Spectrum Health Zeeland Community Hospital

Community Health Needs Assessment

Martin Hill, PhD | May 31, 2020





Table of Contents

Introduction	3
Background and Objectives	
Methodology	5
Executive Summary and Key Findings [Significant Health Needs]	
Detailed Findings	
Social Indicators	
Demographics of Ottawa County	
Crime Rates	
Unemployment	
Poverty Education	
Environmental Factors	
Adverse Childhood Experiences	
·	
Community Characteristics	
Characteristics of a Healthy Community	
Characteristics of the SHZCH Community Overall Health of the SHZCH Community	
Social Determinants of Health	
Health Status Indicators	
Life Expectancy and Years of Potential Life Lost	
Mortality Rates	
Leading Causes of Death	
Cancer Diagnosis and Death Rates Chronic Conditions	
Most Pressing Health Issues or Concerns	
Overall Satisfaction with Health Climate	
Health of Underserved Residents	
Substance Use/Abuse	
Health Care Access Satisfaction with Health Care System	
Payment for Health Care	
Sources of Health Information	
Awareness and Use of Health Care Services	
Barriers to Health Care Access	
Program and Services Lacking in the Community	
Improvement in Health Care Access	
Lack of Primary Care	
Underserved Populations	
Communication Between Health Care Providers	54
Ability to Refer People to Care	55
Solutions and Strategies	56
Strategies Implemented Since Last CHNA	
Resources Available to Meet Issues/Needs	
Suggested Strategies to Address Issues/Needs	
Appendix	
Participant Profiles	
Previous Implementation Plan Impact	

Introduction



Background and Objectives

VIP Research and Evaluation was contracted by Spectrum Health to conduct a Community Health Needs Assessment (CHNA) for Spectrum Health Zeeland Community Hospital (SHZCH) in 2019. For the purposes of this assessment, "community" is defined as, not only the county in which the hospital facility is located (Ottawa), but also regions outside the county which compose SHZCH's primary (PSA) and secondary (SSA) service areas, such as northern Allegan county. Thus, the target population of the assessment reflects the overall representation of the community served by this hospital facility.

VIP Research and Evaluation was contracted by Spectrum Health to conduct a Community Health Needs Assessment (CHNA) for Spectrum Health Zeeland Community Hospital (SHZCH) in 2019. For the purposes of this assessment, "community" is defined as the county in which the hospital facility is located. This definition of community is based upon county lines and is similar to the market definition of Primary Service Area (PSA). The target population of the assessment reflects the overall representation of the community served by this hospital facility.

The Patient Protection and Affordable Care Act (PPACA) 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 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 SHZCH community began meeting to discuss how the community could collectively meet the requirement of a CHNA.

The overall objective of a CHNA is to obtain information and feedback from SHZCH area residents, health care professionals, and key community leaders in various industries and capacities about a wide range of health and health care topics to gauge the overall health climate of the region covered by SHZCH.

Because this CHNA is unique and an ad hoc endeavor, the overall objective of this CHNA is to gather feedback from the same groups listed above but is more narrow in scope, focusing on continued existing issues or problems, steps taken to address pre-identified issues or problems, and solutions and strategies going forward for both the creation of the next CHNA, as well as the implementation of services to address the issues or problems. More specific objectives include measuring:

- The overall health climate, or landscape, of the regions served by SHZCH, including primarily Ottawa County, but also portions of northern Allegan County.
- Social indicators, such as crime rates, education, employment, poverty rates, and environmental factors.
- Community characteristics, such as factors that make it easy or hard for residents to lead healthy lives, social determinants of health, and available resources.
- Physical health status indicators, such as life expectancy, mortality rates, and leading causes of death.
- Perception of the most pressing or concerning health issues by Key Stakeholders, Key Informants, and adult area residents.
- Accessibility of health care, sources of health care payment, awareness of available services, services utilized, barriers to access, programs or services lacking, and health literacy.
- Improvement in health care access.
- Solutions and strategies implemented, recommendations, and resources available to address area health and health care needs.

Information collected from this research will be utilized by the Community Health Needs Assessment team of Spectrum Health Zeeland Community Hospital to:

- Prioritize health issues and develop strategic plans.
- Monitor the effectiveness of intervention measures.
- Examine the achievement of prevention program goals.
- Support appropriate public health policy.
- Educate the public about disease prevention through dissemination of information.

Methodology

This research involved the collection of primary and secondary data. The table below shows the breakdown of primary data collected, including 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 Administrators, Clinic Executive Directors	7
Key Informants	Online Survey	Physicians, Nurses, Dentists, Pharmacists, Social Workers	123
Community Residents (Underserved)	Self-Administered (Paper) Survey	Vulnerable and underserved subpopulations	45
Community Residents	Telephone Survey	SHZCH area adults (18+)	402

Secondary data were derived from various government and health sources such as the U.S. Census, Michigan Department of Health and Human Services, County Health Rankings, Bureau of Labor Statistics, and Kids Count Data Center.

Key Stakeholders are defined as executive-level community leaders who:

- Have extensive knowledge and expertise on public health and/or human service issues.
- Can provide a "50,000-foot perspective" of the health and health care landscape of the region.
- Are often involved in policy decision-making.
- Examples include hospital administrators and clinic executive directors.

Key Informants are community leaders who:

- Have extensive knowledge and expertise on public health issues, or
- Have experience with subpopulations impacted most by issues in health/health care.
- Examples include health care professionals (e.g., physicians, nurses, dentists, pharmacists, social workers) and directors of non-profit organizations.

There were 45 self-administered surveys completed by targeted subpopulations considered to be vulnerable and/ or underserved, such as single mothers with children, senior adults, and those who are uninsured, underinsured, or have Medicaid as their health insurance.

A telephone survey was conducted among 402 SHZCH area adults (age 18+). The response rate was 35%.

Disproportionate stratified random sampling (DSS) was used to ensure results could be generalized to the larger SHZCH patient population. DSS utilizes both listed and unlisted landline samples, allowing everyone with a landline telephone the chance of being selected to participate.

In addition to landline telephone numbers, the design also targeted cell phone users. Of the 402 completed surveys:

- 163 are cell phone completes (40.5%) and 239 are landline phone completes (59.5%).
- 136 are cell-phone-only households (33.8%).
- 60 are landline-only households (14.9%).
- 206 have both cell and landline numbers (51.2%).

For landline numbers, households were selected to participate subsequent to determining that the number belonged to a residence within the zip codes of the primary or secondary SHZCH service areas (PSA/SSA). Vacation homes, group homes, institutions, and businesses were excluded. All respondents were screened to ensure they were at least 18 years of age and resided in the SHZCH PSA/SSA service areas.

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.

The margin of error for the entire sample of 402, at a 95% confidence level, is +/- 5.0% or better based on the population of zip codes that constitute the PSA/SSA of Spectrum Health Zeeland Hospital.

Unless noted, consistent with CDC protocol, respondents who refused to answer a question or did not know the answer to a specific question were excluded from analysis. Only valid responses were used and thus, the base sizes vary throughout the report.

Data weighting is an important statistical process that was used to remove bias from the sample. The formula consists of both design weighting and iterative proportional fitting, also known as "raking" weighting. The purposes of weighting the data are to:

- Correct for differences in the probability of selection due to non-response and non-coverage errors.
- Adjust variables of age, gender, race/ethnicity, marital status, education, and home ownership to ensure the proportions in the sample match the proportions in the larger adult population of the county where the respondent lived.
- Allow the generalization of findings to the larger adult population of each county.

The formula used for the final weight is:

Design Weight X Raking Adjustment

The same robust process used in the 2017 CHNA to identify significant, or critical, health needs was used for this CHNA. Primary data comprised of quantitative and qualitative feedback from area health and human service professionals such as Key Stakeholders and Key Informants, as well as SHZCH area adults and underserved area residents, were systematically analyzed to determine pressing/critical/ important health issues and emerging themes. This enabled researchers to gain a better understanding of areas respondents deemed to be the most important or critical health and health care issues in the community. Further, Key Stakeholders, Key Informants, and SHZCH area adults were specifically asked what they considered to be the most important or critical health needs in the community. The analyses of the primary data were combined with analyses of secondary data collected, providing the basis for determination of the significant health needs in the community.

The process utilized for determination of a significant health need involved the following steps:

- Examination of quantitative data to see the issues
 Key Informants and SHZCH area adults rated as
 most pressing/important/critical health problems in
 the community.
- 2. Examination of Key Stakeholder responses regarding what they considered to be the most important health problems or issues in the community.
- 3. Further exploration of Key Stakeholder qualitative responses to additional questions that shed light on issues they considered important or critical; in this way, qualitative data were used to support quantitative data in the determination of issues that were considered significant or key.
- 4. Identification of important or critical health issues from previous CHNAs that have remained important issues or may have even become increasingly critical over time (e.g., haven't improved).
- 5. Analyses of secondary data were used to supplement the primary data and were particularly useful when comparisons could be made between the SHZCH area and the state and nation.
- 6. An important consideration when determining an issue to be a significant health need is that the issue is something the CHNA team, SHZCH staff, and the subsequent strategic plan can actually address.

The most significant health needs or issues in a community are often overarching areas that have a number of indicators that are also, individually, pressing or important issues. Examples of overarching significant health needs and their indicators include:

- Health care access lack of primary care providers, inadequate health insurance, inability to afford out-ofpocket expenses, lack of specialty care, and barriers such as transportation issues.
- Mental health prevalence of mental illness, lack of treatment options, comorbidity with substance use disorder, and continued stigma preventing those in need from seeking care.
- Substance use disorder prevalence of illicit substance use, prescription drug abuse, opioid addiction, lack of treatment options, and comorbidity with mental illness.
- Obesity prevalence, links to other health problems, and lack of access to affordable healthy food coupled with easy access to unhealthy food.

Executive Summary and Key Findings



Executive Summary and Key Findings

In general, consistent with findings from the 2017 Community Health Needs Assessment, Spectrum Health Zeeland Community Hospital resides in an area (Ottawa County) that lives up to its billing as the healthiest county in Michigan, according to county health rankings. With three hospitals, three free medical clinics, and hundreds of health care professionals, health care is accessible to most residents. That's not to say there are not opportunities for improvement in many areas, but community members have seen improvement over the past several years from the CHNAs that have been conducted, and the strategic plans that have been implemented, that focused on areas of need uncovered in the research.

The SHZCH area is considered to be a caring, giving, and philanthropic community with a wealth of excellent resources, programs, and services, a robust volunteer force, a strong collaborative spirit, and committed leadership across a broad array of community sectors dedicated to improving the health of the community.

The area's physical environment, clean and with a wealth of natural beauty, is one of its best assets. The area's natural resources provide ample opportunities for outdoor activities such as hiking, biking, and water sports. Residents also have access to fresh healthy produce from nearby farms and farmers' markets, if they can afford it. It is also a community of faith with strong schools and high educational achievement. All of these things make it easier for residents to be healthy.

Like most communities, there is a plethora of places that offer fast food or junk food, the winter months can make it hard to be active, and there is a lack of affordable housing. These things make it harder to be healthy.

While Ottawa County has lower levels of violent crime and homicide compared to the state and nation, the rate of child abuse/neglect is higher than the national rate.

Unemployment and poverty rates are actually lower than state and national rates. Still, 9.5% of all people live in poverty and 33.7% of single-female families with children under age 18 live in poverty. Educational levels are on par with the state and the nation and better than neighboring counties.

In general, compared to state and national rates, life expectancy rates are quite a bit higher and age-adjusted mortality rates are lower for residents in Ottawa County. The infant mortality rate is also lower in Ottawa County compared to the state and the nation.

There is room for improving the health climate of the SHZCH area. Taking everything into account – health conditions, health behaviors, health care availability, health care access – half (49.6%) of Key Informants are satisfied overall with the health climate of the region. Even those who are satisfied realize there could be improvement in many different areas. Moreover, only 52.6% of area adults think, overall, their community is very or extremely healthy.

The four most **significant needs** remain the same from 2017:

- 1. Mental health
- 2. Health care access
- 3. Substance use disorder
- 4. Obesity

In addition, focusing on the social determinants of health as contributors to health and health care access is also important. A summary of findings follows.

1. Mental Health

Access to mental health treatment continues to be an issue, and this has shown little to no improvement in the 10 years the Community Heath Needs Assessments have been conducted.

- Key Stakeholders and Key Informants consider mental health to be among the most pressing community issues for several reasons:
 - The area suffers from a lack of mental health professionals (especially psychiatrists) and a lack of programs, services, and resources in general that address mental health; this void includes a lack of resources to address mental health proactively, such as teaching coping skills and stress management techniques and providing children with mental health support early on
 - Health is often not considered in a holistic manner, leaving root causes of a patient's condition or difficulty unaddressed; as a result, mental health issues may not be recognized in their early stages when they can be more easily treated
 - Aspects of the SHZCH service area's social environment such as lack of affordable housing make area residents more susceptible to mental health challenges.

- Six in ten (61.8%) Key Informants see a lack of residential treatment for mental health.
- Four in ten (41.7%) Key Informants believe that access to mental health treatment for the uninsured, and an equal proportion believe mental treatment for severe and/or persistent disorders (41.2%), has worsened over the past 5-6 years. During that same time period, 25.0% think access to mental health treatment for mild to moderate disorders has worsened.

2. Health Care Access

Access to health care remains a critical area of concern for a number of reasons despite the fact that the vast majority of residents have some form of health care insurance.

- When SHZCH area adults think about the characteristics that make a community "healthy," access to health care is their top consideration, by far.
 - So, it's concerning when two-thirds (65.3%) of area residents believe access to health care is a critical problem for some community residents
 - Three-fourths (75.3%) of Key Informants feel equipped to help people (patients, clients) access needed programs and services.
 - What would better equip them to be able to help people would be instant access to information or a list of available resources or services. There is also a need for better ways to access this information through websites, apps, or a centralized location. Better collaboration among and between area agencies is also viewed as a need.
- There are fewer MDs and DOs (per 100,000 population) in Ottawa County (62.9) compared to Michigan (79.4).
- Cost of care is the top barrier for some residents, and this barrier is present even for those with insurance due to unaffordable copays, deductibles, and spend-downs.
 - Two-thirds (66.1%) of Key Informants cite the inability to afford out-of-pocket expenses as a common barrier (first of all barriers mentioned)
 - Area adults report that the top two barriers to access, by far, are the inability to afford out-of-pocket expenses and the high cost of prescription drugs
- Another barrier to care is the complexity of the health care system; 60.6% of Key Informants report this complexity as one of the most common barriers to health care, second only to out-of-pocket expenses.
 - Further, 47.6% of underserved residents are not at all, or not very, confident they can navigate the health care system

- Lack of awareness of existing programs or services may not be a barrier to access since eight in ten (80.5%) of area adults report they are somewhat or very aware of programs and services available in the community.
- Key Stakeholders and Key Informants recognize that certain subpopulations are underserved when it comes to accessing health care, especially those who are uninsured or underinsured, with reasons being:
 - Two-thirds (66.7%) of underserved adults had trouble meeting their health care needs in the past two years
 - Even if they have insurance, it may not be accepted by some providers (e.g., Medicaid/Medicare), or they may not utilize it because they can't afford out-ofpocket expenses
 - The vulnerable and underserved often forego needed preventive or maintenance care, including prescription medications, and over-utilize emergency room services
 - Over half (53.3%) of underserved adults report that they visited the ER/ED at least once in the past year; 28.9% two or more times
 - 35.7% of underserved adults had to skip or stretch their medication in the past year due to cost
 - 61.4% of underserved residents in the sample have no health care provider (no medical home)
- 65.0% of the underserved residents in the sample report they have no health insurance.

3. Substance Use Disorder

Substance use disorder remains pervasive in the area and is under-addressed in terms of prevention and treatment. More significantly, substance use disorder is often comorbid with mental illness and has led to the emergence of the field of "behavioral health."

- Substance use disorder continues to be a pressing or concerning community issue among Key Stakeholders, Key Informants, and area residents, although it is not as concerning as mental health, health care costs, or affordable housing.
- Three in ten (28.4%) Key Informants see a lack of residential treatment for substance use disorder in the area.
- 22.2% of underserved residents have resided in a household where alcohol use had a negative impact.
- 17.8% of underserved residents report nicotine/smoking had a negative impact on their household.
- Substance use disorder often leads to other serious problems, including loss of employment, child welfare issues, and compounded health risks.
- There exists a culture of acceptance where substance use is considered the norm and is passed down from generation to generation.

4. Obesity

The proportion of adult area residents considered overweight or obese hovers around two-thirds or worse, and this also has remained consistent for the past 10 years.

