

**COMMUNITY HEALTH
NEEDS ASSESSMENT
FOR THE
HILLSDALE COMMUNITY HEALTH CENTER**

June, 2013



INTRODUCTION

The Hillsdale Community Health Center 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
- 21 skilled nursing facility beds
- A 10-bed psychiatric unit
- High-tech critical care and emergency departments
- CT scanner and magnetic resonance imaging capability
- A state-of-the-art laboratory
- Four surgical suites
- An ophthalmology suite
- A floor dedicated to joint replacement with 10 private suites

The center has recently undertaken a Community Health Needs Assessment (CHNA). The new Affordable Care Act requires nonprofit hospitals to complete an assessment every three years.

The needs assessment included both a survey of county residents and 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 Center that can best address the health needs of county residents and create partnerships where necessary to address identified unmet needs.

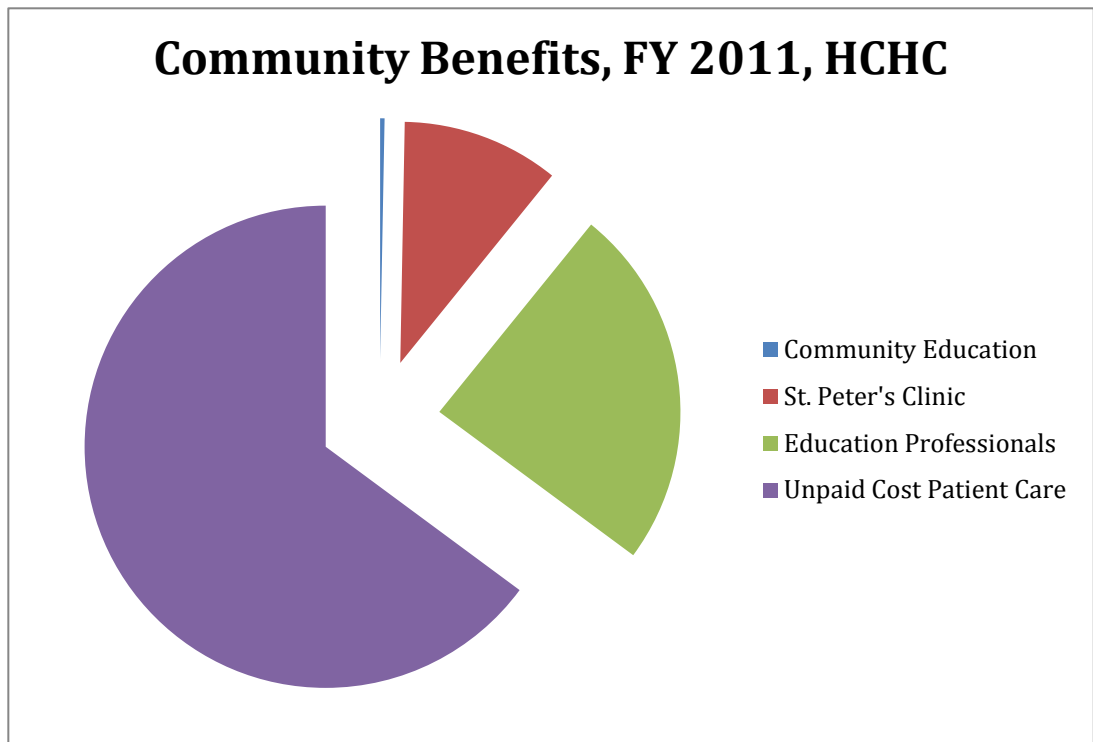
HILLSDALE COMMUNITY HEALTH CENTER AND COMMUNITY BENEFITS

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.

The Hillsdale Community Health Center's fiscal report for 2011 shows the center reported \$2,038,724 in reduced revenue attributed to Community Benefits.

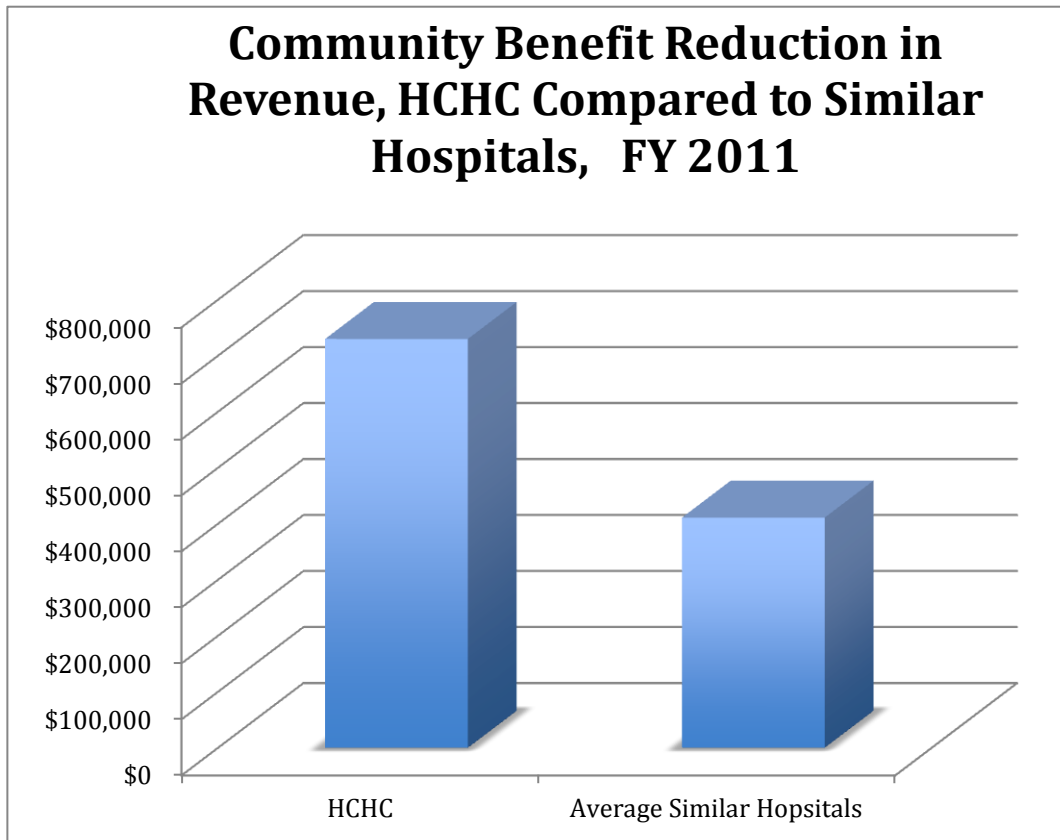
This reduction in revenue includes:

- \$5,975 in community education, staging two community events in weight management, a health screening for breast cancer, 15 events for diabetes education and four health fairs.
- \$212,741 in medical supplies, lab services and flu vaccine donated to St. Peter's Free Clinic.
- \$490,127 in the education of health professionals, including participation in an intern/resident program in partnership with Michigan State University.
- \$21,061 in financial or in-kind contributions to community projects.
- \$1,308,820 in unpaid costs of patient care.



