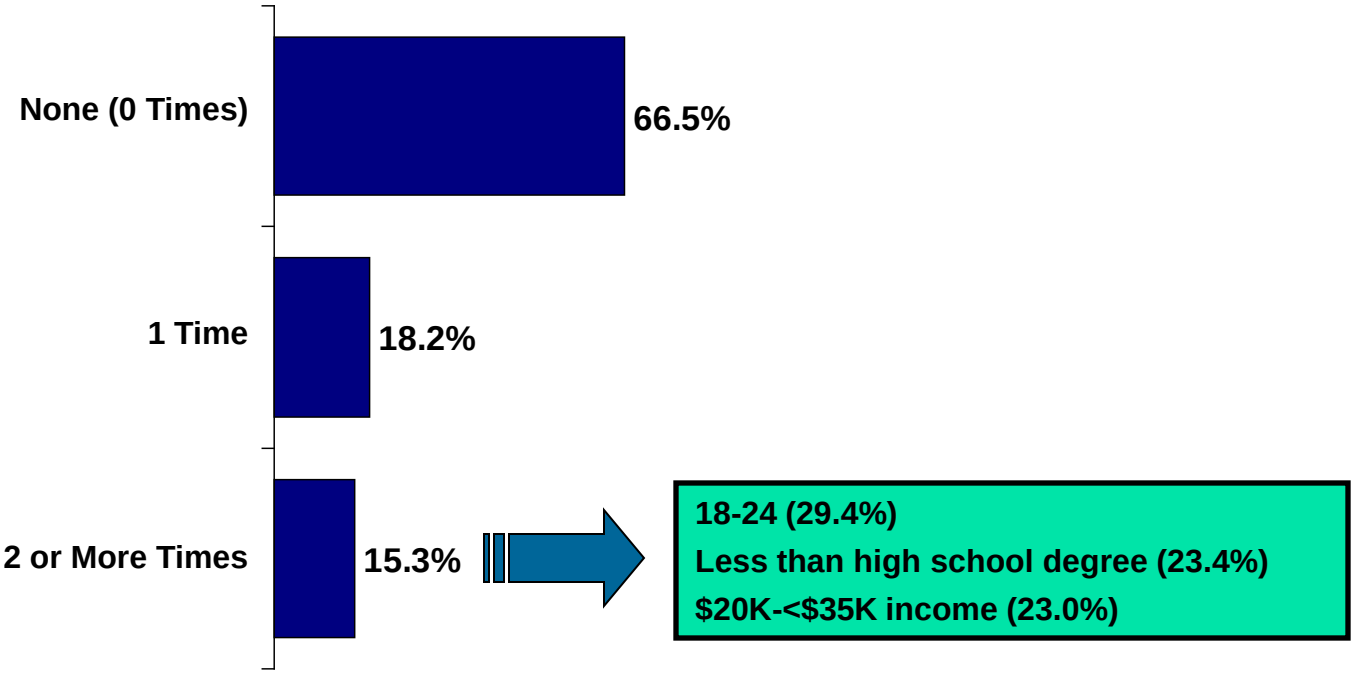
*Among all adults, the proportion who reported that in the past 12 months, they could not see a doctor when they needed to due to the cost.

No Health Care Access Due to Cost by Demographics



Among SHLH area adults, one-third (33.5%) 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 are those that are the youngest (18-24), have less than a high school diploma, and/or have lower incomes.

Number of Times Visited ER/ED in Past 12 Months



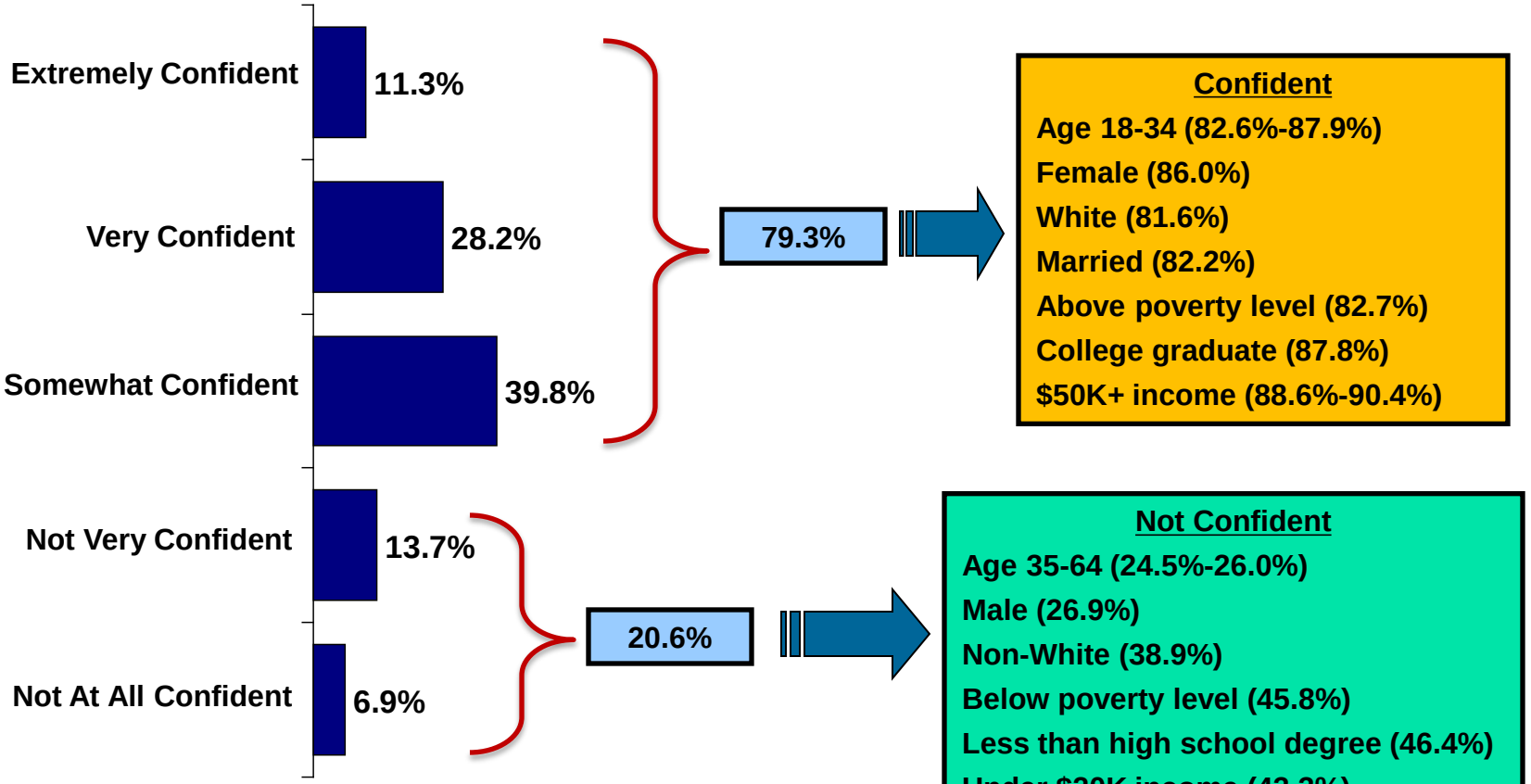
Mean Days (Including Zero) = 0.7
Mean Days (Without Zero) = 2.2

(n=1127)

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

A large majority (79.3%) of adults are at least somewhat confident they can successfully navigate the health care system, however, 20.6% are not very or not at all confident. The most confident groups are young adults, women, Whites, those who are married, those with incomes of $50K or more, and college graduates. Conversely, the least confident groups are non-Whites, those below the poverty level, those with incomes below $20K, and those without a high school diploma.

Confidence in Navigating the Health Care System



(n=1112)

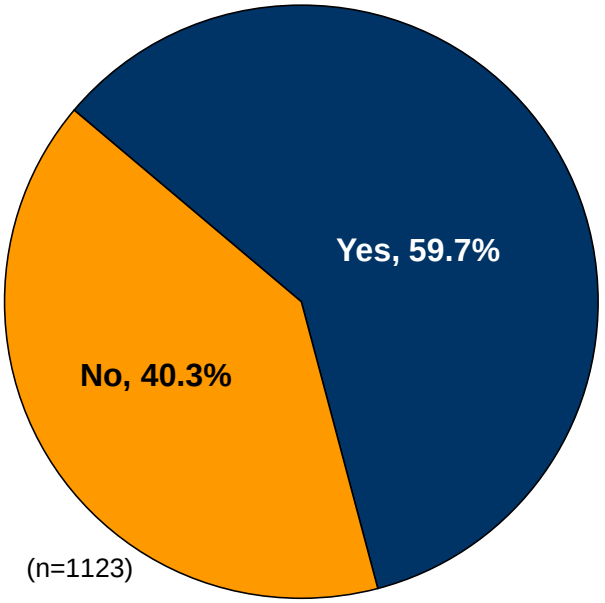
Q3.10: How confident are you that you can successfully navigate the health care system? Would you say….?

Risk Behavior Indicators

Almost six in ten (59.7%) area adults participate in leisure time physical activity such as running, walking, or golf. Of those who do, seven in ten (71.9%) participate at least three times per week. Most (71.4%) participate for less than four hours per week, while 15.6% participate for six hours or more.

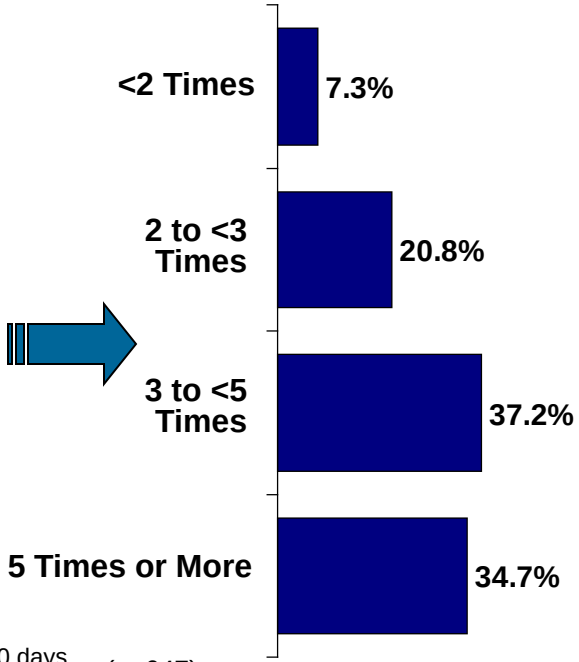
Participation in Leisure Time Physical Activity*

Participation in Leisure Time Physical Activity/Exercise



(n=1123)

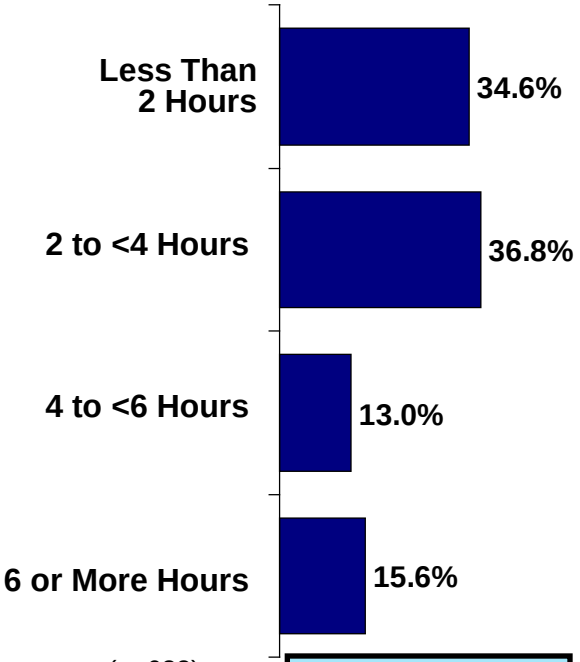
Number of Times Performed Physical Activity Per Week (Among Those Who Participate)



(n=647)

Mean = 4.0
Median = 3.0

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



(n=638)

Mean = 3.6
Median = 2.5

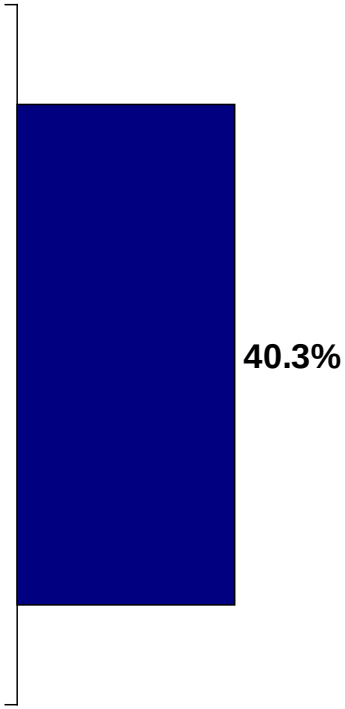
*Residents reported their level of activity during the 30 days prior to taking the survey, which was administered in the winter months (December-February), when fewer opportunities for outdoor activity are present.

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 income; those with the most education and highest incomes are most active. The least active groups include adults with less than a high school diploma and those at least 75 years old.

Leisure Time Physical Activity (Cont'd.)

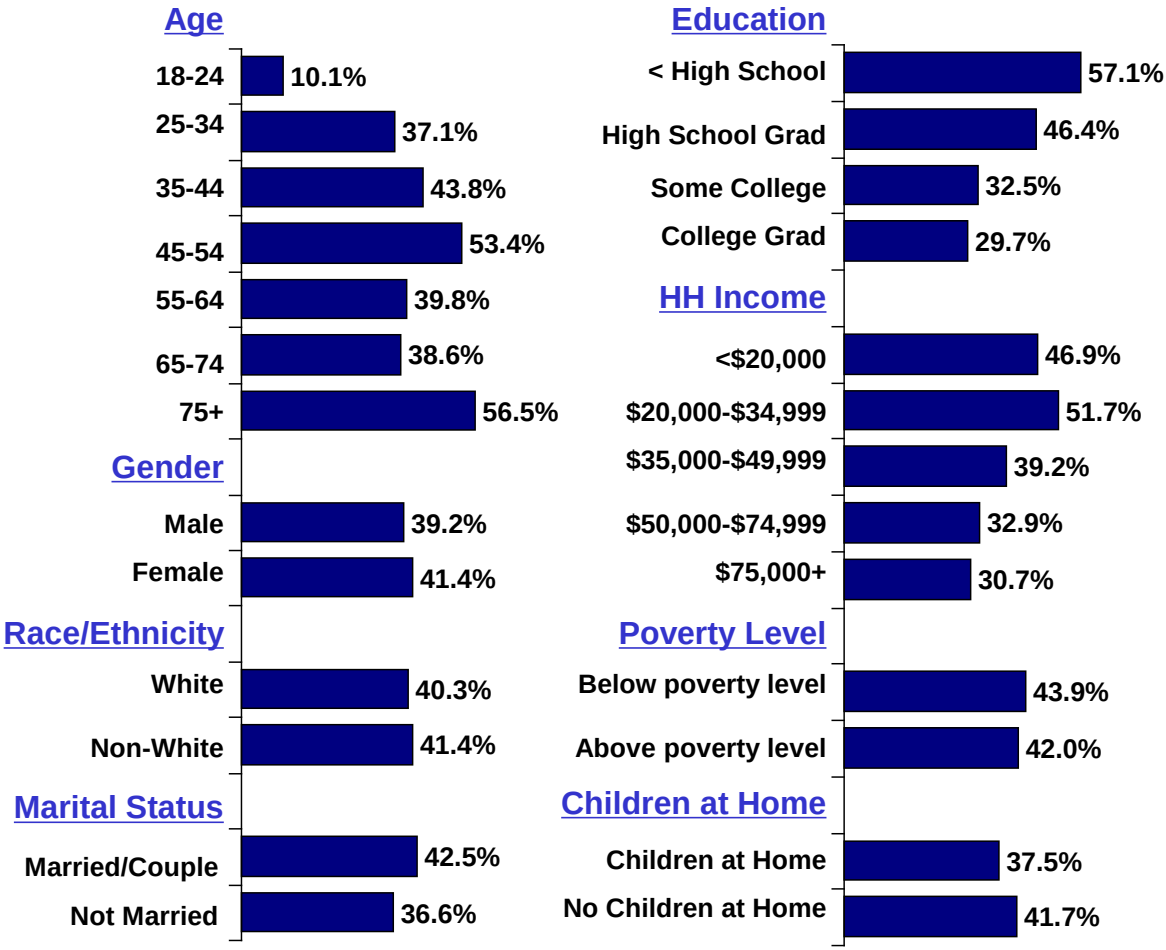
No Leisure Time Physical Activity* (Total Sample)



(n=1123)

*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.

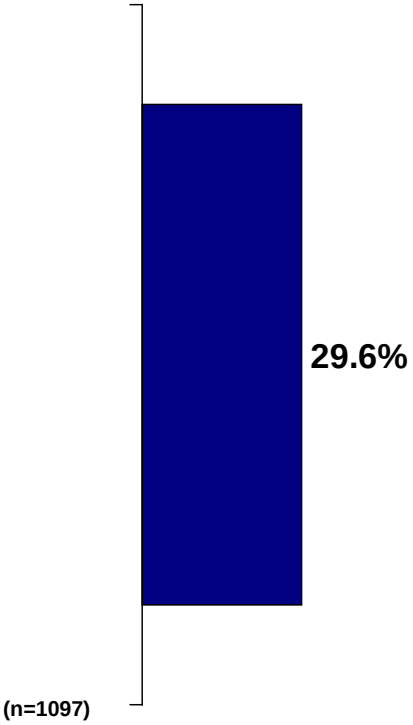
No Leisure Time Activity by Demographics



Similarly, participating in adequate amounts of aerobic physical activity is directly related to education and income. Men and Whites are more likely to participate in adequate amounts compared to women and non-Whites, respectively. The youngest adults (18-24) are most likely to engage in aerobic activity.

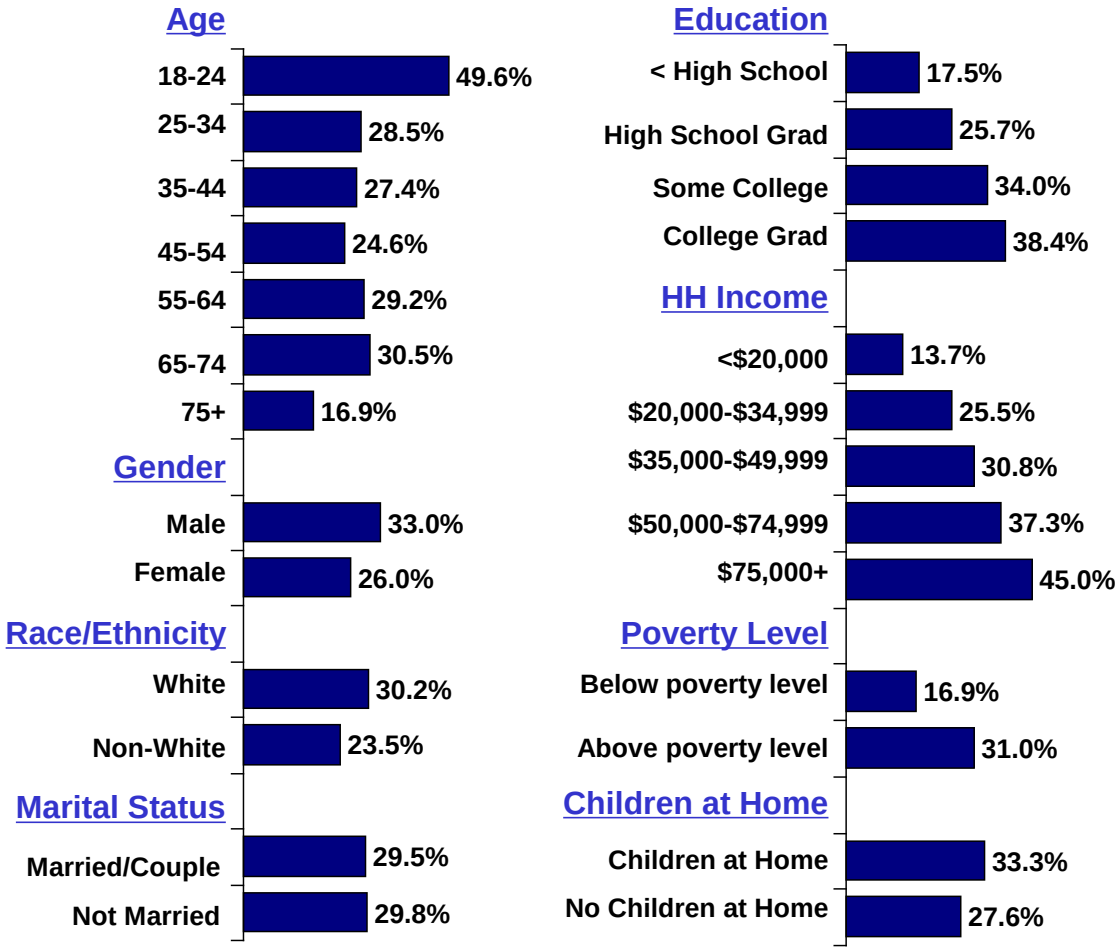
Leisure Time Physical Activity (Cont'd.)

Adequate Aerobic Physical Activity* (Total Sample)



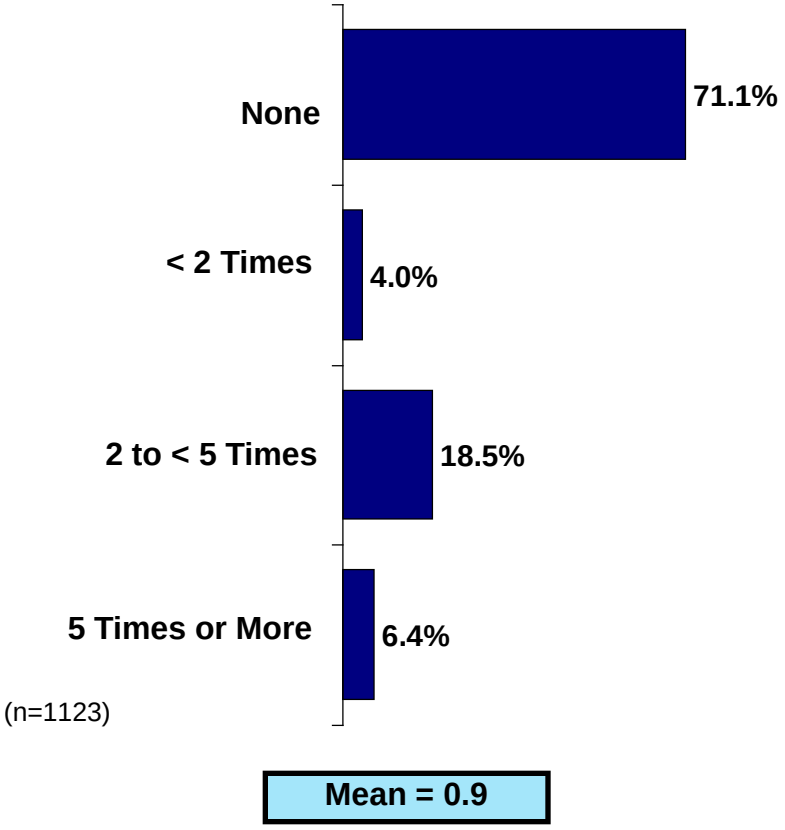
*Among all adults, the proportion who reported that they do either moderate physical activities for at least 150 minutes per week, vigorous physical activities for at least 75 minutes per week, or an equivalent combination of moderate and vigorous physical activities.

Adequate Aerobic Physical Activity by Demographics



Among SHLH area adults, seven in ten (71.1%) engage in no muscle strengthening activities. On the other hand, one-fourth (24.9%) perform muscle-strengthening activities at least twice a week.

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

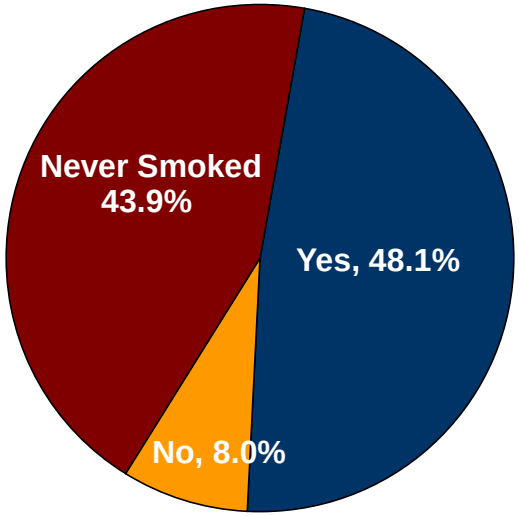


Q18.4: During the past month, how many times per week, or per month, did you do physical activities or exercises to STRENGTHEN your muscles? DO NOT count aerobic activities like walking, running, or bicycling. Count activities using your body weight like yoga, sit-ups or push-ups and those using weight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

Almost half (48.1%) of area adults have smoked at least 100 cigarettes in their lifetime. Of these, 37.5% currently smoke every day and 7.6% smoke some days; these individuals are classified as smokers. Slightly more than one in five (21.7%) area adults are smokers and 26.4% are considered former smokers (smoked at least 100 cigarettes in their life but currently do not smoke at all).

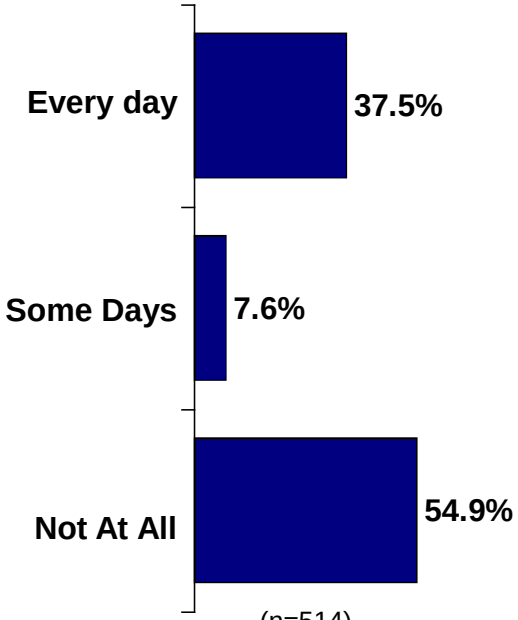
Cigarette Smoking

Smoked 100 Cigarettes in Lifetime



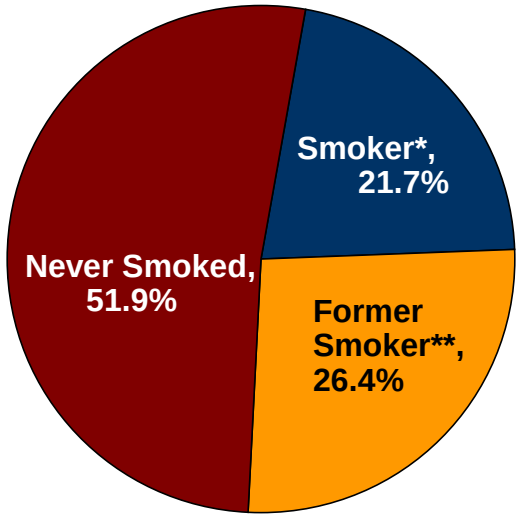
(n=1127)

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



(n=514)

Smoking Status



(n=1127)

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?

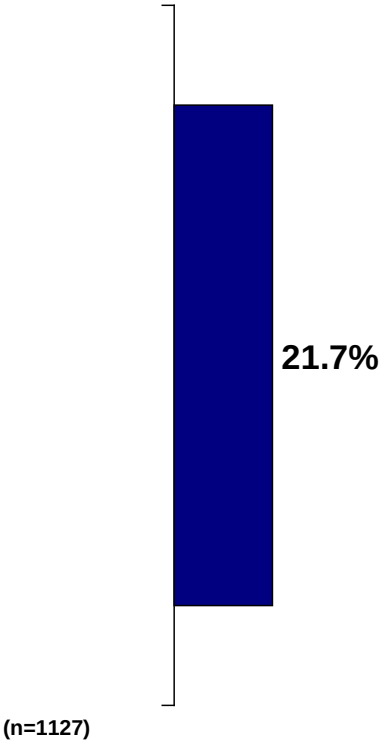
*Among all adults, the proportion who reported that they had ever smoked at least 100 cigarettes (5 packs) in their life and that they smoke cigarettes now, either every day or on some days.

**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 those adults: with less than a high school diploma, living under the poverty level or making less than $20K per year, and between the ages of 25-34. Additionally, smoking is more common among non-Whites than Whites, and more common among men than women.

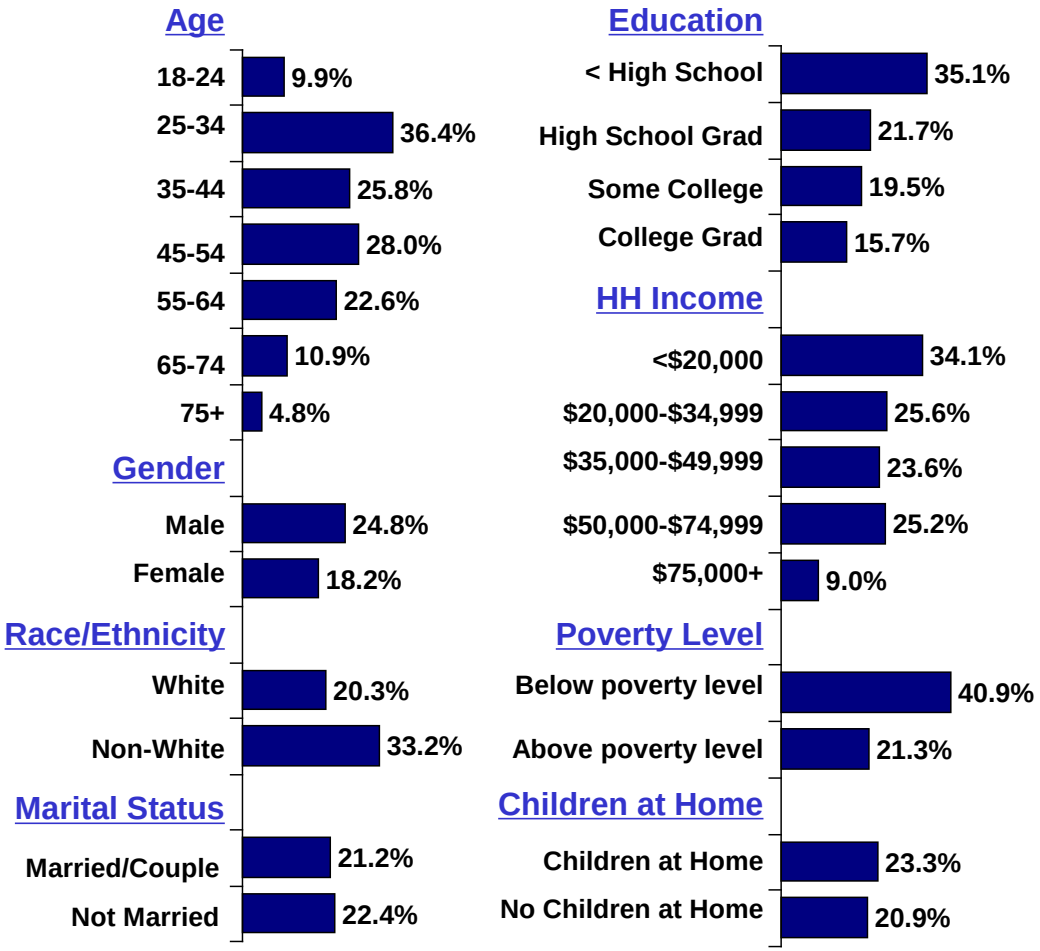
Cigarette Smoking (Cont'd.)

Current Cigarette Smoking* (Total Sample)



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

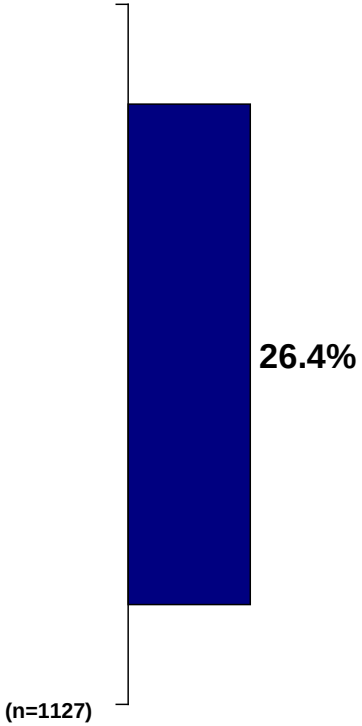
Current Cigarette Smoking by Demographics



Area adults most likely to be former smokers are those that are male, White, above the poverty level, and/or without children at home. Being a former smoker is also directly related to age.

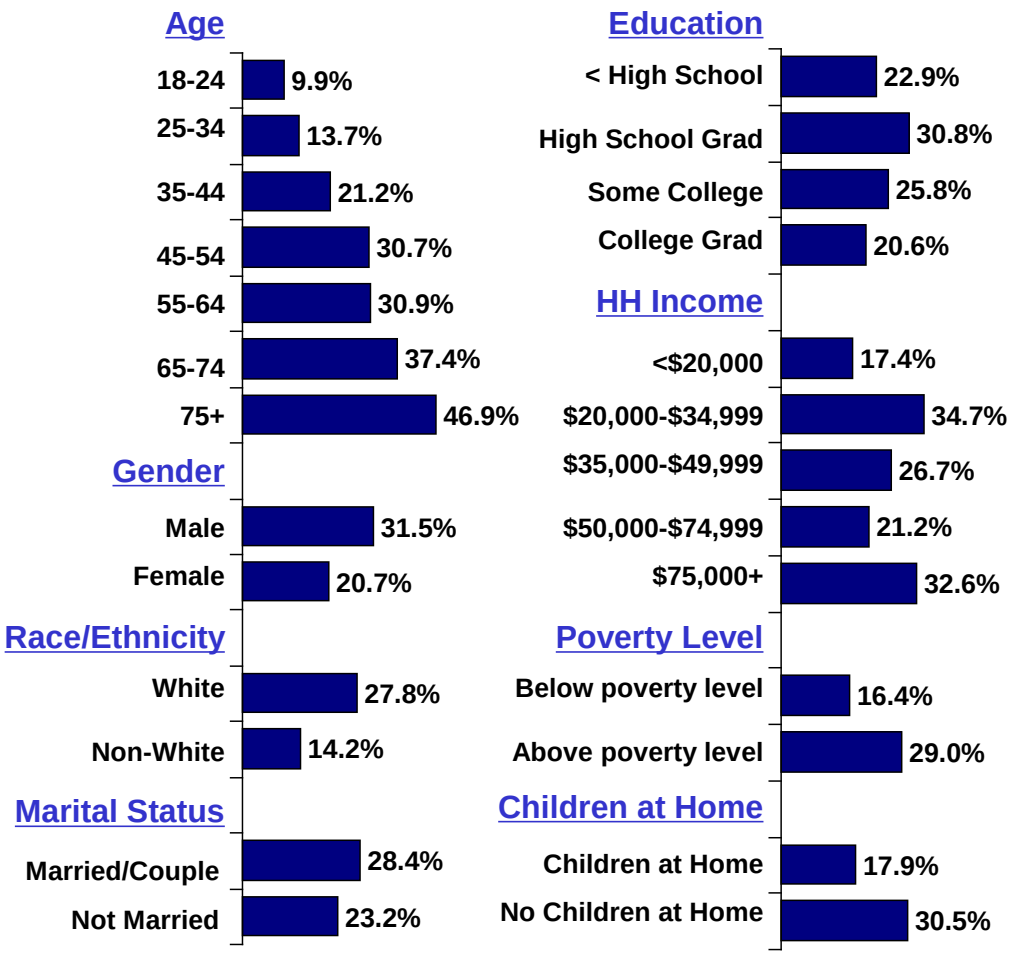
Cigarette Smoking (Cont'd.)

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.

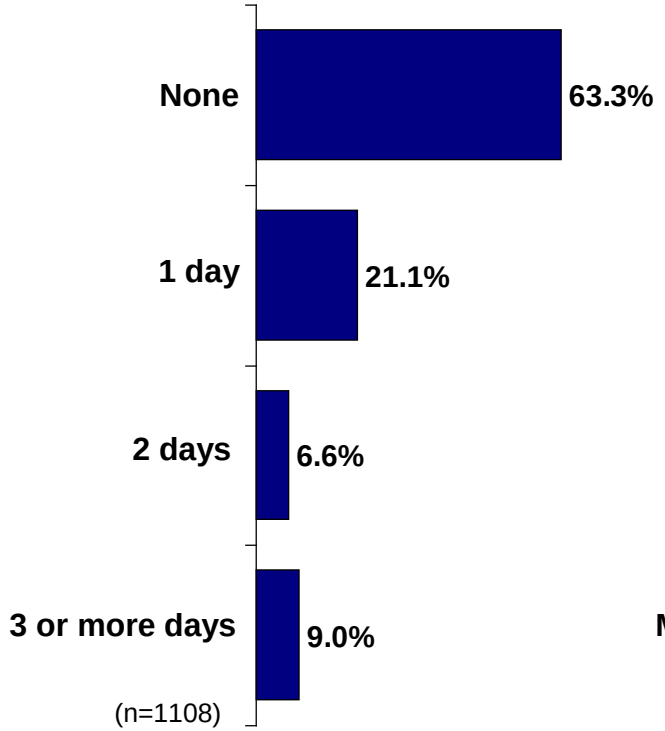
Former Cigarette Smoking by Demographics



With regard to alcohol consumption, six in ten (63.5%) area adults are non-drinkers and almost one-third (32.7%) are considered light to moderate drinkers. Heavy drinkers comprise 3.9% of area adults, meaning they consume an average of more than eight (if female) or fourteen (if male) drinks per week.

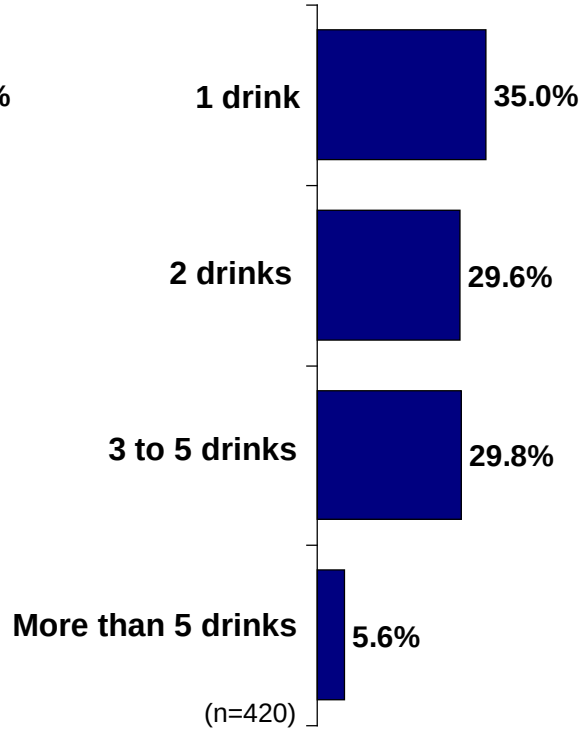
Alcohol Consumption in Past 30 Days

Number of Days Per Week Drank Alcohol in Past 30 Days



Mean (All) = 0.7
Mean (Drinkers) = 2.0

Average Number of Drinks When Drinking



Mean = 2.4

Drinking Status

Non Drinker	63.5%
Light/Moderate Drinker	32.7%
Heavy Drinker	3.9%

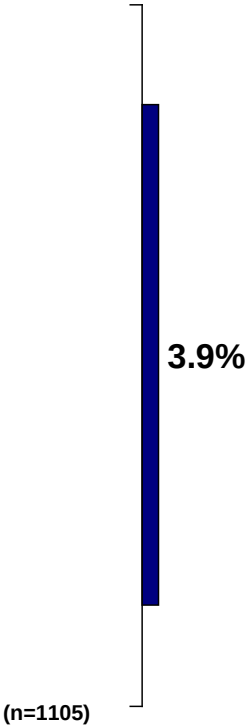
(n=1105)

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 no pattern for adults in the SHLH service area. College graduates are more likely to engage in heavy drinking than those with less education. Yet, those who have incomes of $75K or more are likely to engage in heavy drinking at virtually the same rate as those who make less than $20K.

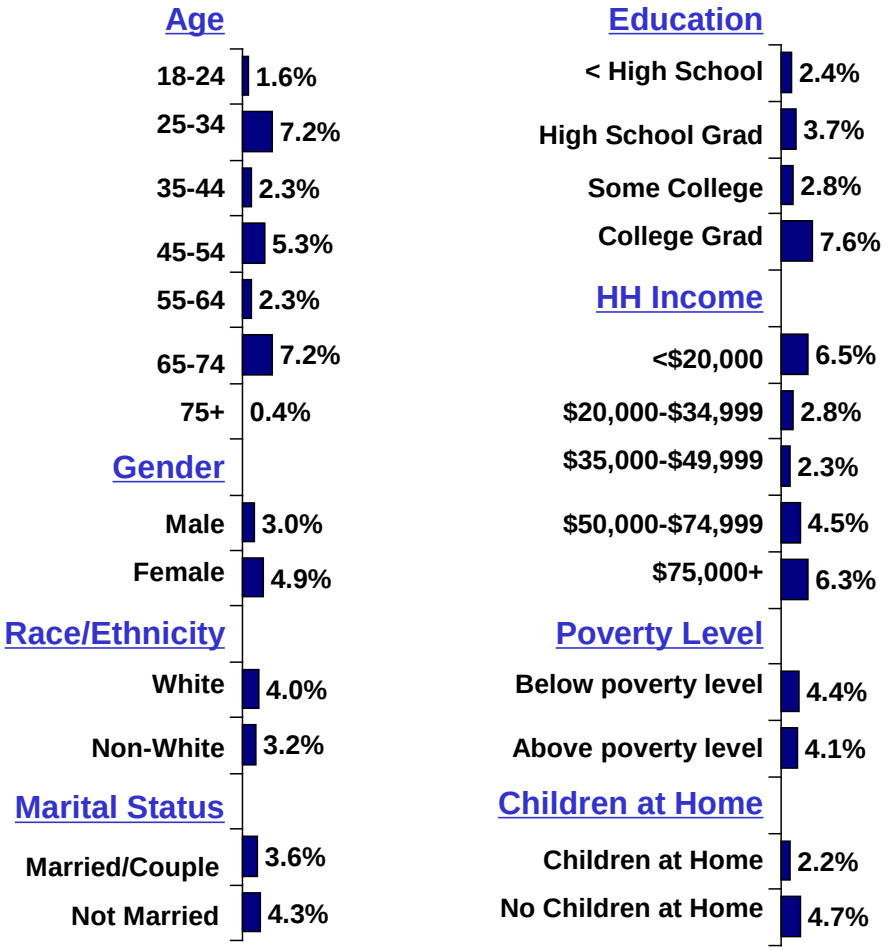
Alcohol Consumption (Cont'd.)

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.

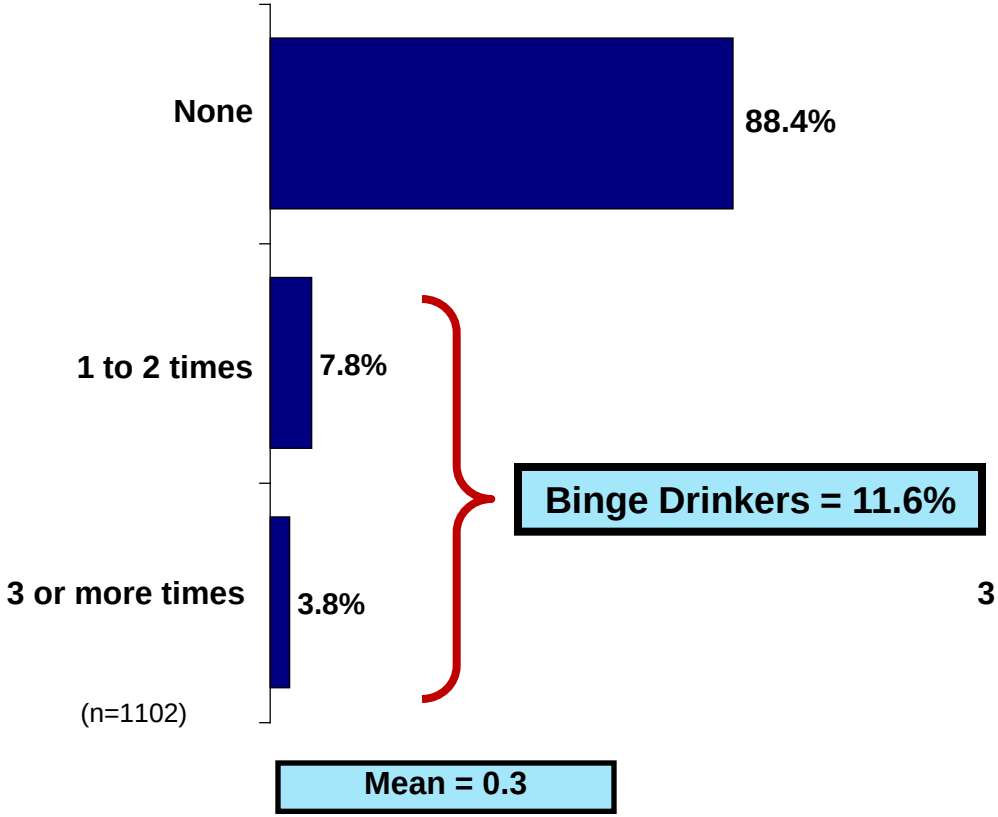
Heavy Drinking by Demographics



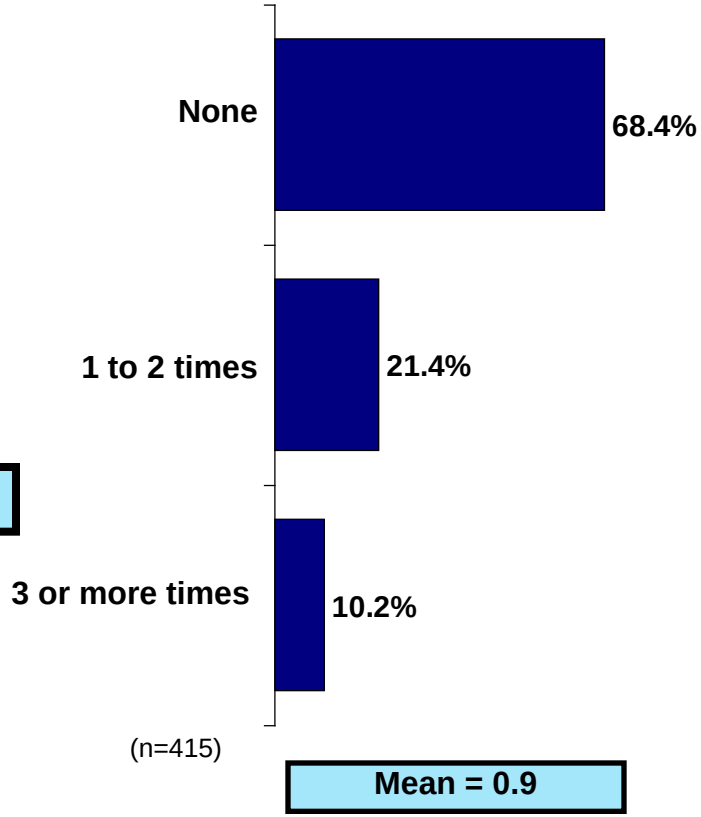
Among all adults, more than one in ten (11.6%) have engaged in binge drinking in the past 30 days. Among those who drink, this proportion rises to 31.6%.

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)

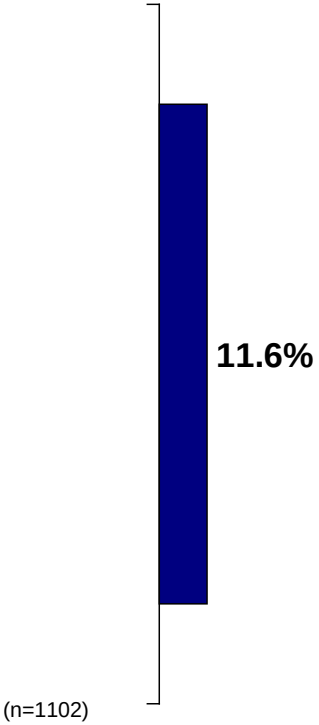


Q20.3: Considering all types of alcoholic beverages, how many times during the past 30 days did you have X (x=5 for men, x=4 for women) or more drinks on an occasion?

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 less prevalent among adults with the lowest levels of education and income.

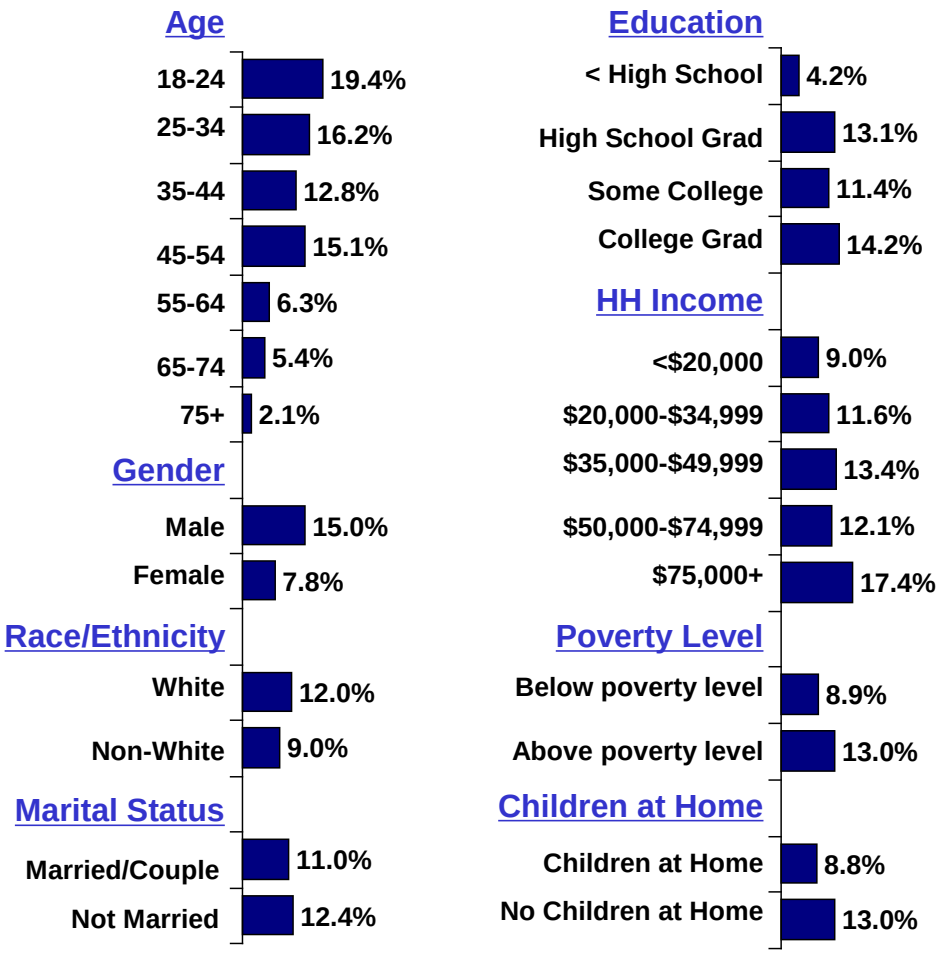
Binge Drinking (Cont'd.)

Binge Drinking* (Total Sample)



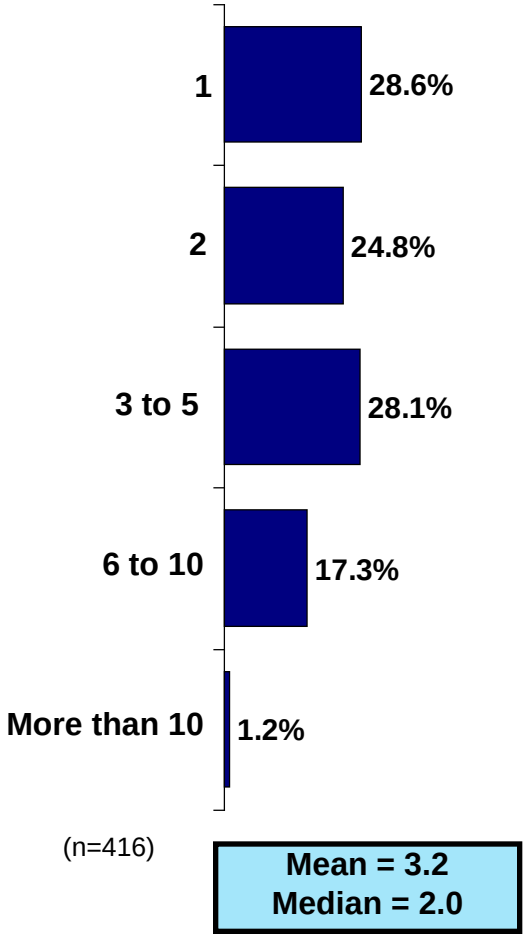
*Among all adults, the proportion who reported consuming five or more drinks per occasion (for men) or four or more drinks per occasion (for women) at least once in the previous month.

Binge Drinking by Demographics



Among SHLH area adults who drink alcohol, half (53.4%) have at most consumed one to two drinks on any occasion in the past 30 days, while 18.5% have consumed six or more drinks.

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

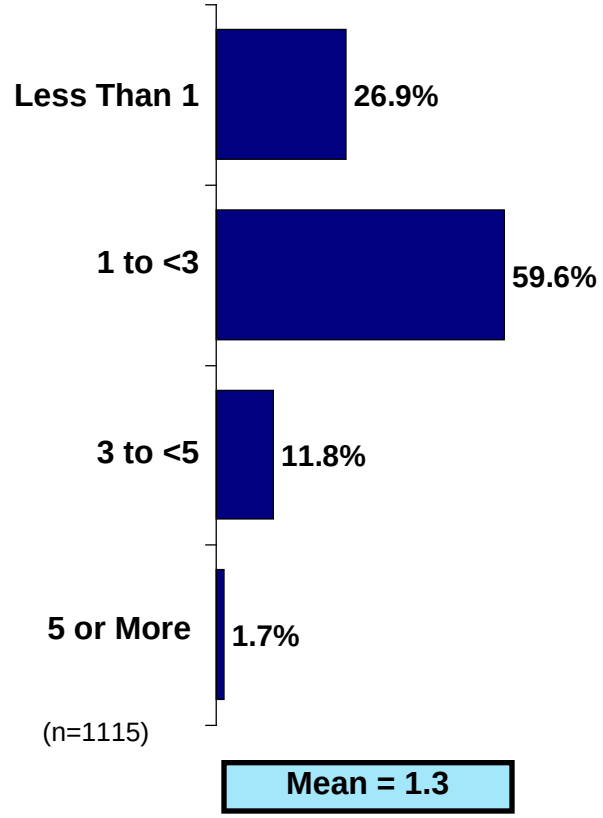


Q20.4: During the past 30 days, what is the largest number of drinks you had on any occasion?

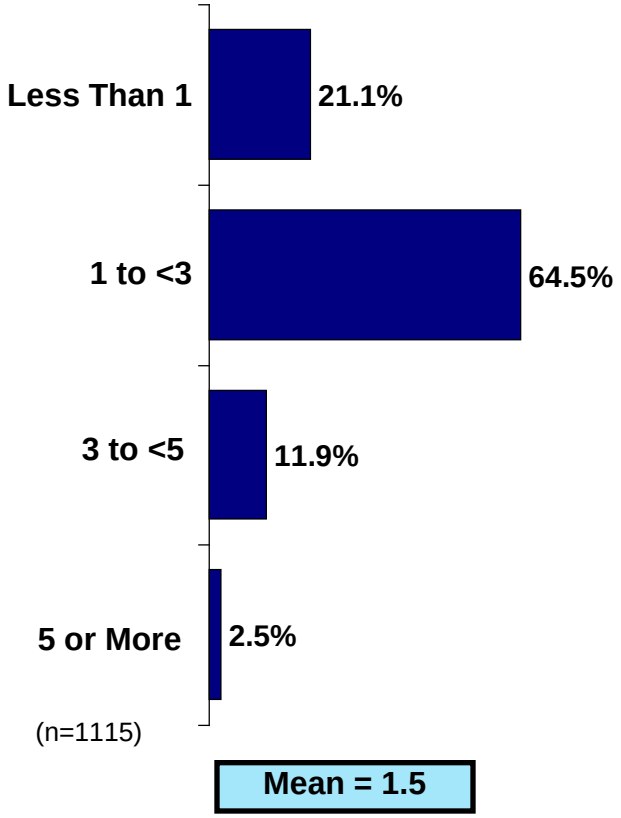
Area adults consume minor quantities of fruit (including 100% fruit juice) and vegetables per day, averaging less than two times a day for each. Taken together, fruits and vegetables are consumed on average three times per day. Still, only 15.0% of adults consume adequate amounts (five times) of fruits and vegetables per day.