- Health care professionals would like to see more attention and resources dedicated to promoting a healthy diet and providing access to healthy food choices, weight loss programs, and nutritional counseling. These opportunities should be available to all regardless of socioeconomic circumstances.
- Obesity is considered one of the most pressing health issues in the SHZCH area by Key Stakeholders and Key Informants primarily because of its comorbidity with other chronic conditions or negative outcomes such as diabetes, hypertension, heart disease, and sleep apnea.
- One-fourth (25.8%) of area adults report obesity as the most important health problem in their community, second only to cancer.
- One in five (23.5%) Key Informants consider programs targeting obesity reduction to be lacking in the community.

Other Health Needs

Chronic Disease

- Chronic diseases are concerning health issues in the community because things like cancer, heart disease, and diabetes are connected to other lifestyles choices (diet) and behaviors (substance use disorder).
- Key Stakeholders still consider diabetes to be an important health issue in the community.
- Ottawa County has a higher death rate for Alzheimer's disease than the state or nation.
- The death rates for heart disease and cancer in Ottawa
 County are lower compared to the state and national rates.
- More than one-fourth (27.5%) of area adults report cancer as the most important health problem in their community today, their top mention.

Negative Social Indicators

- Negative social indicators, such as lack of affordable housing, lack of affordable healthy food, adverse childhood experiences, and environmental conditions can cultivate negative health outcomes.
- According to Key Stakeholders and Key Informants, lack of affordable housing is one of the most pressing issues in the area.
 - 39.8% of Key Informants think the lack of affordable housing is one of the most pressing health issues or concerns in the community, behind only mental health and access to mental health treatment
- Poverty is not as significant a problem in Ottawa County like it is in surrounding counties; still, one in ten (9.6%) families with children under age 18, and 34.4% of single female families with children under age 5, live in poverty.
- Poverty is a macro socioeconomic problem that, in and of itself, is very difficult to ameliorate and beyond the scope of any CHNA implementation plan. However, ways to address some of the issues of poverty include:
 - Finding ways to provide more affordable housing;
 - Providing more healthy food options to residents at lower costs in order to improve the nutrition of those who would not otherwise be able to afford healthy food;
 - Strengthening social service programs to offset the negative outcomes that can accompany poverty (e.g., broken homes, abusive relationships, household challenges) and help disrupt/break negative family cycles that perpetuate generations of suffering;

- Addressing the economic disparity by ensuring that underserved/vulnerable groups have access to services that will move them closer to participating on a level playing field, such as education; and
- Connecting economically struggling residents with services providing low-cost or no-cost doctor visits, prescription refills, and other needed health services.
- Almost half (45.0%) of area adults say they are not very or not at all active in their community in terms of being involved in things like civic organizations, commissions/ boards, non-profits, volunteerism, etc.
- This research also shows the importance of collecting data on Adverse Childhood Experiences and demonstrating the relationship of these negative experiences to adult outcomes. Key Stakeholders were adamant about the importance this data has for the purposes of trying to prevent future negative outcomes.

Social Determinants of Health

A trend over the last 10 years that is moving in a positive direction is the realization by health care professionals, human service professionals, and other community leaders that health and health care outcomes are very much influenced by social determinants. Because of this, the most effective way to address health and health care issues is through an integrated, holistic, or biopsychosocial approach.

- Still, Key Informants demonstrate there is room for improvement: 52.6% say that social determinants of health are only sometimes or rarely considered when developing treatment or care plans.
- The determinants of health that contribute to each person's well-being are biological, socioeconomic, psychosocial, behavioral, and social. The determinants of health include:
 - Biological (genes) (e.g., sex and age)
 - Health behaviors (e.g., drug use, alcohol use, diet, exercise)
 - Social/environmental characteristics (e.g., discrimination, income)
 - Physical environment/total ecology (e.g., where a person lives, crowded conditions)
 - Health services/medical care (e.g., access to quality care)

Solutions and Strategies Currently Employed to Address Needs

- Nurse practitioners are being used to assist psychiatry teams in seeing patients and prescribing medication.
- Increased collaboration between CMH and OCDPH to address mental illness and access to treatment has led to more open dialogue concerning mental health and challenges people face while also attempting to reduce the stigma surrounding mental illness and seeking treatment for the condition.
- In response to the increase in suicides, schools are adding counselors and social workers to work with children and adolescents around mental health challenges.
- Strong efforts are underway to increase public awareness of ACEs and trauma and how that impacts outcomes throughout life.
- An opiate task force was created to help educate physicians about prescribing opiates for pain.
- Pathways to Better Health fosters a community health worker program where individuals assist, and advocate for, those who are dealing with 2+ chronic conditions by helping them set health and social goals, helping them set appointments, and helping to see they take their medications properly.
- Telecommunication via video conferencing is being used in mental health treatment to offset the lack of psychiatrists in the area.
- Local food initiatives, such as Ottawa Food and the Veggie Van, distribute healthy food to instill healthier eating habits among area residents.

Suggestions on Additional Strategies to Employ to Address Needs

- Increase funding for CHM and other organizations that offer services to residents with mental illness.
- Encourage organizations that treat mental health to accept all insurance plans.
- Continue to encourage community conversations on mental illness and the reality or consequences of having mental illness, while also reducing the stigma for those experiencing these issues.
- Invite community leaders from all industries and areas to resolve the issue of affordable housing, create assistance programs for those in need but who aren't below the poverty level (which prevents them from receiving other assistance), and attempt to reduce the misperceptions many people have of those who have trouble securing affordable and safe housing.

- Also, continue working with Housing Next and Housing Trust funds to find solutions to the lack of affordable housing.
- Focus on substance use disorder as a public health problem instead of a legal problem.
- Urge hospitals and health care providers to staff more social workers to address the social component of health and to assist with processing treatment plans.
- Create incentives to entice primary care providers to not only work, but also live, in the SHZCH area. An example of this would be to pay providers more than they would make in the urban centers where they would be more likely to live and work (e.g., Grand Rapids or Kalamazoo).
- Find ways to also reduce the stigma around substance use disorder and also develop more treatment options that are affordable.

One of the goals of this CHNA was to determine if the appropriate topics had been explored or the right questions were asked in previous CHNAs. The feedback gathered from Key Stakeholders will be used to guide the research design, or approach, for future CHNAs.

All seven Key Stakeholders interviewed report that appropriate topics had been explored and the correct questions were asked:

I think we're doing a pretty good job in what we're always looking at. Like ACEs, for example - I like that we can take that sort of information and weave it into our assessments and use that. It's pertinent at the moment. So, from my perspective, I think we've done a really good job of increasing the number of questions about mental health, which has been very valuable to me.

- Key Stakeholder

I do, yeah [think we are asking the right questions]. Whenever you add something like the ACEs question or questions, you're like, "Oh, wow. How come we weren't always asking this?", so I always think there's room to consider what else should be asked, but right now, I mean, in terms of the physical and mental health scope, I'm not sure if there is anything that I would add, at least at top of my mind.

- Key Stakeholder

Key Stakeholders are adamant that they think collecting ACEs data is important and the next step is to take that data and utilize it to educate the community as to why it is important. CHNAs should also continue the look at social determinants of health and try to find ways to uncover root causes and address these more thoroughly.

Resiliency questions would be very helpful, and we've talked about that in the ACEs group - if those could be added. The other one is awareness of ACEs. One of the primary outcomes that we're hoping to attain through our current ACEs collaborative in Ottawa County is that people begin to understand issues of ACEs and trauma so it'd be nice if every three years if we could ask people, "What's your level of understanding with some of these issues around trauma?", and just see if we're doing the job of educating the community.

- Key Stakeholder

I think sometimes you need to be looking more at "What are the symptoms?" and then "What is the causation?" I don't know if we really talk about causation or if we talk about the symptoms. I think that sometimes you manage the symptoms. The symptoms are "there's no access to this" or behavioral health, those are the symptoms. I think we're supposed to challenge ourselves with looking at what might be the causation. We could look at community stuff, like, "Do we have housing? Do we have good education?"

- Key Stakeholder

We can look at the statistics, and I think the statistics definitely tell a story, but just like you were saying about youth and mental health, how are we kind of figuring out the "why"? And I do think focus groups - if we could do more kind of getting in people's heads a little bit trying to find out some of the root causes that we may not understand. I also think here in Ottawa, the data can tell a story, but are we slicing and dicing it enough with some of our racial and ethnic demographics? The health equity piece is something that I think we need to continue to work on, and we know that certain populations are not as healthy. We need to know why. We need to figure out what is our system doing to create inequities.

- Key Stakeholder

Detailed Findings



Demographics of Ottawa County

Ottawa County is predominantly an urban area, where 84.0% of its residents are White and half (49.9%) of the population is under age 35. The median household income is \$67,468, higher than the state (\$54,938) or the nation (\$60,293).

Ottawa County Demographic Characteristics

Total Population 284,034 100.0% Gender 140,285 49.4% Female 143,749 50.6% Age Value Value Under 5 18,013 6.3% 5 to 14 39,258 13.8% 15 to 24 51,095 18.0% 25 to 34 33,611 11.8% 35 to 44 33,152 11.7% 45 to 54 34,998 12.3% 55 to 64 33,784 11.9% 65 to 74 22,966 8.1% 75 to 84 11,427 4.0% 85 and over 5,730 2.0% Race/Ethnicity White/Caucasian 238,601 84.0% Black/African American 4,132 1.5% Hispanic/Latino 27,450 9.7%		N	%
Male140,28549.4%Female143,74950.6%Age18,0136.3%Under 518,0136.3%5 to 1439,25813.8%15 to 2451,09518.0%25 to 3433,61111.8%35 to 4433,15211.7%45 to 5434,99812.3%55 to 6433,78411.9%65 to 7422,9668.1%75 to 8411,4274.0%85 and over5,7302.0%Race/EthnicityWhite/Caucasian238,60184.0%Black/African American4,1321.5%Hispanic/Latino27,4509.7%	Total Population	284,034	100.0%
Female143,74950.6%Age18,0136.3%5 to 1439,25813.8%15 to 2451,09518.0%25 to 3433,61111.8%35 to 4433,15211.7%45 to 5434,99812.3%55 to 6433,78411.9%65 to 7422,9668.1%75 to 8411,4274.0%85 and over5,7302.0%Race/EthnicityWhite/Caucasian238,60184.0%Black/African American4,1321.5%Hispanic/Latino27,4509.7%	Gender		
Age Under 5 18,013 6.3% 5 to 14 39,258 13.8% 15 to 24 51,095 18.0% 25 to 34 33,611 11.8% 35 to 44 33,152 11.7% 45 to 54 34,998 12.3% 55 to 64 33,784 11.9% 65 to 74 22,966 8.1% 75 to 84 11,427 4.0% 85 and over 5,730 2.0% Race/Ethnicity White/Caucasian 238,601 84.0% Black/African American 4,132 1.5% Hispanic/Latino 27,450 9.7%	Male	140,285	49.4%
Under 5 18,013 6.3% 5 to 14 39,258 13.8% 15 to 24 51,095 18.0% 25 to 34 33,611 11.8% 35 to 44 33,152 11.7% 45 to 54 34,998 12.3% 55 to 64 33,784 11.9% 65 to 74 22,966 8.1% 75 to 84 11,427 4.0% 85 and over 5,730 2.0% Race/Ethnicity White/Caucasian 238,601 84.0% Black/African American 4,132 1.5% Hispanic/Latino 27,450 9.7%	Female	143,749	50.6%
5 to 14 39,258 13.8% 15 to 24 51,095 18.0% 25 to 34 33,611 11.8% 35 to 44 33,152 11.7% 45 to 54 34,998 12.3% 55 to 64 33,784 11.9% 65 to 74 22,966 8.1% 75 to 84 11,427 4.0% 85 and over 5,730 2.0% Race/Ethnicity White/Caucasian 238,601 84.0% Black/African American 4,132 1.5% Hispanic/Latino 27,450 9.7%	Age		
15 to 24 51,095 18.0% 25 to 34 33,611 11.8% 35 to 44 33,152 11.7% 45 to 54 34,998 12.3% 55 to 64 33,784 11.9% 65 to 74 22,966 8.1% 75 to 84 11,427 4.0% 85 and over 5,730 2.0% Race/Ethnicity White/Caucasian 238,601 84.0% Black/African American 4,132 1.5% Hispanic/Latino 27,450 9.7%	Under 5	18,013	6.3%
25 to 34 33,611 11.8% 35 to 44 33,152 11.7% 45 to 54 34,998 12.3% 55 to 64 33,784 11.9% 65 to 74 22,966 8.1% 75 to 84 11,427 4.0% 85 and over 5,730 2.0% Race/Ethnicity White/Caucasian 238,601 84.0% Black/African American 4,132 1.5% Hispanic/Latino 27,450 9.7%	5 to 14	39,258	13.8%
35 to 44 33,152 11.7% 45 to 54 34,998 12.3% 55 to 64 33,784 11.9% 65 to 74 22,966 8.1% 75 to 84 11,427 4.0% 85 and over 5,730 2.0% Race/Ethnicity White/Caucasian 238,601 84.0% Black/African American 4,132 1.5% Hispanic/Latino 27,450 9.7%	15 to 24	51,095	18.0%
45 to 5434,99812.3%55 to 6433,78411.9%65 to 7422,9668.1%75 to 8411,4274.0%85 and over5,7302.0%Race/EthnicityWhite/Caucasian238,60184.0%Black/African American4,1321.5%Hispanic/Latino27,4509.7%	25 to 34	33,611	11.8%
55 to 64 33,784 11.9% 65 to 74 22,966 8.1% 75 to 84 11,427 4.0% 85 and over 5,730 2.0% Race/Ethnicity White/Caucasian 238,601 84.0% Black/African American 4,132 1.5% Hispanic/Latino 27,450 9.7%	35 to 44	33,152	11.7%
65 to 7422,9668.1%75 to 8411,4274.0%85 and over5,7302.0%Race/EthnicityWhite/Caucasian238,60184.0%Black/African American4,1321.5%Hispanic/Latino27,4509.7%	45 to 54	34,998	12.3%
75 to 84 11,427 4.0% 85 and over 5,730 2.0% Race/Ethnicity White/Caucasian 238,601 84.0% Black/African American 4,132 1.5% Hispanic/Latino 27,450 9.7%	55 to 64	33,784	11.9%
85 and over 5,730 2.0% Race/Ethnicity White/Caucasian 238,601 84.0% Black/African American 4,132 1.5% Hispanic/Latino 27,450 9.7%	65 to 74	22,966	8.1%
Race/EthnicityWhite/Caucasian238,60184.0%Black/African American4,1321.5%Hispanic/Latino27,4509.7%	75 to 84	11,427	4.0%
White/Caucasian 238,601 84.0% Black/African American 4,132 1.5% Hispanic/Latino 27,450 9.7%	85 and over	5,730	2.0%
Black/African American 4,132 1.5% Hispanic/Latino 27,450 9.7%	Race/Ethnicity		
Hispanic/Latino 27,450 9.7%	White/Caucasian	238,601	84.0%
	Black/African American	4,132	1.5%
A-i (F.4 0.00)	Hispanic/Latino	27,450	9.7%
Asian 654 0.2%	Asian	654	0.2%
American Indian/Alaskan Native 7,423 2.6%	American Indian/Alaskan Native	7,423	2.6%
Native Hawaiian/Pacific Islander 46 <0.1%	Native Hawaiian/Pacific Islander	46	<0.1%
Some Other Race 168 0.1%	Some Other Race	168	0.1%
Two or More Races 5,560 2.0%	Two or More Races	5,560	2.0%

	%
Household Income	
Less than \$10,000	3.5%
\$10,000 to \$14,999	2.4%
\$15,000 to \$24,999	8.6%
\$25,000 to \$34,999	7.6%
\$35,000 to \$49,999	13.0%
\$50,000 to \$74,999	21.2%
\$75,000 to \$99,999	15.3%
\$100,000 to \$149,999	17.5%
\$150,000 to \$199,999	6.1%
\$200,000 or more	4.9%
Urban/Rural Population	
Urban	79.7%
Rural	20.3%

Source: U.S. Census Bureau, American Community Survey, 2013-2018. Urban/Rural data from U.S. Census Bureau, Decennial Census, 2010.

Crime Rates

Ottawa County experiences considerably less violent crime and homicides than Michigan and the U.S.

Violent Crime Rate Per 100,000 Population

500
400
300
200
Ottawa County
Michigan United States

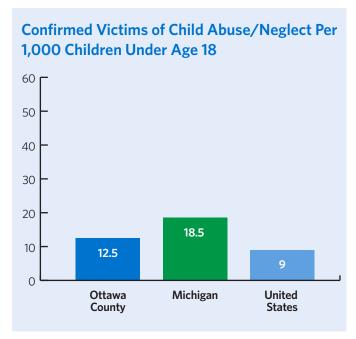
Source: County Health Rankings, 2014-2016; Federal Bureau of Investigation, Uniform Crime Reporting Program, 2018.