Source: Executive Summary, Hillsdale Community Health Center, 2012 Community Benefits Report, Fiscal Year 2011

Therefore, excluding losses attributed to unpaid patient care, reduction in revenue attributed to community benefits during fiscal year 2011, was \$729,904. This exceeds the average experienced by hospitals similar in size to HCHC.



Source: Michigan Health & Hospital Association, 2011 Community Benefits Survey

In addition to the direct reduction in revenue, Hillsdale Community Health Center each manager targets giving at least 20 hours of community service to the local community.

- In 2011, HCHC managers donated 1,297 hours to the community at an estimated value of \$46,694.
- In 2012, the managers donated 1,351 hours at an estimated value of \$55,485.

Each year, HCHC also conducts three food drives to benefit local food pantries, a Relay for Life fund drive, and numerous other activities and events not detailed in this report.

THE COMMUNITY HEALTH ASSESSMENT SURVEY AND DATA COLLECTION

The Hillsdale Community Health Center 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 the many 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 HSN 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 of HSN members.

The HSN executive committee, hospital representative, and contractor created a health survey questionnaire that was posted on an internet survey site accessible to the community from January 23, 2013 to February 28, 2013.

Paper forms of the survey were sent to area seniors receiving Meals on Wheels and were available at the Hillsdale office of the Branch-Hillsdale-St. Joseph Community Health Agency, the local free health clinic, and various food pantries. They were also distributed at other community events.

In addition, hospital volunteers approached patients awaiting treatment or lab work and asked them if they would complete the survey. Anyone over 18 who accompanied the patient was also asked to participate.

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

The campaign included radio messages, an article in the local newspaper, and distribution of post cards with the link to the online survey. An online link to the survey was placed on the internet homepages of the hospital and many of the HSN

member organizations. Various civic groups were also approached and encouraged to participate.

The responses recorded on the paper surveys were manually added to the online survey tool.

As a result of this campaign, 983 individuals completed the health survey questionnaire. This represented about 2% of the county population.

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: 75% were female and 25% male. In contrast, the population of Hillsdale County is approximately 50% male and 50% female.
- Respondents age 65 or over accounted for 32% of the survey sample, compared to 16% in the general population 65 or over.
- Not all respondents answered every question. The data was analyzed based on the number who responded to the question.

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.

Secondary Data Collection

Secondary data is data gathered from outside reliable sources. This data is generally reported in the form of such things 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.

Some of the secondary data in this report comes from the Michigan Behavior Risk Factor Survey (MiBRFS). This data is gathered by an annual, statewide telephone survey of Michigan residents who are ages 18 or older. The survey provides estimates of several behaviors, medical conditions, and health care practices for state residents.

The Branch-Hillsdale-St. Joseph Community Health Agency (BHSJ CHA) was instrumental in providing reliable secondary data. A recently published BHSJ CHA document, "The Monitor, 2013," containing 100 health indicators for the county, was a vital resource.

Presentation of Data

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 March 19, 2013. The presentation can be found in Appendix B of this report.

After the presentation, network members were asked to identify what they considered the important health issues facing the community and how these needs might best be met.

Their suggestions were presented to the hospital board to create a strategic plan.

This report includes a summary of those findings.

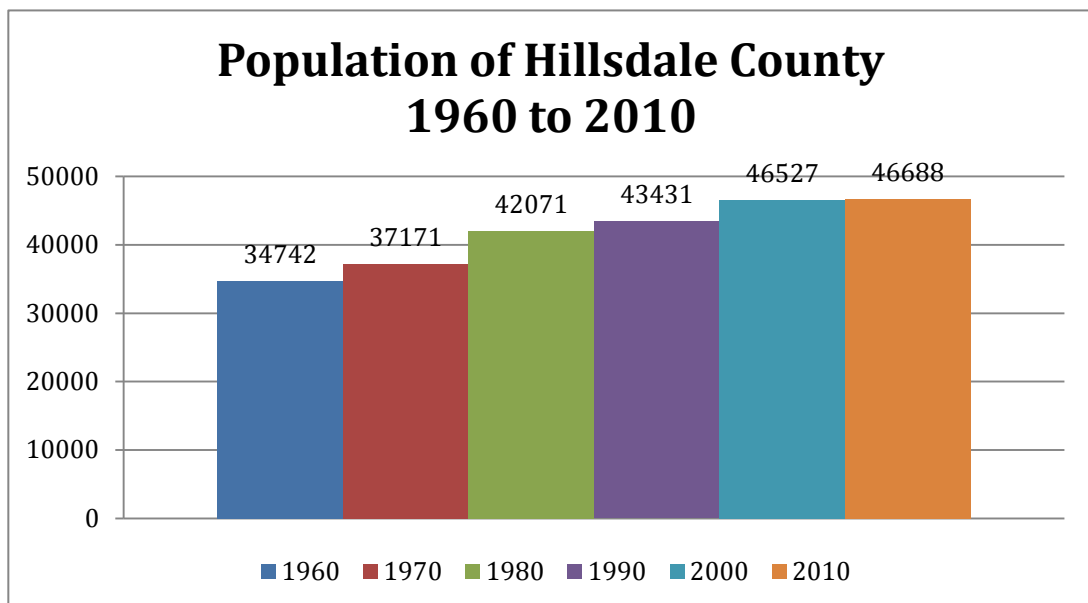
COMMUNITY PROFILE

Hillsdale Community Health Center 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.

Population Trends

According to the 2010 U.S. Census, the population of Hillsdale County was 46,688, a slight increase from the 2000 population of 46,527. The county population has grown at a slow rate over several decades.



Source: U.S. Census Bureau, 1960 to 2010

983 respondents to the CHNA survey represented about two percent of the county population.