Consumption of Fruit and Vegetables

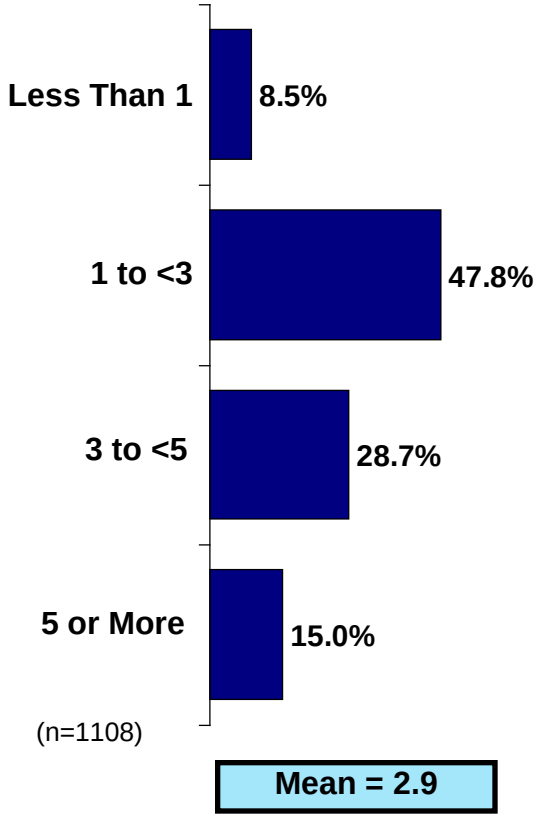
Number of Times Consumed Fruit/Fruit Juice Per Day



Number of Times Consumed Vegetables Per Day



Number of Times Consumed Fruits or Vegetables Per Day



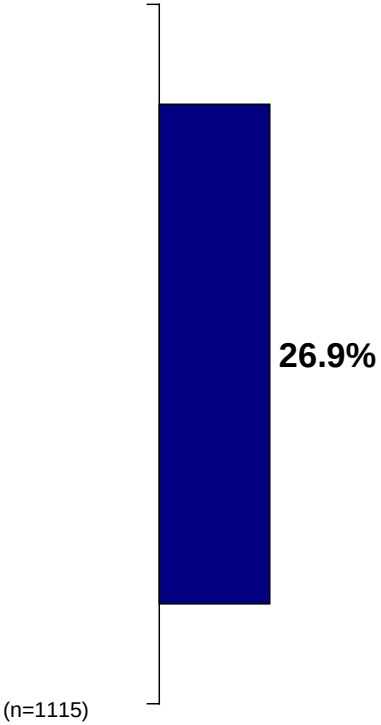
Q15.1: During the past month, how many times per day, week, or month did you eat fruit or drink 100% PURE fruit juices? Do not include fruit flavored drinks with added sugar or fruit juice you made at home and added sugar to. Only include 100% juice.

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). Additionally, consumption of fruit is directly related to level of education.

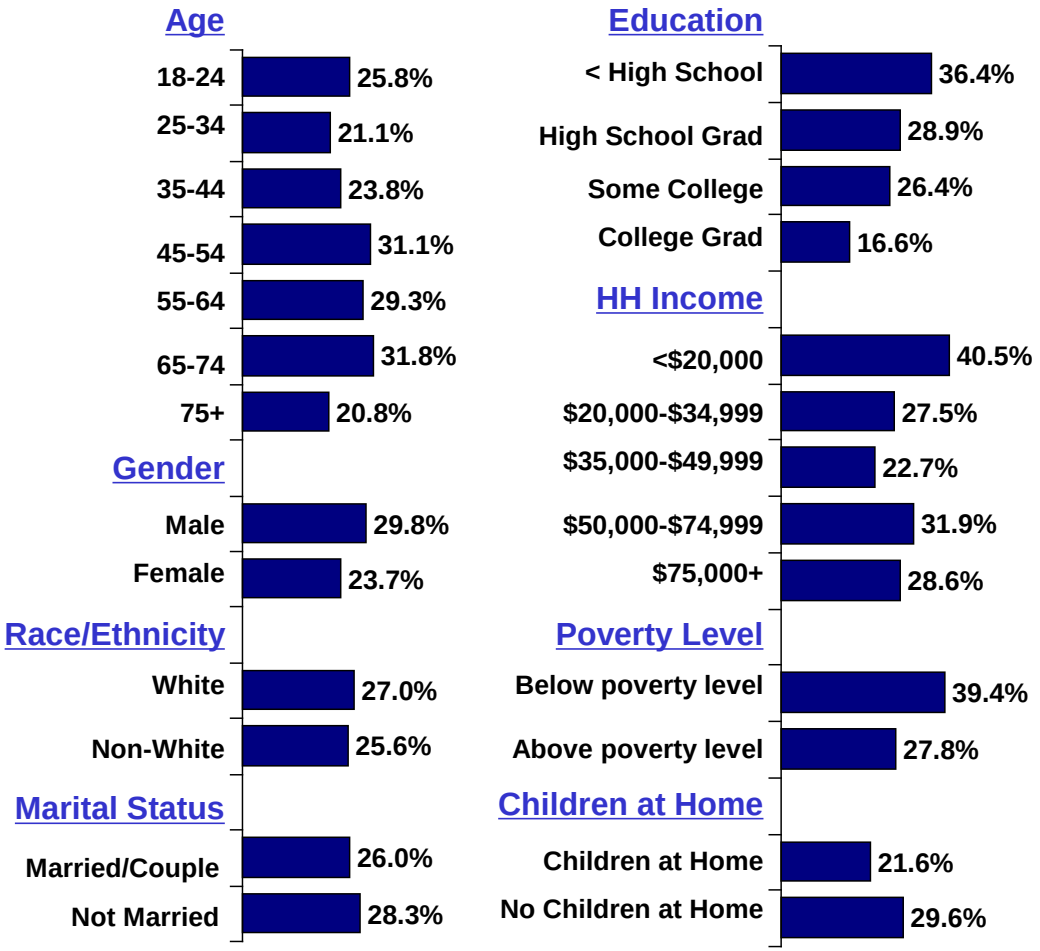
Fruit Consumption

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.

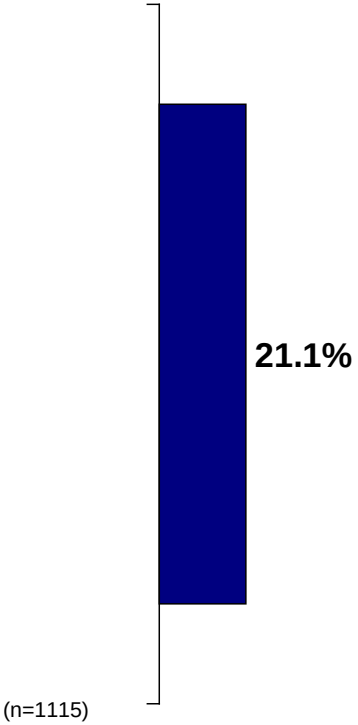
Consumed Fruits <1 Time Per Day by Demographics



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) and non-White.

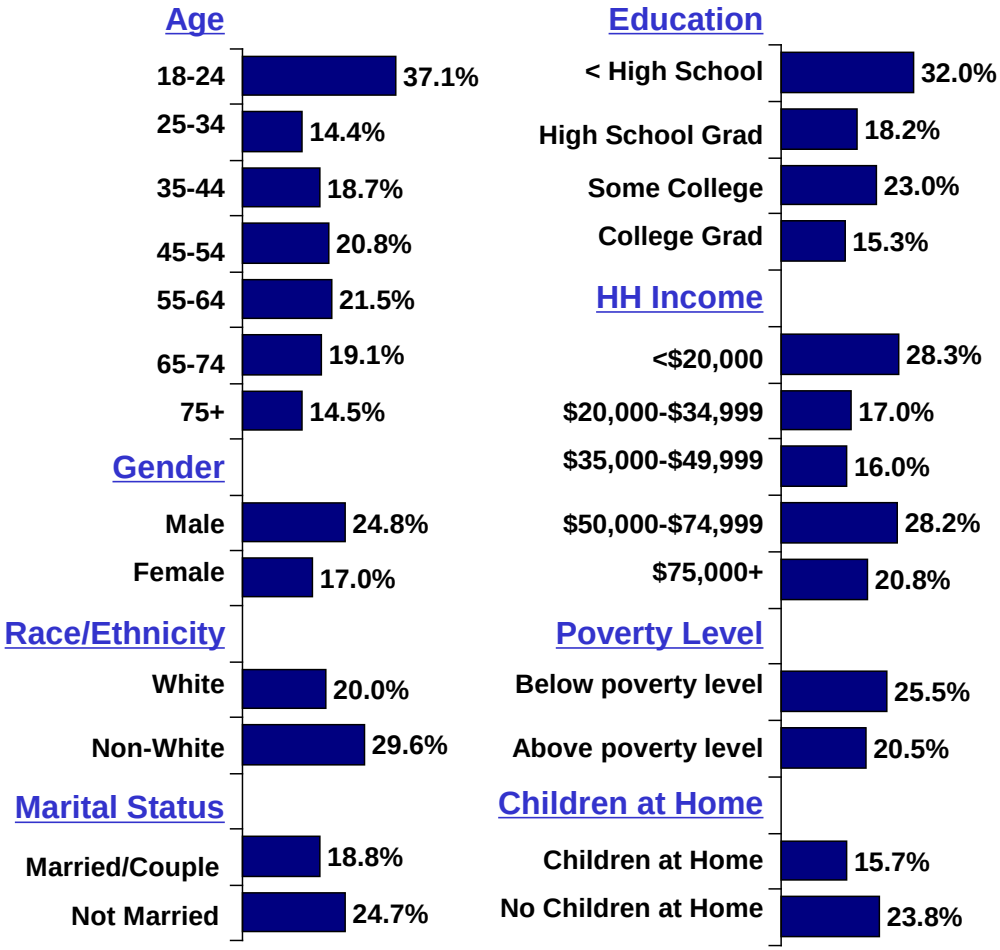
Vegetable Consumption

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



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

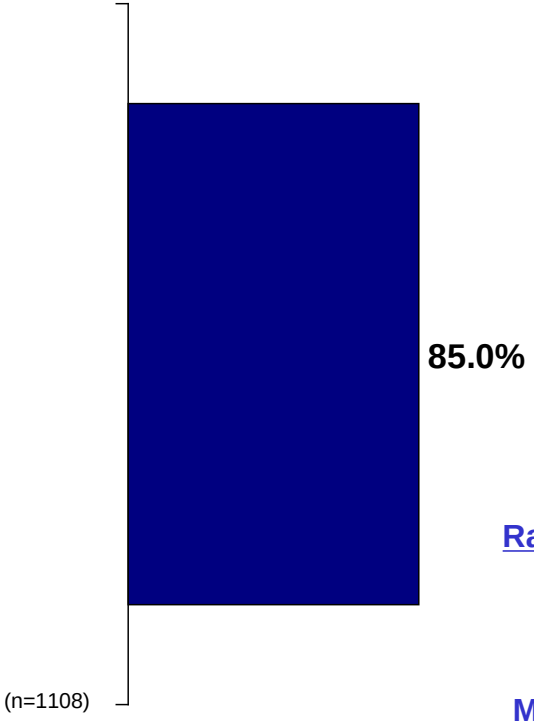
Consumed Vegetables <1 Time Per Day by Demographics



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

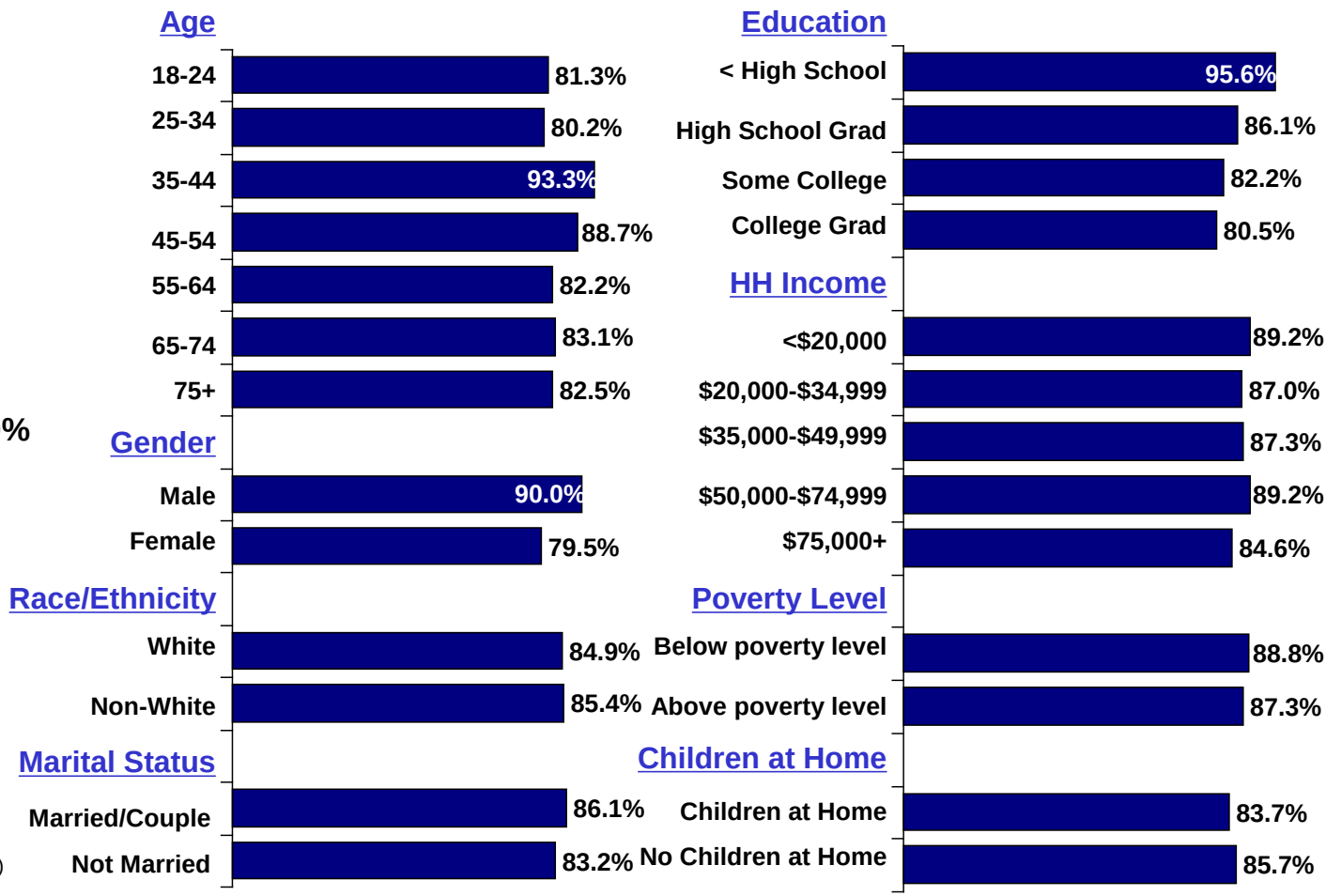
Fruit and Vegetable Consumption

Inadequate Fruit and Vegetable Consumption* (Total Sample)



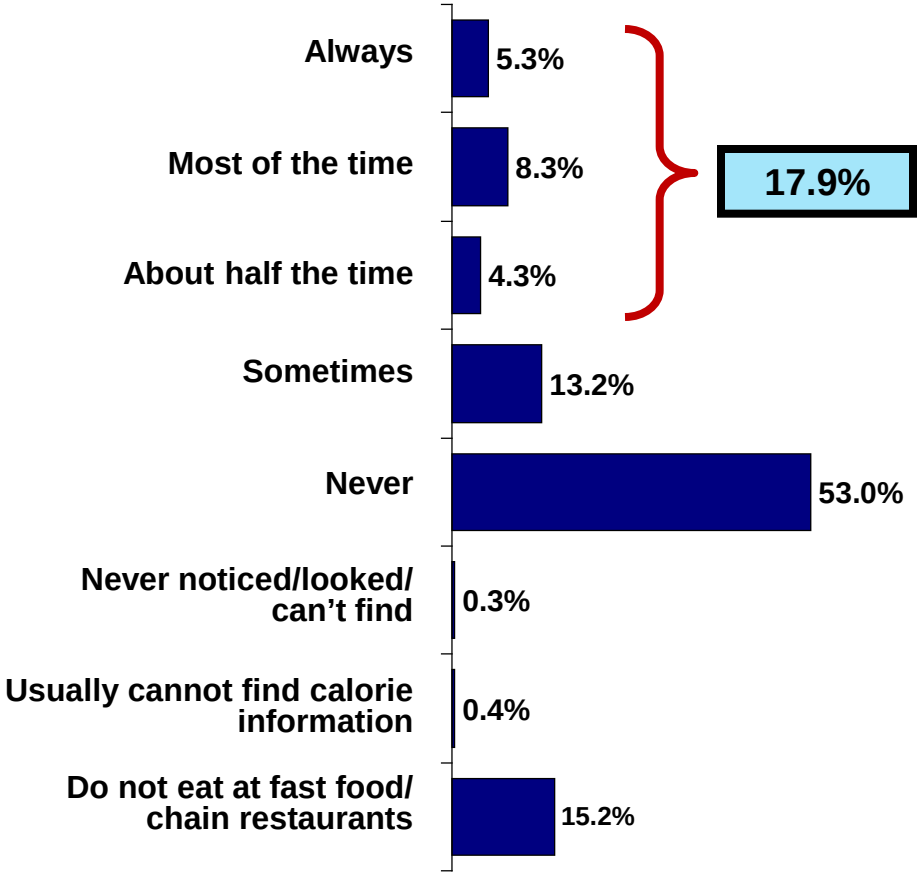
*Among all adults, the proportion whose total frequency of consumption of fruits (including juice) and vegetables was less than five times per day.

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. More than half (53.0%) say calorie information never impacts their decision.

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



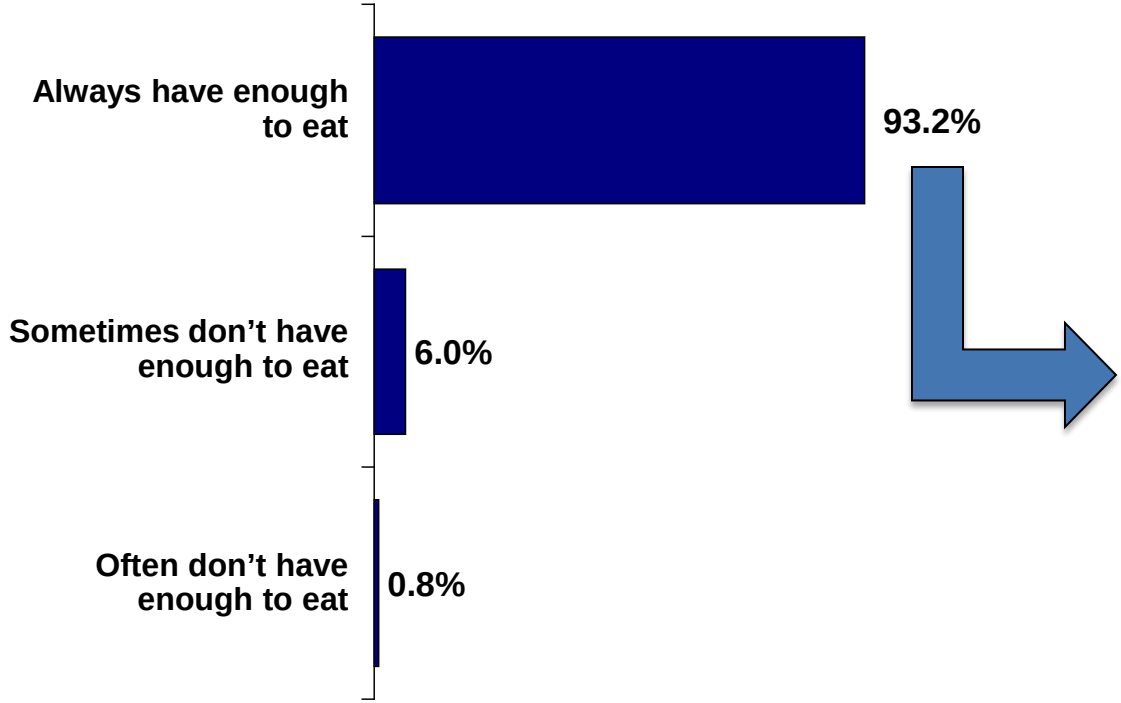
(n=1124)

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?

More than nine in ten adults (93.2%) say they always have enough to eat and are able to eat the foods they want (94.5%).

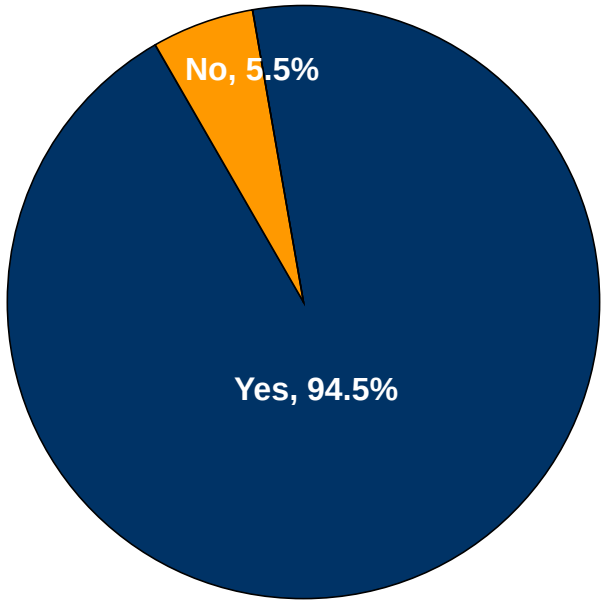
Food Access and Sufficiency

Food Sufficiency



(n=1126)

Access to Foods Wanted



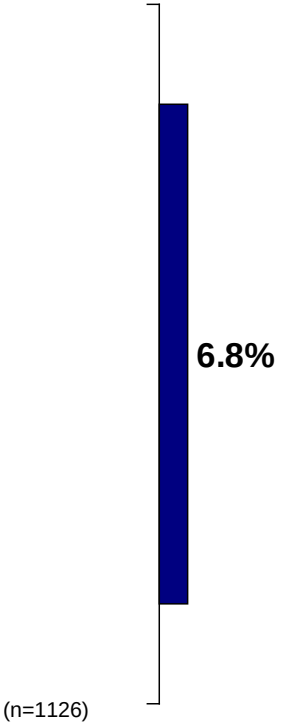
(n=1054)

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, those most likely to experience food insufficiencies are younger (25-34), non-White, not college educated, impoverished, and/or making less than $35K. More alarmingly, households with children at home more often have less to eat than those without children.

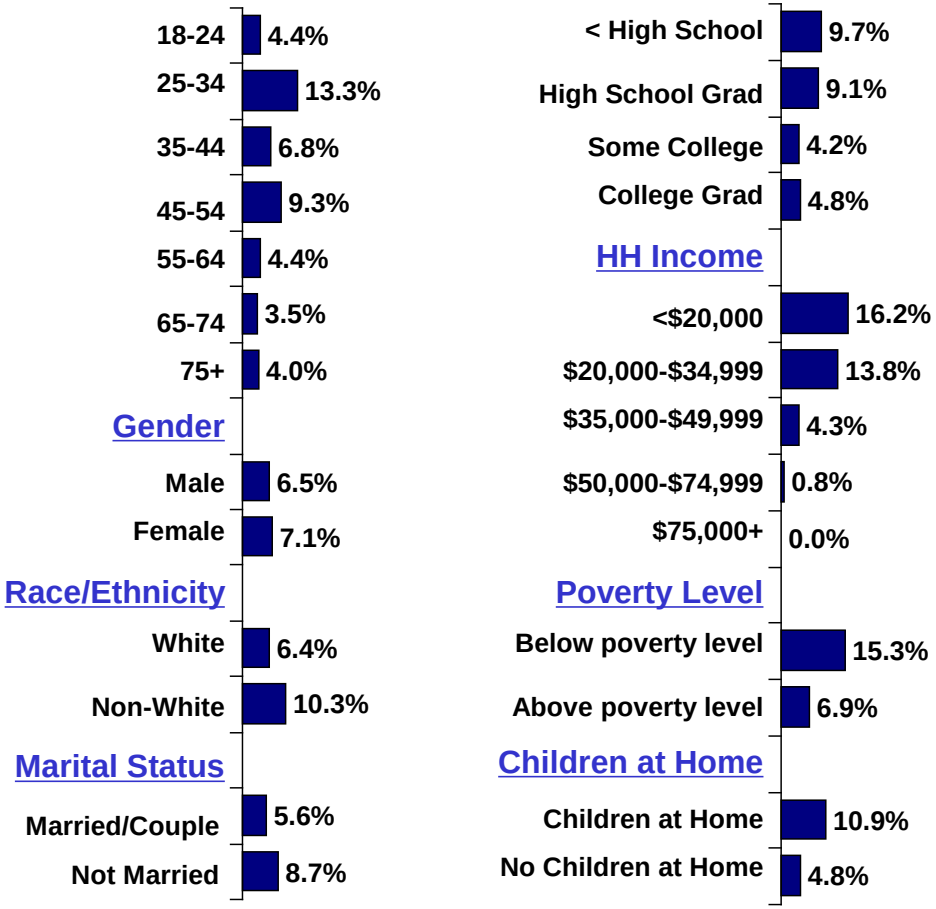
Food Sufficiency

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



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

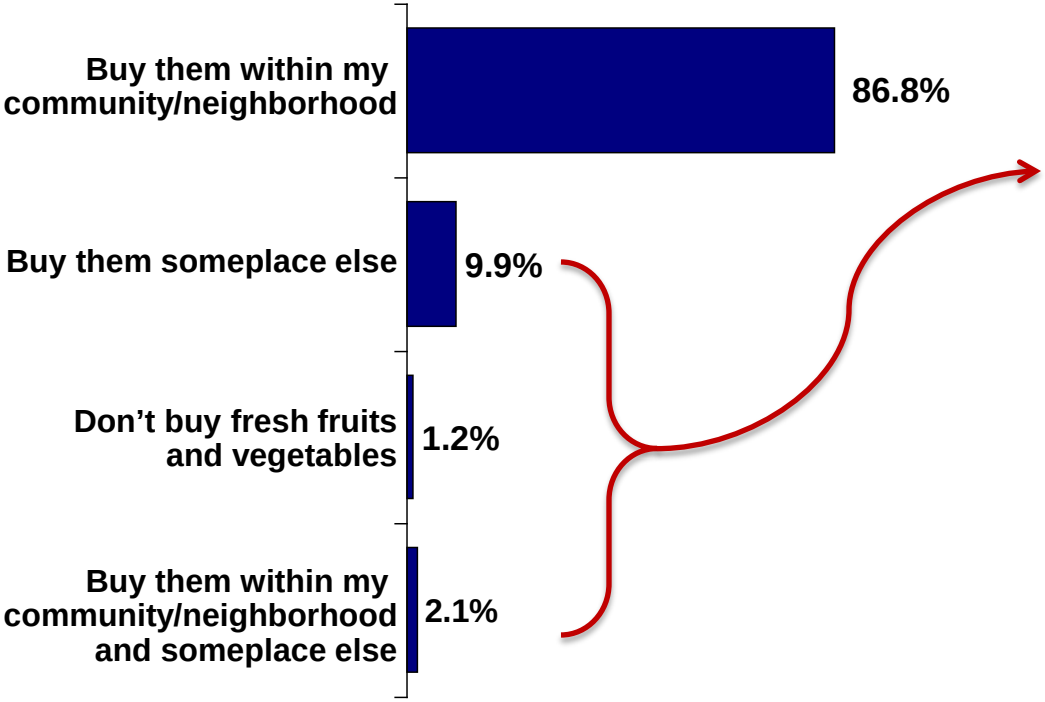
Sometimes/Often Don't Have Enough to Eat by Demographics



Almost nine in ten adults (86.8%) say they purchase fresh fruits and vegetables within their community. Those who don't purchase locally say there are *no stores in their community* or that existing stores have *poor quality produce* or that it is *too expensive*.

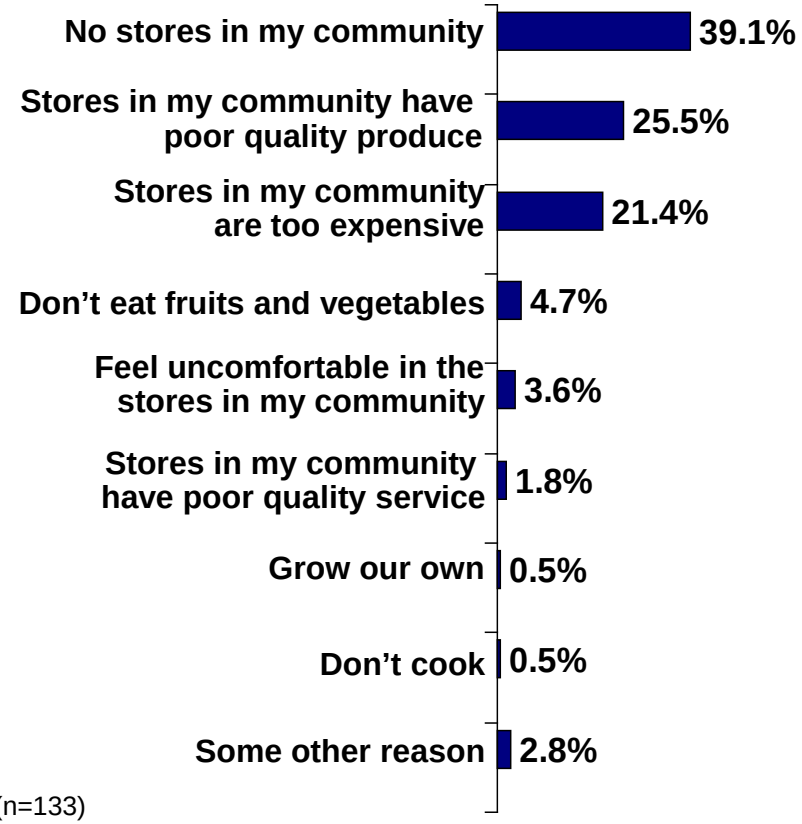
Purchasing Fresh Fruits and Vegetables

Location of Fresh Fruits/ Vegetables Purchased



(n=1124)

Reasons for Not Purchasing All Fresh Produce Locally

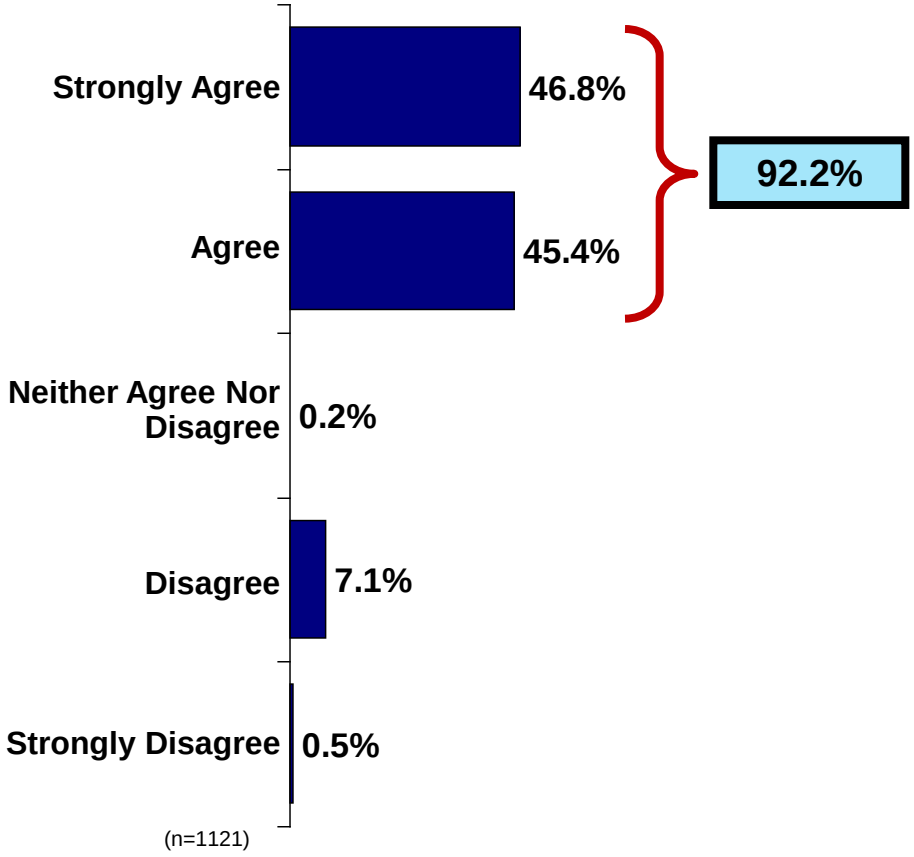


(n=133)

Q17.3: When you or someone in your household shops for fresh fruits and vegetables, would you say that you…
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?

More than nine in ten (92.2%) report that fresh fruits and vegetables are easy to find in their community or neighborhood.

Availability of Fresh Fruits and Vegetables in the Community

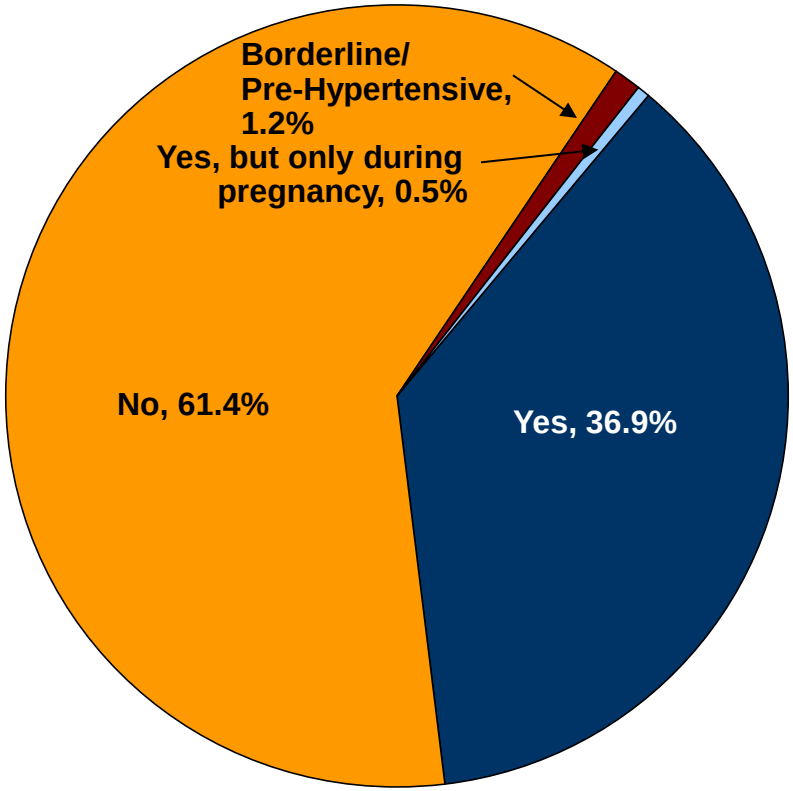


Q17.5: Please tell me how much you agree or disagree with the following statement. "It is easy to find fresh fruits and vegetables within your community or neighborhood." Would you say that you…

Just over one-third (36.9%) of area adults have been told by a health care professional they have high blood pressure (HBP). Among those who have HBP, 81.4% are currently taking medication for it.

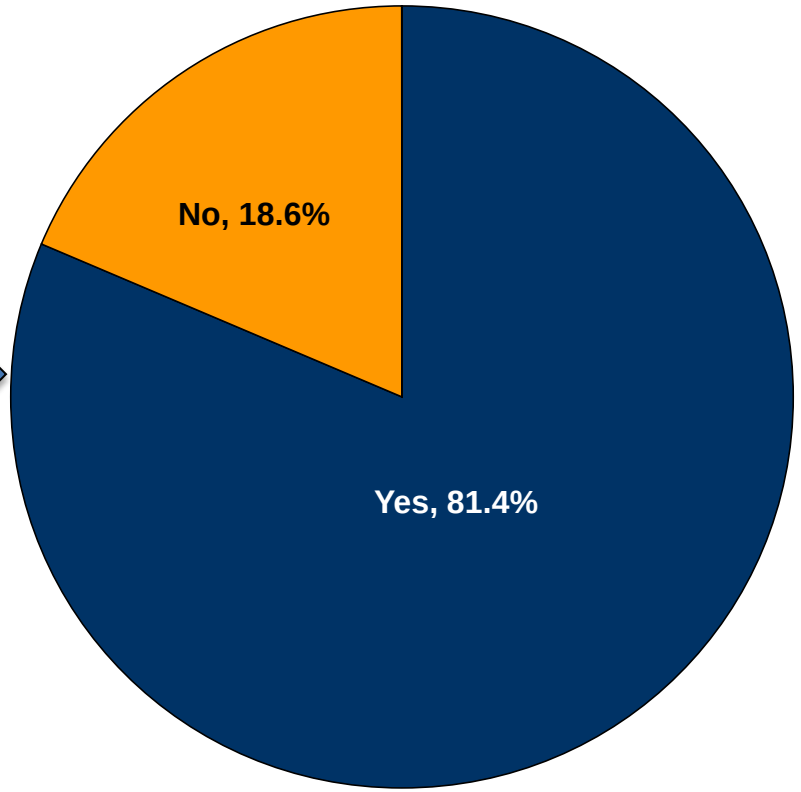
Hypertension Awareness

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



(n=1125)

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



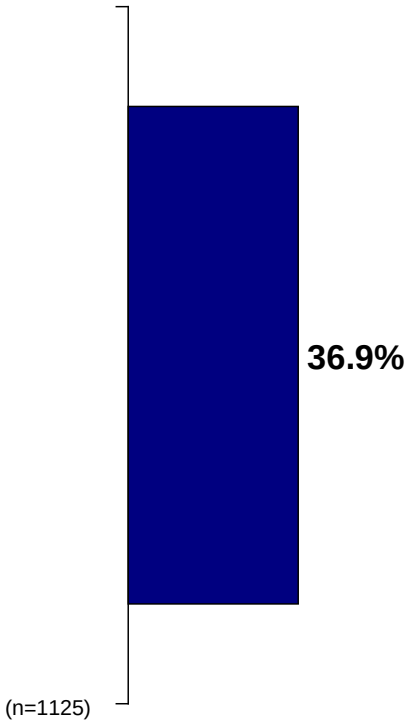
(n=527)

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 diploma vs. those with a college degree, and more common in adults with no children at home compared to those with children at home.

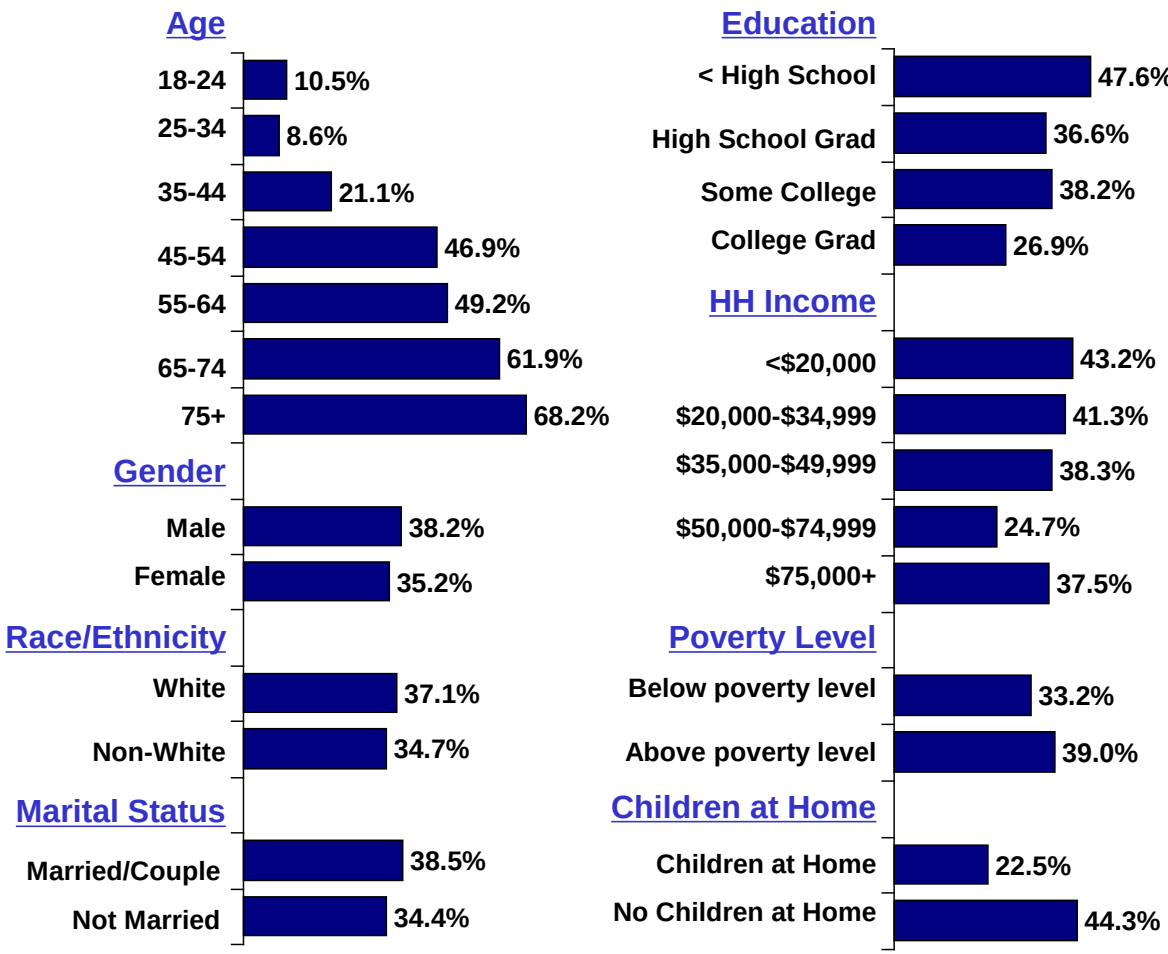
Hypertension Awareness (Cont'd.)

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.

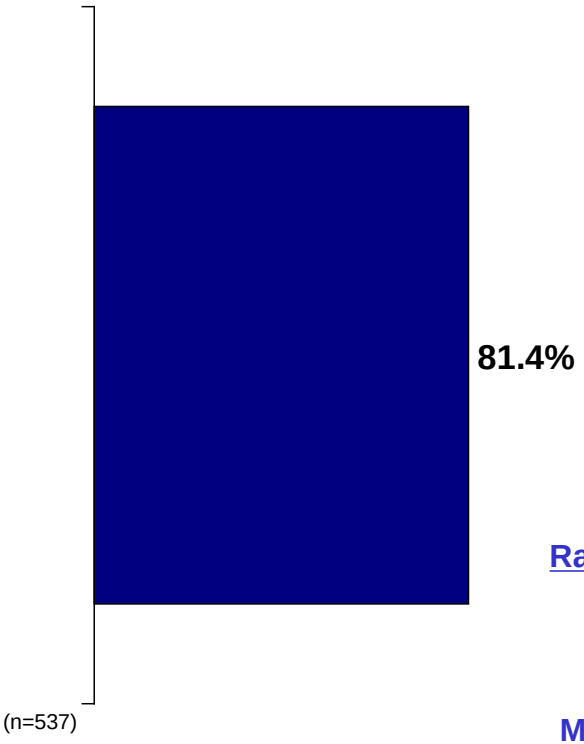
Ever Told HBP by Demographics



Area adults most likely to take medication for their HBP are: 45 years or older, without a high school diploma, from households with incomes $50K+, and/or from households with no children at home.

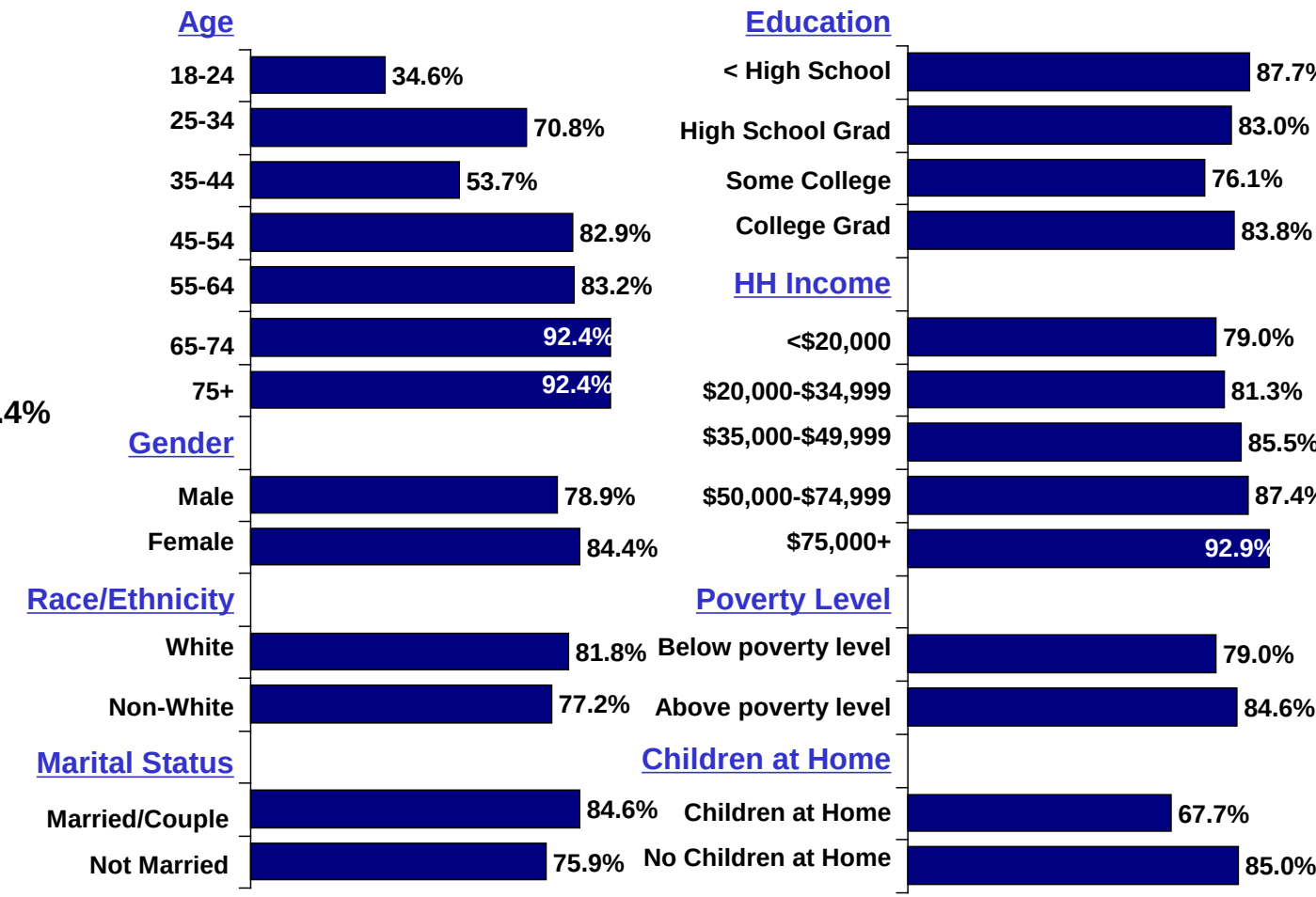
Hypertension Awareness (Cont'd.)

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

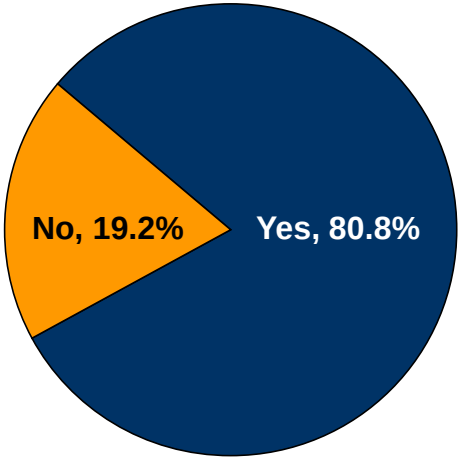


Clinical Preventative Practices

Eight in ten (80.8%) area adults have had their cholesterol checked, and the vast majority of them have had it done within the past year. One-third (32.3%) of them have been told by a health care professional that their cholesterol is high. Of these, two-thirds (67.2%) are currently taking medication to lower their cholesterol.

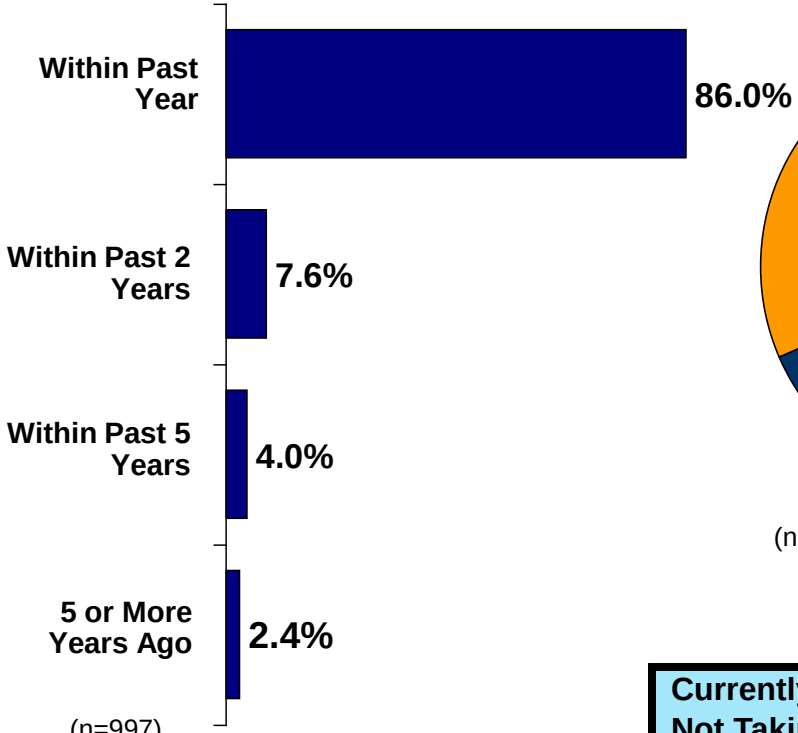
Cholesterol Awareness

Ever Had Blood Cholesterol Checked



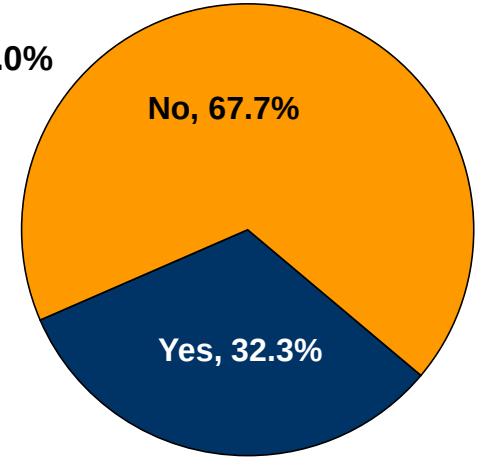
(n=1109)

Last Time Had Blood Cholesterol Checked



(n=997)

Ever Told Blood Cholesterol is High



(n=993)

Currently Taking Medication = 67.2%
Not Taking Medication = 32.8%

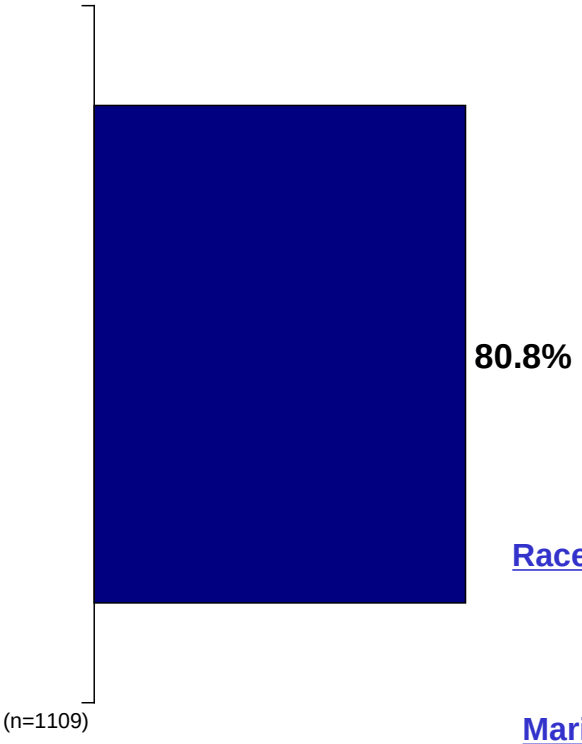
(n=367)

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 had their cholesterol checked are those age 45+ and those with annual incomes of $75K+.

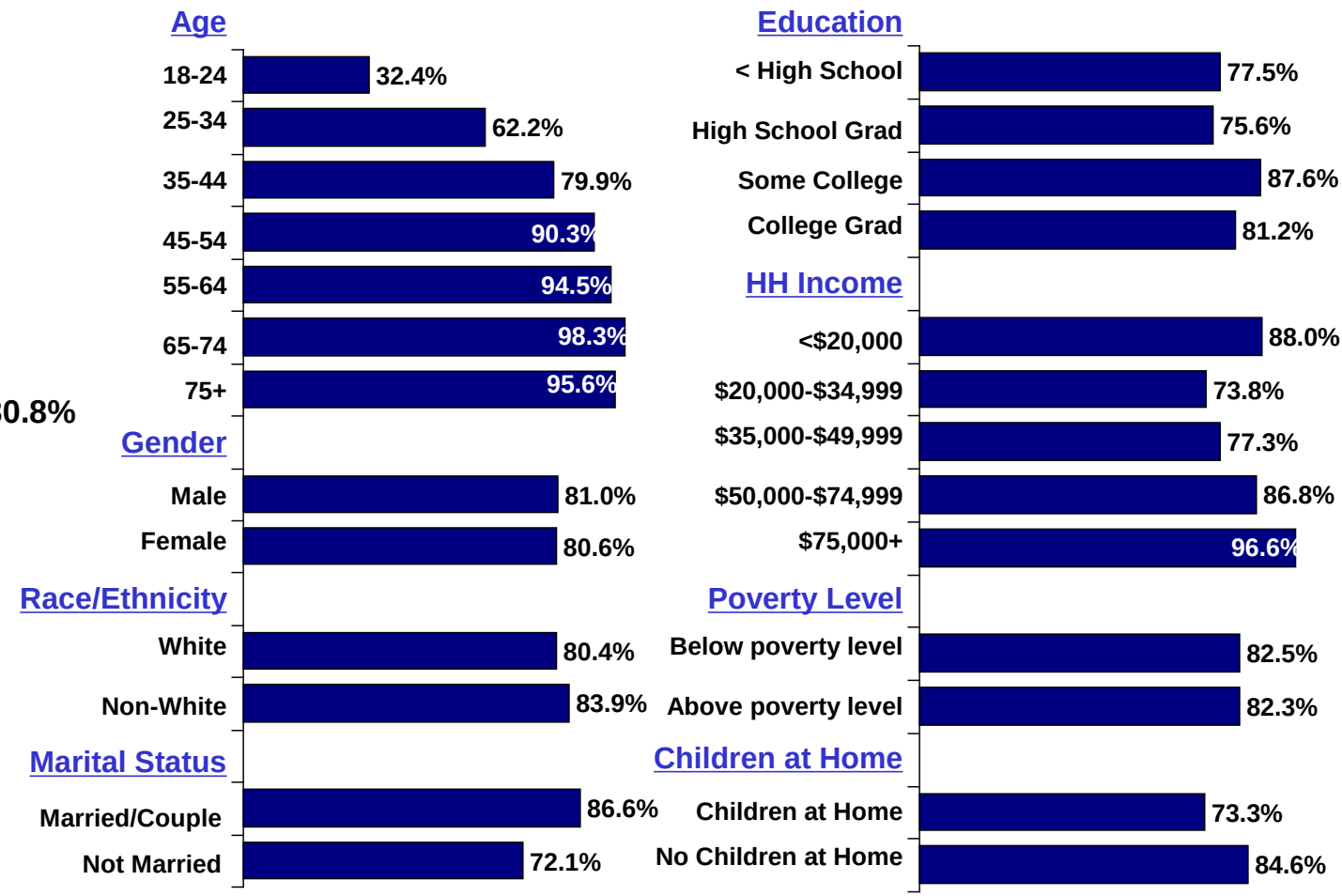
Cholesterol Awareness (Cont'd.)

Ever Had Blood Cholesterol Checked* (Total Sample)



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

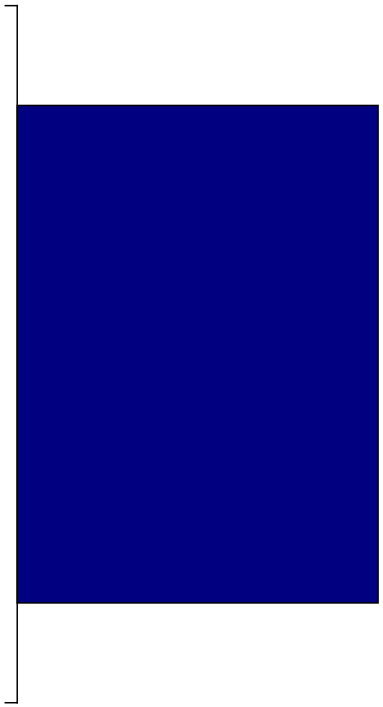
Ever Had Blood Cholesterol Checked by Demographics



Similarly, adults most likely to have had their cholesterol checked within the past five years are: age 45+, married, and/or in households with either low (less than $20K) or high ($75K+) annual incomes.

Cholesterol Awareness (Cont'd.)