Homicide Rate Per 100,000 Population

50
40
30
20
10
10
Ottawa County
Michigan United States

Source: County Health Rankings, 2014-2016.

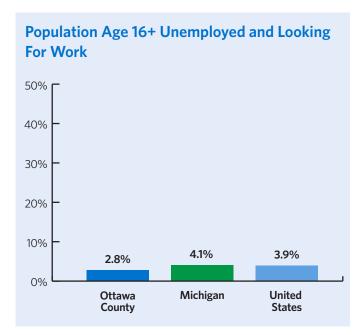
Ottawa County has a lower rate of child abuse than the state but a higher rate than the U.S.



Source: Kids Count Data Center, counties and MI, 2018, U.S., 2017.

Unemployment

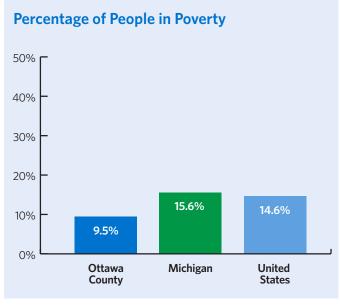
The unemployment rate in Ottawa County is lower than the state and national rates.



Source: Bureau of Labor Statistics, Local Area Unemployment Statistics, 2018.

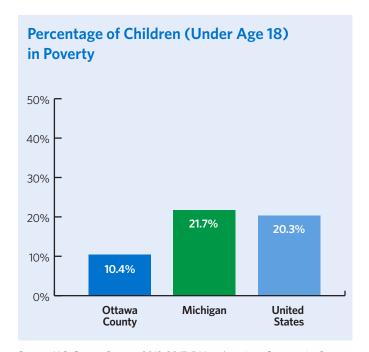
Poverty

The proportion of all people living in poverty is lower in Ottawa County than in Michigan and the U.S.



Source: U.S. Census Bureau, 2013-2017, 5-Year American Community Survey.

In addition, the percentage of children living in poverty is lower in Ottawa County than in the state and the nation.

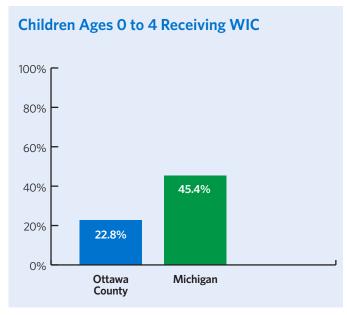


Source: U.S. Census Bureau, 2013-2017, 5-Year American Community Survey.

Poverty, Continued

One in five (22.8%) children aged 0-4 in Ottawa County receive WIC, a rate far lower than the Michigan rate.

One-third (35.6%) of students in Ottawa County are eligible for free/reduced price lunches. This proportion is lower than the proportions in Michigan and the U.S.



Source: Kids Count Data Center, 2018.

Percentage of Students Eligible for Free/ **Reduced Price School Lunches** 100% 80% 60% 52.3% 50% 40% 35.6% 20% 0% Ottawa Michigan United County States

Source: Kids Count Data Center, 2018 for MI and counties; Digest of Education Statistics, 2018 for U.S.

Poverty, Continued

The proportion of all families living in poverty is much lower in Ottawa County compared to the proportions in the state and the nation.

Married couple families are far less likely to be living in poverty compared to single-female households.

One-third (34.4%) of single-female families with children under age five in Ottawa County live in poverty, a rate lower than the state or the U.S.

Poverty Levels

	Ottawa County	Michigan	U.S.
All Families			
With children under age 18	9.6%	18.4%	16.7%
With children under age 5	9.6%	20.6%	16.2%
Total	5.6%	10.9%	10.5%
Married Couple Families			
With children under age 18	3.4%	7.5%	7.5%
With children under age 5	5.4%	6.9%	5.9%
Total	2.3%	4.9%	5.3%
Single Female Families			
With children under age 18	33.7%	42.5%	38.7%
With children under age 5	34.4%	49.5%	43.7%
Total	25.1%	31.3%	28.8%

Source: U.S. Census Bureau, 2013-2017, 5-Year American Community Survey.

Education

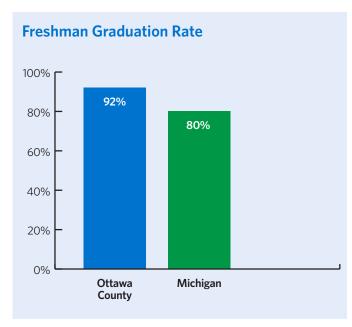
The educational achievement rates for both Ottawa County men and women are on par with the state and the nation, something that neighboring counties do not share.

The freshman graduation rate is higher in Ottawa County than in the state.

Education Level (Among Adults Age 25+)

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

Source: U.S. Census Bureau, 2013-2017, 5-Year American Community Survey.

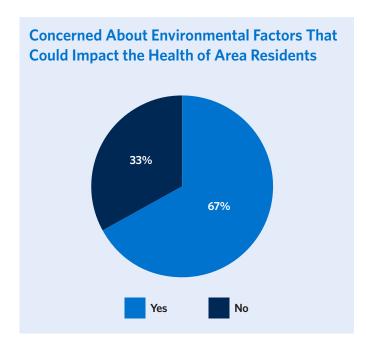


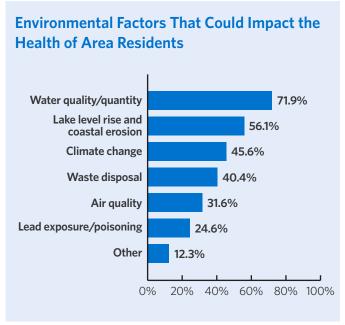
Source: County Health Rankings, 2016-2017.

Environmental Factors

Two-thirds (67.0%) of Key Informants surveyed indicate they are concerned about environmental factors that could impact the health of area residents in the next few years.

Of those who are concerned, seven in ten (71.9%) cite water quality/quantity as the top environmental concern, followed by coastal erosion due to rising lake water levels.





Source: Key Informant Online Survey, Q11: Are you concerned about any environmental factors that could impact the health of area residents in the next few years? (n=88); Q11a: (If yes) What are the environmental factors that you think could impact the health of area residents? (Multiple response) (n=57)

Adverse Childhood Experiences

All 7 Key Stakeholders are aware of ACEs data and what it entails and all think it is important that researchers collect such data for CHNAs; 2 think it is "very" and 5 say it is "extremely" important.

The importance of ACEs data lies in being able to understand an individual's childhood experiences may lead to negative adult outcomes. More importantly, the data can be shared with other partners and organizations to develop strategies to assist children at risk for ACEs.

I think it's very important. I just remember being there and just hearing the numbers, and although I don't remember those, I just remember at that time thinking "Wow. Wow. I didn't realize in my own community we had this going on." It begins to let you know where you're at and at least you have a measurable way to say, "We did these things and how does it look a year or two later? Where are we at?"

- Key Stakeholder

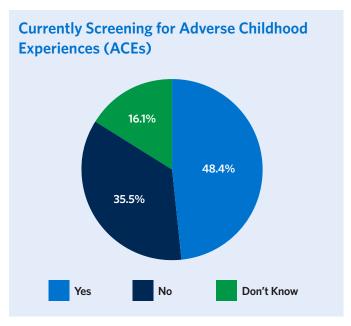
Incredibly important. So, as you know, I'm pretty involved in Ottawa County's CHIP process, and so one of the major initiatives that has come out of that was we've got a very active work group that's focused on educating the community about the data: What does it mean? How does it impact you? And then connecting people with resources if you have high ACEs scores. What are some tools, some resources, some strategies that you can utilize in your own life? So, I think that data's incredibly important.

- Key Stakeholder

For me, it's pretty obvious because it really tells us the story about why we might be seeing some health problems later in life. I mean, there's this huge correlation if you look at some of the data that you put together. Wow, you have an XX percent higher likelihood of being an obese adult if you have higher ACEs. From the health-care provider perspective, to me it's a game changer because it's kind of like an immunization, almost. I mean, if we can figure out how to protect kids from icky stuff when they're kids, wow, look at the possible improvement in health outcomes later in life. That is the trick.

- Key Stakeholder

Despite the fact that ACEs are considered important as predictors of adult outcomes, only half (48.4%) of Key Informants can confirm that they, or their organization, screen patients/clients for adverse childhood experiences.

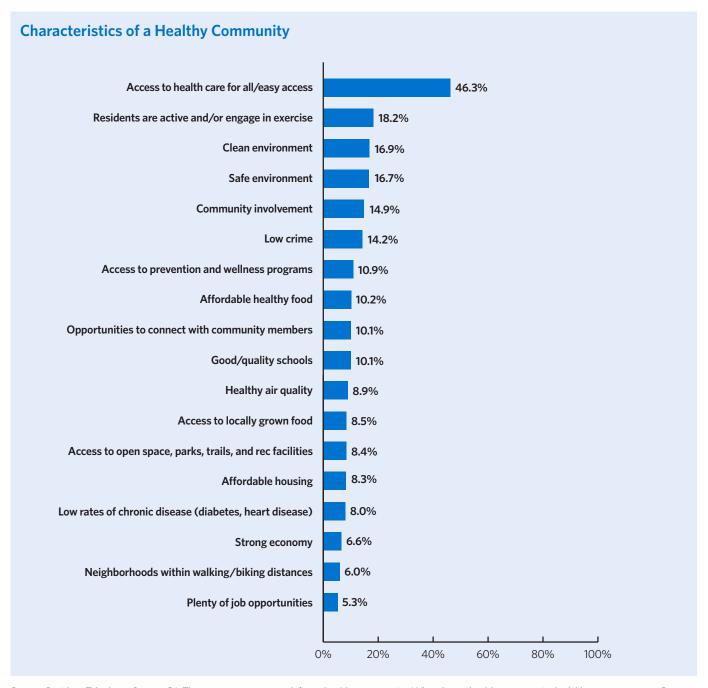


Source: Key Stakeholder Interviews, Q4: Are you aware of the ACEs (Adverse Childhood Experiences) data that came out of the last CHNA/BRFS study conducted in 2017, or are you aware of ACEs data in general? (n=7); Q4a: (If yes) How important is it that we collect this type of data in the CHNA? (n=7); Q4b: Why do you say that?; Key Informant Online Survey, Q10: Are you or members of your organization currently screening people/clients/patients for Adverse Childhood Experiences (ACEs)? (n=93)

Characteristics of a Healthy Community

When asked to describe what a healthy community looks like, area residents take a broad perspective, discussing access to health care, a community where members are active, engaged, and involved, a clean and safe environment, low crime, and access to prevention and wellness programs.

Almost half (46.3%) area residents define a healthy community as one where everyone has access to health care.



Source: Resident Telephone Survey: Q1: There are many ways to define a healthy community. What does a healthy community look like, or mean, to you? (Multiple response) (n=392).

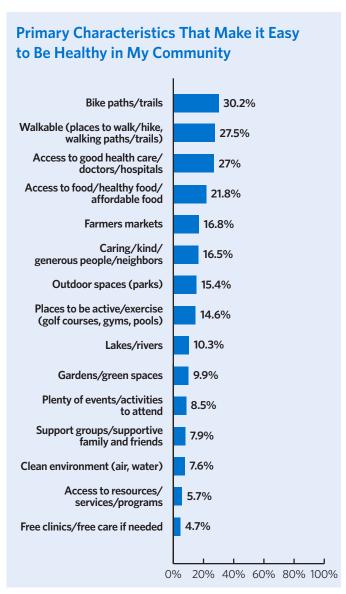
Characteristics of the SHZCH Community

A major SHZCH community characteristic that makes it easy for residents to be healthy is the plethora of outdoor spaces that are conducive to being active such as bike trails/paths, walking trails/paths/sidewalks, park, lakes, and rivers.

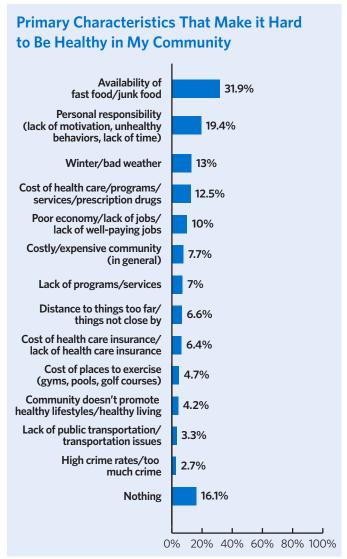
Some residents (27.0%) also say they have access to quality health care and health professionals and access to affordable healthy food (21.8%), both of which make is easier to be healthy.

When asked what characteristics of their community make it hard to be healthy, area adults report the availability of fast/junk food at the top, followed by personal responsibility, bad weather (winter), the cost of health care programs and services, and a poor economy or lack or jobs.

Roughly one in six (16.1%) area adults say there is nothing in their community that makes it hard to be healthy.



Source: Resident Telephone Survey: Q4: What are the primary characteristics of your community that make it easy to be healthy? (Multiple response) (n=392).

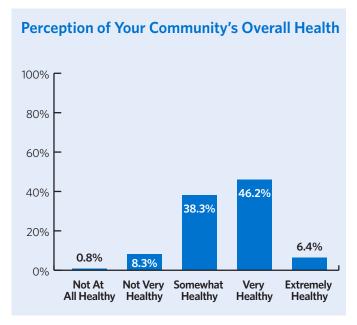


Source: Resident Telephone Survey: Q5: On the other hand, what are the primary characteristics of your community that make it hard to be healthy? (Multiple response) (n=389).

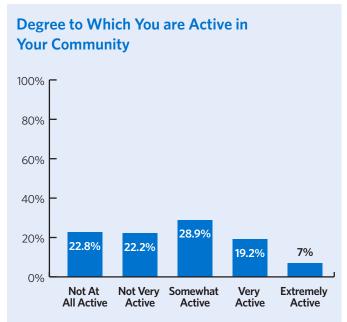
Overall Health of the SHZCH Community

Half (52.6%) of area adults believe their community is very or extremely healthy overall, while 9.1% see their community as not very or not at all healthy.

Almost half (45.0%) of area residents are not active in their community when it comes to being involved with organizations, town commissions/boards, non-profits, volunteerism, etc.



Source: Resident Telephone Survey: Q2: If you were rating the overall health of your community (physical, social, emotional), would you say that your community is...? (n=388).



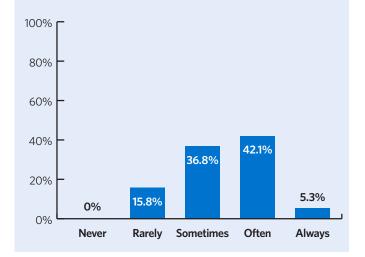
Source: Resident Telephone Survey: Q20: How active would you say you are in your community when it comes to things like being involved in civic organizations, volunteering, town commissions/boards, non-profits, etc.? Would you say...? (n=399).

Social Determinants of Health

According to Key Informants, opportunity exists for more inclusion of social determinants of health when developing treatment or care plans. One in three (36.8%) say that social determinants of health are considered only sometimes and another 15.8% say they are considered rarely, when developing treatment/care plans for area residents.

Unprompted, Key Stakeholders mention the importance of the social determinants of health for addressing health and outcomes, and also for engaging community partners for possible collaboration on solutions and strategies when addressing problems from a holistic approach.

Extent to Which Social Determinants of Health are Considered When Developing Treatment/ Care Plans



I know some of the hospitals in the area are trying to do some of the 'social determinants of health' stuff. Why is it that people are going to the ER? Is it really because they're sick, or it because they're dealing with these other things? Do they have high blood pressure because they live in a violent housing situation, or are they dealing with health issues because they don't really have stable housing? I think it's kind of nice to see some of the hospital systems joining in on that endeavor to say, "Hey, really, health outcomes are based on what the social determinants are, not necessarily the actual physical health."

- Key Stakeholder

Some of the stuff that we're learning as we've gone through the Pathways to Better Health program is really identifying those social determinants of **health. They're huge**. Right now, we're trying to build a financial sustainability plan for Pathways, and I think some of that data that we're collecting on the types of pathways that these people need - they're all social determinants. Now we have some information that's very practical that we can talk to our health providers about. It's like, "Now, this person has diabetes and this, that, the other thing. They're not making it to appointments and they're not improving their health outcomes. It's all this other stuff that's preventing that." We could have said that a thousand times before, but nobody was paying attention to it, and so I hope that this helps because we'll have some data.