Racial and Ethnic Data

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

Population of Hillsdale County by Race Compared to Michigan

	Hillsdale	Michigan
White	97%	78.9%
African American	0.5%	14.2%
American Indian/Alaska Native	0.4%	0.6%
Asian	0.5%	2.4%
Some Other Race	1.6%	1.5%

Source: U.S. Census Bureau, 2010

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

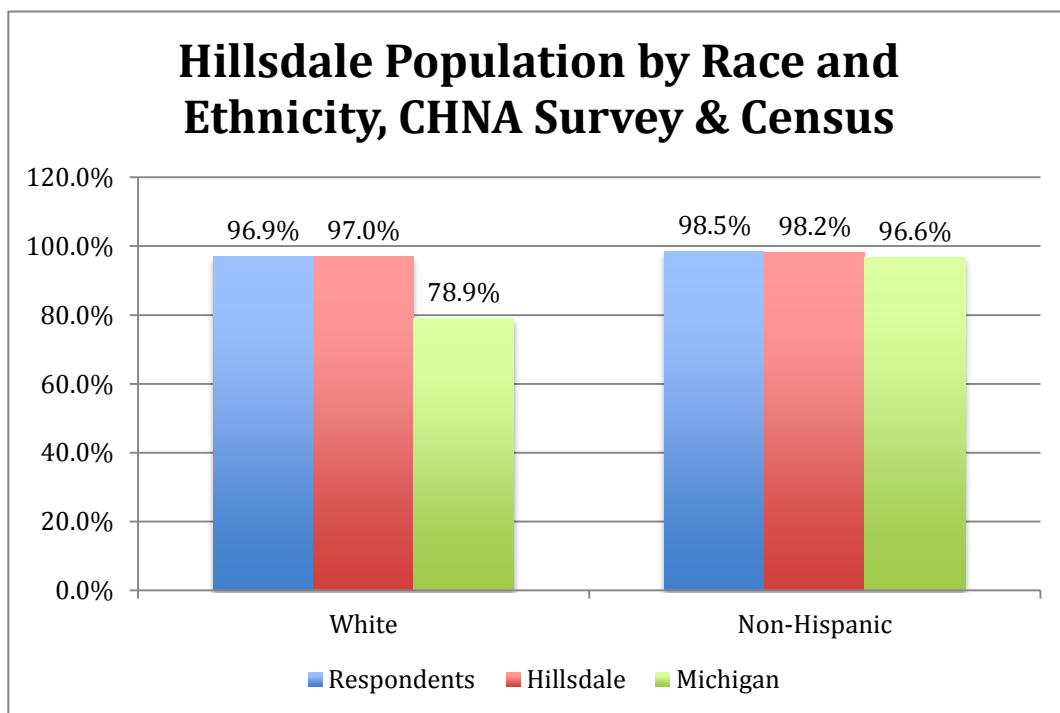
Percentage of Hispanic Hillsdale County Residents Compared to Michigan

	Hillsdale	Michigan
Hispanic	1.8%	4.4%

Source: U.S. Census Bureau, 2010

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

- 948 (or 96.9%) of the respondents were white.
- 30 (or 1.5%) identified themselves as Hispanic.



Source: CHNA Survey, 2013 and U.S. Census 2010

Population by Sex

The 2011 population estimates for Hillsdale County indicate the county is 50.3% female and 49.7% male.

722 (or 75%) of the CHNA survey respondents said they were female; 246 (or 25%) were male.

Population by Age

The median age of Hillsdale residents is 40.5 years compared to Michigan's 38.9 years and 36.8 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	40.5	38.9	36.8

Source: U.S. Census Bureau, 2010

Hillsdale County has a higher proportion of residents ages 45 and over than Michigan.

Percentage of the Hillsdale County Population by Age Compared to Michigan

	Hillsdale	Michigan
Age 0 to 14	19.3%	19.3%
Age 15 to 24	14.3%	14.3%
Age 25 to 44	21.9%	24.7%
Age 45 to 64	28.8%	27.9%
Age 65+	15.7%	13.8%

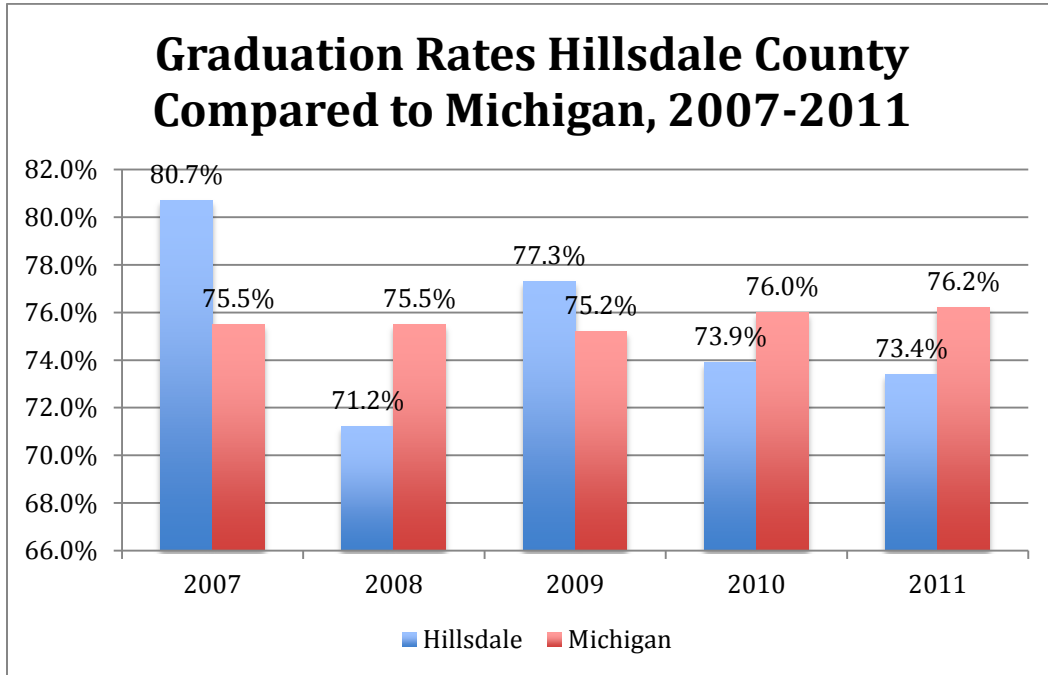
Source: U.S. Census Bureau, 2010

The CHNA survey had a higher percentage of respondents that were 65 or older than the general population: 257 (or 32%) of respondents identified themselves as in this age group.