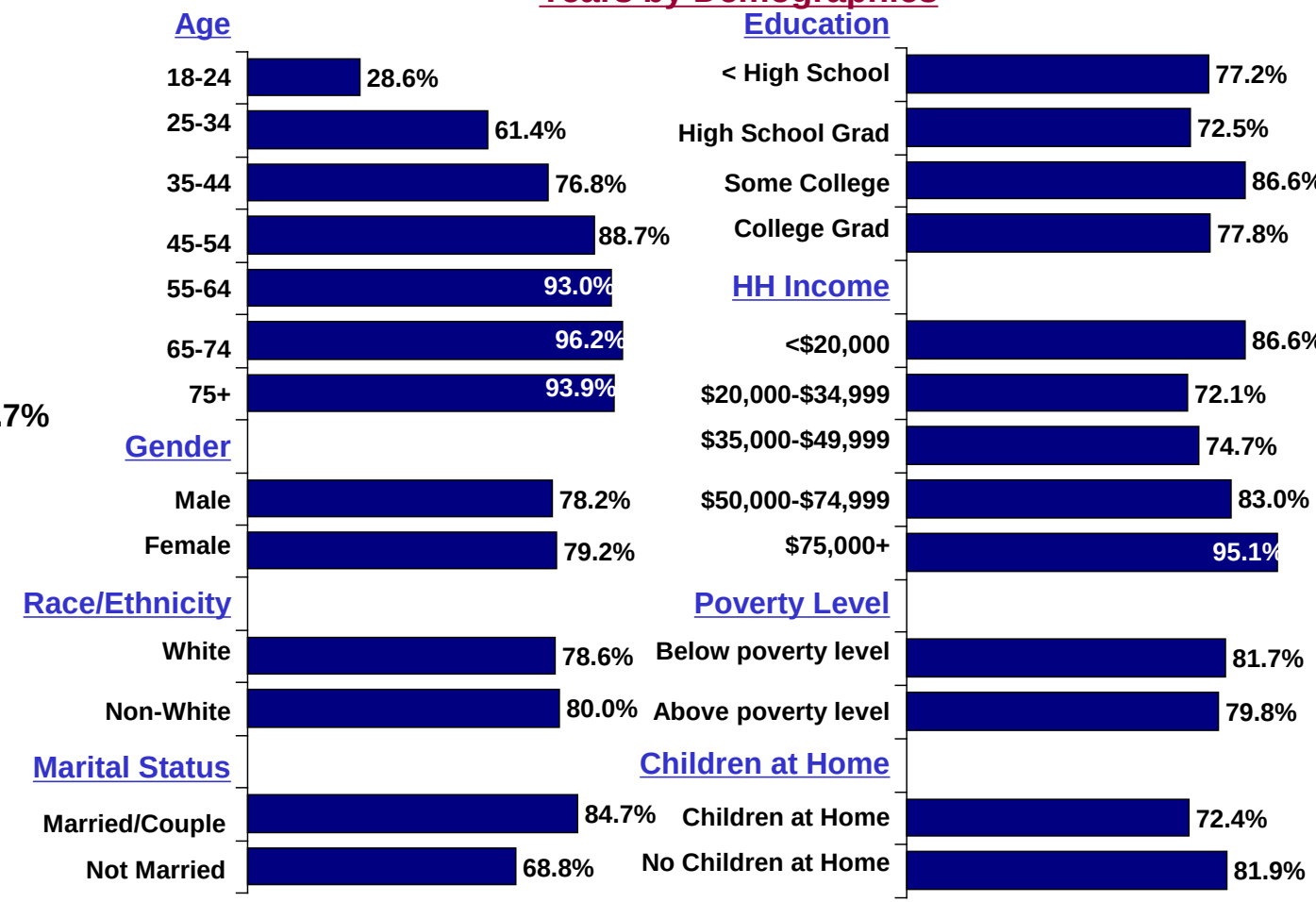
Had Blood Cholesterol Checked Within Past Five years* (Total Sample)



(n=1960)

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

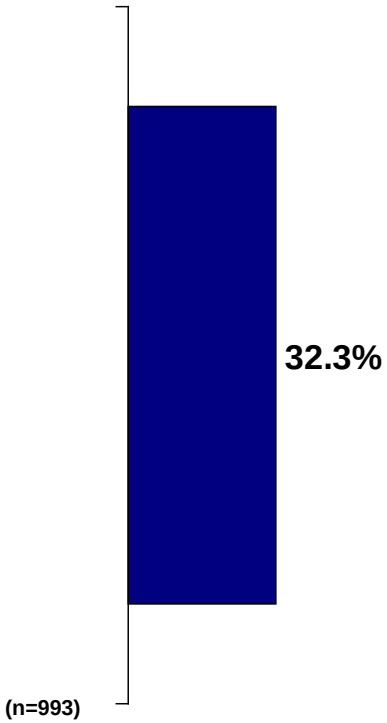
Had Blood Cholesterol Checked Within Past Five Years by Demographics



Area adults most likely to have high cholesterol come from groups that are age 45+, have no children at home, have no high school diploma, and/or are limited financially (income less than $20K, living below the poverty line).

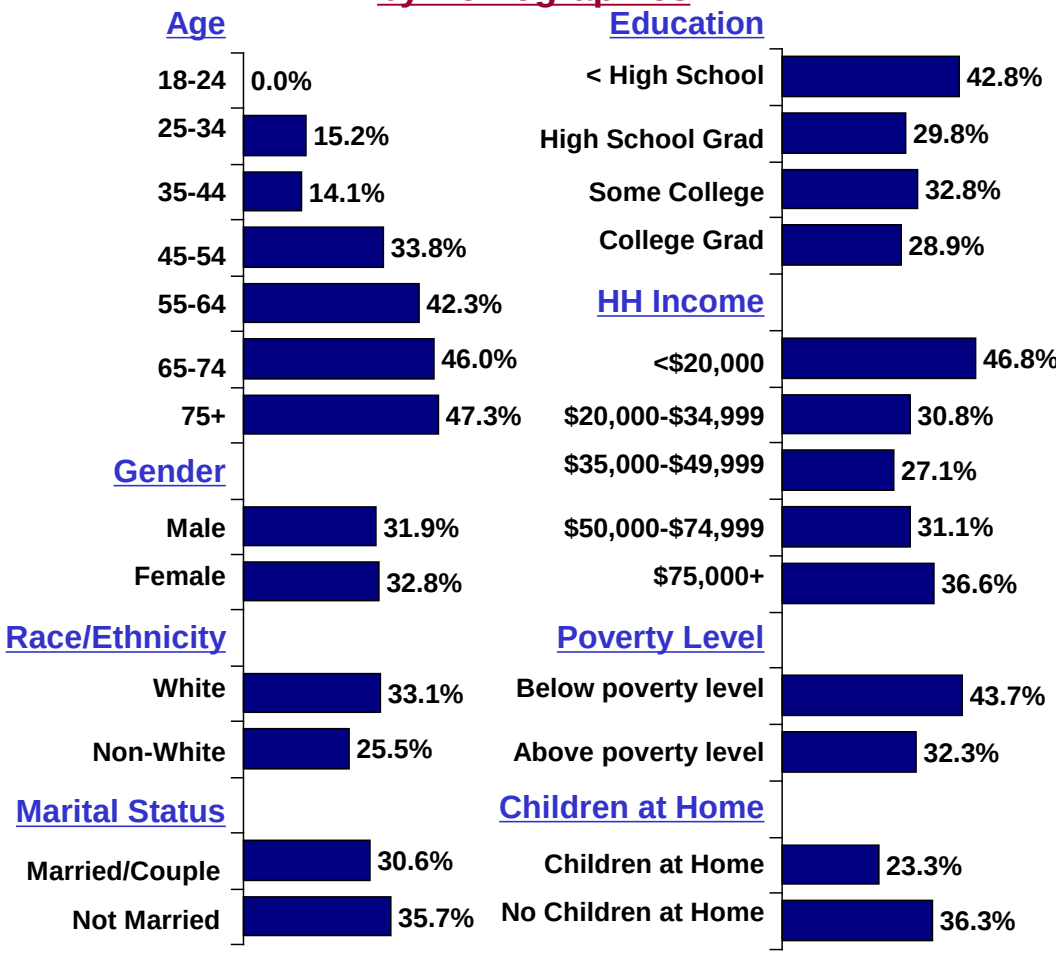
Cholesterol Awareness (Cont'd.)

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.

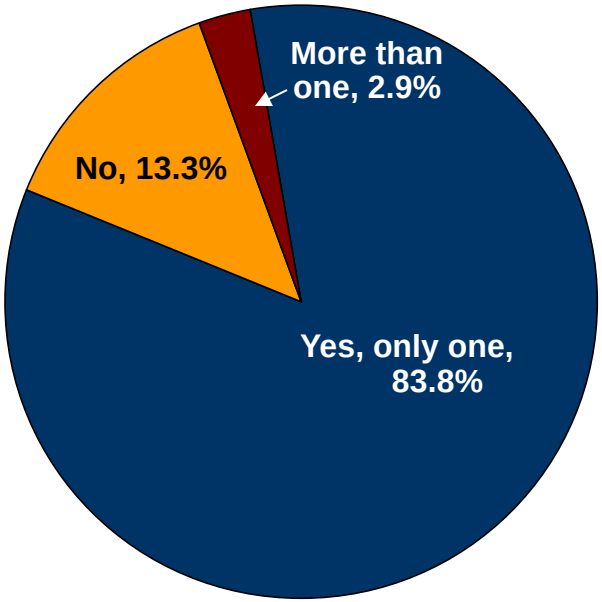
Ever Told Blood Cholesterol High by Demographics



Nearly nine in ten adults (86.7%) have a medical home (personal physician) and eight in ten (83.9%) have visited a physician for a routine checkup within the past year.

Personal Physician and Routine Checkups

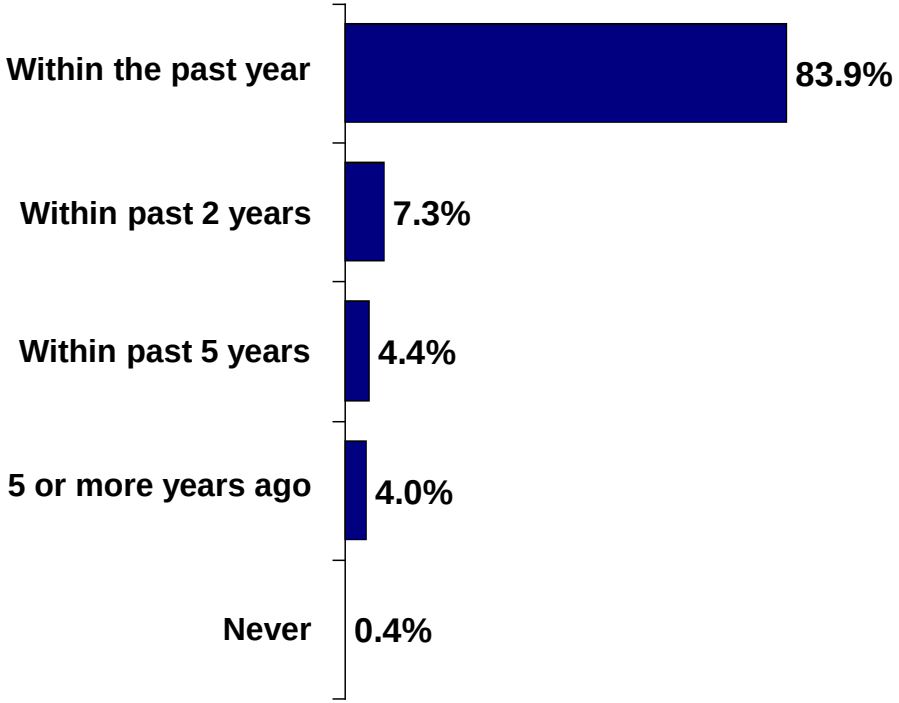
Currently Have Personal Doctor/Health Care Provider



86.7% have medical home

(n=1127)

Last Time Visited Doctor for Routine Checkup



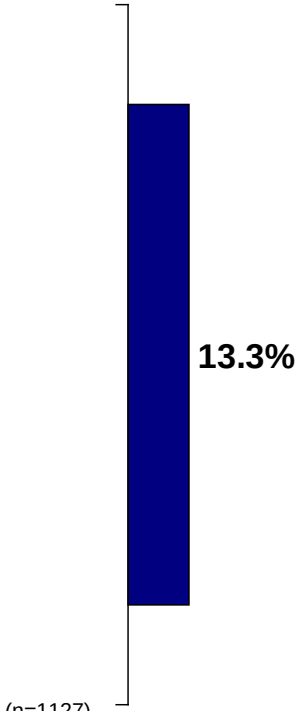
(n=1126)

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.

More than one in ten (13.3%) area adults have no medical home (no personal health care provider). Those least likely to have a medical home are younger (aged 18-44), non-White, have not graduated from high school, and/or make less than $20K annually. The greatest discrepancy is between those below the poverty line, where 35.7% have no PCP, vs. 9.7% of those above the poverty line.

Personal Health Care Provider

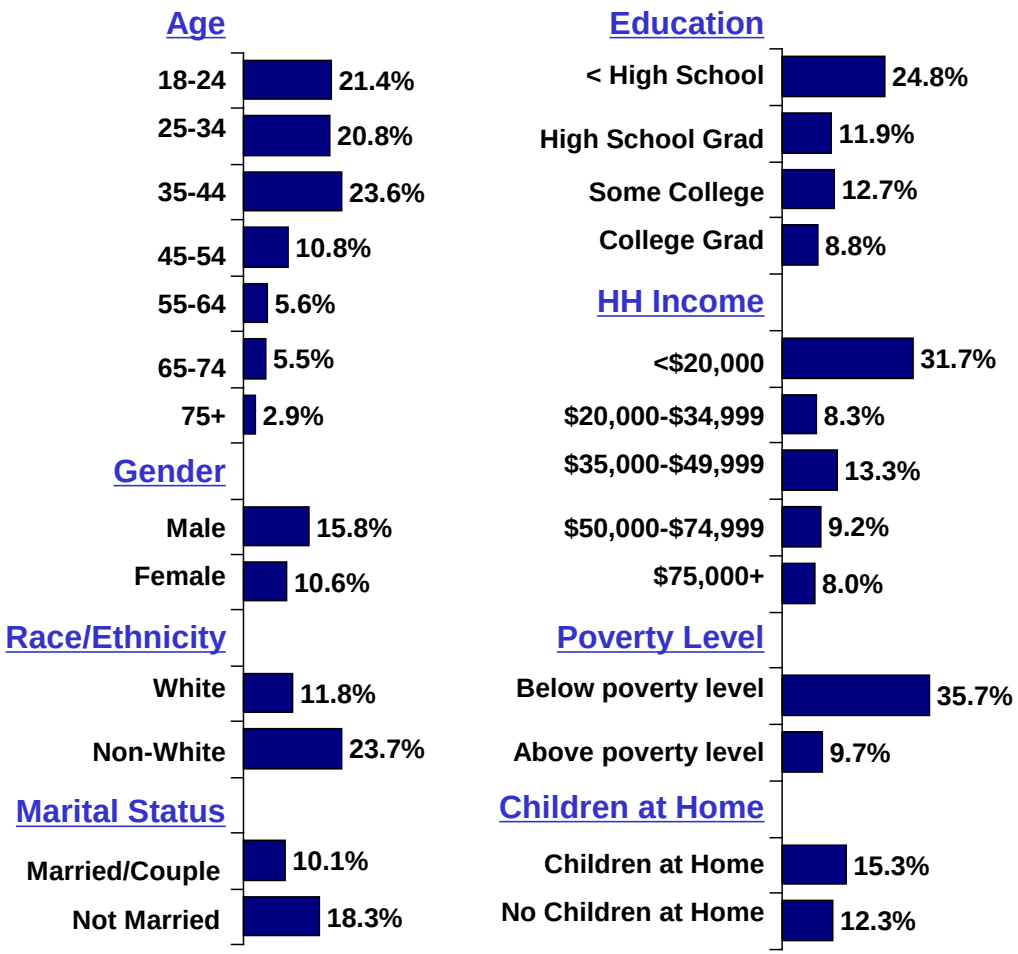
No Personal Health Care Provider* (Total Sample)



(n=1127)

*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.

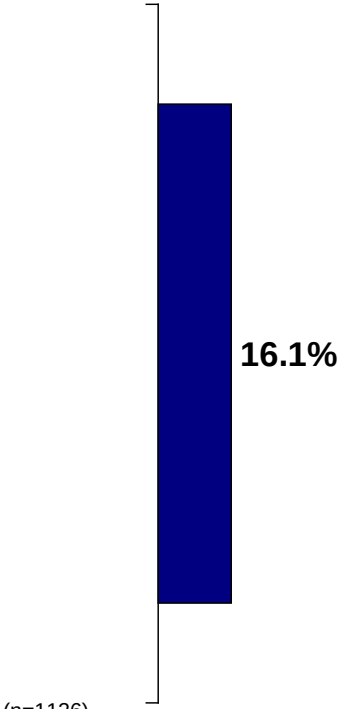
No Provider by Demographics



One in six (16.1%) adults have not had a routine physical checkup in the past year. Having a timely routine physical checkup is directly related to age but other than that there is not significant variability across demographics. In fact, those most likely to have a routine checkup have no high school diploma.

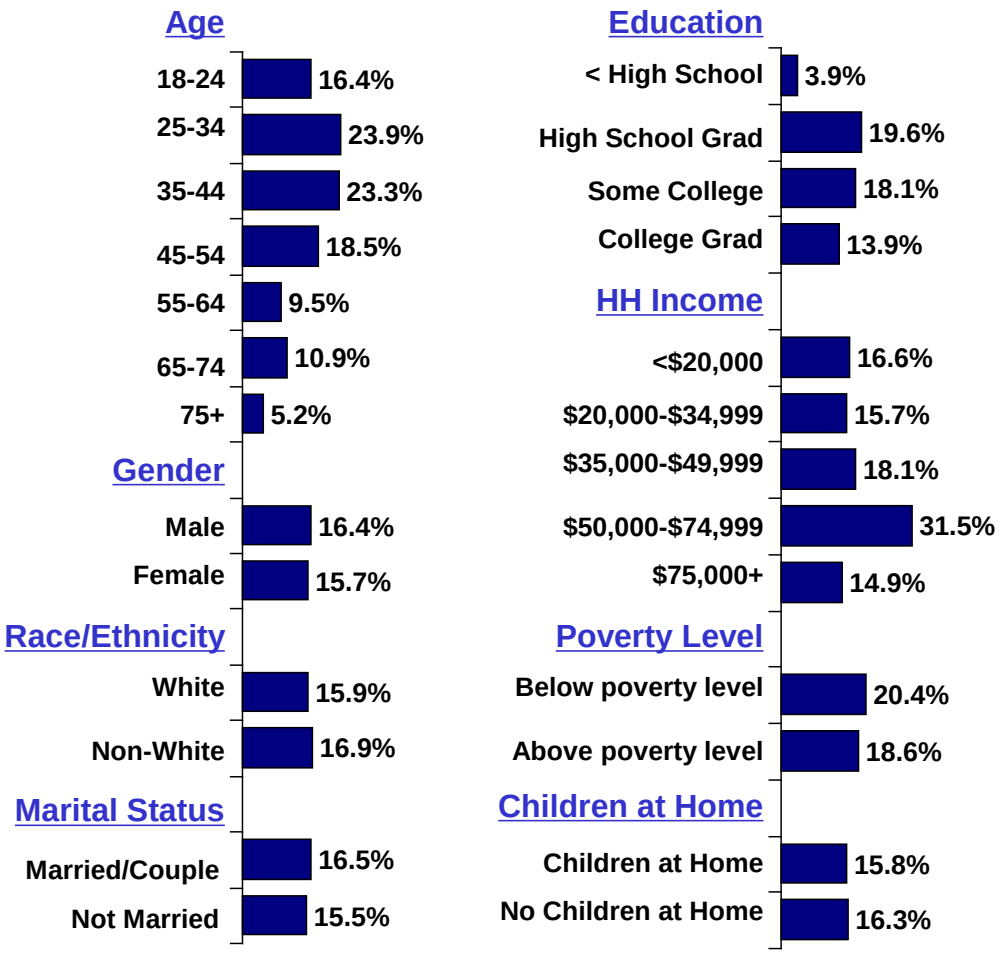
Routine Physical Checkup in Past Year

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.

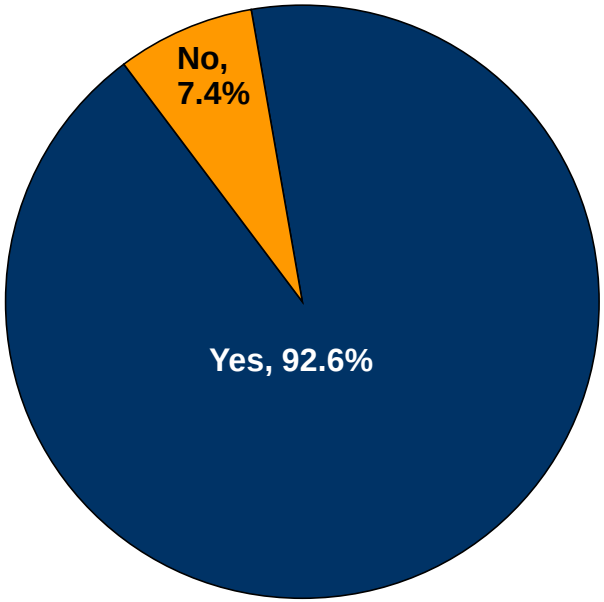
No Checkup by Demographics



More than nine in ten (92.6%) SHLH area women aged 40+ have had a mammogram to screen for breast cancer. Of those, the vast majority (74.5%) have had one within the past year. Of all women aged 40+, 69.0% have had a mammogram in the past year.

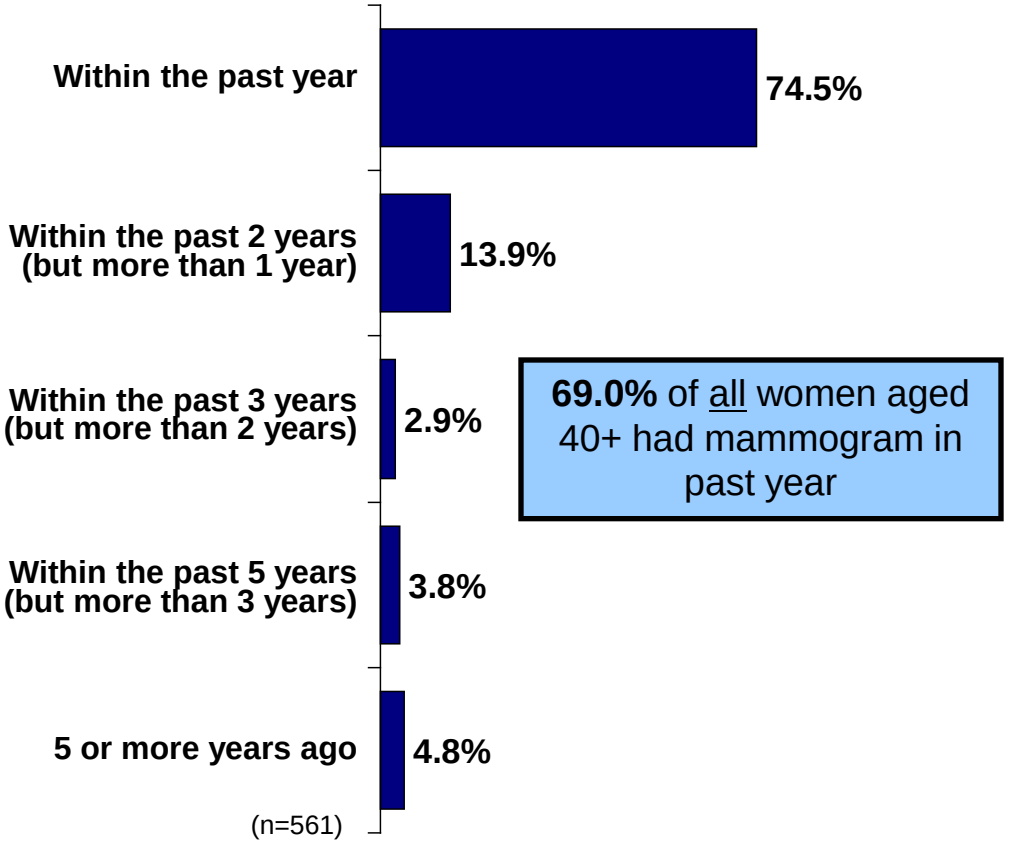
Breast Cancer Screening Among Adult Females Aged 40+

Have Had a Mammogram



(n=601)

Last Time Had Mammogram



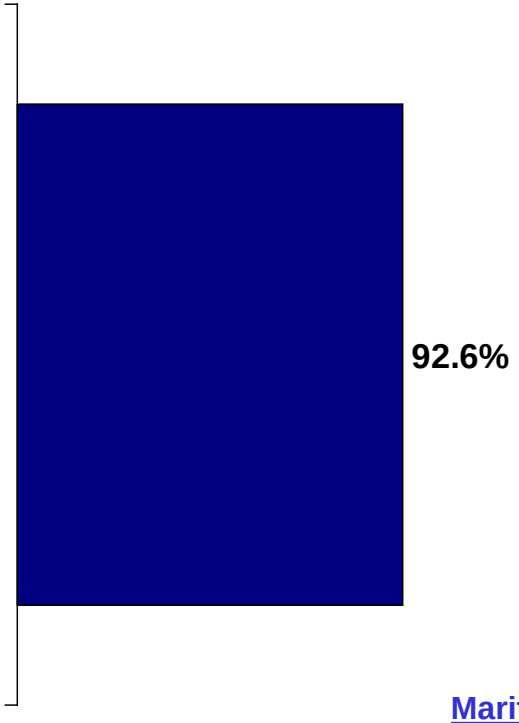
69.0% of all women aged 40+ had mammogram in past year

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 nearly all women 40 years of age or older in the SHLH area have had a mammogram at some point, there is very little difference among demographic groups.

Mammography Indicators Among Women Aged 40 Years or Older

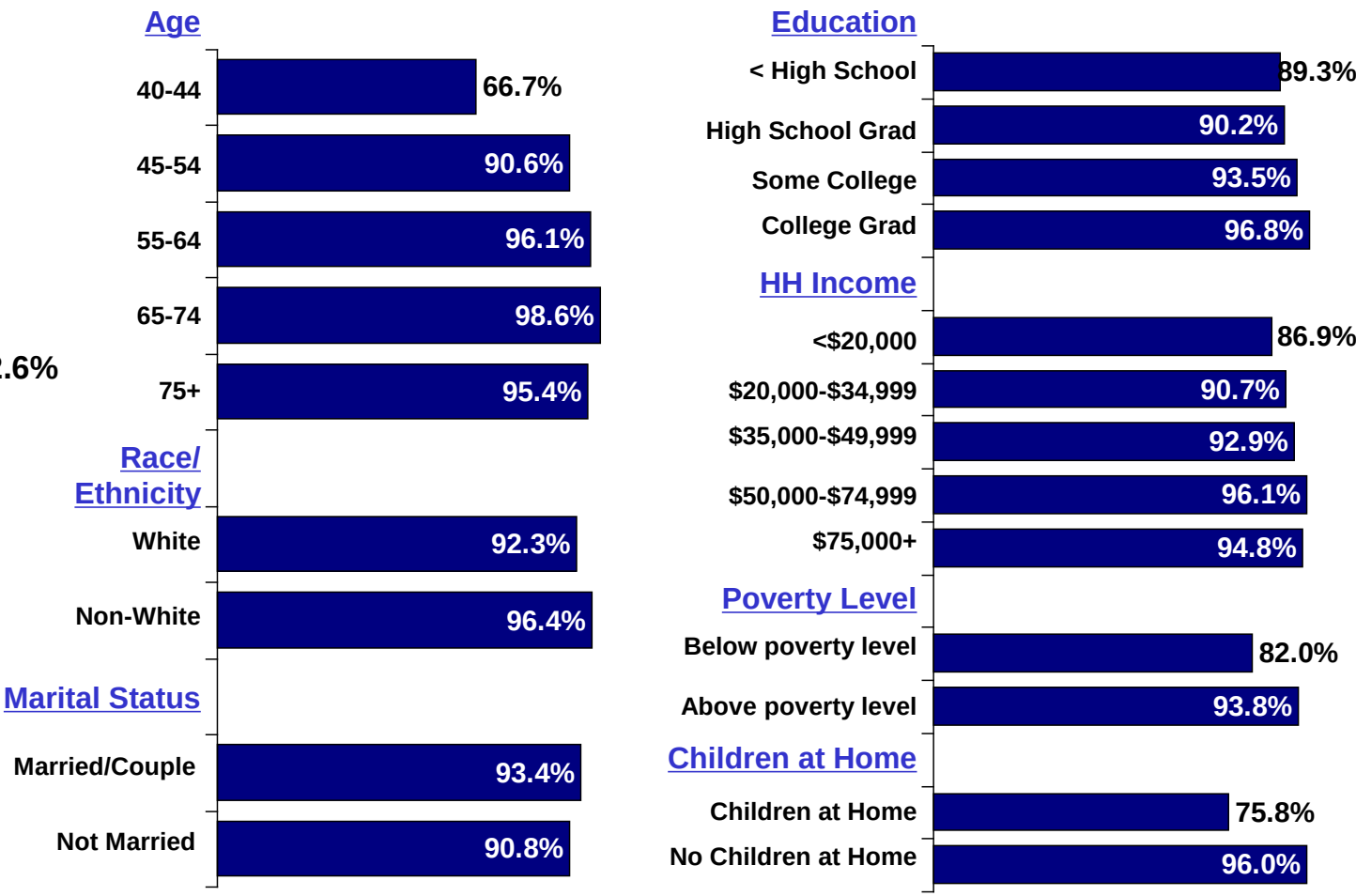
Ever Had Mammogram* (Total Sample)



(n=601)

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

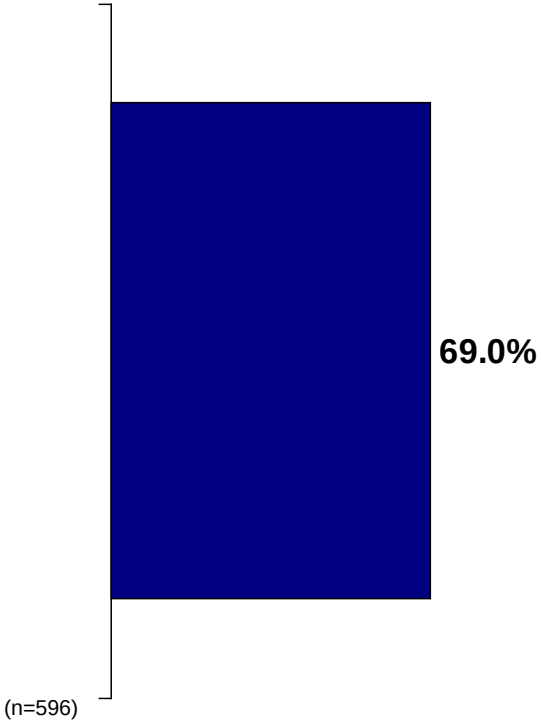
Ever Had Mammogram by Demographics



Having a timely mammogram is directly related to household income; 59.7% of women from households with incomes less than $20K have had a mammogram within the past year, compared to 81.0% of women in households with incomes $75K+. Women between 40-44 years of age are least likely, by far, to have timely mammograms.

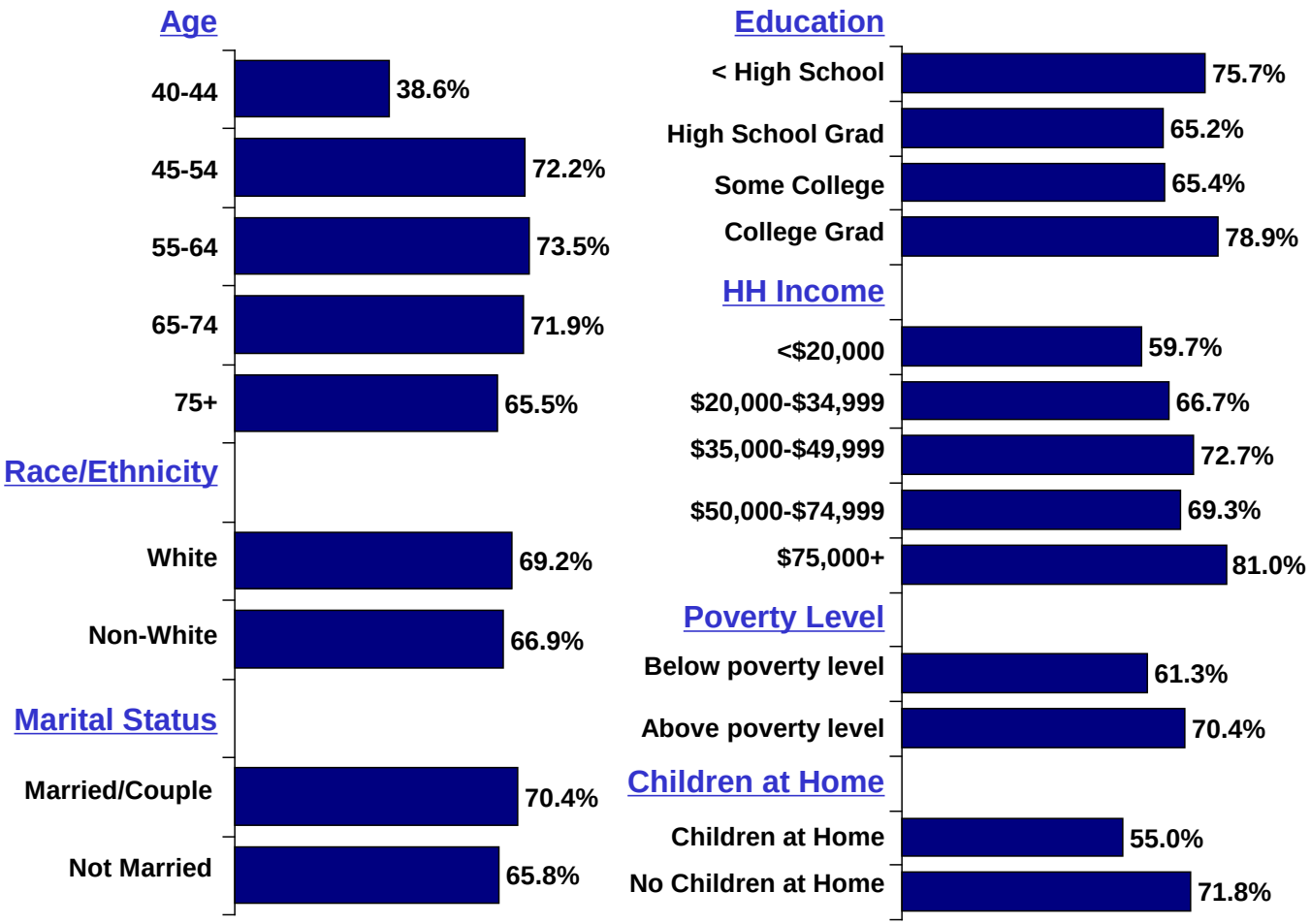
Mammography Indicators Among Women Aged 40 Years or Older (Cont'd.)

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.

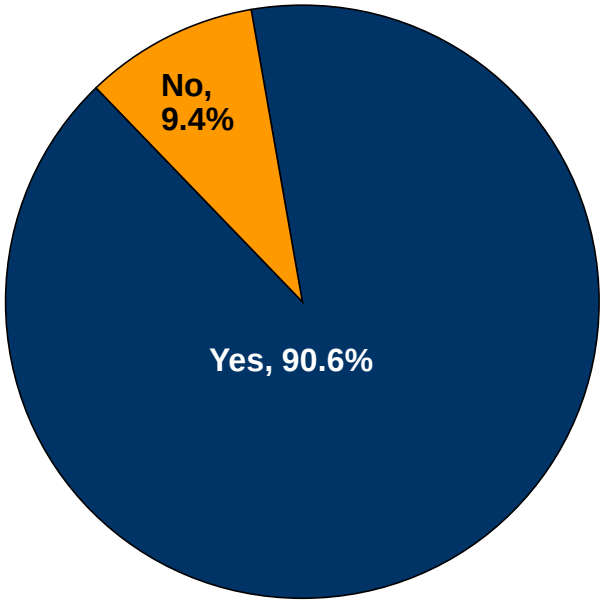
Had Mammogram in Past Year by Demographics



Nine in ten (90.6%) area adult women have had a Pap test to screen for cervical cancer. Of those, half have had one within the past year and 78.9% have had one in the past three years. Of all adult women, 71.3% have had a Pap test within the past three years.

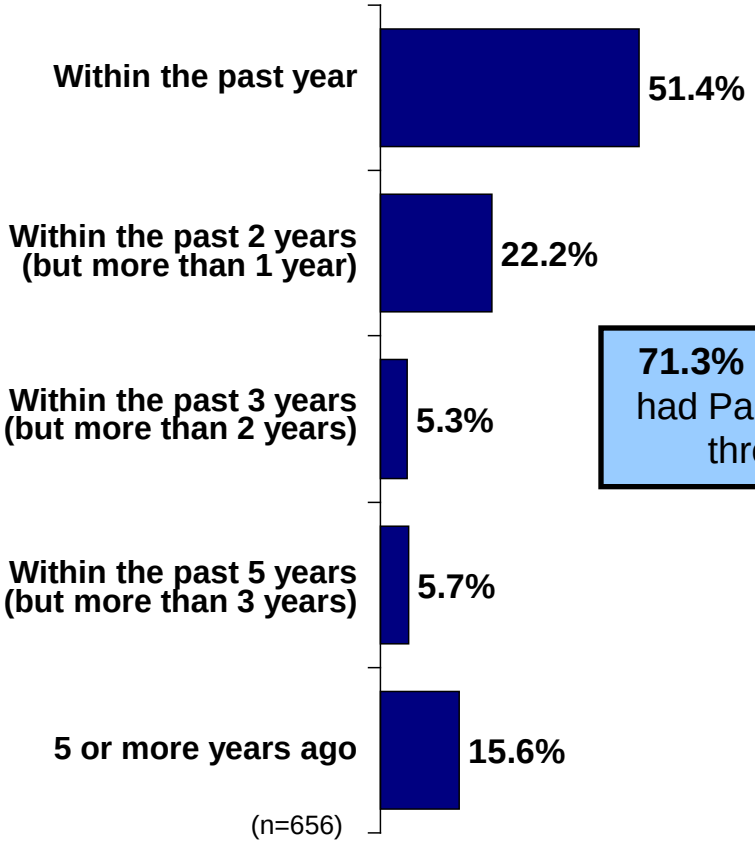
Cervical Cancer Screening Among Adult Females

Have Had a Pap Test



(n=705)

Last Time Had Pap Test



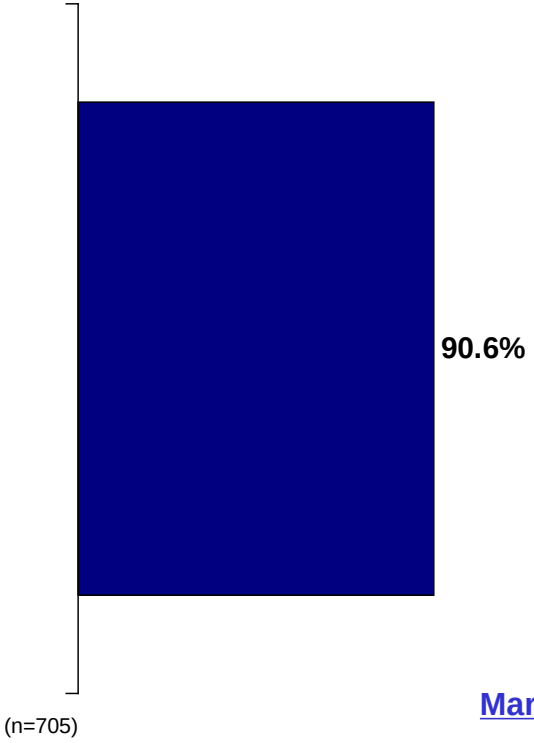
71.3% of all women had Pap test in past three years

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 diploma. Rates are also higher for Whites vs. non-Whites and married couples vs. those not married.

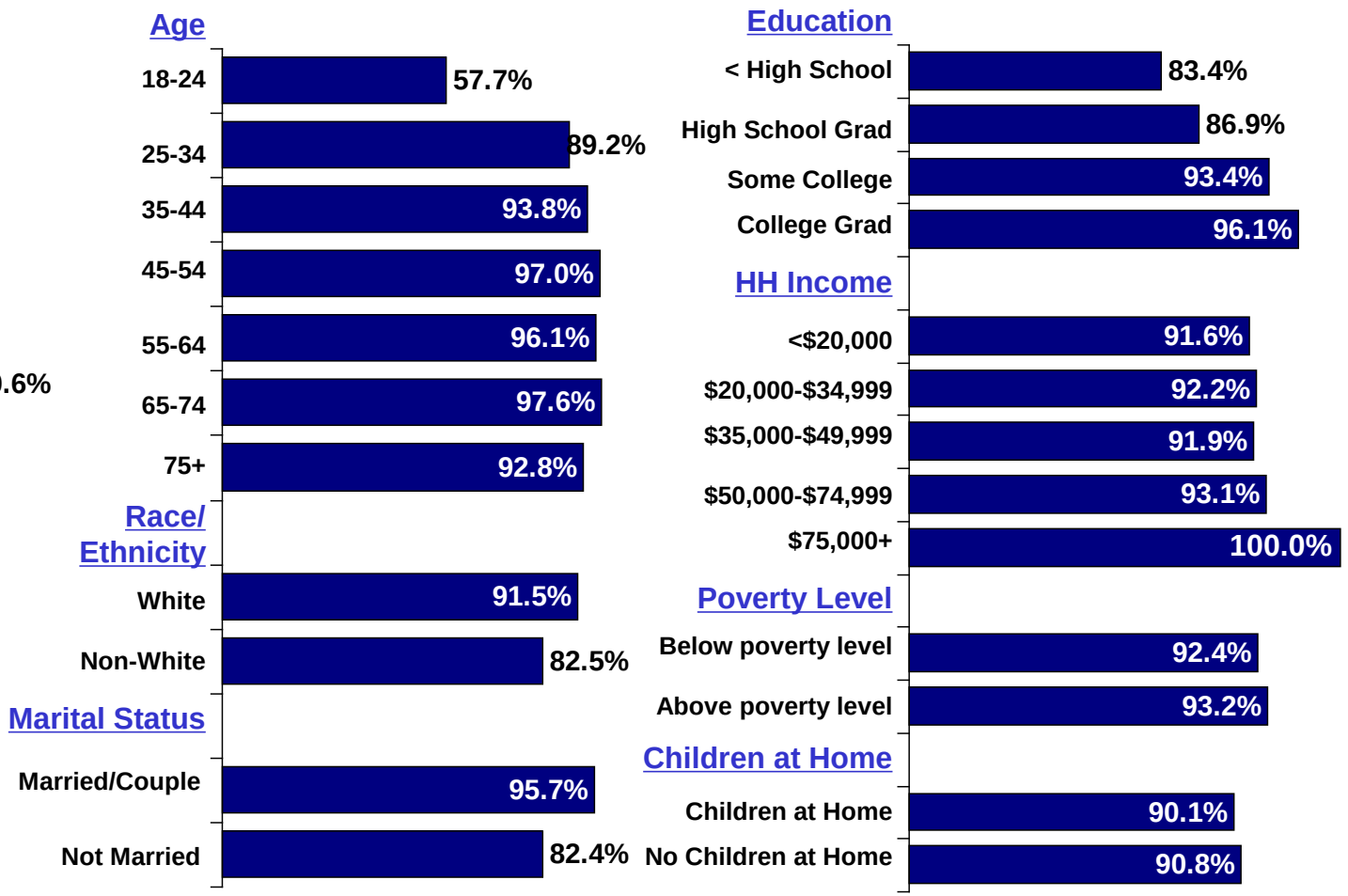
Cervical Cancer Screening (Cont'd.)

Ever Had Pap Test* (Total Sample)



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

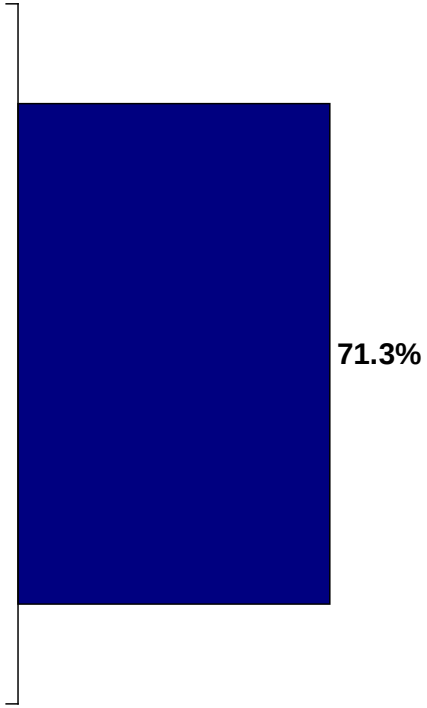
Ever Had Pap Test by Demographics



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

Cervical Cancer Screening (Cont'd.)

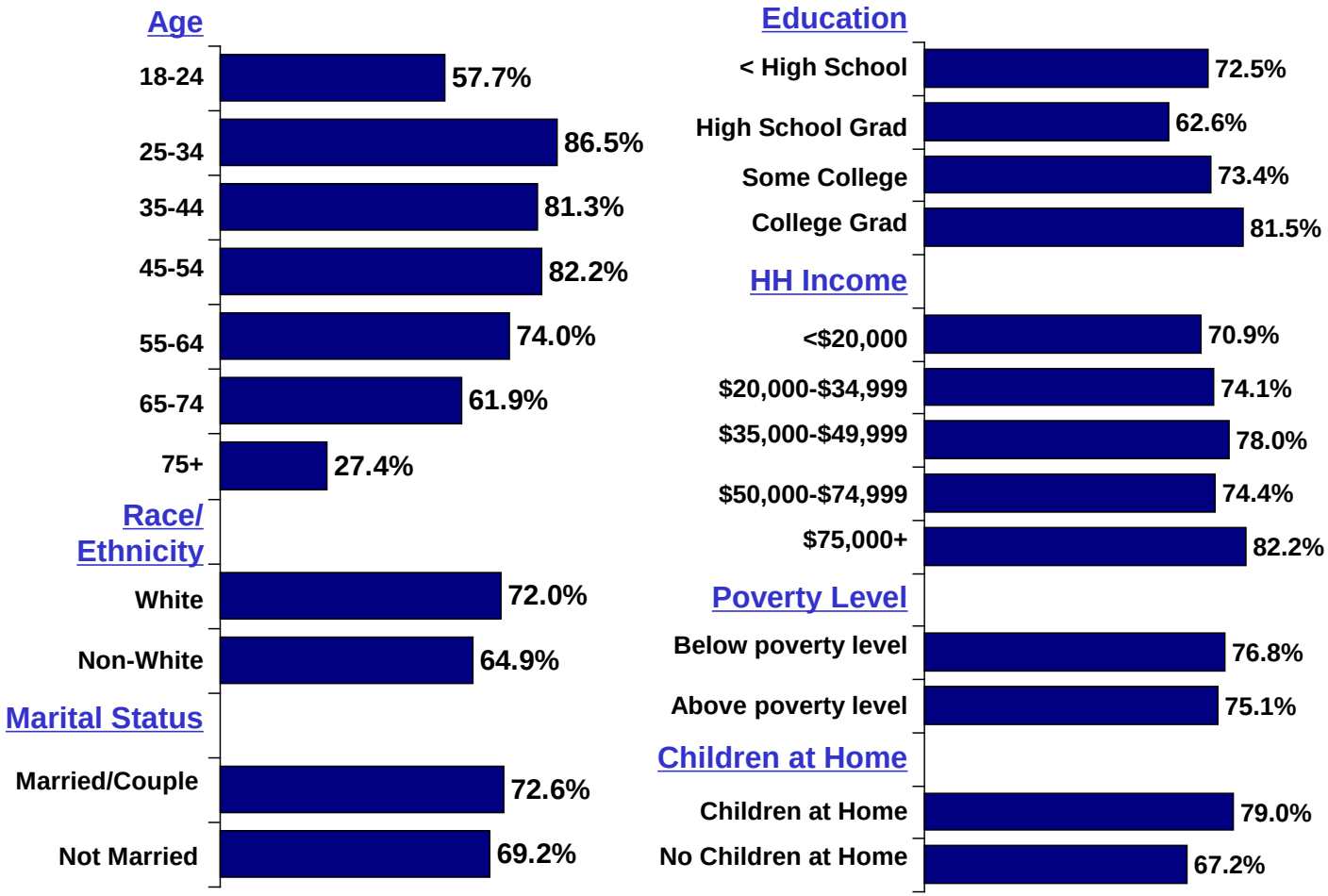
Had Appropriately Timed Pap Test* (Total Sample)



(n=696)

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

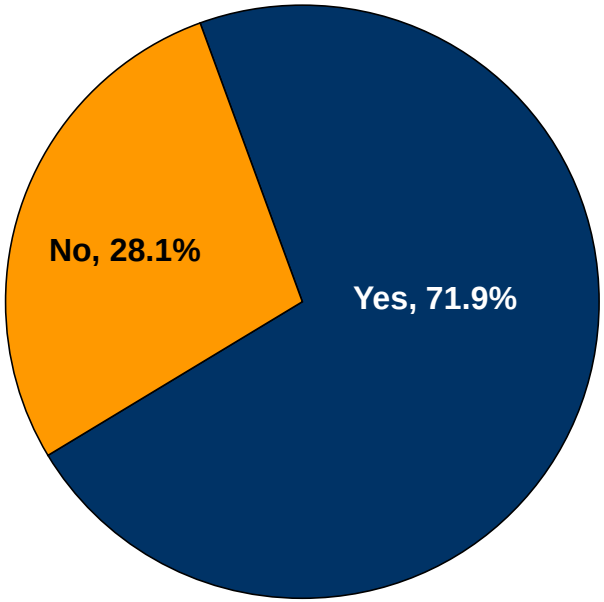
Appropriately Timed Pap Test by Demographics



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.

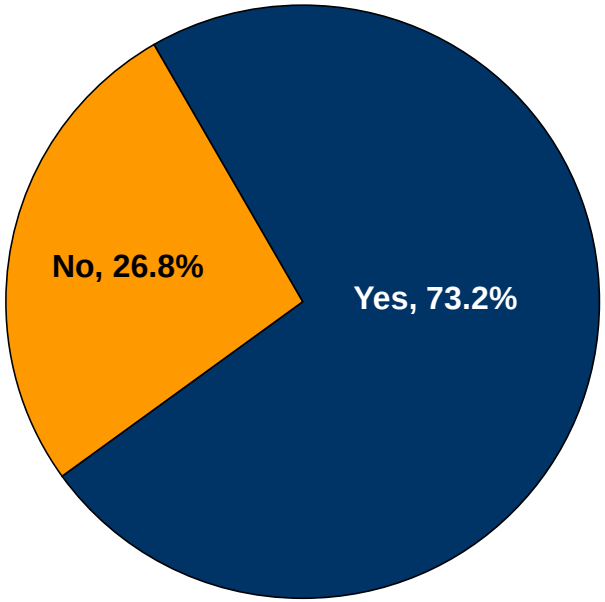
Prostate Cancer Screening Among Males Aged 50+

PSA Test Ever Recommended



(n=279)

Ever Had PSA Test



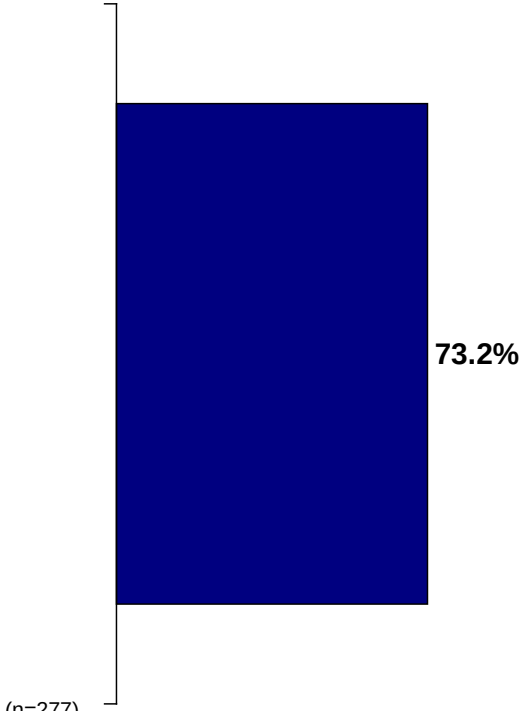
(n=277)

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 (73.2%) of men in the SHLH area, aged 50 years or older, have had a PSA test screening for prostate cancer. The rate falls to roughly half among men below the poverty line and non-White men.

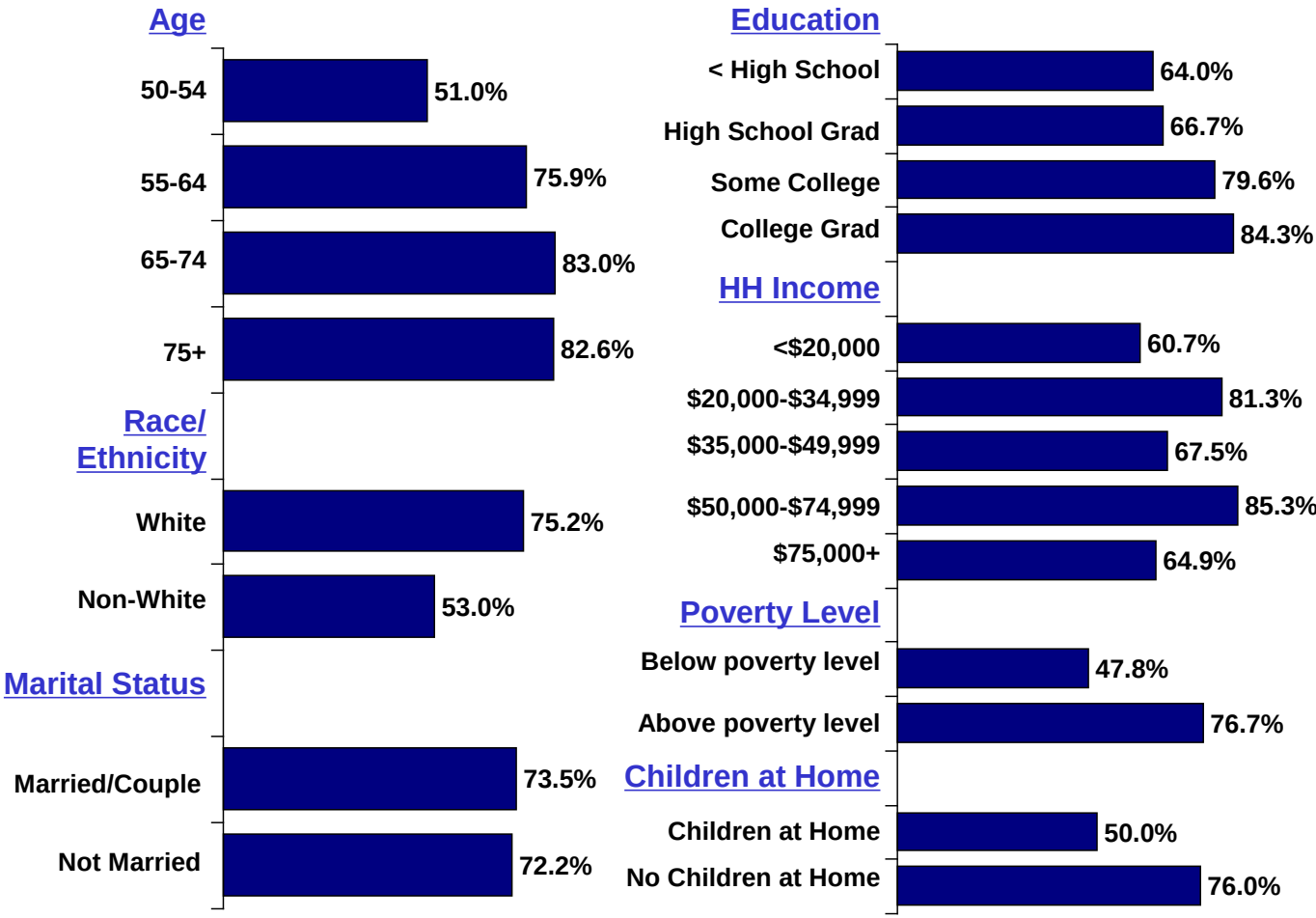
Prostate Cancer Screening Among Males Aged 50+ (Cont'd.)

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.

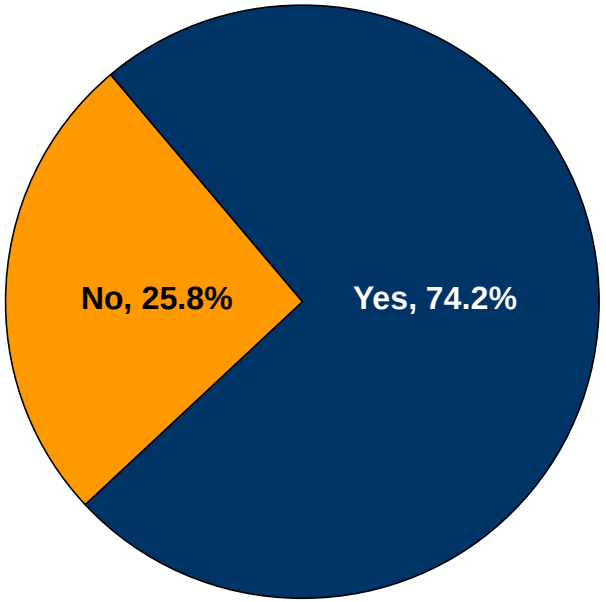
Had PSA Test by Demographics



Three-fourths (74.2%) of area adults aged 50 or more have had an exam to screen for colon cancer. Almost two-thirds (64.3%) of those who have had an exam have had one in the past three years, while 81.0% have had one within the past five.