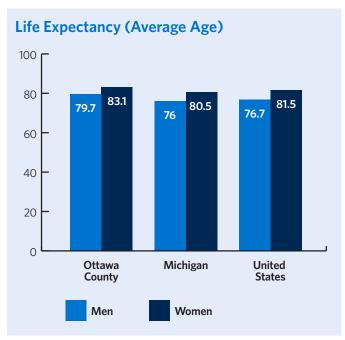
- Key Stakeholder

Source: Key Informant Online Survey: Q8: In your opinion, how often are social determinants of health considered when developing treatment or care plans for area residents? Examples of social determinants of health include housing, transportation, and food access, among others. (n=95)

Life Expectancy and Years of Potential Life Lost

For Ottawa County men and women, life expectancy rates are higher compared to the state and nation.

Ottawa County residents experience far fewer years of potential life lost overall compared to Michigan, and specifically to all of the most life-threatening diseases.



Source: Institute for Health Metrics and Evaluation at the University of Washington, 2014.

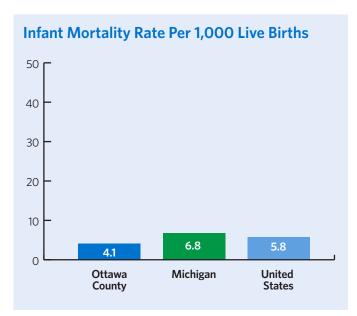
Years of Potential Life Lost

	Mic	higan	Ottawa County			
	Rank	Rate	Rank	Rate		
All Causes		7992.0		4674.6		
Malignant neoplasms (All)	1	1571.6	1	1236.1		
Accidents	2	1434.6	2	970.7		
Diseases of the heart	3	1283.9	4	549.0		
Drug-induced deaths	4	1031.2	3	562.0		
Intentional self-harm (Suicide)	5	431.5	5	265.0		
Chronic lower respiratory diseases	6	243.3	7	104.2		

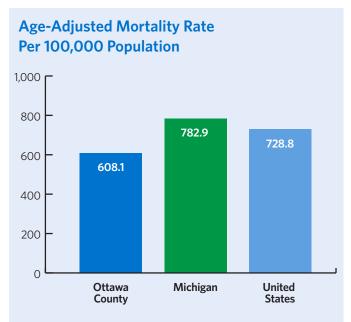
Source: Michigan DHHS, Division of Vital Records and Health Statistics, Geocoded Michigan Death Certificate Registry, 2017. **Note:** ** = data do not meet standards of reliability and precision OR have a zero value.

Mortality Rates

The infant mortality and age-adjusted mortality rates are lower in Ottawa County compared to the state and national rates.



Source: Michigan Department of Health and Human Services, Division of Vital Records and Health Statistics, 2018.



Source: Michigan Resident Death File, Vital Records & Health Statistics Section, Michigan Department of Health & Human Services, 2017 for MI and counties, 2016 for U.S.

Leading Causes of Death

Heart disease and cancer are the leading causes of death in Ottawa County, the state, and the nation.

Ottawa County has lower death rates from heart disease, cancer, unintentional injuries, chronic lower respiratory diseases, stroke, diabetes, kidney disease, pneumonia/influenza, and unintentional injuries compared to Michigan and the U.S.

On the other hand, the death rate from Alzheimer's disease is much higher in Ottawa County compared to the state and national rates.

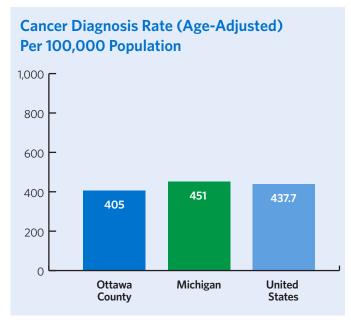
	Micl	nigan	United	States	Ottawa County		
	Rank	Rate	Rank	Rate	Rank	Rate	
Heart Disease	1	195.9	1	165.5	1	143.3	
Cancer	2	161.1	2	155.8	2	134.4	
Unintentional Injuries	3	53.9	3	47.4	4	44.0	
Chronic Lower Respiratory Diseases	4	44.3	4	40.6	6	26.0	
Stroke	5	39.2	5	37.3	5	33.0	
Alzheimer's Disease	6	34.5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

Source: Michigan Department of Health and Human Services, 2017 for MI and counties, 2016 for U.S.

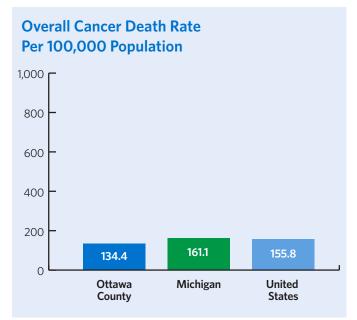
Note: ** = data do not meet standards of reliability and precision OR have a zero value.

Cancer Diagnosis and Death Rates

Ottawa County has lower cancer diagnosis and cancer death rates compared to the state and national rates.



Source: MDCH Cancer Incidence Files. Counties and MI 2012-2016 5-year average, U.S. 2015.



Source: MDHHS counties and MI, 2017, U.S., 2016.

Chronic Conditions

One-fourth (24.1%) of SHZCH area adults report chronic pain and one in five (19.4%) report arthritis. One in ten (9.8%) have diabetes and an additional 10.9% have pre-diabetes.

Area women are more likely than area men to have chronic pain, arthritis, asthma, and pre-diabetes, while men are slightly more likely than women to have diabetes.

White adults are more likely than non-White adults to have arthritis, diabetes, and pre-diabetes.

Area adults with less than a high school degree are more likely to have chronic pain, arthritis, diabetes, and COPD than adults with more education.

Area adults with annual household incomes under \$20,000 are more likely to have chronic pain, arthritis, and COPD compared to adults with higher household incomes.

Prevalence of Chronic Diseases by Demographics

		Gender				Age						
	TOTAL	Men	Women	White	Non- White	18-24	25-34	35-44	45-54	55-64	65-74	75+
Chronic pain	24.1%	19.2%	29.0%	24.4%	22.2%	10.7%	22.8%	15.3%	27.2%	34.4%	33.8%	37.8%
Arthritis	19.4%	13.8%	24.9%	21.3%	7.4%	0.6%	10.8%	7.8%	20.0%	30.5%	42.6%	55.2%
Pre-diabetes	12.7%	9.8%	15.6%	12.3%	15.0%	8.4%	17.5%	13.2%	12.7%	13.7%	11.9%	10.0%
Lifetime asthma	10.9%	8.6%	13.0%	11.3%	8.6%	7.0%	8.3%	15.6%	7.5%	13.1%	20.3%	11.8%
Diabetes	9.8%	10.1%	9.6%	10.8%	3.4%	0.0%	2.3%	0.5%	10.0%	18.9%	24.7%	33.8%
Current asthma	8.7%	5.8%	11.6%	8.5%	9.7%	4.0%	10.0%	8.5%	11.2%	11.4%	8.0%	7.7%
COPD	4.0%	4.1%	3.9%	3.9%	3.4%	0.0%	3.2%	2.0%	3.6%	7.3%	7.8%	9.2%

Continued

		Educat	ion			Incom	е				Poverty Level		
	TOTAL	<high School</high 	HS Grad	Some College	College Degree	<\$20K	\$20K- <\$35K	\$35K- <\$50K	\$50K- <\$75K	\$75K+	Below Poverty Level	Above Poverty Level	
Chronic pain	24.1%	29.4%	27.2%	27.4%	17.4%	37.3%	34.5%	24.4%	20.6%	14.2%	32.0%	22.6%	
Arthritis	19.4%	23.8%	20.1%	18.3%	18.9%	26.7%	25.8%	21.6%	12.0%	17.0%	18.9%	19.6%	
Pre-diabetes	12.7%	9.0%	14.4%	13.6%	11.7%	17.3%	18.0%	14.2%	7.4%	11.5%	20.4%	12.1%	
Lifetime asthma	10.9%	4.8%	8.7%	12.1%	12.8%	7.0%	10.8%	7.1%	13.1%	13.2%	11.1%	11.2%	
Diabetes	9.8%	30.9%	8.8%	7.1%	7.5%	15.7%	16.1%	6.4%	11.0%	6.4%	23.4%	8.7%	
Current asthma	8.7%	7.4%	9.2%	9.0%	8.6%	12.4%	13.8%	9.7%	3.9%	8.9%	13.6%	8.9%	
COPD	4.0%	6.0%	5.4%	4.8%	1.7%	12.8%	6.6%	4.1%	1.7%	1.6%	12.3%	3.2%	

Source: 2017 SHZCH Behavioral Risk Factor Survey, (n=1,318)

Chronic Conditions, Continued

One in fifteen (6.7%) SHZCH area adults report some form of cardiovascular disease such as stroke, heart attack, and/or angina/coronary heart disease (CHD).

Area women are more likely than men to have cancer (both skin and non-skin), while men are slightly more likely than women to have angina/CHD and heart attacks.

White adults in the area are more likely than non-White adults to have all of the chronic diseases listed in the table below.

Area adults with less than a high school degree are more likely to have cardiovascular disease, especially heart attacks, than adults with more education.

Area adults with annual household incomes under \$20,000 are more likely to have cardiovascular diseases, especially angina/CHD, and non-skin cancer compared to adults with higher household incomes.

Prevalence of Chronic Diseases by Demographics

		Gend	er	Race Age								
	TOTAL	Men	Women	White	Non- White	18-24	25-34	35-44	45-54	55-64	65-74	75+
Any cardio- vascular disease*	6.7%	6.1%	7.3%	7.2%	3.0%	0.0%	1.3%	0.0%	5.3%	10.4%	12.9%	38.6%
Other (non- skin) cancer	6.3%	4.8%	7.7%	7.3%	0.2%	0.0%	2.0%	2.9%	7.6%	8.6%	13.7%	19.3%
Skin cancer	4.8%	3.3%	6.3%	5.5%	1.2%	0.0%	1.5%	3.2%	3.6%	8.0%	13.4%	12.2%
Stroke	3.7%	3.8%	3.6%	3.9%	1.5%	0.0%	0.4%	0.0%	1.9%	3.5%	7.4%	28.3%
Heart attack	3.3%	3.7%	2.8%	3.4%	1.5%	0.0%	0.9%	0.0%	2.1%	6.3%	8.2%	13.8%
Angina/coronary heart disease	1.7%	1.0%	2.5%	2.0%	0.3%	0.0%	0.0%	0.0%	2.6%	3.4%	3.2%	5.8%

Continued

		Educa	tion			Income	е				Poverty Level		
	TOTAL	<high School</high 	HS Grad	Some College	College Degree	<\$20K	\$20K- <\$35K	\$35K- <\$50K	\$50K- <\$75K	\$75K+	Below Poverty Level	Above Poverty Level	
Any cardio- vasculardisease*	6.7%	21.5%	7.0%	4.9%	4.4%	13.0%	12.0%	6.1%	6.5%	1.4%	8.0%	6.3%	
Other (non- skin) cancer	6.3%	3.6%	4.5%	5.5%	8.9%	1.6%	5.4%	11.4%	5.6%	6.4%	2.6%	6.8%	
Skin cancer	4.8%	5.6%	4.2%	5.3%	4.8%	9.3%	6.4%	5.4%	3.2%	3.4%	11.6%	4.0%	
Stroke	3.7%	19.6%	2.5%	2.4%	1.7%	4.4%	7.3%	3.4%	3.2%	0.2%	3.0%	3.3%	
Heart attack	3.3%	4.3%	3.7%	2.8%	3.1%	7.6%	6.5%	2.0%	4.6%	1.1%	4.6%	3.6%	
Angina/coronary heart disease	1.7%	0.9%	3.3%	1.3%	1.0%	2.8%	3.6%	2.5%	1.1%	0.1%	1.4%	1.7%	

Source: 2017 SHZCH Behavioral Risk Factor Survey, (n=1,318). *Any cardiovascular disease = respondent said they had at least one of the following: heart attack, angina/coronary heart disease, or stoke.

Most Pressing Health Issues or Concerns

Five of the seven Key Stakeholders were also interviewed in 2017 and confirmed that the most pressing or concerning issues listed below from 2017 are still the most critical issues in 2019.

The most critical issues include: (1) mental health, more specifically resources for it, and access to, treatment, (2) substance use disorder, including addiction to prescription drugs and opiates, (3) the cost of health care and access to it for the uninsured and underinsured, (4) affordable housing, and (5) obesity.

- Mental health (3)
- Access to mental health care (2)
- Access to health care
- Access to primary care, specifically for Medicaid and the uninsured
- Affordable housing
- Affordability of care, especially with copays being prohibitive

- Behavioral health
- Diabetes
- Obesity
- Opiate prescription drug problem
- Substance abuse
- Resources available for mental health

Key Stakeholders say additional health issues or concerns are an apparent increase in violence (domestic, gun, gangrelated) and violent crimes, cases of rheumatology for which there is a lack of providers, and an increase in emotional and physical violence among children (K-2nd) in the surrounding elementary schools.

We are seeing more with trauma related to domestic issues and violence almost as much as substances right now. We're just seeing more gun violence, more gang-related issues. We're seeing even some concerns - possible trafficking, so just more of those types of issues is what we're starting to see. There's been a lot in the media lately in Ottawa just relating to violence and general shootings, you know, homicides, murders, things like that, so we are feeling the impacts of that.

I think **rheumatology** is rising to the top right now; **difficulty getting patients care**. I find myself doing a lot of first- and second-level rheumatology and phone calling rheumatologist staff on managed cases until they get in. The Holland network had recruited a person near to retirement from the Indianapolis area that wanted to live in a nice area, so he came out here, and he's been practicing now about five years, but he's ready to retire. He's been full of new patients, so it takes a couple months to get in to him.

In the past five months, I've visited each school superintendent for all the schools in the county. Something I heard in every one of these discussions was the behavior of kindergarteners and first-graders and second-graders being emotionally and physically destructive of the classroom, and that experience has seemed so far out of context that it's unreal for them. They're struggling with the kids in a way they never have.

Source: Key Stakeholder Interviews, Q1: Two years ago, when we last spoke, you said that [insert issues mentioned] were the most pressing or concerning health issues facing residents in your area. Would you say those are still the most pressing or concerning issues facing residents in your area today? (n=5); Q1b: What are the new issues that are pressing or concerning, if any? (n=5); Q2: (For new participants) What do you feel are the two or three most pressing or concerning health issues facing residents in your community? (n=2)

Most Pressing Health Issues or Concerns, Continued

Key Stakeholders say that awareness of mental health issues has improved, and even the number of people seeking and receiving treatment for mental illness has improved, but the demand for services far outweighs the resources available to effectively deal with the issues. Moreover, mental health professionals are increasingly seeing mental health issues in younger children and this is causing tremendous strain on families.

Behavioral health

I think we've actually seen a lot of progress [on mental health], but I think it's so widespread that we're still kind of uncovering the issues of mental health. Then, with things like ACEs, we're just starting to understand some of the root causes as well. I think it continues to be an issue because for many years, it's been stigmatized; it's not been something people talk about. If they acknowledge mental health issues, we know from our own data that not a wide percentage of people actually seek treatment for it, so I think there's still some stigma with it, but I think we're getting better. I think another issue with why it still rises to the top is, even though we've had a proliferation of mental health services, it's still not enough. People can't afford to always get the treatment that they need, so I would say there's just not enough resources to always address the need if people are even willing to go seeking for treatment.

- Key Stakeholder

I think there's a lot of research going on with youth mental health. We're seeing an increase in depression for youth from our youth assessment survey. From a community perspective, I think we're not prioritizing it at a high enough level, and when I say that, we all know the problem, but the resources just aren't there. I think there's still a really big gap between the physical health and behavioral health and the integration of those two in the health-care system.

- Key Stakeholder

The public health system in Michigan is truly in a critical point right now. I could spend the next hour talking to you about truly systemic and chronic underfunding to the tune of \$150 million of underfunding. Part of it is we've been successful in some part in getting people to understand how important mental health is and getting treatment for mental health, so more and more people are looking for it. Our numbers keep growing as far as people served, but the funding just has not caught up or kept up with the demand.

- Key Stakeholder

I think if you asked most mental health professionals, they would say that they are seeing much more difficult cases or seeing mental health issues coming out of younger and younger kids. Some families are honestly a mess, and the suicide rates for youth and adult are increasing. I think that there's a level of stress in our communities that hasn't been there in the past to the extent that it is right now, and I think that stress is representing itself in people having more and more mental health issues and families being in crisis.