In response to the increasing aged population and the community's expected need for more long-term care facilities, the Hillsdale Community Health Center recently added a long-term care wing to the existing hospital. This has 19 beds and became operational in April of 2013.

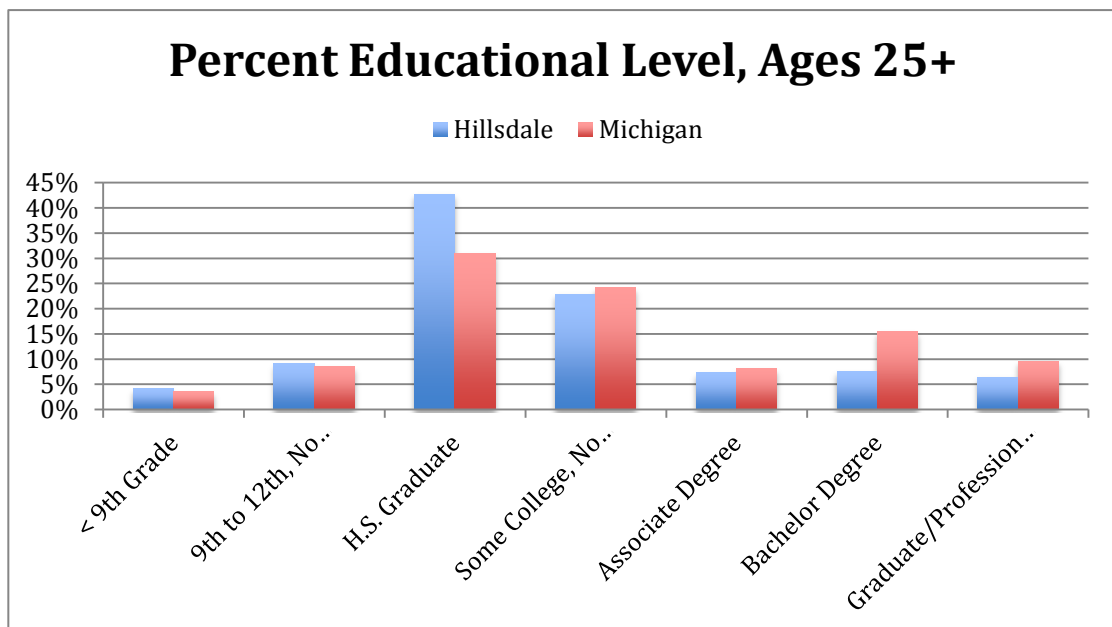
Population by Educational Level

Hillsdale County had a lower high school graduation rate than Michigan in 2010 and 2011.



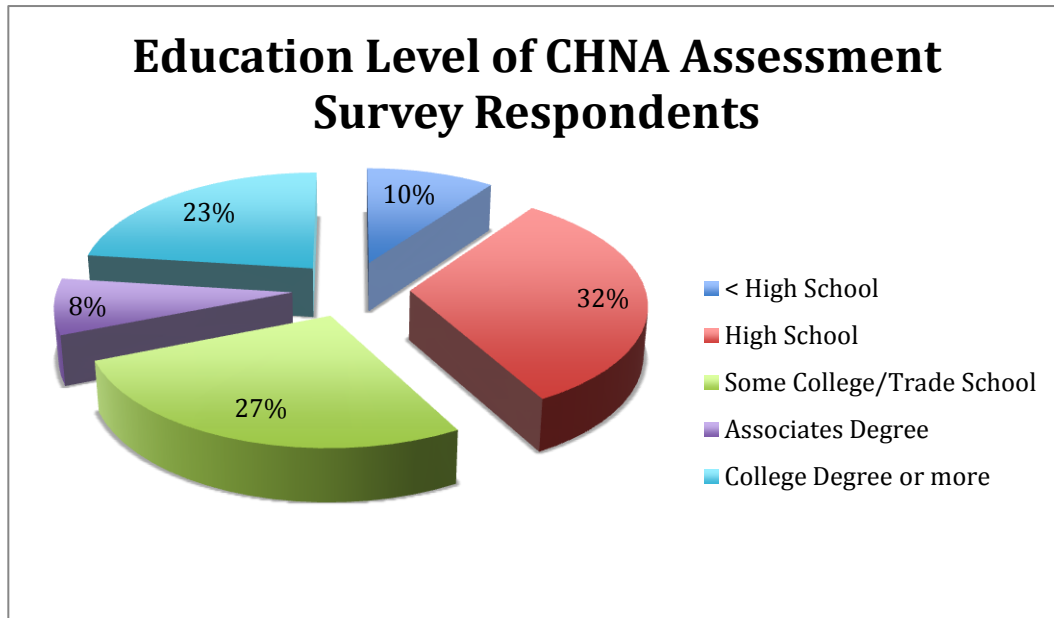
Source: Center for Educational Performance and Information, HDE, 2007-2011.

The percentage of adults with high school diplomas is higher in Hillsdale County than in Michigan, though fewer county residents have degrees beyond high school.



Source: Table DP02, American Community Survey 3-Year Estimates, U.S. Census, 2008-2010.

The 2013 CHNA survey indicated that more than half of the 951 respondents who answered this question had at least a high school diploma.



