

**COMMUNITY HEALTH
NEEDS ASSESSMENT
FOR
HILLSDALE HOSPITAL**



Caring. Commitment. Community.

May, 2019

INTRODUCTION

Hillsdale Hospital is a not-for-profit hospital. Its roots in the community date to 1912 when Dr. & Mrs. Midgley came to Hillsdale with the hope of developing a sanitarium. The first facility was opened in 1915. In 1921, the City of Hillsdale assumed the responsibility for a new hospital located at its present site.

The hospital primarily serves the residents of Hillsdale County.

The hospital has undergone several expansions of its physical facilities over the years and has continually updated laboratory and diagnostic equipment. The hospital currently has:

- 47 acute care beds.
- 39 skilled nursing facility beds.
- A 10-bed psychiatric unit.
- A seven-bed joint replacement unit.
- Four surgical suites.
- An ophthalmology suite.
- A radiology department with a full compliment of imaging services including a 64 slice computed tomography (CT) scanner and open magnetic resonance imaging (MRI) capability.
- High-tech critical care and emergency departments.
- A state-of-the-art laboratory.
- In and Out patient physical therapy facilities.
- A cardiac rehabilitation unit.
- A dialysis unit.

To comply with the Affordable Care Act, nonprofit hospitals are required to complete a community health needs assessment (CHNA) every three years. Assessments were conducted in 2013 and 2016. This report reflects the findings of the recent 2019 assessment with comparisons, where possible, to the results of the previous assessments.

The 2019 CHNA included a survey of county residents, consultation with county leaders and a comprehensive review of primary and secondary data as detailed in this document.

The CHNA was used to create an updated strategic plan for the hospital that can best address the health needs of county residents and create partnerships with other organizations where necessary to address identified unmet needs.

HILLSDALE HOSPITAL REVENUE AND COMMUNITY BENEFITS

As a nonprofit hospital, Hillsdale Hospital operates on a tight budget.

The proposed budget for its fiscal year ending June, 2018 shows:

- Operating revenue for in and out patient care: \$137,186,000
- Revenue deductions including contractual obligations, bad debts and charity: \$79,323,000
- Net revenue: \$57,853,000
- Operating Expenses for salaries, supplies and building maintenance: \$57,862,000

A comparison of the last five fiscal years shows a steady pattern of net patient revenue.

Hillsdale Hospital Fiscal Year Analysis, 2014 to 2018 in Dollars					
	2014	2015	2016	2017	2018
Patient Revenue	56,893,779	60,643,102	62,224,866	59,404,597	60,214,547
Bad Debts	6,133,822	5,429,414	4,766,718	3,911,359	3,456,844
Net Patient Revenue	50,759,957	55,213,688	57,458,148	55,493,237	56,757,702

Source: Hillsdale Hospital FY Reports, 2014 to 2018

Nonprofit hospitals have traditionally offered programs and services that address identified health-related community needs. Many of these services are available without payment, or at a lower cost, and serve to improve the health access and the health status of the community.

A comparison of Hillsdale Hospital's revenue shows an increase in the percent of net revenue devoted to charitable endeavors from FY 2016 to FY 2017.

Hillsdale Hospital Net Revenue Dedicated to Charity, 2016 and 2017		
	2016	2017
Charity Care	580,432	404,220
Health Professions Education	47,857	(189,221)
Subsidized Health Services	1,615,245	2,544,486
Total Community Benefits	15,450	19,500
Percent of Net Revenue	3.93%	5.01%

Source: Hillsdale Hospital FY Reports, 2016 and 2017

In addition to the direct reduction in revenue from charitable endeavors, the staff of Hillsdale Hospital provides hours of volunteer service to the local community.

According to Vice President Jeremiah J. Hodshire: “Since 2011, Hillsdale Hospital requires that each member of management complete a minimum of 20 hours of community service representing the hospital at various events within the communities we live. In 2017, this was expanded to encourage all staff to participate in their school, church, service clubs, and other areas in need. By donating their time in 2018, the community was rewarded with highly skilled talent in areas that needed assistance. “

In 2108, staff members gave over 3,000 hours of community service including:

- A special project to “feed a family.”
- Sponsoring events such as Relay for Life.
- Adopting a family for Christmas.
- Volunteering at food panties, the free health clinic, church youth groups, food for the hungry, service clubs, Junior Achievement, and community food kitchens.

THE COMMUNITY HEALTH ASSESSMENT SURVEY AND DATA COLLECTION

Hillsdale Hospital partnered with the Hillsdale County Human Services Network (HSN) to create a comprehensive community-based health needs assessment.

The HSN is the state-recognized community collaborative for Hillsdale County. It is a coalition of public and private non-profit health and human service organizations serving the county. The HSN has met on a monthly basis since 1986 to address issues of common interest.

Part of the health assessment plan was to distribute an assessment survey to the general population, gather secondary supportive data, and engage the HSN members in an open discussion of how best to meet the needs revealed by the process.

The hospital hired an independent contractor to help design the survey, analyze the data, facilitate discussions, and create the final report.

A list of the Human Services Network members, the expert individuals consulted, and the qualifications of the contractor can be found in Appendix A of this report.

Primary Data Collection

Primary data is data collected directly from first-hand experiences or opinions. The primary data for this assessment consisted of a health survey of the general county population and an open forum discussion of HSN members.

The health survey questionnaire was designed to create a profile of the respondents, their health needs and views on community health-related issues.

All residents of the county were invited to participate in the survey through a wide-reaching informational campaign.

- Paper forms of the survey were sent to area health providers and were available at the Hillsdale office of the Branch-Hillsdale-St. Joseph Health Department.
- Hospital volunteers approached patients awaiting treatment or lab work at the hospital and asked them if they would complete the survey. Anyone over 18 who accompanied the patient was also asked to participate.
- The survey was posted on an internet survey site, Survey Monkey, and was accessible to the community from December 3, 2018 to March 2, 2019. Links to the on-line survey were displayed on the Hillsdale Hospital website www.hillsdalehospital.com

The paper surveys were collected from the various sites and the responses recorded on the surveys were manually added to the online survey tool for analysis.

As a result of this campaign, 1200 individuals completed the health survey questionnaire, compared to 1110 in 2016 and 983 in 2013.

At the completion of the survey period, this primary survey data was analyzed to identify the specific health concerns of the respondents. An analysis of the respondents to the survey revealed:

- **The sampled population was predominantly female.** 73% were female and 27% male. Women have outnumbered men in the past three community assessment surveys. Females represented 69% of respondents in 2016 and 75% in the 2013 survey. In contrast, the population of Hillsdale County is approximately 50% male and 50% female.
- **Respondents age 65 or over accounted for 30.4% of the survey sample compared to their 18% presence in the general population.** This is consistent with the results of previous assessment surveys. Respondents age 65 or older represented 32.5% of the survey samples in 2016 and 2013.
- **Not all respondents answered every question.** The data was analyzed based on the number who responded to the question.
- **112 respondents said they were not residents of the county and another 104 did not identify as residents or non-residents.** Their responses were included in the analysis.

Although the survey respondents were more likely to be female and older than the general population, the results may reflect the thoughts of a population more likely to need and utilize medical services. It may also reflect the distribution of the paper surveys which, though accessible to the general population, were readily available in the offices of local health providers and the hospital.

Secondary Data Collection

Secondary data is data gathered from outside reliable sources. This data is generally reported in forms such as:

- Actual or estimated numbers in a population.
- A percentage of a sampled population.
- Rates, or the number of people in a sample population compared to a similar population.

Secondary data for this assessment was collected from a variety of county, state and federal sources to create a more complete profile of the population and current health needs. This report strived to use the most recent, complete, yearly data available.

The secondary data in this report came from sources such as:

- U.S. Census Bureau.
- Michigan Behavior Risk Factor Survey (MiBRFS). This data is gathered by an annual, statewide telephone survey of Michigan residents age 18 or older. The survey provides estimates of several behaviors, medical conditions, and health care practices for state residents.
- Kids Count in Michigan, 2018 Profiles.
- State of Michigan Labor and Education Departments.
- State of Michigan, Department of Vital Statistics.
- Centers for Disease Control and Prevention (CDC).
- Center for Educational Performance and Information, HDE.
- DATA USA, Hillsdale County, MI, 2016.
- Henry J. Kaiser Family Foundation.
- The Robert Wood Johnson Foundation in collaboration with the University of Wisconsin , County Health Rankins 2019

The Branch-Hillsdale-St. Joseph Health Department (BHSJ) was instrumental in providing reliable secondary data.

Presentation of Data

Highlights of the primary and secondary data were incorporated into a PowerPoint presentation that was shown at a meeting of the full membership of the HSN on April 16, 2019. The presentation can be found in Appendix B of this report.

During the presentation, network members were free to comment on individual issues and their input was actively solicited on the main issues.

Their suggestions were incorporated into the appropriate sections of this report and presented to the Hillsdale Hospital Board of Trustees to create a 3 year plan.

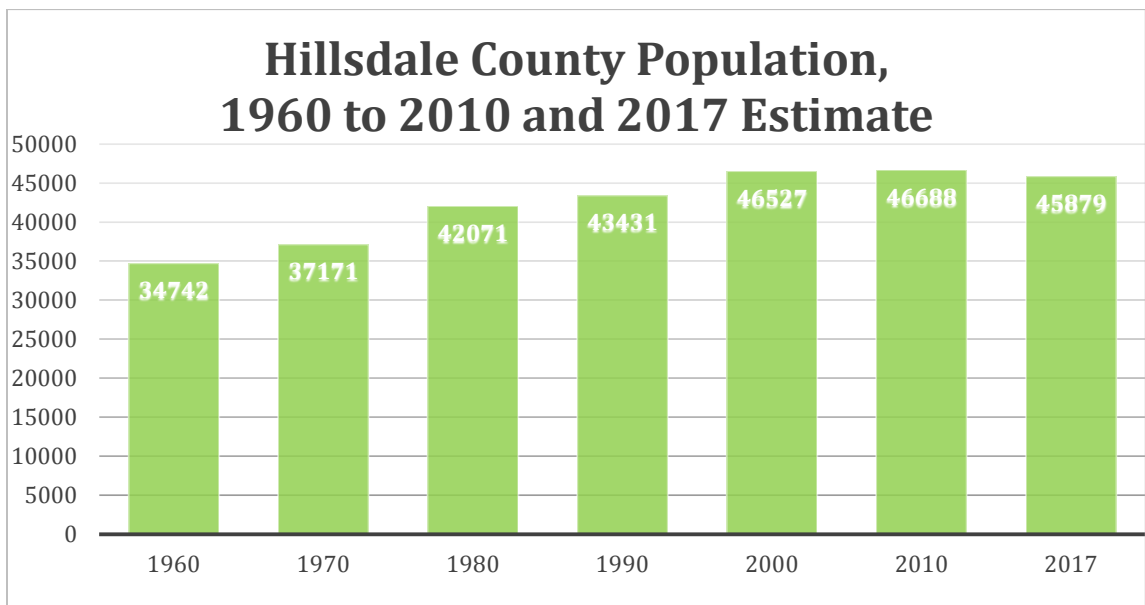
COMMUNITY PROFILE

Hillsdale Hospital primarily serves the residents of Hillsdale County.

Hillsdale County is located in south-central Michigan and covers a land area of approximately 598 square miles. It is a rural community with a population density of 78 residents per square mile, compared to an average of 175 in Michigan, according to the 2017 U.S. Census estimates.

Population Trends

The estimated July, 2017 population of Hillsdale County was 45,909, a slight decrease of 1.7% from the 2010 census population count of 46,688. Overall, the county population has remained relatively stable over the last three decades.



Source: U.S. Census Bureau, 1960 to 2010 and U.S. Census Bureau, American Community Survey 2017 Estimates

Respondents and County Residence

Of the 1200 respondents to the survey who answered the question about county residence:

- 112 said they were not county residents.
- 104 did not identify as either county or non-county residents.
- 984 identified as county residents.

984 people represent about 2.1% of the county population according to 2017 Census estimates. This is consistent with the response in the 2016 CHNA survey.

Racial and Ethnic Data

Census data of county by race reveals Hillsdale residents are primarily white.

Population of Hillsdale County by Race Compared to Michigan		
	Hillsdale	Michigan
White	97.0%	78.7%
Black/African American	0.8%	13.8%
American Indian/Alaska Native	0.4%	0.5%
Asian	0.4%	2.9%
Some Other Race	0.1%	1.2%

Source: U.S. Census Bureau, American Community Survey 2017 Estimates

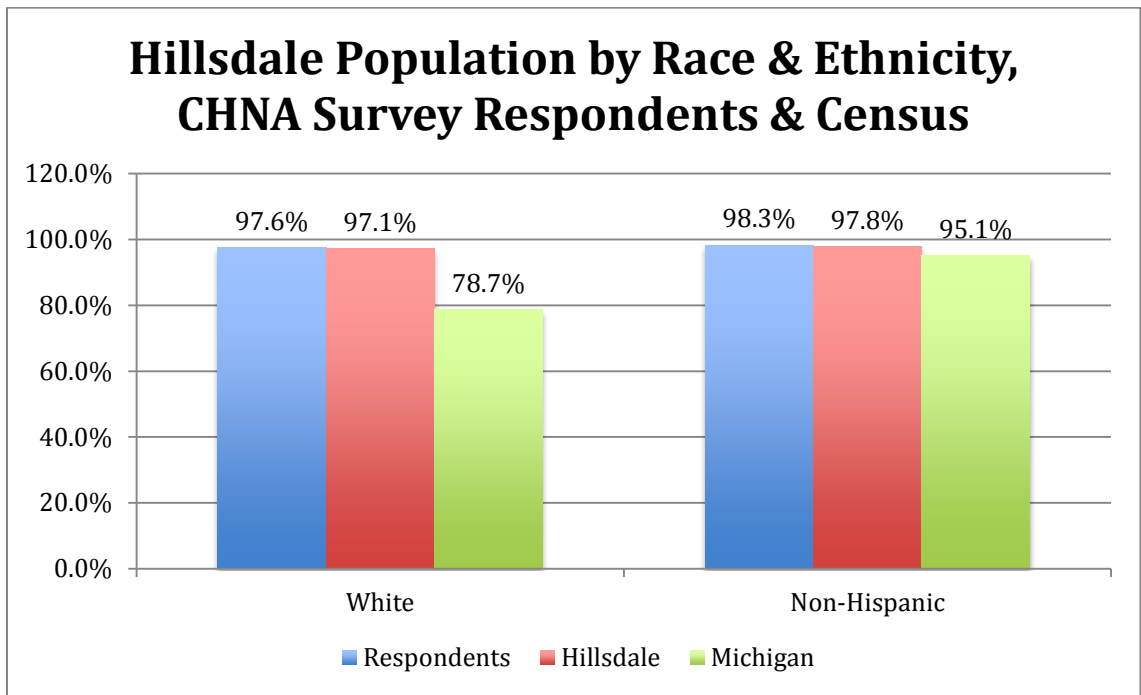
County census data shows a small percentage of residents are Hispanic.

Percentage of Hispanic Hillsdale County Residents Compared to Michigan		
	Hillsdale	Michigan
Hispanic	2.2%	4.9%

Source: U.S. Census Bureau, American Community Survey 2017 Estimates

The racial and ethnic profile of the survey respondents who answered this question mirrored this data:

- 1,155 (97.6%) of the respondents said they were white.
- 1,053 (98.3%) of the respondents said they non-Hispanic.



Source: CHNA Survey, 2019 and U.S. Census, 2017 Estimates

Population by Sex

The 2017 population estimate for Hillsdale County indicates the county is 50.1% female and 49.9% male. In the 2019 CHNA survey:

- 863 (73.1%) of the respondents said they were female.
- 217 (26.9%) were male.

Women have outnumbered men in the past two community assessment surveys. Females represented 69% of respondents in 2016 and 75% in the 2013 survey.

This may reflect the fact that women were more likely to use the health services where the surveys were prominently available.

Population by Age

The median age of Hillsdale residents is 42 years, compared to Michigan's 39.6 years and 37.8 years for the United States as a whole.

Median Age of Residents of Hillsdale County, Michigan and the U. S.			
	Hillsdale	Michigan	United States
Median Age	42	39.6	37.8

Source: U.S. Census Bureau, American Community Survey 2017 Estimates

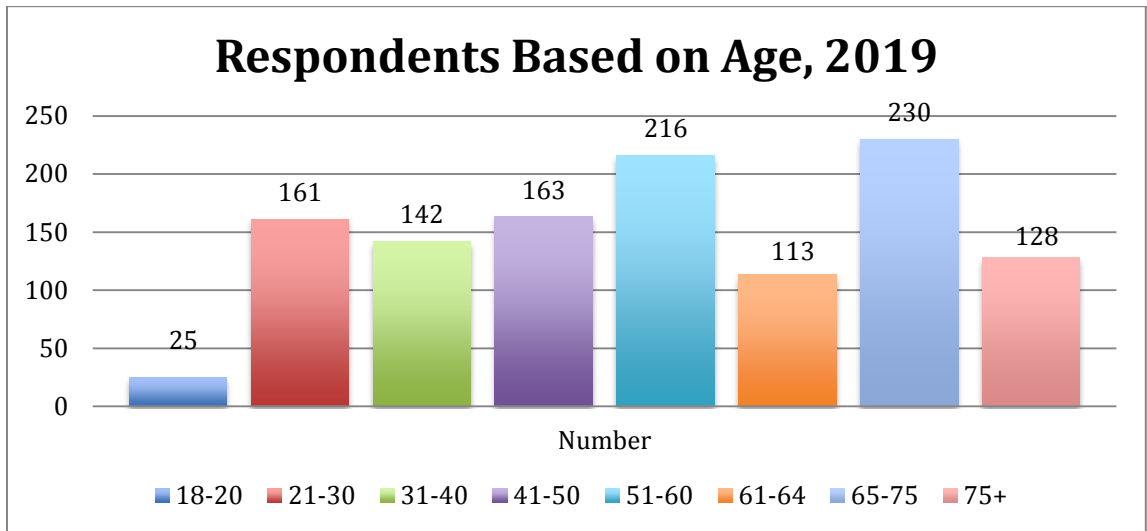
Hillsdale County has a slightly higher proportion of residents age 65 and over than Michigan.

Percentage of Hillsdale County Population by Age Compared to Michigan		
	Hillsdale	Michigan
Age 0 to 18	22.3%	22.3%
Age 18 to 65	59.7%	61.8%
Age 65+	18%	15.9%

Source: U.S. Census Bureau, American Community Survey 2017 Estimates

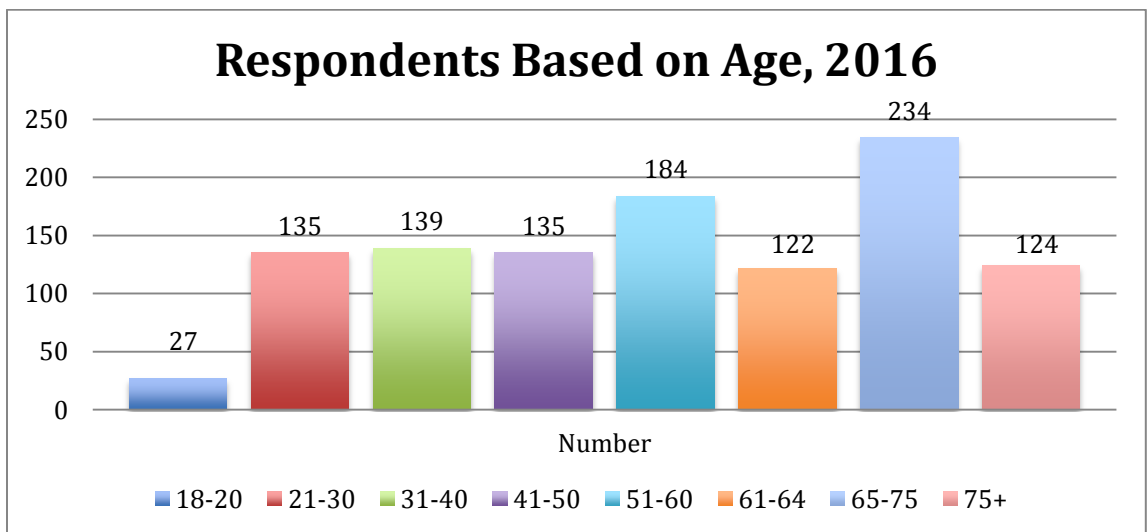
According to a survey conducted by the AARP Public Policy Institute, Michigan's 65 plus population is expected to grow to 2.34 million by 2030. Based on the estimate of 1.575 million age 65 or older in Michigan in 2017, a growth to 2.34 million would be a 48% increase. If a comparable increase occurs in Hillsdale County, this would have a serious impact on the local healthcare system.

All respondents to 2019 CHNA survey were age 18 and older.



Source: CHNA Survey, 2019

This is similar to what was found in 2016.



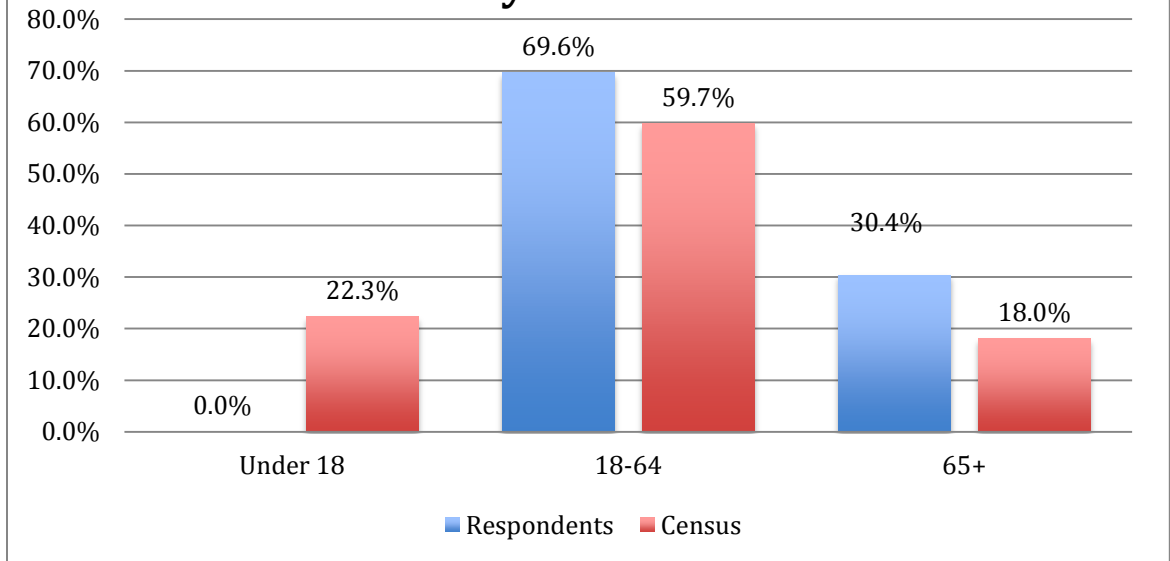
Source: CHNA Survey, 2106

The 2019 CHNA survey had a higher percentage of respondents that were 65 or older than the general population.

- 358 (30.4%) of respondents identified themselves as in this age group compared to an estimate of 18% in the general population.

This is comparable to previous surveys. 32.5% of respondent in the 2016 and 2013 surveys were in this age group.

2019 Survey Respondents by Age Compared to 2017 County Census Estimates*

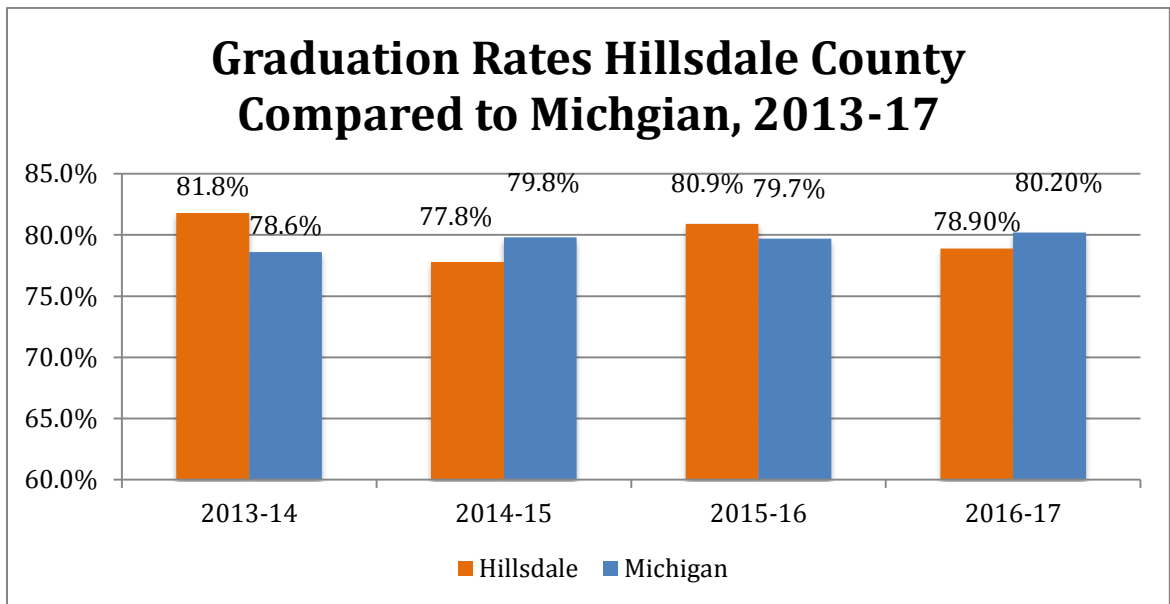


Source: CHNA Survey, 2019 and U.S. Census Bureau, American Community Survey 2017 Estimates

*Note: The 2019 CHNA survey was limited to those ages 18 or older.

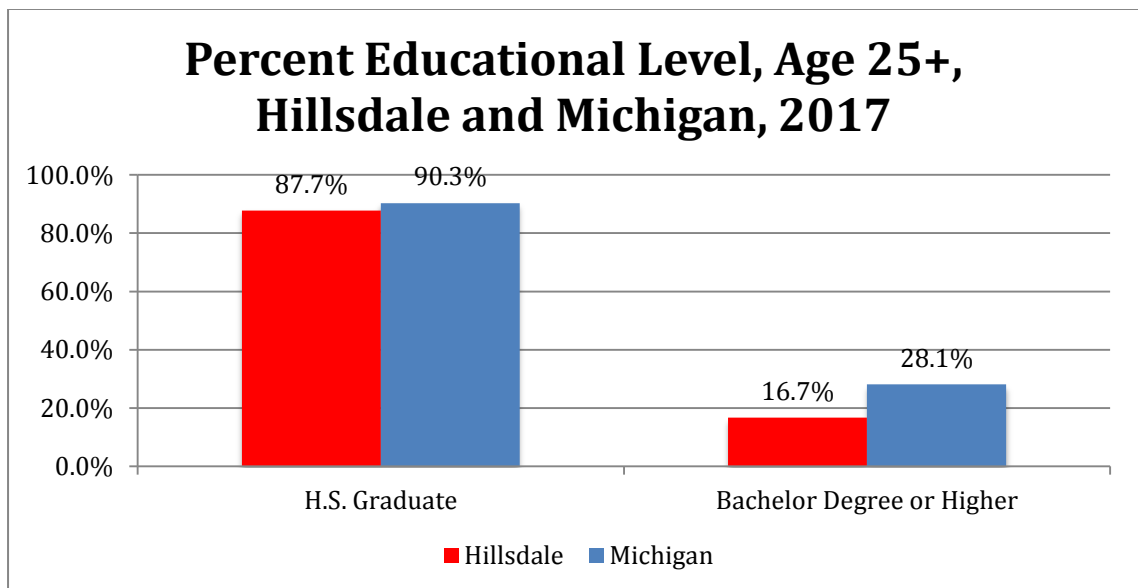
Population by Educational Level

Hillsdale county schools had a school graduation rate comparable to Michigan in the 2013-2014, 2015-16 and 2016-17 school years. In calculating the county graduation rate it was noted that the highest graduation rate was from the Hillsdale charter school.



Source: Center for Educational Performance and Information, HDE.

The percentage of adults, age 25 and older, with a high school diploma is slightly lower in Hillsdale County than in Michigan, and fewer county residents have degrees beyond high school.