- Key Stakeholder

Source: Key Stakeholder Interviews, Q1a/Q2a: In your opinion, what are the reasons they remain/are the top health issues in your community? (n=5, n=2); Q1b: What are the new issues that are pressing or concerning, if any? (n=5); Q1d: What are the reasons they are top issues in your community? (n=5)

Most Pressing Health Issues or Concerns, Continued

Affordable housing is a problem in Ottawa County and can result in residents living in unsafe situations.

Part of the reason health care access is an issue in the area is because there is a lack of primary care providers. Recruiting PCPs to live and work in Ottawa County continues to be a challenge as many physicians would prefer to live in or near larger urban centers like Grand Rapids or Kalamazoo.

Lifestyle choices, such as poor diet and/or minimal exercise, are habits that prove difficult to change and continue to prevent people from achieving optimum health.

Affordable housing

For us and housing, it's mostly affordability. If someone gets evicted, they're doubling up at places or it seems like some overcrowding issues lead to increased violence problems. Even for my staff my staff makes decent money, a pretty livable wage, but most of them are not living here. They live in Muskegon or Grand Rapids or Allegan County because they can't afford an apartment here or there are no apartments.

- Key Stakeholder

Health care access

I think in a smaller town, your windows of recruitment are narrow, and if you have a position that retires - this year, we have three retirements in primary care, and one that was asked to leave their group, and another that was contracted that they didn't sign back up. So, we lost probably about four or five primary care positions within a 12-month span, and when you only have forty to start with, that's a big percentage. It's not easy to recruit, and you probably know this, too: primary care is one of the most sought-after specialties in the nation. Just getting a family doctor to decide to relocate into the Holland area is not always successful and not always fast.

- Key Stakeholder.

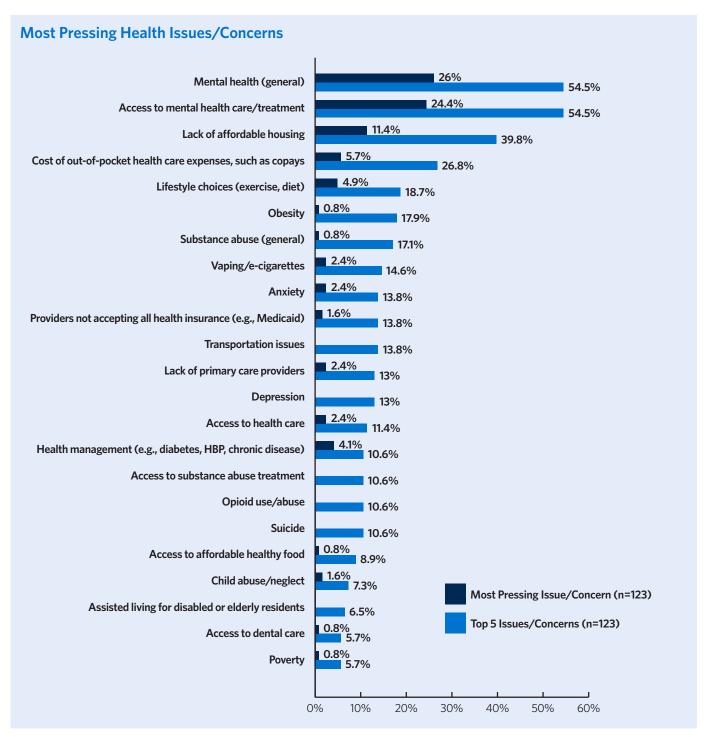
Lifestyle choices I definitely think that lifestyle choices that people make and the results of that, which - obesity, blood pressure, diabetes - all of those things continue to be a problem, and it's not an easy fix. It's not an immunization that we can give people. It's tough.

- Key Stakeholder

Source: Key Stakeholder Interviews, Q1a/Q2a: In your opinion, what are the reasons they remain/are the top health issues in your community? (n=5, n=2); Q1b: What are the new issues that are pressing or concerning, if any? (n=5); Q1d: What are the reasons they are top issues in your community? (n=5)

Most Pressing Health Issues or Concerns, Continued

Key Informants cite a number of pressing health issues or concerns in the SHZCH area. Most often cited are mental health and access to treatment, followed by lack of affordable housing, cost of out-of-pocket health care expenses, lifestyles choices (diet, exercise), obesity, anxiety, and vaping.



Source: Key Informant Online Survey, Q1: To begin, what are the most pressing health issues or concerns in your area? Please check no more than five issues. (Multiple response); Q1b: Of the most pressing health issues or concerns you selected, which one do you think is the most critical?

Most Pressing Health Issues or Concerns, Continued

Mental illness and lack of access to treatment are critical problems because of the prevalence of mental illness, the stigma still attached to having it and seeking treatment for it, and the lack of resources to address it.

Lack of affordable housing can result in people residing in unstable and unsafe spaces, leading to physical and mental problems.

Cost of health care is often a problem even for those who have insurance.

Mental health/ access to care

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

- Key Informant

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

- Key Informant

Lack of affordable housing

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

- Key Informant

Families are unable to find affordable housing creating instability and insecurity in their lives and pushing them further into poverty.

- Key Informant

Cost of health care

High-deductible plans continue to become more prevalent. For many patients, the **cost of the deductible relative to their income is not feasible**, so **many patients are forgoing care (especially prescription drugs)** because they **cannot afford it.**

- Key Informant

The cost of out-of-pocket health care expenses can impact decisions on whether or not a person will get care or have prescriptions filled. Sometimes it forces people to choose between medication and food. Even people with employer-sponsored insurance can find it difficult to afford their premiums, deductibles, copays, medications, etc.

- Key Informant

Health Status Indicators

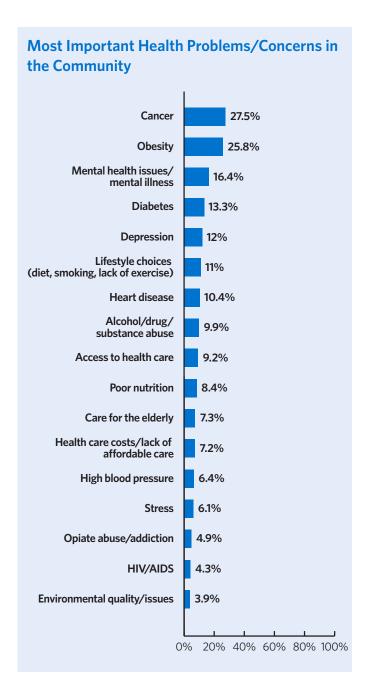
Most Pressing Health Issues or Concerns, Continued

Lifestyle choices

So many health problems could be prevented by better care of oneself. With better diet and reasonable exercise, the majority of diabetes cases could be prevented.

- Key Informant

Source: Key Informant Online Survey, Q1c: Why do you think [insert issues] is the most critical health issue or concern in the area? (n=123).



SHZCH area adults list cancer and obesity as the two most important health problems or concerns in the community.

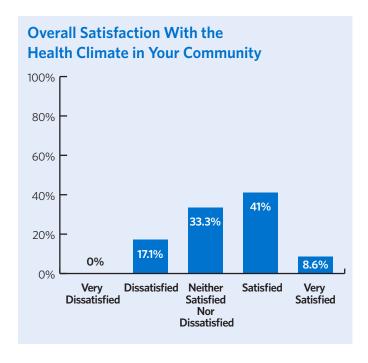
Other important community health problems include mental health (including depression), diabetes, lifestyle choices, and heart disease.

Source: Resident Telephone Survey: Q3: What are two or three of the most important health problems or concerns in your community today? (Multiple response) (n=363).

Health Status Indicators

Overall Satisfaction with Health Climate

In considering the overall health climate of the SHZCH area, half (50.4%) of Key Informants - the very people on the ground working in or around the field of health care - are less than satisfied, demonstrating that there is substantial room for improvement, and their comments indicate concerns across several areas.



Satisfied

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

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

nor dissatisfied

Neither satisfied Statistically, I believe Ottawa County is considered among the healthiest in Michigan. But I think we have a sizable underserved population.

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

Dissatisfied

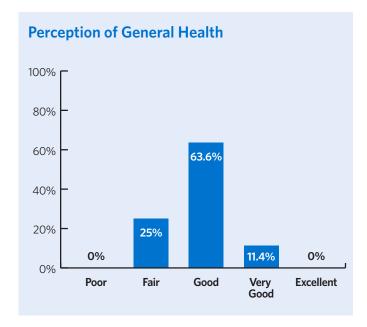
Healthcare is difficult to navigate. Coordination of care and support for working class is minimal and it is assumed by many healthcare providers that this population is "doing fine". ALICE population is lost in the system. Oftentimes, deductibles and copays are high and therefore people avoid going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

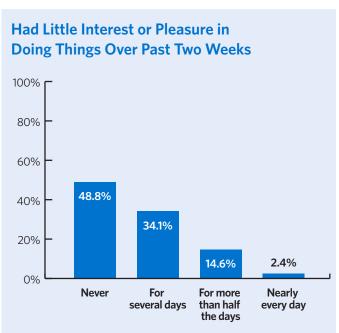
Source: Key Informant Online Survey, Q9: Taking everything into account, including health conditions, health behaviors, health care availability, and health care access, how satisfied are you overall with the health climate in your community? (n=105); Q9a: Why do you say that?

Health of Underserved Residents

One-fourth (25.0%) of underserved residents report their general health as fair or poor. Additionally, half (51.2%) had "little interest/pleasure in doing things" and 55.0% "felt down, depressed, or hopeless" at some point during the past two weeks.

One in nine (11.1%) underserved residents thought about taking their life during the past year; 6.7% of them attempted suicide in the past year, a rate higher than the other Spectrum counties.





Feeling Down, Depressed, or Hopeless Over **Past Two Weeks** 100% 80% 60% 40% 45% 35% 20% 10% 10% 0% Never For Nearly For more several days than half every day the days

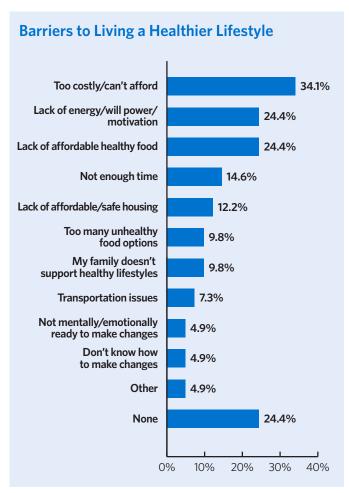
Source: Underserved Resident Self-Administered Survey: Q1: To begin, would you say your general health is...? (n=44); Q17: Over the past two weeks, how often have you been bothered by having little interest or pleasure in doing things? (n=41); Q18: Over the past two weeks, how often have you been bothered by feeling down, depressed, or hopeless? (n=40); Q19: Has there been a time in the past 12 months when you thought of taking your own life? (n=45); Q20: During the past 12 months, did you attempt to commit suicide (take your own life)? (n=45)

Health Status Indicators

Health of Underserved Residents, Continued

There are many barriers that prevent underserved residents from living healthy lifestyles, but the three most common are the high cost, lack of motivation, energy, or will-power, and lack of affordable healthy food.

Lack of time, lack of affordable and safe housing, too many unhealthy food options, and lack of family support for living healthier lifestyles are also barriers to living healthier.



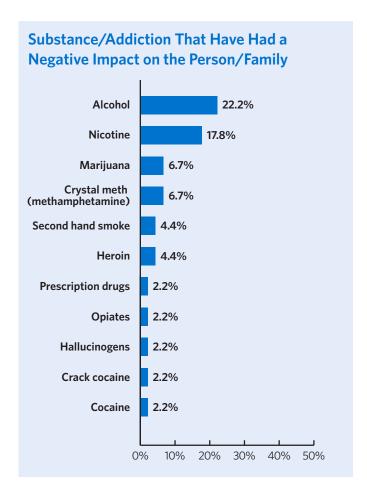
Source: Underserved Resident Self-Administered Survey: Q10: What are some of the barriers you face when trying to live a healthier lifestyle? (Multiple response) (n=41)

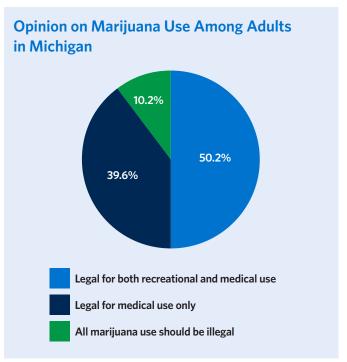
Health Status Indicators

Substance Use/Abuse

One in five (22.2%) underserved residents report that alcohol negatively impacted their family and 17.8% report nicotine (smoking) was harmful.

Among adults in the general population, half (50.2%) think marijuana should be legal for both medical and recreational use.



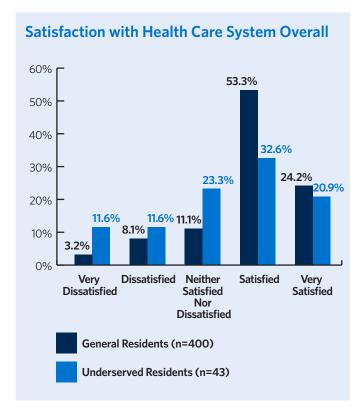


Source: Underserved Resident Self-Administered Survey: Q13: Substance abuse and addiction can have a negative impact on individuals and families. Which of the following, if any, have had a negative effect on your or your family? (Multiple response) (n=45); Resident Telephone Survey, Q21: In your opinion, should marijuana use by adults be legal for both recreational and medical use, medical use only, or should all marijuana use be illegal? (n=381)

Satisfaction with Health Care System

In terms of satisfaction with the health care system, underserved residents are more dissatisfied (23.2% dissatisfied/very dissatisfied) with the system overall than general residents (11.3% dissatisfied/very dissatisfied).

Reasons for dissatisfaction are many, but cost, poor communication, wait time, and lack of transparency are cited most often. Residents are also critical of the profit-driven business model which leads to high cost.



I have doctors in different systems and there is **no way for them to cross-over that information**. There is no motivation to do so. We **need to hold pharmaceutical companies responsible**. They **need to be fair and transparent** in their **costs and efficacy**.

- General Resident

Shouldn't be so **expensive**. The **goal is to help, not get rich.**

- Underserved Resident

I feel like drug market is hugely outrageous. The communication between doctors, hospitals, specialists and staff is very poor.

- General Resident

Providers are looking for band aids and not solutions.

- General Resident

Expensive. They keep you coming back but never get to the root cause. Professional jealousy keeps you from requested referrals. Money over overall health.

- Underserved Resident

Wait too long for an appointment and the cost is too expensive.

- General Resident

All people don't have good health care and that's an absolute travesty.

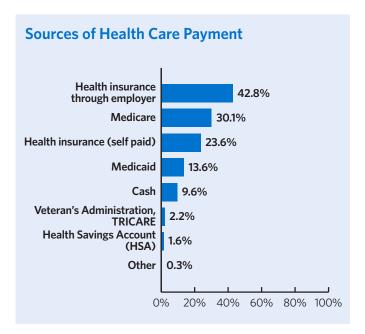
- General Resident

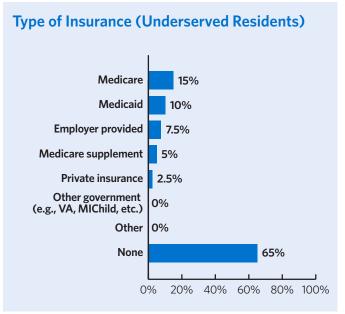
Source: Resident Telephone Survey/Underserved Resident Self-Administered Survey, Q19/Q3: How satisfied are you with the health care system overall? Q19a/Q4: (If dissatisfied) Why are you dissatisfied with the health care system overall?

Payment for Health Care

The majority of adult residents pay for their health care through insurance they receive through their employer (42.8%) or via private insurance that they purchased (23.6%).

Conversely, the vast majority (65.0%) of underserved residents in the sample have no insurance.



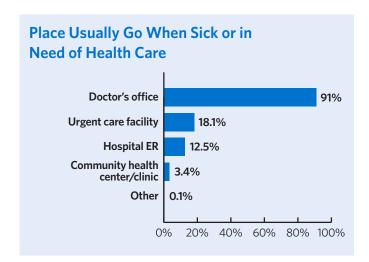


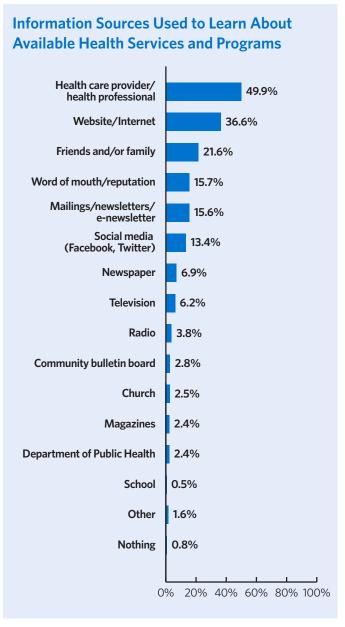
Source: Resident Telephone Survey, Q12: How do you usually pay for your health care? (Multiple response) (n=393); Underserved Resident Self-Administered Survey, Q6: Which of these describes your health insurance situation? (Multiple response) (n=45)

Sources of Health Information

Although nine in ten (91.0%) area adults report they usually go to the doctor's office when they get sick, 12.5% visit the Emergency Department/Room (ED/ER).