Source: CHNA Survey, 2013

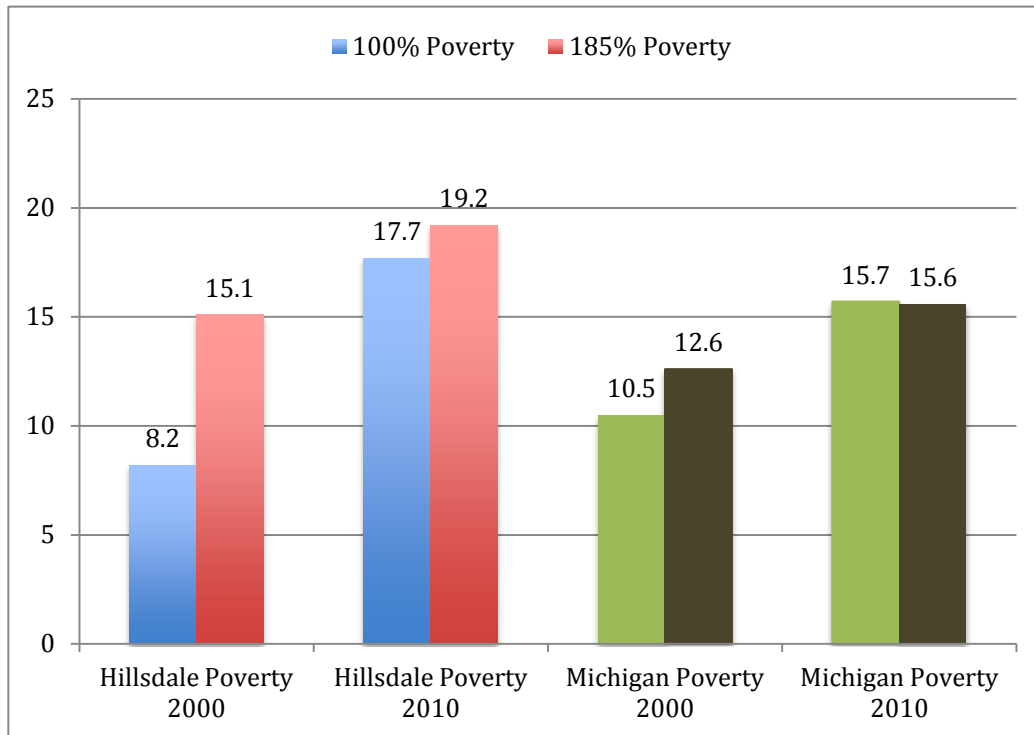
Although the county has a lower percentage of residents with college or advanced degrees than Michigan, the presence of these residents has a significant influence on the community. Many are associated with Hillsdale College, an independent four-year liberal arts college with a national reputation.

Population by Poverty Level

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

Poverty in the U.S. was defined in 2000 as a family of four with an annual income of \$17,050; in 2010, the income was raised to \$22,050.

Hillsdale County had more people at the 100% and 185% poverty level in 2010 than in 2000.



Source:

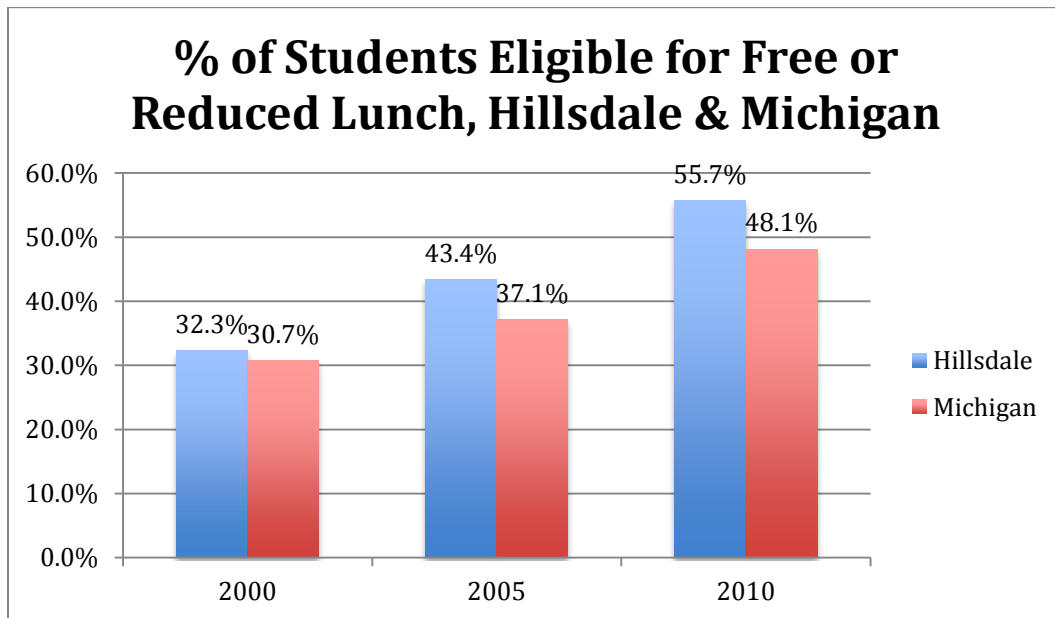
Table B17002 Ratio to Poverty Level, American Community Survey, 2008-2010,
Table PCT141 Census 2000 Summary File 4, U.S. Census.

The median household income in Hillsdale County 2007-2011 was \$43,139 compared to \$48,669 in Michigan.

	Hillsdale	Michigan
Median Income	\$43,139	\$48,669

Source: U.S. Census Bureau

The percentage of students eligible for the free or reduced lunch program increased from 32.3% in 2000 to 55.7% in 2010. This was significantly higher than the percentage increase in Michigan.



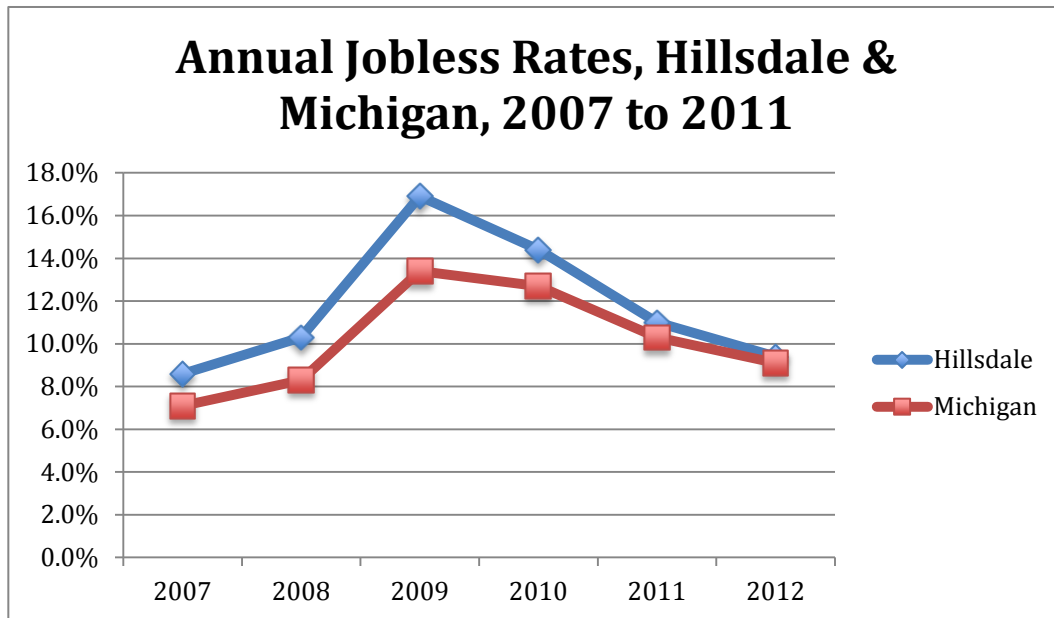
Source: Center for Educational Performance and Information, MDE, 2000-2011.