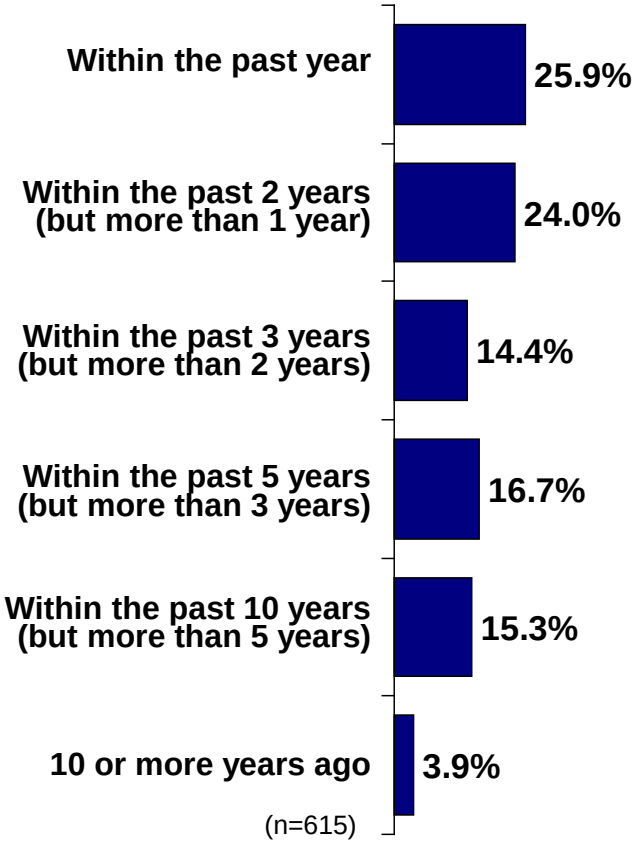
Colorectal Cancer Screening Among Adults Aged 50+

Have Had Sigmoidoscopy or Colonoscopy Exam



(n=816)

Last Time Had Exam



(n=615)

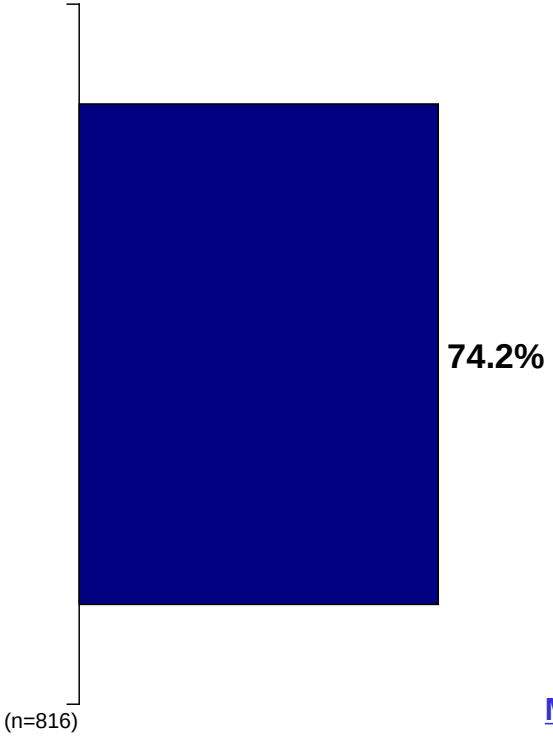
Q8.1: Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems. Have you ever had either of these exams?

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 are: people aged 50-54, unmarried, and with children at home.

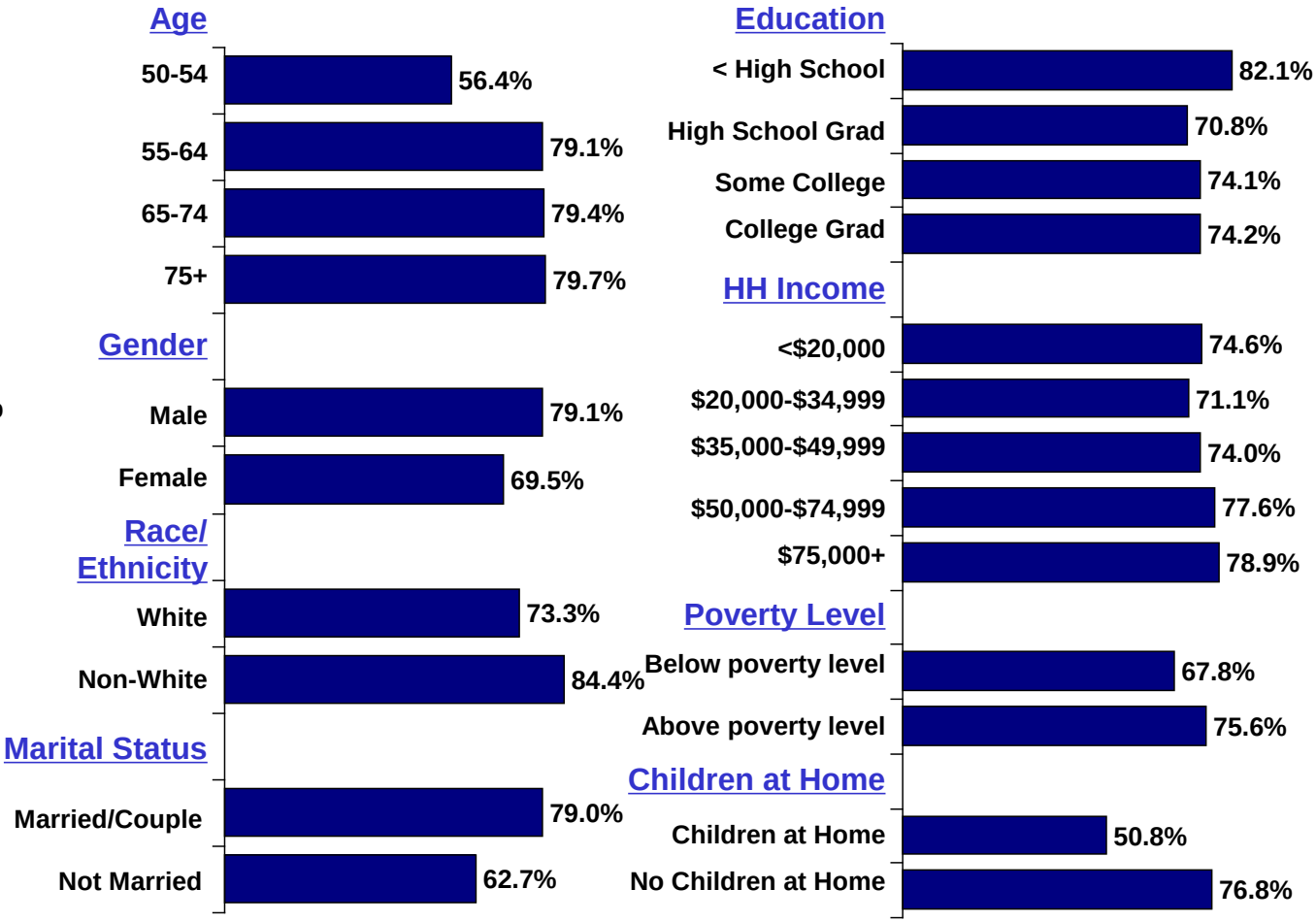
Colorectal Cancer Screening (Sigmoidoscopy/Colonoscopy) Among Adults Aged 50+ (Cont'd.)

Ever Had Sigmoidoscopy or Colonoscopy* (Total Sample)



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

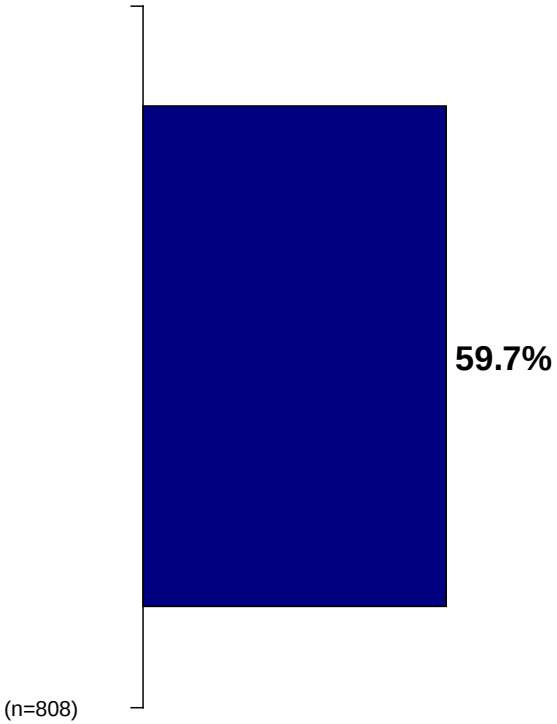
Had Sigmoidoscopy/Colonoscopy by Demographics



When looking at all adults aged 50 or older, six in ten (59.7%) have been screened for colorectal cancer in the past five years. Least likely to have been screened in the past five years are those who are aged 50-54, unmarried, with children at home, and/or living below the poverty line. Having a timely screening for colorectal cancer is also directly related to household income.

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

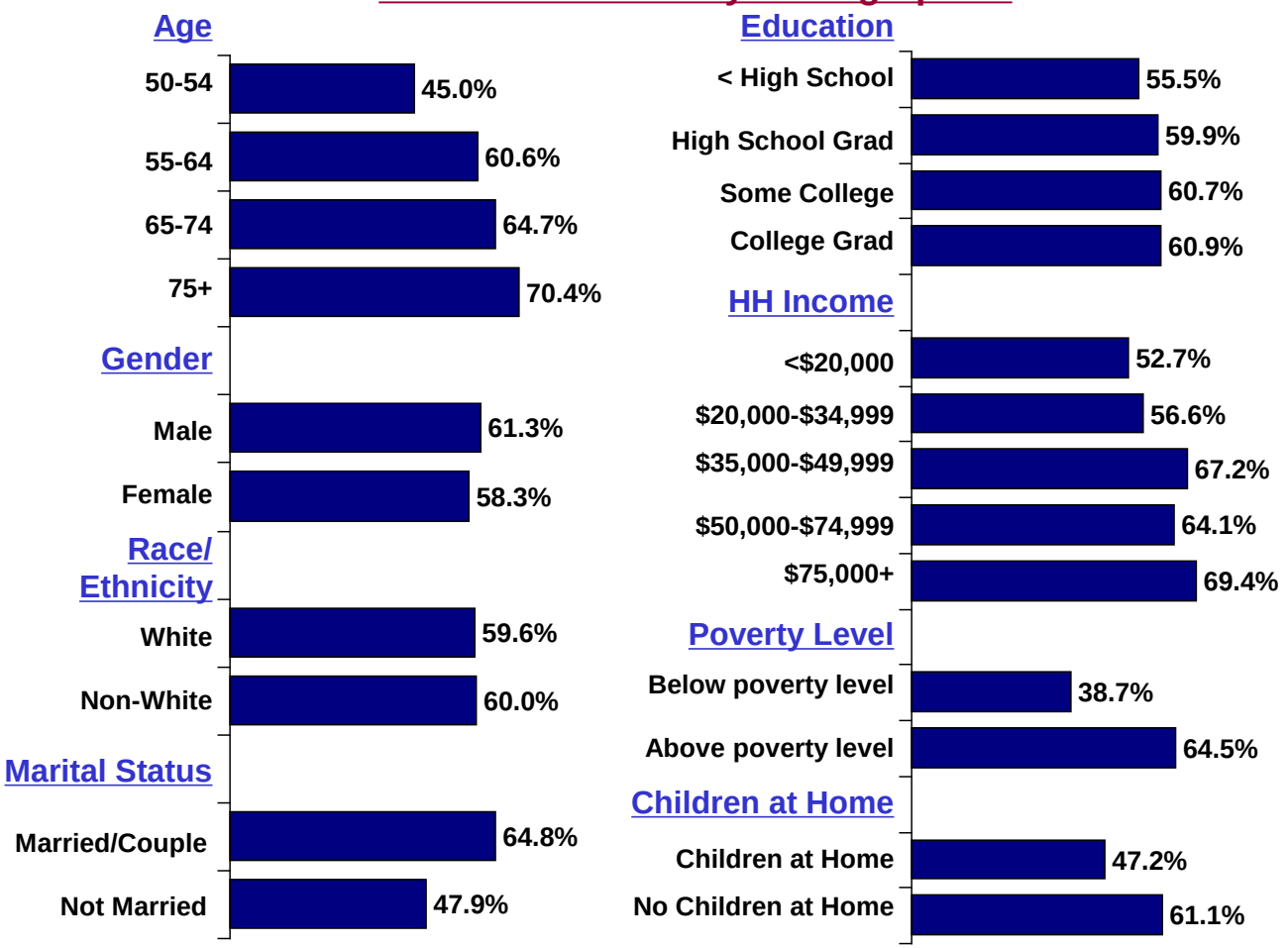
Had A Sigmoidoscopy or Colonoscopy in Past Five Years* (Total Sample)



(n=808)

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

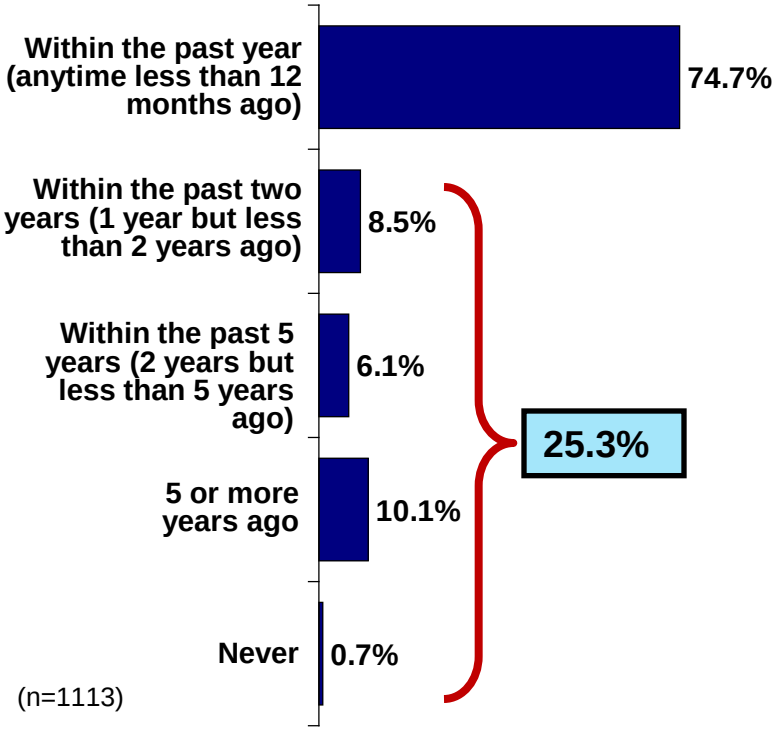
Had Sigmoidoscopy/Colonoscopy in Past Five Years by Demographics



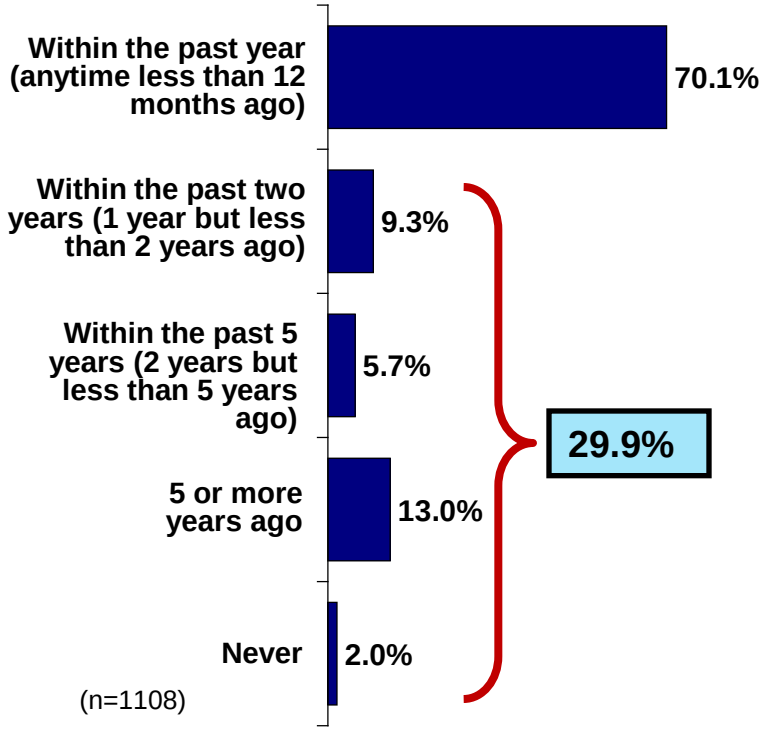
Three-fourths of area adults have visited a dentist or dental specialist in the past year. However, three in ten (29.9%) are not exercising preventive oral health care, in other words, have not visited the dentist in the past year for a teeth cleaning.

Oral Health

When Last Visited Dentist for Any Reason



When Last Visited Dentist for Teeth *Cleaning*

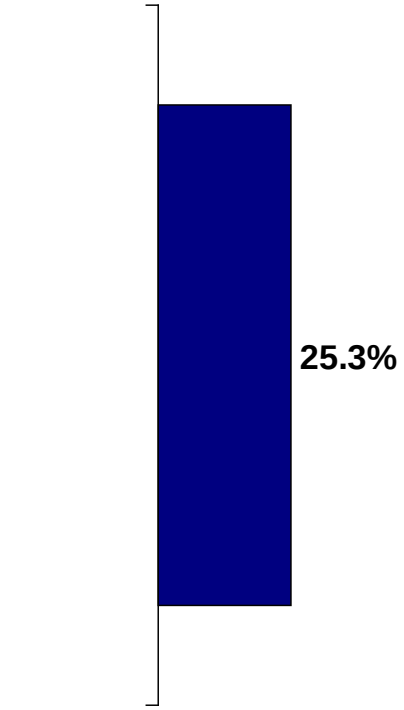


Q23.1: How long has it been since you last visited a dentist or dental clinic for any reason? Include visits to dental specialists, such as orthodontists.
Q23.2: How long has it been since you had your teeth cleaned by a dentist or dental hygienist?

Visiting a dentist in a timely manner is directly related to education and income. In fact, more than one-third of adults with less than a high school education (36.8%) and of those living in a household with income less than $20K (36.3%) have not visited a dentist in the past year. Compare the latter to 3.8% for those with household incomes of $75K or more. Non-Whites are also less likely to have a timely dental visit/check-up compared to Whites.

Oral Health (Cont'd.)

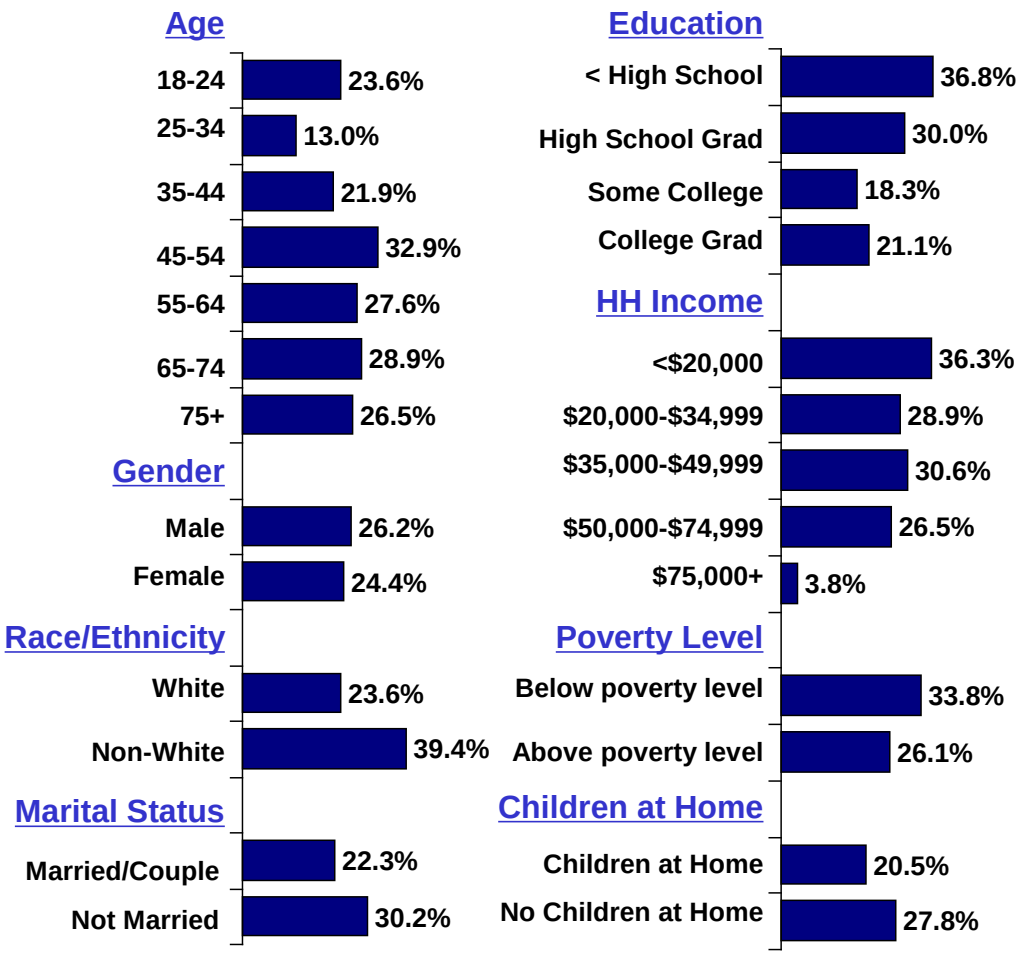
No Dental Visit in Past Year* (Total Sample)



(n=1113)

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

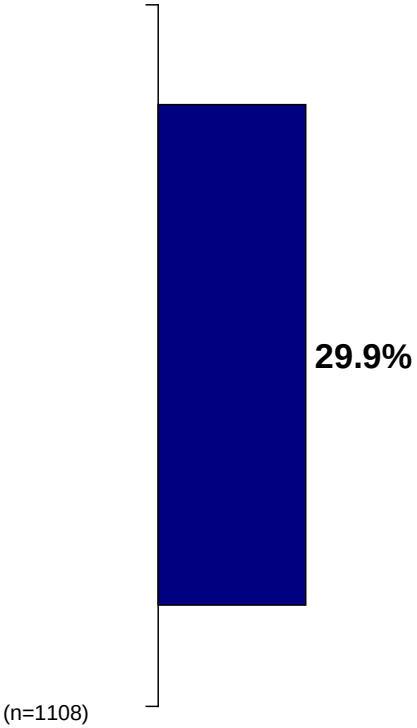
No Dental Visit in Past Year by Demographics



Similarly, having a recent teeth cleaning is directly related to education and income. Least likely to have a timely cleaning are those who have less than a high school education and those living in a household with income less than $20K. Also, non-Whites are less likely to have a timely cleaning compared to Whites.

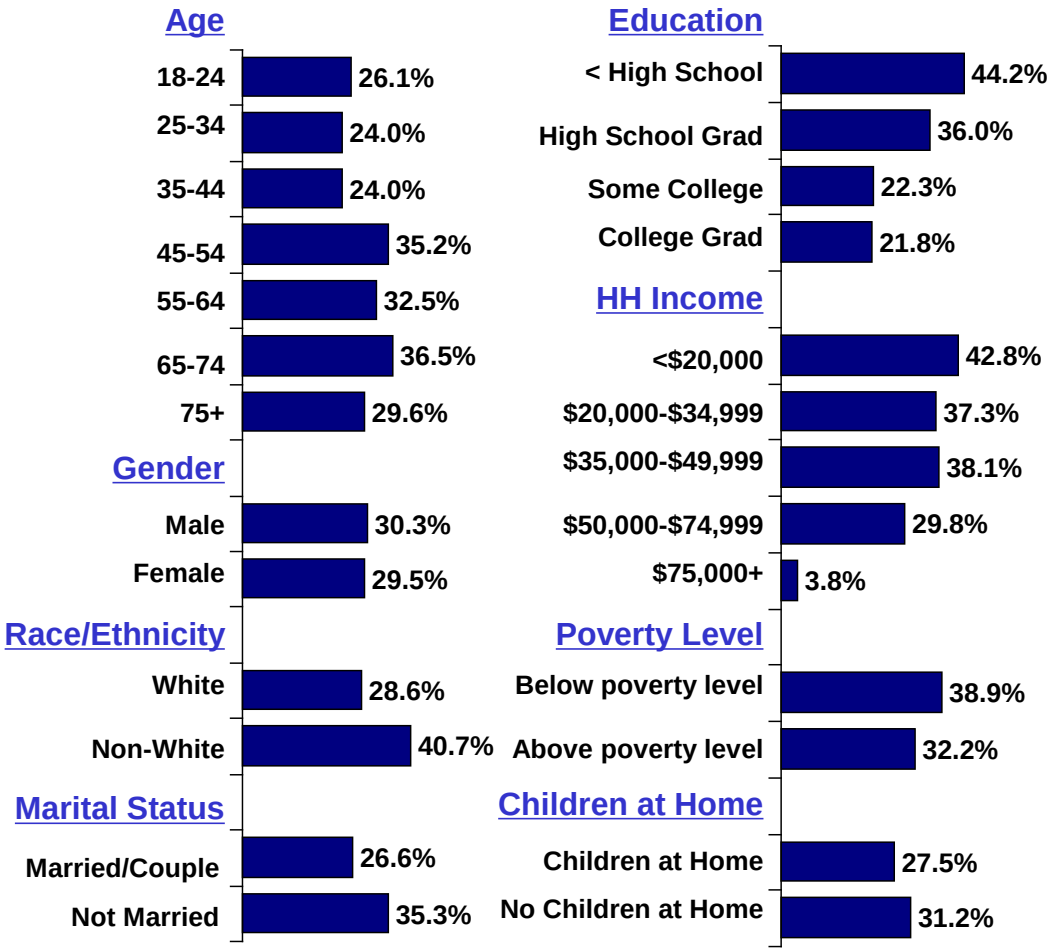
Oral Health (Cont'd.)

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.

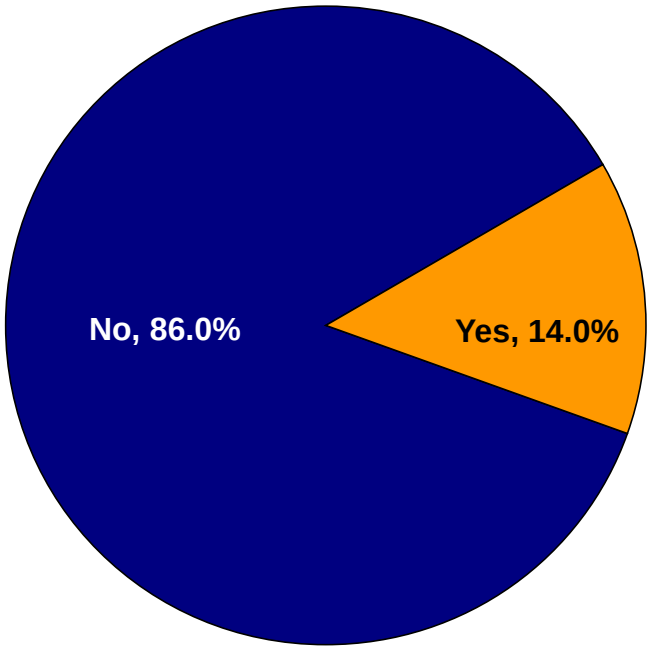
No Teeth Cleaning in Past Year by Demographics



More than one in ten (14.0%) 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.

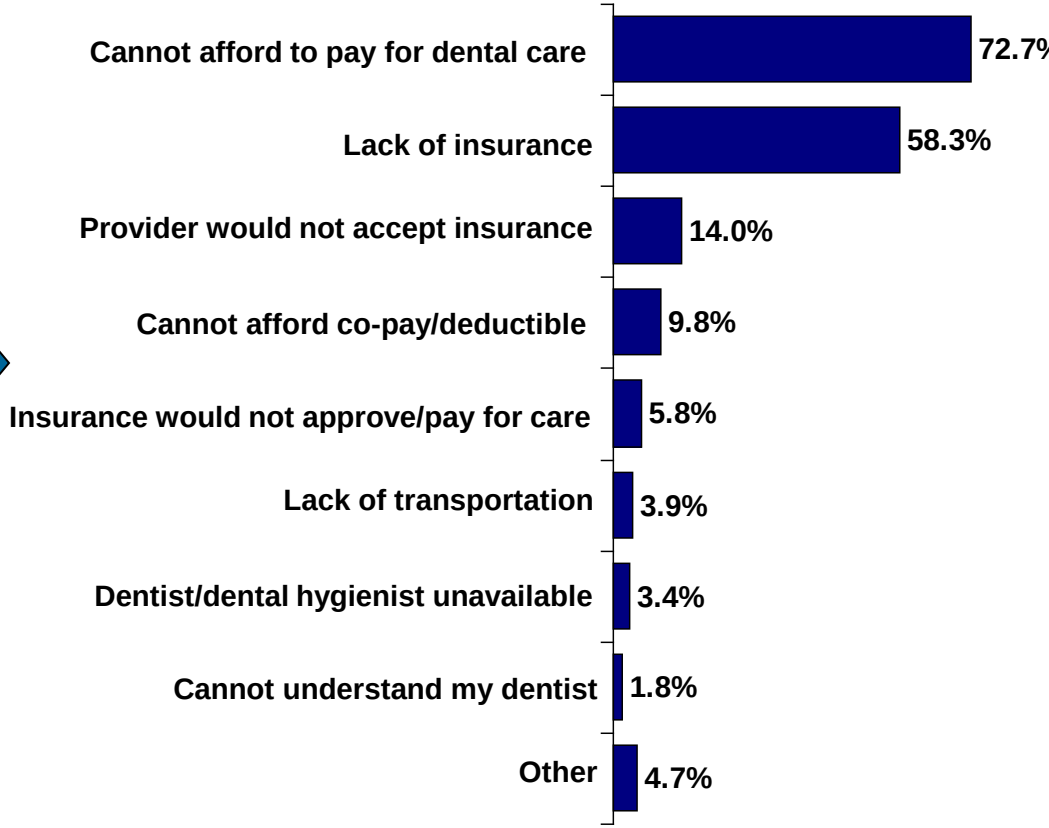
Barriers to Dental Care

Problems Getting Needed Dental Care



(n=1116)

Reasons for Difficulty in Getting Dental Care



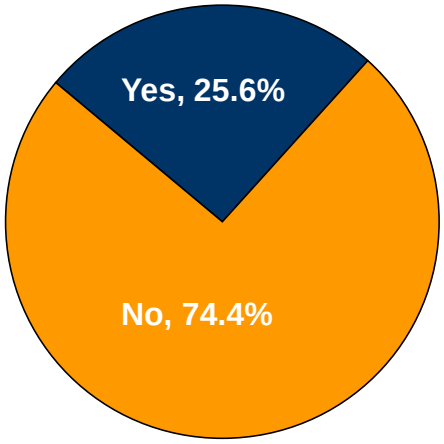
(n=120)
Base=had trouble getting needed dental care

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 SHLH area adults, one-quarter (25.6%) have received a pneumonia shot at some point. More than four in ten (42.8%) have received a flu shot or vaccine in the past 12 months, and over half of them (55.2%) got it at a physician's office/HMO. Other common places to receive flu shots are at a store or at work.

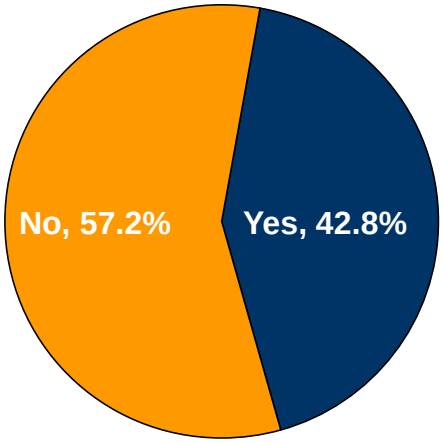
Flu and Pneumonia Immunization

Ever Had a Pneumonia Shot



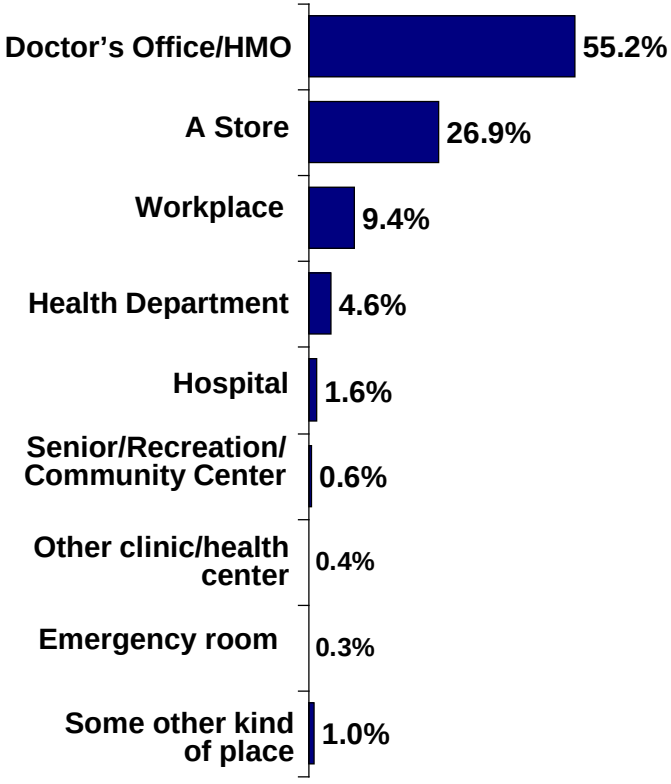
(n=1104)

Had Flu Shot/Vaccine in Past 12 Months



(n=1125)

Place Where Received Flu Shot/Vaccine



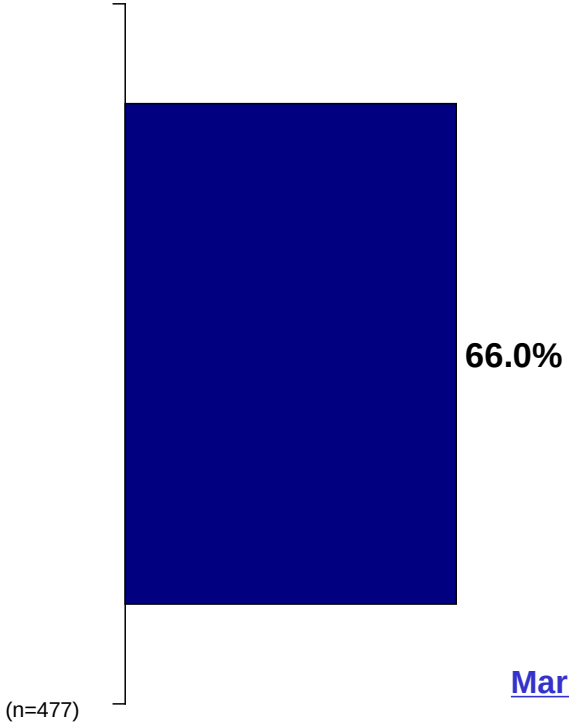
(n=594)

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 (66.0%) of adults aged 65 or older have received a flu vaccine in the past year. Adults aged 75+ are more likely to have received one in the past year than those aged 65-74. Senior non-Whites are far less likely than Whites to have received a flu vaccine in the past year. Those living above the poverty line are more likely to have a flu vaccine than those living below it.

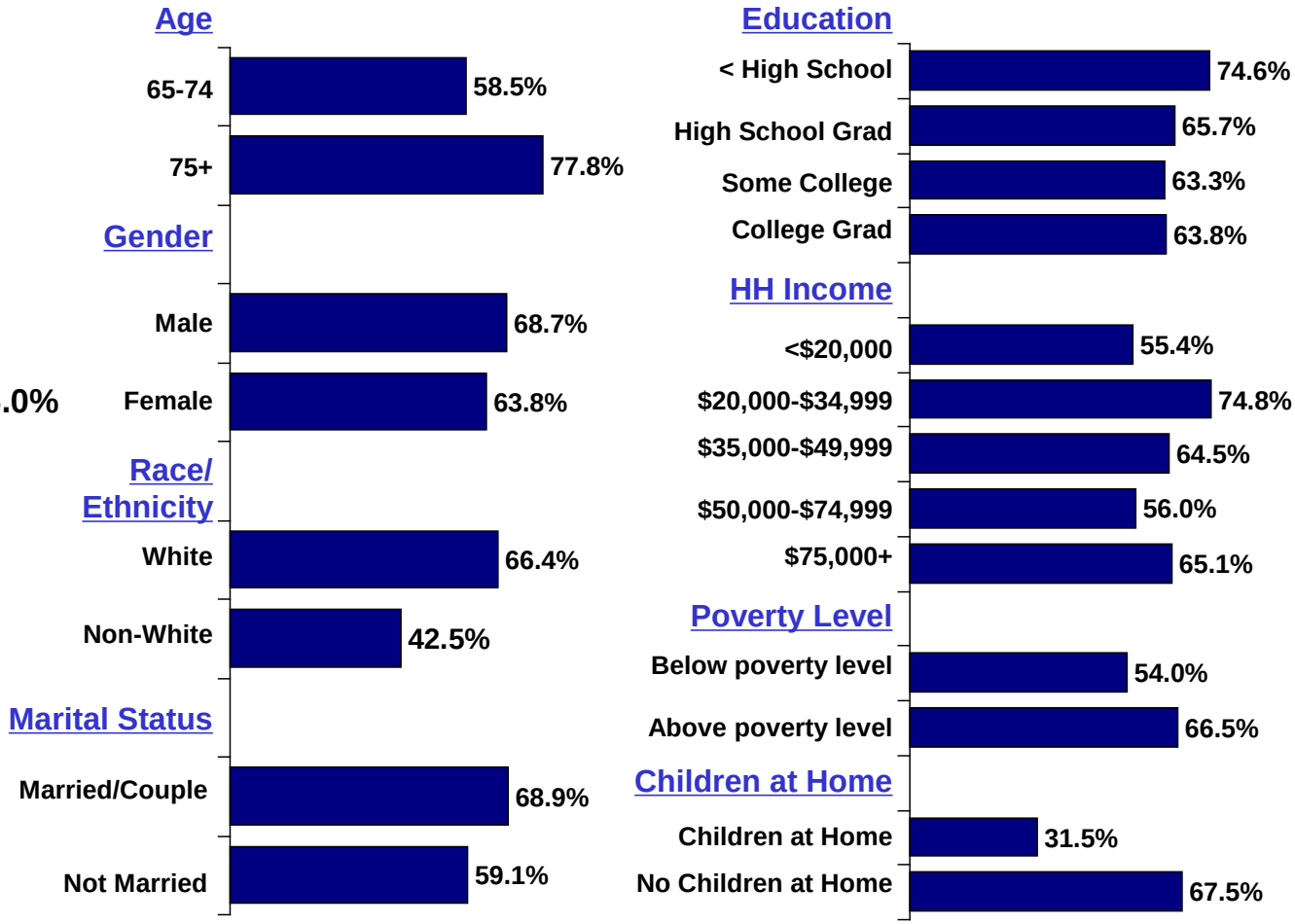
Immunizations Among Adults 65 Years and Older

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.

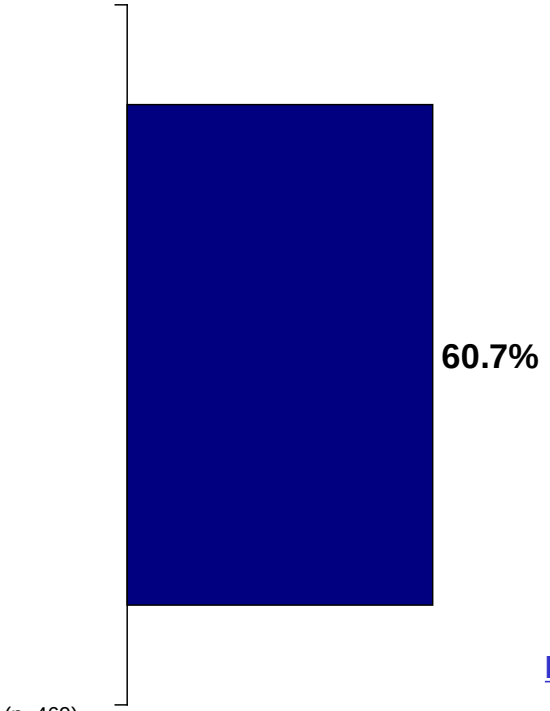
Had Flu Vaccine by Demographics



Additionally, six in ten (60.7%) adults aged 65 or older received a pneumonia vaccine at some point and this rate is higher for those aged 75 or older. Non-Whites are far more likely to have a pneumonia vaccine than Whites.

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

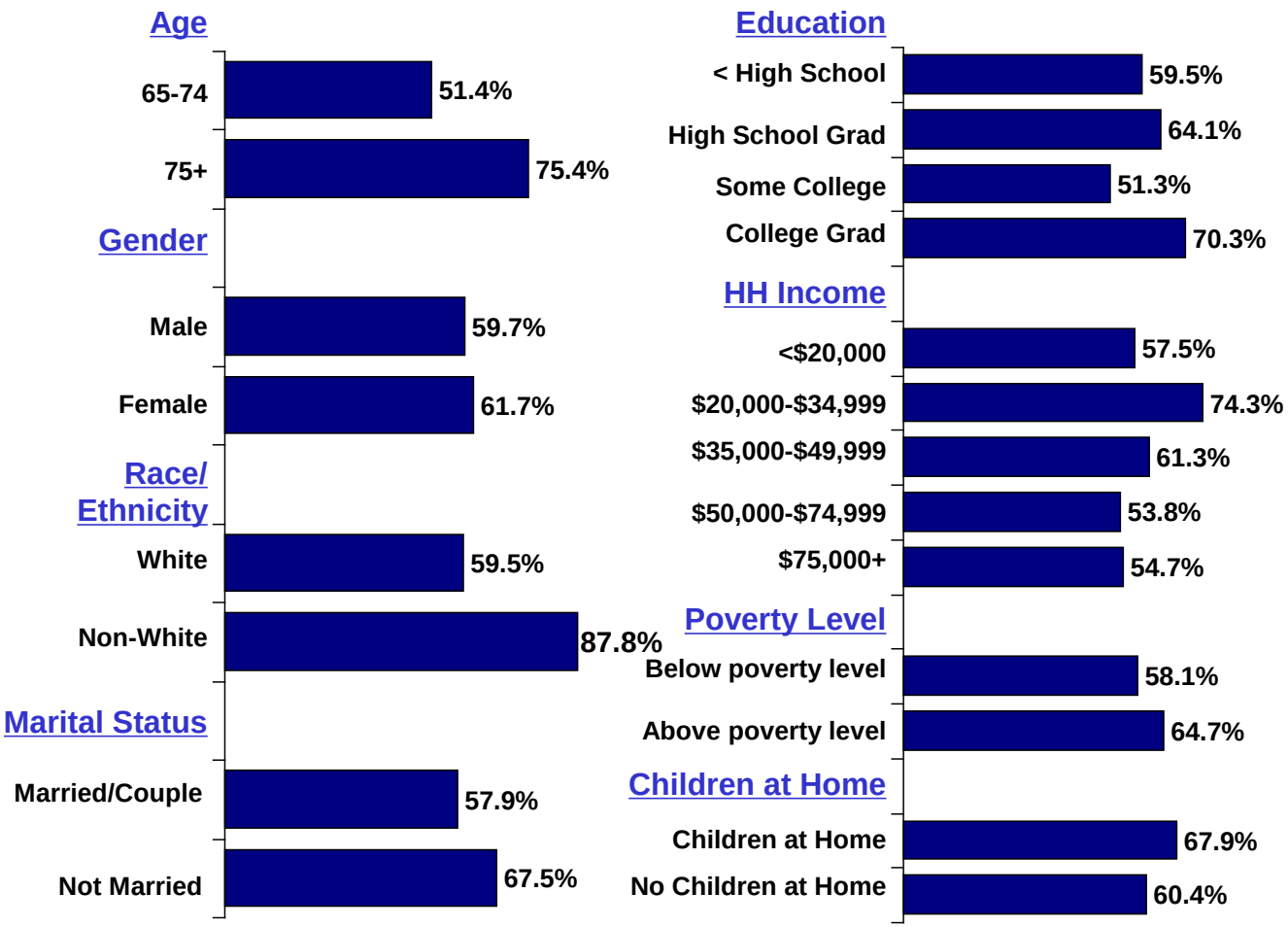
Ever Had Pneumonia Vaccine* (Total Sample)



(n=469)

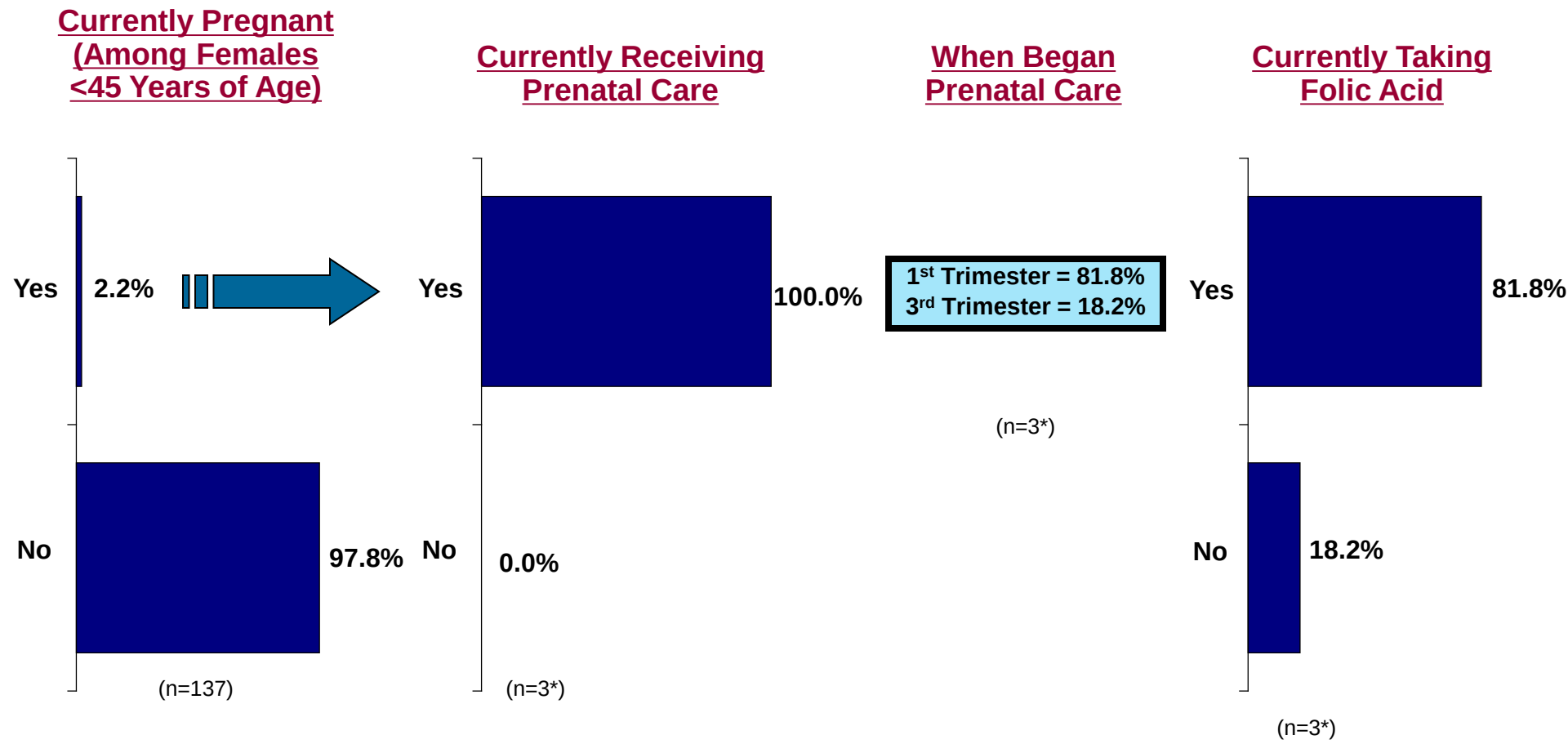
*Among adults aged 65 years and older, the proportion who reported that they ever had a pneumococcal vaccine.

Had Pneumonia Vaccine by Demographics



Among pregnant females, all are currently receiving prenatal care and 81.8% began their care in the first trimester. Additionally, more than eight in ten take a vitamin or supplement that contains folic acid.

Pregnancy and Prenatal Care



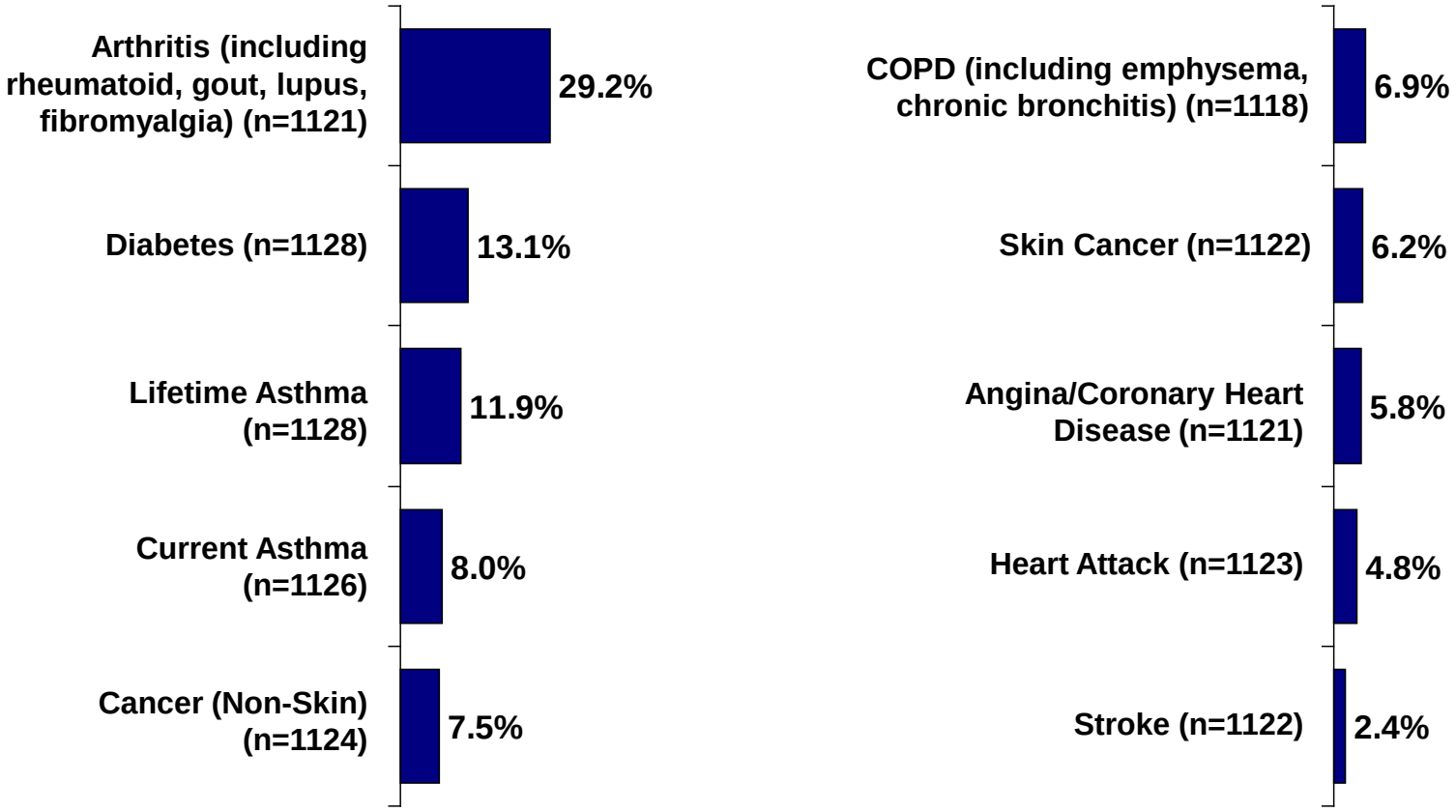
Q13.17: To your knowledge, are you now pregnant?
Q14.1 (If yes) Are you currently receiving prenatal care?
Q14.2: (If yes) When did you start receiving prenatal care?
Q14.3: (If yes) Are you currently taking a vitamin or supplement that contains folic acid?

*Caution: small n size

Chronic Conditions

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

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

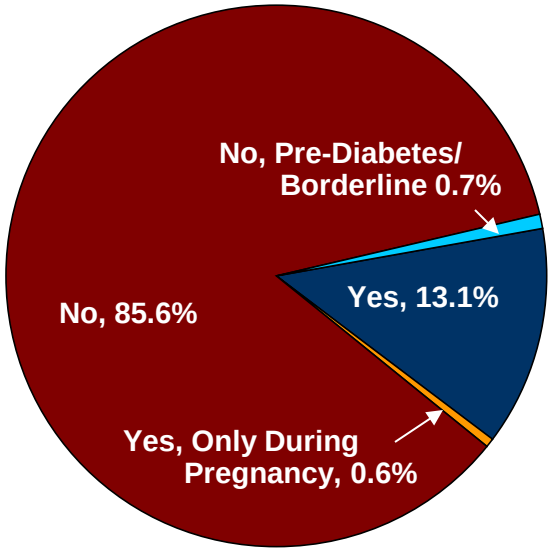


Q9.1-Q9.10: Has a doctor, nurse, or other health professional EVER told you that you had….
Q9.2: Do you still have asthma?

More than one in ten (13.1%) area adults has ever been told they have diabetes. On average, those with diabetes see a health professional and/or are checked for A1c approximately three times a year.

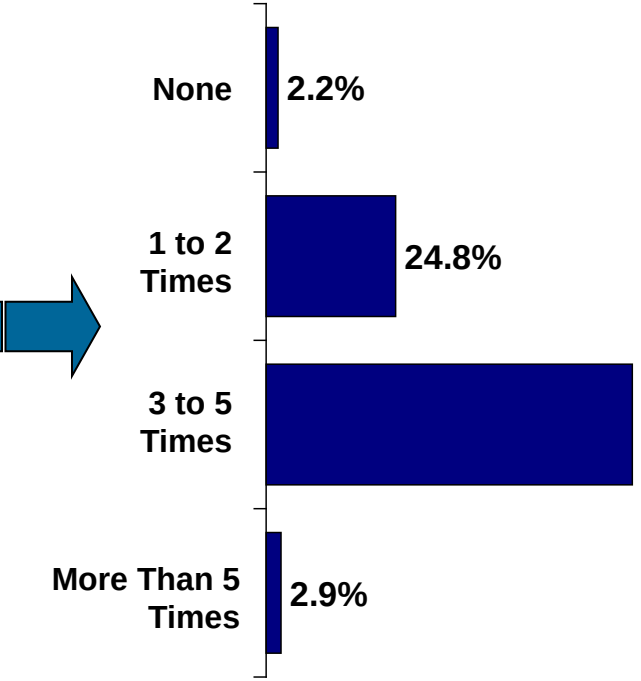
Prevalence of Diabetes

Ever Told Have Diabetes



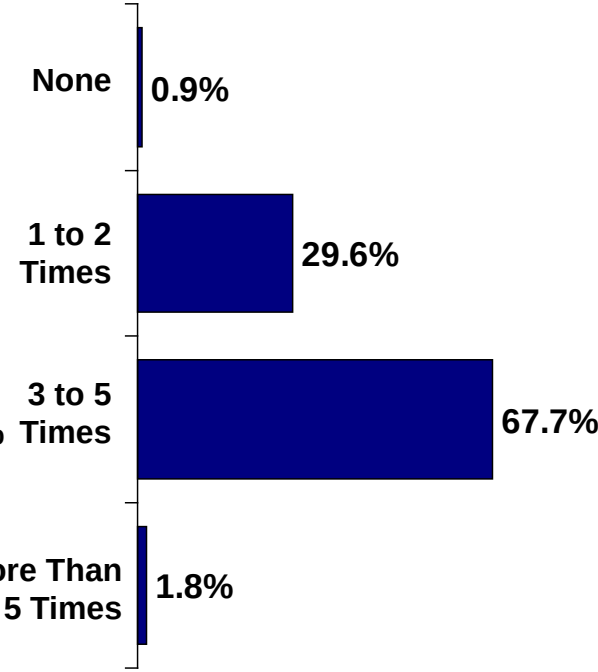
(n=1128)

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



(n=157) Mean = 3.4

Number of Times in Past 12 Months Checked for A1c



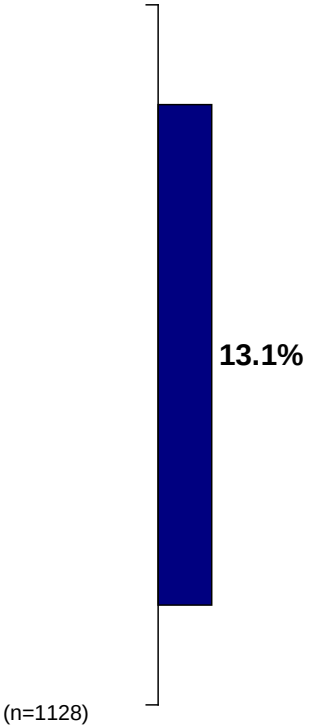
(n=155) Mean = 3.3

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+), non-Whites, those with incomes less than $20K, and those with less than a high school diploma. The prevalence of diabetes is inversely related to level of income.