When seeking information about available health services and programs available in the community, adults most often turn to health professionals, the Internet, family or friends, and/or word-of-mouth.



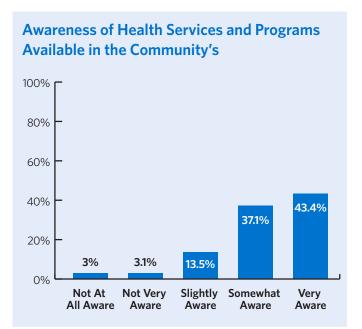


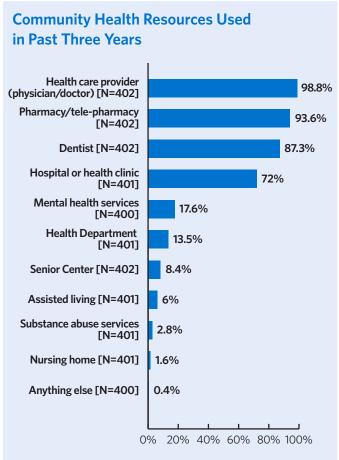
Source: Resident Telephone Survey, Q11: Where do you usually go when you are sick or in need of care? (Multiple response) (n=401); Q10: What information sources do you use to learn about the health services and programs that are available in your community? (Multiple response) (n=395)

Awareness and Use of Health Care Services

Eight in ten (80.5%) of SHZCH area adults say they are somewhat or very aware of health services and programs available in the area.

Almost all adults report using health care providers and pharmacies, and a vast majority using dentists, hospitals, or health clinics in the past three years, while far fewer adults report using mental health or substance abuse services.



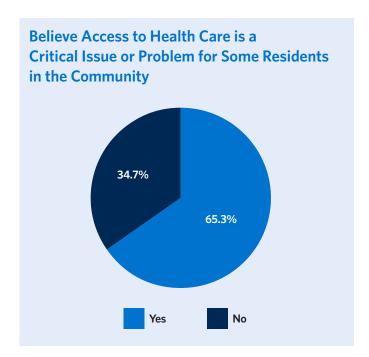


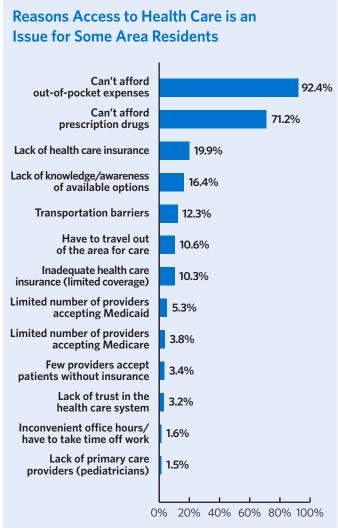
Source: Resident Telephone Survey, Q6: In general, how would you rate your awareness of the health services and programs available in your community? (n=398); Q7: Which of the following community health resources have you used in the past three years?

Barriers to Health Care Access

Two-thirds (65.3%) of SHZCH area adults believe access to health care is a critical issue or problem for some community members.

Area adults who see this issue as critical believe the two greatest barriers to health care access are the inability to afford out-of-pocket expenses and the cost of prescription drugs.



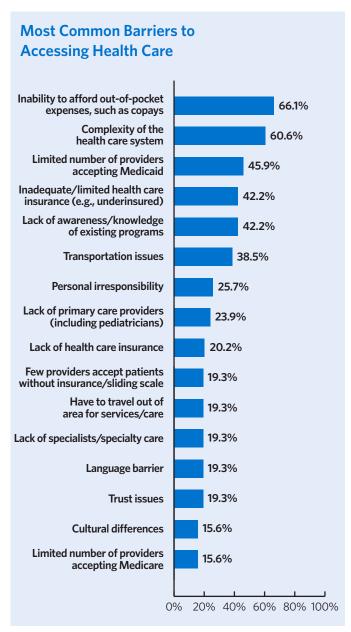


Source: Resident Telephone Survey, Q13: Do you believe that access to health care is a critical issue or problem for some residents in your community? (n=355); Q14: (If yes) In your opinion, why is access to health care an issue for some residents in your community? (Multiple response) (n=240)

Barriers to Health Care Access, Continued

Key Informants report the two greatest barriers to accessing health care as the inability to afford out-of-pocket expenses such as copays and deductibles and the complexity of the health care system (e.g., difficulty of navigation).

More than four in ten Key Informants view limited numbers of providers accepting Medicaid, inadequate, or limited, health insurance, and lack of awareness of existing programs and services as additional barriers to health care access.

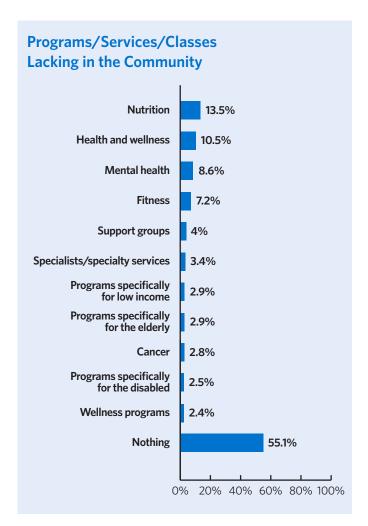


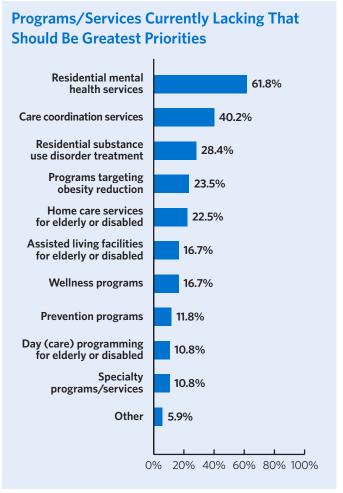
Source: Key Informant Online Survey, Q2: In your opinion, what are the most common barriers to accessing health care in your community? (Multiple response) (n=109)

Program and Services Lacking in the Community

More than half (55.1%) of area residents report there is no lack of health programs, services, or classes in their community; however, 13.5% of adults would like to see more programs involving nutrition.

On the other hand, Key Informants believe a number of programs and services are lacking in the community and top priority should be programs such as residential treatment for both mental health and substance abuse, care coordination services, programs targeting obesity reduction, and home care services for the elderly and disabled.





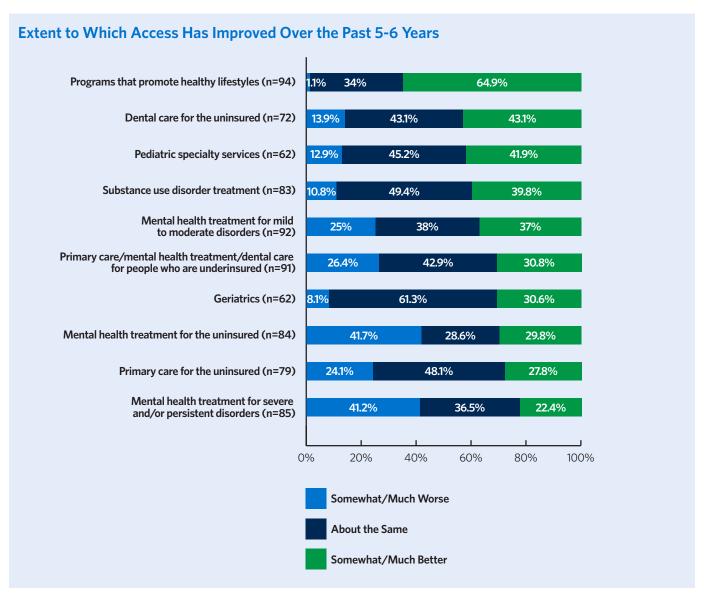
Source: Resident Telephone Survey, Q9: What health programs, services, or classes do you feel are lacking in the community? (Multiple response) (n=364); Key Informant Online Survey, Q7: What programs or services are currently lacking in the community that should be the greatest priorities, if any? (Multiple response) (n=102)

Improvement in Health Care Access

Key Informants were presented with a list of programs and services that were deemed (by Key Informants and Key Stakeholders) to be lacking and not meeting the needs and demands of area residents over the past 5-6 years. They were then asked whether or not access has become better, worse, or remained the same.

They feel that access has improved most for programs that promote healthy lifestyles, dental care for the uninsured, pediatric specialty services, and substance use disorder treatment.

Key Informants clearly think access to mental health treatment for severe and/or persistent disorders and for those without insurance has become worse over the past several years.

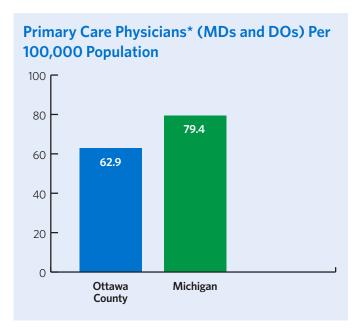


Source: Key Informant Online Survey, Q6: Below is a list of programs and services from the past two Community Health Needs Assessments that Key Informants reported did not meet the needs and demands of area residents well. In your opinion, over the past 5-6 years, to what degree has access to each improved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

Lack of Primary Care

Ottawa County has fewer PCPs (MDs and DOs) per 100,000 residents compared to Michigan overall.

Lack of primary care providers results in many patients unnecessarily using hospital ERs for care.



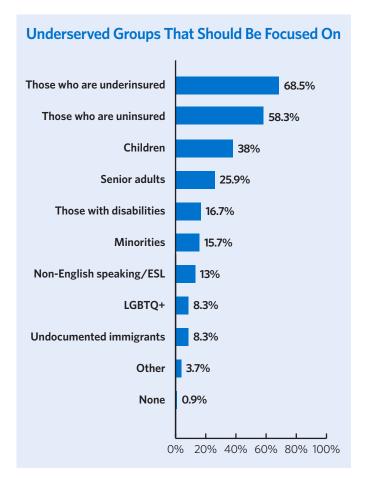
Source: County Health Rankings, 2016

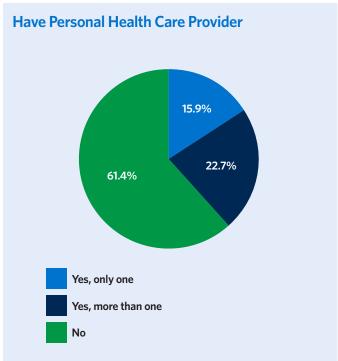
*Note: Physicians defined as general or family practice, internal medicine, pediatrics, obstetrics or gynecology.

Underserved Populations

According to Key Informants, underserved groups most deserving of the community's focus are those who are underinsured or uninsured, children, and senior adults.

Six in ten (61.4%) of underserved residents in the sample have no medical home (no personal health care provider).



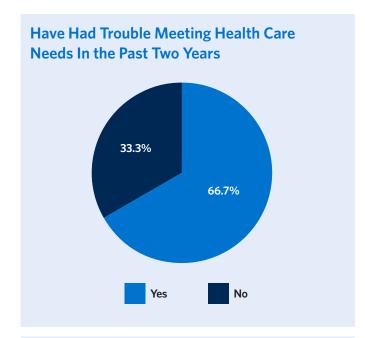


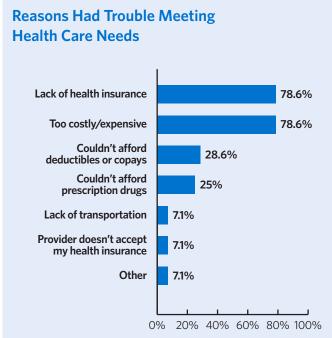
Source: Key Informant Online Survey, Q3: With regard to health care, which of the following underserved groups should we focus on most as a community? (Multiple response) (n=108); Underserved Resident Self-Administered Survey, Q2: Do you have one person you think of as your personal doctor or health care provider? (n=44)

Two-thirds (66.7%) of underserved residents had trouble meeting their health care needs in the past two years.

Lack of health insurance and cost were the top reasons they had trouble meeting their health care needs.

Underserved Populations, Continued

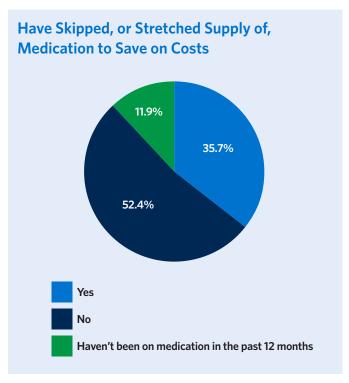


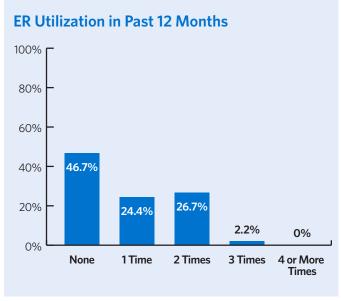


Source: Underserved Resident Self-Administered Survey, Q7: In the past two years, was there a time when you had trouble meeting your health care needs? (n=42); Q8: (If yes) What are some of the reasons you had trouble meeting your health care needs? (Multiple response) (n=28)

One-third (35.7%) of underserved residents have had to skip, or stretch their supply of, medication in the past 12 months in order to save on costs.

More than half (53.3%) of underserved residents have personally used the hospital ER in the past 12 months, 28.9% visited two or more times.



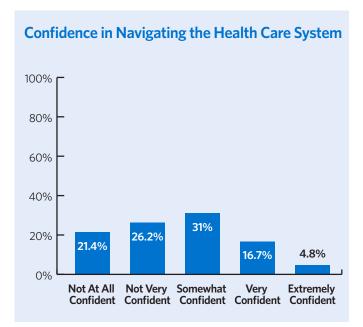


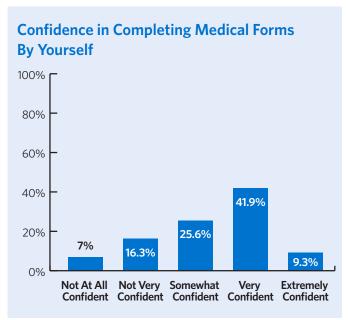
Source: Underserved Resident Self-Administered Survey, Q9: Was there ever a time in the past 12 months when you did not take your medication as prescribed, such as skipping doses or splitting pills, in order to save on costs? (n=42); Q12: How many times have you been to an Emergency Room/Emergency Department in the past 12 months? (n=45)

Underserved Populations, Continued

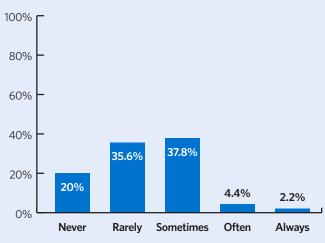
Underserved residents lack confidence that they can navigate the health care system: almost half (47.6%) are not at all or not very confident and 31.0% are only somewhat confident.

They also lack some confidence they can complete medical forms by themselves (23.3% not at all/not very), but have few problems understanding information necessary to be knowledgeable about their health condition (55.6% rarely/never).





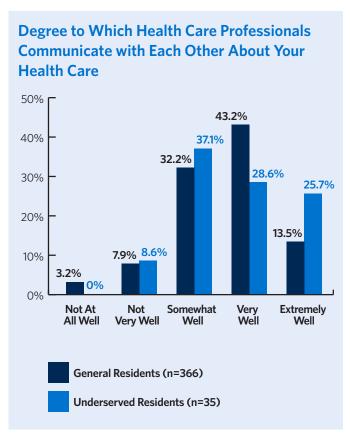
Frequency of Having Difficulty in Understanding Written Information Regarding Health Conditions



Source: Underserved Resident Self-Administered Survey, Q14: How confident are you that you can successfully navigate the health care system? (n=42); Q15: How confident are you in filling out medical forms by yourself? (n=43); Q16: How often do you have problems learning about your health condition because of difficulty in understanding written information? (n=45)

Communication Between Health Care Providers

Overall, the vast majority of SHZCH area adults believe health care providers communicate at least somewhat well with each other regarding patients' health care. There is very little difference between the sample of general resident adults and the sample of underserved adults.



Source: Resident Telephone Survey, Q15: In your opinion, how well do health care professionals communicate with each other about your health care?; Underserved Resident Self-Administered Survey, Q5: How well do you feel health care professionals communicate with each other about your health care?