Respondents to the CHNA survey were asked if they were very concerned, moderately concerned, or not at all concerned about poverty in the community. Of the 919 people who answered this question:

- 352 (or 38.3%) said they were very concerned.
- 325 (or 35.4%) were moderately concerned.
- 242 (or 26.3%) were not at all concerned.

Employment

Hillsdale County has seen a higher jobless rate than Michigan for several years. Many local companies have closed or reduced staff due to the recession.



Source: Michigan Labor Market Information, 2012-13

Employment ranked second among areas of concern identified by CHNA survey respondents.

Respondents were asked on the CHNA survey about their employment status. Of the 971 who answered this question:

- 84 (or 8.7%) said they were unemployed but seeking work.
- 20 (or 2.1%) said they were unemployed but not seeking work.
- 76 (or 7.8%) said they were permanently disabled.
- 92 (or 9.5%) said they worked part time.

Respondents were asked if they were very concerned, moderately concerned, or not at all concerned about the lack of employment opportunities in the community. Of the 911 who answered this question:

- 404 (or 44.3%) said they were very concerned.
- 244 (or 26.8%) were moderately concerned.
- 263 (or 28.9%) were not at all concerned.

One of the fields where there is a growing need for trained personnel is medical services. The Hillsdale Community Health Center actively partners with South Central Michigan Works to recruit and train medical professionals. Their efforts were recognized as a benefit to the community at the HSN meeting.

THE COMMUNITIY AND HEALTH INSURANCE

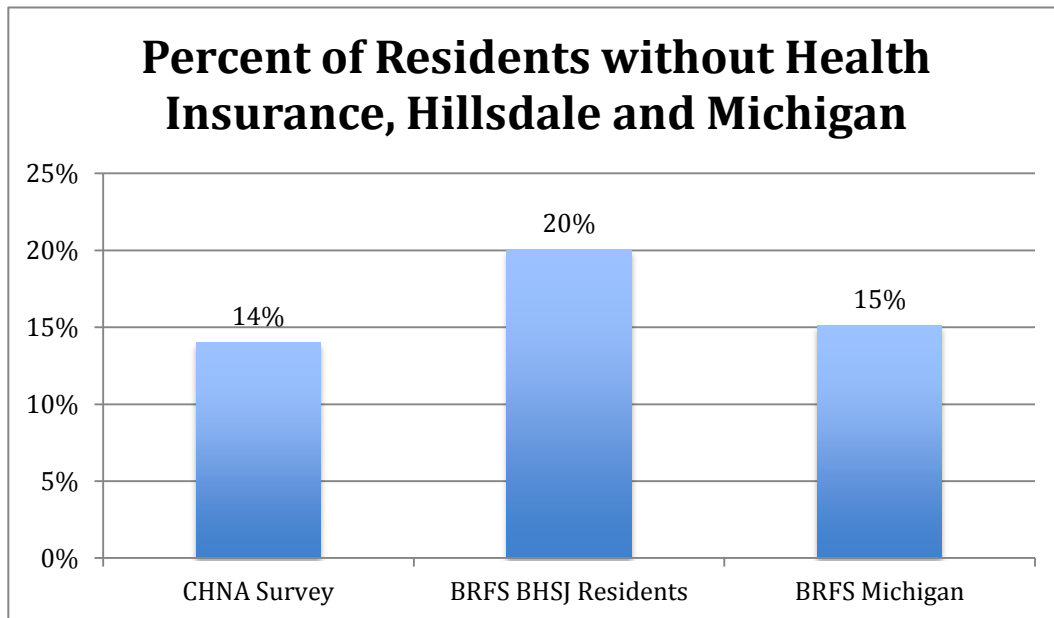
Health Insurance

Economic status is usually the most significant factor in whether a person has any, or adequate, health insurance.

Respondents were asked on the CHNA survey whether they had health insurance. Of the 973 who responded to this question:

- 835 (or 86%) said they did.
- 138 (or 14%) said they did not.

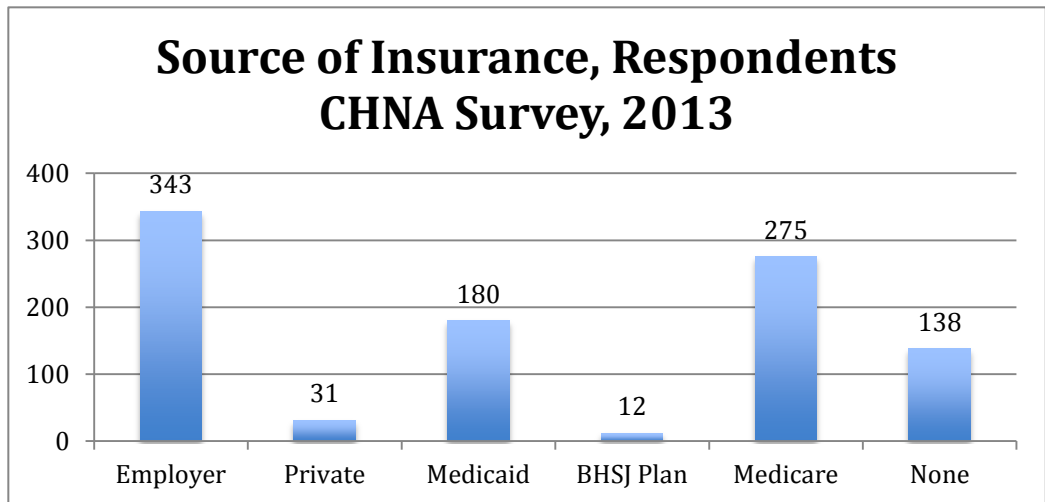
Michigan Behavior Risk Factor Survey (2008 to 2010 average), showed 20% of residents in Branch-Hillsdale-St. Joseph Counties between the ages of 18 and 64 reported they had no health insurance. This is higher than 15% reported for Michigan residents.