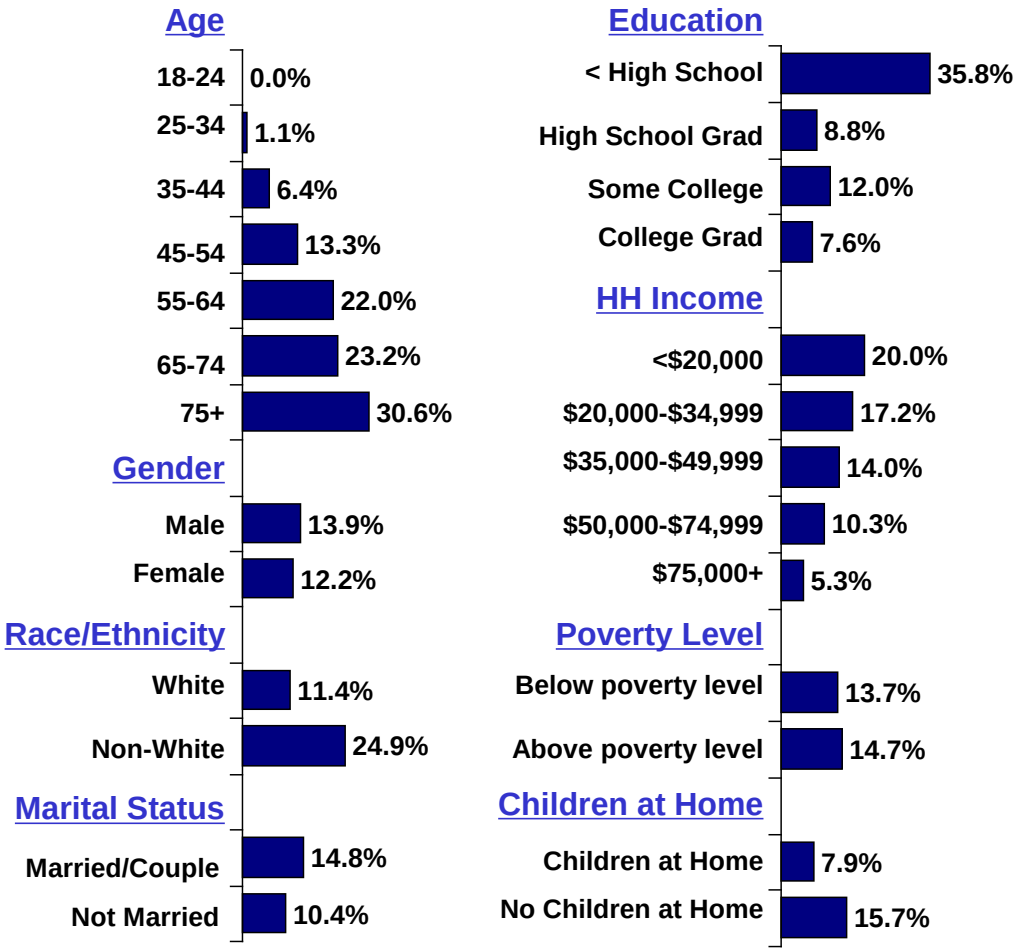
Diabetes

Ever Told Have Diabetes* (Total Sample)



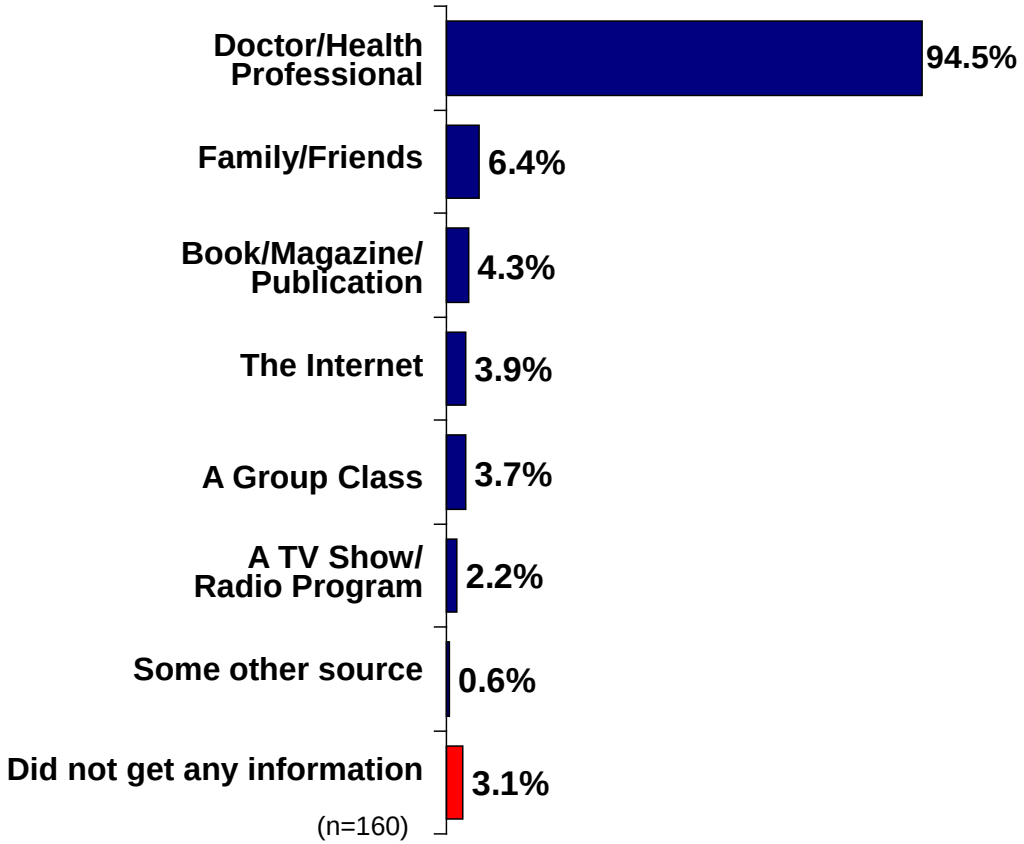
*Among all adults, the proportion who reported that they were ever told by a doctor that they have diabetes. Adults who had been told they have prediabetes and women who had diabetes only during pregnancy were classified as not having been diagnosed.

Told Have Diabetes by Demographics



Almost all (96.9%) 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.

Information Sources for Management of Diabetes

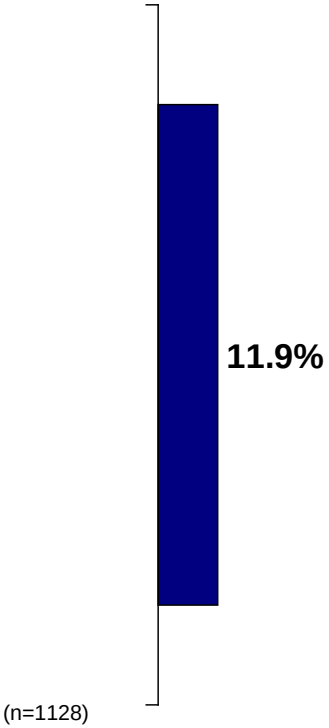


Q11.1: During the last 12 months, where did you get information about taking care of your [INSERT DISEASE]?

More than one in ten (11.9%) adults in the SHLH area have been diagnosed with asthma in their lifetime. This rate is highest for adults age 18-24 and lowest for those with a college degree and living in households with income of $75K+.

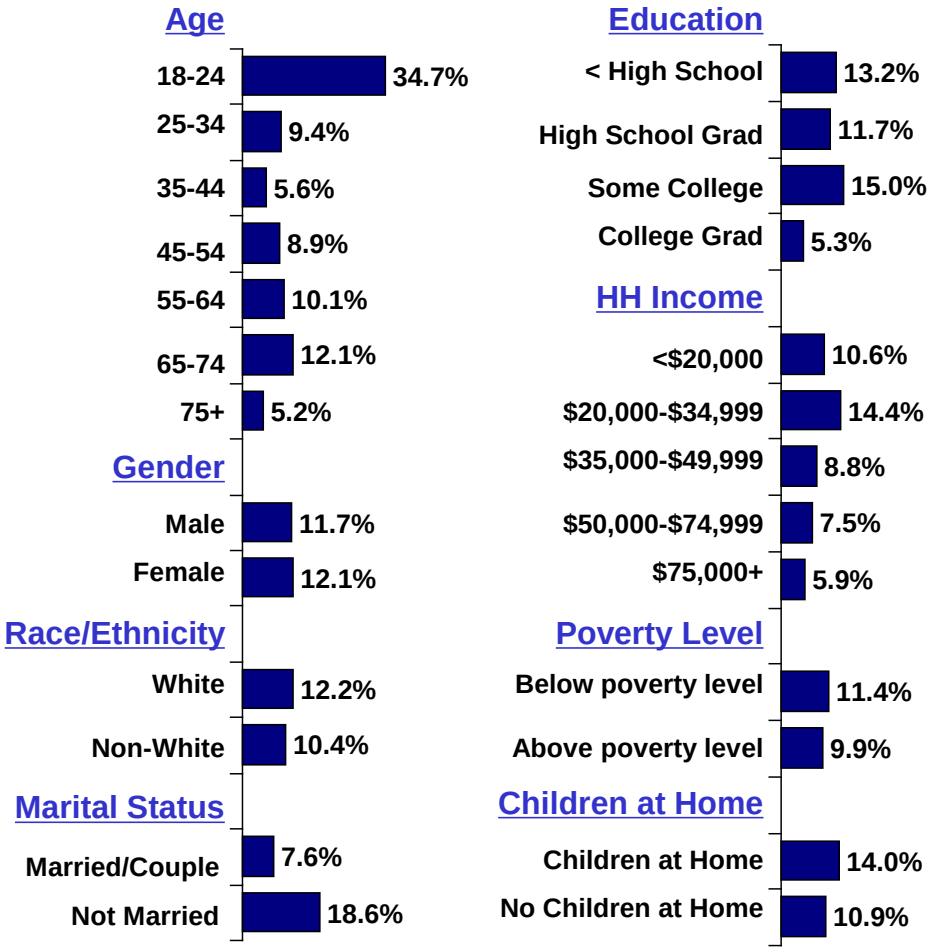
Asthma Among Adults

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.

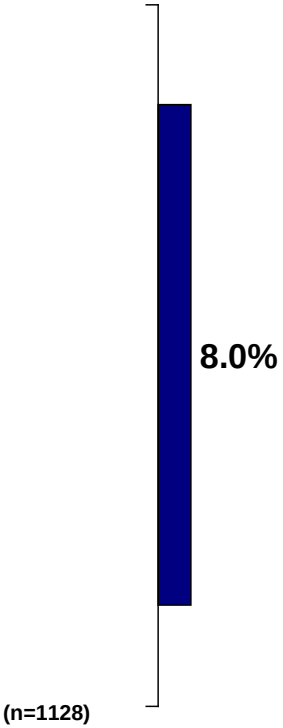
Lifetime Asthma by Demographics



Fewer (8.0%) adults in the SHLH area currently have asthma. Married adults are less likely to have asthma than those who are unmarried. Others less likely to have asthma are college graduates and those living in households making $75K or more.

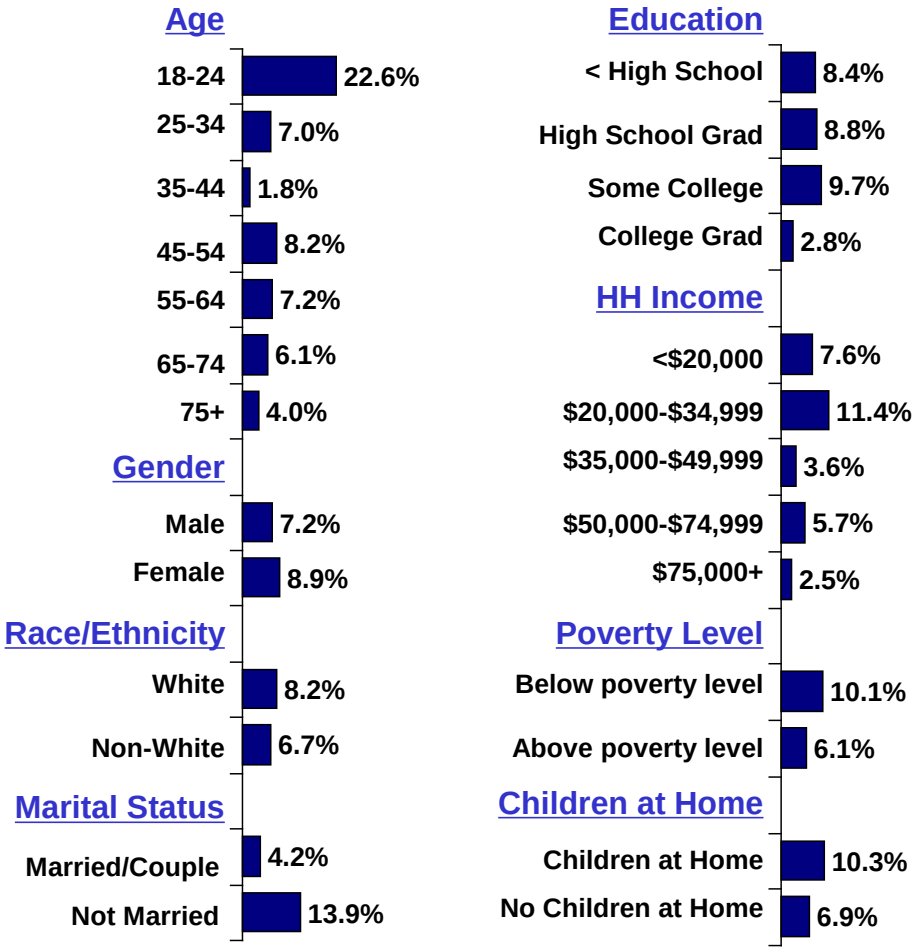
Asthma Among Adults (Cont'd.)

Current Asthma Prevalence* (Total Sample)



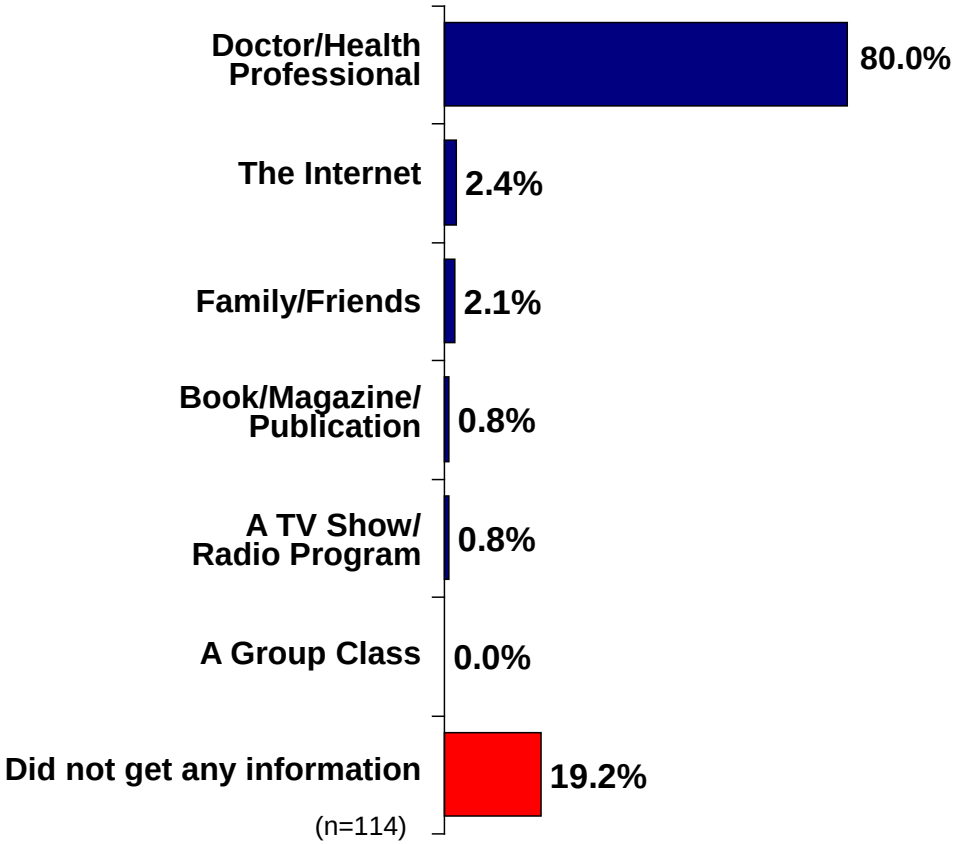
*Among all adults, the proportion who reported that they still had asthma.

Current Asthma by Demographics



Eight in ten (80.8%) 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

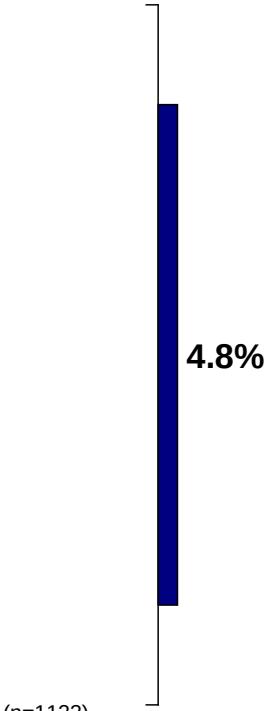


Q11.1: During the last 12 months, where did you get information about taking care of your [INSERT DISEASE]?

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 more common among men than women and Whites vs. non-Whites. Heart attacks are least common among those with college degrees.

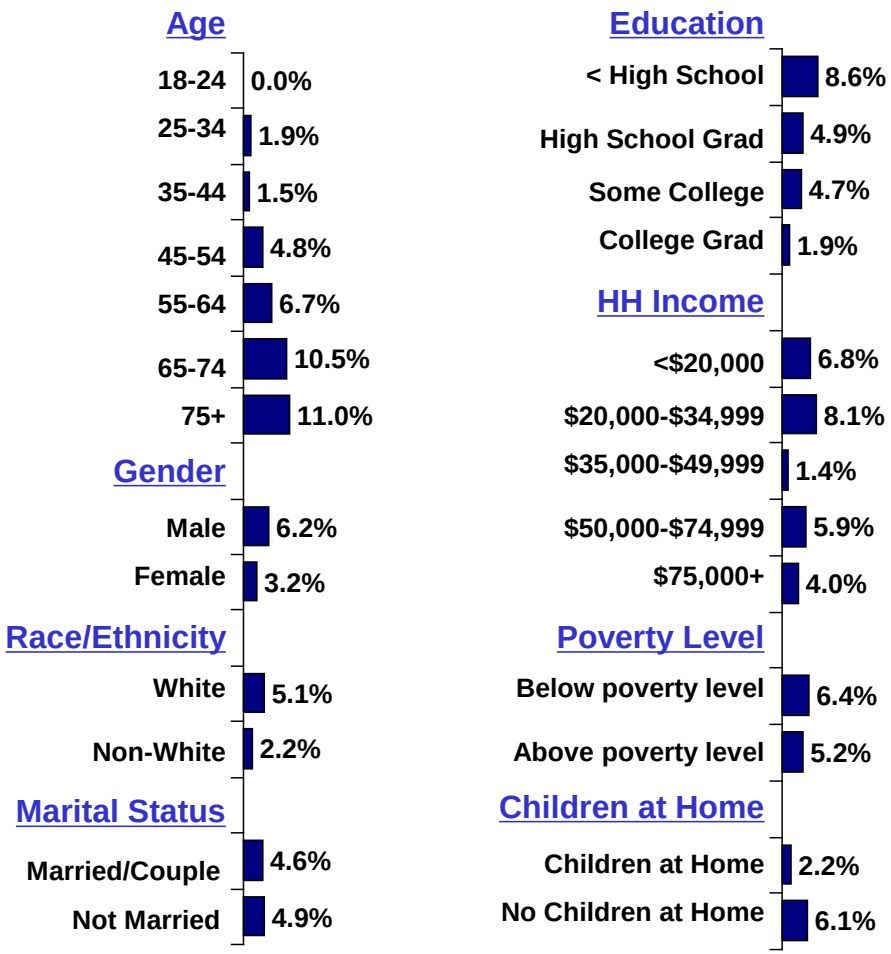
Cardiovascular Disease – Heart Attack

Ever Told Had Heart Attack* (Total Sample)



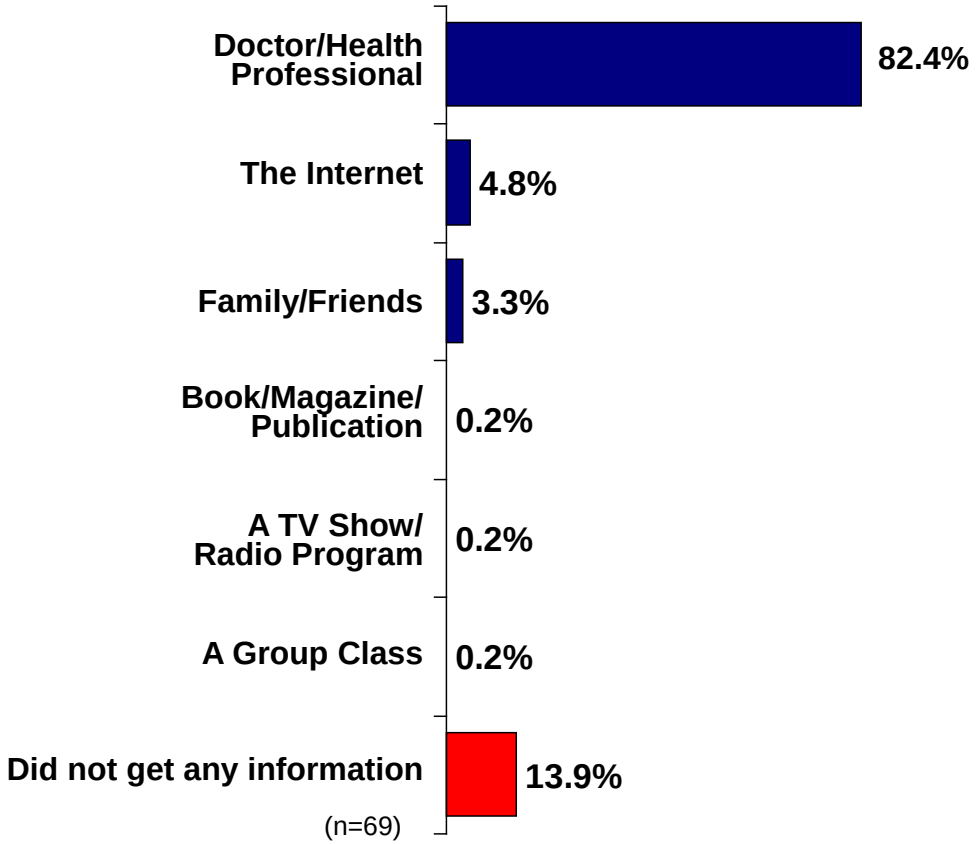
*Among all adults, the proportion who had ever been told by a doctor that they had a heart attack or myocardial infarction.

Told Had Heart Attack by Demographics



Almost nine in ten (86.1%) 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. Much less common sources are the Internet, family, and friends.

Information Sources for Management of Heart Attack

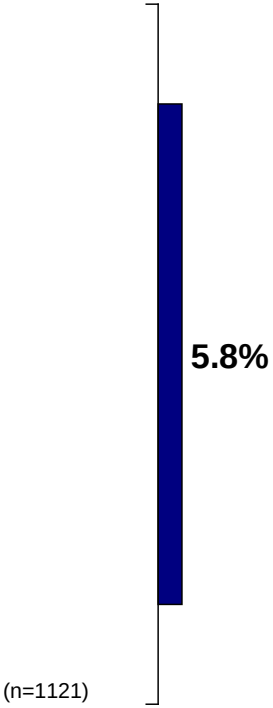


Q11.1: During the last 12 months, where did you get information about taking care of your [INSERT DISEASE]?

Very few area adults have ever been told they have angina or coronary heart disease. The rate is higher for adults aged 55+, those without a high school diploma, those living in households with incomes less than $35K, and those living below the poverty level. It is also more common among men than women, and more common among non-Whites than Whites.

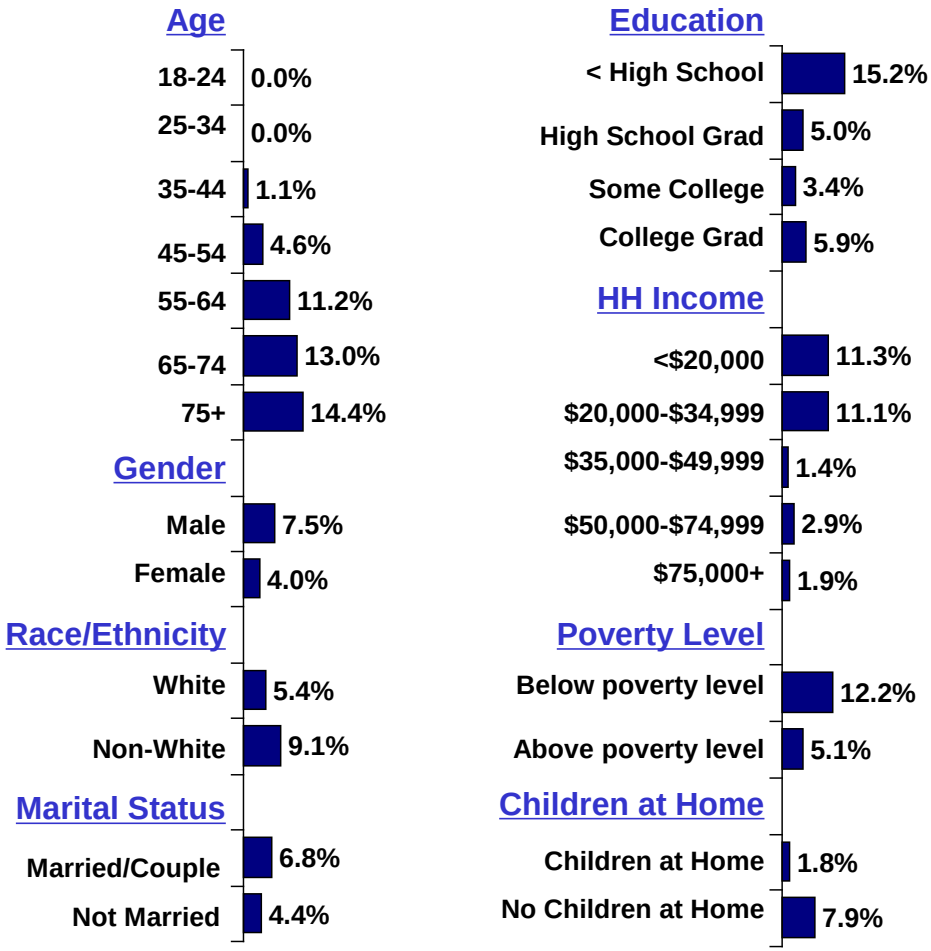
Cardiovascular Disease - Angina

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



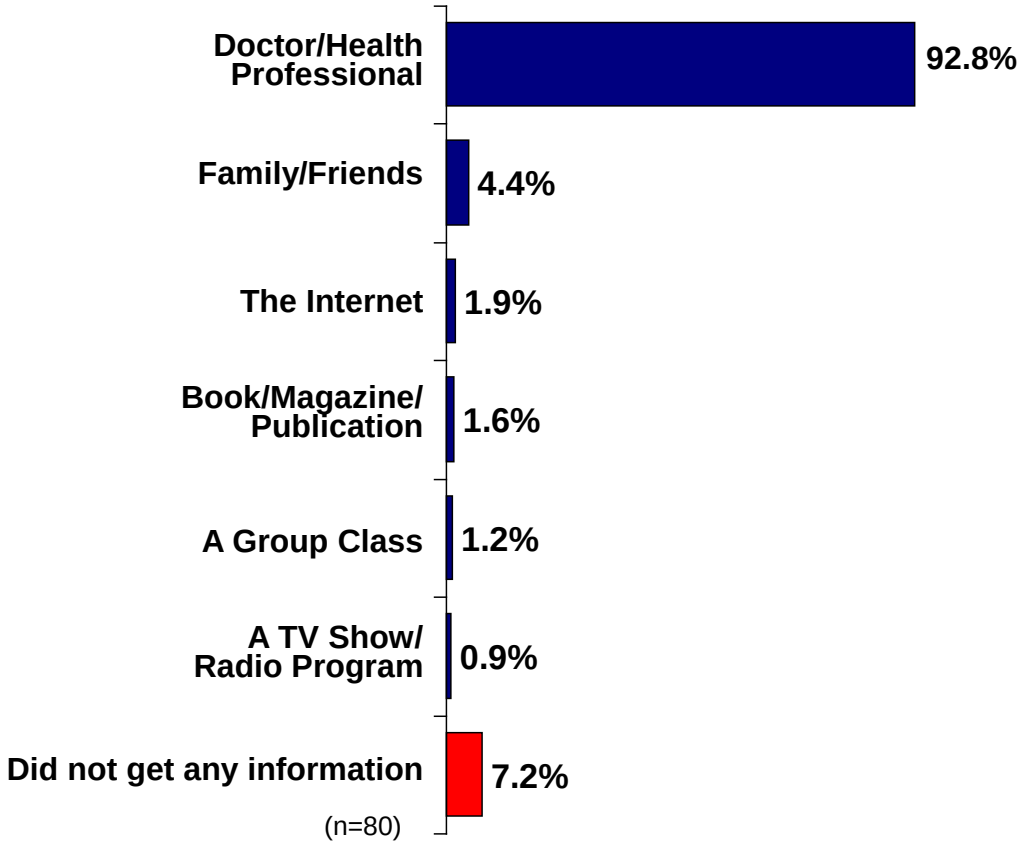
*Among all adults, the proportion who had ever been told by a doctor that they had angina or coronary heart disease.

Told Have Angina/Coronary Heart Disease by Demographics



Almost all (92.8%) SHLH 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. Much less common sources are family/friends, the Internet, and publications.

Information Sources for Management of Angina

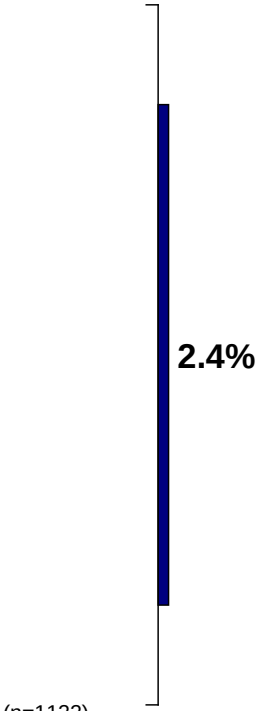


Q11.1: During the last 12 months, where did you get information about taking care of your [INSERT DISEASE]?

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 - Stroke

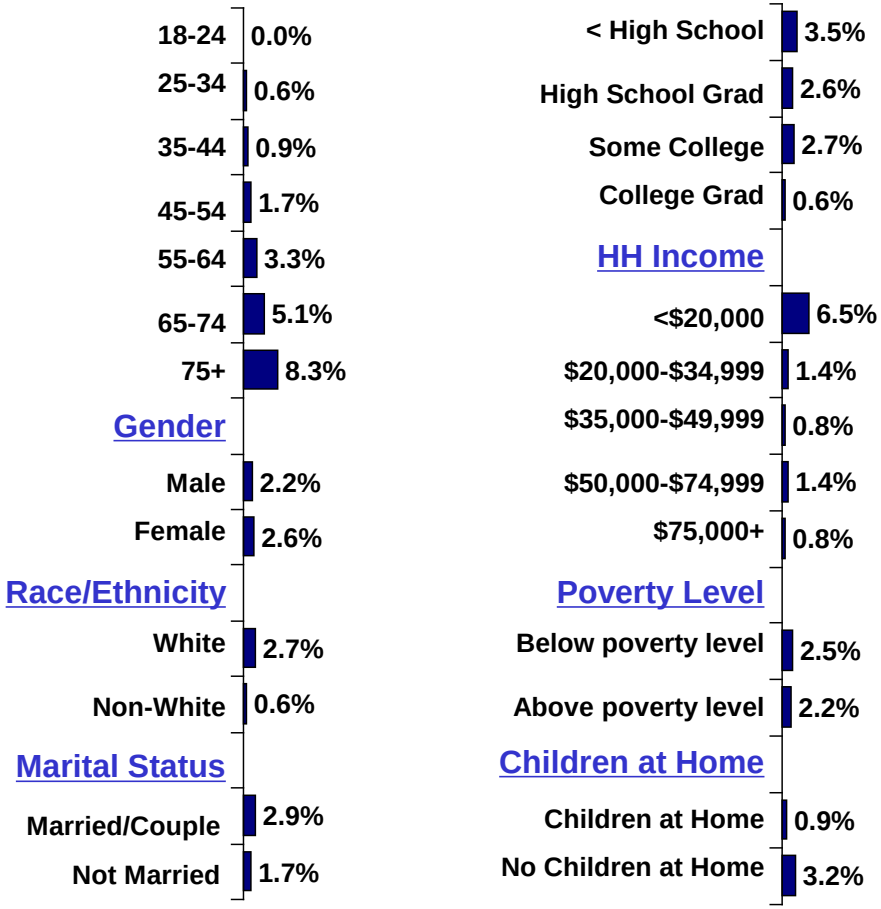
Ever Told Had a Stroke* (Total Sample)



(n=1122)

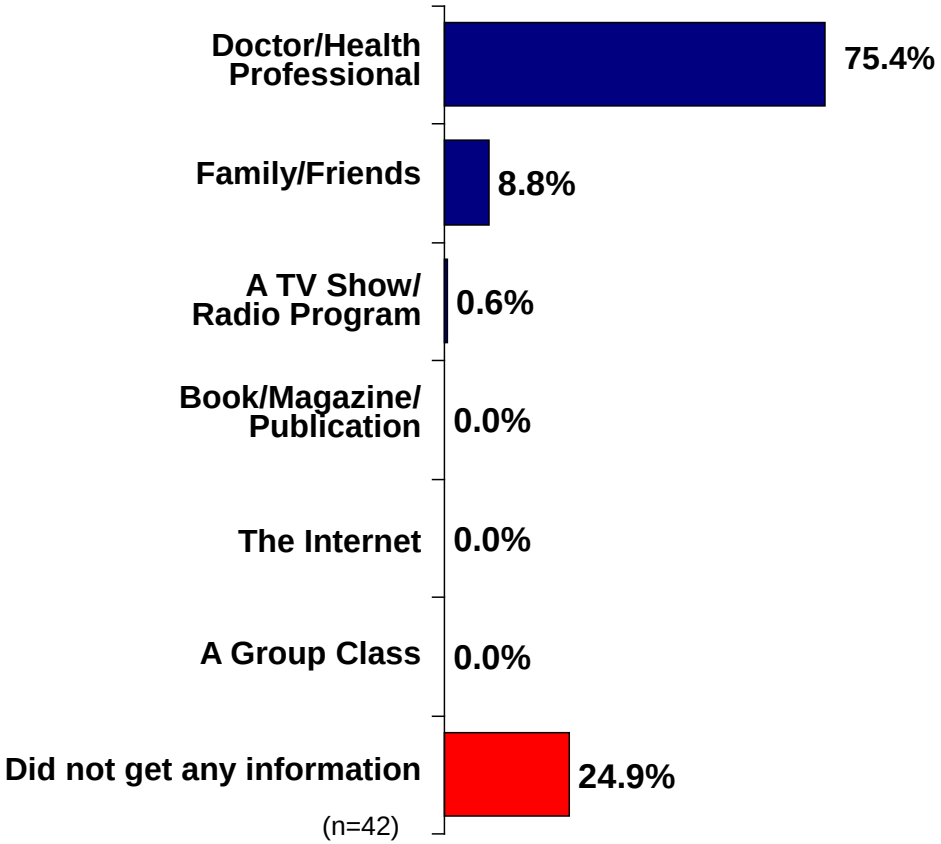
*Among all adults, the proportion who had ever been told by a doctor that they had a stroke.

Told Had Stroke by Demographics



Three-fourths (75.1%) 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 from health care professionals, family, or friends.

Information Sources for Management of Stroke

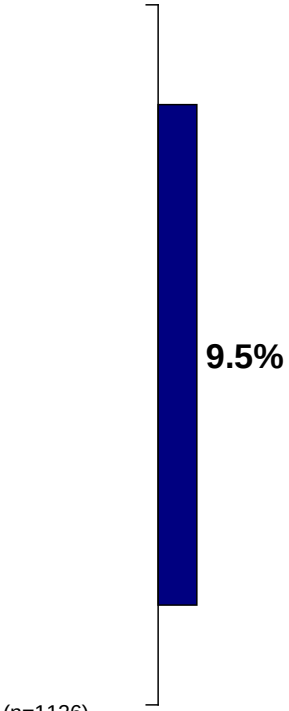


Q11.1: During the last 12 months, where did you get information about taking care of your [INSERT DISEASE]?

Having any form of cardiovascular disease (heart attack, angina, stroke) is directly related to age and inversely related to education and income. For example, 6.5% of college graduates have experienced heart disease in some form, compared to 17.2% of those with less than a high school diploma. Men are more likely than women to have some form of cardiovascular disease.

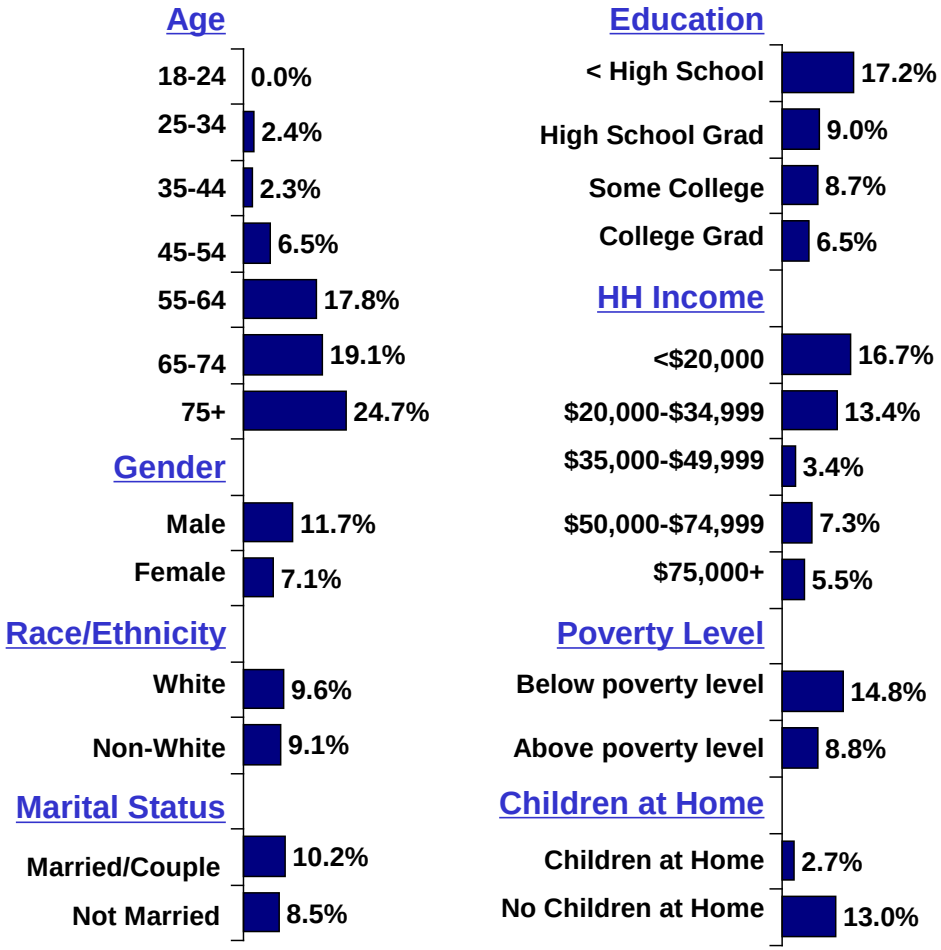
Any Cardiovascular Disease

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.

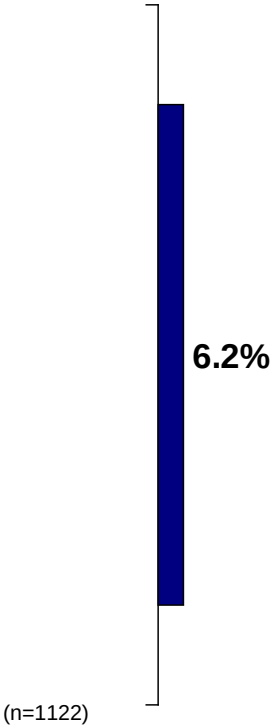
Told Had Heart Attack, Angina, or Stroke by Demographics



Roughly one in seventeen (6.2%) area adults have been told by a doctor they have skin cancer. Expectedly, this proportion rises dramatically with age; one-fourth (23.6%) of people aged 75 or older have been told they have skin cancer. People living above the poverty line are more likely to be diagnosed with skin cancer than people living below the poverty line. The prevalence is also higher for college educated adults compared to those without any college education.

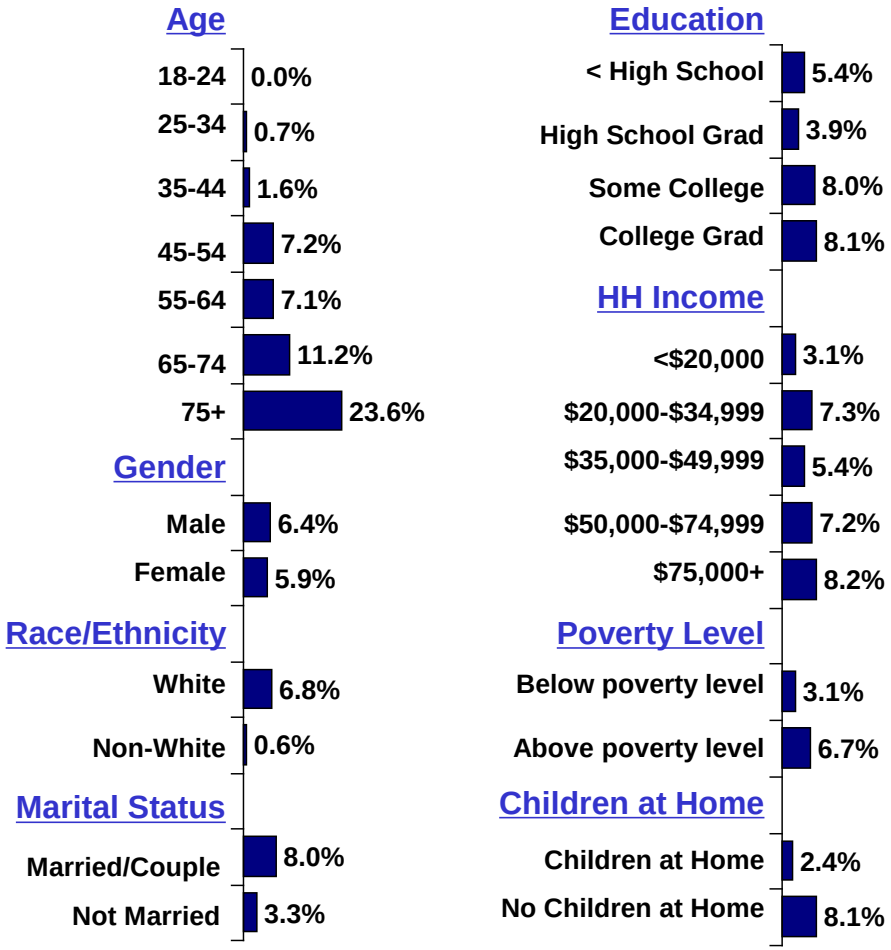
Skin Cancer

Ever Told Have Skin Cancer* (Total Sample)



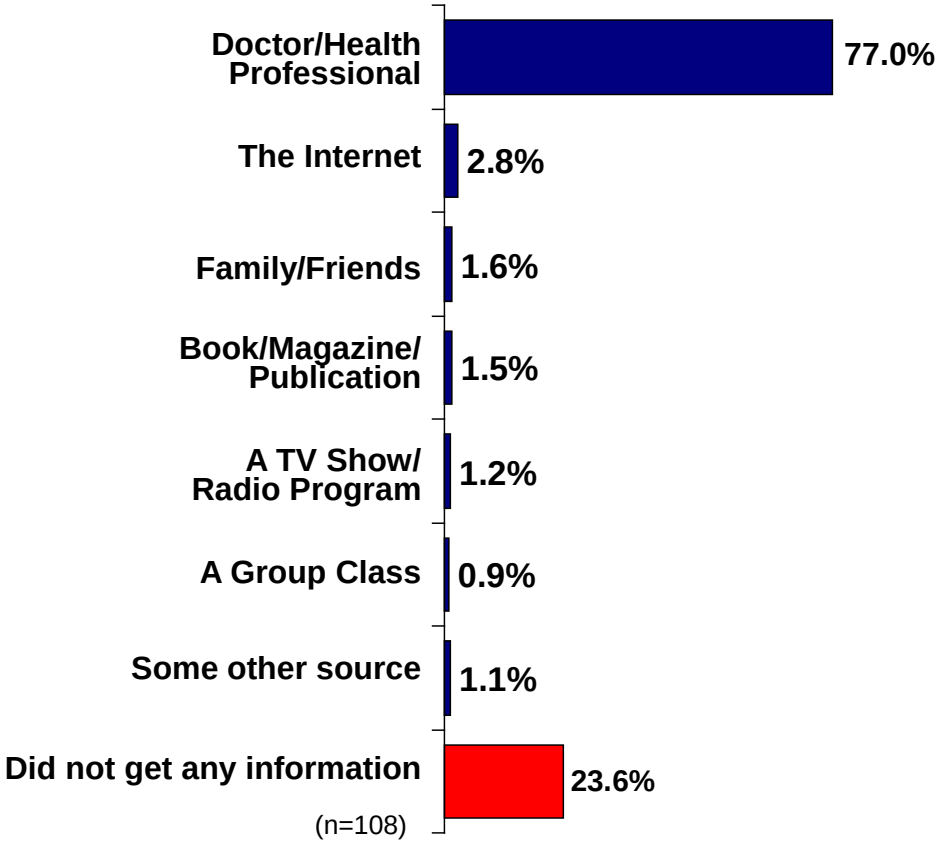
*Among all adults, the proportion who reported that they were ever told by a doctor that they have skin cancer.

Told Have Skin Cancer by Demographics



Three-fourths (76.4%) of 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.

Information Sources for Management of Skin Cancer

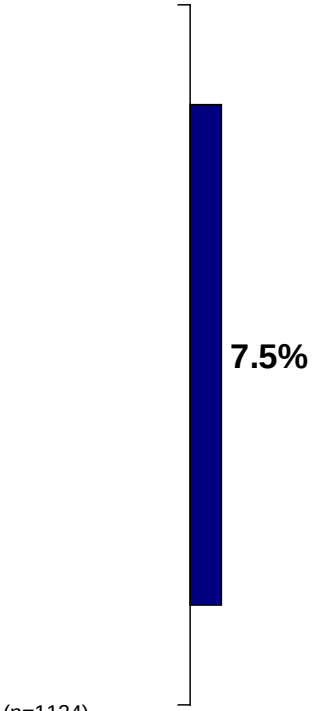


Q11.1: During the last 12 months, where did you get information about taking care of your [INSERT DISEASE]?

One in thirteen (7.5%) adults have been told by a doctor they have non-skin cancer. This proportion also rises dramatically with age; 22.3% 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 diploma and those with household incomes less than $20K.

Cancer (Other Than Skin)

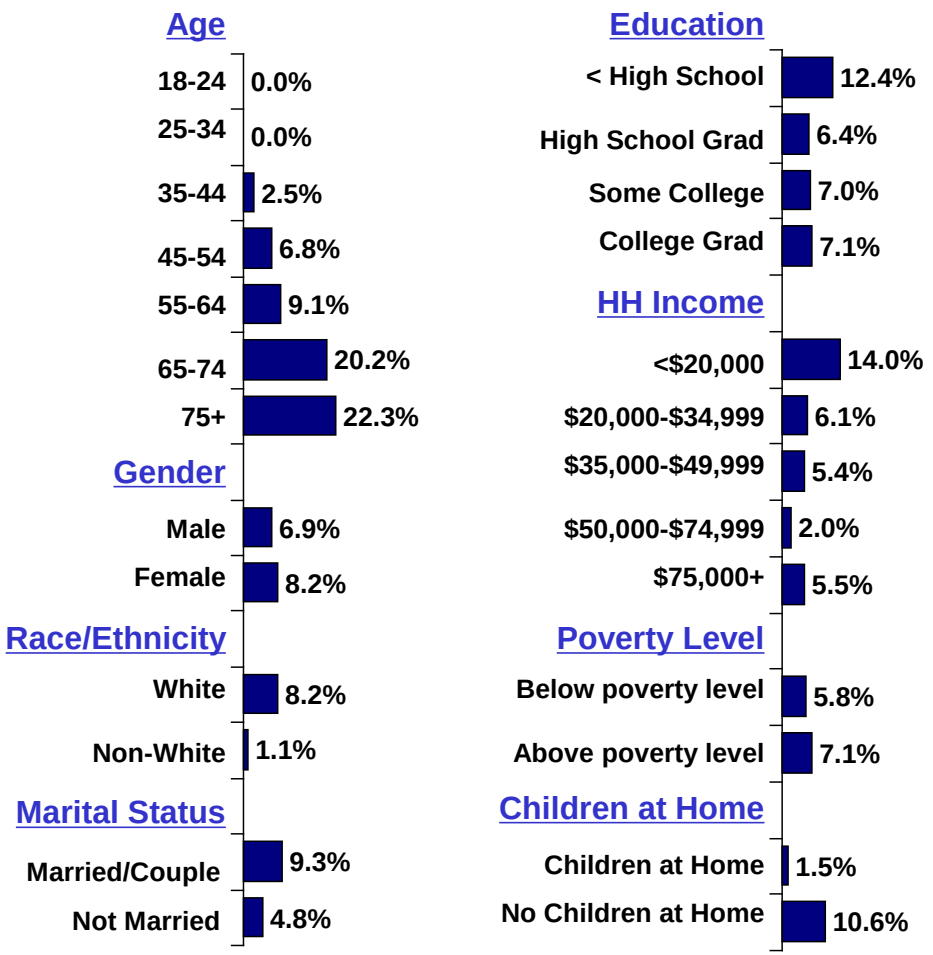
Ever Told Have Cancer (Other Than Skin)* (Total Sample)



(n=1124)

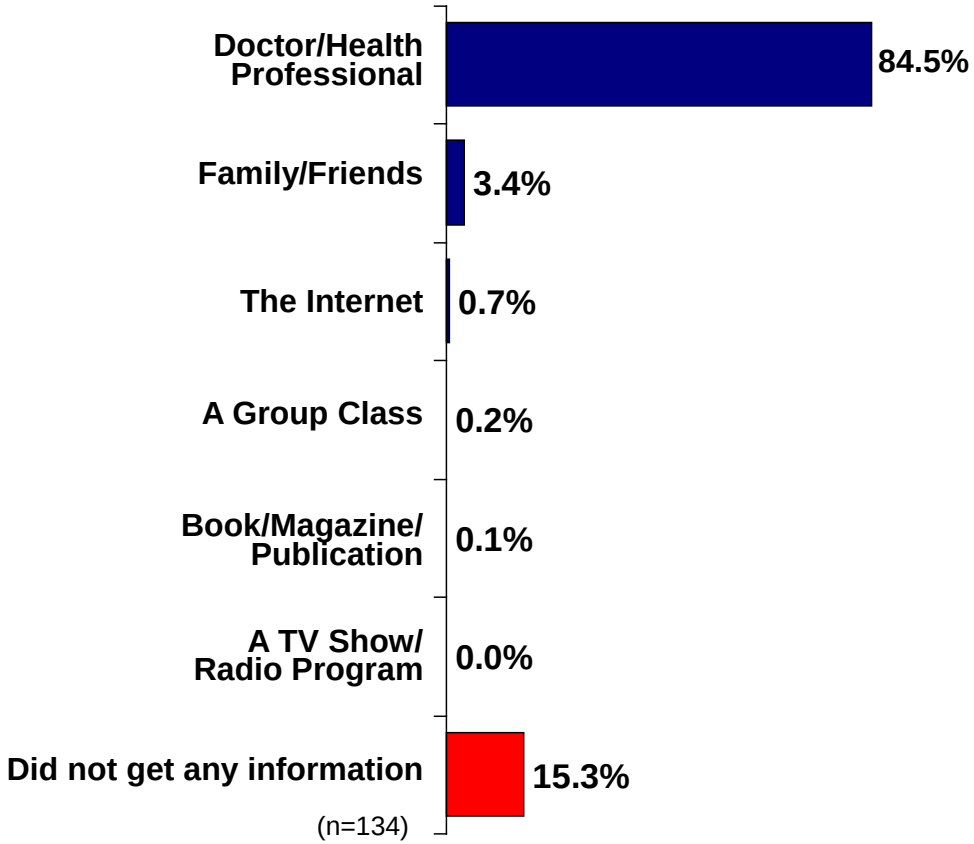
*Among all adults, the proportion who reported that they were ever told by a doctor that they have cancer (other than skin).

Told Have Cancer by Demographics



More than eight in ten (84.7%) 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)

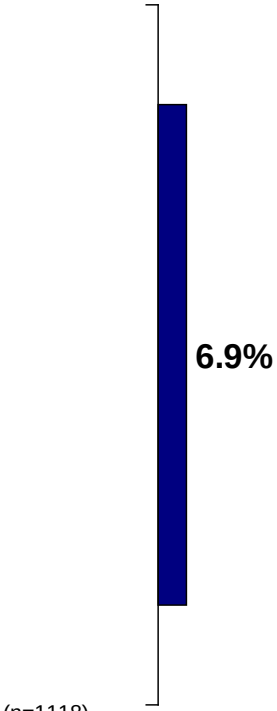


Q11.1: During the last 12 months, where did you get information about taking care of your [INSERT DISEASE]?

One in fourteen (6.9%) area adults have been told they have chronic obstructive pulmonary disease (COPD). The disease is more common among residents who are older (55+), have less education, and who have financial limitations.

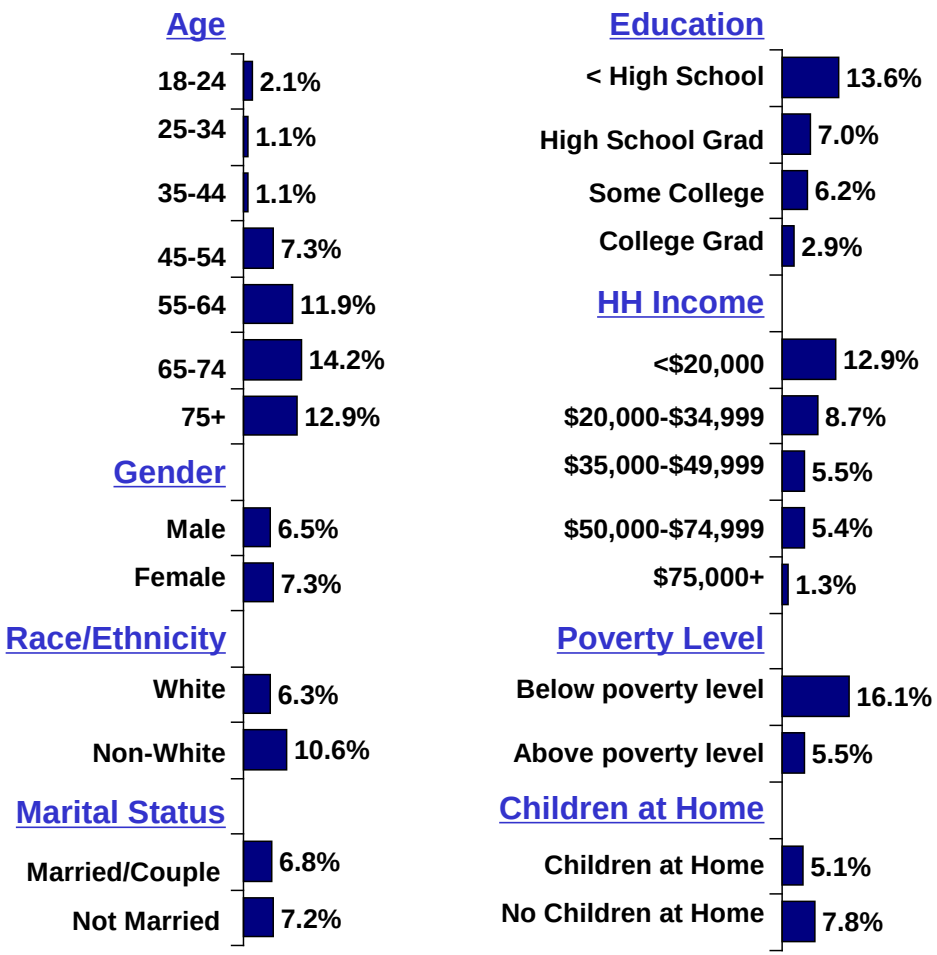
COPD

Ever Told Have COPD* (Total Sample)



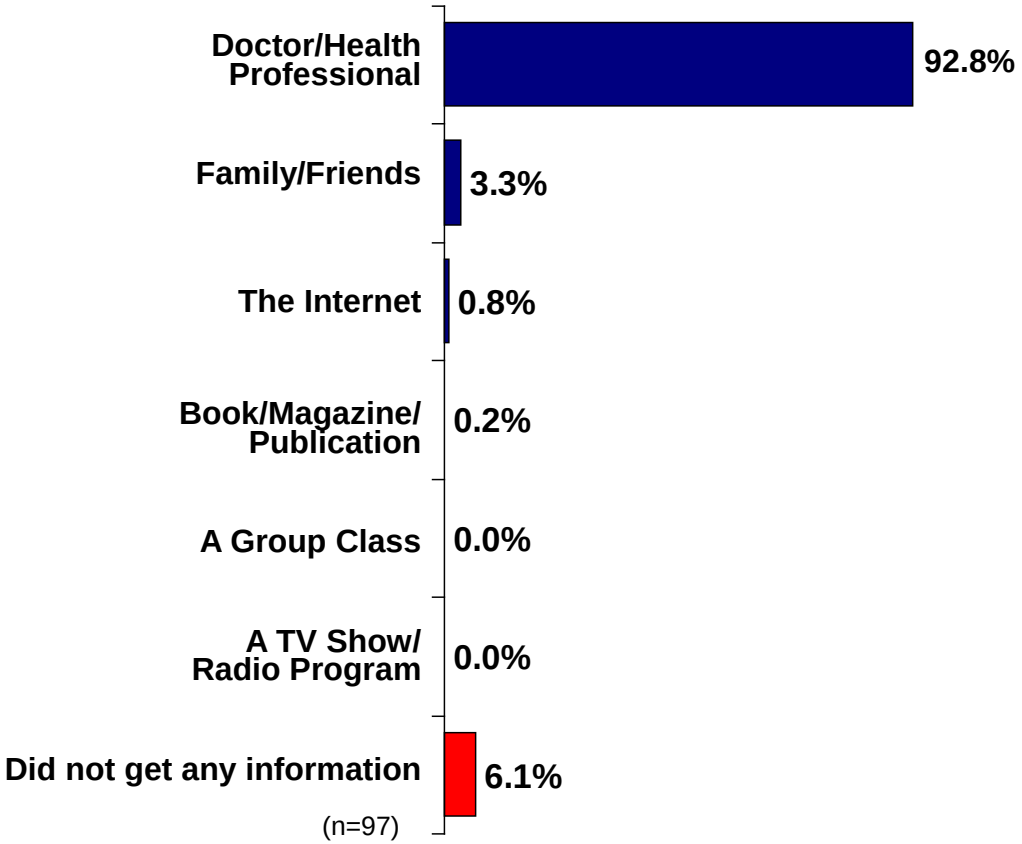
*Among all adults, the proportion who reported that they were ever told by a doctor that they have chronic obstructive pulmonary disease (COPD), emphysema, or chronic bronchitis.