U.S. Census Bureau, American Community Survey 2017 Estimates

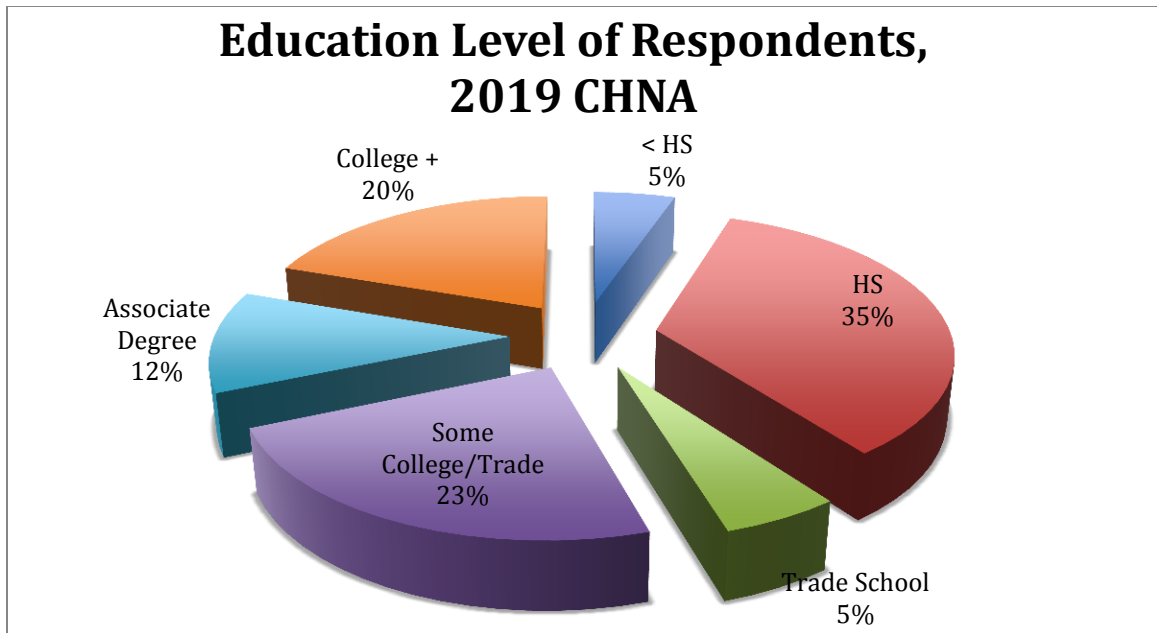
The HSN clarified that some children complete their education with a "certificate of completion" which is not equivalent to a diploma or GED. This affects primarily physically and mentally challenged students.

The 2019 CHNA survey asked respondents about their educational status.

The results indicated that 94.8% the 1185 respondents who answered this question had at least a high school diploma and 19.5% had a college degree or higher level of education.

This is consistent with previous surveys.

- 93% of respondents in 2016 and 90% in 2013 were high school graduates.
- 20% of respondents in 2016 and 23% in 2013 had a college or higher degree.



Source: CHNA Survey, 2019

Based on the education data available, the respondents to the 2019, 2016 and 2013 CHNA surveys were better educated than the general population.

The respondents in the 2019 survey had a higher percentage of individuals with college or advanced degrees than the general Hillsdale County population, but less than the percentage in Michigan.

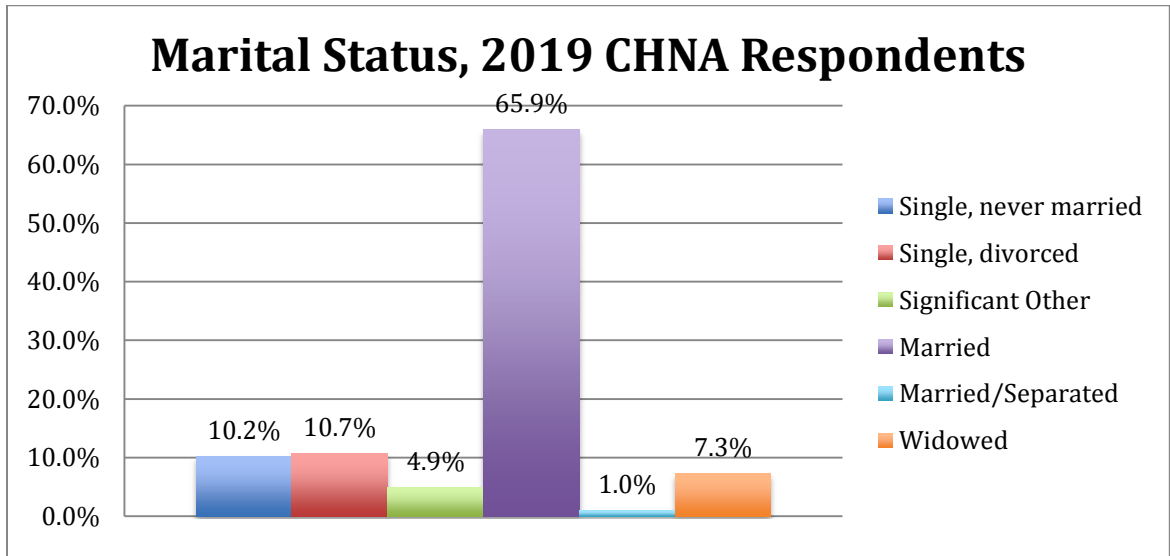
Many of those with college or advanced degrees are associated with Hillsdale College, an independent four-year liberal arts college with a national reputation. The college was established in 1844 with a current undergraduate enrollment of over 1,550 students. The students, staff and faculty have a significant impact on the social and economic life of the local community.

The members of the Human Services Network (HSN) were concerned about the high percentage of undereducated in the county and identified it as the major reason some residents live in poverty.

Population by Marital Status

Respondents in the 2019 CHNA were asked to describe their marital status. Of the 1194 who answered this question:

- 122 (10.2%) were single, never married.
- 128 (10.7%) were single, divorced.
- 58 (4.9%) were living with a significant other.
- 787 (65.9%) were married.
- 12 (1.0%) were married but separated.
- 87 (7.3%) were widowed.



Source: CHNA Survey, 2019

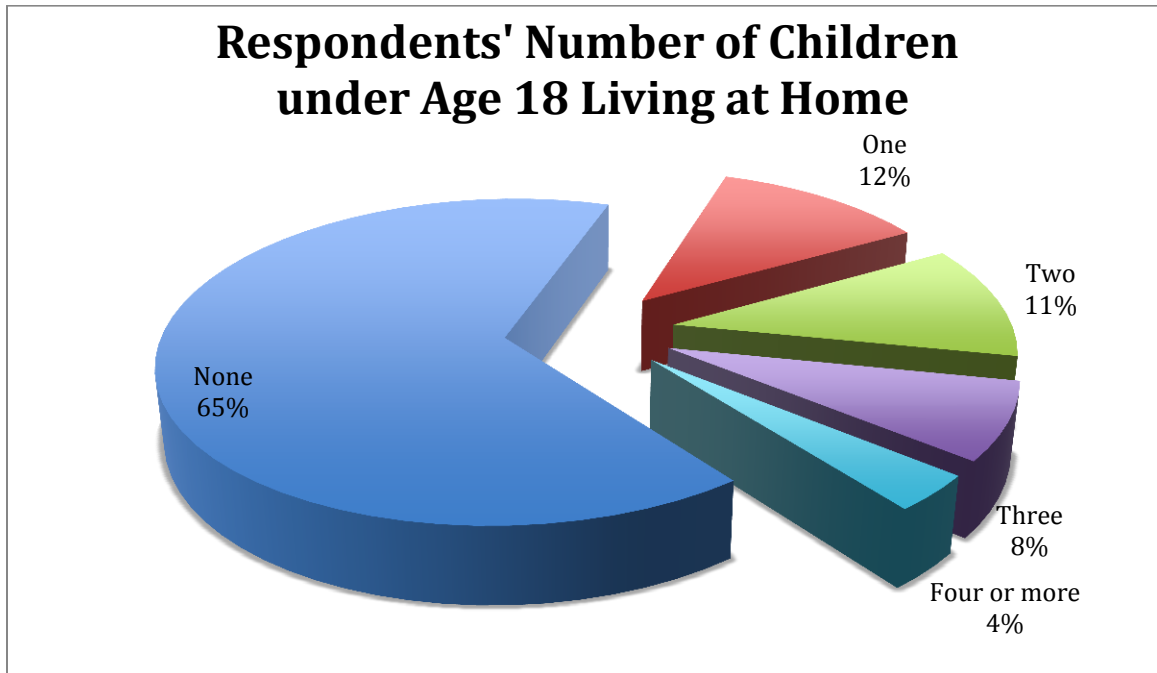
This is consistent with the 2016 and 2013 surveys where 63.5% and 59.4%, respectively, were married. It also matches the marital status estimates from the 2017 American Community Survey published by the US Census Bureau.

Marital Status by Percent, Males & Females, Hillsdale & Michigan, 2017				
	Males		Females	
	Hillsdale	Michigan	Hillsdale	Michigan
Never Married	29.8	36.1	23.6	30.1
Married	53.9	49.5	53.1	46.8
Separated	1.4	1.2	1.4	1.4
Widowed	3.0	2.8	9.5	9.5
Divorced	10.9	10.5	12.5	12.5

U.S. Census Bureau, American Community Survey 2017 Estimates

Children Living at Home

Respondents were asked how many children under the age of 18 were living in their home. The majority (65.5%) of the 1,184 people who answered this question had no children at home. This is nearly identical to 2016 survey results when 65.2% said they had no children at home and probably reflects the fact that a large number of the survey respondents were 65 and older.



Source: CHNA Survey, 2019

In comparison, the percentage of all family households with children under 18 living at home was 24.7% for Hillsdale County and 26.5% for Michigan residents. (U.S. Census Bureau, American Community Survey 2017 Estimates)

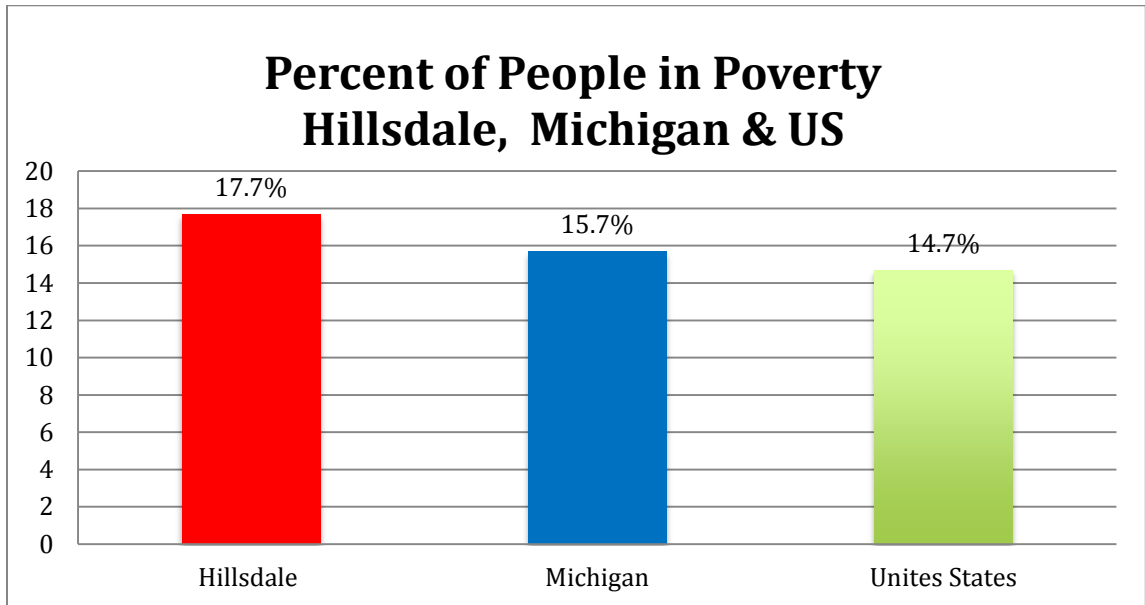
The Robert Wood Johnson Foundation in collaboration with the University of Wisconsin estimated 28% of county children live in single parent homes. (2013-17; average.)

Population by Poverty Level

Hillsdale County has a large number of people living at or near poverty level, and the number is growing.

A poverty level of 100% in the U.S. was defined in 2010 as a family of four with an annual income of \$22,050. In 2019, the income was raised to \$25,750.

Hillsdale County had a higher percentage of people at the 100% poverty level than Michigan or the United States.



Source: U.S. Census Bureau, American Community Survey 2017 Estimate

The Robert Wood Johnson Foundation in collaboration with the University of Wisconsin estimated 20% of county children under age 18 lived in poverty in 2017.

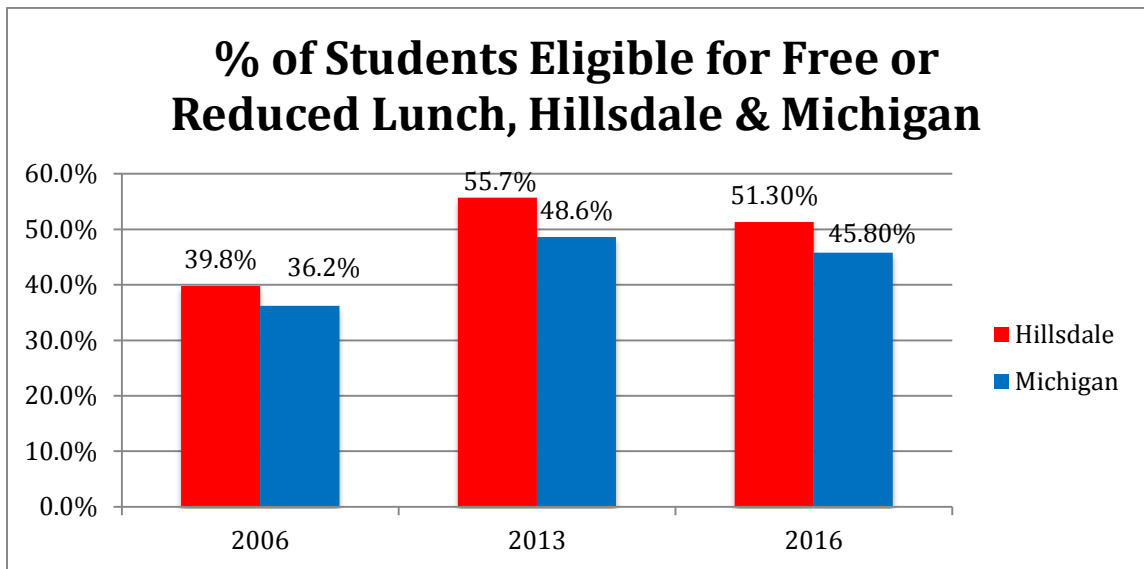
Respondents in the CHNA survey were asked if they were very concerned, moderately concerned, or not at all concerned about poverty in the community. Of the 1088 people who answered this question:

- 425 (39.1%) said they were very concerned.
- 478 (43.9%) were moderately concerned.
- 185 (17.0%) were not at all concerned.

These results were nearly identical to what was found in 2016.

Indicator of Poverty: Free Lunch Program

The percentage of Hillsdale students eligible for the free or reduced lunch program increased from 39.8% in 2006 to 55.7% in 2013 and has dropped only slightly in 2016 (the latest figure available.) This is higher than the percentage for all Michigan students in the years cited.



Source: Kids Count in Michigan, 2018 Profiles.

Indicator of Poverty: Home Ownership

Another indicator of poverty is the percentage of people who own their own home.

Home ownership is slightly higher in Hillsdale County than in Michigan. This may reflect the fact that real estate is less expensive in the county than in some other areas of Michigan. Home ownership is traditionally higher for households with married couples in both Hillsdale and Michigan.

Percent of Home Ownership, Hillsdale and Michigan, 2013-17		
	Home Owners	Renters
Hillsdale Households	76.5%	23.5%
Michigan Households	71.0%	29.0%

Source: U.S. Census Bureau, American Community Survey 2013-17 Five Year Estimate

The respondents in the CHNA survey were asked about their living situation. Of the 1,185 who answered this question:

- 907 (76.5%) lived in their own home.
- 185 (15.6%) rented a home or apartment.
- 88 (7.4%) stayed with relatives or others
- 5 (0.4%) said they were homeless.

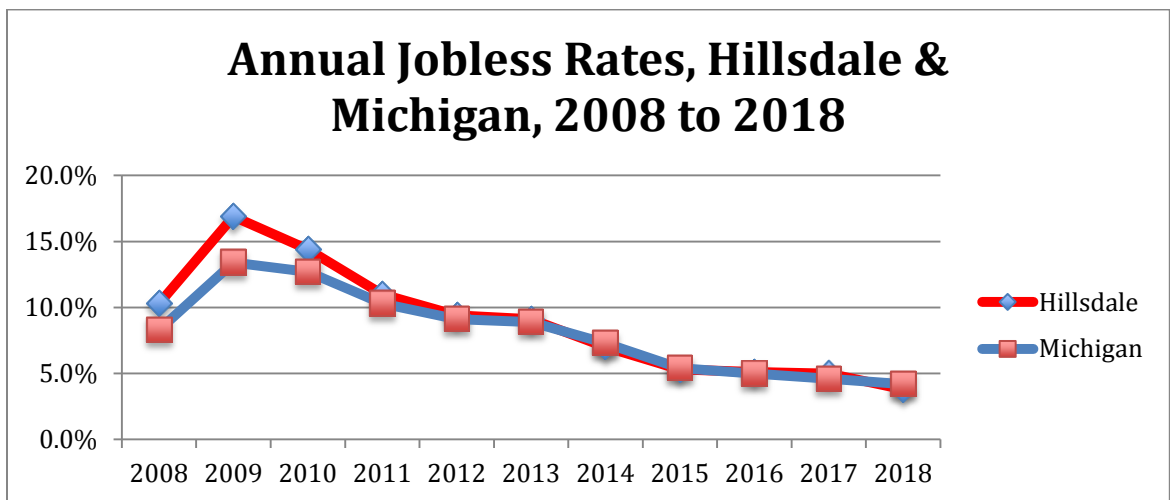
These results were similar to the 2016 survey where 74.2% lived in their own home, 18.2% rented, 7.6% stayed with relatives or others and 0.1% said they were homeless.

Respondents in the 2019 CHNA survey were asked how concerned they were about affordable housing. Of the 1085 who answered this question:

- 379 (34.9%) said they were very concerned.
- 441 (40.7%) were moderately concerned.
- 265(27.8%) were not at all concerned.

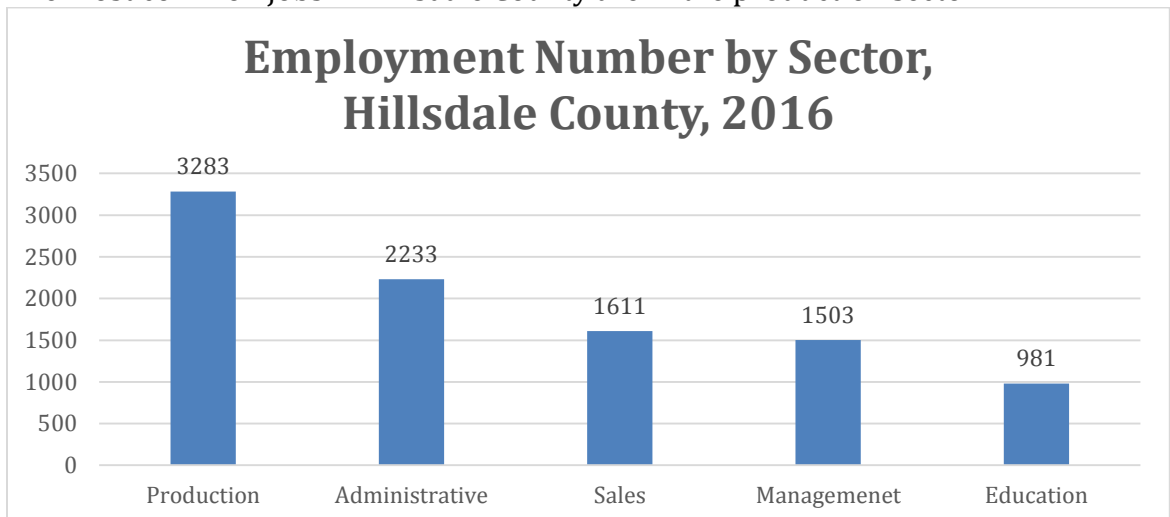
Income and Employment

Hillsdale County’s jobless rate parallels that of the state. The county had a jobless rate of 3.8% in December, 2018, comparable to Michigan’s 4.0% annual 2018 rate.



Source: Michigan Department of Technology, Management & Budget, Labor Market Information (Note: Hillsdale jobless rate is for December 2018; the annual rate was not available.)

The most common jobs in Hillsdale County are in the production sector.



Source: DATA USA, Hillsdale County, MI, 2016

The median and mean household income for the past 12 months for residents in Hillsdale County was less than Michigan.

Median and Mean Income, Hillsdale and Michigan, 2017 Estimate		
	Hillsdale	Michigan
Median Income	\$46,160	\$52,668
Mean Income	\$44,458	\$72,092

Source: U.S. Census Bureau, American Community Survey 2017 Estimate

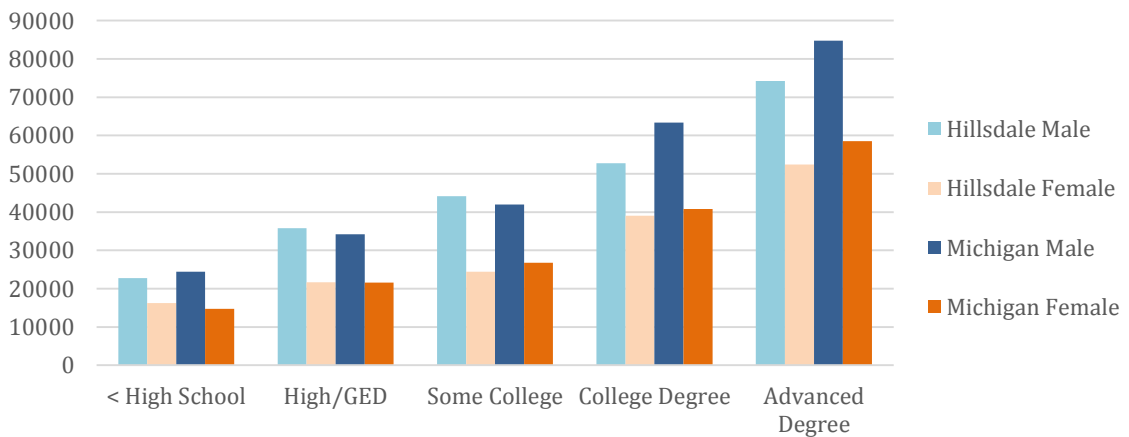
Individual income varies based upon educational level and sex. Hillsdale County employee wages compare fairly well to Michigan in those with less than college degrees but lags behind Michigan and the United States in salaries to those with degrees. Women make less than men in all categories.

The differences in male and female salaries do not take into account work histories and career paths which have an impact on salary compensations.

Median Earnings in Past 12 Months by Sex and Education Levels						
	Hillsdale		Michigan		United States	
	Male	Female	Male	Female	Male	Female
<High School	22,738	16,217	24,451	14,732	25,707	16,431
High/GED	35,831	21,674	34,241	21,622	35,294	23,366
Some College	44,124	24,417	41,951	26,775	42,464	29,652
College Degree	52,750	39,088	63,368	40,841	63,911	43,390
Advanced Degree	74,276	52,457	84,800	58,529	87,504	58,868

Source: U.S. Census Bureau, American Community Survey 2017 Estimate

Hillsdale & Michigan Salary Estimates by Education & Sex



Source: U.S. Census Bureau, American Community Survey 2017 Estimate

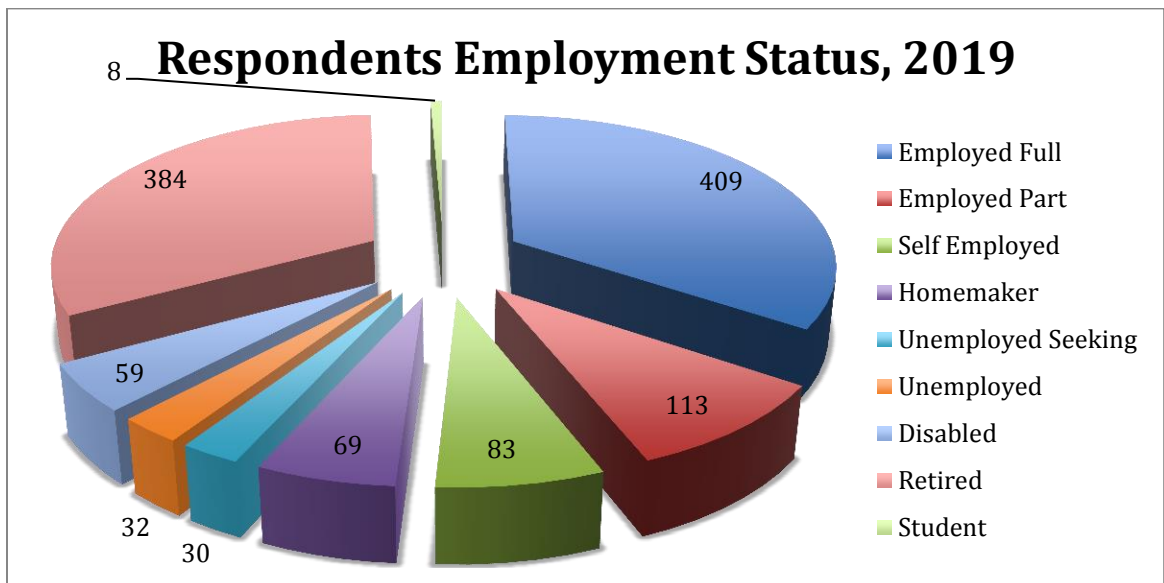
No personal income questions were asked in the survey.

Respondents were asked in the CHNA survey about their employment status. Of the 1,187 who answered this question:

- 8 (0.7%) were students or too young to be employed.
- 409 (34.5%) were employed full time by a company.
- 113 (9.5%) worked part time or seasonally.
- 83 (7.0%) were self-employed.
- 30 (2.5%) were unemployed but seeking work.
- 32 (2.7%) were unemployed but not seeking work.
- 59 (5.0%) were permanently disabled.
- 384 (32.4%) were retired.
- 69 (5.8%) were homemakers.

It was noted when entering data from the paper surveys that some respondents checked more than one box for this question. This was more likely to be true for those age 65 or older who were retired. This may reflect that fact that some retirees remain active in the work force on a part time or occasional basis.

On the 2016 CHNA survey, only 26.7% of respondents were employed compared to 34.5% in 2019. This reflects the overall improvement in the U.S. economy.



Source: CHNA Survey, 2019

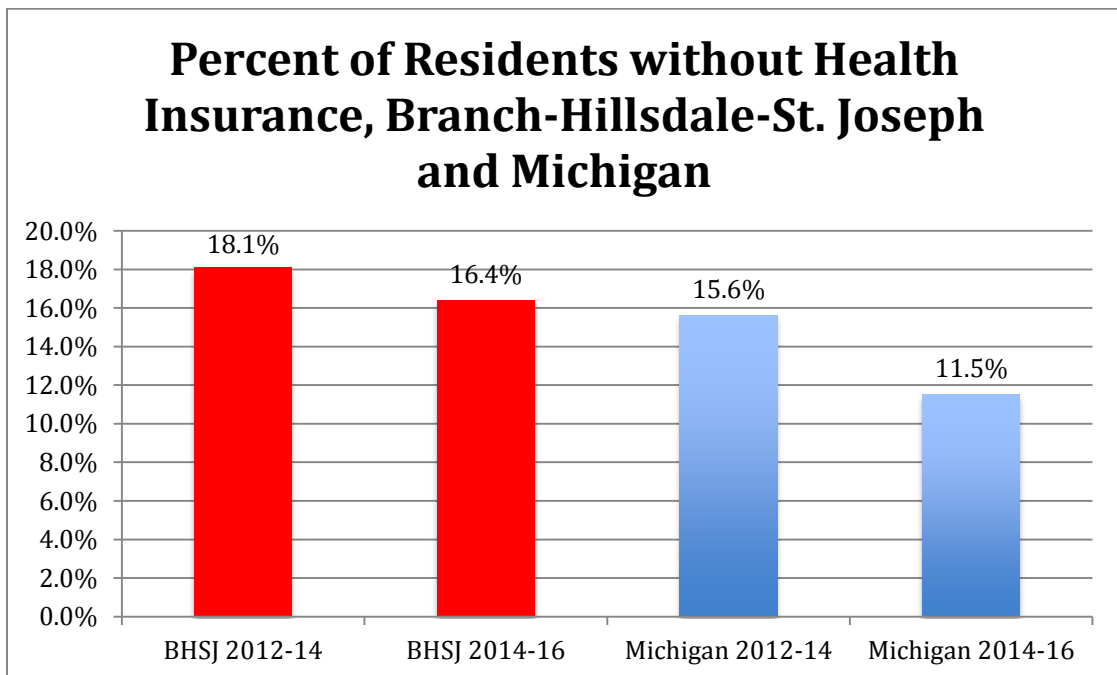
In 2016, members of the Human Services Network (HSN) commented that the significant population of undereducated residents in the county impacts local employment opportunities. The lack of qualified applicants for professional positions in the community often results in hiring individuals from outside the county to fill vacancies. They recognized a need for more skilled labor training programs in the county.

THE COMMUNITY AND HEALTH INSURANCE

Prevalence of Health Insurance

Economic status was traditionally the most important factor determining whether a person had any, or adequate, health insurance. Today there are many government-subsidized programs that provide coverage for medical treatment, though there are still some people who do not qualify, or do not apply for, these programs.

The Michigan Behavior Risk Factor Survey, 2014-16 average, showed 16.4% of residents in Branch-Hillsdale-St. Joseph Counties between the ages of 18 and 64 reported they had no health insurance compared to 11.5% in Michigan. This is a slight decrease from the 2012-2014 average which showed 18.1% for Branch-Hillsdale-St. Joseph residents and 15.6% for Michigan residents.