Sources: CHNA Survey, 2013 and Behavior Risk Factor Survey, Branch-Hillsdale-St. Joseph Residents and Michigan, 2008-2010 Average

Respondents were asked on the CHNA survey what type of health insurance they had. 142 people did not answer this question; of the 841 who answered:

- 343 (or 40.8%) had insurance through their employer.
- 31 (or 3.7%) had privately paid insurance.
- 180 (or 21.4%) were on Medicaid.
- 12 (or 1.4%) used the Branch-Hillsdale-St. Joseph health plan.
- 257 (or 32.7%) were on Medicare.



Source:

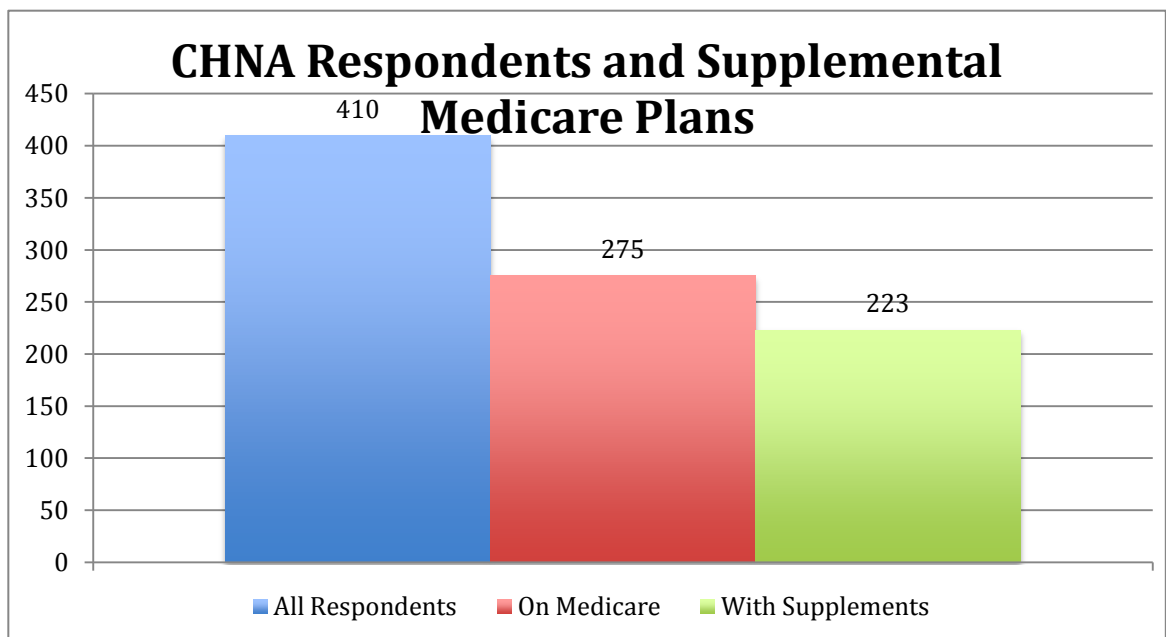
CHNA Survey, 2013

While 257 (or 32%) of respondents to the survey were age 65 or older, 275 (or 32.7%) said they were on Medicare. This is attributed to individuals on permanent disability who qualify for Medicare (a number which is expected to increase in the next few years.)

As a follow-up to the insurance question, the survey asked respondents who said they had Medicare if they had a supplemental plan in addition to basic Medicare. The answer to this question is difficult to interpret. Only 275 said they were on Medicare, but 410 answered the question. Of those who answered:

- 187 said they did not have a supplemental plan.
- 223 said they did.

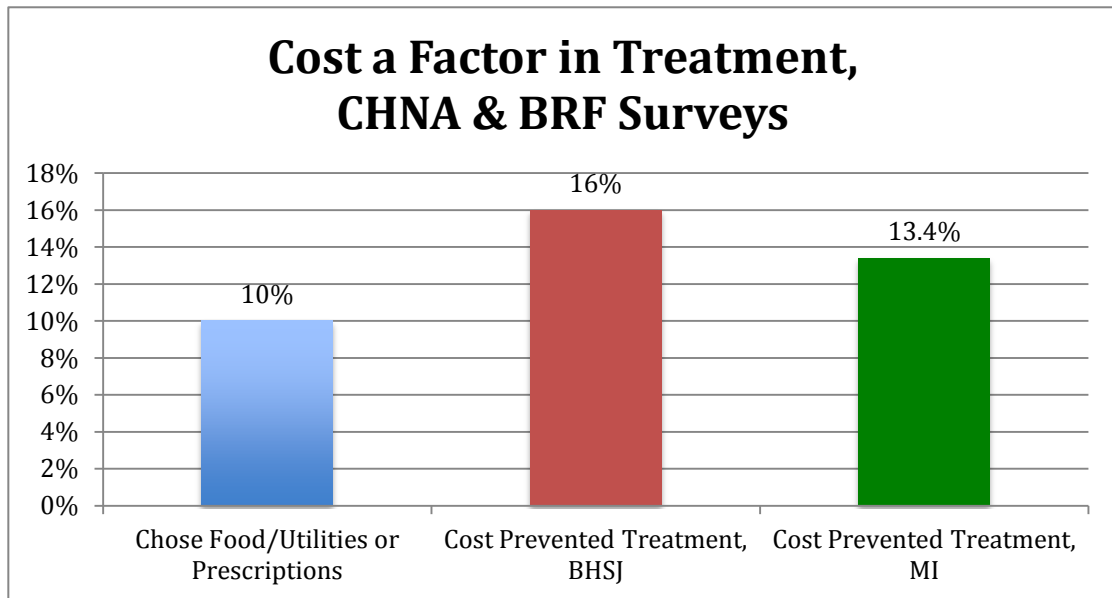
The best interpretation of this data is that 223 (or 82%) of those on Medicare have an insurance supplement.



Source: CHNA Survey, 2013

Respondents were asked on the CHNA survey if they ever had to choose between food/utilities or prescriptions due to cost. Of the 925 who answered this question, 89 (or 10%) said they had.

The Michigan Behavior Risk Factor Survey (2008-2010 average), said 16% of Branch-Hillsdale-St. Joseph residents reported that cost prevented them from seeking medical treatment in past year, compared to only 13.4% of Michigan residents who faced this circumstance.