Ability to Refer People to Care

Three-fourths (75.3%) of SHZCH Key Informants believe they are equipped to assist people in accessing needed programs and services.

What would better equip them to be able to help people would be instant access to information or a list of available resources or services. There is also a need for better ways to access this information through websites, apps, or a centralized location. Better collaboration among and between area agencies is also viewed as a need.

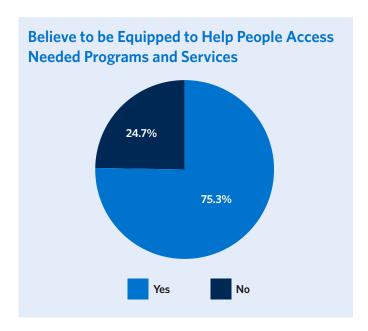
Resources currently used include: Pathways to Better Health, 211, various free or sliding scale clinics, social workers and care managers to connect patients to services, Ottawa County Department of Public Health, Community Mental Health, and the local hospitals.

What Would Better Equip You

- A central source of updated information that is available to reference with enough information to know who qualifies and how.
- An interactive website to search for program descriptions based on topic.
- Better education to the public so they can get help before they end up in my office.
- Collaborate and partner on a much deeper level, beyond giving families a stack of brochures.
- Easy access to a health care navigator. A larger Pathways program. PrEP provider in our community.
- More information provided to the case managers and/ or social workers to be able to help the patients access services and programs.

Resource Used Most Often

- Connect them with 211, Ottawa Pathways, Good Sam, CAA,
 CAH, Arbor Circle, Health Dept, CMH.
- Pathways, 211, Momentum Center, Pine Rest, Community Mental Health, Mosaic.
- Pathways, Holland Free Clinic, City on a Hill, Intercare, Love INC.
- Prescription assistance programs, Holland Community Health Center, City on a Hill.
- Senior Resources, Holland Free Health Clinic, Community Action House, Disability Network.
- Social workers and care managers to help our patients with access programs and services.



Source: Key Informant Online Survey, Q5: Do you feel you are equipped to help people/clients/patients access needed programs and services? (n=97); Q5a: (If no) What would better equip you to help people/clients/patients access needed programs and services?; Q5b: (If yes) What is the resource you use most often to help people/clients/patients access needed programs and services?

Strategies Implemented Since Last CHNA

Several initiatives have been undertaken to address mental health, including: (1) having nurse practitioners lighten caseloads by assisting psychiatrists, (2) implementing the Be Nice campaign which raises awareness of, and empathy for, mental illness, and (3) adding counselors and social workers in schools to assist children or adolescents who may be struggling. There are also efforts to raise awareness of ACEs and trauma and training first responders to further increase awareness of ACEs and trauma, as well as be able to identity individuals and families where ACEs may exist.

Mental health

They brought on a nurse practitioner to join the psychiatry team who can see patients, prescribe meds and that helps. The PHO continues to cooperate more technically now than it has in the past with the county health system and CMH, so we're getting more and more comfortable getting back and forth between that system. They're starting to discharge patients that are stable back to primary care.

- Key Stakeholder

More people are at least seeking treatment than they were previously, and so I take that as a positive outcome. I would also say the conversation around mental health have changed. I think five years or ten ago it was even more stigmatized. Now, I guess it's just more recognized. People are more sympathetic to it, so I think the conversation around mental health has improved.

- Key Stakeholder

In the mental health space, there's the work of **Be Nice**, and I think it's been about two years ago that we passed the **mental health millage that was huge**. There's been **a lot of work at the state level to secure more funding**. In **public health**, we've also really been trying hard to **work and lobby with the state to build stronger requirements** in the **Medicaid Health Plan Agreement** for things like **community health workers**.

- Key Stakeholder

The schools are adding counselors and social workers and stuff like that. We've seen suicide going up. We've seen kids committing suicide more. We've seen more acceptance of it. It was tough enough to be a sixteen-year-old kid ten years ago or twenty years ago or thirty years ago. These kids are going in with even less preparation than ever before or a complete lack of skills, so I don't know how we're going to address that. I see it as probably the biggest epidemic we're going to face.

Key Stakeholder

Adverse Childhood Experiences (ACEs)

I mentioned ACEs, and we are heavily into a project right now that's kind of two-pronged. One is a public-awareness campaign around ACEs and trauma, and then the other piece is specifically getting folks trained from custom target audiences, So, education, health care, what we're calling first responders, like police officers, and then the faith community. There's a lot of education that's going to happen where folks in those audiences are going to be trained and then turn around and train others in their field, and that's based on some models that we've seen around the rest of the country, so that's one.

- Key Stakeholder

Source: Key Stakeholder Interviews, Q1e/Q2b: What, if anything, has been done to address these issues? (n=7)

Strategies Implemented Since Last CHNA, Continued

An opiate task force was developed to educate physicians on prescribing and improve community awareness of the opioid issue. Pathways to Better Health is a resource where community health workers assist residents in need with setting physical and social goals, setting appointments, procure and take prescribed medications, and advocate for their needs. Ottawa Food and the Veggie Van are two initiative that address healthy eating and attempt to get residents to eat better.

Substance use disorder

We have a really strong opiate task force in this community that we started a couple years ago when we actually were funding a part-time physician to be the coordinator, and she's doing an excellent job at that. They've been pretty successful in doing some physician education work around prescribing, stuff like working on community awareness, working with some of the schools and providing some parent education on substance use and what it looks like and what you may be able to do with it.

- Key Stakeholder

Pathways to Better Health

Probably the biggest thing that came out of the Community Health Improvement Plan was the Ottawa Pathways to Better Health program. This is a community health worker program that several agencies came together to take a lead on and actively fund. These community health workers basically come around to folks who are dealing with two or more chronic conditions, mental health being one of the most predominant conditions that they're facing, and they are basically advocates for those folks. They help them with both health and social goals, become advocates for them, get them to appointments, make sure that they follow through with medications and things like that.

- Key Stakeholder

Affordable healthy food

Another initiative where we've seen growth and success in the last couple years but also moving forward is **Ottawa Food**, which is our **local food collaborative**. They have just a **number of things in the last couple of years** and are doing in the next three years are really looking to **address things around healthy eating**.

- Key Stakeholder

At **Zeeland** Hospital, one of the things that I thought was great is what's called a **Veggie Van**. Annually, we have a fiesta through LAUP, and it was this past May, the first weekend in May, and those guys came, and they **passed out five hundred bags of vegetables** for all the people that attended. I really thought that that was a very nice thing for Spectrum Health to have what they call the Veggie Van, and they passed out five hundred bags of vegetables - and **good stuff, asparagus** and such. So, I know there's some initiatives trying to **get us to eat healthier to be better.**

- Key Stakeholder

Source: Key Stakeholder Interviews, Q1e/Q2b: What, if anything, has been done to address these issues? (n=7)

Resources Available to Meet Issues/Needs

There is no shortage of people or organizations ready to collaborate and work on health issues that will benefit the community. There are more resources than many counties have and an excellent community foundation in place. That said, whether resources are not being directed to places most in need, or perhaps some issues are too complex and daunting to address, there is still a severe lack of resources for mental health and substance use disorder, although it has improved over the years.

Mental health

Depends on the issue. Back to **mental health**, something that we have struggled with as long as we can remember is that **we don't have enough psychiatric services**, So, **that's been a huge gaping hole in our ability to address mental health**, **particularly severe mental health** issues.

- Key Stakeholder

For mental health treatment, it's granular. We're down to three psychiatrists who see kids in Ottawa County, so there are shortages all over the place for certain professionals. We are actually pretty lucky here that there are agencies and individuals that provide mental health treatment, but accessing them, either because your deductible is so high you can't afford it, or the benefit isn't really adequate through your insurance, or you can't get there literally because you can't get a ride there - those are all barriers that I think contribute to inadequacy of service delivery.

- Key Stakeholder

Substance use disorder

As far as substance use disorder, we do not have enough resources as far as prescribers of medicine-assisted treatment like Suboxone. We do not have a MAT clinic in Ottawa County, so people have to go to Grand Rapids or Muskegon for methadone. We're actually busing people there. We got a grant to transport people on a bus from our office in Holland to Grand Rapids and our office in Grand Haven up to Muskegon just so people can get their daily dosing. I think part of what we talked about earlier; there's still that stigma or whatever you want to call it, a hesitancy.

- Key Stakeholder

Collaboration

The area has a number of great resources. It's a matter of tapping into the correct forums to meet the need. A lot of agencies have rallied together, both in the health sector and the human needs sector. There are lots of entities that want to partner and work together to address the needs. One thing I have started to see is that when there isn't necessarily a need in one area, we're finally actually doing a better job of evaluating why we are still meeting. You know what I mean? We kind of tackled this issue, so we don't need this committee.

- Key Stakeholder

I know that there seems to be the right capital and the right people in place, and that if you put a plan out there, and you can prove it brings success and it can better our community, I think there's resources to making it happen. I think we have one of the best community foundations around in the Holland Zeeland Community Foundation. I think there's initiatives that are willing to pair in, or partner in, when it comes to the health of our community overall.

- Key Stakeholder

Resources Available to Meet Issues/Needs, Continued

Six of the seven Key Stakeholders interviewed think that the community prioritizes issues effectively given the resources that are available, and one Key Stakeholder, in full transparency, says that he/she is unsure.

Ottawa County leaders are very aware of the community's strengths, and they are also very aware of opportunities where the community could improve or do better. There is still a tendency for some organizations to work in silos, and even though there are far more resources in Ottawa County than in neighboring counties, the available resources do not always end up being utilized where most needed.

For the most part, I would say yes. I mean, obviously each agency has their own thoughts on what the priorities should be based on, what they deal with. What my agency might think is a priority right now might be different than the agency right next to us who's also trying to get money. So, I think overall, though, I think the community does a pretty good job of trying to establish what the current needs are and working towards those needs.

- Key Stakeholder

I think the parts of the community do, so for example, we can prioritize it. Our providers of mental health services and our nonprofit organizations who see folks all day, they can prioritize it. However, we're not the ones that have any money. Even the hospitals and the health plans can say, "Ooh, this is a problem," but they're not looking at it through a biopsychosocial model. They're still keeping it all in these buckets, and so until the whole system figures out how to address a person as a whole person, we're going to continue to have these challenges.

- Key Stakeholder

I come from the perspective that says, "Well, I think our community does a good job." I have to say that. Do I wish that some of the things that impact the Latino community would be more in the forefront? Absolutely. But I think every culture would say the same about theirs. I think all in all we live in a great community. Do we still have prejudice? Absolutely. I think that our community is sometimes seen as not very welcoming. When I think of our community, we will never be perfect, but I think that they do a good job of saying, "What are our needs?" and try and prioritize those and make sure that we attack those things as best as possible.

- Key Stakeholder

I think this community does an outstanding job because it's a very giving community. Just yesterday, for two hours, the biggest leaders in the community came together and strategized about how we can continue to be successful in Ottawa County. If you're poor in Ottawa County, you have unlimited access to food and **clothing for free** - unlimited. There's abundancy falling off the shelves of those two things. Now, is it healthy, **good food? Not really**. A lot of canned food, high-sodium food, basically stuff that has a shelf life. That's still a challenge, but for just getting something in the stomach. But, if you want behavioral health access, that's another thing. That's limited, it's expensive, and it's not covered by people. So, we do very well as a community. That's why we're one of the strongest. It's a financially giving community. But, it's also a community that doesn't like to address behavioral health because it's like, "You need to step up and take care of yourself." It's a lot of lack of tolerance for people who don't do that. They'll give anyone a chance around here, but if you don't put on your own bootstraps, if you will, then you'll be guickly dismissed as incompetent even if you have an actual behavioral challenge.

- Key Stakeholder

Source: Key Stakeholder Interviews, Q5: Do you feel like the community prioritizes issues effectively given the resources that are available? (n=7).

Suggested Strategies to Address Issues/Needs, Continued

A summary of area resources available to address health and health care needs are as follows:

Health Care/Human Service Organizations

- American Red Cross of West Michigan
- City on a Hill
- Community Mental Health Services
- Evergreen Commons
- Greater Ottawa County United Way
- Holland Free Health Clinic
- Holland Hospital
- Holland Physician Health Organization
- Intercare Community Health Network
- Love INC
- North Ottawa Community Health System
- Ottawa County Health and Human Services
- Ottawa County Department of Public Health
- Pine Rest Holland Clinic
- Priority Health
- Spectrum Health Zeeland Community Hospital

Community Initiatives/Coalitions

- Be Nice Campaign
- Community Health Improvement Plan (CHIP)
- Farmers' markets
- Housing Next
- Ottawa County Food Policy Council
- Pathways to Better Health

Suggested Strategies to Address Issues/Needs

Key Informants suggest several ways to resolve the lack of treatment for mental health: (1) increase funding for Community Mental Health and other organizations that provide treatment to those in need, (2) encourage more conversation and advertising to reduce the stigma, (3) urge more providers to accept multiple forms of insurance or implement a sliding scale, and (4) increase access by providing transportation to and from appointments, as well as extending office hours beyond the work day.

Key Informants would also like to see reduced stigma for those with substance use disorder, as well as more services that are affordable.

Mental health/ access to treatment

Increased funding for CMH and other supporting/treatment agencies to **expand access to care** in Ottawa County.

- Key Informant

Supporting Community Mental Health and build it back up to be able to support people in our communities as needed. Encourage more providers to offer needed services in Ottawa County. Continue to work on stigma; encouraging community conversations, making the reality of good mental health important and seen more often; advertised, discussed.

- Key Informant

More providers who accept multiple types of insurance. More choices for those on Medicaid for providers. More prescribing providers. Better insurance coverage to lessen the cost to consumers who are seeking mental health treatment. Transportation to and from appointments more widely provided. Hours for mental health care that allow people to seek treatment without having to miss work.

- Key Informant

Somehow **improve** access to mental health services across the board. Holland Hospital is trying through the opening of the Mental Health ER and eventually the IOP program, in addition to their inpatient ward but **there needs to be more real time screening** and **initial Rx** for the **less acutely mentally ill.**

- Key Informant

Eliminate stigma, reduce isolation, provide treatment, and support groups.

- Key Informant

Lack of primary care providers

Bring in more PCPs to Ottawa County. Educate patients on the value of being established with a PCP and what symptoms constitute a trip to UC/ED.

- Key Informant

Substance use disorder

Access to, and availability of, quality and affordable counseling services for SUD. Community perception and stigma also need to change.

- Key Informant

Source: Key Informant Online Survey, Q1d: What ideas do you have, if any, to resolve this issue [most pressing health issue or concern in the area]? (n=123).

Suggested Strategies to Address Issues/Needs, Continued

Key Informants provide several suggestions to address lack of affordable housing beyond simply building more units. For example, solutions should involve organizations from business, government, medical, and nonprofits coming to the table to discuss practical solutions. In addition, assistance programs should be provided to those in need, especially those who are above the poverty level and can't seek assistance elsewhere. Finally, organizations need to advocate for people seeking affordable by changing negative perceptions about them.

Lack of affordable housing

Having an **area-wide solution that involves local businesses**, **city council**, and **local non-profits**. Someone needs to **initiate an area wide plan**.

- Key Informant

Create assistance programs for people who are struggling with housing but don't meet the federal definition of poverty, supplement rent for families so landlords can still get market value, churches purchase rentals and help house families while providing care and support.

- Key Informant

Continuing efforts with Housing Next and exploring opportunities for Housing Trust funds.

- Key Informant

Continued advocacy at the township and city hall meetings. More education that vulnerable populations are not "trouble" populations. Continue to work for zoning changes, renovations vs. new developments

- Key Informant

Health care costs

Patients should have access to more information about the cost of services they need up-front from health care providers, so they can "shop" for the best price and value. More transparency would help.

- Key Informant

Hospitals need to give all-inclusive experiences and find ways to package services. We need to create healthcare villages that include physician offices, dental offices, pharmacies, labs, fitness centers, healthy food stores and such to reduce how much time and effort people spend going back and forth when getting treatments to heal the entire person and make it affordable and convenient.

- Key Informant

Health management

An interdisciplinary, community-wide response (and funding) is needed to solve the issue, as opposed to leaving it up to the silos of medical entities and technology companies. That said, there are incredible advances being made in the telemedicine and wearable device spaces that are helping people manage chronic disease better, paired with PCP and hospital collaboration to reduce unnecessary ER visits and hospitalizations.

- Key Stakeholder

Source: Key Informant Online Survey, Q1d: What ideas do you have, if any, to resolve this issue [most pressing health issue or concern in the area]? (n=28).