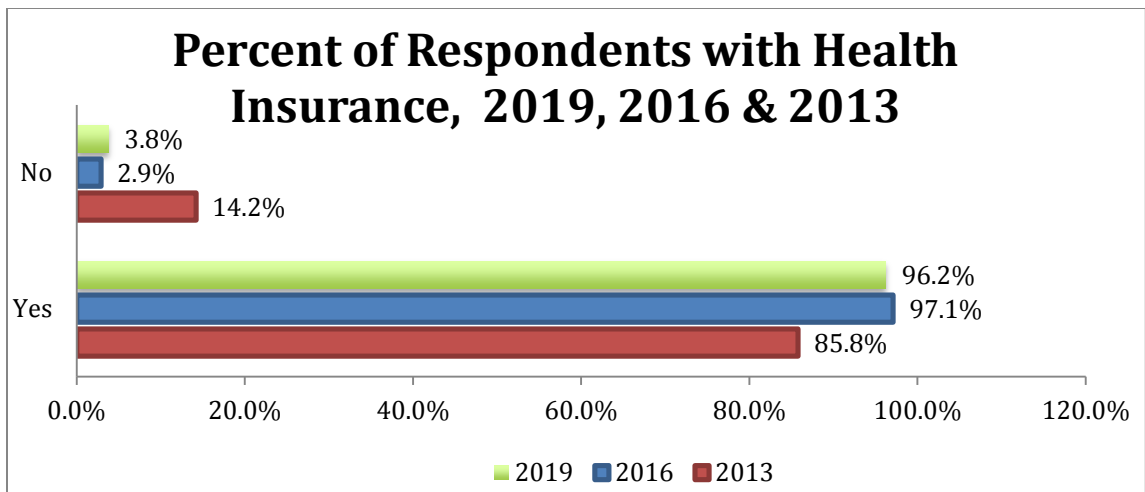


Sources: Behavior Risk Factor Survey, Branch-Hillsdale-St. Joseph Residents and Michigan, 2012-14 and 2014-16 Average

The CHNA survey asked whether respondents had health insurance. Of the 1,158 who responded to this question:

- 1,114 (96.2%) said they did.
- 44 (3.8%) said they did not.

The number of uninsured is about the same as in the 2016 CHNA survey but it was much higher in 2013.



Sources: CHNA Surveys, 2019, 2016 and 2013

Type of Insurance

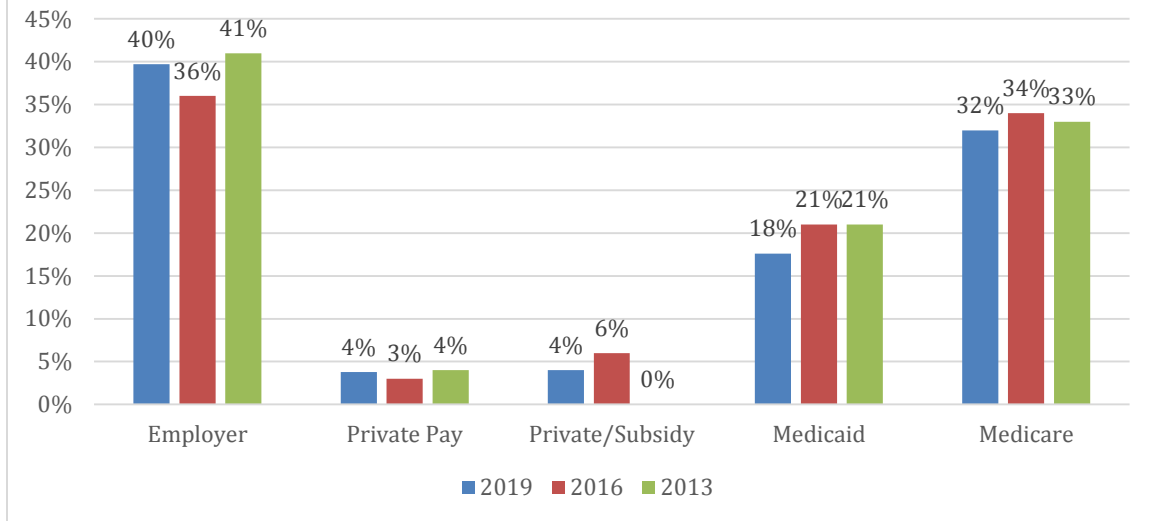
Respondents were asked in the CHNA survey what type of health insurance they had. Of the 1,114 who answered this question:

- 442 (39.7%) had insurance through their employer.
- 42 (3.8%) had privately paid insurance where they paid all the costs.
- 45 (4.0%) had a private plan where they paid some of the cost (government subsidized.)
- 196 (17.6%) were on Medicaid.
- 31 (2.8%) were on the Healthy Michigan plan.
- 47 (4.2%) had only Medicare.
- 311 (27.9%) had Medicare with a supplement plan.

This follows the same trend found in 2016 and 2013.

It was noted on the data entry of the paper surveys that some people checked both Medicaid and Medicare as their health insurance. Analysis of these individuals revealed almost all were either disabled or aged. If they were less than 65, they were entered as on Medicaid; if over 65 they were entered as on Medicare.

Source of Insurance, Respondents, CHNA Surveys 2019, 2016, & 2013



Source: CHNA Surveys, 2019, 2016 and 2013

Employers and Health Savings Accounts

Those respondents in the 2019 CHNA survey who had health insurance through their employer were asked if their plan had a Health Savings Account.

442 respondents said they had health insurance through their employer, but only 117 (26.4%) said that insurance included a Health Savings Account.

Medicaid

Under the Affordable Care Act, Medicaid expansion was approved December 30, 2013 in Michigan and implemented beginning April, 2014. This was expected to cause an increase in the number of Medicaid users in Hillsdale County. But the percentage of respondents in the 2019 survey who said they had Medicaid was 17.6% compared to 20.6% in 2016 and the 21.4% reported in 2013.

It was noted on data entry of the paper surveys that some people checked that they had both Medicaid and Medicare. If the respondent was less than 65, the data was entered as Medicaid; if 65 or older it was counted as Medicare.

Those under age 65 who claimed they were on both Medicaid and Medicare were primarily those who also said they were permanently disabled and who qualified for both programs.

Medicaid provides a wide range of health insurance benefits.

According to Medicaid Help Organization, a privately owned company that serves as a resource for those seeking affordable health insurance, “The health services deemed covered and necessary under Michigan Medicaid include:

- Ambulance and non-emergency medical transportation
- Emergency services
- Family planning and pregnancy services
- Home healthcare, nursing home care, personal care services, private duty nursing and hospice care
- Immunizations, labs, X-rays and medical supplies
- Mental health services
- Substance use disorder treatment services
- Physical and occupational therapies and chiropractic services
- Hearing and speech services
- Surgeries”

According to the Medicaid Help Organization website, there are some fee-for-service inclusions where enrollees will only be responsible for a minimal co-pay of less than \$5. These include:

- “Physician office and free-standing urgent care center visits
- Outpatient hospital clinic visits
- Emergency room visits for both emergency and non-emergency services
- Inpatient hospital stays
- Pharmacy costs
- Chiropractic care
- Dental visits
- Hearing aids
- Podiatric visits
- Vision appointments”

(Source: <https://medicaid-help.org>)

One factor that may distort the number of people on Medicaid in the CHNA surveys is that the surveys were limited to residents ages 18 and older.

The HSN members said a large number (maybe as high as 50%) of county children ages 0 to 18 are on Medicaid. Children on Medicaid automatically have prescription, dental, and eye exam/glasses coverage, though not all adults on Medicaid will have dental benefits.

Some HSN members pointed out that while many working parent(s) have health insurance through their employer, the coverage applies only to the workers. Paying a premium to insure dependents under an employer plan is often prohibitive. As a result, many of the worker's children are enrolled in Medicaid.

The HSN was very concerned that although there is a significant population of people on Medicaid only a few doctors in the area accept that as a form of payment or doctors only accept a limited number

Physicians are reluctant to take Medicaid because the paperwork involved in serving Medicaid patients is substantial and the reimbursement for services is below that from other insurance plans.

Many of the HSN members work in social service and related capacities. Based on their involvement with Medicaid recipients, many felt those covered under Medicaid were more likely to seek treatment in the emergency room of the hospital than a private physician. This is because emergency room services do not require a co-payment while going to a local provider does.

Medicare

Medicare is a United States national health insurance program. It is administered by the Centers for Medicaid and Medicare Services of the U.S.

Medicare was created in 1966 under the Social Security Administration.

Medicare has three parts. According to the Medicare official website:

- 1) Medicare Part A, hospital insurance, covers:
 - inpatient hospital care
 - skilled nursing facility
 - hospice
 - lab tests
 - surgery
 - home health care

- 2) Medicare Part B, medical insurance, covers:
 - doctor and other health care providers' services
 - outpatient care
 - durable medical equipment
 - home health care
 - some preventive services

- 3) Medicare Part D, drug coverage, is an optional program to cover prescription drugs. This plan has a premium, yearly deductible and co-payments.

Residents who are age 65 or those receiving Social Security benefits due to disability are eligible for Medicare.

There is no monthly premium for Part A, but people enrolled in Part B will pay an average monthly premium of \$135.50 in 2019.

Some elderly or people on disability may have coverage under both Medicaid and Medicare.

Percent on Medicare based on Age and Disability, Michigan & US, 2015		
	Aged	Disabled
Michigan	82%	18%
United States	84%	16%

Source: Henry J. Kaiser Family Foundation

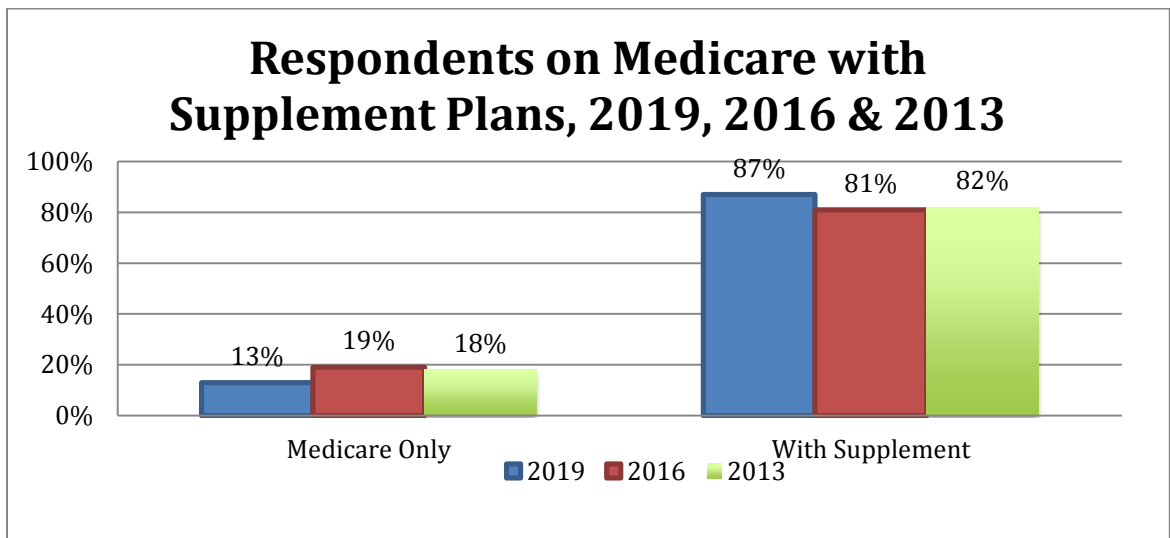
Medicare and Supplemental Plans

There is a yearly deductible before Medicare will cover any expense and coverage is not 100% of the cost. Because of this, many Medicare enrollees carry supplemental insurance.

The majority of the 358 respondents who reported they were on Medicare in the 2019 CHNA survey had a supplemental plan:

- 311(86.9%) said they carried a supplemental plan.
- 47 (13.1%) did not carry a supplement.

This is comparable to what was found on the 2016 and 2013 CHNA surveys.



Source: CHNA Surveys, 2019, 2016 and 2013

Concerns about Medicare's Sustainability

Medicare is financed by the premiums paid by enrollees and payroll taxes on younger workers. But the amount paid out by Medicare to enrollees is significant and questions about the sustainability of the program are often raised, especially as the aged population increases and coverage includes those who are permanently disabled.

- The average reimbursement per Medicare enrollee in Hillsdale County was \$9,043 in 2014. This was \$545 less than the national average. (Source: Data USA.)
- This is less than the \$11,318 spent per enrollee for Michigan residents on Medicare in the same year. (Source: Henry J. Kaiser Family Foundation)

Money Spent per Enrollee, Hillsdale, Michigan & U.S., 2014			
	Hillsdale	Michigan	U.S
Enrollee	\$9,043	\$11,318	\$9,588

Source: Data USA and Henry J. Kaiser Family Foundation
Community Health Needs Assessment, Hillsdale County, 2019

Prescription Drug Insurance

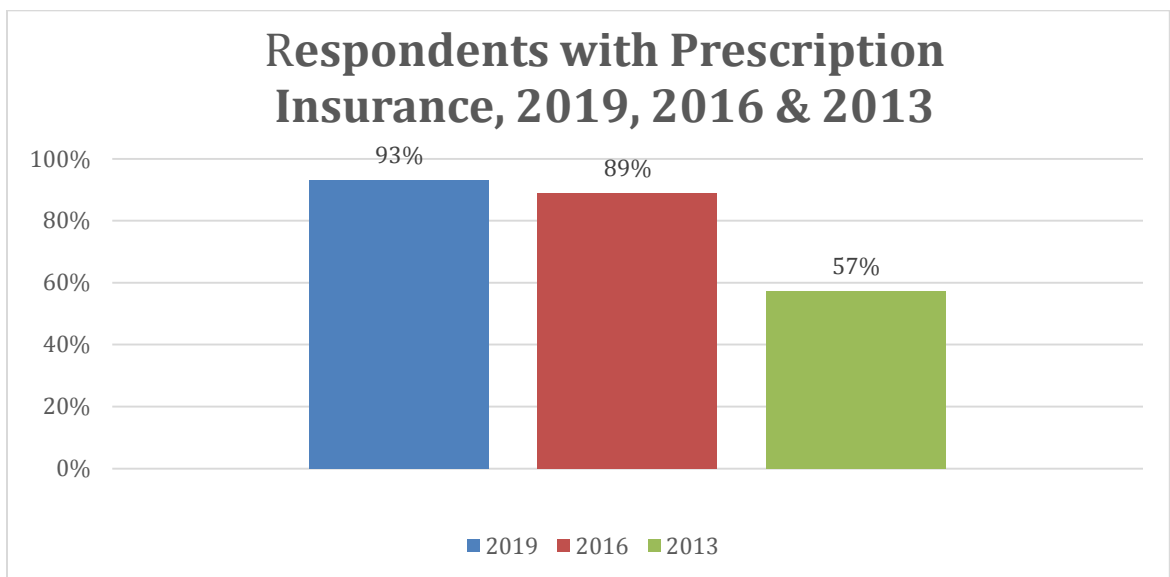
Though 96.2% of those surveyed had some form of health insurance, a smaller percentage had prescription coverage.

Respondents were asked if they had health insurance, did they have prescription drug coverage. 1,119 answered this question; of those, 1,042 (93.1%) said they did. Those who said they had prescription coverage were further analyzed as to what type of primary health insurance they said they had.

The analysis showed that among those who had a prescription plan:

- 420 out of 438 (95.9%) were covered through an employer health insurance plan.
- 35 out of 42 (83.3%) were covered through a private plan.
- 38 out of 42 (90.5%) were covered through a government subsidized plan.
- 185 out of 196 (94.4%) were covered under Medicaid.
- 31 out of 31 (100%) were covered through Healthy Michigan.
- 37 out of 44 (84.0%) were covered through Medicare.
- 276 out of 301(91.7%) were covered through Medicare with a supplement plan.

The percentage of respondents with prescription insurance has risen slightly over the years based on previous CHNA surveys.



Source: CHNA Surveys, 2019, 2016 and 2013

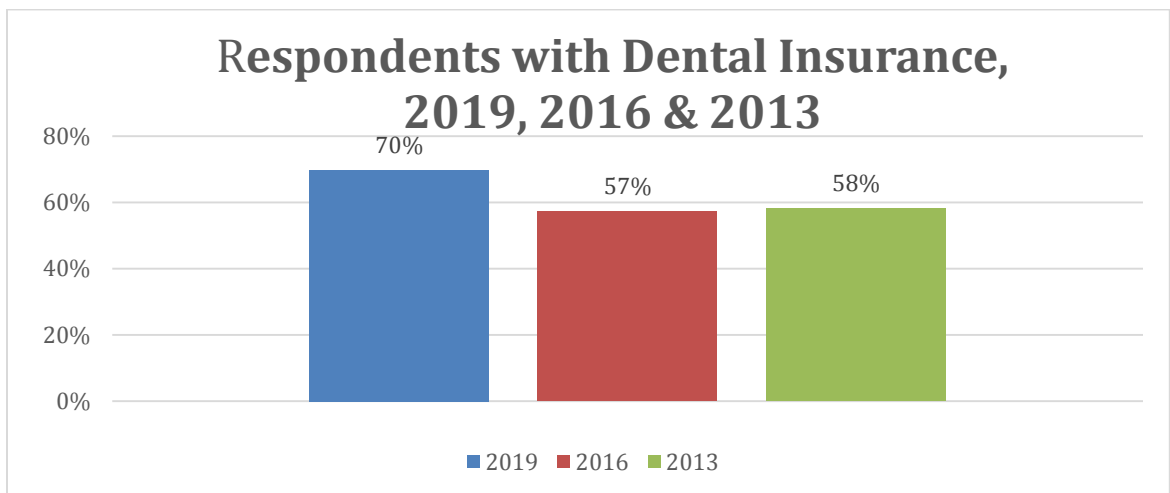
Dental Insurance

A smaller percentage of the survey respondents with health insurance had dental coverage than prescriptions.

Respondents were asked if they had health insurance, did they have dental coverage. 1,055 answered this question and 736 (70%) of them said they did. Of those who said they had dental coverage:

- 377 out of 433 (87.1%) were covered through an employer plan
- 11 out of 41 (26.8%) were covered through a private plan
- 21 out of 38 (55.2%) were covered through a government subsidized plan
- 145 out of 179 (81.0%) were covered under Medicaid.
- 27 out of 29 (93.1%) were covered through Healthy Michigan
- 15 out of 37 (40.5%) were covered through Medicare.
- 125 out of 271(46.1%) were covered through Medicare with a supplement plan.

This is similar to what was found in 2016 and 2013.



Source: CHNA Surveys, 2019, 2016 and 2013

The Michigan Behavior Risk Factor Survey (2014-16 averages) asked respondents about dental care. Their results showed 39.4% of Branch-Hillsdale-St. Joseph residents had not visited a dentist in the past year and 22.9% had 6 or more missing teeth. This is higher than for all Michigan residents where 30.7% reported no dental visit and 15.7% were missing 6 or more teeth.

Percentage with no Dental Visit or Missing Teeth, 2014-16 Average		
	No Dental Visit	Missing 6 or more Teeth
Branch-Hillsdale-St. Joseph	39.4%	22.9%
Michigan	30.7%	15.7%

Source: Michigan Behavior Risk Factor Survey, 2014-16 Average

Dental Clinic

In March 2011, the Branch-Hillsdale-St. Joseph Community Health Agency, in partnership with My Community Dental Centers, opened a dental clinic in Hillsdale. The clinic serves Medicaid, the under-insured and uninsured clients.

The members of the HSN commented that dental care in the community has improved in the area in recent years. One HSN member said several people go to the dental school in Ann Arbor for treatment where dental students under treat patients under supervision at a lower cost than established dentists.

Eye Exams and Glasses

The 2019 CHNA asked respondents if they had insurance for eye exams and glasses. Of the 1,053 who answered this question:

- 713 (67.7%) said they had coverage.
- 340 (32.3%) did not.

A question about vision insurance was not part of the 2016 or 2013 CHNA surveys.

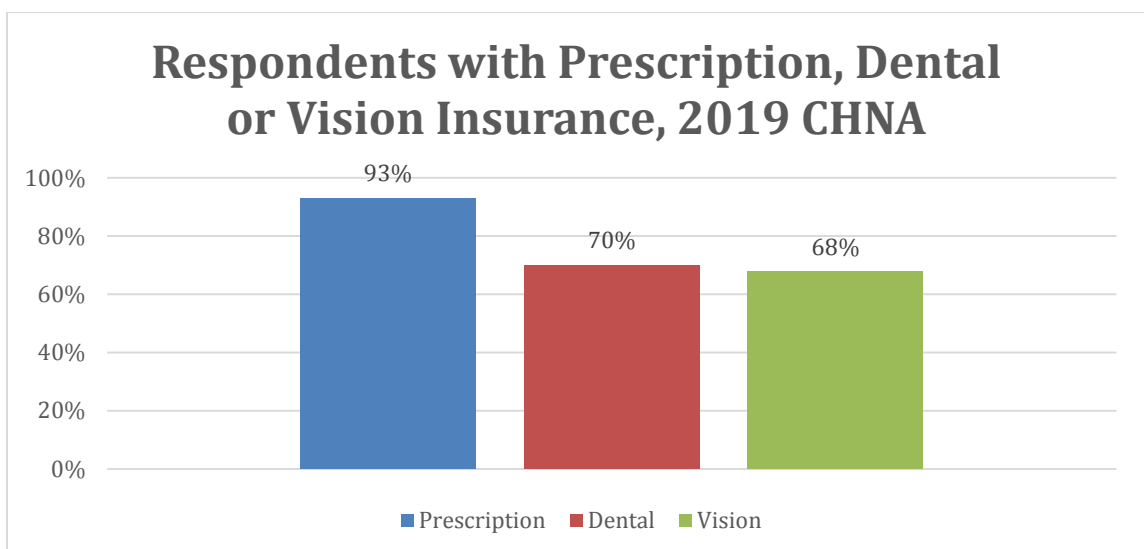
Respondents who said they had vision coverage were further analyzed as to what type of primary health insurance they said they had.

The analysis showed that among those who had a vision plan:

- 343 out of 429 (79.9%) were covered through an employer plan.
- 11 out of 41 (26.8%) were covered through a private plan.
- 15 out of 36 (41.7%) were covered through a government subsidized plan.
- 149 out of 178 (83.7%) were covered under Medicaid.
- 25 out of 29 (86.2%) were covered through Healthy Michigan.
- 18 out of 38 (47.3%) were covered through Medicare.
- 136 out of 275 (49.5%) were covered through Medicare with a supplement plan.

Despite the lack of insurance to cover eye exams and/or glasses for some people, 725 of the 1200 respondents in the survey (60.4%) said they had visited an eye professional in the past year. This may reflect the higher percentage of respondents who were elderly where vision problems are more likely to occur and coverage for medical conditions such as cataract removal is available through Medicare.

Summary of Prescription, Dental and Vision Insurance



Source: CHNA Survey, 2019

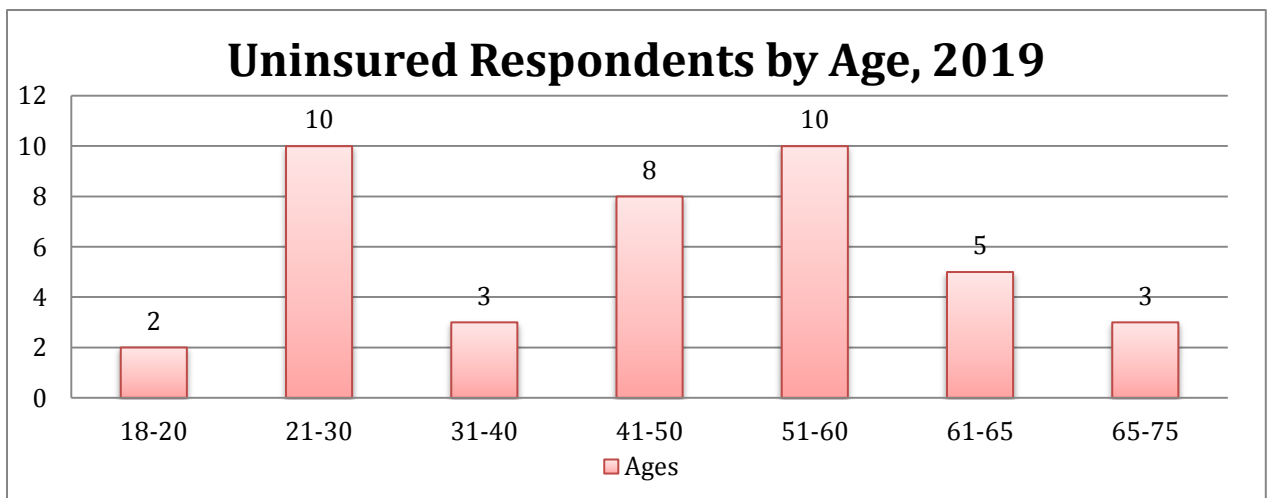
The Uninsured

44 people on the 2019 CHNA survey said they did not have health insurance. When individual responses were analyzed, it was found:

- 1 actually had Medicare and three others were over 65 and may have been qualified for Medicare.
- 1 was on Medicaid.
- 1 had an employer plan.
- 1 had a private pay, government subsidized plan.

Of those who reported no insurance:

- 2 were age 18 to 20.
- 10 were age 21 to 30.
- 5 were age 31 to 40.
- 8 were age 41 to 50
- 10 were age 51 to 60.
- 5 were age 61 to 64.
- 3 were age 65 to 75.



Source: CHNA Survey, 2019

The Robert Wood Johnson Foundation in collaboration with the University of Wisconsin estimated 7% of the county population under 65 did not have health insurance in 2016. This included 8% of adults and 4% of children.

Respondents without insurance were more likely to be female than male.

- 8 (18.6%) were male
- 35 (81.4%) female.

The HSN members were concerned that the ones least likely to have insurance were those age 20 to 40. Some of those ages 20 to 25 may remain covered under their parent(s) health coverage, but for those over 25 the cost of insurance is a factor.

Patient Insurance Profile, Hillsdale Hospital

A study of Hillsdale Hospital inpatient admissions revealed the majority of patients were covered by Medicare but the percent covered by Medicaid has increased. This probably reflects the expansion of Medicaid under the Affordable Care Act.

Payment Source, Hillsdale Hospital Inpatients, 2013 to 2018						
	2013	2014	2015	2016	2017	2018
Medicare	61%	58%	59%	47%	47%	45%
Medicaid	14%	18%	17%	21%	22%	23%
BC/BS	14%	13%	15%	18%	17%	18%
Commercial	7%	7%	8%	10%	11%	11%
Self Pay	4%	4%	2%	3%	3%	3%

Source: Inpatient Insurance Profile, Hillsdale Hospital, 2013 to 2018

BIRTH AND DEATH COMMUNITY HEALTH INDICATORS

Birth Statistics

Hillsdale County's average live birth rates for women age 15 and older during the years 2015 to 2017 were higher than Michigan. The average pregnancy rate in the county was comparable to the state but the county abortion rate was lower.

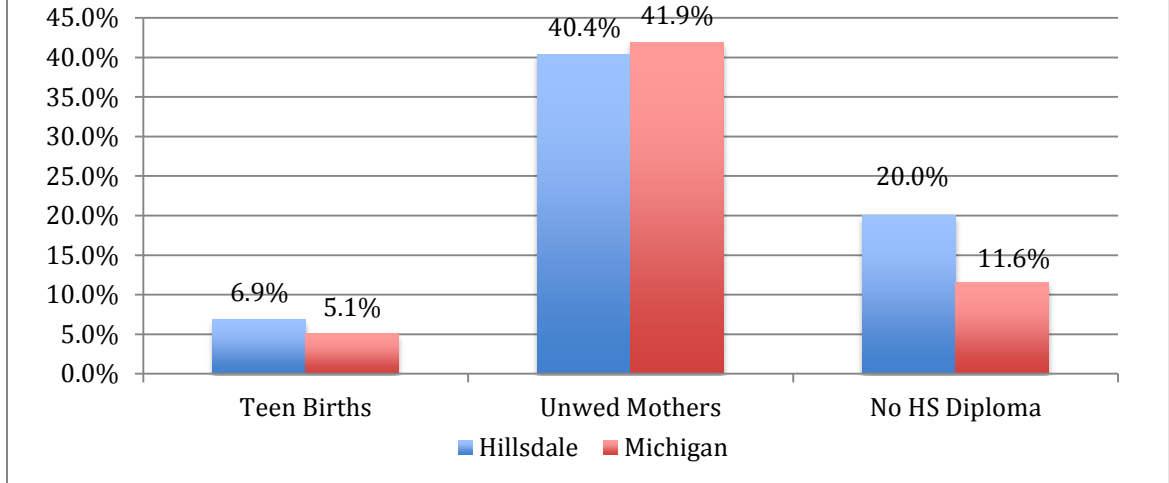
Pregnancy and Live Birth Rates, Hillsdale and Michigan, 2015-17 Average		
	Hillsdale	Michigan
Live Birth Rate	67.3	60.1
Pregnancy Rate	85.5	87.1
Abortion Rate	4.3	13.7

Source: Michigan Resident Birth Files, Michigan Department of Community Health, 2015-17 Average

There were 1613 live births from 2015-17 for an average of 538 live births a year among county residents. During this time period:

- 6.9% (112) of the births were to teen mothers compared to 5.1% in Michigan. This is a decrease from the 10.3% seen in Hillsdale and 7.8% for Michigan in the 2011-13 period.
- 40.4% (652) were to unwed mothers compared to 41.9% in Michigan. This is about the same as in the 2011-13 period.
- 20.0% (323) of mothers had less than a high school education, compared to 11.6% in Michigan. This is also about the same as the 2011-13 period.