Told Have COPD by Demographics



More than nine in ten (93.9%) 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

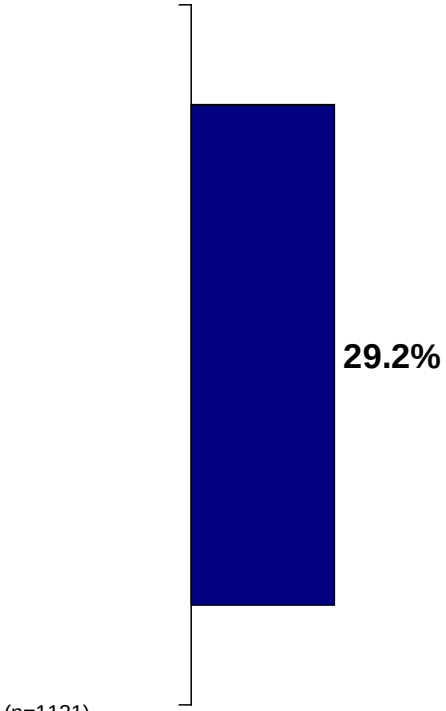


Q11.1: During the last 12 months, where did you get information about taking care of your [INSERT DISEASE]?

Three in ten (29.2%) 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 less likely to have arthritis than Whites. Having arthritis is more prevalent among adults with the least education and in the lowest income groups.

Arthritis

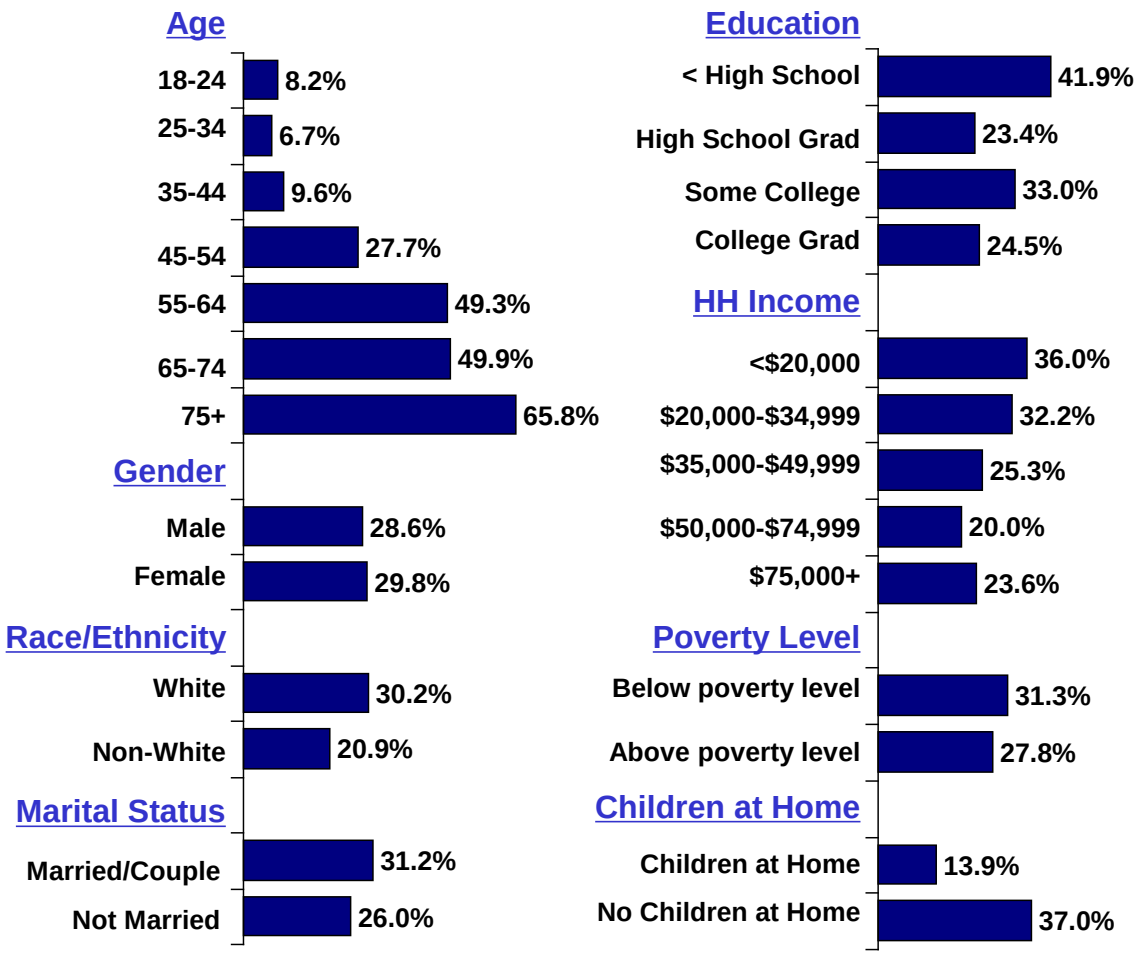
Ever Told Have Arthritis* (Total Sample)



(n=1121)

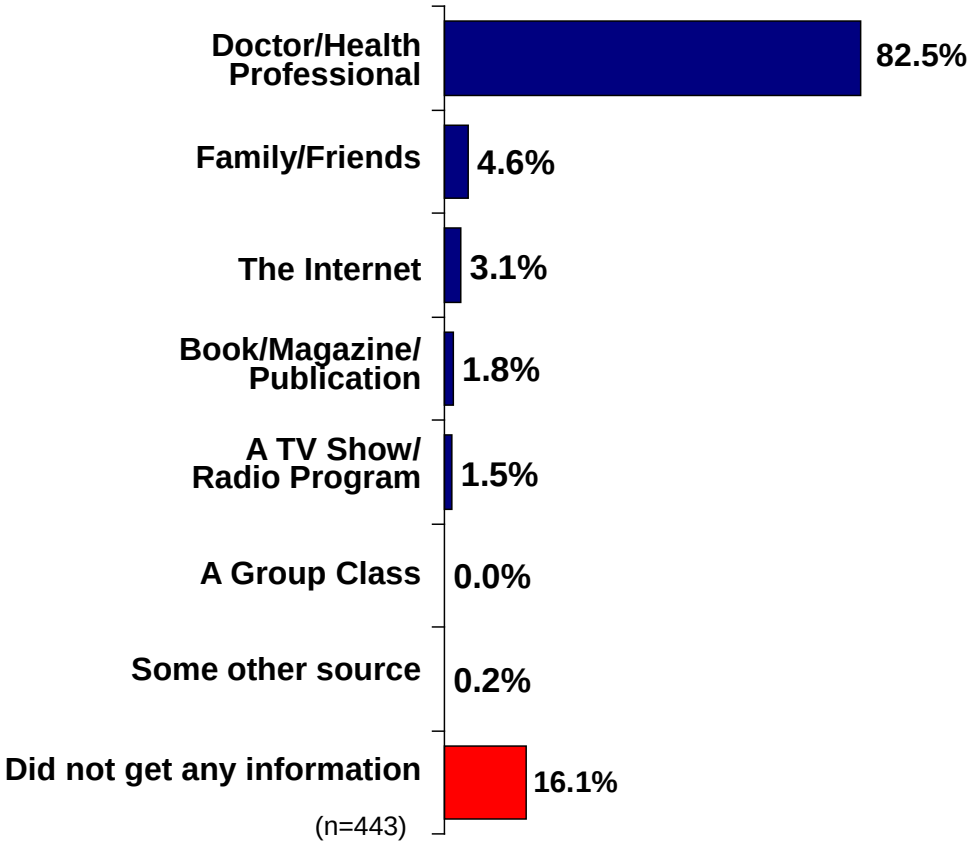
*Among all adults, the proportion who reported ever being told by a health care professional that they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia.

Told Have Arthritis by Demographics



More than eight in ten (83.9%) 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, others sources include family/friends, the Internet, 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 Ludington Hospital Service Area, Michigan, and the United States

Health Status Indicators

	SHLH Service Area	Michigan	U.S.
General Health Fair/Poor	18.3%	17.7%	16.9% (2013)
Poor Physical Health (14+ days)	14.4%	12.7%	--
Poor Mental Health (14+ days)	8.0%	12.0%	--
Activity Limitation (14+ days)	10.2%	8.8%	--
Dissatisfied/Very Dissatisfied with Life	4.3%	6.1% (2010)	--
Rarely/Never Receive Social and Emotional Support	5.6%	6.5% (2010)	--
Obese	34.1%	31.5%	28.9% (2013)
Overweight	33.5%	34.7%	35.4% (2013)
Healthy Weight	30.1%	32.5%	33.4% (2013)
No Health Care Coverage (18-64)	9.1%	17.4%	20.0% (2013)
No Personal Health Care Provider	13.3%	17.0%	22.9% (2013)
No Health Care Access Due to Cost	9.3%	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 Ludington Hospital Service Area, Michigan, and the United States (Cont'd.)

Risk Behavior Indicators

	SHLH Service Area	Michigan	U.S.
No Leisure Time Physical Activity	40.3%	24.4%	25.5% (2013)
Inadequate Fruit and Vegetable Consumption (<5 Times Per Day)	85.0%	84.7%	76.6% (2009)
Consume Fruits <1 Time Per Day	26.9%	37.5%	39.2%
Consume Vegetables <1 Time Per Day	21.1%	23.9%	22.9%
Current Cigarette Smoking	21.7%	21.4%	19.0% (2013)
Former Cigarette Smoking	26.4%	27.0%	25.2% (2013)
Binge Drinking	11.6%	18.9%	16.8% (2013)
Heavy Drinking	3.9%	6.2%	6.2% (2013)
Ever Told High Blood Pressure	36.9%	34.6%	31.4% (2013)
Cholesterol Ever Checked	80.8%	83.2%	80.1% (2013
Ever Told High Cholesterol	32.3%	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 Ludington Hospital Service Area, Michigan, and the United States (Cont'd.)

Clinical Preventive Practices

	SHLH Service Area	Michigan	U.S.
No Routine Checkup in Past Year	16.1%	30.1%	31.8% (2013)
Ever Had Mammogram (Females, 40+ only)	92.6%	94.5% (2012)	--
Had Mammogram in Past Year (Females, 40+ only)	69.0%	59.2% (2012)	--
Had Mammogram in Past 2 Years (Females, 40+ only)	81.9%	76.6% (2012)	75.6% (2010)
Ever Had Pap Test	90.6%	92.1% (2012)	--
Had Appropriately Timed Pap Test	71.3%	79.4% (2012)	--
Ever Had PSA Test (Males, 50+ only)	73.2%	72.2% (2012)	--
Ever Had Sigmoidoscopy or Colonoscopy (50+ only)	74.2%	74.0%	--
Had Sigmoidoscopy/Colonoscopy in Past 5 Years (50+)	59.7%	56.4%	52.8% (2010)
No Dental Visit in Past Year	25.3%	32.0% (2012)	30.0% (2008)
No Teeth Cleaning in Past Year	29.9%	29.2% (2010)	28.7% (2008)
Had Flu Vaccine in Past Year (65+ only)	66.0%	56.8%	62.6% (2013)
Ever Had Pneumonia Vaccine (65+ only)	60.7%	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 Ludington Hospital Service Area, Michigan, and the United States (Cont'd.)

Chronic Conditions

	SHLH Service Area	Michigan	U.S.
Lifetime Asthma Prevalence	11.9%	15.2%	14.1% (2013)
Current Asthma Prevalence	8.0%	10.9%	9.0% (2013)
Ever Told Had Arthritis	29.2%	31.3%	25.1% (2013)
Ever Told Had Heart Attack	4.8%	5.2%	4.4% (2013)
Ever Told Had Angina/Coronary Heart Disease	5.8%	5.2%	4.1% (2013
Ever Told Had Stroke	2.4%	3.6%	2.8% (2013)
Ever Told Had Diabetes	13.1%	10.4%	9.8% (2013)
Ever Told Had COPD	6.9%	8.8%	6.3% (2013)
Ever Told Had Skin Cancer	6.2%	5.4%	6.0 (2013)
Ever Told Had Other Cancer	7.5%	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

Comparison of SHLH BRFS Measures from 2011 and 2014

Health Status Indicators

	SHLH Area 2014	SHLH Area 2011
General Health Fair/Poor	18.3% ↓	19.9%
Poor Physical Health (14+ days)	14.4% ↓	16.6%
Poor Mental Health (14+ days)	8.0% ↓	9.8%
Activity Limitation (14+ days)	10.2%	10.2%
Dissatisfied/Very Dissatisfied with Life	4.3% ↓	6.8%
Rarely/Never Receive Social and Emotional Support	5.6% ↓	6.8%
Obese	34.1%	28.1%
Overweight	33.5% ↓	36.0%
Healthy Weight	30.1%	34.9%
No Health Care Coverage (18-64)	9.1% ↓	16.7%
No Personal Health Care Provider	13.3% ↓	13.6%
No Health Care Access Due to Cost	9.3%	--

↑ ↓ = better/improved measure from 2011

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

Comparison of SHLH BRFS Measures from 2011 and 2014 (Cont'd.)

Risk Behavior Indicators

	SHLH Area 2014	SHLH Area 2011
No Leisure Time Physical Activity	40.3%	27.5%
Inadequate Fruit and Vegetable Consumption*	85.0% ↓	89.0%
Current Cigarette Smoking	21.7%	18.7%
Former Cigarette Smoking	26.4% ↓	30.2%
Binge Drinking	11.6% ↓	19.3%
Heavy Drinking	3.9% ↓	6.2%
Ever Told High Blood Pressure	36.9%	33.2%
Cholesterol Ever Checked	80.8%	--
Ever Told High Cholesterol	32.3% ↓	34.8%

↑ ↓ = better/improved measure from 2011

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

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

Comparison of SHLH BRFS Measures from 2011 and 2014 (Cont'd.)

Clinical Preventive Practices

	SHLH Area 2014	SHLH Area 2011
No Routine Checkup in Past Year	16.1%	--
Ever Had Mammogram (Females, 40+ only)	92.6%	96.2%
Had Mammogram in Past Year (Females, 40+ only)	69.0%	72.1%
Had Mammogram in Past 2 Years (Females, 40+ only)	81.9%	83.9%
Ever Had Pap Test	90.6%	93.5%
Had Appropriately Timed Pap Test	71.3%	74.4%
Ever Had PSA Test (Males, 50+ only)	73.2%	84.1%
Ever Had Sigmoidoscopy or Colonoscopy (50+ only)	74.2% ↑	70.1%
Had Sigmoidoscopy /Colonoscopy in Past 5 Years (50+)	59.7%	60.9%
No Dental Visit in Past Year	25.3%	--
No Teeth Cleaning in Past Year	29.9%	29.6%
Had Flu Vaccine in Past Year (65+ only)	66.0% ↑	63.0%
Ever Had Pneumonia Vaccine (65+ only)	60.7% ↑	54.4%

↑ ↓ = better/improved measure from 2011

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

Comparison of SHLH BRFS Measures from 2011 and 2014 (Cont'd.)

Chronic Conditions

	SHLH Area 2014	SHLH Area 2011
Lifetime Asthma Prevalence	11.9% ↓	16.5%
Current Asthma Prevalence	8.0% ↓	11.6%
Ever Told Had Arthritis	29.2% ↓	35.8%
Ever Told Had Heart Attack	4.8%	4.8%
Ever Told Had Angina/Coronary Heart Disease	5.8%	5.8%
Ever Told Had Stroke	2.4% ↓	3.0%
Ever Told Had Diabetes	13.1%	12.4%
COPD	6.9% ↓	8.0%
Skin Cancer	6.2% ↓	6.4%
Other Cancer	7.5%	7.1%

↑ ↓ = better/improved measure from 2011

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

Key Stakeholder Interviews

Health Care Issues and Accessibility

Despite an increase in insured residents, many still face access challenges due to a **shortage of providers**, particularly those who accept Medicaid. Other pressing issues are **insufficient access to mental health care** and persistent **social issues such as poverty and low levels of education**.

Most Pressing Health Needs or Issues

- Key Stakeholders report that many formerly uninsured residents are now insured, primarily under the Healthy Michigan Plan.
- However, Stakeholders agree that access to health care remains a critical concern. Several cited a shortage of primary care physicians in general; residents covered under Medicaid fare the worst, with several Stakeholders reporting little improvement since the last needs assessment was conducted.
- Mental health care for those with mild to moderate illness is another key concern, with representatives of Lake and Oceana counties citing an absence of local psychiatric services. Medicaid patients in Mason County reportedly face a complete absence of covered services for mental health or substance abuse issues.
- Other health-related needs or issues include:
  - Substance abuse
  - Poor health habits (smoking; lack of exercise)
  - Obesity
  - Lack of value placed on education
  - Insufficient health awareness
  - Poverty
  - Limited access to dental services
  - Limited facilities for patients with dementia or Alzheimer's disease
  - Lack of transportation for rural residents

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

"It seems like I hear over and over that people are having to wait, just for a minor illness, sometimes up to two weeks to get in to see a physician."

"We really have done a good job of getting people enrolled with the Healthy Michigan Plan. There is still a real problem with access to primary care for all because there still is a significant number of physicians that don't want to serve the Medicaid population even though they have coverage now."

"If you have Medicaid and a mental illness or a substance abuse disorder, you are completely off the radar."

"The cycle of poverty is a huge issue. A lot of unemployment. There's not a lot for people to do. We're having difficulty with our young people, getting them to understand the value of education It's that cycle that's difficult to break, and it's unfortunate."

"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?"

"Substance abuse is a major health care issue in our community – both drug use and alcohol use."

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

Key Stakeholders cite programs and plans underway to address the community's top health care concerns. Limited funding is cited as a constraint.

Issue	Programs/Plans Aimed at Addressing Issue
Shortage of providers	• Some physicians now accepting new patients and/or Medicaid patients • Pendulum swinging to more physicians being employed as opposed to private practice – will lead to better access assuming more primary care physicians can be recruited • Medical care facility adding beds to Alzheimer's unit
Mental health/ Emotional health	• Family health clinic adding therapists for behavioral health services • Implementation of school-based health center with therapist and social worker providing coordinated support to students • Bringing in telepsychiatry services • Grant-funded support groups to help residents with social issues
Health behaviors	• Implementing community gardens
Obesity	• Hospital addressing obesity at the school level
Substance abuse	• Community Mental Health now providing substance abuse services

"We don't have a psychiatrist in Lake County. The problem is funding, of course, and sustaining such a program. I just received a grant for expansion of behavioral health services so I'm putting in more therapists. My medical director is also developing a program that will help us bring in some telepsychiatry, especially for those with bipolar and post-traumatic stress disorder and some other anxiety diagnoses. The resources are pretty scarce. I'm trying to piece things together to try to bring resources in; it just doesn't cover the entire population, unfortunately."

"As we look to the future, where we place practices in low-density areas needs to be part of that thought process so that we not only create more access in terms of number of providers willing to accept all comers, but also that we kind of re-examine the geographic area to say, 'Should we be looking for some additional outreach locations?'"

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?

Rates of accessing preventative care, obesity rates/BMI, degree of access to care, and chronic illness rates are cited as important health outcome measures. Several Stakeholders remark on the importance of reaching beyond the typical measures to take a broader or deeper look at the issues impacting health.

Important Health Outcomes

- Key Stakeholders identified the following *as important measures for health-related outcomes*:
  - Rates of preventative care – e.g., cancer screening, diabetic screening, immunizations
  - Obesity rates; BMI
  - Level of access to health care/dental care
  - Incidence of chronic illness – e.g., cancer, diabetes
  - Infant mortality rates
  - Smoking rates
  - Health behavior data
  - Graduation rates
  - Poverty rates
  - Incidence of conditions that affect ability to work, such as mood disorders, depression, anxiety disorders
  - Rates of program participation (for programs with long-term outcomes)

Q2. What are the outcomes that should be evaluated?

Verbatim Comments on Important Health Outcomes

"I think I read at some point that twenty-five percent of absence from work can be accounted for by depression and mood disorders. Some of those kinds of things, I think, are really critical to considering the health of a community."

"We can't look just at health indicators. We have to look at poverty rates and we have to look at education outcomes."

"We focus way too much on symptoms and not root causes."

"I think that as a health system we need to say, 'What are the sound metrics that we can use that are meaningful, that have some statistical significance to them?' I can certainly list all the typical ones, but how do we really measure meaningful change? I think we're all scratching our heads on that a little bit."

Q2. What are the outcomes that should be evaluated?

A shortage of providers, especially for Medicaid patients, and high out-of-pocket costs for the insured present barriers to access for area residents.

The State of Health Care Access

- Key Stakeholders agree that the area faces a shortage of primary care physicians in general, and that for Medicaid patients and uninsured residents the situation is particularly dire.
  - While the Healthy Michigan Plan and the Affordable Care Act have led to a reduction in the number of uninsured residents, residents newly covered under Healthy Michigan are having trouble finding physicians who accept Medicaid.
- For residents covered under Medicaid, lack of access extends to dental services as well.
- Lake County appears to face a particularly critical shortage of providers, including primary care physicians as well as dental and mental health care providers.
- Stakeholders agree that the high deductibles and co-pays of today's health insurance plans present a significant challenge for the insured, causing some to forego needed care.

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. I think the next step for communities will be looking at how accessible is that provider, and is there access to specialists, and the transportation piece."

"The biggest issue for access is that I don't have enough providers. We are in a very severe medically underserved area [Lake County]. I can't recruit physicians."

"I do hear that even people that have health insurance are having a difficult time getting in to see their doctor. I do think people on Medicaid have difficulty accessing dental care and a regular physician's office, just because they only take so many."

"Prescription drug coverage is always an issue, but on the Medicaid side, as long as you're on formulary it's not so bad. Probably for folks who are indigent, they're really struggling with that."

"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."

"I think the challenge now is maybe people have prescription coverage, but it's the co-pays. People go without or they share their medicines."

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

Most Key Stakeholders think existing programs and services are somewhat limited in their ability to meet the community's health care needs. Limiting factors include a lack of available providers/services and a lack of coordination among services that do exist.

Programs/Services Meeting Needs & Programs/Services Lacking

- A majority of Key Stakeholders find the area's existing programs and services to be somewhat limited in their ability to meet the needs of area residents.
- Programs and services identified as lacking include:
  - Specialty and subspecialty services
  - Coordination of services
  - Health care providers in general in Lake County
  - Services addressing and coordinating the physical and mental health of adolescents in Mason County (Oceana and Lake Counties have adolescent clinics)
  - Transportation
  - Community programs accessible to those with transportation/income barriers
  - Prevention services
  - Affordable behavioral health services for those who are not chronically mentally ill
  - Higher quality food for those relying on food pantries

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 Lacking in Community

"We have over fifteen thousand people or so to serve and we have three physicians and a couple mid-levels. Transportation is an issue – Lake County's a really big county. Finding affordable services, finding a doctor that accepts Medicaid. With the Medicaid expansion, people are on the search trying to find someone to take care of them."

"I think my staff has awesome access to health care for a small community in terms of routine care. When you start to get to specialty services in our community, those things are a little more limited for my staff. For my consumers, I think they're very limited."

"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."

"We have tons of private practitioners that can do counseling, but if you don't have health insurance coverage for behavioral health, or if you can't afford to pay a hundred bucks an hour, there is nothing."

"I think a lot of coordinated services are lacking. There might be pockets of service that exist but because they're not coordinated, people don't know how to access them."

"Transportation is a huge issue. Dial-A-Ride helps but it doesn't help people in Mason County outside of Ludington very much. We cover Mason, Lake, and Oceana, and Lake County has by far the best public transportation."

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?

Several Stakeholders would like to see a more coordinated effort among service providers. Expected benefits include maximization of resources and a more comprehensive approach towards an individual's health needs.

Recommendations for Service Improvement

- Several Stakeholders suggest that improved coordination among area service providers is needed to maximize the effectiveness of current services.
- Other suggestions for improving services include:
  - Implementing telemedicine
  - Making programs accessible to all residents including those with limited income and/or means of transportation
- Lack of funds was cited as a barrier to improvements.

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

Verbatim Comments on Recommendations for Service Improvement

"We just pulled together a meeting of all the people who provide some form of food services to people in our communities. There were thirty different organizations represented. How is that? In a small county [Mason], that is a tremendous waste of resources. I think one of the ways that our community resources could work together better to maximize their ability to serve the [greatest] number of citizens who need them is to coordinate."

"We're only somewhat effective in the delivery of services across the spectrum because of the inability to work across systems. We need to think differently and do things differently – sometimes I wish that when we come in together to do group process things, we could think more about 'If we didn't have this, what would we want it to look like?' and forget about what we already have."

"Moving towards electronic medical records and how information is shared and 'How do we 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."

"We're hoping that telemedicine helps us in terms of providing local access to some of these specialties through the use of technology. The reality is that every small community isn't going to have these specialties, so how do we still connect the patient to the specialty?"

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

Stakeholders recognize the value of partnerships among those in the health care community. Several applaud current efforts. Some cite constraints such as the time and degree of cooperation needed to collaborate.

Recommendations for Partnerships

- Successful partnerships currently in place include:
  - Home services providing Meals on Wheels, housekeeping, nursing assessments, social work assessments, and transportation
  - In Lake County, support from a local foundation, Rotary Club, Lions Club, and concerned professionals in the community
  - Partnerships between the health department and area hospitals
    - A concern was raised that these partnerships may be compromised as a result of hospitals joining Spectrum.
  - Employer Resource Network – a private/public partnership developed by United Way with the cooperation of area employers
- Additional partnership ideas include:
  - Hospital partnering with dentists and chiropractors
  - More widespread partnering between hospital and other community organizations in general
- Several noted that those in the health care community have good intentions but are sometimes waylaid by more pressing priorities, a lack of resources, or the time and effort required to collaborate effectively.

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

Verbatim Comments on Recommendations for Partnerships

"A perfect example of a really strong partnership that has developed is the Employer Resource Network, where a group of eleven employers have gotten together and we have an on-site success coach. She's there to be a barrier buster to help employees with life issues that could be impacting either their ability to stay employed or their ability to be productive at work."

"I think that the folks that are there really do work well together and try to improve the lives of the citizens. There are just not enough resources."

"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."

"You have functions that you have to perform and then functions that you want to perform, and on scarce resources, you do the stuff you have to do, not necessarily the stuff you want to do."

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 a lack of transportation, cultural differences, and insufficient technology access.

Barriers & How They Can Be Addressed

- Key Stakeholders identified the following barriers or obstacles to obtaining care:
  - Transportation (Mason County)
  - Cultural barriers - fear of health care system among those living in poverty; lack of understanding among middle class of what living in poverty means
  - Technology barriers – Internet/working phone required to access services
  - Absence of a health-conscious mindset/"culture of health"
  - Language barrier among Hispanic population (Oceana County)
  - Difficulties obtaining reimbursements from insurance companies
- Successful efforts to address barriers include: Council on Aging providing transportation and a Hispanic social worker in Oceana County; hospital and American Cancer Society partnering to provide transportation to cancer treatments; Bridges out of Poverty program.
  - A transportation millage proposal failed in Mason County.
- Additional suggestions for alleviating barriers include adding a Spanish speaking employee for obstetrics patients in Oceana County and incorporating plans for health-promoting public spaces during city/town planning (e.g., biking/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 are Being Addressed

Barriers

"The transportation piece is the biggest barrier."

"There are always cultural barriers – a lot of fear of health care that has to be overcome; a lot of education that's required."

"Not understanding what living in poverty means in our community and that even though we're small, there really are people in our community who don't eat. We give them these great tools like iPads in school but we don't even consider whether they have access to Wi-Fi to do their assignments. We don't understand that folks who are working for barely living wages might work really bad hours, so therefore they don't have access to childcare to go to a birthing class."

"Internet and cell phones – that's a huge barrier for people, because they don't have landlines, so they get these prepaid cards on their phones and when we're trying to keep in contact or follow up, the phone is disconnected. Communication is a huge issue in Lake County."

"We have a practice in Oceana County. We need a Spanish speaking employee there. These patients show up at our doorstep sometimes to deliver a baby. Number one, we don't know anything about their prenatal care and, number two, there's often a communication barrier."

Addressing Barriers

"The social worker [at the Council on Aging] is Hispanic and does very well if there's any issues of that kind [language barrier]. There's a migrant population that lives here for most of the year."

"We have a program with the American Cancer Society now where we run a transport program – Road to Recovery – that transports from here down to Muskegon and Grand Rapids for cancer-related visits."

"We've been doing some stuff around Bridges out of Poverty with Dr. Ruby Payne – helping management understand the framework some of their employees may be coming from."

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 would like to see more inclusion of consumers in health care planning and decision-making.

Involvement of Relevant Stakeholders/Community Residents

- Stakeholders agree that more inclusion of community residents is needed in health care planning and decision making.
  - Several reported that they have given residents a seat at the table but that more effort should be made in this area, particularly with regard to those consumers who typically have less of a voice (as opposed to a community representative).
- A number of barriers/considerations were cited, such as the need to make meetings accessible in terms of time and location, the need for sensitivity in making consumers feel welcome in a potentially intimidating environment, and the issue of confidentiality.

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?

Verbatim Comments on Involvement of Relevant Stakeholders/Community Residents

"For the project I did back in 2005-06, I had a task force of people from the community, and we came up with the conclusion that the programs that we needed to have here were an Alzheimer's unit as well as an outpatient clinic, because there wasn't one in the county at the time. That's what we added to our building. With this current project, we had family members of residents here in the facility. We try to get everybody involved."

"We're gong to be implementing a patient family advisory committee. I think an area that we've only touched on a few times is really getting our direct consumers involved. We use a lot of survey tools and things like that, but I'm talking a different level of involvement in terms of ongoing, consistent participation, feedback, sounding board type things. I think that's where the opportunity is around the patient experience and around things like access."

"I don't see a lot of people from the actual community that needs to be at the table at the table. There are a lot of barriers for them to get there. It would be nice to have more people engaged and involved."

"Most of our folks would be incredibly intimidated in a room with the director of DHS and the director of CMH and the director of the hospital, and they're all in their suits and it's in the top floor penthouse suite of the hospital. I think you would be much more likely to do it in small focus groups in a setting where people gather in the community, like the library. I think you can incentivize them to come by partnering with them, giving them gas cards to cover their expenses, assigning them a partner who will help them understand the meeting and help them prepare, and then making sure your facilitator is speaking in a language they can understand and not talking about programs for other people. I think that's the way you break some of those barriers down."

"Places like the hospital, banks, etc. rely on the same people over and over, so really I think the major decisions are made by a small group of people. I don't think you normally see the average Joe at the table, and if they are, it's one or two people and they won't speak up because they're the minority. I think that we assume that we know all the problems and the solutions, when the reality is that what we may think is a problem may not be a problem at all."

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

Local foundations, community donors and volunteers, and the United Way are named as pivotal community resources.

Community Resources & Resource Limitations

- Stakeholders named local foundations and community involvement in general as important contributors to the health of the community.
  - The Pennies from Heaven foundation in particular was cited as a key donor and partner in numerous community improvement efforts, including The Oak Tree Academy daycare/preschool center, the Employer Resource Network, food trucks, and housing rehabilitation.
  - The Payne Family Foundation was also named.
- United Way was also widely cited as a critical community resource.
- Other resources include:
  - A health care community with dedicated people and a wealth of ideas
  - Baldwin Health Clinic
  - COVE's SANE program
  - Daycare center open early morning through late night hours to accommodate parent work schedules
- Resource limitations include time constraints, low household income, and a gap in services for residents who don't qualify for categorically-funded programs.

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 and Resource Limitations

Resources

"Back in 2005 and 2006, I had a six-and-a-half million dollar building project, and one of the local farmers stepped up and donated a million dollars toward the project. I think that the people are very supportive of this facility. We reach out into the community and they seem to respond fairly well."

"We have a huge volunteer force."

"John Wilson has invested into the Pennies from Heaven Foundation, and he's throwing lots of dollars at helping our community find community solutions. He's not the only one. We've got the Burtwhistle Foundation. Then of course we've got the community foundations and the United Way and the Payne Foundation."

"We have a very generous community that's willing to help. We have a lot of social capital. The Pennies from Heaven Foundation and United Way have partnered on three different projects over the last year. I think there's a lot of resources and a lot of ways to do things innovatively."

Resource Limitations

"I just worry that we're not maximizing our resources and that sometimes we're missing that key concept of poverty. If you throw money at the wrong thing, you're not going to really improve success for people, if you don't understand the core issues. I think we focus too much on programs instead of on systems. We focus on funding this program to fix this, but we don't focus on what's broken in the system."

"The issue is everybody wants to do everything in their silo."

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

Impact of Health Care Reform

While health care coverage has expanded, particularly under the Healthy Michigan Plan, some residents have been unable to utilize their coverage due to a shortage of physicians, especially those accepting Medicaid.

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

- The Healthy Michigan Plan has resulted in more area residents with health insurance, and in residents seeking medical and dental care that had previously been unattainable.
- However, potential benefits have been curbed by a shortage of providers, particularly providers who accept Medicaid.
  - One Stakeholder noted that the difficulty Medicaid patients have in accessing primary care translates to continued use of hospital emergency rooms for non-emergency treatment.
  - Existing providers are stretched, trying to accommodate the new influx of patients.
- An opportunity was identified to provide assistance to newly-covered residents who haven't yet accessed services.
- Several noted that hospital bad debt may decrease as a result of Medicaid contributions for patients who previously were not covered.
- Others noted that it's too early to determine the impact of these reforms.

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

"It's been very positive from what I can see. I have multiple stories of people who are wanting to cry when they get their insurance. These are the working poor. They couldn't afford the marketplace. It's just been a huge boost for them. They're going to get their teeth fixed. They're going to get to come into the doctor and get whatever taken care of, get preventative care – they've never had that before. We're very busy , though – it's hard to get an appointment. With the limited number of primary care providers that I have, we do our best to meet the needs, but access is an issue."

"We don't have a lot of physicians that take Medicaid, so it's improved, [but] probably not a whole lot, not as much as I would have hoped."

"I've been hearing stories that even people who now have Medicaid are still not accessing services, and I don't know if that's a limitation in terms of [not being able to] get in or if they're just not pursuing services yet, given the newness of the program or the newness of their eligibility. So, okay, they sign up, they're eligible – what happens then? Do we give them a lifeline that says, 'Hey, do we have primary care accepting new Medicaid? If so, here's where you can go; here's where you can get help.' I think there's an opportunity there for us to move forward with existing as well as newly eligible populations."

"I'm guessing that if you looked at the hospital ER data, their visits may not be going down but maybe they have more people that are covered. [One] of the things that I'm hearing about hospitals is that their debt write-off is less than it's been in the past."

"I think it's too early to see what the Healthy Michigan Plan is going to do for this county. I think it's probably going to help 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

Numerous programs and partnerships have been implemented since the 2011 Community Health Needs Assessment.

Impact of 2011 Community Health Needs Assessment

- Key Stakeholders named a number of improvements that have taken place since the 2011 Community Health Needs Assessment, including:
  - Residents more health-aware and trying to make better choices; the importance of health starting to resonate with youth in the community
  - Addressing obesity
  - Trail development
  - Implementing Prescription for Health with providers
  - Win with Wellness
  - Health department working on a Live Well campaign
  - Strengthening of dialogue between public health and hospital community health
  - Addressing poverty through Employer Resource Network
  - Foundation endowment created when hospital joined Spectrum – to be used for population health improvement programming
  - Converting private practices to employee practices where providers no longer have to worry about managing the payer mix

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

In general, Key Stakeholders feel confident in the health care community's level of preparedness for an infectious disease outbreak such as Ebola.

Community Preparedness for a Disease Outbreak

- A majority of Stakeholders believe the local health care community is well prepared, to the extent possible, in terms of managing an infectious disease outbreak.

"We have a plan in place if something like that occurs, where we either evacuate the building or we take care of people on site, depending on what the situation is. I think we have good systems in place."

"I think our health department and our local hospitals are prepared. We are certainly prepared. We train our staff and provide for all the needs our staff would have in meeting those kinds of emergencies."

"I think that they're probably as prepared as it's possible to be prepared in our communities."

"I think being part of a health system [Spectrum] and having access to content experts and driving education throughout the facility and the ambulatory sites and all that, we're a lot better off. We could do better overall as a health care community, I think, than what we've done."

"I think that overall there's been a lack of emphasis on the importance of strategies that we can do 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

"The other access thing that we haven't talked about is after-hours access to primary care. In other words, it's seven o'clock on Sunday night and I don't want to go to the ER – what are my alternatives? We're in the process of addressing it in Hart and Ludington with one of our employed practices, where we're hoping to add some convenience care hours – probably two or three evenings a week and one Saturday day. The reality is that we don't have the density to run a twenty-four/seven urgent care, even though we've got a lot of people pushing us to try to do that."

"The community mental health issues are a long-standing problem, and I don't see any fix to it unless they put some money into it. It all comes down to what funding is available, and it seems to be a low priority. These people, I think, fall through the cracks."

"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."

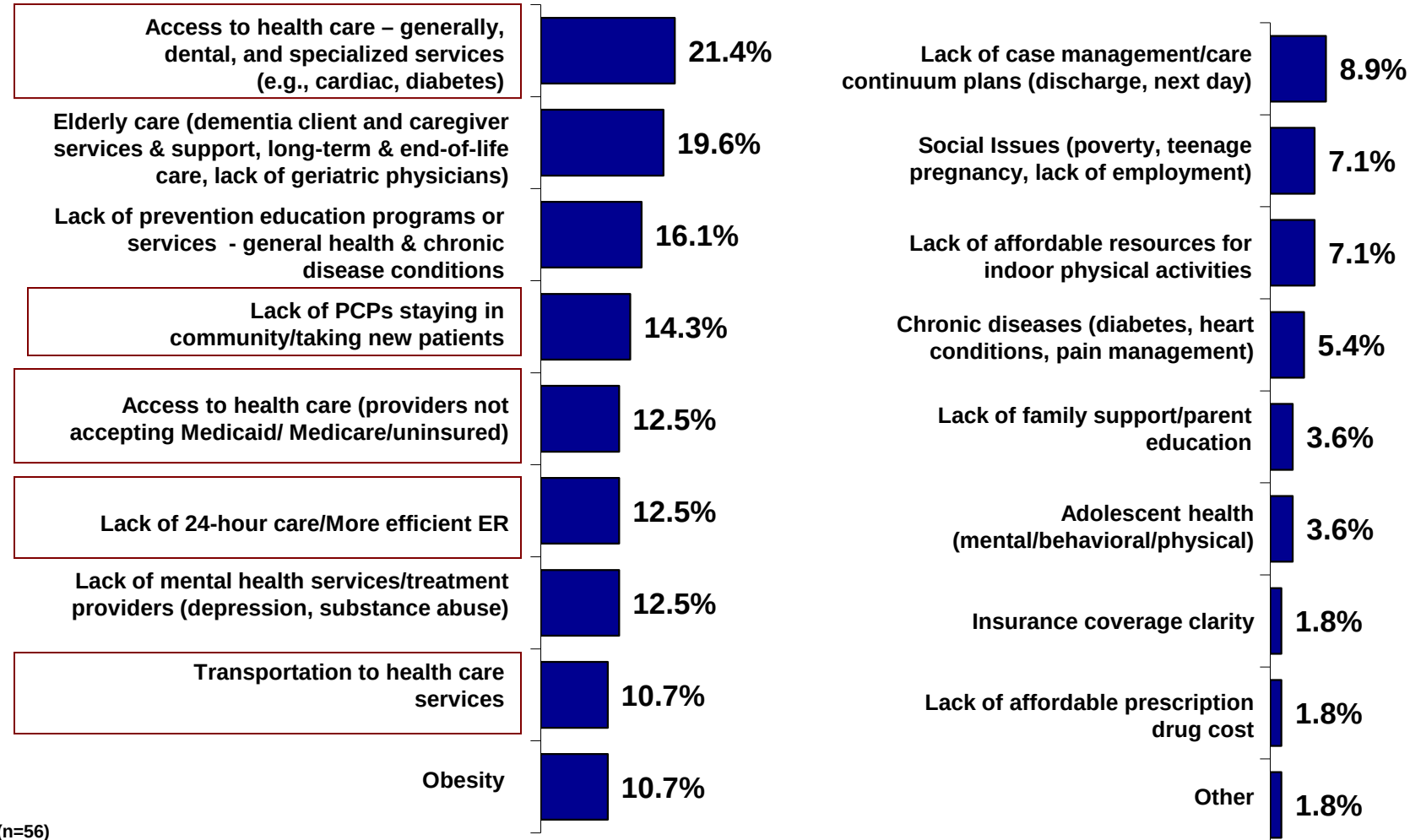
Q12. In concluding, do you have any additional comments on any issues regarding health or health care in your community that we haven't discussed so far?

Key Informant Survey

Health Conditions

When asked to cite, top of mind, the most pressing health issues or needs in the SHLH service area, Key Informants mention many issues. Most often reported are issues revolving around **access to care**, **elderly care**, and a need for more **prevention education** that they perceive to impact health or health care access. More specific areas of concern are **obesity**, **mental health services**, and **transportation**.

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



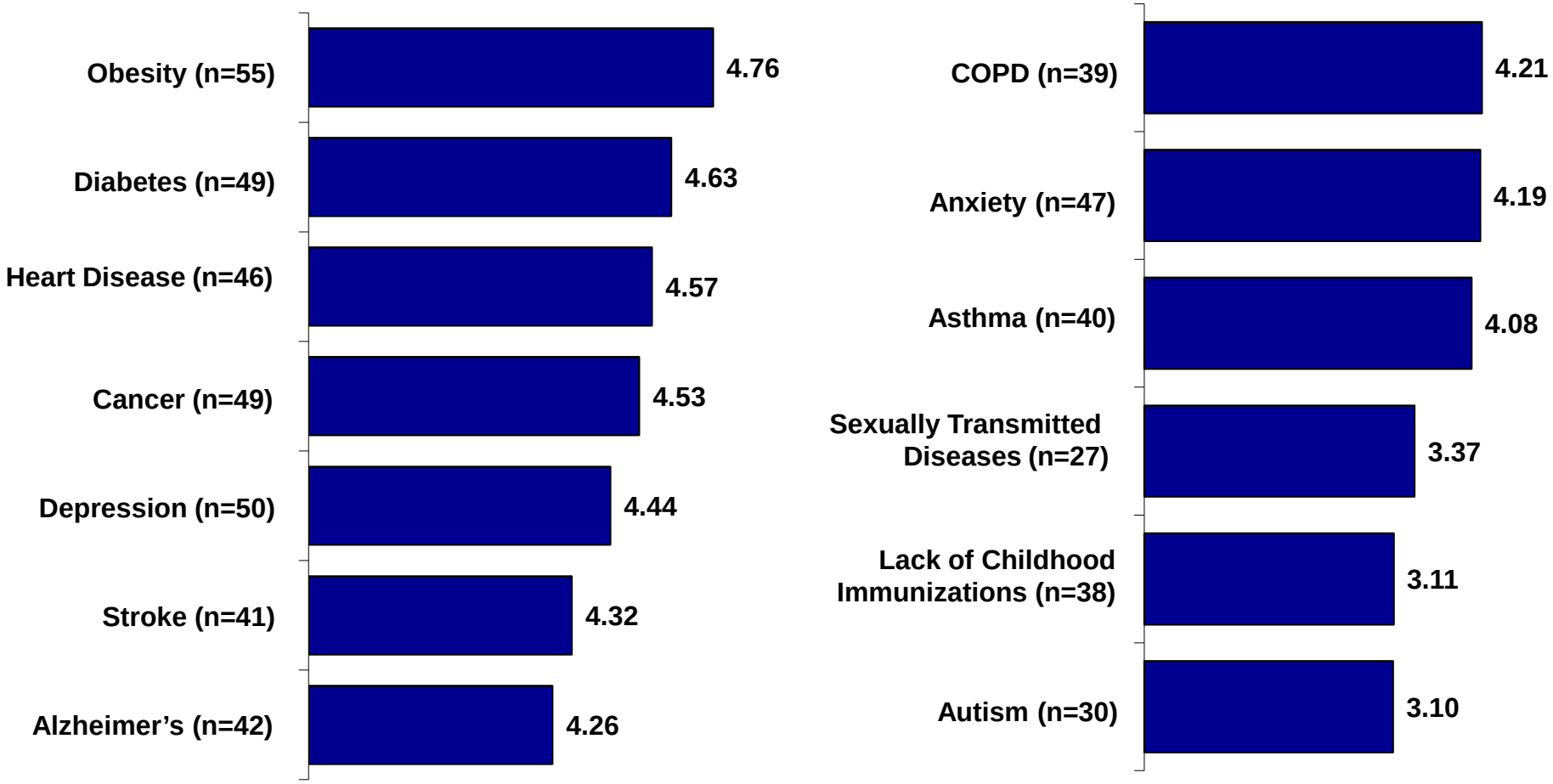
(n=56)

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

In 2014, Key Informants view **obesity** as the most prevalent health issue in the SHLH service area, followed by **diabetes**, **heart disease**, **cancer** and **depression**. Lack of childhood immunizations and cases of autism are viewed as much less prevalent in the community.

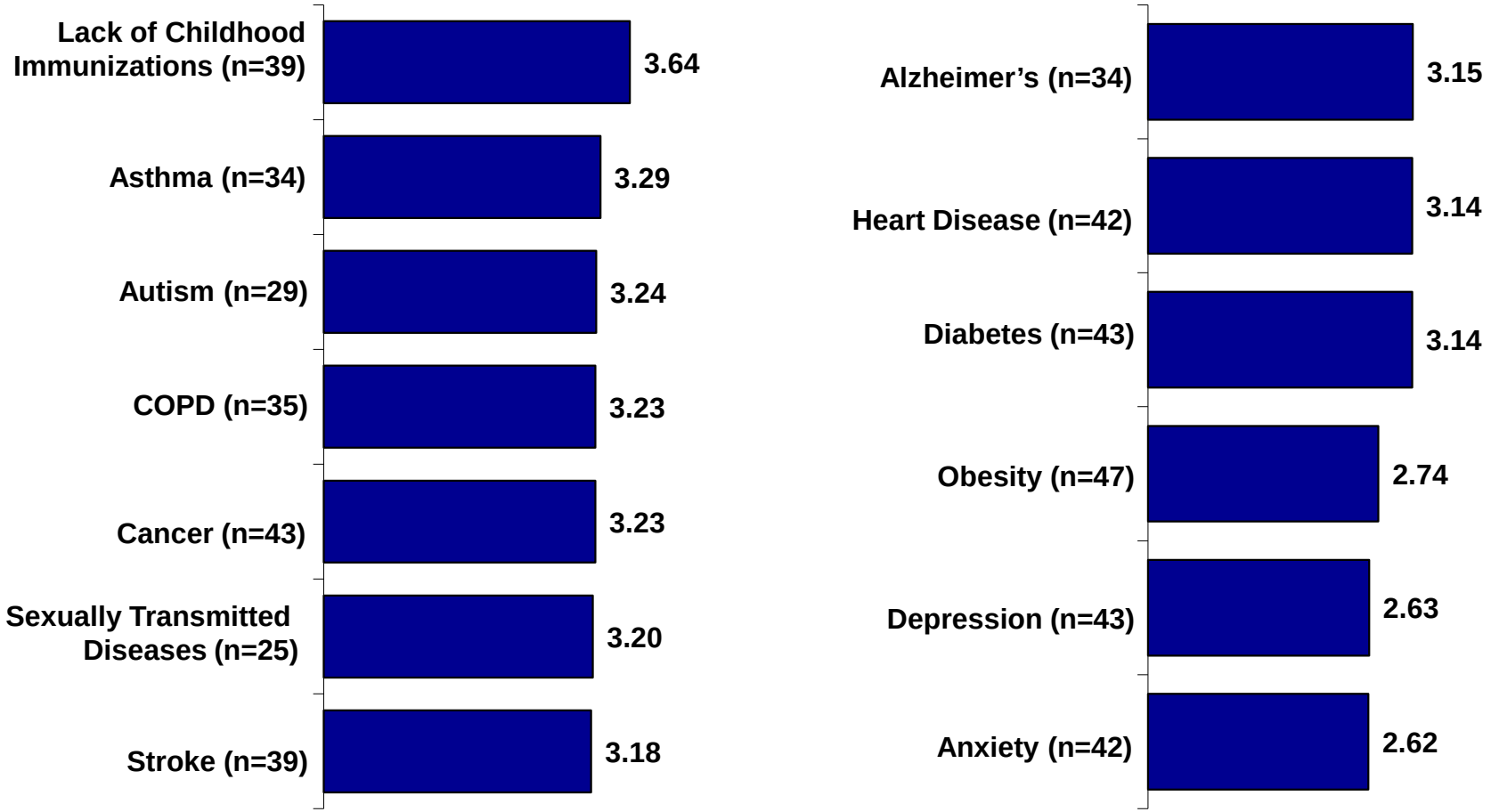
Perception of Prevalence of Health Issues in SHLH Service Area



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 **childhood immunizations**, followed by **asthma**, **autism**, **COPD, and cancer**. Conversely, they are least satisfied with the response to **obesity**, **depression**, and **anxiety**.

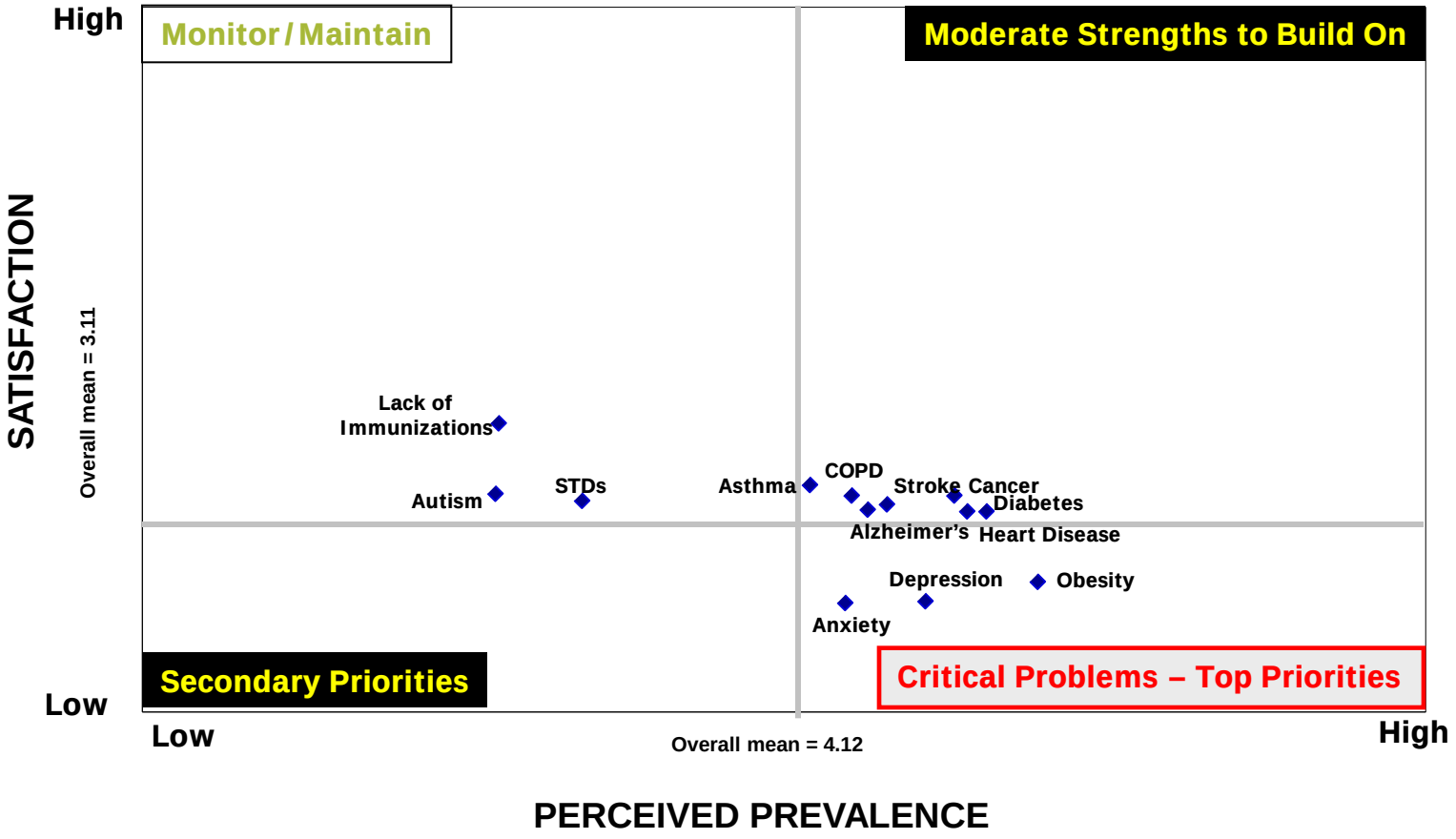
Satisfaction with Community's Response to Health Issues in SHLH Service Area



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 **areas of strength and opportunities**. **Diabetes, heart disease, stroke, cancer, COPD, Alzheimer's,** and **asthma** can be considered areas of strength for the community, i.e., Key Informants see these conditions as prevalent in the community and are satisfied with community response to them. Conversely, **anxiety**, **depression**, and **obesity** are critical areas in need of attention – Key Informants see them as prevalent and currently not being addressed satisfactorily.

Performance of Community in Response to Health Issues in SHLH 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 deemed prevalent in the SHLH service area are those involving **mental health** and **substance abuse**. More specifically, there is a lack of mental health treatment and those who report this shortcoming are dissatisfied with the community's response to this issue.

Additional Health Issues Prevalent in SHLH Service Area

Substance Abuse

"Alcohol/Drug Abuse. Unsatisfied. ***We do not have adequate resources or treatment systems in place for these patients; especially in-patient treatment.****"*

"Alcohol abuse & Depression. Community Mental Health very selective/restrictive on who they see."

"Lack of good options for pain management besides narcotics. Lack of treatment options for depression, anxiety, obesity."

"Prescription drug abuse."

"Smoking: not satisfied."

Mental Health

*"****Stress management for working professionals****. Not addressed in our community, esp. at times of the day that working professionals could attend."*

"Mental health issues in children. ***We do not have many mental health professionals who specialize in working with children, and those that do are not accessible to everyone.****"*

"All mental health diseases are poorly responded to."

"How ***parents can adequately help the emotional health development of their birth to 3 yr. old children****. Not very satisfied."*

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 various areas, such as **nutritional education**, **general health education**, and **education on risky behaviors**, specifically concerning adolescents. Other opportunities for improvement are increasing care coordination across providers, increasing access for those without insurance or Medicaid, and addressing chronic disease management.

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

Education

"Poor nutrition and health education. Fairly satisfied however feel there could be more health education provided."

"Nutritional education. Education of the elderly and parents with children."

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

"Adolescent prevention for risky behaviors."

Care Coordination

*"**Lack of coordination between caregivers**. Senior case manager shortage and lack or orientation."*

***"**I contacted CMH for corroboration and intervention strategies but did not receive a satisfactory or encouraging response."*

Access

"Limited access to providers for many people without insurance or Medicaid - not very satisfied."

"Dental care for people that cannot afford it."