Appendix

Participant Profiles

Key Stakeholder In-Depth Interviews

Director, Community Mental Health of Ottawa County Director, Ottawa County Departments of Health and Human Services

Executive Director, Community SPOKE and Lakeshore Nonprofit Alliance

Executive Director, Latin Americans United for Progress
Health Officer, Ottawa County Department of Public Health
President, Spectrum Health Zeeland Community Hospital
President/Medical Director, Holland Physician
Health Organization

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

Appendix

Resident Telephone Survey

Resident Telephone St	Total Total			Total	
Contract		AA - No. I Charles		0	
Gender	(n=402)	Marital Status	(n=393)	Own or Rent	(n=386)
Male	43.1%	Married	60.6%	Own	84.3%
Female	56.9%	Divorced	8.2%	Rent	12.0%
Age	(n=391)	Widowed	6.2%	Other	3.7%
18 to 24	8.4%	Separated	0.0%	Zip Code	(n=402)
25 to 34	16.9%	Never married	24.0%	49401	9.0%
35 to 44	16.5%	Member of an unmarried couple	1.0%	49422	0.4%
45 to 54	19.4%	Employment Status	(n=394)	49423	17.7%
55 to 64	13.9%	Employed for wages	45.2%	49424	26.2%
65 to 74	12.0%	Self-employed	9.9%	49426	14.4%
75 or Older	13.0%	Out of work 1 year+	0.8%	49428	6.9%
Race/Ethnicity	(n=395)	Out of work <1 year	2.7%	49460	3.9%
White/Caucasian	82.6%	Homemaker	3.3%	49464	21.4%
Black/African American	6.5%	Student	3.9%		
Hispanic/Latino	9.2%	Retired	27.4%		
Asian	0.4%	Unable to work	6.8%		
Native American	0.5%	Education	(n=391)		
Other	0.8%	Less than 9th grade	3.2%		
Adults in Household	(n=402)	Grades 9 through 11	4.9%		
One	18.1%	High school grad/GED	30.5%		
Two	58.9%	College, 1 to 3 years	27.4%		
Three	13.0%	College 4+ years (grad)	34.1%		
Four	10.1%	Income	(n=250)		
Children in Household	(n=399)	Less than \$10K	4.7%		
None	72.5%	\$10K to less than \$15K	0.3%		
One	12.6%	\$15K to less than \$20K	2.7%		
Two	9.6%	\$20K to less than \$25K	3.3%	1	
Three	4.0%	\$25K to less than \$35K	6.0%	1	
Four	0.5%	\$35K to less than \$50K	19.0%	1	
Five	0.5%	\$50K to less than \$75K	22.0%	1	
Thirteen	0.4%	\$75K or more	41.9%	1	
		1		_	

Appendix

Underserved Resident Survey (Self-Administered)

	Total		Total		Total
Gender	(n=44)	Children in Household (<6)	(n=38)	Income	(n=36)
Male	40.9%	None	81.6%	Less than \$10K	16.7%
Female	59.1%	One	10.5%	\$10K to less than \$15K	13.9%
Age	(n=44)	Two or more	7.9%	\$15K to less than \$20K	13.9%
18 to 24	2.3%	Marital Status	(n=44)	\$20K to less than \$25K	11.1%
25 to 34	27.3%	Married	25.0%	\$25K to less than \$35K	19.4%
35 to 44	13.6%	Divorced	22.7%	\$35K to less than \$50K	11.1%
45 to 54	18.2%	Widowed	13.6%	\$50K to less than \$75K	8.3%
55 to 64	20.5%	Separated	2.3%	\$75K or more	5.6%
65 to 74	2.3%	Never married	31.8%	Own or Rent	(n=38)
75 or Older	15.9%	Member of an unmarried couple	4.5%	Own	31.6%
Race/Ethnicity	(n=44)	Employment Status	(n=44)	Rent	39.5%
White/Caucasian	63.6%	Employed for wages	50.0%	Other	28.9%
Black/African American	4.5%	Self-employed	13.6%	Zip Code	(n=40)
Hispanic/Latino	20.5%	Out of work 1 year+	4.5%	49010	7.5%
Native American	2.3%	Out of work <1 year	9.1%	49090	2.5%
Asian	9.1%	Homemaker	2.3%	49315	2.5%
Adults in Household	(n=41)	Student	0.0%	49401	2.5%
One	34.1%	Retired	15.9%	49404	2.5%
Two	39.0%	Unable to work	4.5%	49408	5.0%
Three	17.1%	Education	(n=44)	49417	5.0%
Four	4.9%	Less than 9th grade	13.7%	49422	2.5%
Five	4.9%	Grades 9 through 11	6.8%	49423	30.0%
Children in Household (6-17)	(n=41)	High school grad/GED	27.3%	49424	22.5%
None	68.3%	College, 1 to 3 years	34.1%	49460	2.5%
One	17.1%	College 4+ years (grad)	18.2%	49464	15.0%
Two or more	14.6%				

Exhibit B

Spectrum Health Zeeland Community Hospital

Previous Implementation Plan Impact

This report identifies the impact of actions taken from 2018-2020 to address the significant health needs in the Implementation Plans created as a result from the 2017-2018 CHNA.



Mental Health

Action 1

Work with the Spectrum Health Medical Group (SHMG) to reinforce and support the Blue Envelope Program, insuring that all staff are comfortable with the process of identifying, handling and referring a patient at risk of attempting suicide. Spectrum Health Zeeland Community Hospital (SHZCH) will encourage training, participation and tracking of the number of blue envelopes used in the physician practices (588 Lakewood, Zeeland Physicians and Georgetown Physicians). The use of blue envelopes will insure that early intervention happens and will lead to 0 suicides.

Measurable Impact

- Establish a baseline number of blue envelopes used in FY2019. To be completed by 6/30/2019
- Increase the number of blue envelopes used by 10% in FY2020
- Increase the number of blue envelopes used by an additional 10% in FY2021

Impact of Implementation Plan Strategy

As Blue Envelope (B.E.) is a new program, our baseline number of B.E. (crisis suicide response) events in the schools is zero. There was no uniform way of documenting or handling mental health crisis in Ottawa County schools prior. In fall of 2019, 8 schools were trained in the B.E. Program and since then, there have been 108 B.E. events.

Action 2

Work with SHMG to revise blue envelope materials so that they are appropriate for a school setting and obtain a baseline from parents and staff's level of comfort with addressing someone at risk of attempting suicide. Pilot the Blue Envelope Program in a school.

Measurable Impact

- Monitor and record the number of blue envelopes used in the school setting in the first year of implementation for FY2019. To be completed by 6/30/2019.
- For FY2020, Increase the number of blue envelopes used in the school setting by 10%. To be completed by 6/30/2020.
- For FY2021, Increase the number of blue envelopes used in the school setting by 10%. To be completed by 6/30/2021.
- Establish a baseline of parent and staff awareness and comfort with addressing students and staff at risk of attempting suicide in FY2019. To be completed by 6/30/2019.
- For FY2020, Increase parent and staff awareness and comfort with addressing students and staff at risk of attempting suicide by 10% over baseline. To be completed by 6/30/2020.
- For FY2021, Increase parent and staff awareness and comfort with addressing students and staff at risk of attempting suicide by 10% over baseline. To be completed by 6/30/2021.

Impact of Implementation Plan Strategy

Parent awareness and comfort was assessed for baseline in 2019. Since the baseline, a Mental Health Crisis Brochure was developed in English and Spanish. In addition, the workgroup is developing a video aimed at giving parents important, local information and resources about mental health crisis. Parent awareness will be re-assessed in 2021. Staff awareness and comfort was assessed in January 2020, and 93% of staff said they felt like they had the support they needed for the B.E. process. Staff shared they would be interested in receiving more training and resources for suicide prevention.

Mental Health, Continued

Action 3

Assess the number of QPR (Question. Persuade. Refer three steps anyone can learn to help prevent suicide) trainings held in Ottawa county and offer additional trainings in partnership with the Ottawa County Suicide Prevention Task Force as needed.

Measurable Impact

- In FY2020, Pilot 2 additional QPR trainings in the community to determine effectiveness and demand. To be completed by 6/30/2020.
- In FY2021 Continue to offer and/or host 2 QPR trainings in Ottawa County if needed. To be completed by 6/30/2021.

Impact of Implementation Plan Strategy

Workgroup felt there was an appropriate number of QPR trainings offered in our community. The focus was more on helping promote those that were already being offered, such as collaborating with organizations such as the Momentum Center, to connect individuals to online QPR Training options.

Action 4

Spectrum Health will implement a 24/7 Psychological consultative/rapid response service within the Grand Rapids based health center. This will allow for the services to be delivered in a telehealth/virtual manner. Within the regional hospital spaces, such as SHZCH, we will offer telehealth psych consultative services 24 hour/7 day a week

Measurable Impact

- Establish a performance baseline one year after the service is established. To be completed by 6/30/2020.
- In subsequent years, increase telepsych consults by 10%. To be completed in by 6/30/2021 and 6/30/2021.

Impact of Implementation Plan Strategy

Year one has been completed. Service is available in both inpatient and ED spaces, M-F, 8a to 4p. We have had 4 virtual visits YTD. The night time virtual social worker program was launched, and SHZCH has had 13 visits since April.

Obesity (and being overweight)

Action 1

Enlist other community partners and one school to pilot the Win With Wellness Fit Club (a program from Ludington Hospital). The program seeks a proactive approach to embed healthy behaviors at a young age when successful intervention can more effectively occur. The program is designed to: increase knowledge and awareness of healthy lifestyle choices, create opportunities for physical activities, foster teamwork, goal setting, sportsmanship and a proactive approach to health and offer health educational opportunities around important health topics.

Measurable Impact

- Secure one elementary school to pilot the Win With Wellness Fit Club. To be completed by 6/30/2019.
- Secure three community partners to support the Fit Club 100 Mile Challenge by offering incentives. To be completed by 6/30/2019.
- Pilot year 1 education programming modules in one school.
 To be completed by 6/30/2020.
- Institute year 2 education programming modules in pilot school. To be completed by June 2021.
- Have 50% of students at the school participate in the 100 Mile Challenge. To be completed by 6/30/2020.
 Identify at least one additional elementary school within the same district as the pilot school, to participate in C.A.T.C.H. for year two.
- Increase the number of students participating in the 100 Mile Challenge by 10%. To be completed by 6/30/2021.
 Identify at least one additional elementary school within the same district as the other participating schools, to participate in C.A.T.C.H. for year three.

Impact of Implementation Plan Strategy

This action has been changed from Win With Wellness Fit Club (through Ludington), to the CDC developed Coordinated Approach to Child Health program (C.A.T.C.H.) through Gerber. Research has shown C.A.T.C.H. to be the most cost effective school-based program for preventing childhood obesity. Fit Club 100 Mile Challenge will no longer be pursued as efforts will be placed toward C.A.T.C.H.

Jamestown Lower Elementary in Hudsonville has committed to kicking off the C.A.T.C.H. Program in their school during the '20-'21 school year.

Action 2

- Collaborate with the Spectrum Health Medical Group (SHMG) to develop a strategy that will encourage physicians to talk with patients about weight.
- Create a resource which physicians can give to their patients which will list available weight management resources.
- The Ottawa County 2018 Community Health Improvement Plan recommends physicians provide thoughtful intervention, recommendations and resources to patients during office visits with care providers.

Measurable Impact

- Establish a baseline of SHMG physicians who talk with their patients about their weight. To be completed by 6/30/2019.
- Develop strategy, in partnership with SHMG, for weight discussions to occur more frequently. To be completed by 6/30/2019.
- Establish a group of physicians to pilot the strategy with patients above a certain BMI threshold. To be completed by 12/31/2019.
- Increase the number of physicians who talk with their patients about their weight by 10% over baseline. To be completed by 6/30/2021.

Impact of Implementation Plan Strategy

Strategy developed, and a group was identified to implement the process. Process was temporarily placed on pause due to the pandemic.

Access to Care

Action 1

Increase use of the Oncology Distress Screening Tools (DST's) to determine what needs that the cancer patient has (transportation/housing/finance/emotional problems/family problems/etc.) Due to cancer being a widespread issue in Ottawa County, the DST's will help us identify how to best meet the needs of the patients in our community.

Measurable Impact

- Establish a baseline average per month of DST's used. To be completed by 6/30/2019
- In FY2020, increase the DST's used per month by 10%. To be completed by 6/30/2020.
- In FY2021, increase the DST's used per month by an additional 10%. To be completed by 6/30/2021.
- Track identified patient needs on the DST's and review quarterly to insure problems are either resolved or referred to appropriate community resources. In FY2019, have 4 quarterly reviews by 6/30/2019.
- In FY2020, have 4 quarterly reviews by 6/30/2020.
- In FY2021, have 4 quarterly reviews by 6/30/2021.

Impact of Implementation Plan Strategy

The use of the DST (for SHZCH pathology positive patients) did not increase by 10% this iteration, as SHZCH was without a cancer program director for a good portion of the past year. Dr. Jeffers was hired, and meetings are being scheduled to strengthen process.

Action 2

Increase the number of referrals from the Spectrum Health Medical Group in Ottawa County (588 Lakewood, Georgetown Physicians, Zeeland Physicians, Holland Community Health Center) and from SHZCH into the Ottawa Pathways to Better Health (OPBH) community health worker program. The OPBH program is a collaborative pilot program in Ottawa County that is financially supported by SHZCH and we serve on the program steering committee. OPBH began in 2016. By establishing a system to assist all community members that we encounter who qualify for the program, we can help them meet their healthcare needs and provide them with support from an OPBH worker as they navigate the healthcare system.

Measurable Impact

- From the established baseline of 4 referrals from January-June 2018:
- Increase the number of referrals to 14 in FY2019.
 To be completed by 6/30/2019.
- Increase the number of referrals to 18 in FY2020,
 To be completed by 6/30/2020.
- Increase the number of referrals to 24 in FY2021.
 To be completed in 6/30/2021.

Impact of Implementation Plan Strategy

We continue to meet our goals on referrals. YTD we have 28 referrals.

Action 3

- Support the new MAX (Macatawa Area Express) bus stop at SHZCH by promotion and marketing efforts.
- The MAX operates hourly fixed bus routes and an evening twilight route Monday through Saturday and will enable patients with transportation issues access to both the hospital and the various physician offices and clinics on premises.
- It is anticipated that the new MAX bus stop will begin services to SHZCH in August, 2018.

Measurable Impact

- From the established baseline of 504 referrals from January-June 2018:
- Increase Max Bus usage to 750 year.
 To be completed by 6/30/2019.
- Increase Max Bus usage to 950 year.
 To be completed by 6/30/2020.
- Increase Max Bus usage to 1150 year.
 To be completed by 6/30/2021.

Impact of Implementation Plan Strategy

Ridership numbers continue to be above goal. Fixed routes have been closed from March - current. Jan-March numbers were 366. However, routes didn't run half of March...if they did, the number would have been closer to 440; which annualized would be 1800 average for the year. Note: MAX routes haven't continued to run for April, May or June.



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

Community Health Needs Assessment for:

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

Spectrum Health System, a not-for-profit, integrated health system, is committed to improving the health and wellness of our communities. We live our mission every day with 31,000 compassionate professionals, 4,600 medical staff experts, 3,300 committed volunteers and a health plan serving 1 million members. Our talented physicians and caregivers are privileged to offer a full continuum of care and wellness services to our communities through 14 hospitals, including Helen DeVos Children's Hospital, 150 ambulatory sites and telehealth offerings. We pursue health care solutions for today and tomorrow that diversify our offerings. Locally-governed and based in Grand Rapids, Michigan, our health system provided \$585 million in community benefit in fiscal year 2019. Thanks to the generosity of our communities, we received \$30 million in philanthropy in the most recent fiscal year to support research, academics, innovation and clinical care. Spectrum Health has been recognized as one of the nation's 15 Top Health Systems by Truven Health Analytics®, part of IBM Watson HealthTM.

Community Health Needs Assessment

The focus of this Community Health Needs Assessment (CHNA) is to identify the community needs as they exist during the assessment period (2019-2020), understanding fully that they will be continually changing in the months and years to come. For the purposes of this assessment, "community" is defined as, not only the county in which the hospital facility is located (Ottawa), but also regions outside the county which compose SHZCH's primary (PSA) and secondary (SSA) service areas, such as northern Allegan county. 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 complies with the requirements of the Internal Revenue Code 501(r) regulations either implicitly or explicitly.

Please note that the assessment period concluded before the wides pread out break of COVID-19 in the communities served by Spectrum Health. Recognizing that the pandemic's impact has and will continue to influence the health needs of our communities, Spectrum Health plans to address this in forthcoming implementation plans.

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