Average Births Hillsdale Compared to Michigan, 2015-2017



Source: Michigan Resident Birth Files, Michigan Department of Community Health, 2015-2017 Average

Teen Pregnancy

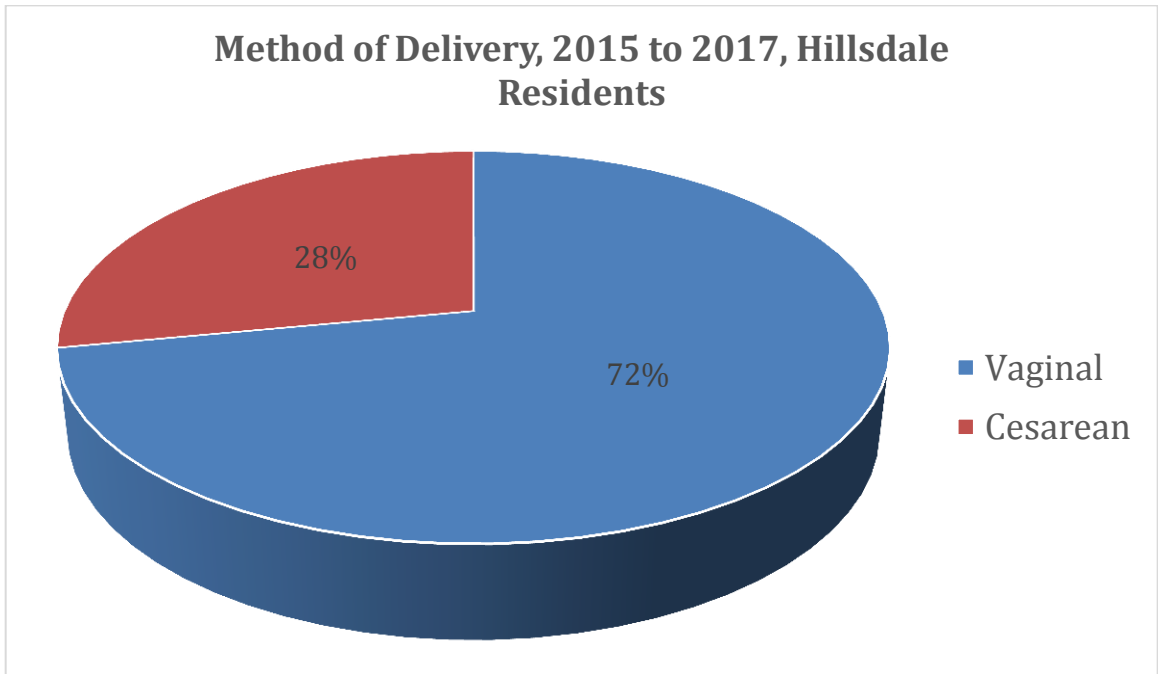
2019 survey respondents were asked if they were very concerned, moderately concerned, or not at all concerned about the teen pregnancy in the community. Of the 1,083 who answered this question:

- 271 (25.0%) were very concerned.
- 511(47.2%) were moderately concerned.
- 301 (27.8%) were not at all concerned.

In contrast, on the 2016 survey, 31.6% were very concerned, 45.1% were moderately concerned and 23.4% were not at all concerned about this issue.

Method of Delivery

Of the 1613 births to county residents in the three-year period from 2015 to 2017, the majority of births, 1156 (72%) were through vaginal delivery as opposed to 68% in Michigan.

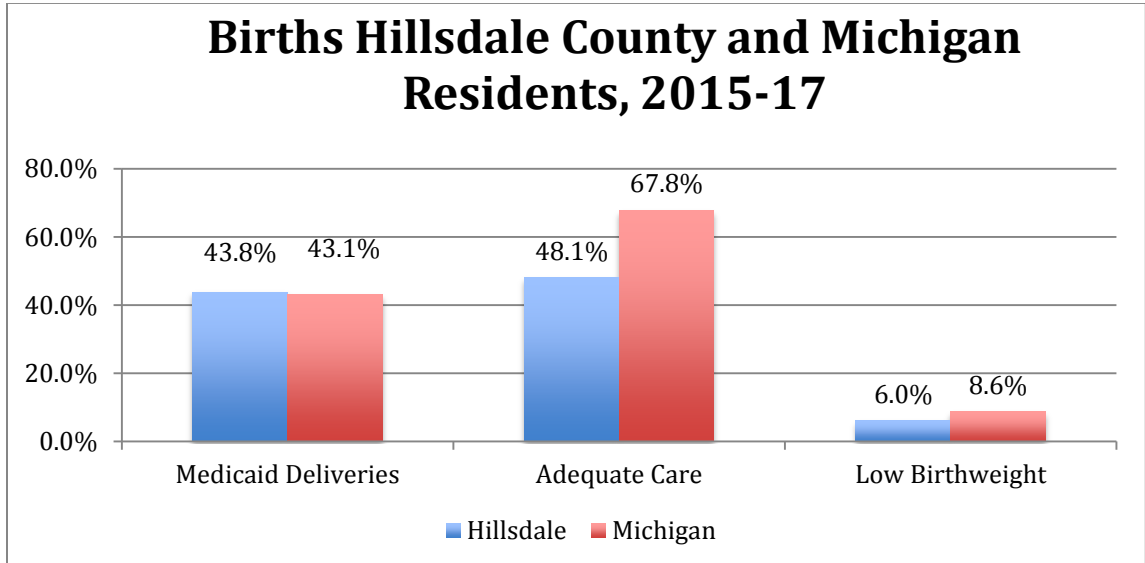


Source: Michigan Resident Birth Files, Michigan Department of Community Health, 2015-2017 Average

Payment of the Cost of Deliveries

Among the 1613 births to county residents between 2015 to 2017:

- 43.8% (or 779) of deliveries were covered by Medicaid compared to 43.1% in Michigan.
- 48.1% (or 776) of the mothers received adequate prenatal care compared to 67.8% in Michigan. (42.7% in Hillsdale received intermediate pre-natal care.)
- 6% (or 95) of the babies were low birth weight compared to 8.6% in Michigan.



Source: Michigan Resident Birth Files, Michigan Department of Community Health, 2015-17 averages

Hillsdale Hospital Birthing Center

Hillsdale Hospital offers a fully equipped birthing center.

Not all live births to Hillsdale County residents occurred at Hillsdale Hospital, but some out-of-county residents used the hospital facility. The hospital averaged 317 live births and 7 still births during the period 2016 to 2018.

Hillsdale Hospital Births, 2016 to 2018			
	2016	2017	2018
Live Births	314	305	333
Still Births	13	6	2

Source: Hillsdale Hospital Live Births, 2016 to 2018

Respondents were asked if they had been pregnant in the past year. Of those who answered this question:

- 115 said yes.
- 670 said no.

As a follow up question, respondents were asked if had a baby in the past year, did they use Hillsdale Hospital for delivery. 186 answered this question which is higher than the number who said they were pregnant. Of those who answered:

- 51 said yes.
- 135 said no.

Birth Statistics Concerns

The members of the HSN were concerned about the high incidence of smoking among pregnant women and inadequate prenatal care for some area mothers.

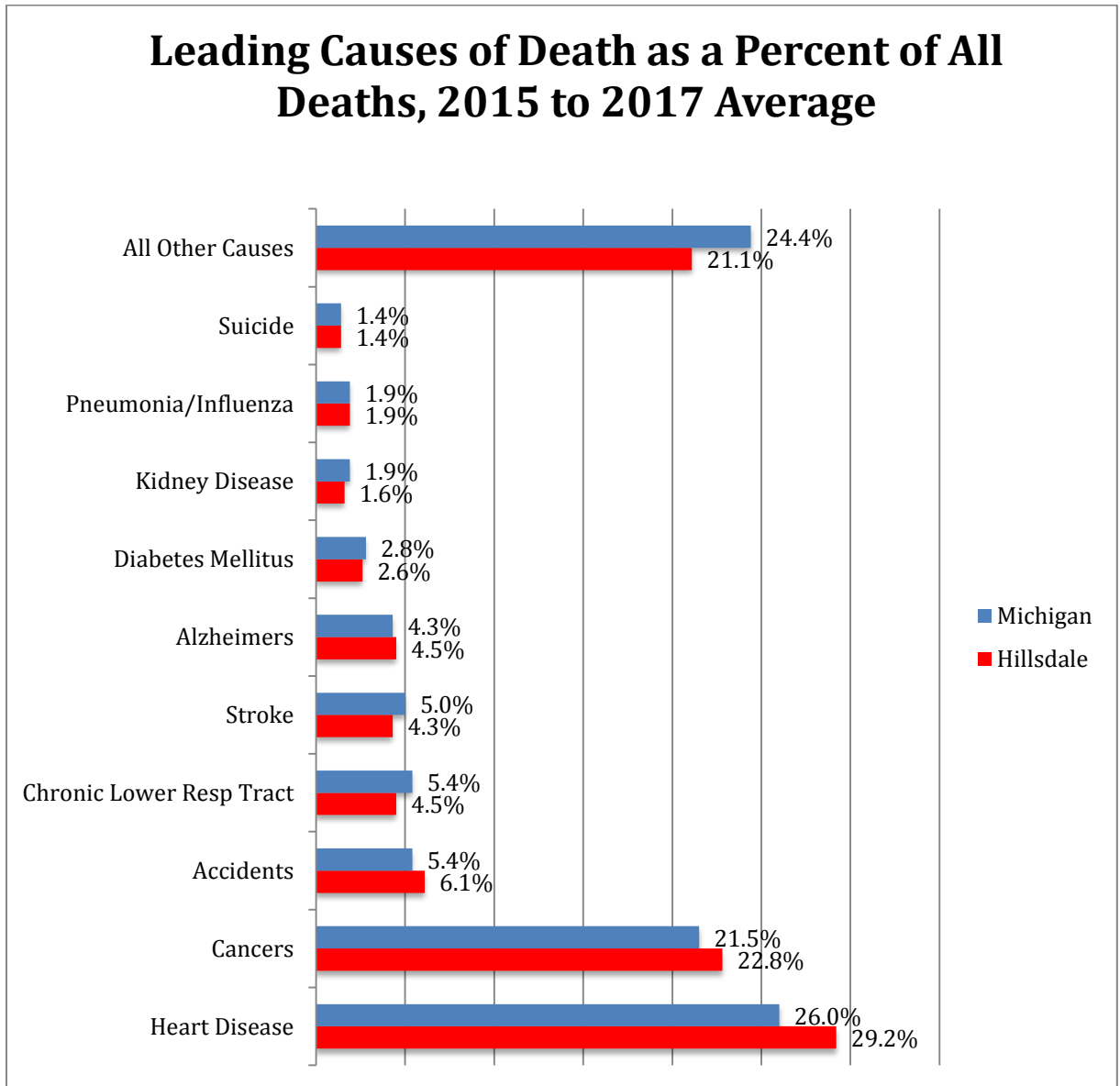
Some pregnant women delay seeking prenatal care because they smoke or use an illegal substance.

Many pregnant women on Medicaid have trouble finding care. There may be some delay between pregnancy and the knowledge that a person is pregnant, and then an additional delay due to the lag time between filing for Medicaid pregnancy coverage and actually seeing a physician. Some doctors will not see a Medicaid patient until later in their pregnancy when they have insurance coverage.

In addition, the HSN noted there is a lack of adequate OB/GYN doctors in the county. Due to financial constraints, county private physicians must limit the number of Medicaid patients they can serve. Since the cost of more than half of county births is paid through Medicaid, the lack of available affordable prenatal and obstetrical care for moms on Medicaid is a serious community issue.

Causes of Death

The leading causes of death in Hillsdale County (reported as a 2015 to 2017 three-year average) were heart disease and cancer, both at slightly higher percentages compared to Michigan.



Source: Michigan Death Files, 2015 to 2017 Average

According to the Centers for Disease Control (CDC), the leading causes of death in the United States in decreasing order in 2016 were:

- Heart disease: 635,260 (23.1%)
- Cancer: 598,038 (21.8%)
- Accidents: 161,374 (5.9%)
- Chronic lower respiratory diseases: 154,596 (5.6%)
- Stroke (cerebrovascular diseases): 142,142 (5.2%)

- Alzheimer's disease: 116,103 (4.2%)
- Diabetes: 80,058 (2.9%)
- Influenza and Pneumonia: 51,537 (1.9%)
- Nephritis, nephrotic syndrome, and nephrosis: 50,046 (1.8%)
- Intentional self-harm (suicide): 44,965 (1.6%)

Some causes of death are higher for one sex than for another. For example, according to the Centers for Disease Control analysis of deaths in 2016:

- 1) Heart disease accounted for 24.2% of male deaths but 22.0% of female ones.
- 2) Cancer caused 22.5% of male deaths but 21.1% of female ones.
- 3) Chronic lower respiratory diseases caused 5.2% of male and 6.1% of females.
- 4) Accidents caused 7.4% of male deaths but 4.3% of female ones.

Discrepancies are also seen when comparing deaths in people from different races and ethnic origins. Since the Hillsdale County population is overwhelming white and non-Hispanic, discrepancies based on race and ethnic origin are negligible.

BEHAVIOR RELATED HEALTH ISSUES

Many behavioral factors can lead to, or increase the severity of, some diseases. Among these are:

- Obesity
- Smoking
- Drinking alcohol to excess
- Substance abuse

Respondents in the CHNA survey were asked about these indicators, and the results were compared to secondary data sources.

Obesity

Obesity is a major factor in the control of diabetes, heart disease and other chronic conditions. Weight control is a problem for many residents.

When asked in the CHNA survey if they were concerned about their weight, 1,127 respondents answered the question. Of these:

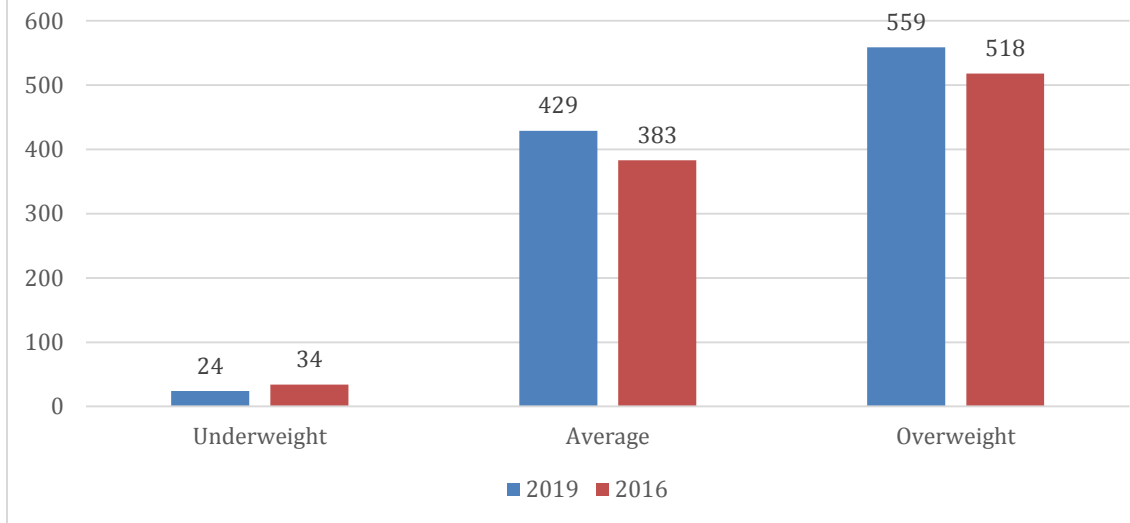
- 581 (51.6%) said they were.
- 546 (48.4%) said they were not.

When asked how they would best describe their weight, 1,107 respondents answered the question. Of these:

- 24 (2.2%) said they were underweight.
- 429 (38.8%) said they were average weight.
- 559 (50.5%) said they were overweight.
- 95 (8.6%) said they were obese.

These results were similar to what was found in the CHNA 2016 survey when 51.1% said they were overweight and 7.7% said they were obese, and indicates little progress has been made in this area.

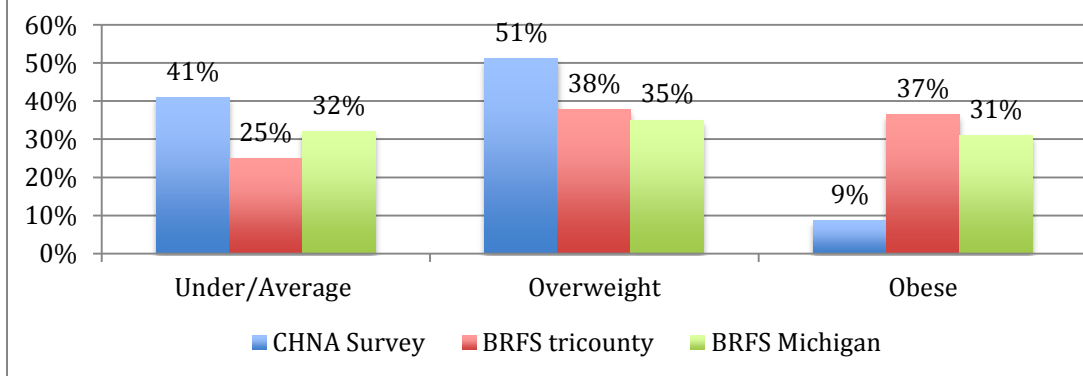
How Respondents Defined their Weight, 2019 and 2016



Source: CHNA Surveys, 2019 and 2016

The result of the 2019 CHNA survey differs from the Michigan Behavior Risk Factor Survey of Michigan and Branch-Hillsdale-St. Joseph residents. The MiBRF Survey showed a smaller proportion of adults in the tri-county area considered themselves overweight while more considered themselves obese.

What Residents Said about their Weight, 2019 CHNA & MI BRFs (2014-2016 Average)



Sources: CHNA Survey, 2019 and Michigan Behavior Risk Factor Survey, Branch-Hillsdale-St. Joseph and Michigan Residents, 2014-2016 Averages

Hillsdale Hospital offers a multidisciplinary approach to treat obesity.

1. The hospital has a resident dietician. Area doctors can refer overweight or obese patients to the dietician for consultation on diets and diet modification.
2. Regular seminars are conducted for those interested in weight loss surgery to explain procedures and expected outcomes.
3. The hospital offers several surgical procedures in conjunction with the Hillsdale Surgical Group for those interested in surgical intervention.

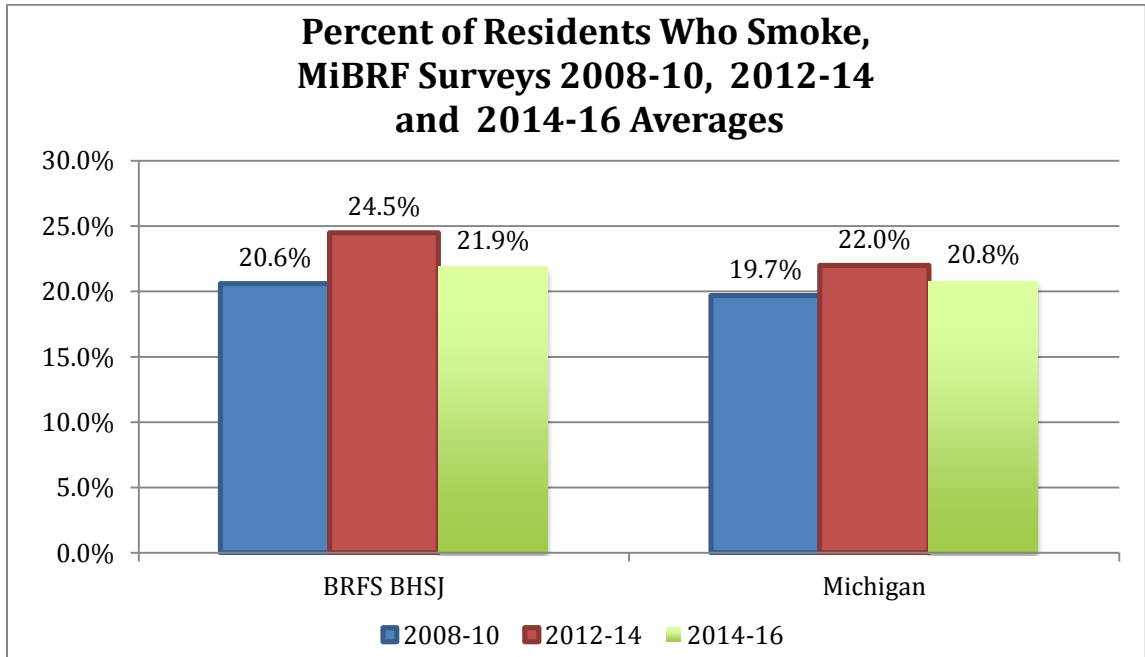
The HSN membership was concerned about obesity among county residents.

- *They noted the correlation between obesity and chronic diseases like heart disease and diabetes.*
- *The general observation was that the number of both obese children and morbidly obese residents is an issue.*

Smoking

A slightly higher percentage of Hillsdale County residents smoke compared to Michiganders.

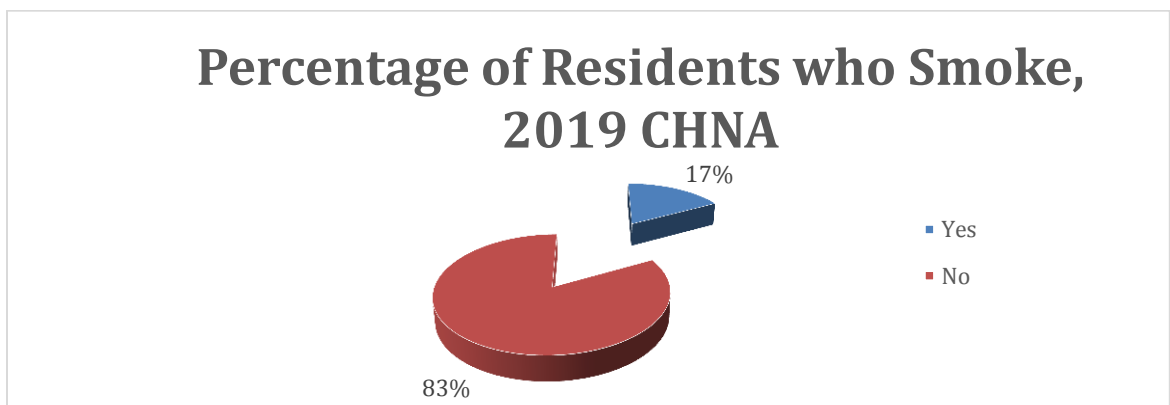
21.9% of Branch-Hillsdale-St. Joseph County adult residents said they smoked on the Michigan Behavioral Risk Factor Survey, 2014-2016 average, compared to 20.8% in Michigan. Despite anti-smoking programs, the percentage of smokers has remained relatively constant over the years.



Sources: Michigan Behavior Risk Factor Survey, Branch-Hillsdale-St. Joseph Residents and Michigan, 2008-2010, 2012-14 and 2014-16 Averages

Respondents in the CHNA 2019 survey were asked if they currently smoke. Of the 1,144 who answered this question:

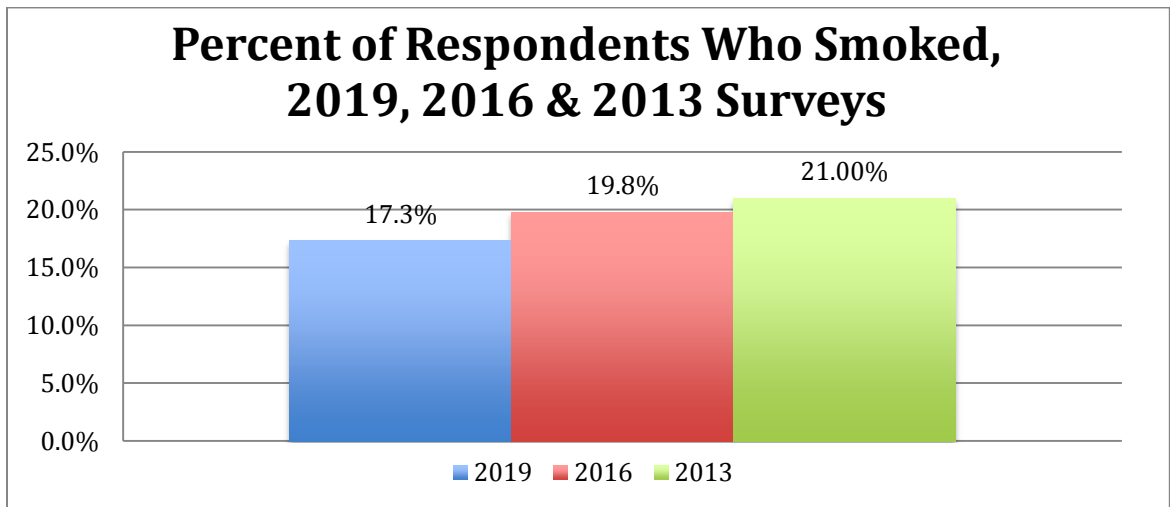
- 198 (17.3%) said they smoked.
- 946 (82.7%) said they did not.



Source: CHNA Survey, 2019

This is slightly better than past CHNA surveys.

- 105 (19.8%) said they smoked in 2016.
- 98 (21%) said they smoked in 2013.



Source: CHNA Surveys, 2019, 2016 and 2013

The Robert Wood Johnson Foundation collaborating with the University of Wisconsin reported that 20% of Hillsdale County residents smoked in 2016. This is consistent with our survey findings.

Smoking and Live Births

Smoking is a significant problem among pregnant women.

The Michigan Resident Birth Files reveal a larger percent of Hillsdale mothers used tobacco before or during pregnancy compared to Michigan mothers. Smoking prevention programs have had little impact on mothers at the county level over the previous decade.

	2009-11	2012-14	2015-17
Hillsdale	27.3%	30.7%	27.6%
Michigan	18.4%	19.2%	16.2%

Source: Michigan Resident Inpatient Files Division for Vital Records and Health Statistics, Michigan Department of Community Health

The HSN said some people, especially teenagers and young adults, do not consider using vapor cigarettes as tobacco use. Education on the long term negative effects of vaping is needed. They also felt that some moms will delay seeking pregnancy care until they quit smoking.

Drinking

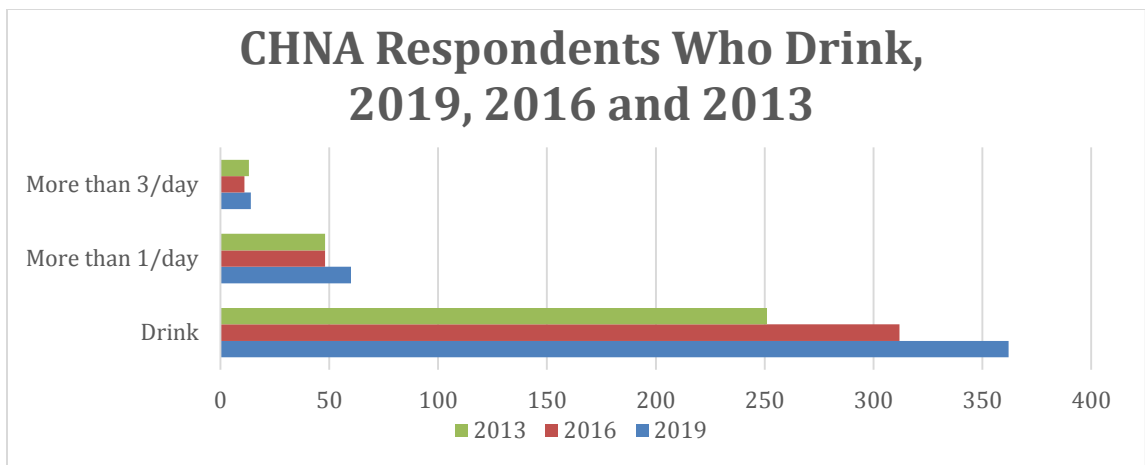
Respondents in the CHNA survey were asked about their drinking habits. 1,120 people in the 2019 CHNA survey told us about consuming any alcohol.

- 391 (34.9%) said they did.

Among the 391 people who said they drank:

- 362 (85.8%) did not consumed more than one drink a day.
- 60 (14.2%) consumed more than one drink a day.
- 14 (4.4%) consumed more than three drinks a day.

Although the number of people who said they consumed any alcohol has increased over the years; the numbers who consume more than one drink a day has not. These results are similar to what was seen in the 2016 and 2013 CHNA surveys.



Source: CHNA Surveys, 2019, 2016 and 2013

In contrast, 16.7% of Branch-Hillsdale-St. Joseph County residents reported binge drinking, (consuming five or more drinks on one occasion in the past month) on the Michigan Behavior Risk Factor Survey, 2014-16 average. This is lower than 18.8% reported for Michigan but higher than the 11.2% for tri-county residents reported in the 2008-10 MiBRFS and the 15.7% for county residents reported in 2012-14.