Chronic Diseases

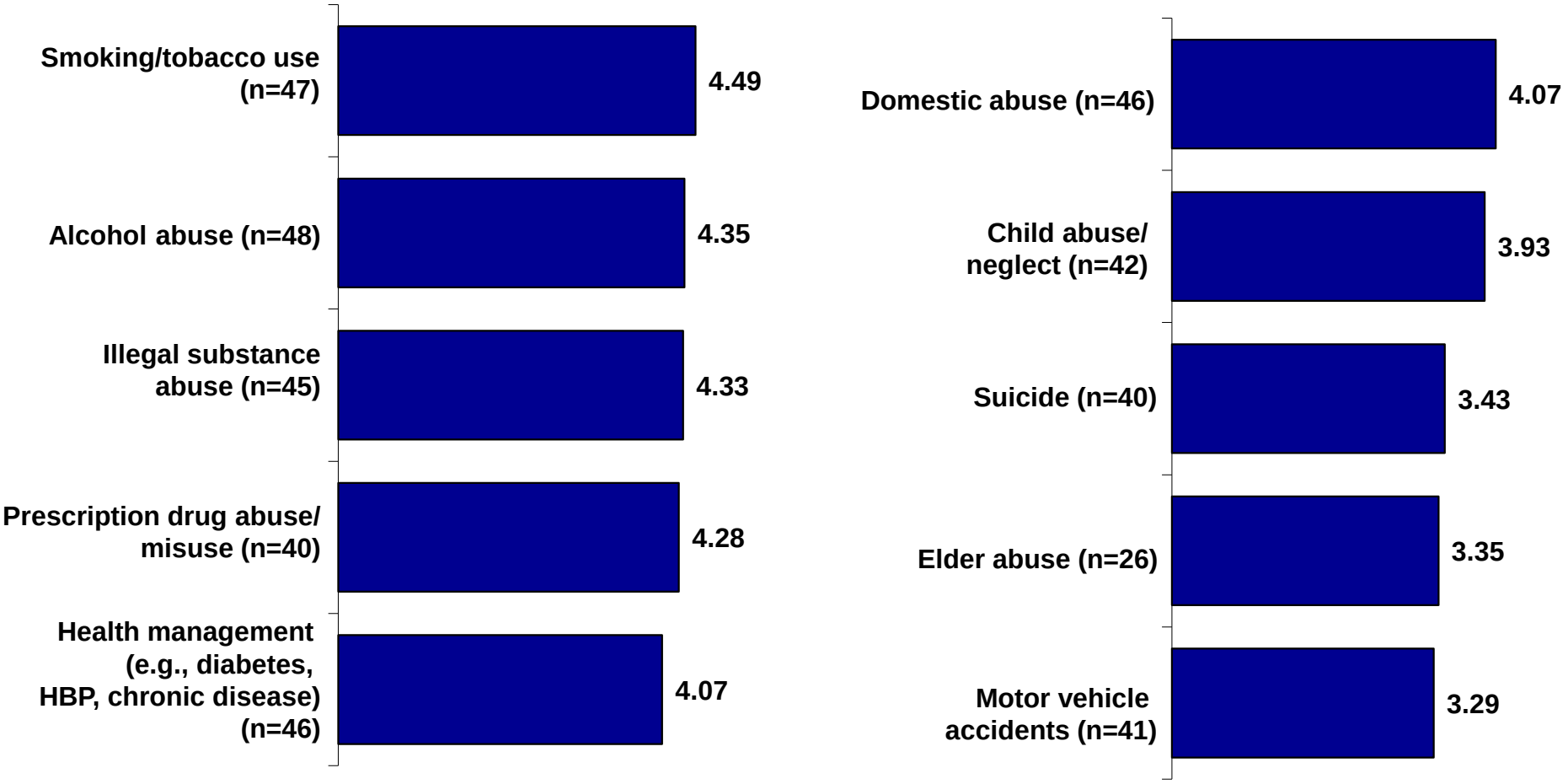
*"**Type I Diabetes care in schools has been an issue due to lack of trained staff within the school system**. In addition, school staff lacks the time and resources to provide adequate assistance to these children during the school day (year). School nurses are needed not just for this issue but for the multitude of medical issues (medication distribution) schools are tasked with on a daily basis. This is not is the school budget. An outreach program of sorts would be ideal."*

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 SHLH service area.

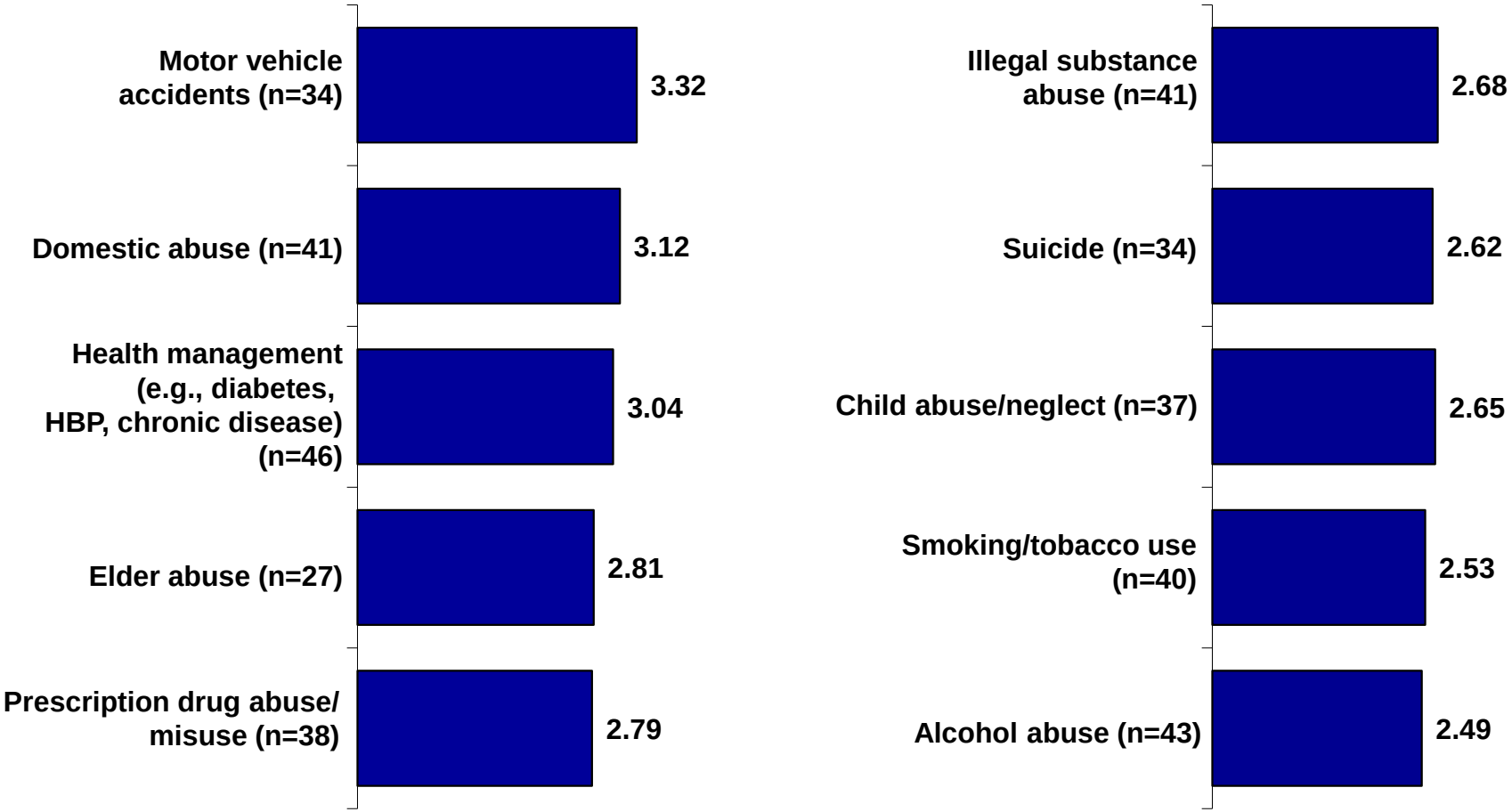
Perception of Prevalence of Health Behaviors in SHLH Service Area



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) as well as mental health and child abuse/neglect.

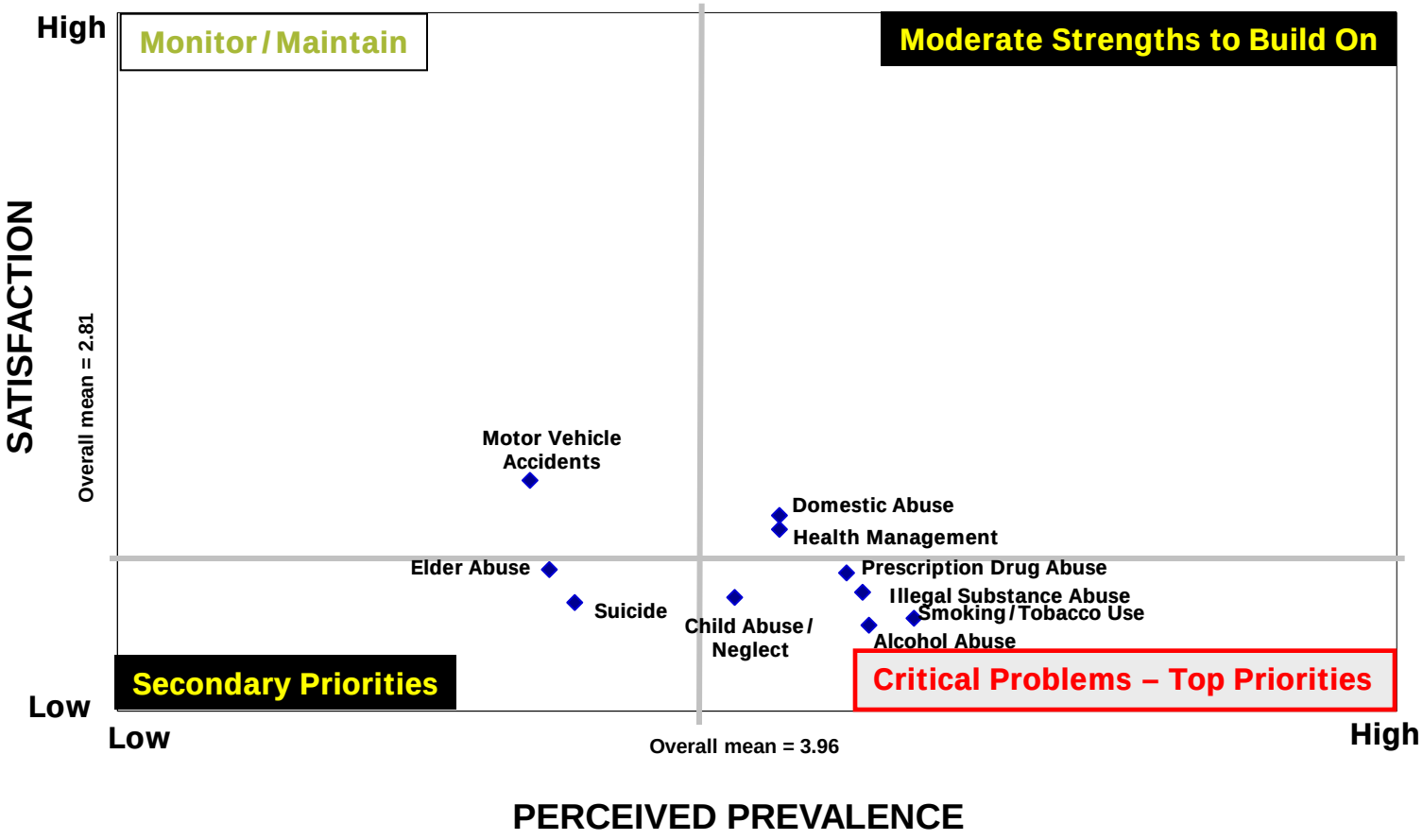
Satisfaction with Community's Response to Health Behaviors in SHLH Service Area



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

The quadrant chart illustrates that the community is doing well with regard to **health management** and **domestic abuse** – Key Informants consider these behaviors prevalent and are satisfied with community response to them. In contrast, areas of concern are use/abuse of **prescription drugs**, **illegal substances**, **smoking/tobacco**, and **alcohol,** as well as **child abuse/neglect.** Additionally, **elder abuse** and **suicide** are important, but secondary, priorities.

Performance of Community in Response to Health Behaviors in SHLH 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**, and **issues involving children or adolescents** warrant further attention. Examples include overuse of technology with children, teen pregnancy, strong marriages, and pride in one's health. Mental health is also a concern, as is limited access to preventative care and prevention education for the under/uninsured. Key Informants also reiterate their concern over lack of access to general health and dental care for the poor/uninsured.

Additional Health Behaviors Prevalent in SHLH Service Area

Lifestyle Choices and Family/Youth Issues

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

"Individuals' pride in their health and lack of wanting to change. Not satisfied."

*"**Suicidal teens, high divorce rate, high rate of grandparents raising children.**"*

"The negative effects of technology - cellphones, computers, video games on developing children, esp. preschoolers, either by direct use or caretakers' use that leads them to not be engaged with their children."

"Teen pregnancy---only slightly satisfied."

"Lack of exercise in children. Not satisfied."

Mental Health Issues

*"**Lack of mental health services for those without a severe and persistent mental illness**."*

"Not satisfied with mental health services."

Access to Care and Education

"There are MANY people in this area living with dental issues that don't allow them to eat real food because they can't chew. This is a travesty and causes many other issues that then get treated with drugs."

"There are a large number of homeless in the area. We are only able to serve a small portion of those in need."

"General health and disease management is addressed in our Win With Wellness program which is a great program. Unfortunately, we can only accept those that have a physician as we must be able to report abnormal results to a PCP for liability sake. This eliminates those people likely needing the services most (poor, under/uninsured)."

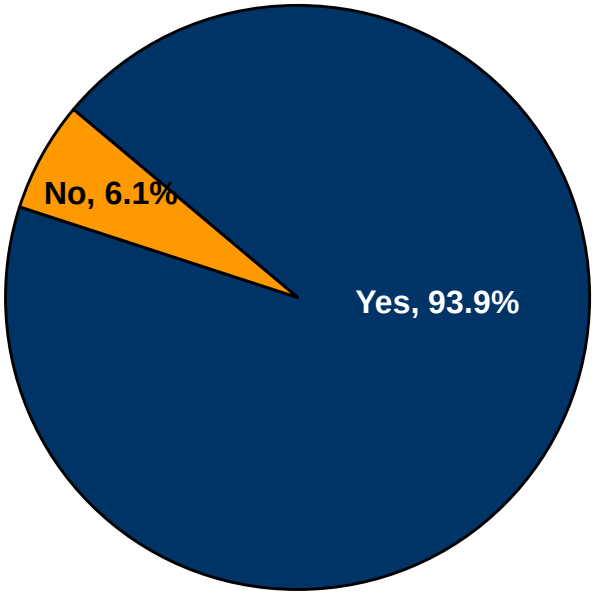
Q3b: What additional health behaviors are prevalent in your community, if any? For each listed, tell us how satisfied you are with the community's response to the health issue.

Access to Health Care

More than nine in ten (93.9%) Key Informants believe access to health care is a pressing and prevalent issue in the SHLH service area. The greatest barriers to health care access center on **transportation**, inability to **afford out-of-pocket expenses such as co-pays/deductibles**, **limited community resources**, and an overall lack of available options due to a limited number of providers – especially those accepting Medicaid patients or patients without insurance.

Access to Health Care

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



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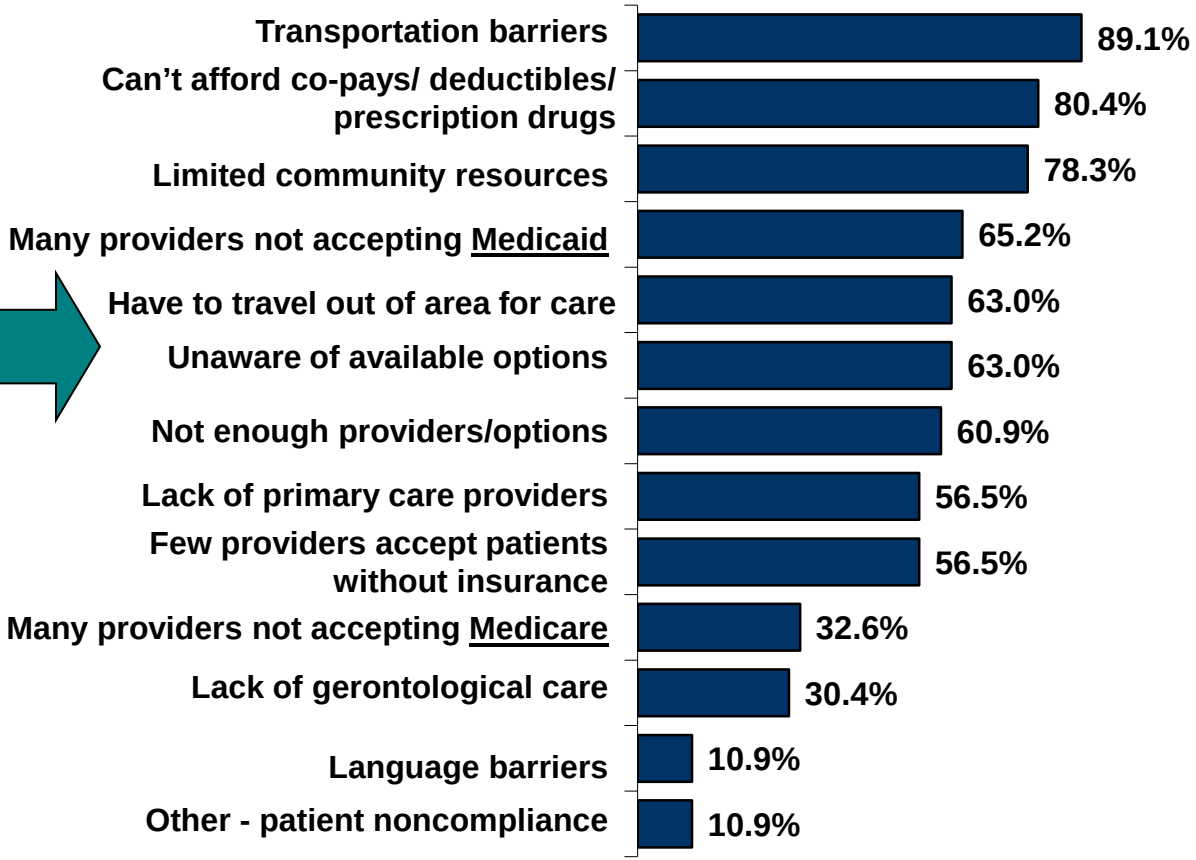
Reasons Access to Health Care is an Issue



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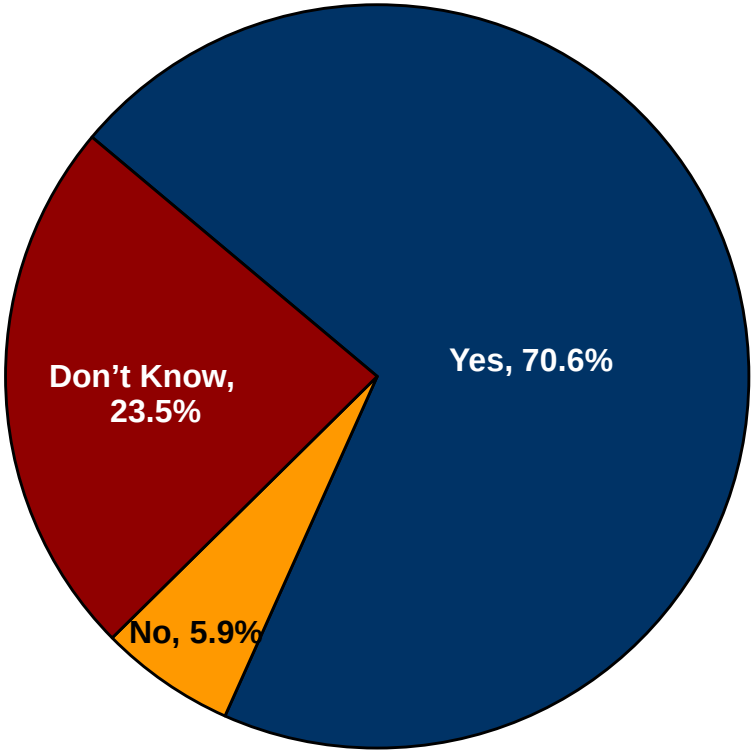
Q4: Do you believe that access to health care is a pressing and prevalent issue for some residents in your community?
Q4a: (If yes) In your opinion, why is access to health care an issue for some residents in your community? (Multiple responses allowed)

Seven in ten (70.6%) Key Informants recognize that certain subpopulations or groups in the SHLH service area are underserved with respect to health care. **Those most at risk lack insurance (completely or partially), are children, or are senior adults.**

Subpopulations Underserved with Regard to Health Care

Are Specific Subpopulations or Groups Underserved?



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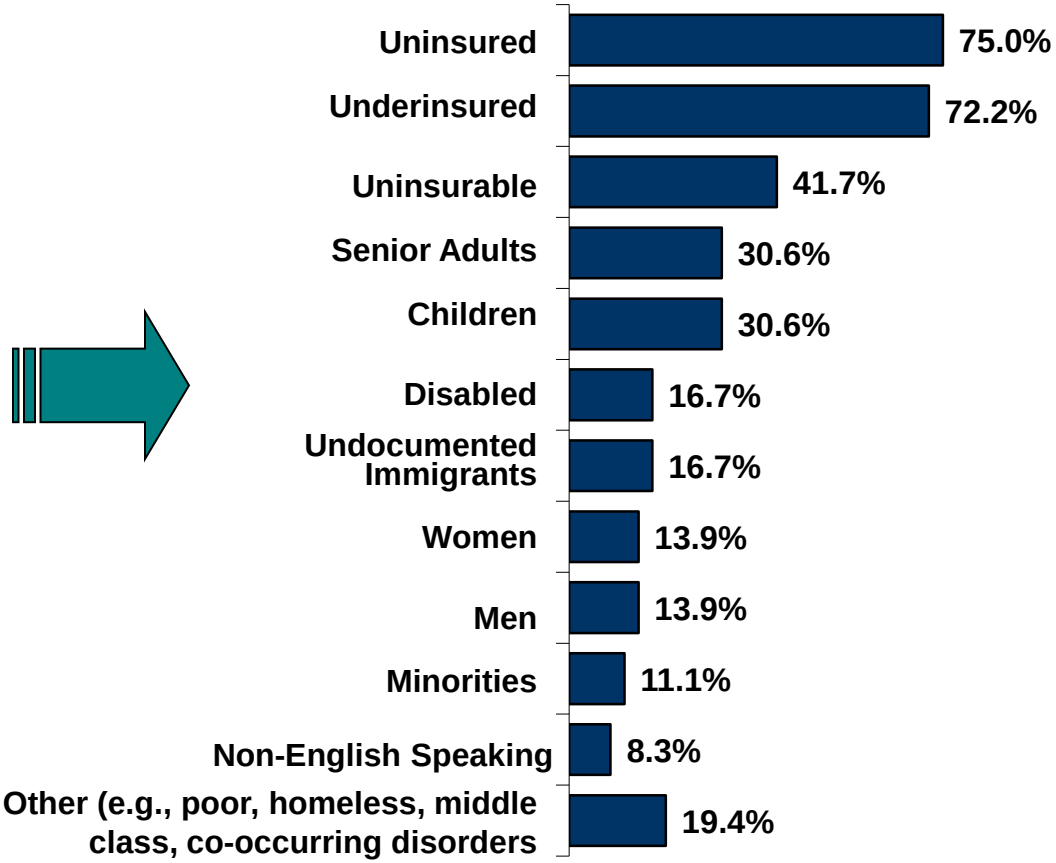
Subpopulations or Groups Underserved



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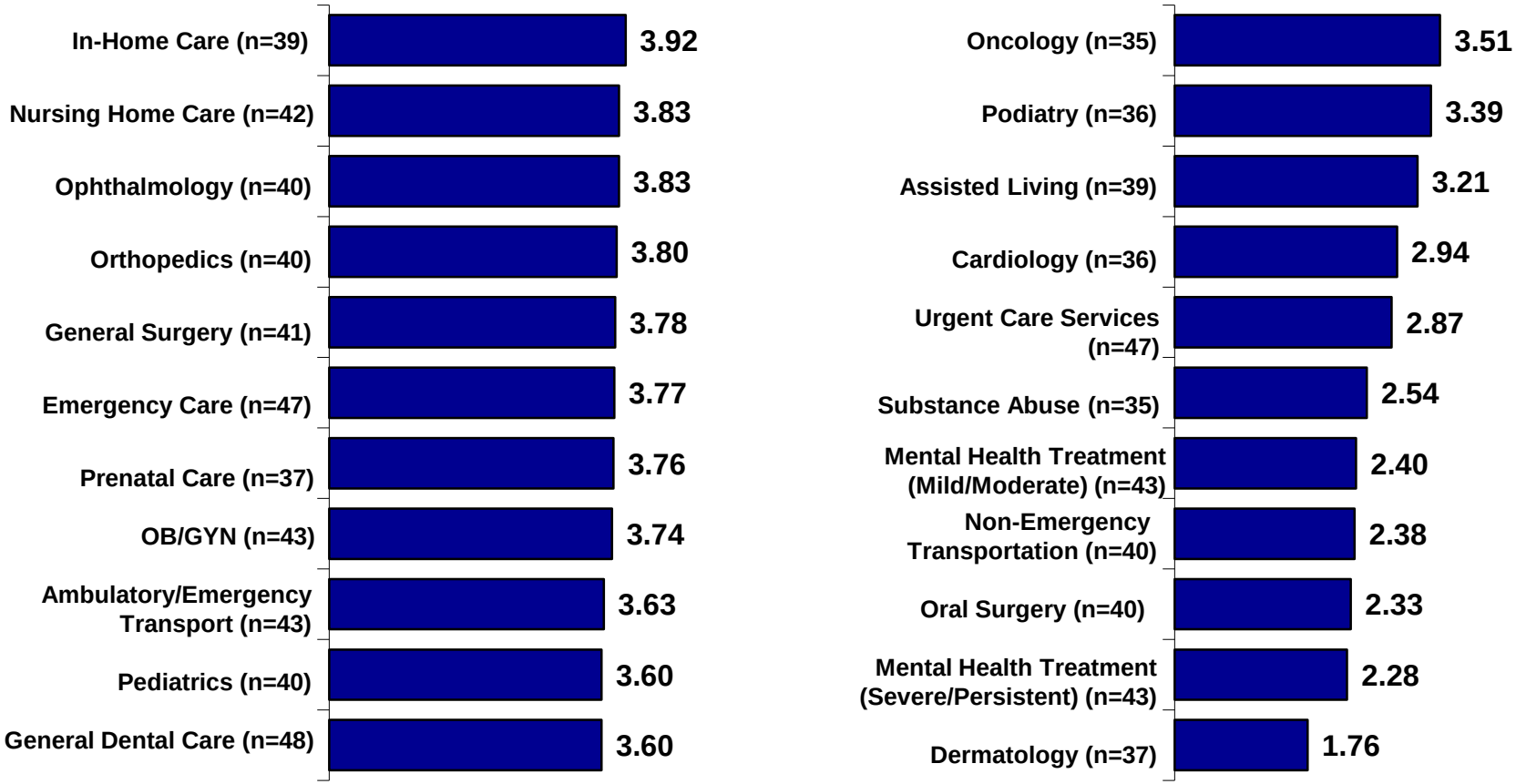
Q5: Are there specific subpopulations or groups of people in your community that are underserved with regard to health care?
Q5a: (If yes) Which of the following subpopulations are underserved? (Multiple responses allowed)

Gaps in Health Care

SHLH service area programs and services perceived to meet the needs/demands of residents well include **in-home care**, **nursing home care**, **ophthalmology**, **orthopedics**, and **general surgery**. Conversely, **mental health treatment (mild to severe)**, **dermatology**, **non-emergency transportation**, and **oral surgery** are perceived to be lacking.

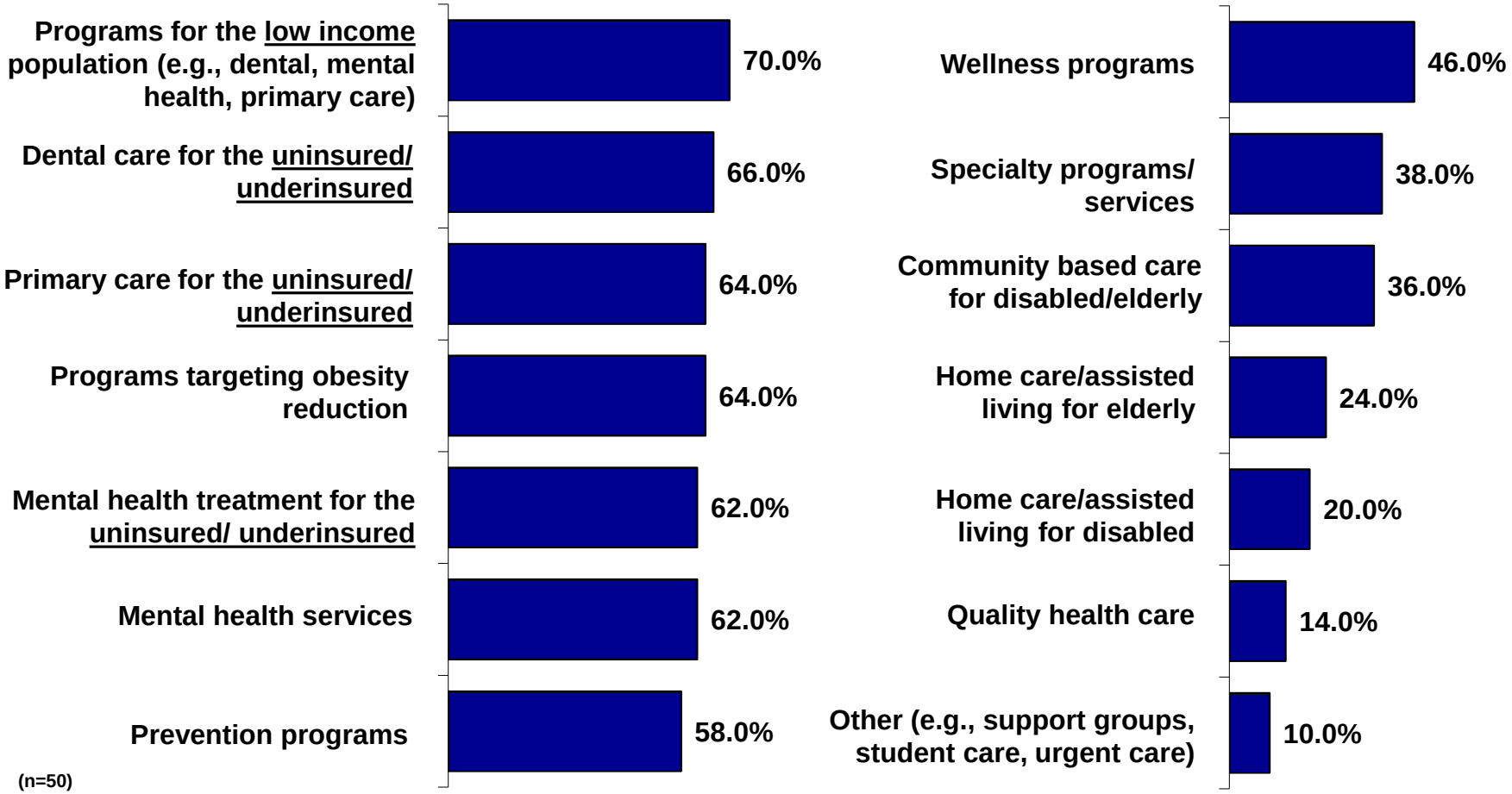
Degree to Which Programs/Services Meet Needs/Demands of SHLH Service Area Residents



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

Key Informants report that the SHLH service area lacks programs or services that **address the underserved,** specifically **uninsured/underinsured** and **low income** residents. **Primary care, dental services,** and **mental health care** are all said to be lacking for these groups. In addition, there is a dearth of **mental health treatment/services in general** in the area. Programs targeting **obesity** are also found lacking.

Programs/Services Lacking in SHLH Service Area



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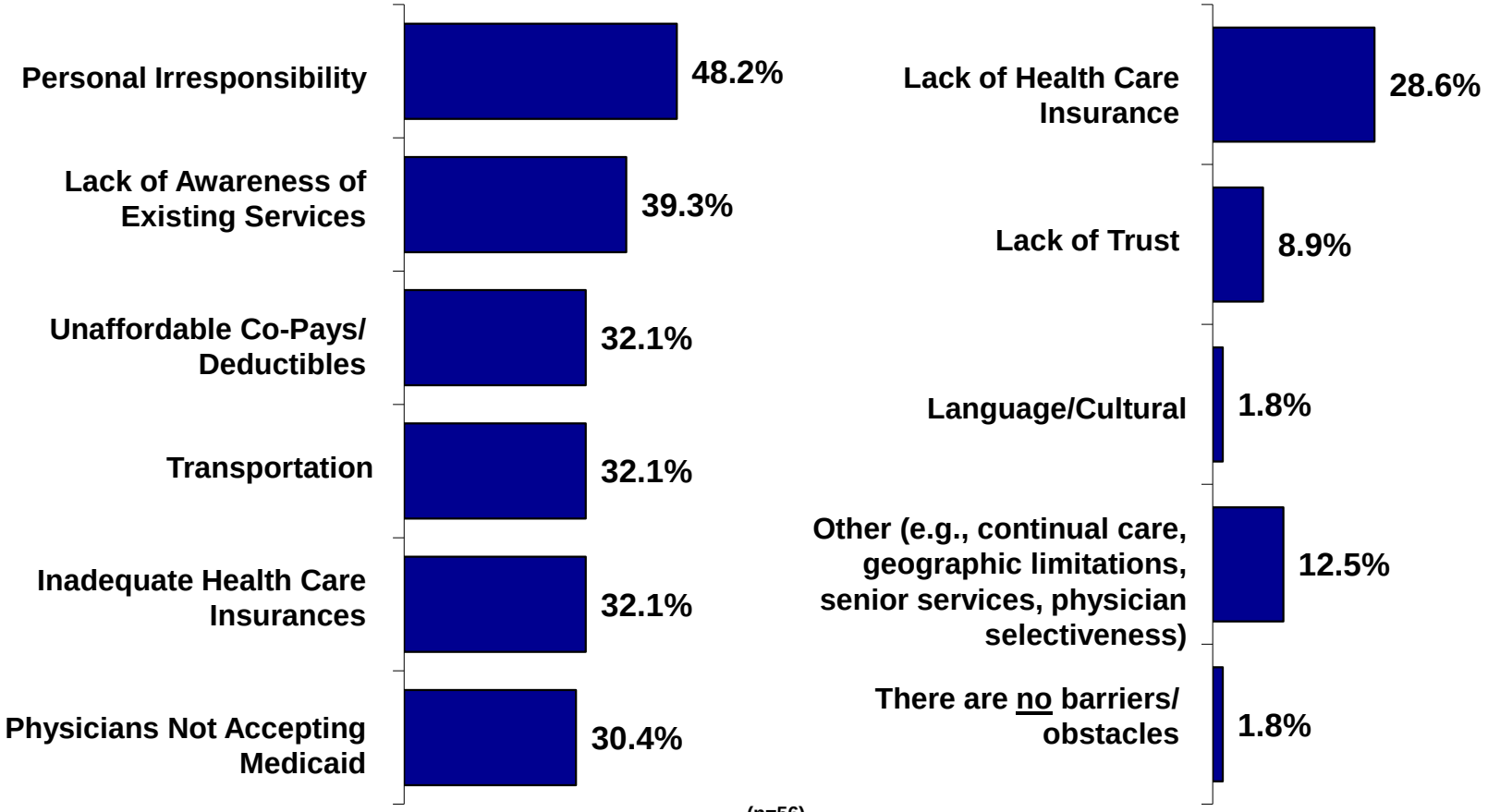
Q7: What programs or services are lacking in the community, if any? Please be as detailed as possible.

Barriers to Health Care

According to Key Informants, **personal irresponsibility** and **lack of awareness of existing services** are top barriers or obstacles to health care programs and services, followed by **unaffordable co-pays and deductibles**, **transportation, a lack of or inadequate health insurance**, and **physicians not accepting Medicaid**. **Lack of trust** or **language/cultural barriers** are not considered to be much of an obstacle.

Barriers and Obstacles to Health Care Programs/Services



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

Effective solutions also center on prevention education, beginning with **educating young families and school-age children about the importance of a healthy lifestyle** as well as **educating the community on existing resources**. Key Informants suggest that **more partnerships amongst providers and increased coordination of community care** (e.g., mental health teams) can help address health care barriers faced by many residents.

Effective Solutions to Barriers and Obstacles to Health Care Verbatim Comments

Lack of Awareness of Existing Services/Coordination

"I work in a school and see many people that don't know what is available for resources concerning help for families, especially mental health."

"Lack of knowledge of programs: outreach, lack of psychiatric care for Mild to Moderate population, education of community physicians, recruitment of psychiatry within primary care."

"Education to the general population about what services are available including transportation assistance to appointments."

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

Personal Irresponsibility

"Early social education for children to get higher education - to not follow parents into the Medicaid life."

"The suggestion to young families that if they had one more dependent in the home they could receive more assistance. This is not the right trend that will solve anything. That is being suggested too often by staff in these roles."

"Not sure what can be done about personal irresponsibility - think this needs to start in childhood."

Physicians Not Accepting Medicaid

"Force local physicians to stop cherry picking patients! At this time patients must fill out an application to become a new patient. This is unethical and BAD for our community."

"Ensuring presence of physicians to accept patients with Medicaid."

"Increase government insurance reimbursement."

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 offer effective solutions for many of the barriers to health care. Solutions to the most substantial barriers, inadequate health insurance, transportation, and unaffordable deductibles and co-pays, center around providing more 24-hour or urgent care in a clinic setting, providing more services to under/uninsured individuals and providing more affordable, county-wide transportation in the area.

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

Inadequate/Lack of Health Care Insurance

"For the indigent in our community, there should be some availability of 'free' clinics."

"Place a reasonable insurance health plan so families on limited resources could participate and be responsible in doing so and do not advocate young mothers to have more children just be to eligible for assistance."

Transportation

"Develop transportation alternatives for handicapped. Offer transport to those living outside of public transportation."

"There is a significant need for affordable or charitable transportation for patients/elderly patients/disabled patients outside of the city limits to encourage ongoing and consistent preventative care and treatment of chronic conditions."

"Medical, mental and dental outreach office in East Mason County. School nurse availability, general athletic physicals for students at low cost."

"More options for Medicare that do not require as much transportation as is currently required for basic services like dental."

Unaffordable Co-pays and Deductibles

"Free or low cost clinics for the underserved. Coupon programs for preventative services. Outreach programs to schools, senior center, churches."

"Affordable sliding scale systems, multiple payment systems or charity systems to encourage preventative and regular health care checkups and ongoing treatment for chronic disease."

"Sliding fees for those without insurance or discounts to those with insurance where they can't afford the out of pocket costs."

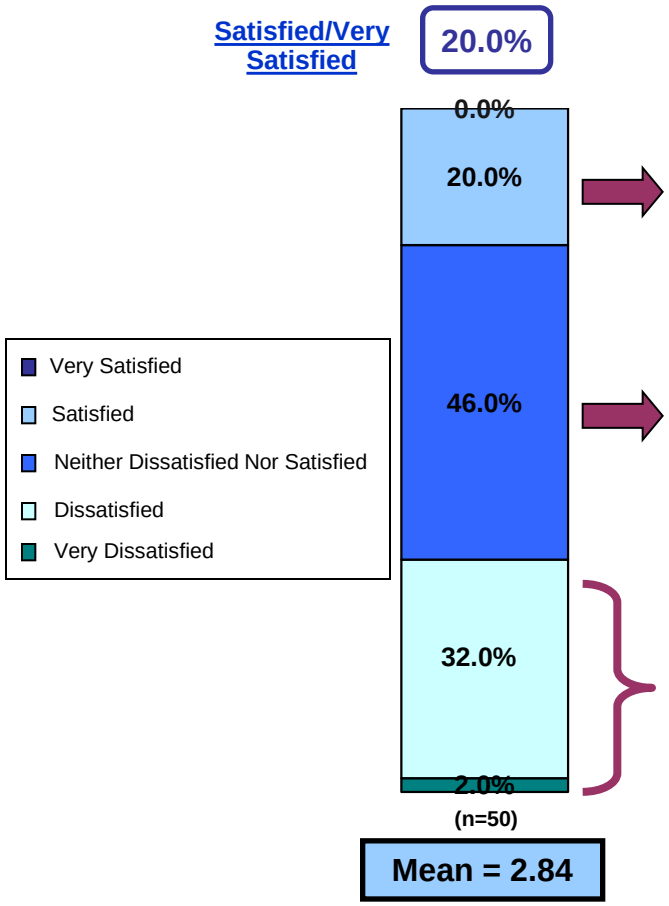
Q8a: What, if any, are the effective solutions to these barriers? Please be as detailed as possible and identify which problems you are referring to when discussing solutions.

Identifying and Addressing Needs

Only one in five (20.0%) Key Informants are satisfied overall with the health climate in the SHLH service area, while one third are dissatisfied with the health climate. Those who are satisfied cite **good care** and **an increased focus on health education**, but also the **need for more provider coordination** and **additional resources**. Those dissatisfied see **lack of quality health care, an overall unhealthy population**, and a **lack of resources** to adequately address the community's health needs.

Overall Satisfaction with Health Climate in SHLH Service Area

Level of Satisfaction



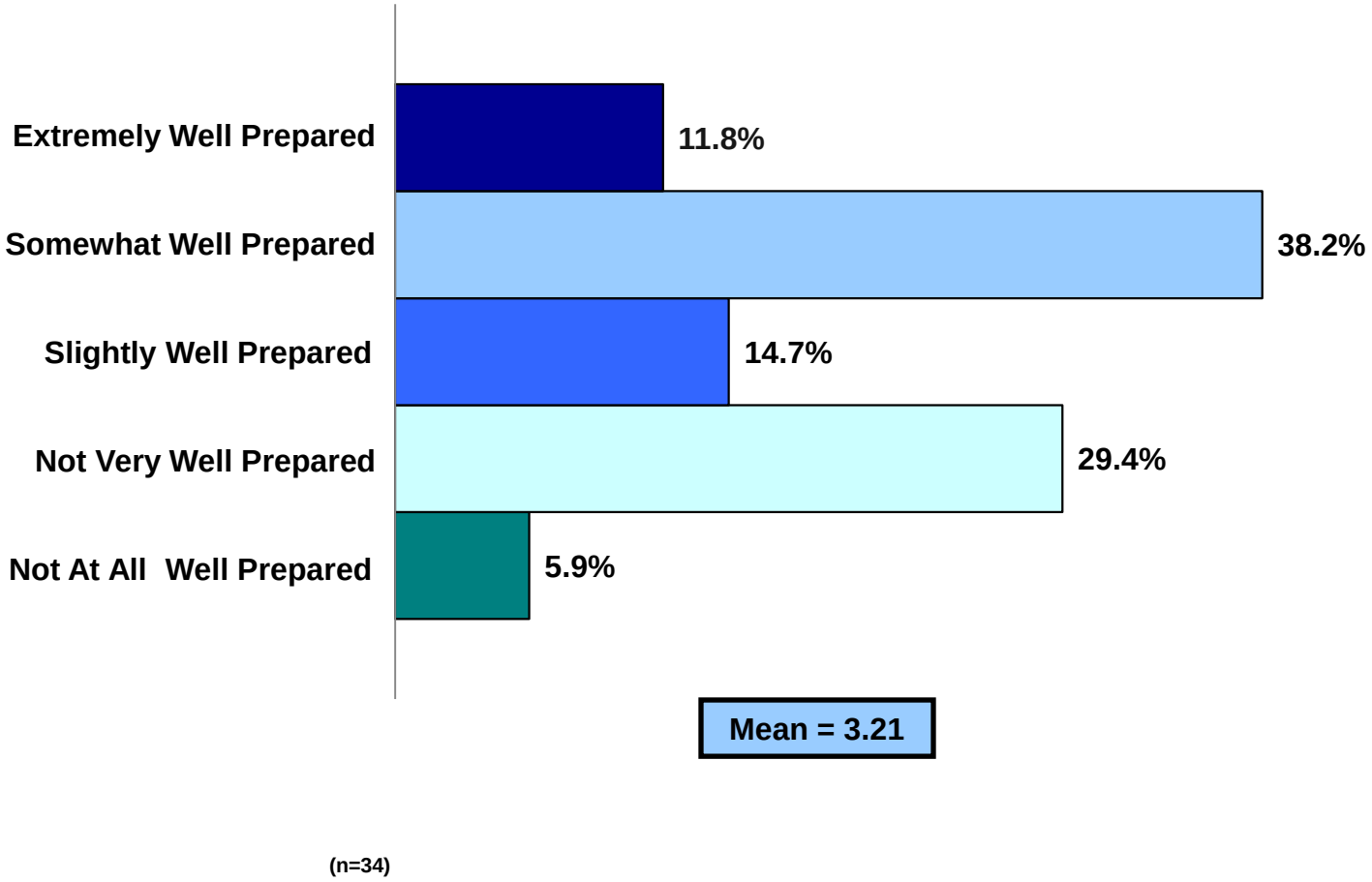
Reasons for Rating

✓ Good care but need more coordination across providers ✓ Home environments need attention ✓ Lack of transportation – especially for specialty care	✓ Need facility for affordable physical activity programs ✓ Satisfied with increased focus on health education
✓ Can do more for underserved (e.g., children) ✓ Difficult to teach personal responsibility ✓ Good access to quality pediatric care ✓ Lack of choice providers ✓ Lack of confidence in hospital care	✓ Lack of medical support in schools ✓ More mental health services needed ✓ Need raised awareness of available resources ✓ Too many broad needs to adequately address
✓Inability to access affordable care ✓Lack of quality health care available ✓Lack of personal responsibility ✓Lack of prevention programs ✓Lack of resources to meet community demand ✓Lack of Spanish-speaking PCPs	✓Need end-of-life care ✓Need urgent care/weekend services ✓Paperwork prevents new patients from being seen at available clinic – are sent to ER instead ✓Transportation barriers ✓Unhealthy population

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.

Only 50.0% of Key Informants feel local health care professionals in the SHLH service area are at least “somewhat well” prepared to deal with a communicable or infectious disease outbreak such as Ebola. Importantly, **over a quarter (26.8%) of Key Informants did not know or were unsure of** the level of local health care professional preparedness within the community.

Preparedness to Address Communicable Disease Outbreak in SHLH Service Area



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

When commenting on the impact of Federal Health Care Reform or the Healthy Michigan Plan, Key Informants are 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, the affordability of such medical care, and an expectation to see improved health outcomes in the future.

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

"1. A fair number of individuals who did not have any health care now have been placed on Healthy Michigan Plans that provide them with means to access care as needed. 2. Not sure in what way this has affected service delivery. 3. My assumption is that better access to health care for those who may not have had it before has improved outcomes for those people."

"Not sure what impact it has had. I have seen it help family members that had to pay for their loved one's care fully and now are getting help with services medically."

"I think it is going to positively impact the future. Just don't really see it yet."

"ACA has improved health care in this community. Poor people and the working poor were denied healthcare; now they have coverage. The service delivery has not changed much; bias in this community due to the ethnocentric policies and behavior of the medical leadership still exists. It is too soon to evaluate health outcomes related to healthy people 2020, but I suspect they will improve directly because of the ACA."

"I have heard people express relief that they now have insurance. The Affordable Care Act is a good thing. I am aware of one provider office that is making strides in offering more comprehensive oversight of their patients."

"More opportunity for people to access medical insurance and focus on their health."

"Some people have been able to get coverage that weren't able to before. They have been positively impacted."

"Increased the number of community members with Medicaid - unsure of impact at this time on service delivery and outcomes."

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) quality of care as well as slower service delivery still present barriers to access.

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

"1-Decreased access to health care 2-Unaffected-service delivery of health care providers is mostly good, there is just a lack of them 3-Poorer health outcomes - people delaying treatment due to cost."

"I believe that more people have insurance but with extremely high deductibles that prohibit them from seeking preventative care and healthy outcomes."

"Difficult to work with so many different health care plans as all are different with service coverage. Service delivery is slower. Health outcomes show some improvement."

"Has improved access but patients are rarely interested in improving their health habits. Patients do take advantage of available services. Too soon to say anything about outcomes."

"Health Care Reform has slightly improved the issues regarding the underinsured/uninsured barriers; however, there is a significant lack of understanding in regards to Health Care Reform in our community. Health access will improve as more individuals understand their new access to insurance, although the process is complicated and in itself can be a barrier. The Federal Health Care Reform is a step in the right direction, however, it will be essential to implement appropriate programs and improve access to healthcare in order for reform to significantly impact service delivery and health outcomes."

"More individuals have access to health care; service delivery seems to be somewhat improved, however the delivery of care is not seamless and could be improved; unsure about health outcomes."

"Access to quality care for the underinsured/uninsured is not readily available. SHLH is very quick to send people to collection services over miniscule amounts of monies in arrears."

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 (e.g., solely catastrophic coverage).** Some Key Informants also feel **doctors lose face time with their patients due to additional paperwork** and that businesses are saddled with unnecessary costs. Inconsistent application of the ACA is also a concern.

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

*"It is a problem that people must choose their employer health insurance when **that insurance is not very good and is more expensive.**"*

*"No additional physicians or offices have been added in this community to improve access to care. An urgent care clinic that is 24/7 is needed in this community. Health outcomes have not changed. **The health of this community is only decreasing**."*

"Poor cannot be admitted to facilities, cannot find providers, providers are exhausted."

*"I feel the **doctors are under a lot more pressure** to document and not being able to balance time in front of the computer with face-to-face with the patient."*

"Little change has been noted. Some decrease in access has been noted with some patients losing their insurance policy. Those that have enrolled in the plans appear to have catastrophic coverage only."

"None of which I am aware other than a few folks telling me how much they hate Obamacare and its attendant forced spending on the part of the patient."

*"Outside of **increased cost to businesses**, have not seen it helping yet."*

"Many have become not eligible pending minor changes in income levels. Others not trying to help themselves receive everything without question."

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 SHLH service area. Addressing issues of prevention education and raising awareness of existing services are at the top of the list, and suggestions include a community center, community exercise programs and events, and working with schools to provide general care and education to students and their families.

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

"A community center (such as YMCA) as a center for physical activity and health education. A medical resource bank to help with accessing medically necessary resources (medications, supplies, etc.) for the under/uninsured."

*"**Indoor fitness programs/opportunities** (walking venues), year round and consistent healthy eating options/opportunities."*

"Conditioning program focused at elders and those who are already obese and need a low-level program that is non-competitive."

"Additional areas in our community that are not cost prohibitive for people to exercise during all seasons."

*"**Better education for new parents and women in general** to help better equip them to be parents."*

*"**Increase resources for youth and families** to increase physical activity; agencies continue to make efforts toward integrated care/whole health focus."*

"Send information home with the kids in school."

"Community exercise events and programs."

"Continue regular educational programs for community in schools, churches, etc. to discourage prescription drug abuse. Explore grant opportunities to establish school nurse/on site health care or education for rural schools, i.e. Scottville, Custer, outlying areas."

*"**More activities in the community that are free for family participation**. Incentive programs that may receive assistance to participate with their children for emotional and family unit building programs to strengthen family ties."*

*"**Improved education regarding chronic medical conditions and exacerbation prevention**. Implementing systems to improve/eradicate significant barriers to obtaining regular preventative treatment as well as ongoing treatment of chronic health conditions."*

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 create a strategy for better care coordination and communication among service providers that will improve service provider/patient relationships, and create more client-centered service during “front line” interactions.

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

*“**Strengthen trust between community and hospital by being more client-centered**.”*

*“Education for our providers may also be beneficial in this regard. **Patients are often prescribed medications they can't afford, then labeled as ‘non-compliant’ for not taking the meds**. When possible, an affordable regimen may be more effective than the newest/best medication.”*

“Provider accessibility - phone trees are confusing. Poor follow-up opportunities with PCP after admissions to out of town providers. No follow up care set up, not able to see providers on urgent needs.”

*“**Better consultations for individuals at doctor’s offices** when diagnosed with an illness. Better consultations for individuals leaving hospital, nursing homes.”*

“Doctors that care about the health of the community, not how much money they make. Recruit high quality doctors to this area to create competition with the ‘good old boys.’”

*“**More physicians, better education of patients by community agencies**, e.g., health department, DHS, etc.”*

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, increased access to services by service expansion, a resource for urgent or 24-hour care, more mental health services, and clinics/outreach services to rural areas are suggested as strategies to improve the overall health climate of the community.

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

"Creating an outreach office in Custer would be a start. ***Work with schools and provide basic services to East Mason County****."*

"Difficult due to rural setting with limited physicians to choose from."

"Establish an urgent care clinic."

*"****Provide an after-hours acute care clinic*** *that is something other than the ED to decrease overall health costs."*

"Expand programs into Oceana and hire Spanish speaking physicians."

"Free/affordable dental care clinics."

"More after-hours clinics - not every issue needs ER visits."

*"****More programs to assist the under/uninsured****, more mental health resources. Discounted or free dental clinics."*

"The provision for health service in the Village 2 or 3 times a week. Perhaps in a shared space."

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 collaboration to address community health issues, implementation of wellness and prevention programming within the community (e.g., breast cancer screening, Win with Wellness), more community outreach programs, and increased messaging about healthy lifestyles in community advertising - especially within the schools.

Activities Since CHNA Conducted in 2011
Verbatim Comments

"School nurse/Fit Kids program, but it is in Ludington only. Expansion and sustainability of Win with Wellness."

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

*"**More information through media and local programs**."*

*"A **low-income clinic** has been established in the area; however it is based on a membership or pay-as-you go premise. A sliding scale clinic or community health care fund for preventative care/disease management would be a more effective tool."*

*"**Visibility in schools to suggest children to be more active**."*

"Win with Wellness program was implemented with a focus on BMI, Blood Pressure, Lipids and Glucose."

"Win with Wellness is now held in Hart but the majority of programs are still only focused in Mason County."

*"**Programs developed and implemented to increase health awareness and decrease chronic disease** (Win with Wellness)."*

"More community programs have been available."

"Kids health program to decrease obesity."

*"**Community Wellness Program, Fit Kids to address the obesity issue**. 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."*

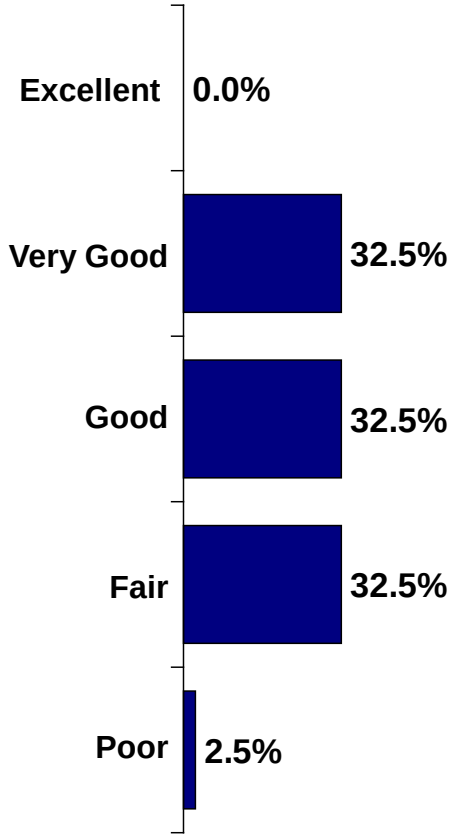
Q13: Since the Community Health Needs Assessment conducted three years ago in 2011, what has been done locally to address any issues relating to the health or health care of residents in your community? Please be as detailed as possible.

Underserved Resident Survey

Health Status

More than one-third (35.0%) of residents in the targeted subpopulations report their health as fair or poor and this is much higher than the general resident feedback from the BRFS (18.3%).

Perception of General Health



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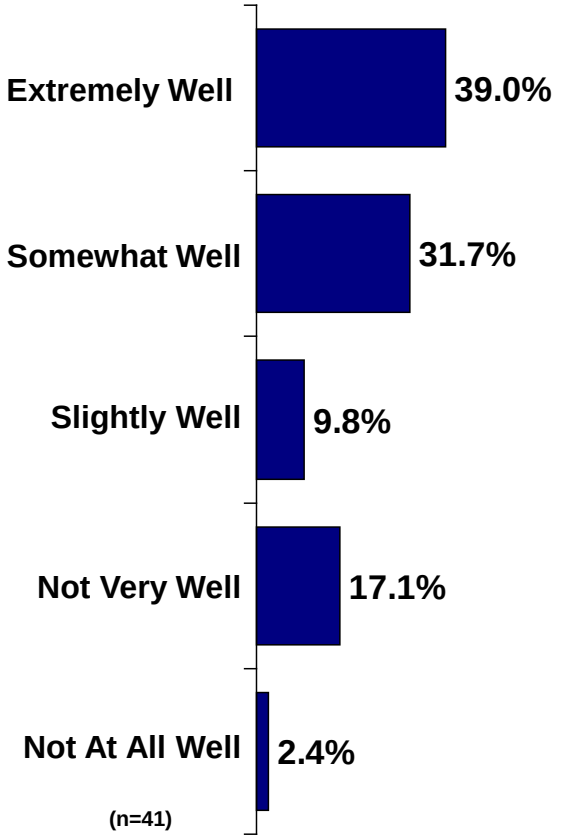
Q1: To begin, would you say your general health is….

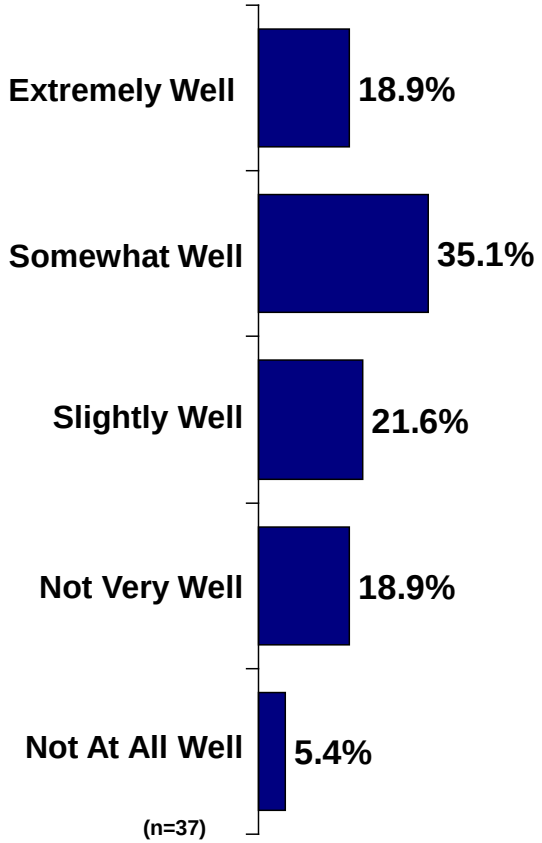
More than seven in ten (70.7%) underserved residents believe health care providers communicate somewhat or extremely well with them about their health, while slightly more than half (54.0%) believe they communicate well with each other about patients' health.