Drinking Patterns, Branch-Hillsdale-St. Joseph & Michigan Residents 2014-16			
	Any Alcohol	Heavy Drinking	Binge Drinking
Branch-Hillsdale-St. Joseph	43.4%	6.2%	16.7%
Michigan	57.0%	6.7%	18.8%

Source: Michigan Behavior Risk Factor Survey, Branch-Hillsdale-St. Joseph Residents and Michigan, 2014-16 Average

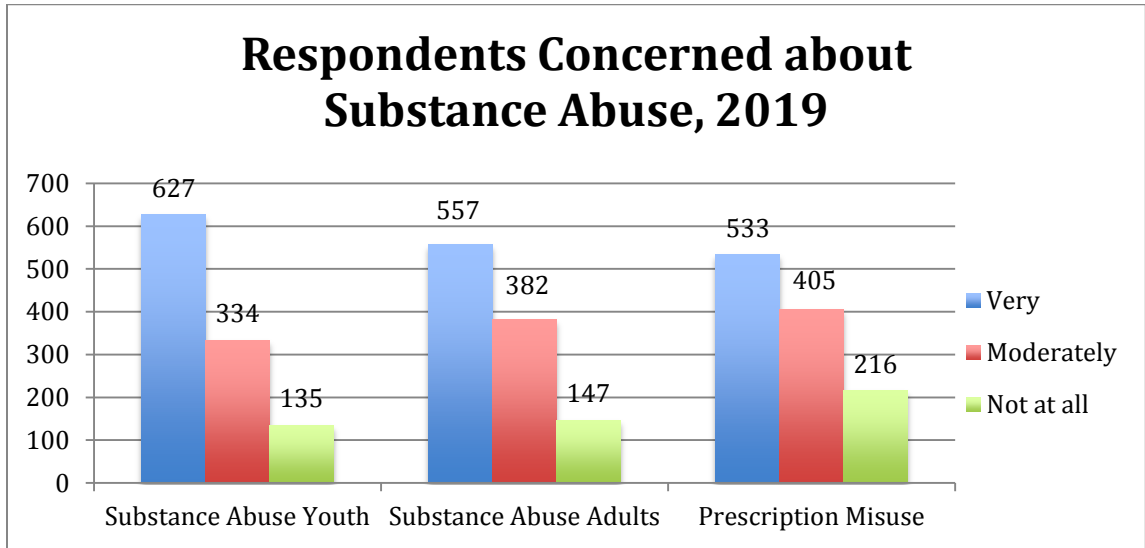
The Robert Wood Johnson Foundation in collaboration with the University of Wisconsin found 27% of driving deaths in the county involved alcohol (2013-17 average).

In the past, the HSN identified alcohol as another gateway drug and a significant component in domestic violence and homelessness.

Substance Abuse

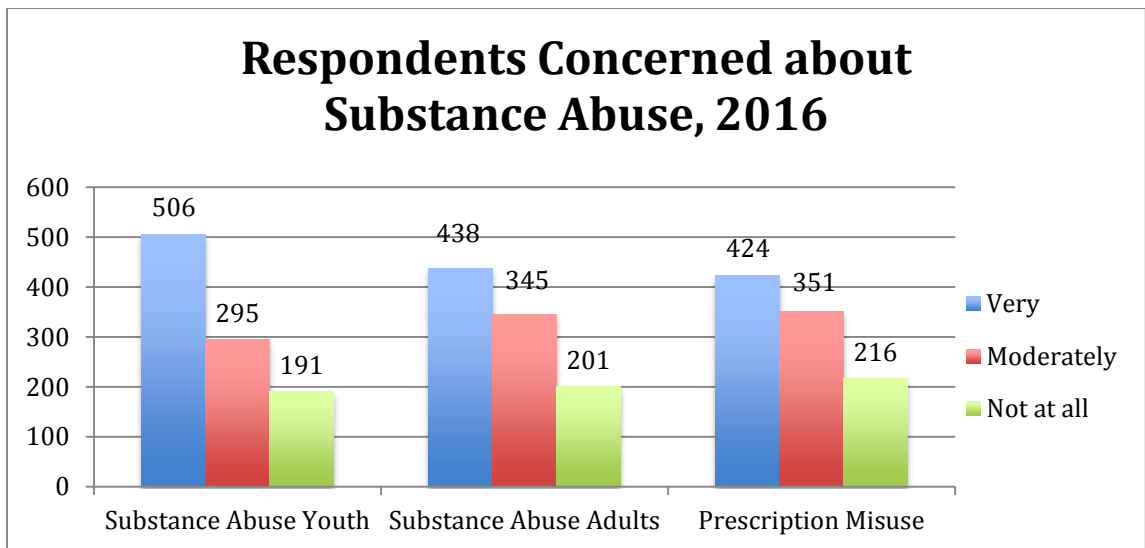
Substance abuse can involve both legal and illegal substances.

Respondents in the CHNA survey were asked if they were very concerned, moderately concerned, or not at all concerned about substance abuse among youth, substance abuse among adults or prescription misuse. The respondents were very concerned about all three issues.



Source: CHNA Survey, 2019

This is similar to what was found in 2016



Source: CHNA Survey, 2016

Use of Prescription and Illegal Drugs

Michigan voters approved the medical use of marijuana in November, 2008; the law became effective in December of that year. The recreational use of marijuana was approved by Michigan voters in November, 2018. The effect of this law on the county is unknown, though the Hillsdale County Commissioners have voted not to have a licensed marijuana dispensary in the county.

The long term effects of marijuana usage are unclear. In 2017, the National Academy of Medicine released a statement that said: "...cannabis use is likely to increase the risk of developing schizophrenia and other psychoses; the higher the use, the greater the risk." This study has been supported by studies in Europe.

44 of the respondents in the previous 2016 CHNA survey said they used marijuana. The survey question was not limited to medical marijuana use, so it is impossible to tell if the respondents were using the drug under medical supervision.

The 2019 CHNA did not specifically ask about the use of marijuana but asked respondents if they currently used any illegal drugs. Only 4 respondents said they did.

The survey also asked if respondents used a prescription drug to manage chronic pain. Out of 1,115 responses to this question:

- 123 (11%) said they did.
- 992 (89%) said they did not.

As a follow-up to this question, the survey asked if they used a prescription drug for pain management, what did they use. Of the responses:

- 6 said they used OxyContin.
- 10 said they used Vicodin.
- 8 used some form of codeine.
- 67 said they used some other substance. Some respondents told us what they used:
 - 12 used Tramadol.
 - 4 used Gabapentin/neurotropin.
 - 5 used Naproxen.
 - 4 used some form of opioid.
 - 3 used marijuana.
 - Several cited a particular prescription drug like Embrel, Lyrica, Cymbalta, Elavil and Flexerol.

The Opioid Epidemic

According to the Centers for Disease Control and Prevention, “Drug overdose deaths, including those involving opioids, continue to increase in the United States. Deaths from drug overdose are up among both men and women, all races, and adults of nearly all ages. Two out of three drug overdose deaths involve an opioid. Opioids are substances that work in the nervous system of the body or in specific receptors in the brain to reduce the intensity of pain. Overdose deaths from opioids, including prescription opioids, heroin, and synthetic opioids (like fentanyl) have increased almost six times since 1999. Overdoses involving opioids killed more than 47,000 people in 2017, and 36% of those deaths involved prescription opioids.”

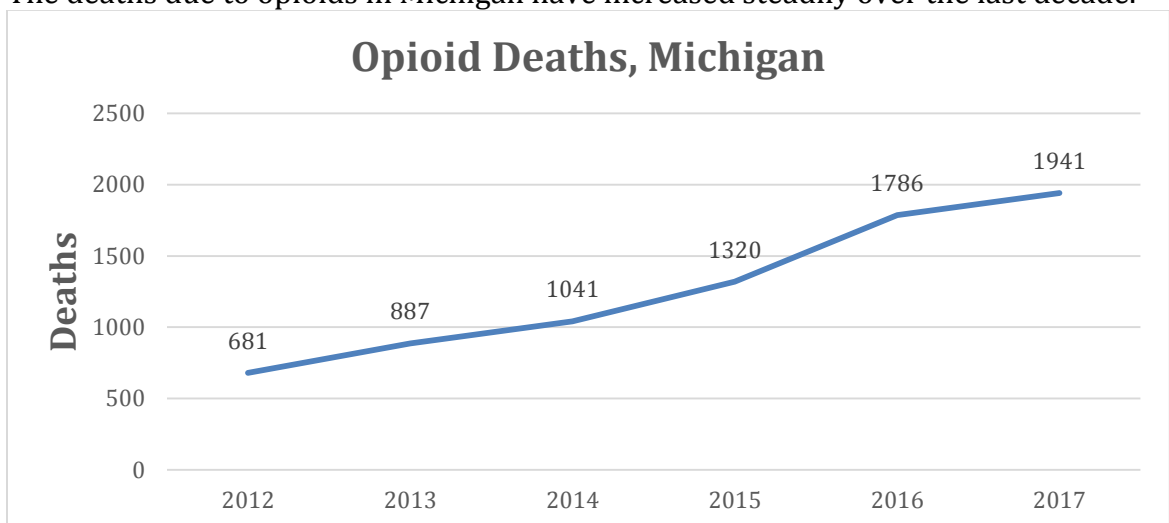
In addition to the 47,000 who died from opioid overdoses in the United States in 2017, about 20,000 more died from overdoses of other substances.

Death rates from overdose of prescriptions or opioids shows Michigan rates are higher than the United States rates.

Age-Adjusted Rates Deaths from All & Prescription Opioids, USA and Michigan				
	USA		Michigan	
	All Opioids	Prescriptions	All Opioids	Prescriptions
2016	13.3	5.2	18.5	7.0
2017	14.9	5.2	21.2	6.5

Source: CDC, National Vital Statistics Mortality File

The deaths due to opioids in Michigan have increased steadily over the last decade.



Source: Detroit Free Press, Oct. 4, 2018

There were two opioid deaths in Hillsdale County in 2008 and 4 in 2017.

According the Mark Hawkins, Deputy Fire Chief, Hillsdale City Fire Department, the fire department had 13 calls for potential opioid overdoses from 8/1/18 to 2/28/19.

Community Concerns

The members of the HSN were very concerned about substance abuse. In the past, the HSN had expressed concern over:

- *Misuse of prescription drugs. Some adults are misusing their prescription drugs by not following the recommended dosage schedule. In addition, medications may be used by those for whom the drugs were not prescribed.*
- *An over prescription of opiates, as well as a general over prescription of non-narcotic drugs, is a problem, especially for seniors.*

The members also felt that:

- *Drug overdoses are underreported.*
- *Education is needed about meth. There is a program in some schools to alert teens about the dangers of meth.*
- *Some moms will delay pre-natal care if they are on any type of drug until they are drug-free, contributing to inadequate prenatal care.*

USE OF HEALTH CARE IN THE COMMUNITY

Availability of Health Care in Hillsdale County

Hillsdale County is served by:

- One hospital, the Hillsdale Hospital.
- Four primary care health clinics:
 - Primary Care Associates of Jonesville, 100 E. Chicago St., Jonesville, MI 49250. This clinic operates 8 AM to 5 PM Monday through Friday.
 - Hillsdale Health and Wellness owned and operated by Hillsdale Hospital with Kurt Roecker, D.O. as Medical Director and several nurse practitioners. This clinic is located at 240 W. Carleton Road, Hillsdale and is open seven days a week from 10 AM to 6 PM.
 - Community Health Center Litchfield Family Practice. This is owned and operated by Hillsdale Hospital under medical director Kurt Roecker, D.O. and Randy Podoll, PA. It is located at 413 N. Chicago Street, Litchfield, MI. This clinic operates Monday 8 AM to 6 PM and Tuesday through Friday, 8 AM to 4 PM.
 - Reading Health Clinic, a Rural Clinic in Reading, Hospital owned and operated under medical director Kurt Roecker, D.O. and Paige Jamison, NP. It is located at 143 South Main Street, Reading, MI 49274. This clinic operates Monday, Wednesday, Thursday and Friday from 8 AM to 4 PM.
- Hillsdale Hospital also owns and manages several other facilities in the county including:
 - Dr. Parker's Office.
 - Dr. Boakye's Office.
 - Hillsdale Neurology/Pulmonary.
 - Hillsdale Orthopedics.
 - Hidden Meadows OB/GYN.
 - Hillsdale Surgical Group.
- One free clinic, St. Peter's, open only two nights a week. The hospital donates lab services and medical supplies in support of this clinic. Many hospital staff members also donate their time to serve clinic clients.
- Private physicians.

A full database of all facilities and medical personnel in the area has been compiled and is maintained by the Branch-Hillsdale-St. Joseph Health Department. The Hillsdale County list can be found in Appendix C of this report.

Hillsdale County currently has no round-the-clock urgent care facility. All health clinics have limited hours.

Health Resources and Services Administration Designations

The Health Resources and Services Administration (HRSA) determines if there is a Health Professional Shortage Area (HPSA) based on population, area geography, facilities available and other criteria.

Hillsdale County has several HPSA designations.

Shortage Area Designation	Type
Health Professional Shortage Area- Primary Care Rural Health Clinics	Entire County Hillsdale Medical Associates Primary Care Associates of Jonesville Reading Health Clinic
Health Professional Shortage Area- Mental Health	Coldwater-Hillsdale Service Area- Geographic Primary Care Associates of Jonesville Reading Health Clinic
Health Professional Shortage Area- Dental Care	Medicaid Population, Hillsdale Primary Care Associates of Jonesville Reading Health Clinic
Medically Underserved Area/Population	Service Area-County

Source: Health Resources and Service Administration, 2018

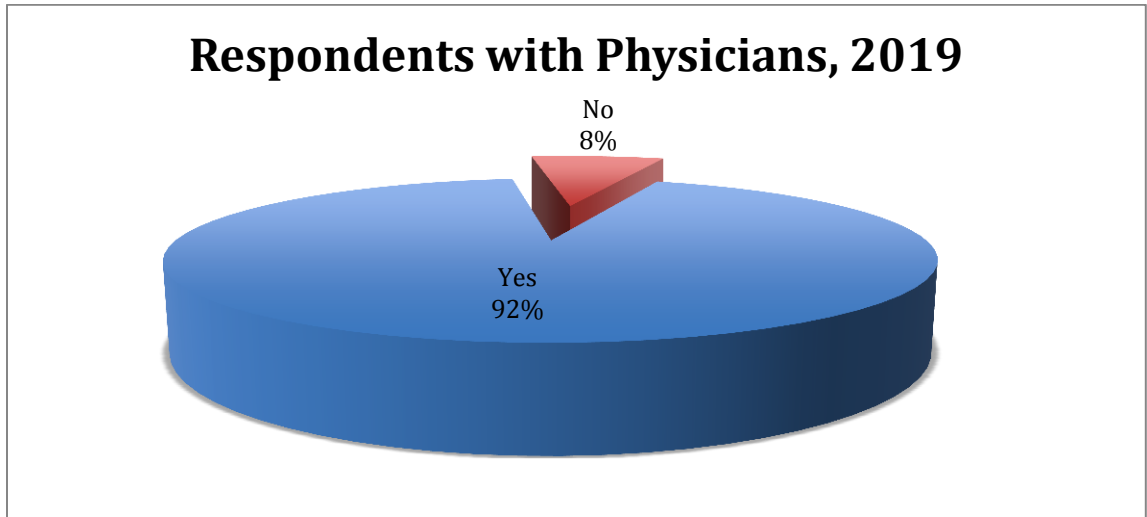
The Robert Wood Johnson Foundation in collaboration with the University of Wisconsin estimated the ratio of population to primary care physicians was 3,810:1 for Hillsdale compared to 1,260:1 in Michigan.

Personal Physicians

Respondents were asked in the CHNA survey if they had a personal physician. Of the 1,159 who answered this question:

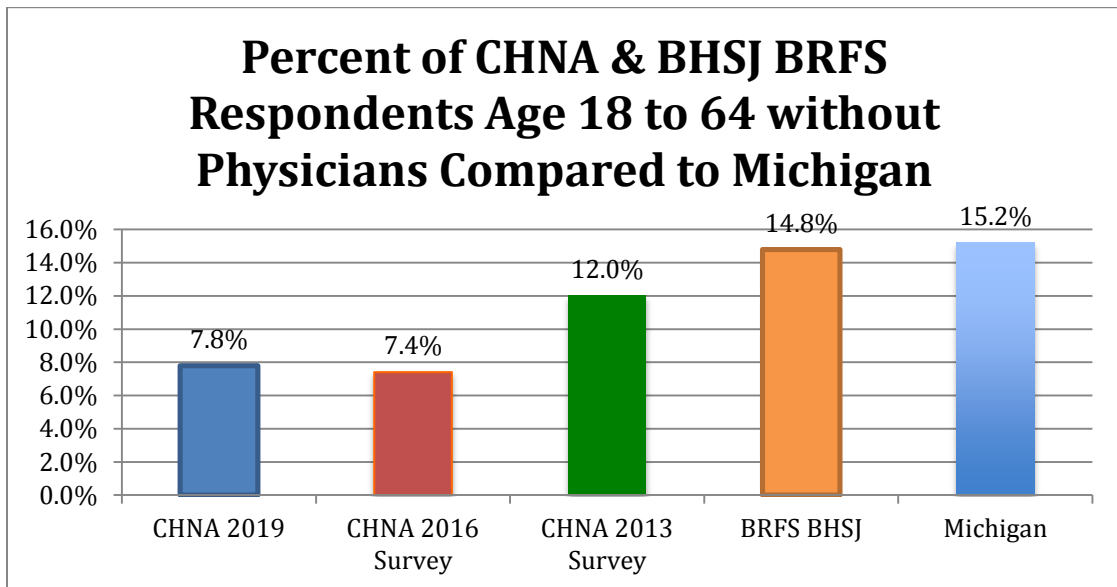
- 1068 (92.2%) said they had a personal physician.
- 90 (7.8%) said they did not.

This is about the same as reported in 2016 and better than the 12.0% who reported in the 2013 CHNA survey that they did not have a personal physician.



Source: CHNA Survey, 2019

14.8% of Branch-Hillsdale-St. Joseph County residents age 18 to 64 reported in the Michigan Behavior Risk Factor Survey that they had no personal physician (2014-16 average.) This is comparable to the 15.2% reported for Michigan.

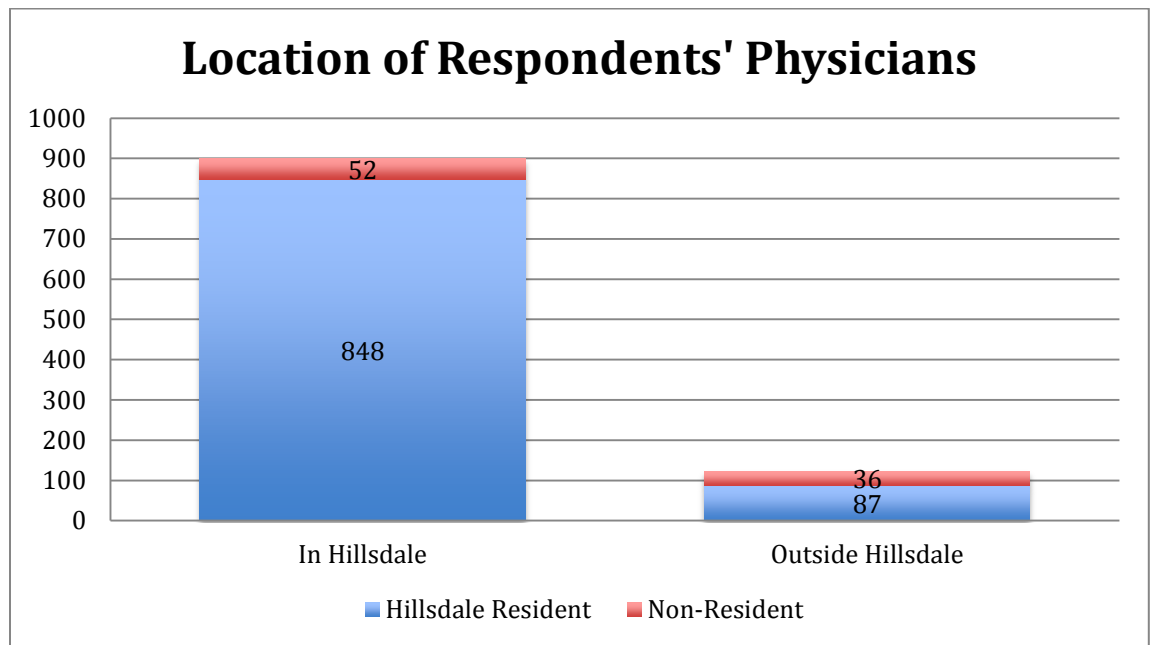


Sources: CHNA Surveys, 2019, 2016 and 2013, and Michigan Behavior Risk Factor Survey, Branch-Hillsdale-St. Joseph Residents compared to Michigan, 2014-2016 Average

Location of Personal Physicians

Not all respondents in the CHNA survey who said they had a personal physician have a doctor in Hillsdale County. When respondents were asked if their doctor was in the county, only 1,023 people answered the question. Of those who answered:

- 900 (88%) of respondents said their physician was in Hillsdale. This included 52 who said they were not county residents.
- 123 (12%) said their physician was in another county. This included 36 who self-identified as non-county residents.



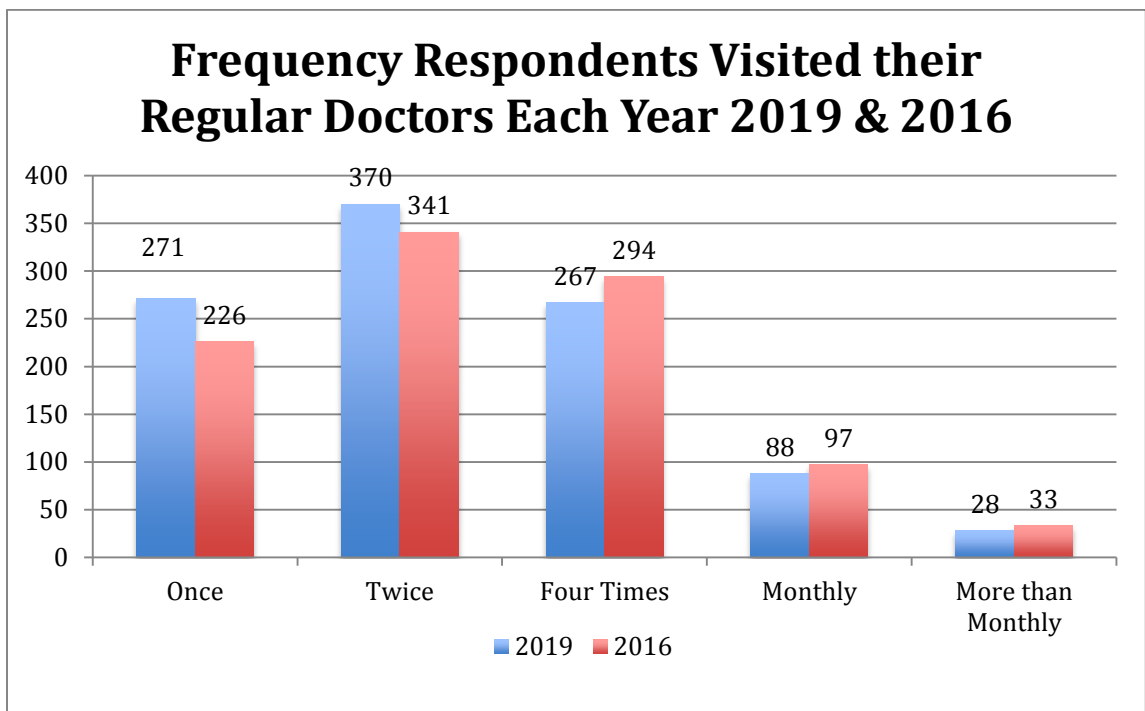
Source: CHNA Survey, 2019

Frequency Respondents Visits Physicians

When asked how often they visited their regular doctor each year:

- 271 (26.5%) respondents said once a year.
- 370 (36.1%) said twice.
- 267 (26.1%) said four times.
- 88 (8.6%) said monthly.
- 28 (2.7%) said more than monthly.

This may be attributable to the large number of survey respondents age 65 or older and the availability of survey forms at provider offices. The result is similar to the results found in 2016.



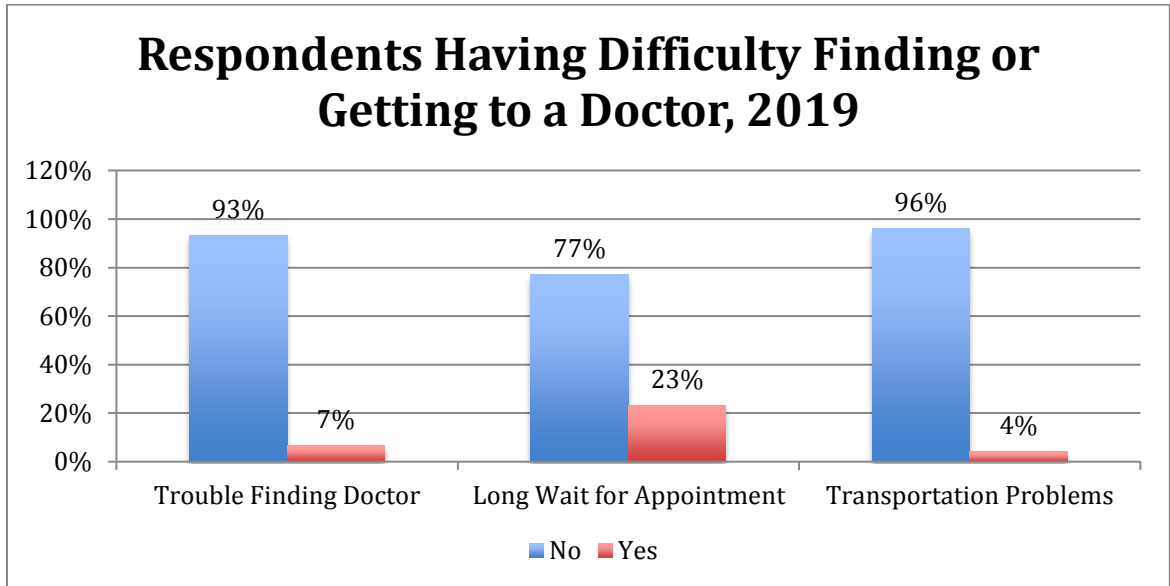
Source: CHNA Surveys, 2019 and 2016

Finding or Getting to a Doctor

The 2019 CHNA survey asked respondents if they ever had:

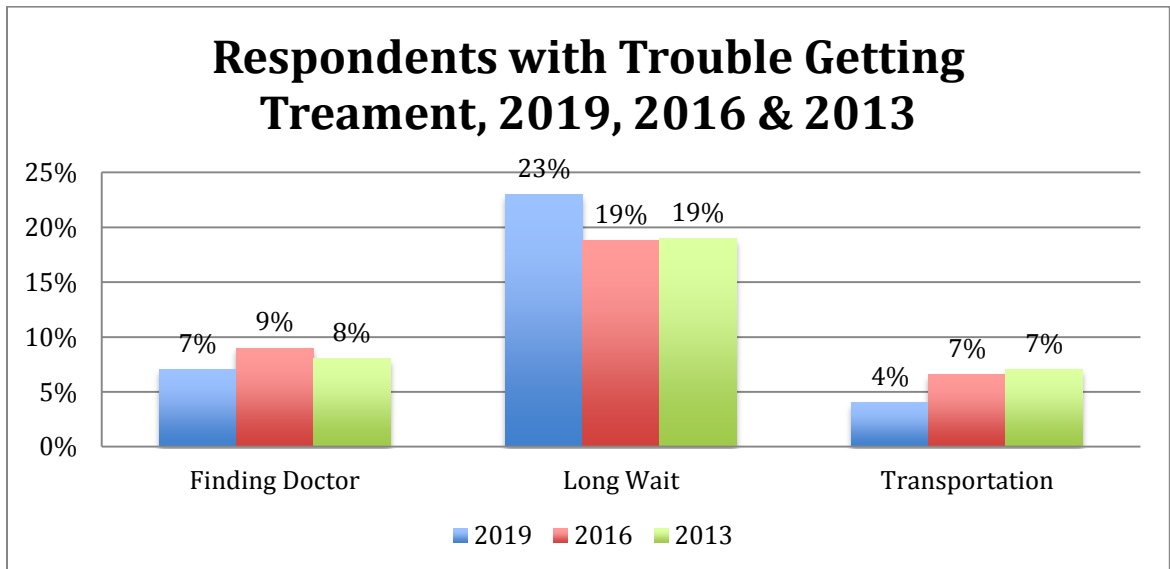
- Trouble finding a doctor.
- A long wait to get a doctor appointment.
- Trouble finding transportation to get to a doctor.

A large majority of respondents had little difficulty finding or getting to a doctor but were less satisfied with the wait to get an appointment.



Source: CHNA Survey, 2019

This is similar to the result found in the 2016 and 2013 CHNA surveys.



Source: CHNA Surveys, 2019, 2016 and 2013

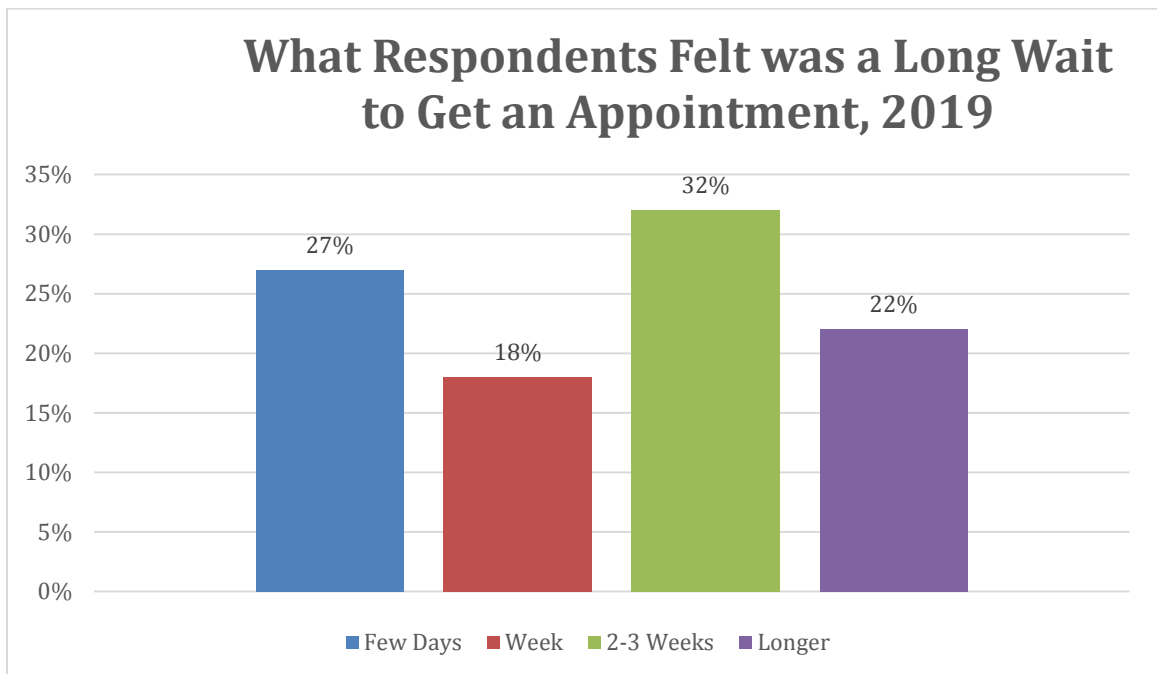
Waiting for a Medical Appointment

Since there had been the most concern on past surveys about the length of time to get a medical appointment, a follow up question was included in the 2019 survey.

Respondents were asked if they had a long wait to get an appointment; what did they consider a long wait. 315 people responded to this question.

- 86 (27.3%) said a few days.
- 58 (18.4%) said a week.
- 103 (32.7%) said two to three weeks.
- 68 (21.6%) said longer than three weeks.

The question did not differentiate between waiting for an appointment for something they felt needed immediate care or the wait time to see a specialist for a specific illness.



Source: CHNA Survey, 2019

The HSN members felt that, with the establishment of the various walk-in clinics in the area, finding a doctor for medical treatment has become easier.

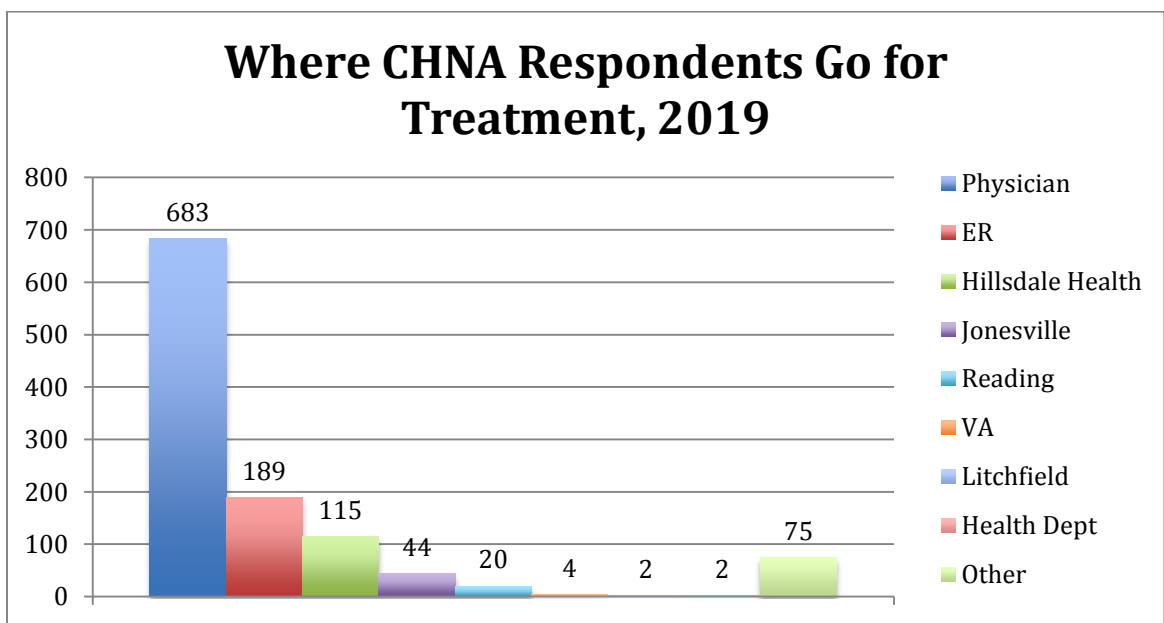
When asked what they would consider a long wait for an appointment to see a doctor, the consensus was less than a week for check-ups and routine care but several weeks for a referral to see a specialist since many specialists only come to the area once a week, or are located in another county.

Transportation to get medical treatment is also an issue. Dial-a-Ride, the city's public transportation, stays only within the city limits; residents in outlying areas have no equivalent service.

Where County Residents Go for Treatment

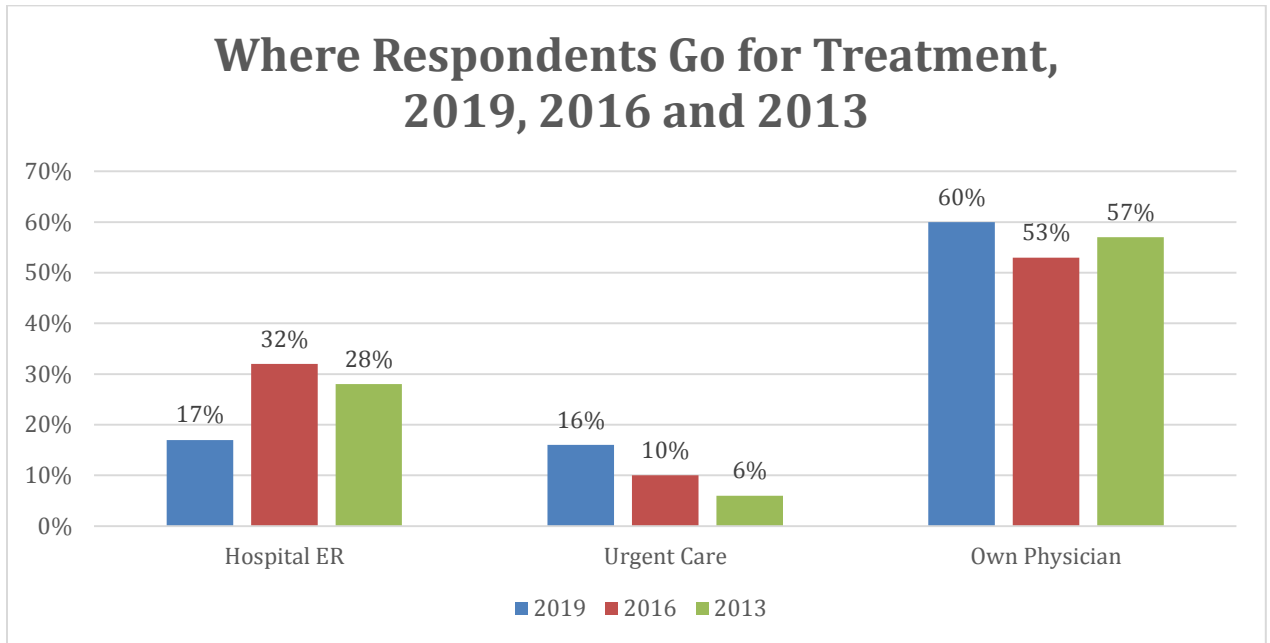
Respondents in the CHNA survey were asked where they went for treatment (not counting accidents or a crisis such as a heart attack). 1,134 people answered the question but some checked more than one box on the paper survey. Of those who answered:

- 683 said they went to their own physician, including 24 who said they went to either their physician or the emergency room.
- 189 went to the hospital emergency room.
- 115 went to Hillsdale Health & Wellness, including two who said they went either to this facility or the emergency room.
- 44 went to the Jonesville clinic, including one who indicated they went to either Jonesville or the emergency room.
- 20 went to the Reading clinic, including six who said they went to Reading or the emergency room.
- 4 went to a VA facility.
- 3 went to the Health Department, including one who said they went to either the Health Department or the emergency room.
- 1 went to St. Peter’s free clinic.
- 2 went to the Litchfield clinic, including one who said they went to either Litchfield or the emergency room.
- 3 said they went nowhere.
- 31 went outside the area for treatment without specifying where they went.
- 39 identified some other facility, often outside of the area.



Source: CHNA Survey, 2019

With the establishment of walk-in clinics in Hillsdale, Jonesville, Reading and Litchfield, less respondents said they would go to the emergency room for non-emergency treatment compared to other years.



Source: CHNA Surveys 2019, 2016 and 2013

It should be noted that some patients have scheduled appointments with personal physicians for check-ups and care in some of the walk-in clinics rather than using them as an urgent care facility.

HSN members felt the hospital should offer more preventive services directly within the community, especially in the schools. They also suggested the establishment of a telehealth system in the community would be very helpful.

Use of the Hillsdale Hospital Emergency Room

A study of Hillsdale Hospital emergency room visits over the years 2015 to 2018 indicates the number of people using the emergency room each year is relatively stable.

Hillsdale Hospital Emergency Room Visits				
	2015	2016	2017	2018
Emergency Room Visits	22,684	21,637	21,515	21,455

Source: Hillsdale Hospital Records, 2015 to 2018

Medicaid Clients and the Emergency Room

In 2016, the members of the HSN felt those on Medicaid were more likely to seek treatment in the hospital emergency room than personal physicians.

An analysis of the 2019 survey data comparing those on Medicaid and where they sought treatment showed:

- 57 (30.3%) went to the emergency room compared to 16.7% of all respondents.
- 68 (36.2%) went to their personal physician compared to 58.1% of all respondents.
- 28 (14.9%) went to Hillsdale Health and Wellness compared to 9.5% of all respondents.
- 35 (18.6%) went elsewhere.

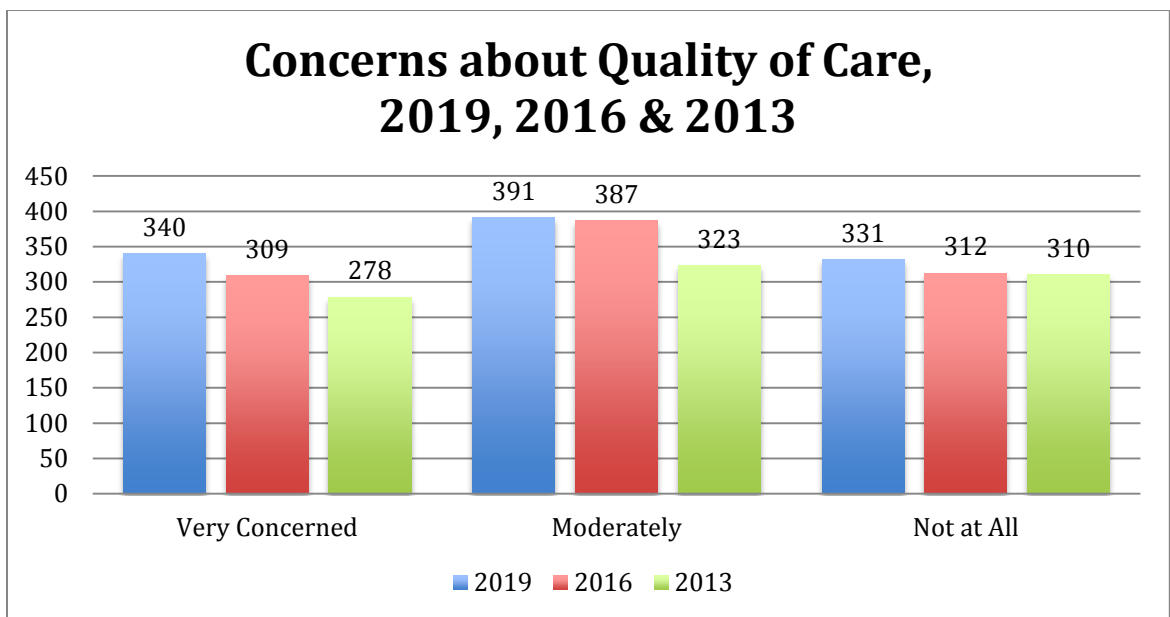
This is slightly better than what was found in 2016 when 48.7% of those on Medicaid said they would go to the emergency room.

Quality of Healthcare

Respondents in the 2019 CHNA survey were asked if they were very concerned, moderately concerned, or not at all concerned about the quality of health care in the community. Of the 1,062 who answered this question:

- 340 (32.0%) were very concerned.
- 391(36.8%) were moderately concerned.
- 331 (31.2%) were not at all concerned.

This is very similar to what was found in the 2016 and 2013 surveys.



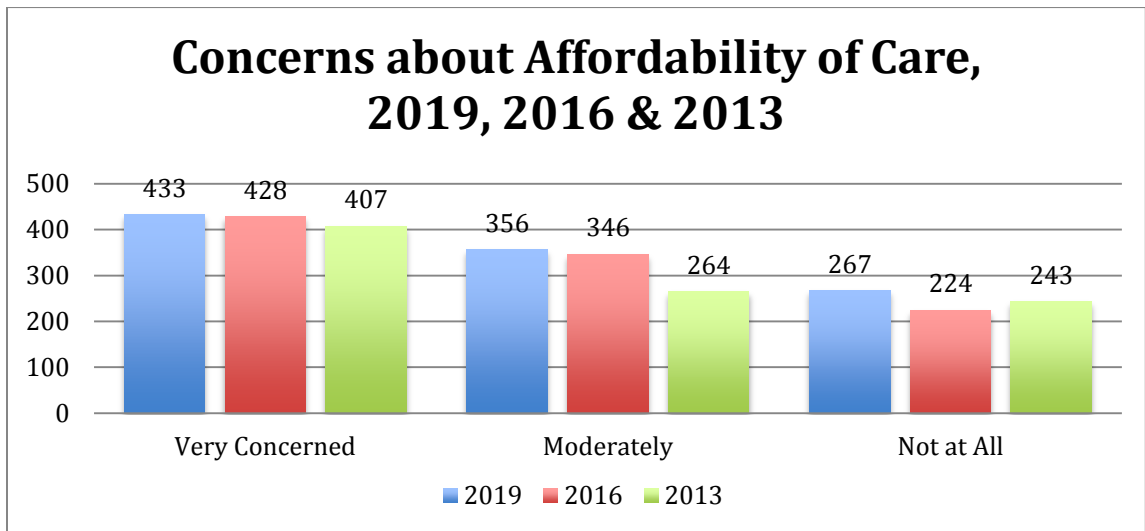
Source: CHNA Surveys, 2019, 2016 and 2013

Affordability of Care

When asked how concerned they were about the affordability of the healthcare available, 1,056 respondents answered. Their responses showed:

- 433 (41.0%) were very concerned.
- 356 (33.7%) were moderately concerned.
- 267(25.3%) were not at all concerned.

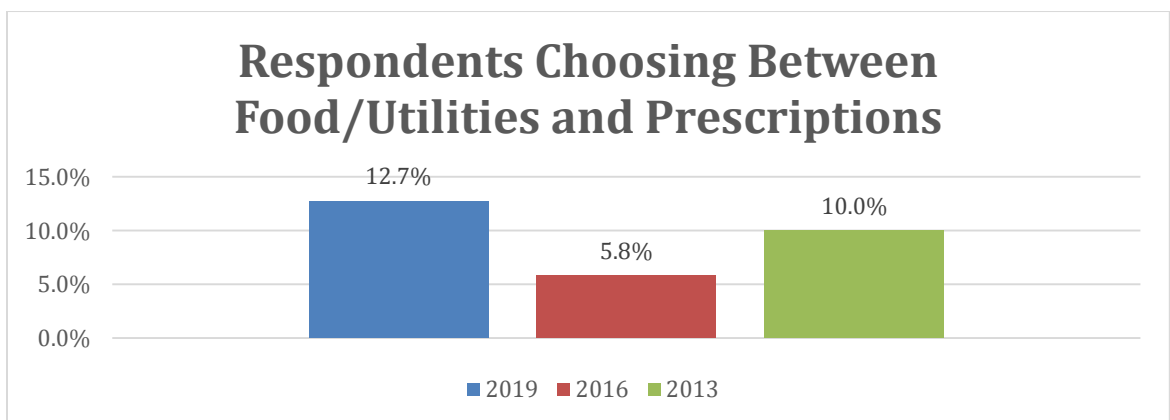
These responses showed the same pattern seen in 2016 and 2013 and indicate they were more concerned about the affordability than the quality of care.



Source: CHNA Surveys, 2019, 2016 and 2013

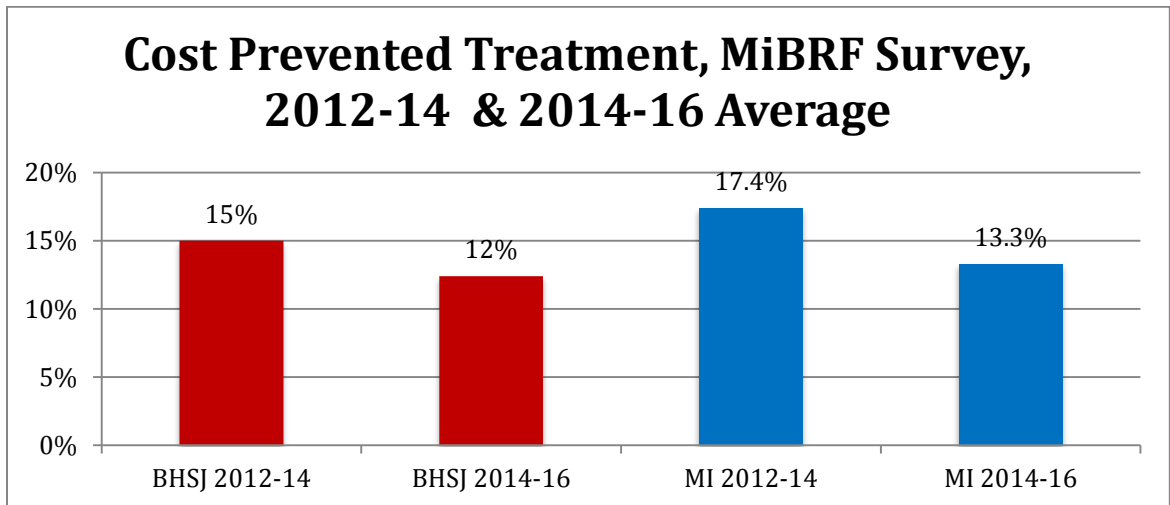
Costs Prohibiting Factor in Medical Care Decisions

Respondents were asked in the CHNA survey if they ever had to choose between food/utilities or prescriptions due to cost. Of the 1,134 who answered this question, 144 (12.7%) said they had. This is a slight increase from the 2016 and 2013 surveys when respondents had cited cost as factor.



Source: CHNA Surveys, 2019, 2016 and 2013

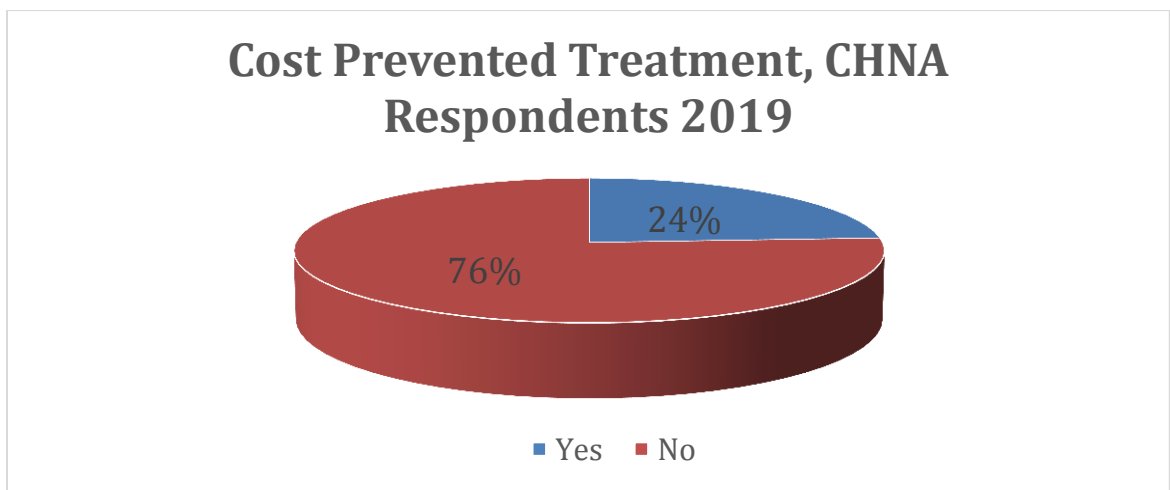
The Michigan Behavior Risk Factor Survey asked respondents if cost of medical care prevented them from seeking medical treatment. That survey found 12% of Branch-Hillsdale-St. Joseph residents reported that cost was a factor, compared to only 13.3% of Michigan residents (2014-16 average.) This was a slight decrease from the 15% for county and 17.4% for Michigan residents reported in the 2012-14 survey.



Sources: Michigan Behavior Risk Factor Survey, Branch-Hillsdale-St. Joseph Residents and Michigan, 2012-2014 and 2014-16 Average

Cost of treatment was a factor in seeking medical treatment for some survey respondents. When asked if they had avoided going to a doctor in the past year because of costs:

- 265 (24%) respondents said yes.
- 836 (76%) said no.



Source: CHNA Survey 2019

The members of the HSN felt that the population most likely to say they had to choose between food/utilities and prescriptions (or medical care in general) would be the working poor and the uninsured young adults.

HILLSDALE HOSPITALIZATIONS AND DISCHARGE DATA

Hospitalizations

The Michigan Department of Community Health collects data on hospitalizations for all Michigan residents and correlates it to the county residences of the patients, regardless of where they are hospitalized.

Heart disease was the leading cause of hospitalization for Hillsdale County residents in 2016.

Leading Causes of Hospitalizations by County of Residence for Hillsdale County and Michigan, Rates per 10,000 Population, 2016			
Principal Diagnosis	Hillsdale Number	Hillsdale Rate	Michigan Rate
All Hospitalizations	5399	1179.5	1254.7
Heart Disease	714	156.0	117.3
Newborns & Neonates (<7 days)	530	117.8	115.0
Females with Deliveries	510	114.4	109
Injury & Poisoning	378	82.6	97.9
Pneumonia	159	34.7	25.6
Arthropathies	259	56.6	55.2
Cancer (Malignant Neoplasms)	133	29.1	35.9
Septicemia	351	76.7	69.9
Cerebrovascular Diseases	109	23.8	32.4
Chronic Pulmonary & Bronchiectasis	166	36.3	24.7
Diseases of Skin/Subcutaneous Tissue	91	19.9	24.0
Mood Affective Disorders	142	31.0	30.0
Anemias	26	5.7	10.5
Neoplasmas, Benign/Unspecified	53	11.6	11.9
Renal Failure	83	18.1	22.2
Diabetes Mellitus	68	14.9	20.4
Hypertension	39	8.5	15.5
Infectious/Parasitic Diseases	45	9.8	13.2
Schizophrenia & Disorders	35	7.6	10.5
Diverticula of Intestine	56	12.2	10.4
All other Conditions	1,839	401.8	489.9

Source: Michigan Resident Inpatient Files Division for Vital Records and Health Statistics, Michigan Department of Community Health, 2016

Hillsdale Hospital Discharge Data

Not all hospitalizations of county residents are at Hillsdale Hospital. But a study of the hospital discharge data shows that the leading causes of hospitalization at Hillsdale Hospital were psychiatric disorders, orthopedics, lung related illnesses, obstetrics and heart disease.

Inpatient discharges, Hillsdale Hospital			
	2016	2017	2018
All Discharges HCHC	3602	3064	2922
Pulmonary Medicine	316	350	344
Cardiology	374	300	254
General Medicine Adult	611	374	327
Obstetrics – Delivered	367	302	332
General Surgery-Adult	41	49	75
Orthopedics	536	464	352
Psychiatry	402	408	408
Gastroenterology-Medical	298	253	190
Neurology	97	81	99
Kidney/Urinary	112	95	88
Gynecology	52	30	68
Substance Abuse	8	6	11
All Other	387	353	378

Source: Hillsdale Hospital discharge data, 2016-18

Hillsdale Hospital has only one resident cardiologist. Many cardiac patients enter the hospital through the Emergency Department where they are quickly evaluated. Cardiac patients needing specific treatments not available at Hillsdale Hospital are sent by life flight to hospitals with the proper facilities.

The hospital also life flights patients with other specific conditions when appropriate.

HSN members were surprised to learn the leading number of discharges was in psychiatry. They wondered if this represented a small number of patients who were repeated hospitalized in the course of the year due to failure to take prescribed medications. A further study in this area was recommended.

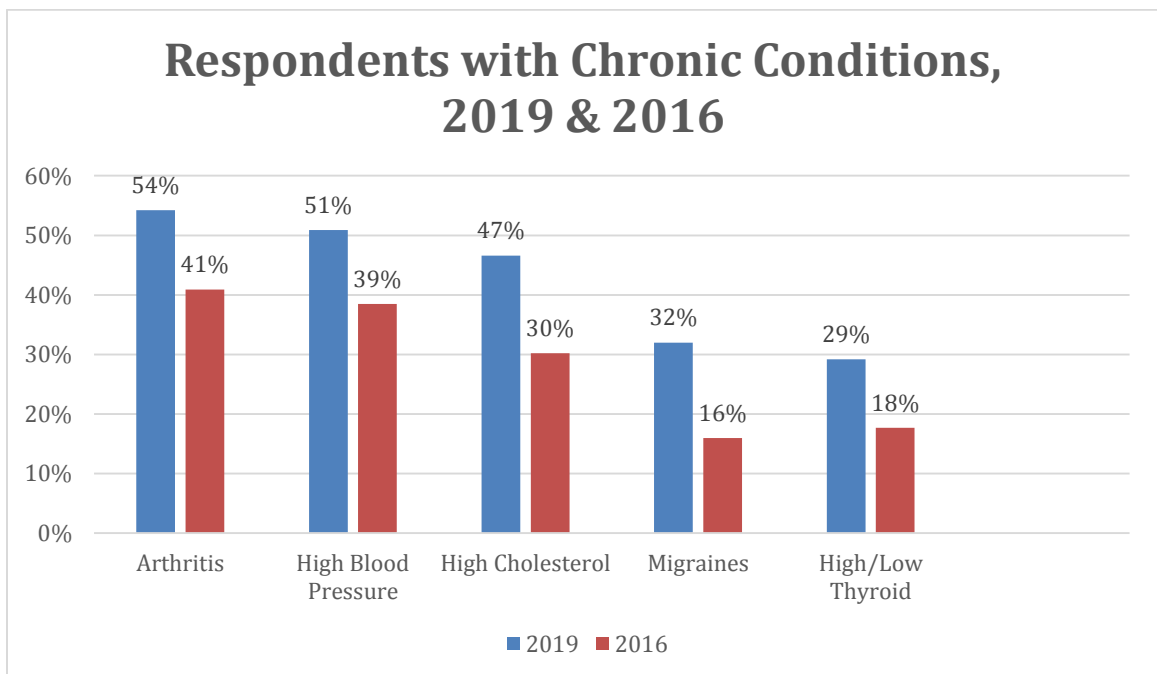
CHRONIC HEALTH CONDITIONS

Many chronic conditions contribute to overall poor health.

Respondents in the 2019 CHNA survey were asked if they suffered from select chronic conditions. Their answers revealed:

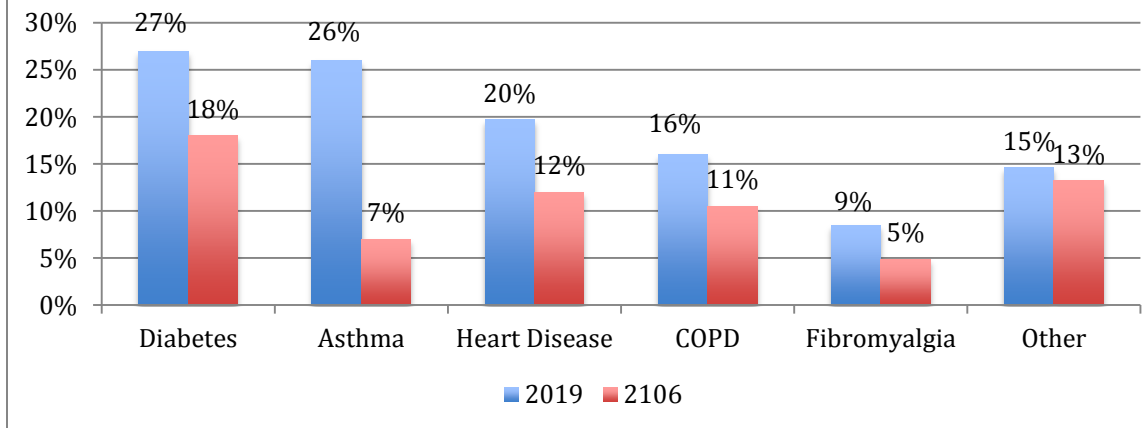
- 441 (54.2%) said arthritis.
- 405 (50.9%) identified high blood pressure.
- 345 (46.6%) said high cholesterol.
- 206 (31.9%) had migraines.
- 190 (29.2%) had high or low thyroid.
- 182 (27.0%) said diabetes.
- 165 (25.6%) said asthma.
- 124 (19.7%) said heart disease.
- 101 (16.0%) had COPD.
- 49 (or 8.5%) suffered from fibromyalgia.
- 88 (14.6%) said they had other conditions. Of these:
 - 6 said they had cancer.
 - 10 said they had a gastrointestinal issue such as Crohn's disease or gastric reflex.
 - 8 said they had a liver issue.