Quality of Communication Among Health Care Providers

Communication With *You* About Your Health



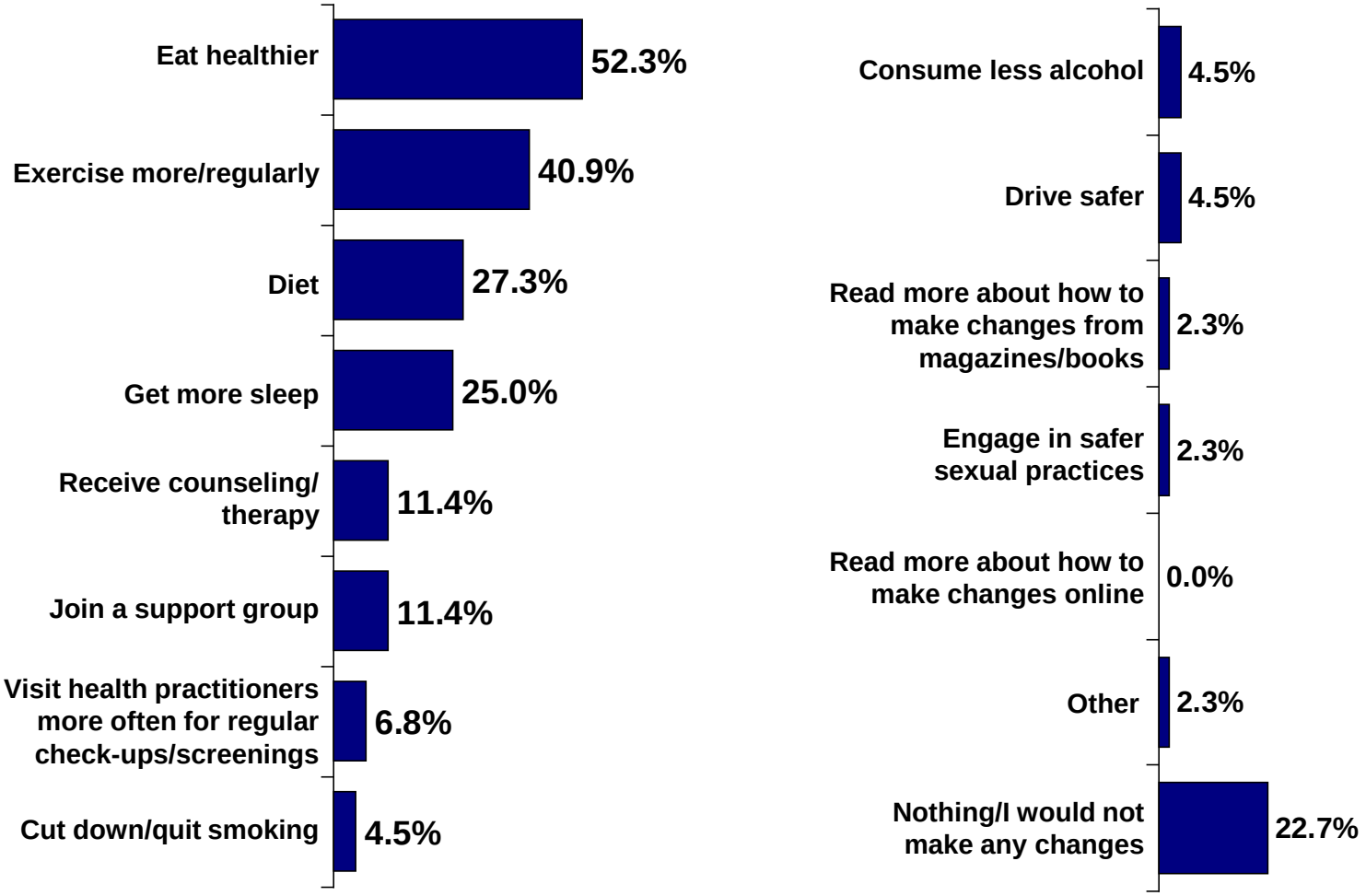
Communication With *Each Other* About Your Health



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**, **diet**, and **get more sleep**. To a lesser degree, they also see a benefit to seeking counseling/therapy and joining support groups.

Behavioral Changes Needed to Improve Health



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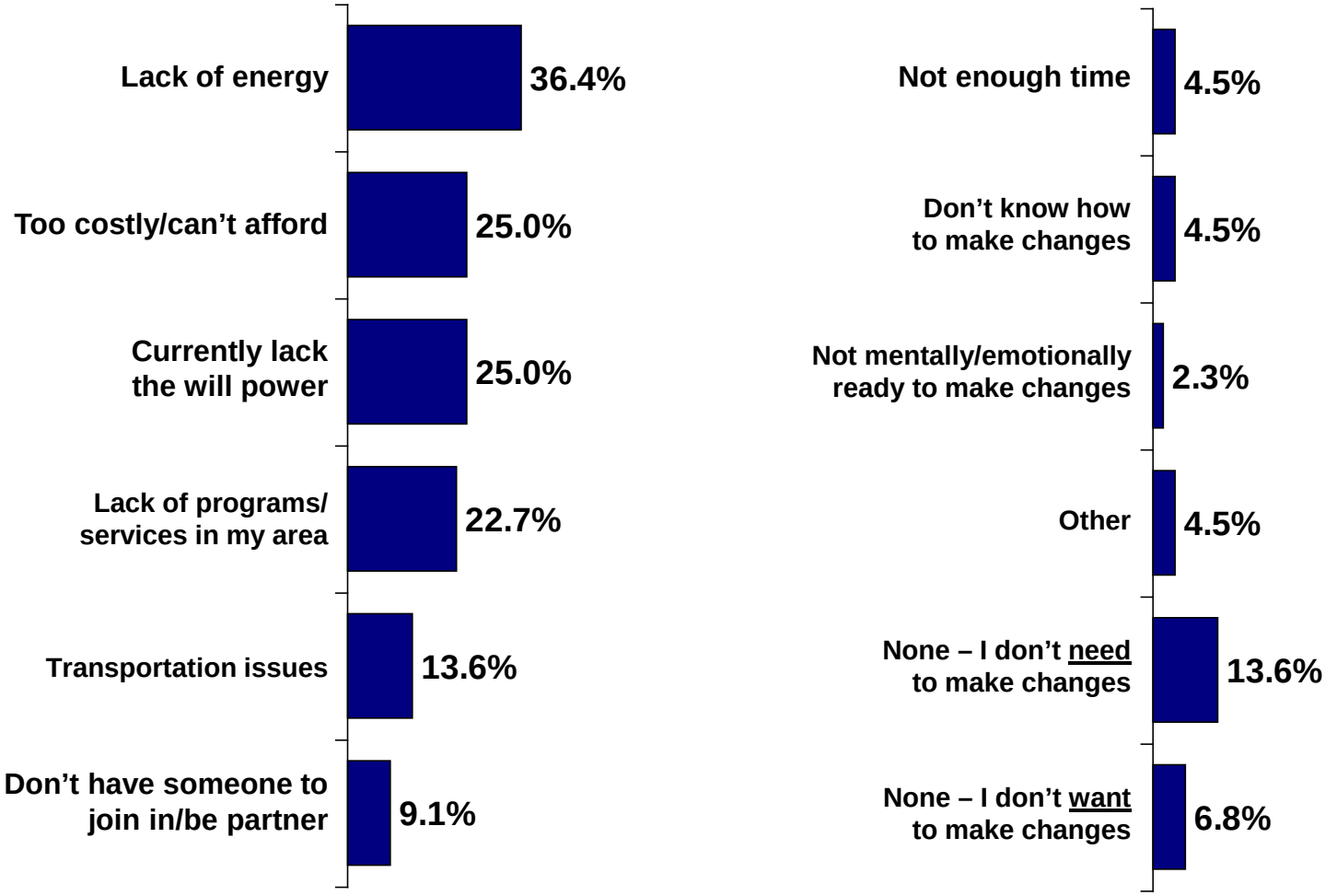
Q17: Which of the following behavioral changes do you believe you need to make to improve your health? (*Select all that apply*)

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 **lack of energy**. Further stumbling blocks include **cost**, **lack of will power** and **lack of programs or services in the area**. More than one in ten say they **don't need to** make any changes and an additional 6.8% say they **don't want to** make any changes.

Barriers Preventing Living a Healthier Lifestyle



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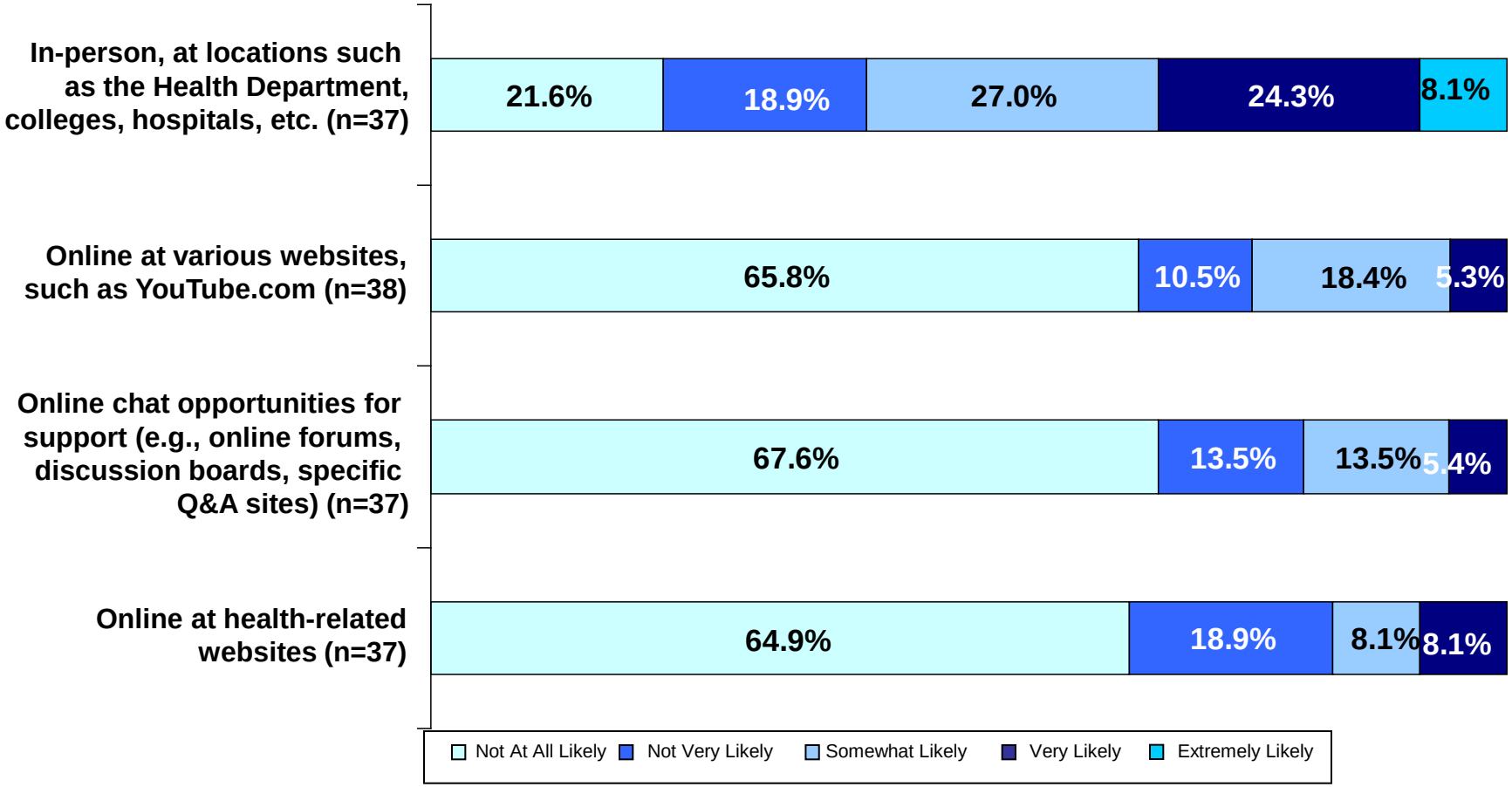
Q18: What are some of the barriers you face when trying to live a healthier lifestyle? (*Select all that apply*)

If education or instruction were provided on ways to live healthier lifestyles in various formats, underserved residents are most likely, by far, to select **in-person over online**. It is evident that the underserved population is not ready to participate in education or instruction on how to lead a healthier lifestyle if it means the medium would be an online format.

Likelihood to Participate in Education/Instruction on Leading Healthier Lifestyles

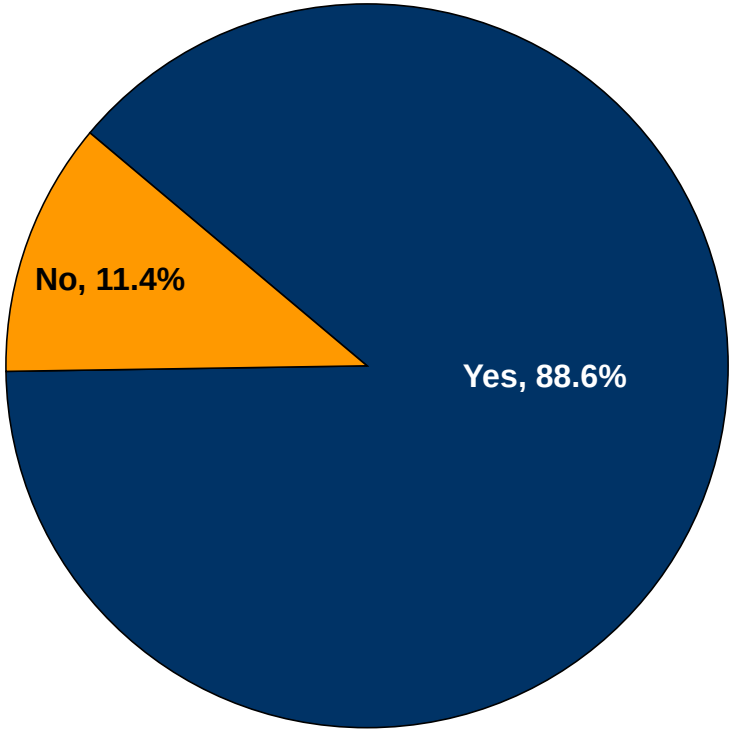


Q19: If education or instruction on how to **lead a healthier lifestyle** were available in different formats (below), please tell us **how likely** you would be to participate in these activities.

Health Care Access

The vast majority (88.6%) of underserved residents have a primary care physician (medical home) that they can visit with any questions or concerns about their health.

Have a Medical Home



(n=44/)

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**, **attentive**, good **communicators**, **caring**, **compassionate**, **empathetic**, **kind**, **patient**, and **prompt** (patient doesn't have to wait a long time to see). Additionally, they should **easily refer patients** to other health care professionals if the problem is beyond their scope of knowledge or expertise.

Most Important Qualities in a Health Care Provider

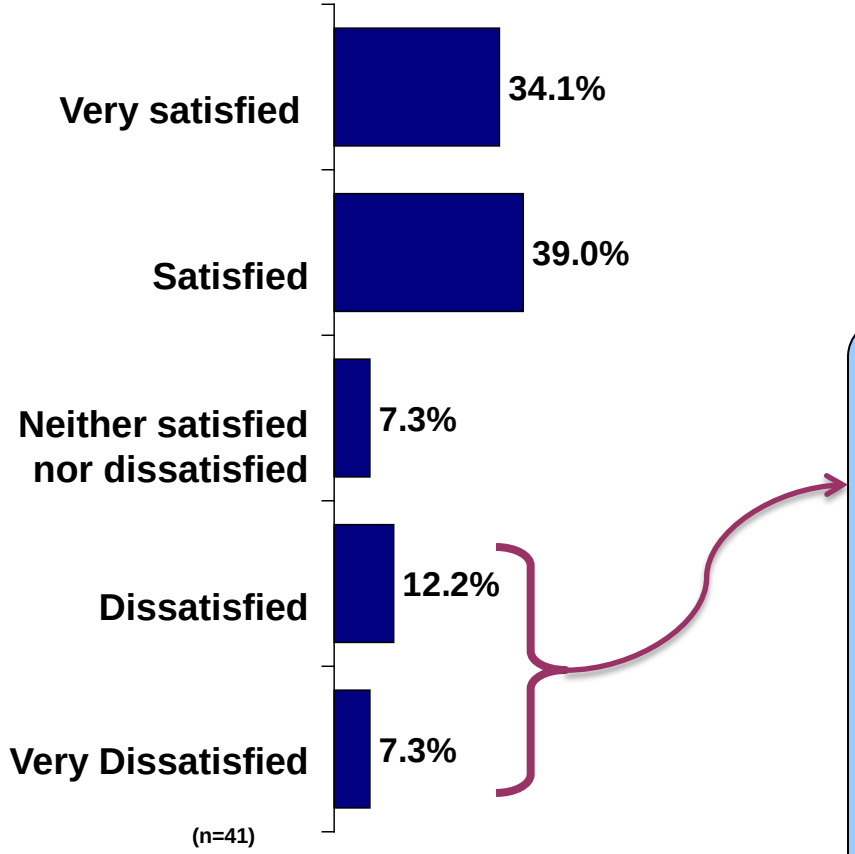
(n=44)

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

The vast majority (73.1%) of underserved residents are satisfied with their last visit for health care. However, those who are dissatisfied cite a **lack of communication** on the part of the health care professional, specifically **not explaining things thoroughly to their patients**. Good communication involves taking notes and being able to ask the right questions and provide answers when asked questions. Some comments also speak to a **lack of professionalism** and the **inability to correctly diagnose** patient problems.

Satisfaction with Last Health Care Visit and Reason for Rating

Satisfaction with Last Visit



Reasons for Dissatisfaction with Last Visit

"Didn't talk about the 'right' thing. ***Didn't explain****."*

"Didn't understand IEP rules *and* ***wouldn't write notes****."*

"Never spends enough time with me *and* ***does not explain things****."*

"Doesn't answer me when I ask questions*."*

"Didn't assess me medically*."*

"Doctor wants to do further surgery."

"Doesn't spend enough time*,* ***too quick****, gives too many pills."*

"Can't get a doctor to accept me, ***currently use ER****."*

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 of action to appropriately address their condition**. They like providers who **take time without rushing them** and **communicate well**, **listen**, **show empathy/concern (care)**, **answer as well as ask questions**, are **knowledgeable** and **treat patients with respect**.

Reasons for Satisfaction with Last Health Care Visit
Verbatim Comments

*"Because the doctor **took the time** to go over my health issues such as lab work and **answered my questions**."*

*"Practitioner **reviewed my situation and responded appropriately**."*

*"I love my doctor. He has **provided great care** for me. I was seeing someone in Manistee but he died."*

*"My doctor will **send you for tests** at the hospital so that your diagnoses and a qualified specialist c**an be seen and treated for the problem** you have and can be **treated promptly**."*

*"My daughter sees a specialist for orthopedic care. Our last visit went well because the **physician listened to our concerns** and is **trying to determine alternatives to more surgery**."*

*"My **doctor listens to me and knows I am a single mom and treats my problems as important**."*

*"Always **helpful**."*

*"He always **has time for me**."*

*"**Nice** and **takes time with me**."*

*"**Follows through**, **listens**."*

*"My **questions and concerns were answered**."*

*"**Listened**, **acted**, **smiled**, **knowledgeable**."*

"She actually said I was the strongest and bravest patient she ever had."

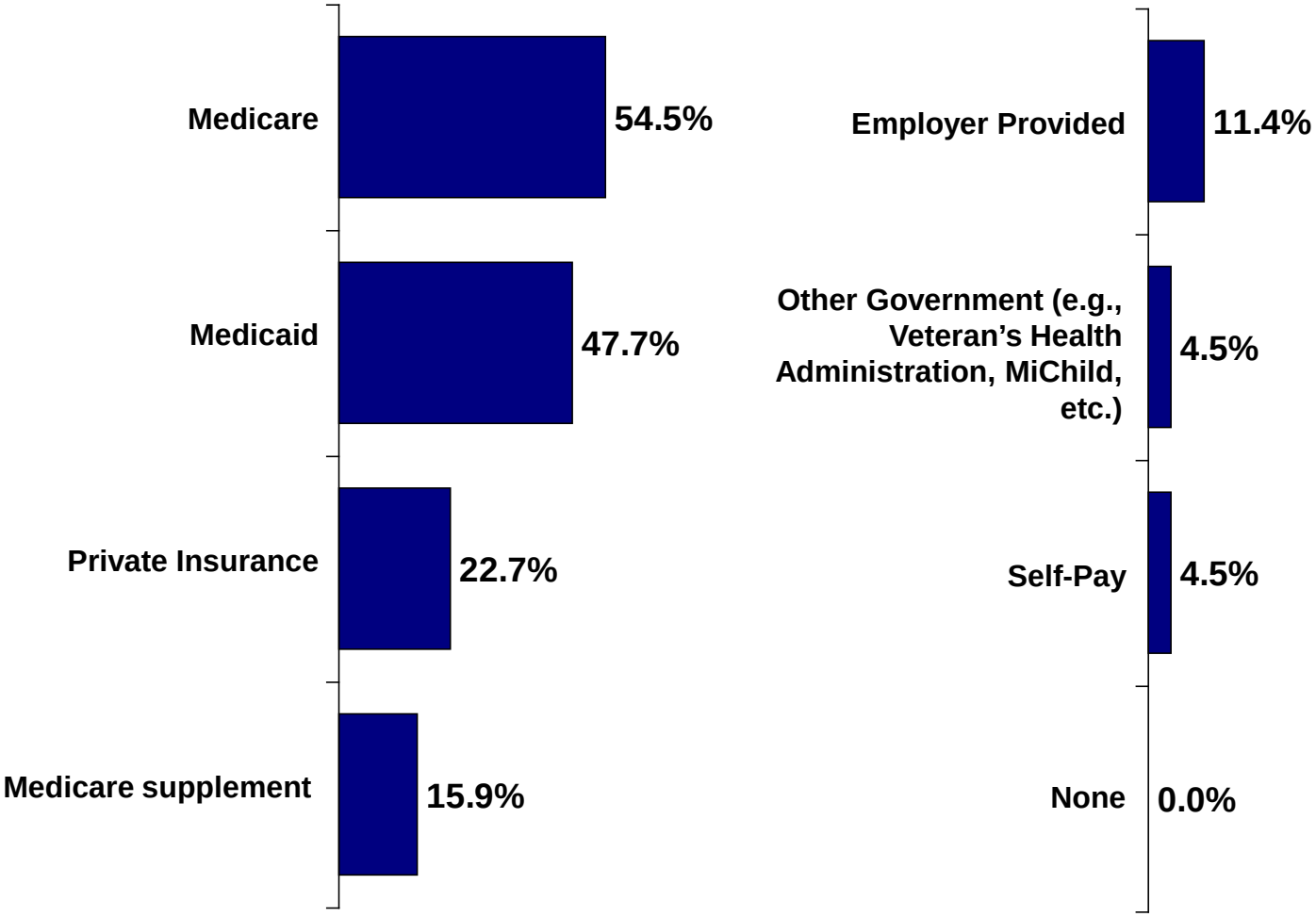
*"My doctor **took time to listen** and **offered suggestions** regarding my issues."*

*"**Didn't have to wait**, **communicated** with me."*

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

Over half (54.5%) of the underserved residents have Medicare, while almost half (47.7%) have Medicaid. One in five (22.7%) have private health insurance.

Current Health Insurance



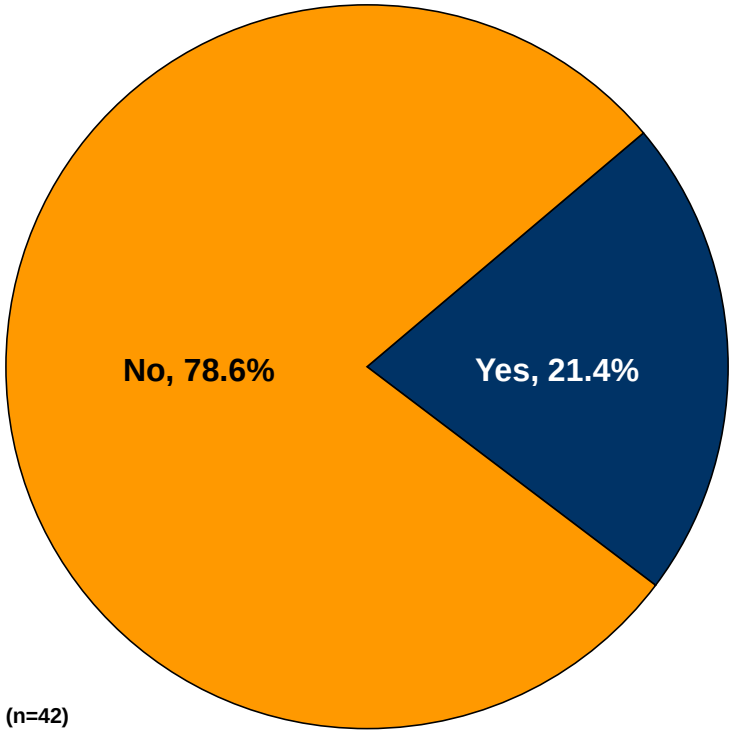
(n=44)

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

One in five (21.4%) of the underserved have had trouble getting needed health care for either themselves or their family in the past two years. The most prominent reasons for this are the **inability to get** either **an appointment** or **a referral for care**. **Cost** is also an issue, due to either a lack of insurance or the inability to afford co-pays and deductibles.

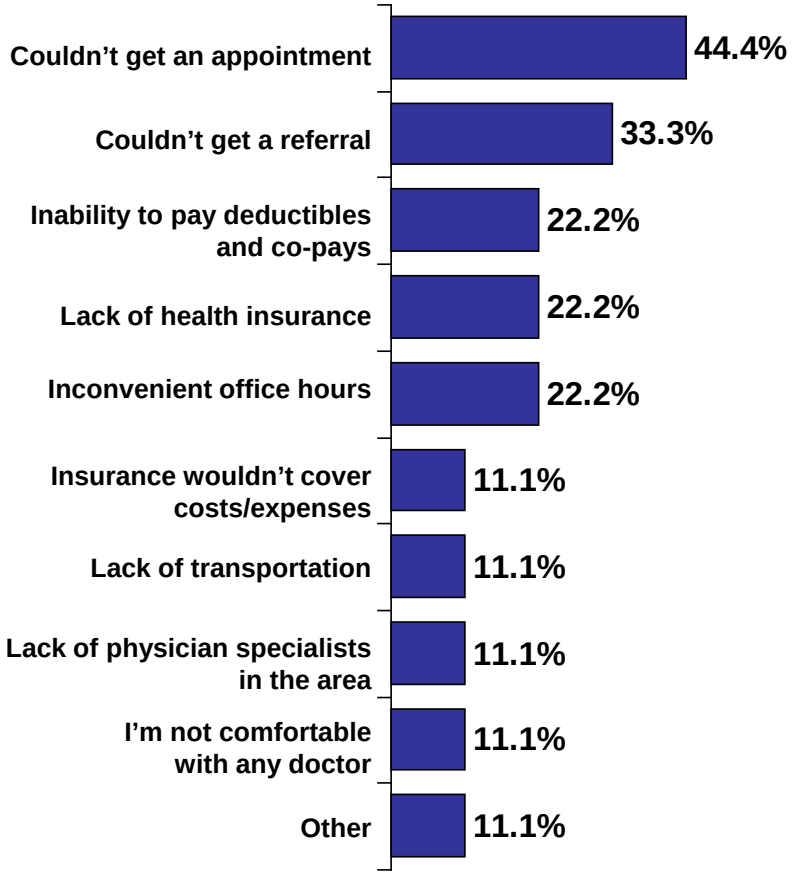
Barriers to Meeting Health Care Needs

Had Trouble Meeting Health Care Needs in the Past Two Years



(n=42)

Reasons for Not Receiving Needed Health Care



Q9: In the past two years, was there a time when you had trouble meeting the health care needs of 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) (n=9)

Underserved residents report a **lack of specialists in the area**, specifically pediatric specialists and dermatologists. When residents have to travel out of the area for specialty care it not only costs them money in terms of gas and mileage, but they also have to take off work (if they can) and/or take their children out of school. For those with transportation issues, this hurdle becomes even harder to clear. Other services/programs lacking include **dental services for low income groups**, **personal care aides for the elderly**, and **community sponsored events**.

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

*"**Friendly visitor program**, **personal care aides for the elderly** could be provided through the senior center. **Dental health services for the poor**."*

*"There isn't a lot here in Fountain. **I have to drive to Scottville to see my doctor** but it's okay because my mom sees him too. The hospital in Ludington is growing and that's good but **all of my specialists are in Grand Rapids**. I was born with spina bifida and I have been in a wheelchair all my adult life. I am used to it but it **would be so nice to see someone close and who would care**."*

*"**Pediatric specialists are located in Grand Rapids, Traverse City, or Muskegon**, **so considerable time and expense is involved. An appointment typically means a lost 1/2 day at work and 1/2 of school**."*

*"Ludington seriously needs a **dermatologist**."*

*"Would like more **community sponsored events**."*

*"**Everything is lacking in my community**. There is no college here, hospital, Meijer, Walmart. **Lake County has nothing**."*

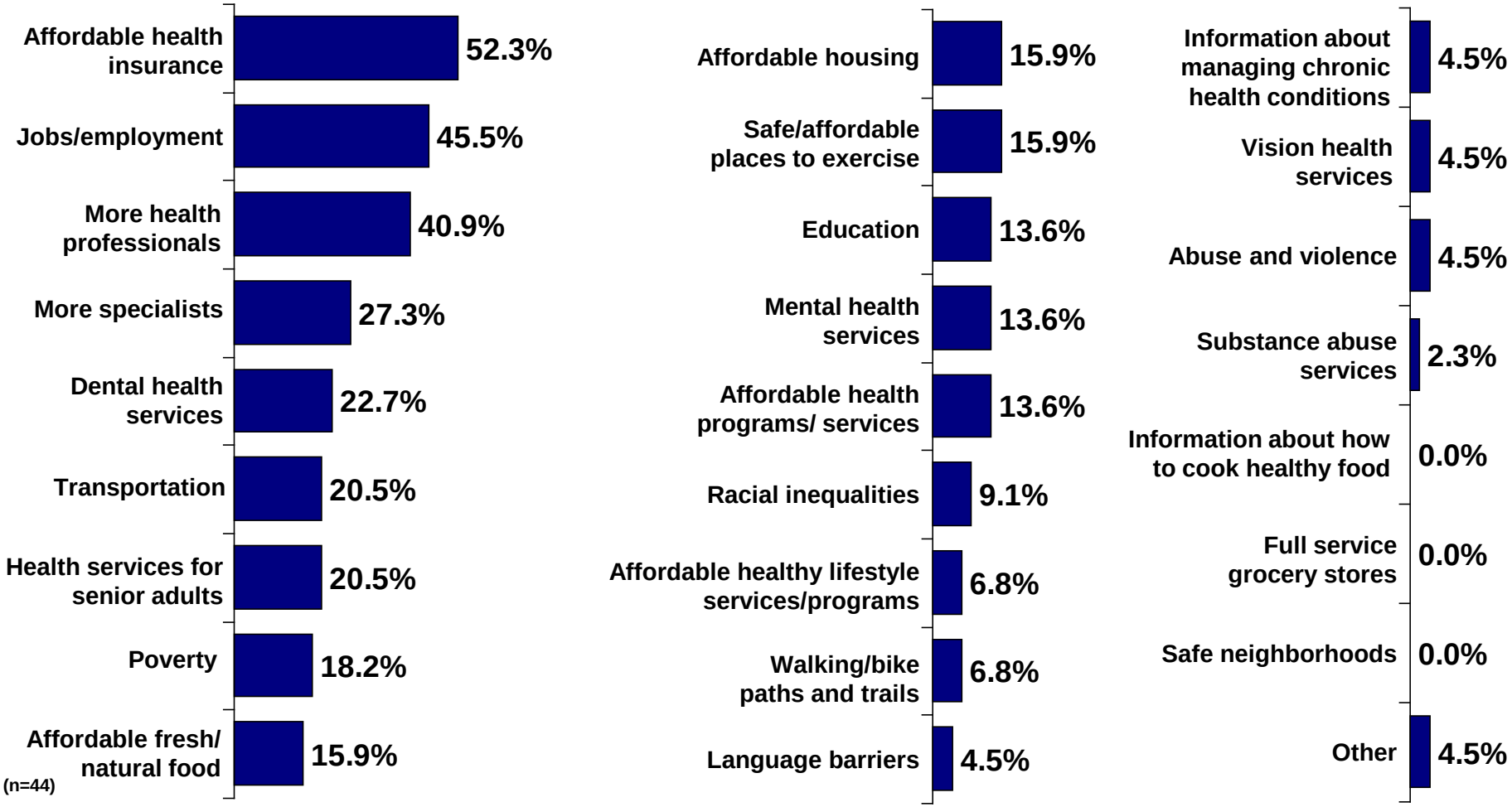
*"**IEP help**."*

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**, and l**ack of health care professionals**. Other impactful issues include **lack of specialists**, **dental health services**, **transportation**, **health services for senior adults**, and **poverty**. On the other hand, the underserved population does not see a need for information on how to cook healthy food, full service grocery stores, and programs aimed at increased neighborhood safety.

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 the **local hospital** and its programs like **Win With Wellness**, **senior adult programs geared toward living a healthy lifestyle**, **access to the local college**, and other programs and services. Further, there are many healthy aspects of the community that are free, such as **accessible walking/hiking/biking trails**, the **state park**, other **parks**, **Lake Michigan**, and **Hamlin Lake**. Additionally, although not free, are **gyms**, **health clubs**, and **grocery stores** and **farmer's markets** with fresh/healthy food.

Community Characteristics That Make it *Easy* to be Healthy

*"**Knowledge of caregivers**."*

*"**Easy access to good hospital**."*

*"Structured environment for **diet/exercise programs**."*

*"Located **near hospital**."*

*"I **walk**."*

*"**Dietary input**, activities."*

*"**West Shore Community College**."*

*"**Lots of places to walk**, **college**, high school."*

*"Lots to do here, **activities**, and **outings**."*

"People are always watching out for me."

*"**Therapy**, **activities**."*

*"**Win With Wellness** program."*

*"Scenery, **recreational**."*

*"Efforts are being made to make **health care more available** with **new facilities** and **personnel**."*

*"**Lots of places to do extra curricular activities like trails, bike trails**, **farmers market**, **walking path** at the marina area."*

*"**Many programs** to participate in and **some are free**."*

*"**People to remind me to go to activities**, **exercise class**."*

"All is available in this community."

*"**Availability of exercise programs and facilities**."*

*"**Many beautiful places** (recreational) in the summer, a school and **college pool** open to public for little money, **Lake Michigan**, **state park**."*

***"Fresh produce**, **bike trail**."*

*"**Free seminars**."*

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 make it hard for residents to lead healthy lives include **limited access to recreational activities**, especially during **winter**. Even in months with better weather, some residents report that **lack of sidewalks** and **bike lanes** prevent people from walking and biking as much as they would like. There is also a **lack of affordable and healthy food**, **transportation issues** (e.g., lack of public transportation, rural area requiring travel), and the **lack of specialists** or **dental care** that force some people to travel outside of the area for services. All of the barriers prevent residents from achieving optimal health.

Community Characteristics That Make it *Hard* to be Healthy

*"**Winter**."*

*"**Lack of employment**, **availability of health care** personnel and facilities."*

*"**Lack of sidewalks** on US 10 corridor, lack of sidewalks in the city-shameful, **few bike lanes** on Jebavy and other roads. **Need for food pantries in evening**."*

*"**Driving to anything necessary** such as the grocery store or the farmers market or doctor's office. Fountain is a small community and **we don't have a lot here in town**."*

*"**Low income folks do not often have the ability to purchase healthy food** choices and **cannot afford fitness/exercise facilities**."*

*"**Five months of hard winter**, **inadequate public transportation** for those who cannot drive, **lack of sidewalks** near grocery stores."*

*"**Expensive food**."*

*"**Lack of specialists**."*

*"**Winter is so long, can't go out much**."*

*"**Nothing to do, no place to go**."*

*"**Time and money**."*

*"Sometimes **I feel isolated** here from outside."*

*"**Can't go out as much as I would like**."*

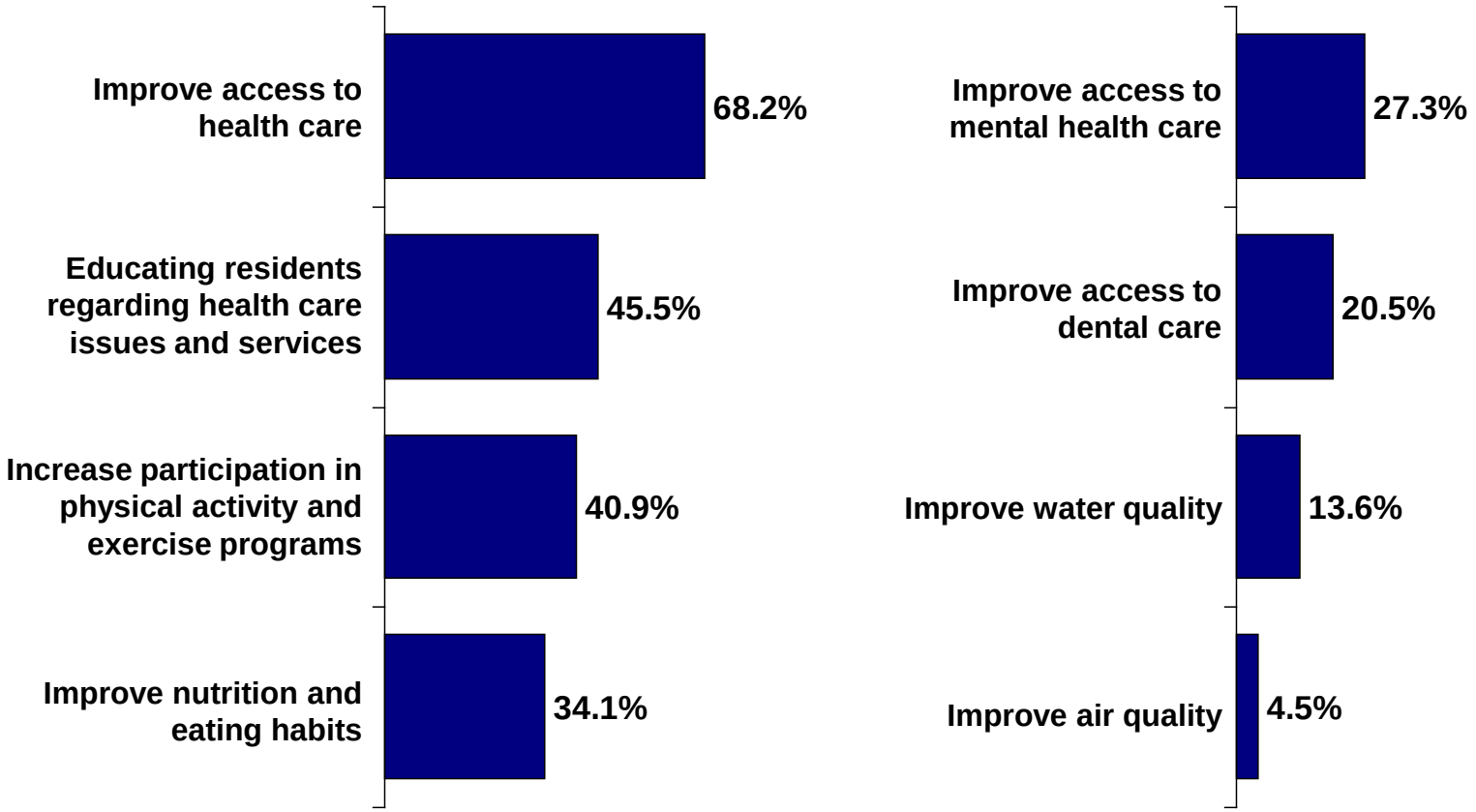
*"**More affordable dental care**."*

*"**You need to read and go online and find out where to get the help you need**. I believe we have all that in this community."*

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

The most important change that could make the local community healthier is to **improve access to health care**. Secondly, it's critical to **educate residents on health care issues and services**, **increase participation in physical activity and exercise programs**, and **improve nutrition and eating habits**. Improving air and water quality are not considered necessary.

Most Important Actions for Making Community Residents Healthier



(n=44)

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.

Not many underserved residents offered suggestions for making community residents healthier, but those who did cited the **need for school nurses**, **affordable home health care**, **mentoring programs**, and **exercise facilities that would be available to people when it is hard to** exercise outdoors (e.g., winter months). Lake County could use myriad programs and services.

Suggestions for Making Community Residents Healthier

*"**School nurse** needed."*

*"**Affordable home health-PACE, Medicare**."*

*"**Lake County needs more of everything here**, build a hospital here and college (education)."*

*"**Learn to cook to eat healthy**."*

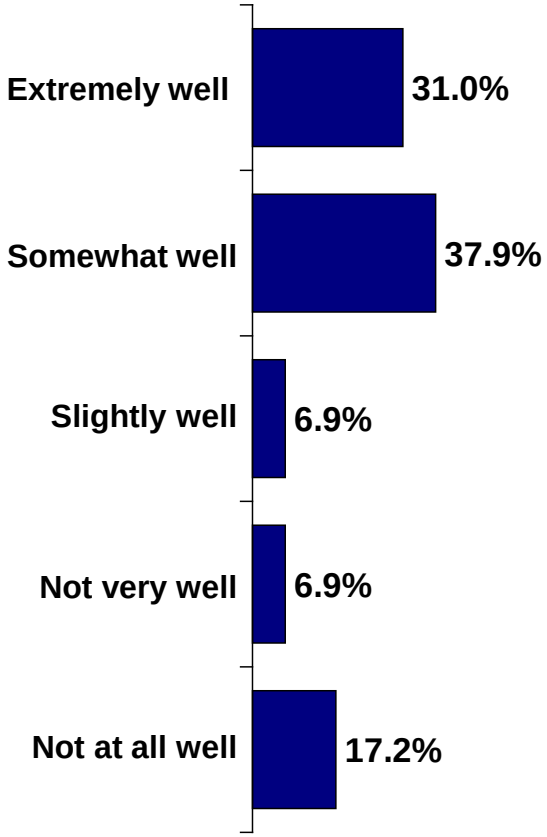
*"**Mentor programs pairing a healthy person with someone** who is trying to get healthier."*

*"People stay indoors all the time now and not as many people are outside getting fresh air. **Some type of gym here would help people get more exercise** but I don't think people really like to do that. There is too much sitting around all the time."*

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

Many underserved residents are unable to answer how well prepared they think local health professionals are when dealing with communicable or infectious disease outbreaks. Of those who have an opinion, two-thirds (68.9%) think they are somewhat or very well prepared. On the other hand, nearly one-fourth (24.1%) feel they are not very or not at all well prepared.

Preparedness for a Communicable or Infectious Disease Outbreak



(n=29)

Q19: How well prepared are local health care professionals to deal with a communicable or infectious disease outbreak, such as Ebola?

Underserved residents offered a varied range of concluding comments. Several described barriers to improving either personal health or community health, such as lack of transportation and poor computer skills.

Concluding Verbatim Comments

"Education."

***"I stay healthy because I have to**. I'm all my son has."*

"Would like people to 'slow down' a little."

*"I am pretty much home bound and not as computer literate as I would like, so **I cannot take advantage of many services**."*

"I am a healthy person and try to eat right and I am not fat but living in wheelchair. Don't always have a way to get off my bottom and have to live with wound care."

*"I deal with many at risk youth and adults who do not have access to **affordable dental care**. **Transportation** can be an issue too."*

*"**Lack of available free time** is a big problem for so many kids and adults, yet there are no solutions to this problem."*

"I would like to learn more about computers, the Internet."

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	6
Key Informants	Online Survey	Physicians, Nurses, Dentists, Pharmacists, Social Workers	56
Community Residents (Underserved)	Self-Administered (Paper) Survey	Vulnerable and underserved sub-populations	44
Community Residents	Telephone Survey (BRFS)	SHLH Area Adults (18+)	1,128

- 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 6 *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 56 *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 44 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 SHLH catchment area via telephone with 1,128 adult (18+) residents. The response rate was 37%.

- 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 1,128 completed surveys:
  - 397 are cell phone completes (35.2%), and 731 are landline phone completes (64.8%)
  - 211 are cell-phone-only completes (18.7%)
  - 210 are landline phone-only completes (18.6%), and
  - 707 have both cell and landline numbers (62.7%)

- For landline numbers, households were selected to participate subsequent to determining that the number was that of an SHLH area residence. Vacation homes, group homes, institutions, and businesses were excluded.

Methodology (Cont'd.)

- Respondents were screened to ensure they were at least 18 years of age and resided in the SHLH 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, Mason, or Oceana counties
  - Allow the generalization of findings to the adult population of the SHLH 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, Mason, and Oceana 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 consumed five or more drinks per occasion (for men) or four or more drinks per occasion (for women) at least once in the previous month.

- Heavy drinkers – those who consumed an average of more than two alcoholic drinks per day for men and one per day for women in the previous month.

Respondent Profiles

Behavioral Risk Factor Survey

Gender	(n=1128)
Male	52.4%
Female	47.6%
Age	**(n=1128)**
18 to 24	12.3%
25 to 34	13.4%
35 to 44	16.4%
45 to 54	19.3%
55 to 64	19.0%
65 to 74	12.0%
75 or Older	7.7%
Race/Ethnicity	**(n=1123)**
White, non-Hispanic	88.5%
Non-White	11.5%
Marital Status	**(n=1128)**
Married	59.4%
Divorced	9.8%
Separated	1.2%
Widowed	4.5%
Never married	23.5%
Member of an unmarried couple	1.6%

Number of Children Less Than Age 18 At Home	(n=1127)
None	66.4%
One	11.5%
Two	11.9%
Three or more	10.2%
Number of Adults and Children in Household	**(n=1127)**
One	11.5%
Two	40.6%
Three	16.7%
Four	16.0%
Five	7.3%
More than five	7.9%
Education	**(n=1124)**
Never attended school, or only Kindergarten	0.0%
Grades 1-8 (Elementary)	5.3%
Grades 9-11 (Some high school)	7.4%
Grade 12 or GED (High school graduate)	36.8%
College 1 year to 3 years (Some college)	33.7%
College 4 years or more (College graduate)	16.8%

Behavioral Risk Factor Survey (Cont'd.)

Employment Status	(n=1124)
Employed for wages	44.0%
Self-employed	5.6%
Out of work for more than a year	1.9%
Out of work for less than a year	2.4%
A homemaker	6.7%
A student	6.0%
Retired	23.3%
Unable to work	10.0%
Household Income	**(n=785)**
Less than $10,0000	5.6%
$10,000 to less than $15,000	6.2%
$15,000 to less than $20,000	8.8%
$20,000 to less than $25,000	12.5%
$25,000 to less than $35,000	15.5%
$35,000 to less than $50,000	23.4%
$50,000 to less than $75,000	16.1%
$75,000 or more	11.8%
Poverty Status	**(n=784)**
Income under poverty line	18.2%
Income over poverty line	81.8%

Military Service	(n=1128)
Served	10.8%
Did not serve	89.2%
County	**(n=1128)**
Lake	8.0%
Mason	49.7%
Newaygo	0.3%
Oceana	42.0%
Zip Code	**(n=1118)**
49431	31.9%
49420	14.8%
49455	12.3%
48454	9.1%
49644	5.5%
49459	4.4%
49449	3.5%
49446	3.4%
49402	2.7%
49436	2.5%
49452	2.4%
49410	2.4%
49405	2.2%
49656	1.6%
49411	1.1%
48458	0.2%

Key Stakeholder Interviews

Administrator, Baldwin Family Health Clinic

Administrator, Oceana County Medical Care Facility

Executive Director, Mason County United Way

Executive Director, West Michigan Community Mental Health

Health Officer, District Health Department #10

President and CEO, Spectrum Health Ludington Hospital

Ludington Key Informant Surveys

Director (7)	School Principal (2)	Health Care Administration
Nurse (RN) (5)	Village President (2)	Hospital Case Manager
Manager/Case Manager (5)	Administrative Assistant	Occupational Therapist
Administrator (2)	Behavioral Health/Substance Abuse Program Supervisor	Provider
County Commissioner (2)	Case Worker	Registered Dietician
Executive Director (2)	Chief of Police	School Counselor
Health Educator (2)	Clinical Coordinator	School Secretary
Licensed Master of Social Work (2)	Deputy Health Officer	Technology Professional
Physician (3)	Educator	

Resident (Underserved) Survey

	TOTAL
Gender	(n=43)
Male	18.6%
Female	81.4%
Age	(n=44)
18 to 24	2.3%
25 to 34	11.4%
35 to 44	6.8%
45 to 54	9.1%
55 to 64	6.8%
65 to 74	25.0%
75 or Older	38.6%
Race/Ethnicity	(n=44)
White/Caucasian	90.9%
Black/African American	0.0%
Hispanic/Latino	4.5%
Other	4.5%
Adults in Household	(n=40)
1	40.0%
2	27.5%
3	17.5%
4 or More	15.0%

	TOTAL
Marital Status	(n=44)
Married	22.7%
Divorced	29.5%
Widowed	29.5%
Separated	0.0%
Never married	18.2%
Member of an unmarried couple	0.0%
Children in Household < 18	(n=32)
None	75.0%
1	12.5%
2	3.1%
3 or More	9.3%
Education	(n=44)
Less than High School	11.4%
Grades 12 or GED	43.2%
College 1 to 3 Years	34.1%
College Graduate	11.4%
County	(n=42)
Mason	97.6%
Lake	2.4%

	TOTAL
Children in Household <5	(n=32)
None	93.8%
1	3.1%
2	3.1%
Employment Status	(n=42)
Employed for wages	21.4%
Self-employed	0.0%
Out of work less than 1 year	2.4%
Out of work 1 year or more	0.0%
Homemaker	7.1%
Student	0.0%
Retired	50.0%
Unable to work/disabled	19.0%
Household Income	(n=37)
Less than $10K	10.9%
$10K to less than $15K	8.1%
$15K to less than $20K	5.4%
$20K to less than $25K	27.0%
$25K to less than $35K	13.5%
$35K to less than $50K	8.1%
$50K or more	27.0%

Previous Implementation Plan Impact- Exhibit B

Spectrum Health Ludington 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		
Increase the number of service hours and the number of practicing primary care providers, especially accepting Medicare and Medicaid patients.	1. Implement recruitment strategy for specific disciplines and locations in partnership with Spectrum Health to increase providers or access by 10% from current supply achieved by the following actions in the southern area of the primary service area: • Assess need for and, if appropriate, develop a Spectrum Health family medicine practice and grow by 2-3 advanced practice professionals or physicians over three years. • Contract for full-time hospitalists, allowing ambulatory physicians to add more practice hours.	1. After conducting a primary care provider needs analysis for our primary service area (ie. Scottville, Pentwater, Hart, etc.), we developed a recruitment strategy in collaboration with the Spectrum Health Medical Group. We successfully on-boarded five primary care practices, increasing Spectrum Health providers by 8.3% and patient encounters by 148; overall, the number of providers in the community, including non-Spectrum practices, have increased by 26.6% • Developed a Spectrum Health family medicine practice after retirement of existing physician and added a new Family Medicine Provider and an Advanced Practice Provider. • Contracted with full time hospitalists, eliminating rounding and on-call coverage for primary care providers to allow for more patient contact hours.
	2. Increase current hours, location, accessibility and productivity.	2. As part of needs analysis and recruitment strategy, evaluated hours, location, accessibility and productivity of practices and increased office hours by .5 per week.
	3. Implement expansion needs in terms of hours and location by	3. Hired an Advanced Practice Provider to expand psychiatric outpatient services.

Previous Implementation Plan Impact- Exhibit B

Spectrum Health Ludington Hospital

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	increasing providers.	• Discussions underway with Northwest Michigan Healthcare Services, an organization that serves a largely migrant, Medicaid population, to explore approaches that will better meet the needs of this underserved population.
	4. With additional capacity, address access issues related to acceptance of Medicare, Medicaid and other insurers with new providers. 5. Reevaluate primary care provider need and access issues.	4. Applied for Rural Health Clinic status to improve access for Medicare and Medicaid patients; as of 4/24/15, Hart practice has received RHC status • Hired 5 Financial Resource Assistants to assist in active health exchange market enrollment • Assisted 52 individuals with enrollment in Healthy Michigan and the healthcare marketplace • Allowed for enhance ability to see Medicare and Medicaid patients 5. Continuing evaluation of provider need and access issues and expect another 10% increase in primary care providers in next year.
Specific Health Need Goal	**Metric**	**Impact of Implementation Plan**
Health Literacy		
1. Utilize "Win with Wellness" as a vehicle to help community members know their key measures (BMI, blood pressure, cholesterol, blood sugar) and as a vehicle to help community members	1. Decrease incidence of obesity and overweight by five percent over three years. • Increase participation by 10% from the 2013 baseline in Win with Wellness as a vehicle to	1. 6,328 screenings provided to 1,582 people in Mason, Lake and Oceana counties (screenings included BMI, blood pressure, cholesterol and blood sugar.) From February, 2012 to February, 2015, results show: • 6.1% decrease in BMI • 1.4% increase in blood pressure control • 3.0% decrease in total cholesterol

Previous Implementation Plan Impact- Exhibit B

Spectrum Health Ludington Hospital

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find a primary care physician.	help community members know and achieve improvements in key measures and know the four key healthy behaviors (nutrition, exercise, annual physical, tobacco avoidance) • Expand Win with Wellness into Oceana County and Lake County service areas. • Initiate Fit Club program in Ludington Public Schools as a pilot for use in remaining targeted schools.	--8.4% decrease in triglycerides --12.3% decrease in LDL cholesterol (bad cholesterol) --8.5% increase in HDL cholesterol (good cholesterol) --16.2% decrease in cholesterol/HDL ratio • 4.1% decrease in blood glucose • Participation decreased from 551 in 2013 to 503 in 2014 (8.7%) and from 183 in February 2013 to 155 (15.3%) in February 2015. • In the course of six screening events since February, 2013, 57 participants were screened in Oceana County since 2013 and 74 were screened in Lake County. • Hired an APP to serve as Fit Club coordinator • Enrolled 757 children in Win with Wellness Fit Club --Fit Club students logged 1,865 miles of running/activity during 2014/15 school year --baseline body mass index (BMI) captured for beginning of longitudinal study; of 524 students assessed as of April, 2015: --2% are underweight --64% have normal BMI --16% are overweight --17% are obese
2. Increase the proportion of the county's elementary, middle and high schools that provide school health and	2. Coordinate with community partners to provide education on screenings/checkups and establish a plan, including	2. In collaboration with Spectrum Health, local healthcare providers and community members, we established a wellness committee to identify screening needs. Our analysis resulted in the recommended screenings for dental

Previous Implementation Plan Impact- Exhibit B

Spectrum Health Ludington Hospital

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wellness in the following area: education on the importance of health screenings and checkups.	financial analysis, to provide education on the importance of screenings/checkups to at least 50% of targeted schools.	services, behavioral health, vision, hearing, skin, tobacco and substance use, and overall physical checkups. To date, we have: Developed and delivered four education modules to 1,200 children ages k-8 in 55% of targeted schools on following topics: i. --effects of sugar ii. --heart health iii. --healthy nutrition and breakfast iv. --germs • Included dietitians, a Registered Nurse, volunteers and teachers in implementation of education modules.
3. Develop, implement and support wellness committees within the county's following districts: Ludington Public Schools, Mason County Central Public Schools, Mason County Eastern Public Schools, Pentwater Public Schools, Hart Public Schools and Baldwin Public Schools.	3. Establish wellness committees at targeted schools to include emphasis on education on the importance of health screenings/checkups. Committee representation includes members from the school, Spectrum Health, local health care providers and community members. Establish at least 2 district wellness teams.	3. Evaluated Ludington Area School wellness plan and compared against standards from state of Michigan and American Academy of Pediatrics and provided recommendations for establishment of school-based wellness committees: • Expect establishment of at least 2 wellness committees • Expect wellness committee evaluation in next CHNA cycle
4. Work with the existing wellness committees, staff/administration from	4. Establish a Community Health Advisory Council comprised of community stakeholders in the	4. Community Health and Wellness Council met 11 times since implementation April, 2013 • Membership includes:

Previous Implementation Plan Impact- Exhibit B

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targeted school districts, parent teacher organizations, school nurses, health care providers, Mich. Department of Community Health, District Health Department #10 and the Department of Community Mental Health and interested community members to implement the objectives and strategies.	service area to act as coordinating body for community resources and complementary action.	--physician providers & APP --teachers & superintendents --Community mental health --Public health --Department of Human Services --probate judge --senior center director --long term care administrators --nurses --early childhood providers --health clinic administrators --county administrators
Specific Health Need Goal	**Metric**	**Impact of Implementation Plan**
Other/Additional		
Improve access to specialty care locally.	Increase access by expanding adding specialty care clinics.	• Added cardiovascular-thoracic clinic to provide enhanced cardiology services in Ludington and the surrounding area. • Work in progress to clinically align the SHLH Cancer Center with the Wheatlake Cancer and Wellness Center and the Wheatlake Regional Cancer Treatment Center. A transportation solution is being developed that would allow easy access from the Ludington area to Reed City.
Improve health status of patients with chronic conditions.	Offer educational and screening events to improve key measures.	• Used “Win With Wellness” programming to provide three educational and screening events annually as well as health events in Mason, Oceana and Lake Counties. Over 1,500 people have been screened in key health indicators.