Overall, the respondents to the 2019 CHNA survey had more chronic conditions than those who responded to the 2016 survey.



Source: CHNA Surveys, 2019 and 2016

Respondents with Other Chronic Conditions



Source: CHNA Surveys, 2019 and 2016

Secondary data from the Michigan Behavioral Risk Factor Survey for the Branch-Hillsdale-St. Joseph area compared to Michigan (2014-2016 average) showed some differences between area and Michigan residents for reported illnesses.

Percent of Branch-Hillsdale-St. Joseph Residents with Select Health Conditions, 2012-14 Average, Michigan Behavioral Risk Factor Survey		
Condition	Branch-Hillsdale-St. Joseph	Michigan
Arthritis	33.3%	31.1%
HIV Test	31.6%	41.0%
Cancer	13.9%	12.3%
Asthma	12.8%	15.8%
Diabetes	10.5%	10.4%
Cardiovascular Disease	8.1%	9.7%
COPD	7.9%	8.5%
Heart Attack	3.2%	4.9%
Angina/Coronary Heart Disease	5.3%	5.0%

Source: Michigan Behavioral Risk Factor Survey, 2014-16 Averages

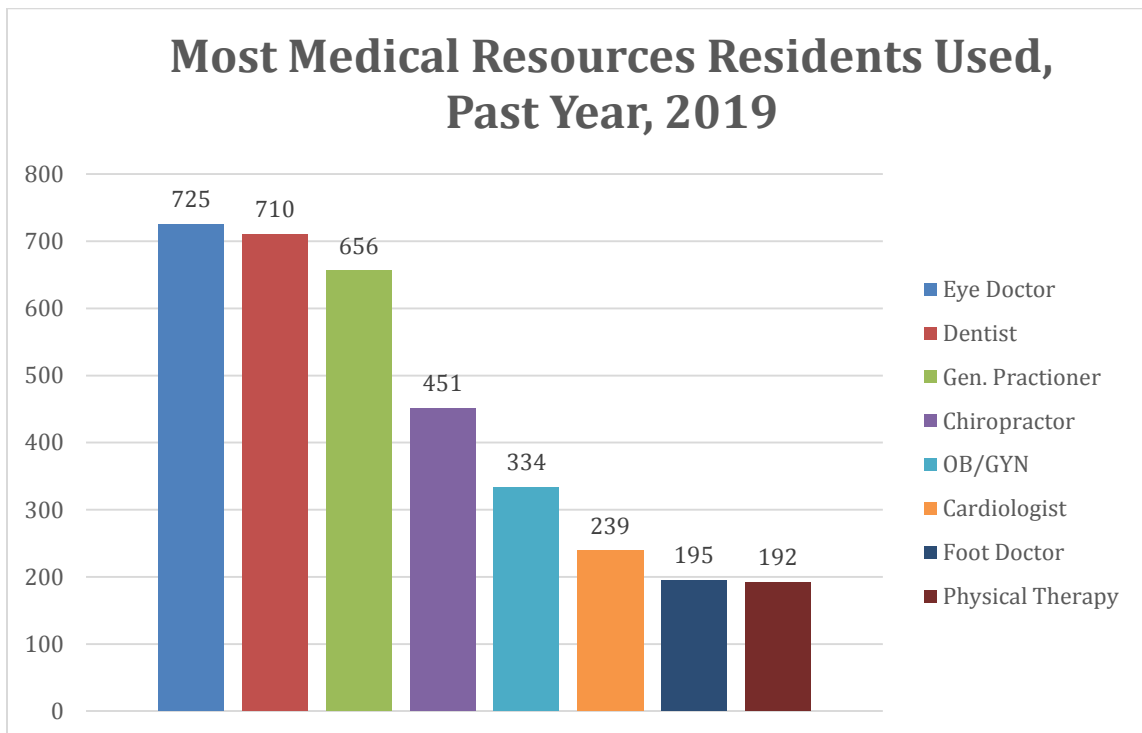
These results were similar to what was found in the 2012-14 Michigan Behavioral Risk Factor Survey.

MEDICAL SERVICES USED BY RESPONDENTS

The CHNA 2019 survey asked respondents what health services they had used in the past year and where the practitioners were located.

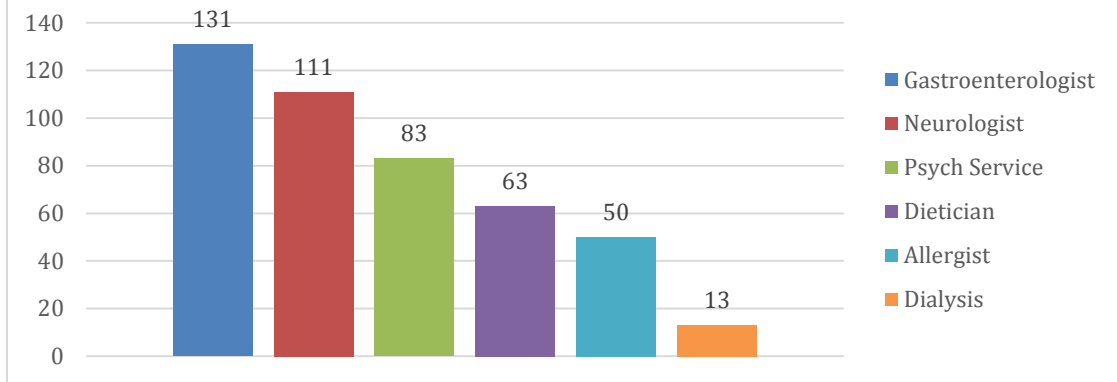
Services Used and Where Respondents Went for Treatment			
	In County	Outside County	Total
Allergist	25	25	50
Cardiologist	154	85	239
Chiropractor	407	44	451
Dentist/Orthodontist	573	137	710
Dialysis	8	5	13
Dietician	53	10	63
Eye Doctor	619	106	725
Foot Doctor	166	29	195
Gastroenterologist	91	40	131
General Practitioner	600	56	656
Neurologist	56	55	111
OB/GYN	256	78	334
Physical Therapist	175	17	192
Psychologist/Psychiatrist	51	32	83

Source: CHNA Survey, 2019



Source: CHNA Survey, 2019

Other Medical Resources Residents Used, Past Year, 2019



Source: CHNA Survey, 2019

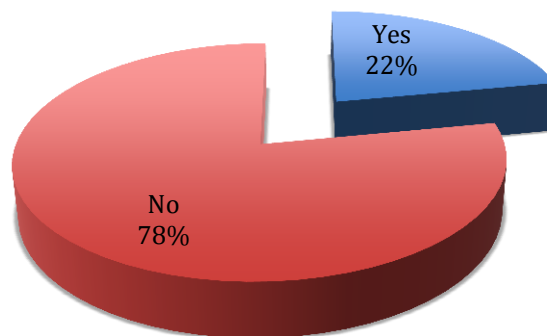
Respondents Use of Hospitals

Respondents to the CHNA survey were asked if they had been hospitalized in the past year. Of the 1,101 who answered this question:

- 242 (22.0%) had been hospitalized.
- 859 (78.0%) had not been hospitalized.

Respondents Hospitalized in the Past Year

Yes: 242 or 22%
No: 859 or 78%

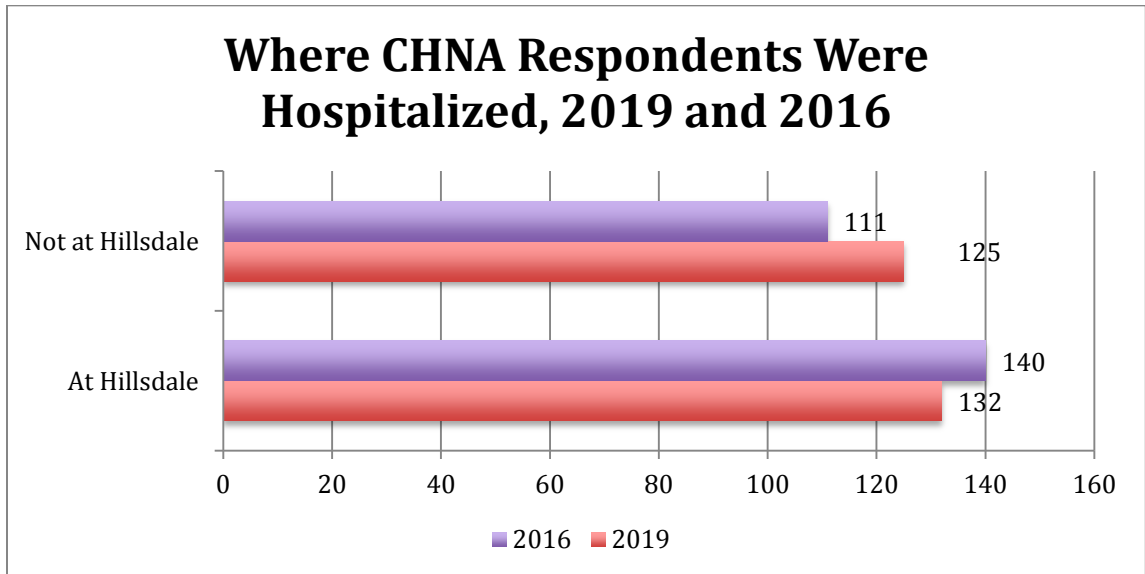


Source: CHNA Survey, 2016

Respondents were then asked if they were hospitalized, was it at Hillsdale Hospital. The answer to this question was confusing. Though only 242 had said they were hospitalized, 257 people identified where they were hospitalized. Of these:

- 132 said it was at Hillsdale.
- 125 said some other hospital.

This result is similar to what was found in 2016 when 111 were not hospitalized in Hillsdale and 140 were.

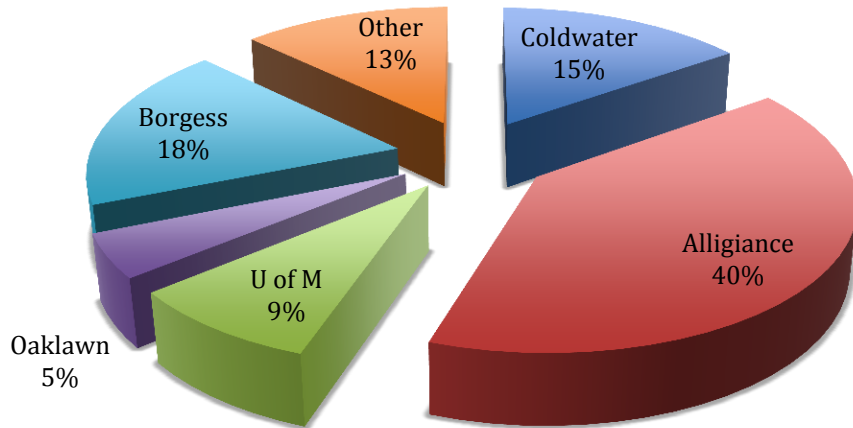


Source: CHNA Surveys, 2016 and 2019

As a follow up question, respondents were asked if they were hospitalized but not in Hillsdale, where did they go for treatment. 125 respondents answered this question.

- 50 said Allegiance Health.
- 23 said Borgess Medical Center.
- 19 said Coldwater Hospital.
- 11 said University of Michigan.
- 6 said Oaklawn.
- 16 said some other place.

Where Respondents Went for Treatment other than Hillsdale Hospital, 2019

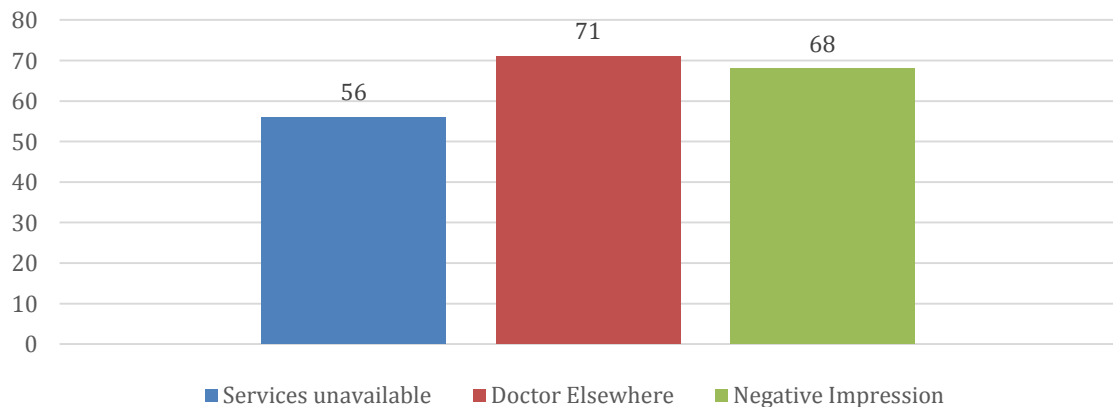


Source: CHNA Survey, 2019

Respondents were asked if they were hospitalized but not at Hillsdale, why they went to another hospital. Of those who answered this question:

- 56 of 215 respondents (26.1%) said the services they needed were not available at Hillsdale Hospital.
- 71 of 202 respondents (35.2%) said their doctor did not practice in Hillsdale.
- 68 of 219 respondents (31.1%) said they had a negative impression of Hillsdale Hospital.

Why Respondents Did Not Use Hillsdale Hospital, 2019



Source: CHNA Survey, 2019

A few respondents who may not have been hospitalized at all wrote in a comment to this question . Of those:

- 6 said they had a negative impression of Hillsdale Hospital.
- 3 said they had a past negative experience at Hillsdale Hospital
- 5 said they went out of the area to a facility closest to them.

Need for Area Medical Specialists

The HSN members felt there was a general lack of medical specialists in the county, forcing many people to go to professionals outside the area. Some specialists only come to the county once a month. However, they felt this situation has improved over the last few years except in the field of psychiatry, especially child psychiatry. They recommended that the use of telemedicine in some instances to promote access to specialists.

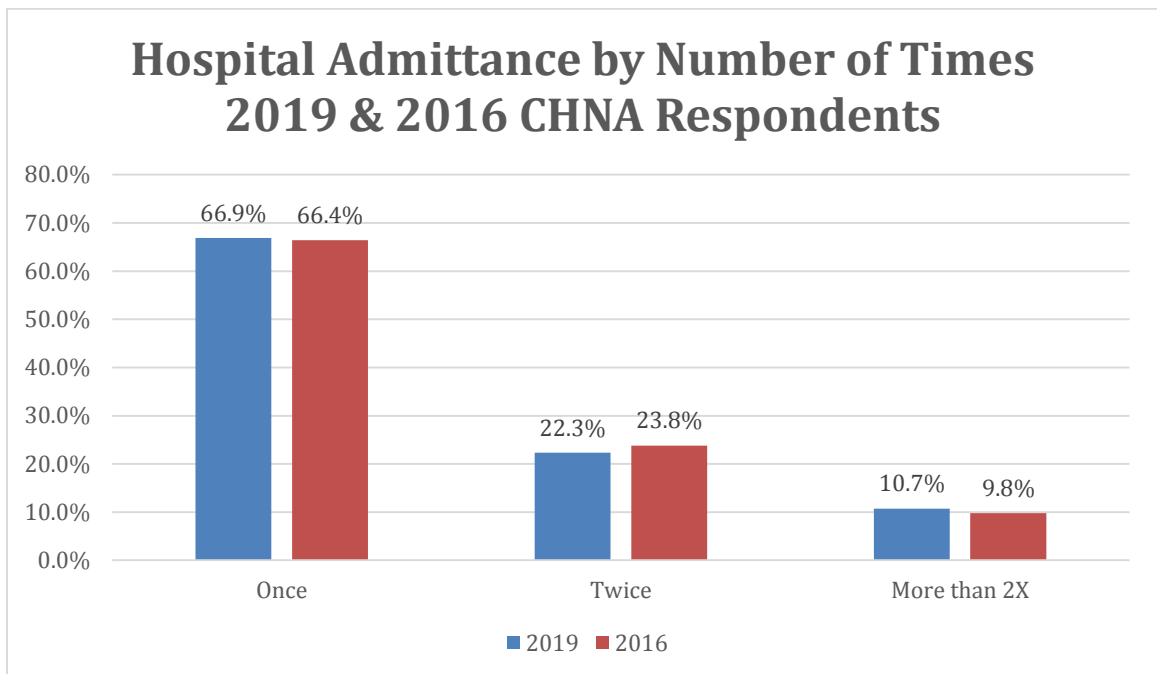
Hospital Re-Admittance

Hospitals are monitored for the number of patients re-admitted for the same illness within a short period following discharge. Although in some cases this is unavoidable due to the nature of the illness or the actions of the patient following discharge, premature release of patients from a facility or lack of follow-up outpatient monitoring can contribute to the likelihood of re-admittance.

Of the 242 respondents who said they were hospitalized, some were hospitalized more than once.

- 162 (66.9%) were hospitalized once.
- 54 (22.3%) were hospitalized twice.
- 26 (10.7%) were hospitalized more than twice.

Similar results were found on the 2016 CHNA survey indicating little progress in this area.



Source: CHNA Surveys, 2019 and 2016

HSN members wondered if the re-admittance data was due to individuals being hospitalized for the same condition each time, or as the result of different illnesses. The survey could not determine this.

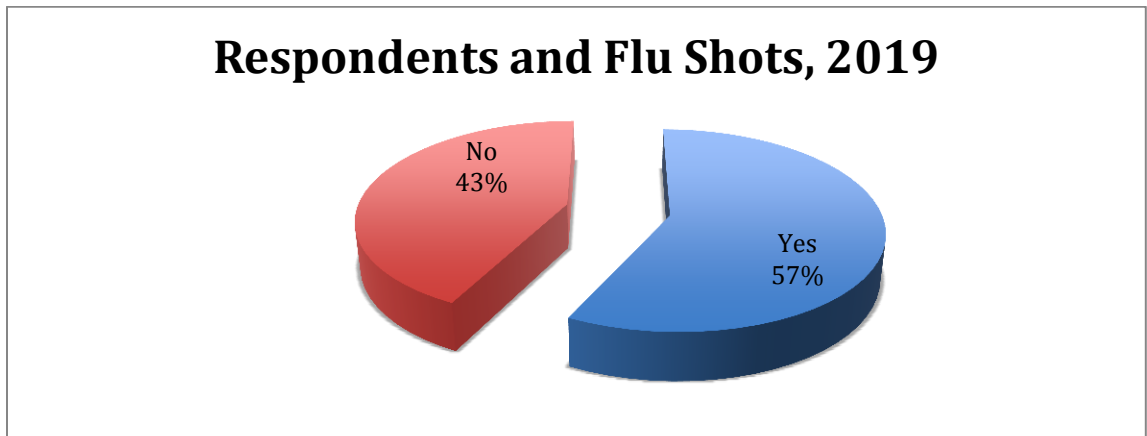
PREVENTIVE CARE: IMMUNIZATIONS

Many infectious diseases such as influenza and pneumococcal pneumonia can be prevented by immunization.

Influenza vaccines

Influenza vaccines are given on a yearly basis. The vaccine produced is based upon the strain of flu virus predicted for that year by the Centers for Disease Control and Prevention.

When asked in the CHNA survey if they had a flu shot within the last year, 1,134 people answered the question. Of those who answered, 650 (or 57.3%) said they had been immunized. This is slightly higher than the 2016 and 2013 CHNA surveys which revealed 53% and 51% of respondents, respectfully, had a flu shot.



Source: CHNA Survey, 2019

Older residents may be more likely to get an influenza vaccination than the general population. The Michigan Behavior Risk Factor Survey, 2014-2016 average, showed 55.6% of Branch-Hillsdale-St. Joseph residents age 65 or older had received a flu shot in the last year. This is similar to the 57.1% reported for all Michigan residents in this age group and an increase from the 2012-14 average.

Flu Vaccination Branch Hillsdale St. Joseph Residents Age 65 or Older Compared to Michigan		
	2014-16	2012-14
Branch-Hillsdale-St. Joseph	55.6%	48.1%
Michigan	57.1%	56.6%

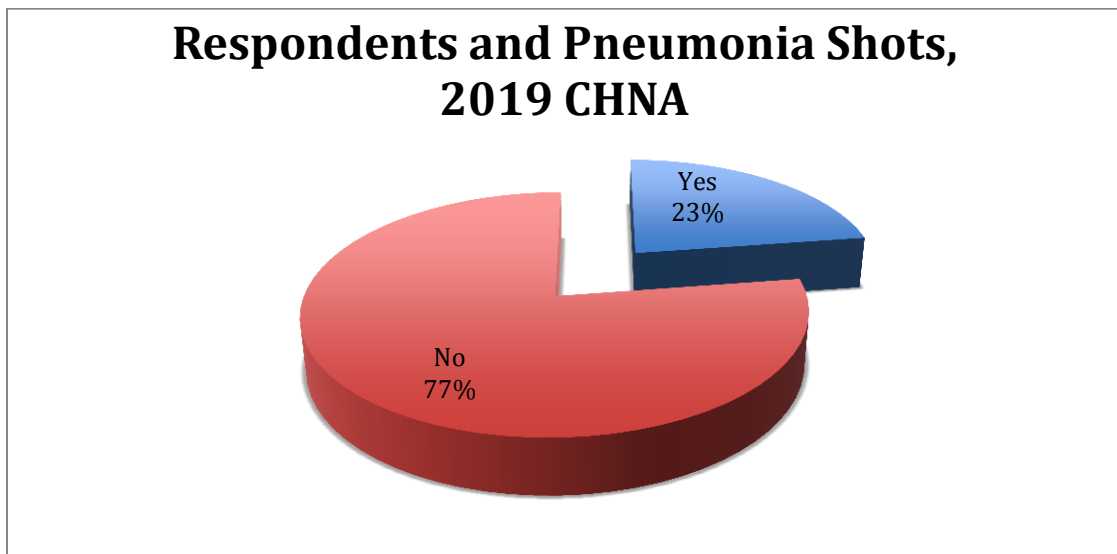
Source: Michigan Behavior Risk Factor Surveys 2014-16 and, 2012-14 Averages

Bacterial pneumonia

Bacterial pneumonia is caused by *Streptococcus pneumoniae* (pneumococcus). The Centers for Disease Control estimates about one million people are hospitalized with pneumonia annually in the United States and 50,000 die from the disease. About half of these cases are preventable through the use of the available vaccine.

One vaccination with pneumococcal conjugate vaccine (PCV13) is recommended for people under age 65, or those with immunocompromised conditions. A second immunization is recommended after the age of 65 with a dose of pneumococcal polysaccharide vaccine (PPSV23.)

When asked if they had received a pneumonia vaccine in the past year, 252 (22.5%) of 1,120 respondents in the CHNA survey who answered this question said they had. This is slightly higher than the 20.6% or 18% who said they had done so in the 2016 and 2013 CHNA surveys, respectfully.



Source: CHNA Survey, 2019

Area physicians encourage older residents to get pneumonia shots. This is reflected in the Michigan Behavior Risk Factor Survey, 2014-16 average, which showed 72.0% of Branch-Hillsdale-St. Joseph residents age 65 or older had ever received a pneumonia vaccine. This is comparable to the 71.3% reported for all Michigan residents in this age group and a slight improvement over the 2012-14 reported averages.

Pneumonia Vaccination Branch Hillsdale St. Joseph Residents Age 65 or Older Compared to Michigan		
	2014-16	2012-14
Branch-Hillsdale-St. Joseph	72.0%	66.3%
Michigan	71.3%	68.2%

Source: Michigan Behavior Risk Factor Surveys, 2014-16 and, 2012-14 Averages

Community Response on Immunizations

The HSN members recognized that the Branch-Hillsdale-St. Joseph Health Department makes many efforts to improve general immunization rates for vaccine preventable diseases. The current measles outbreak in the USA has not impacted Hillsdale County so far, but has increased awareness of the need for immunizations in the community.

There was a general uncertainty on how long vaccinations for some diseases provided protection and whether booster shots should be recommended. Rebecca Burns, the Health Officer of the Branch-Hillsdale-St. Joseph Health Department said inquiries on this matter should be directed to the Health Department vaccination specialist.

PREVENTIVE CARE: CANCER SCREENINGS

Detecting cancer at an early stage can impact the course of the disease. Medical tests for many cancers are continuing to be developed but some tests have been in widespread use for many years including mammograms, cervical, prostate and colon cancer screenings.

Mammograms

The United States Preventive Services Task Force (2016) recommends women age 50 to 74 should have a mammogram every two years. Women age 40 to 49 and those at higher risk of breast cancer due to family history or another reason should follow the recommendations of their physicians.

When females were asked in the CHNA survey if they had a mammogram in the past year:

- 416 (50.9%) said yes.
- 394 (48.2) said no.
- 7 (9%) said it was not applicable

The Michigan Behavior Risk Factor Survey, 2014-16 average, showed 81.1% of Branch-Hillsdale-St. Joseph female residents age 40 or older had a mammogram in the past two years, compared to 74.9% for all Michigan residents in this age group. A comparison with past results from the Michigan Behavior Risk Factor Survey could not be made since the question was different in previous surveys.

Prostate Screening

There are two commonly used tests to screen for prostate cancer.

The first test is a digital rectal exam. This is usually performed in the doctor's office during a routine male physical.

The second test is the prostate specific antigen (PSA) test. PSA antigen is made by the prostate gland. The level of this antigen in the blood can be higher in men who have prostate cancer but can also be elevated due to other factors. The value of the PSA test remains controversial, and there is disagreement about how frequently it should be conducted. Its appropriateness should be evaluated on a case-by-case basis considering family history and possible symptoms of the disease.

When men were asked in the CHNA survey if they had any prostate screening in the past year:

- 90 (32.7%) said they had
- 181 (65.8%) said they did not
- 4 (1.5%) said it was not applicable.

The Michigan Behavior Risk Factor Survey, 2014-16 averages, showed 42.5% of Branch-Hillsdale-St. Joseph male residents age 50 or older had a PSA test in the past year, compared to 43.4% for all Michigan residents in this age group. This is not much different from the results of the 2012-14 survey.

PSA Test, Branch Hillsdale St. Joseph Male Residents Age 50 or Older Compared to Michigan		
	2014-16	2012-14
Branch-Hillsdale-St. Joseph	42.5%	41.0%
Michigan	43.4%	46.3%

Source: Michigan Behavior Risk Factor Surveys 2014-16 and, 2012-14 Averages

Colonoscopy

The U.S. Preventive Services Task Force recommends adults age 50 to 75 should be screened for colorectal cancer. Screening for those 75 and older should be decided on an individual basis.

There are several tests to detect colorectal cancer. A simple one is a laboratory test that can detect blood in stools from fecal samples. A colonoscopy is a more extensive test performed in the hospital.

The American Cancer Society (ACS) recommends both men and women with an average risk of colorectal cancer should begin screening at age 45 with a yearly fecal sample test. A visual colorectal exam (colonoscopy) is recommended every 10 years, with follow-up tests on a more frequent basis if polyps or cancer are detected.

When asked in the CHNA survey if they had a colonoscopy in the past year, 1,104 respondents answered.

- 217 (19.7%) said they did.
- 879 (79.6%) said they did not.
- 8 (0.7%) said it was not applicable to them.

This is similar to what was found in the 2016 survey when 19.5% of the respondents said they did.

The Michigan Behavior Risk Factor Survey, 2014-16 average, showed 65.7% of Branch-Hillsdale-St. Joseph adults age 50 or older had ever had an appropriate colorectal screening, compared to 71.0% for all Michigan residents in this age group. This survey defined an appropriate screening as either:

- A fecal occult blood test within the past year.
- A sigmoidoscopy within the past five years.
- A colonoscopy within the past ten years.

Colorectal Screening, Branch Hillsdale St. Joseph Residents Age 50 or Older Compared to Michigan		
	2014-16	2012-14
Branch-Hillsdale-St. Joseph	65.7%	58.9%
Michigan	71.0%	68.6%

Source: Michigan Behavior Risk Factor Surveys 2014-16 and, 2012-14 Averages

Cervical cancer Pap Tests

Pap tests are a rapid way to detect cervical cancer. The CDC recommends Pap tests for all women between 21 and 65 years old at intervals recommended by their doctor. Women age 65 and older who have had negative Pap tests for several years or who had their cervix removed should follow the recommendation of their doctor.

Women were asked in the CHNA survey if they had a Pap test in the past year. Of the women who answered this question:

- 241 (36.9%) said yes.
- 499 (61.1%) said no.
- 13(2%) said not applicable.

The Michigan Behavior Risk Factor Survey, 2014-16 average, showed 69.2% of Branch-Hillsdale-St. Joseph female residents' age 18 or older had a Pap test within the previous three years, compared to 73.7% for all Michigan residents in this age group. This is a slight decline from the 2012-14 averages.

Pap Test, Branch Hillsdale St. Joseph Women Residents Aged 18 or Older Compared to Michigan		
	2014-16	2012-14
Branch-Hillsdale-St. Joseph	69.2%	73.1%
Michigan	73.7%	77.2%

Source: Michigan Behavior Risk Factor Surveys 2014-16 and, 2012-14 Averages

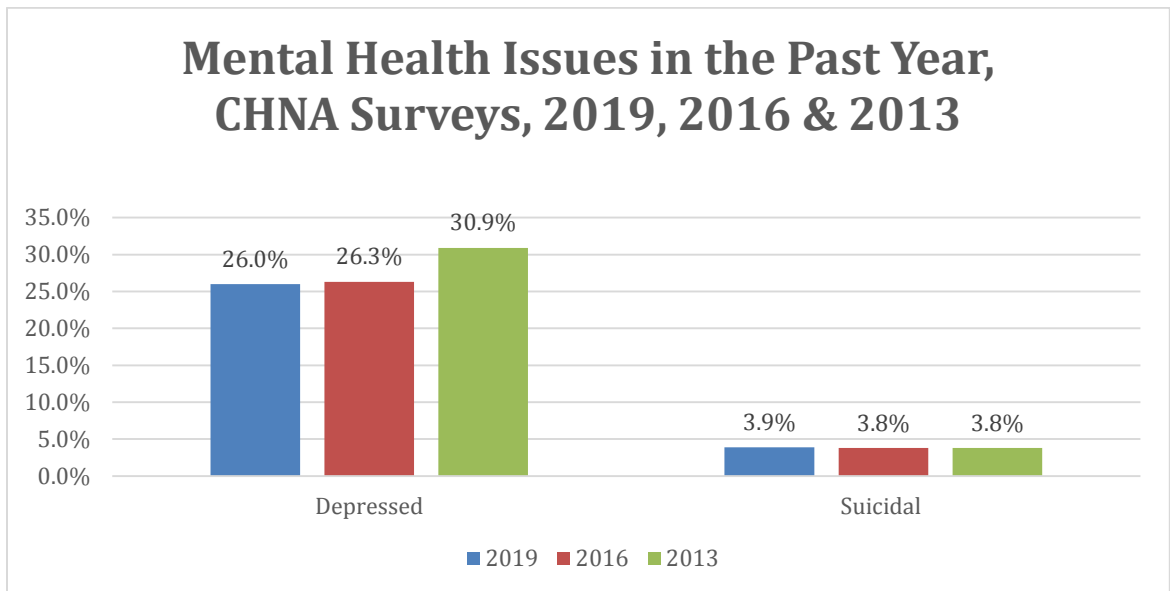
MENTAL HEALTH ISSUES

Mental health impacts not just the individual but the community. Additionally, feelings of wellbeing have a positive impact on the management and progress of some diseases.

When respondents in the CHNA survey were asked about their mental health in the past year:

- 286 (26.0%) of the 1,101 respondents to this question said they had been depressed for more than a week.
- 41(3.9%) of the 1053 respondents to this question had been suicidal.

These results were similar to what was seen in previous surveys.



Source: CHNA Surveys, 2019, 2016 and 2013

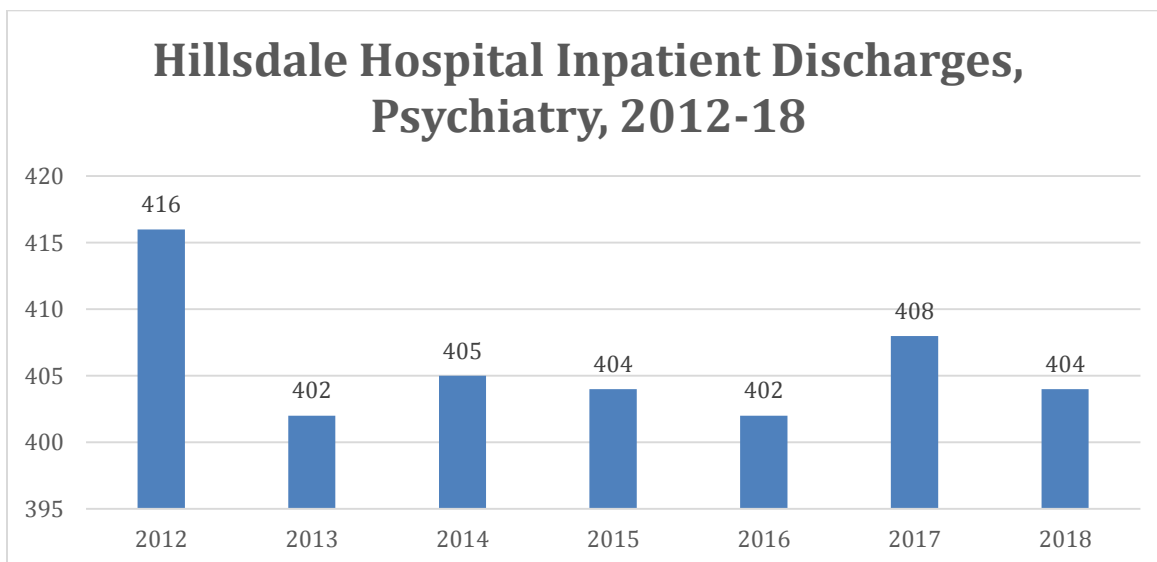
The Michigan Behavioral Risk Factor Survey, 2014-16 averages, asked respondents if they had ever been told they had a depressive disorder by a health professional. Among the Branch-Hillsdale-St. Joseph residents, 20.0% said they had compared to 20.7% of Michigan residents.

The Michigan Behavioral Risk Factor Survey also asked respondents how many felt their mental health was not good for 14 or more days out of the previous 30. Not good included: stress, depression and problems with emotions. 12.0% of Branch-Hillsdale-St. Joseph residents said their mental health was not good compared to 9.2% of Michigan residents.

Poor Mental Health, Branch Hillsdale St. Joseph Residents Age 18 or Older Compared to Michigan		
	2014-16	2012-14
Branch-Hillsdale-St. Joseph	12.0%	12.7%
Michigan	9.2%	12.6%

Source: Michigan Behavior Risk Factor Surveys 2014-16 and, 2012-14 Averages

Hillsdale Hospital has a 10 bed psychiatric unit. Examination of the hospital discharge data shows the hospital had just over 400 psychiatric patient discharges each year.



Source: Hillsdale Hospital discharge data, 2012 to 2018

Community Concerns

The HSN members were very concerned about depression and mental health issues among community residents. They said:

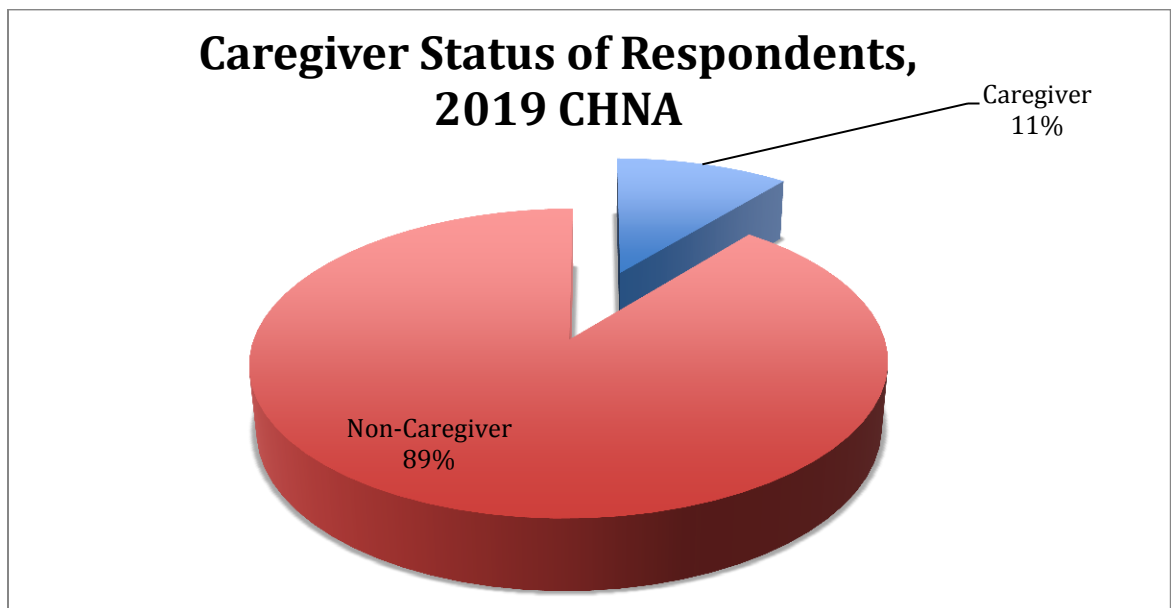
- *There is a great need for specialists in the mental health area in this community, especially in the treatment of pediatric patients.*
- *There needs to be a better knowledge of mental health resources in the community and interaction between the hospital and outside resources.*
- *Private insurance often does not cover treatment and Medicaid (which few providers take) only covers a specified number of psychiatric visits so many patients receive less than adequate treatment.*
- *Members suggested the establishment of a psychiatric telemedicine system to give residents greater access to care.*
- *Some cases of repeated hospitalizations of psychiatric patients may be because patients are discharged when stabilized with medication but go off the medication once released.*
- *One member pointed out that Lenawee County has no beds for psychiatric care and probably sends patients to Hillsdale.*

CAREGIVERS

Caring for others can produce stress in caregivers and impact their physical and mental wellbeing.

The CHNA 2019 survey asked respondents if they were caregivers for any sick or aged person. Of the 1,183 people who answered this question:

- 128 (10.8%) said they were. Of these, 108 were women.
- 1055 (89.2%) were not.



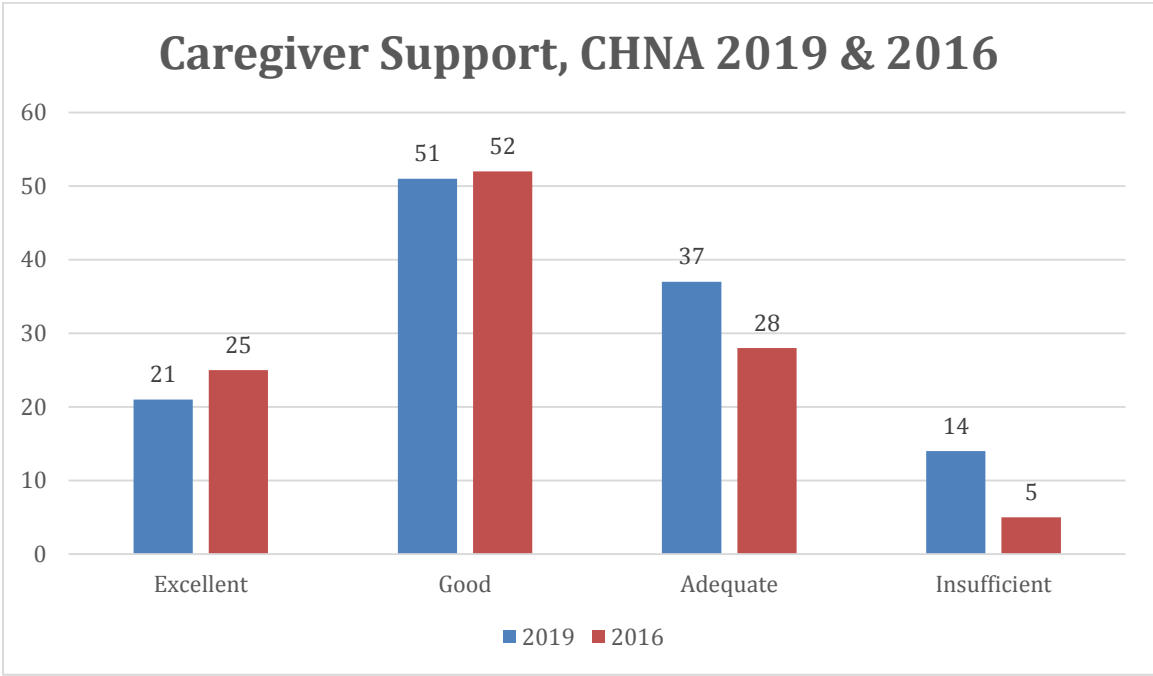
Source: CHNA Survey, 2019

This is similar to the results of the 2016 survey where 11.7% of respondents said they were caregivers.

A follow up question was asked about how caregivers would rate the healthcare service or support that was needed. Of the 123 of the 128 respondents who said they were caregivers and answered this question:

- 21 said it was excellent.
- 51 said it was good.
- 37 said it was adequate.
- 14 said it was insufficient.

It was noted when paper surveys were entered into the survey tabulation tool that several people who had not identified themselves as caregivers rated the support services, often unfavorably. If they had not identified themselves as caregivers, their opinion was discounted.



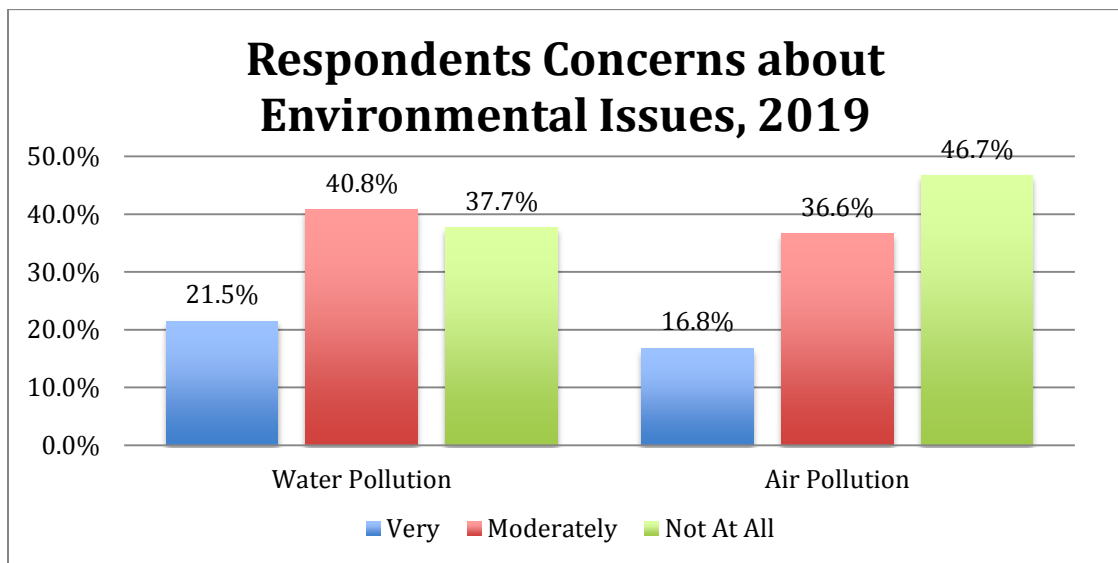
Source: CHNA Surveys, 2019 and 2016

ENVIRONMENTAL CONCERNS

Respondents in the CHNA survey were asked whether they were very concerned, moderately concerned or not at all concerned about two select environmental issues:

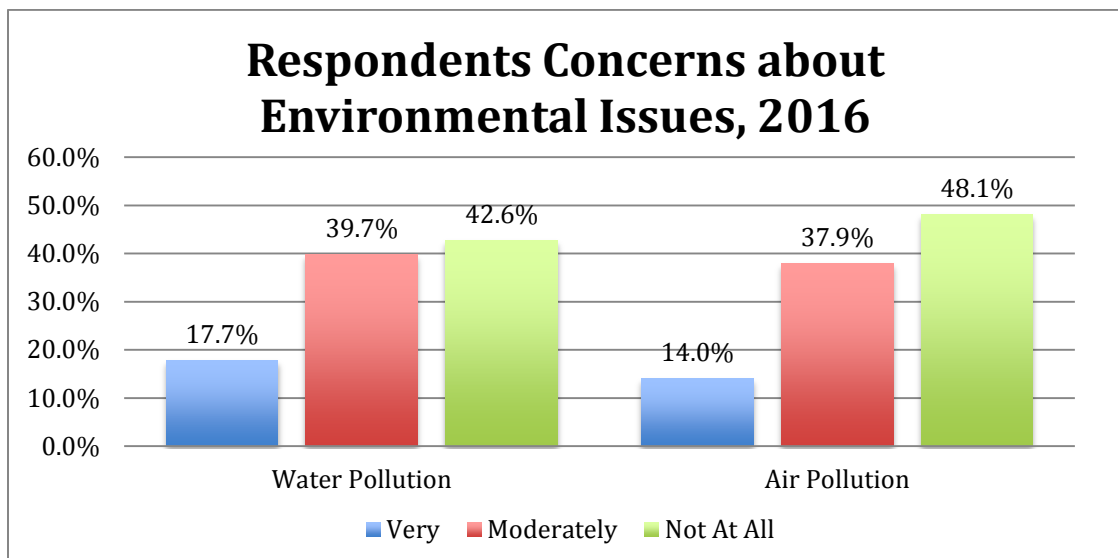
- Water pollution.
- Air pollution.

Their responses showed they had only moderate concern about these environmental issues.



Source: CHNA Survey, 2019

This is little changed from the 2016 profile



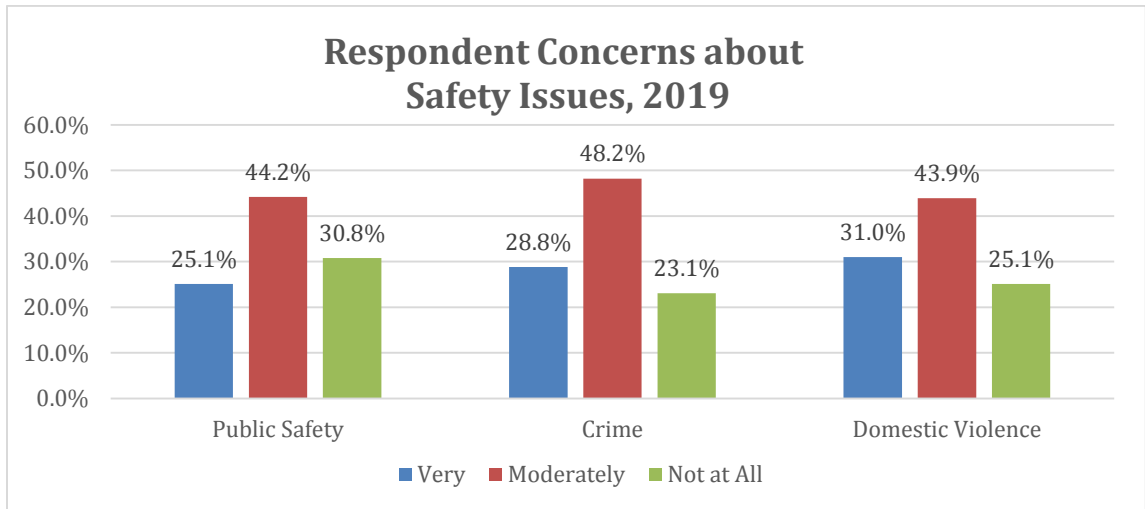
Source: CHNA Survey, 2016

SAFETY CONCERNS

Respondents to the CHNA survey were asked whether they were very concerned, moderately concerned or not at all concerned about three safety issues:

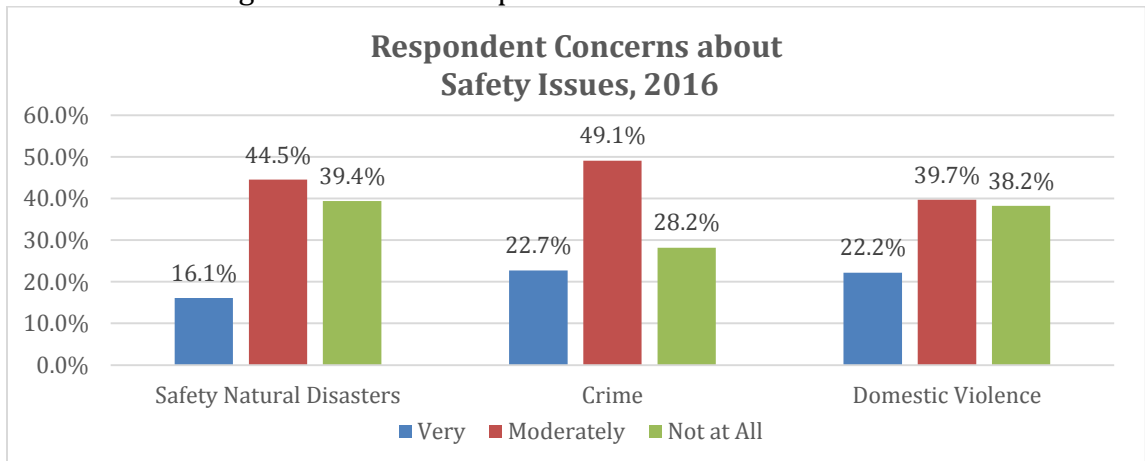
- Public safety.
- Crime.
- Domestic Violence.

Their responses showed they were only moderately concerned about these issues.



Source: CHNA Survey, 2019

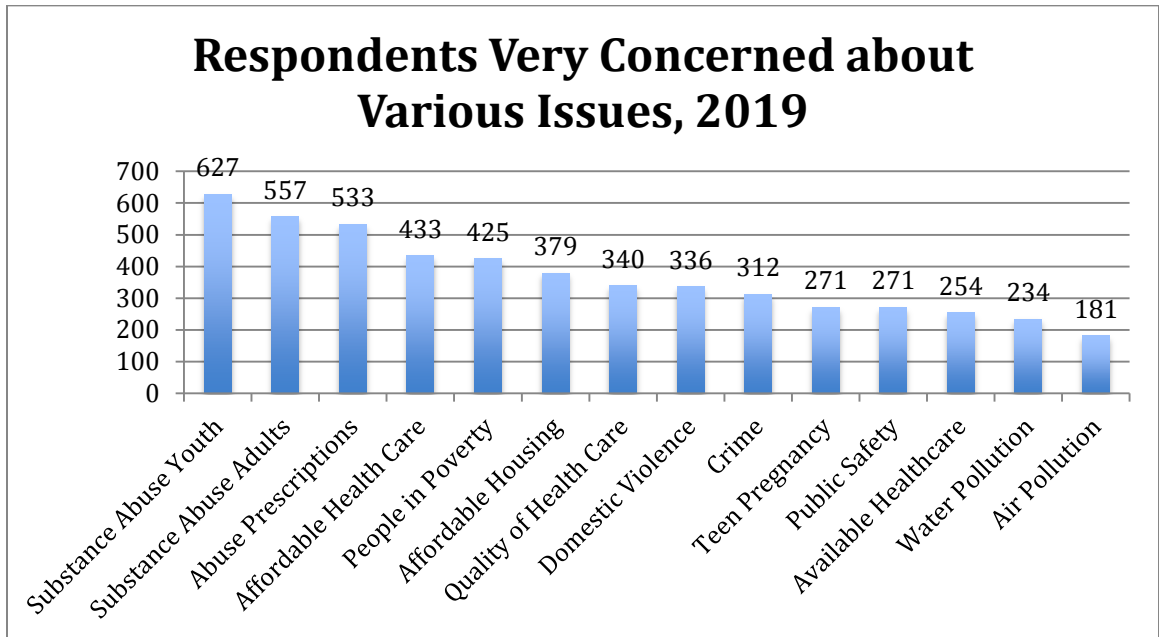
This is little changed from the 2016 profile.



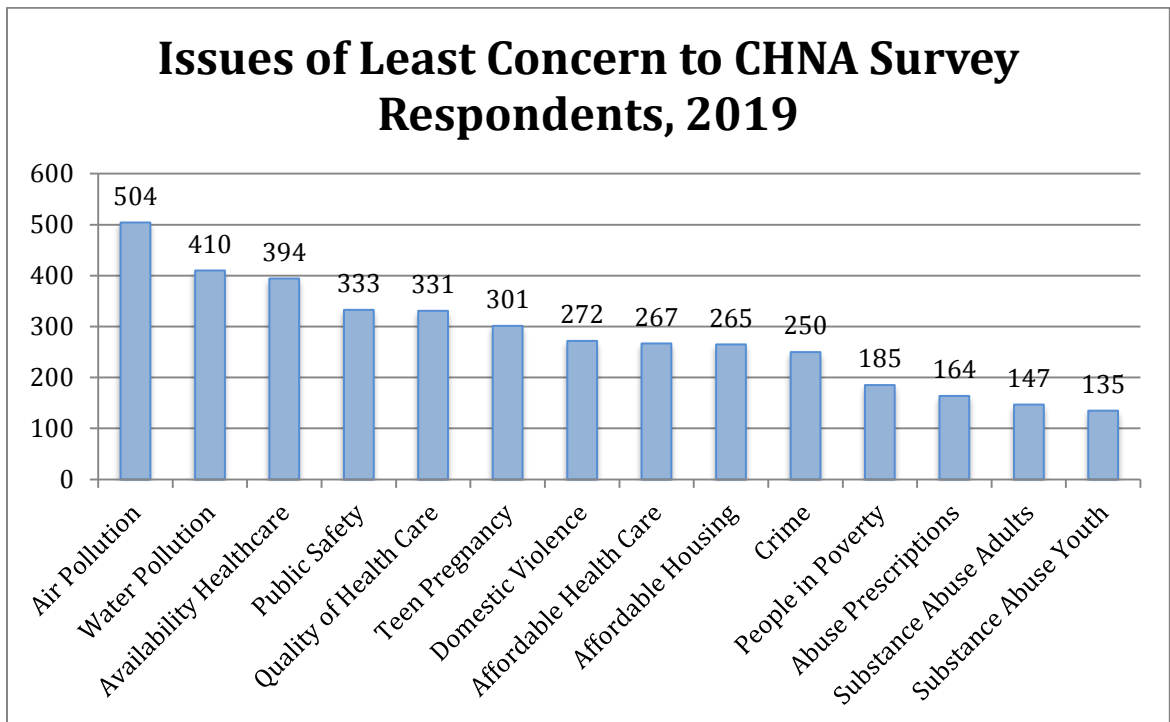
Source: CHNA Survey, 2016

The HSN members noted in the past that domestic violence is often hidden. It can usually be tied to economic factors or substance abuse. The effect on children can have lifelong consequences even if the children are removed from the home.

Many issues were brought to the attention of the respondents for their evaluation as detailed in this report. In summary, those concerns are charted below with a comparison to the previous 2 Needs Assessments (2013, 2016).



Source: CHNA Survey, 2019



Source: CHNA Survey, 2019

The top five concerns of the CHNA survey respondents in 2019 were compared to those in 2016 and 2013.

Top Five Concerns of Respondents, 2019, 2016 and 2013		
2019	2016	2013
Substance Abuse Youth	Substance Abuse Youth	Affordable Health Care
Substance Abuse Adults	Substance Abuse Adults	Employment Opportunities
Abuse of Prescriptions	Abuse of Prescriptions	Substance Abuse Youth
Affordable Healthcare	Employment Opportunities	People in Poverty
People in Poverty	Affordable Health Care	Substance Abuse Adults

Source: CHNA Surveys, 2019, 2016 & 2013

The issues about which the CHNA respondents said they were not at all concerned in the 2019 survey were compared to those cited in the 2016 and 2013 surveys.

Top Issues Respondents Not Concerned About, 2019, 2016 and 2013		
2019	2016	2013
Air Pollution	Air Pollution	Public Safety/Terrorism
Water Pollution	Radon*	Air Pollution
Affordable Healthcare	Water Pollution	Water Pollution
Public safety	Public Safety/Terrorism	Radon*
Quality of Healthcare	Public Safety Disasters	Public Safety Disasters

Source: CHNA Surveys, 2019, 2016 & 2013

*A question about radon was not included in the 2019 survey since this issue seemed of no great concern to previous respondents.

Summary of Human Service Network Concerns

This report was presented, in its entirety to the Human Services Network on April 16, 2019. The project consultant presented the data and lead the discussion with the group. Several key factors were noted during the discussion that led to some of the conclusions made and priorities established. First and foremost, the survey data was, in some ways, flawed in its attempt to profile the community at large. The Survey was skewed toward the population over 50 as well as a significantly higher proportion of females that exist in the general population. These factors were taken into account as the discussion ensued regarding priorities that should/could be established by the hospital in the development of a priority plan.

In the discussion phase of the Community Health Needs Assessment with the Human Services Network, six key areas of concern were identified, with varying degrees of specificity attached to each in terms of action requested. The Action Plans were established after this community meeting, by the hospital and its constituents and presented to the Board of Trustees at their May 2019 meeting.

1. Smoking while Pregnant
2. Inadequate Prenatal Care
3. Opioid Use/Abuse
4. Health Professional Shortages
5. Transportation to / from appointments
6. Increase in low/no cost health screenings for low income
7. High cost of Psych medications and patients being hospitalized due to lack of use

Action Plan:

The Action plans for the hospital based on the established list from the HSN presentation and discussion are detailed in the CHNA Action Plan. These plans will be reviewed and approved (with possible changes) and then tracked over the course of the 3 year cycle with updates provided to the Board and the HNS as appropriate