Sources: CHNA Survey, 2013 and Michigan Behavior Risk Factor Survey, Branch-Hillsdale-St. Joseph Residents and Michigan, 2008-2010 Average

Affordable health care was the most important issue for the CHNA survey respondents.

Respondents were asked if they were very concerned, moderately concerned, or not at all concerned about the affordability of health care in the community. Of the 914 who answered this question:

- 407 (or 44.5%) said they were very concerned.
- 264 (or 28.9%) were moderately concerned.
- 243 (or 26.6%) were not at all concerned.

Affordable health care was also the primary issue of importance for the HSN members at the open-forum meeting. They felt many residents are not aware of affordable health care options such as Medicaid or other programs. One idea proposed was to have a case manager at the hospital who could explore payment options with patients.

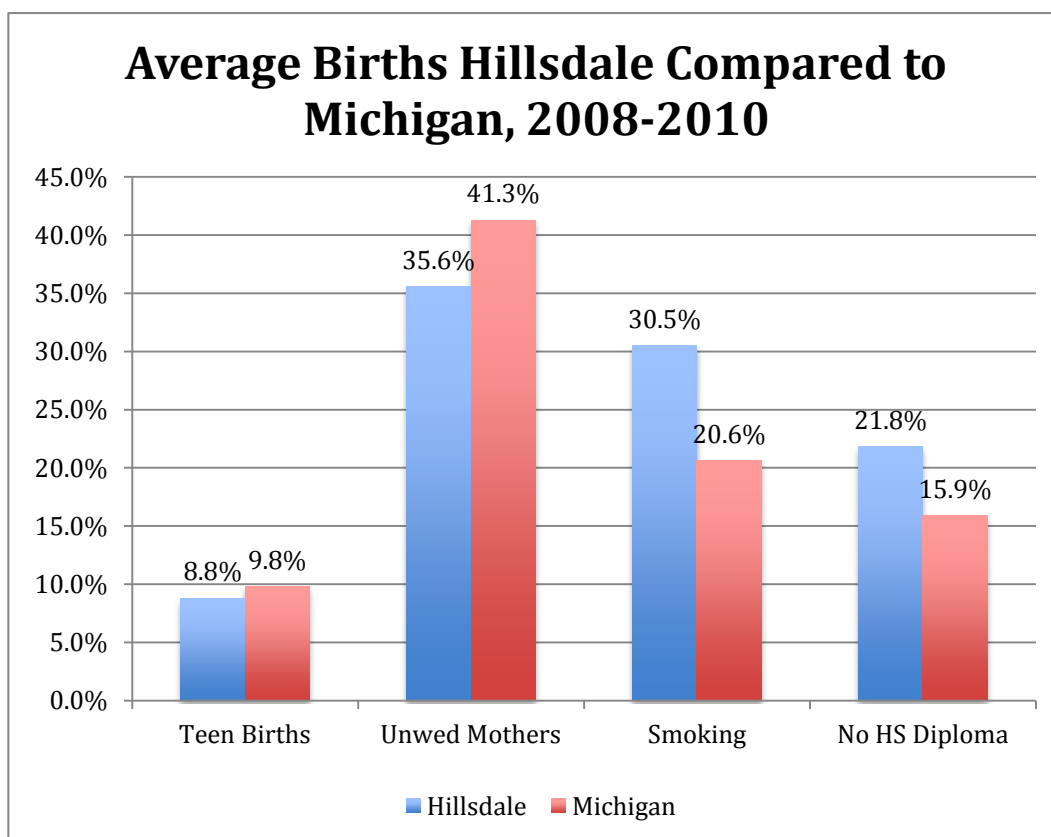
COMMUNITY HEALTH INDICATORS

Birth Statistics

Hillsdale County's average fertility rate for women ages 15-44 during the years 2008 to 2010 was 63.7 compared to 60.4 for Michigan.

There was an average of 543 live births a year from 2008 to 2010 among county residents. During this time period:

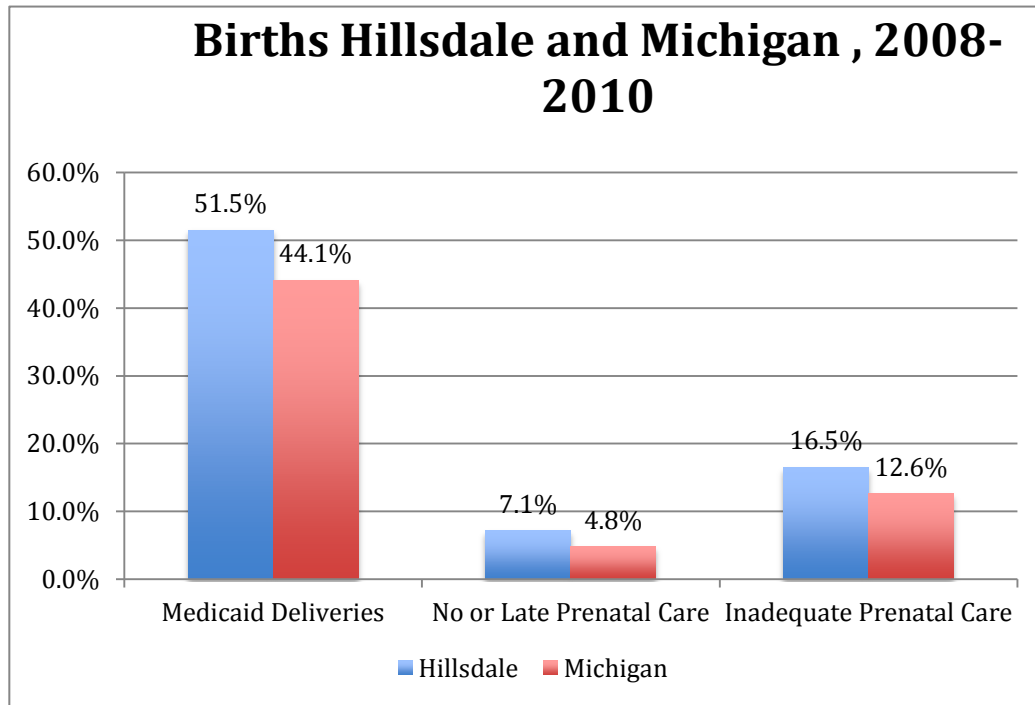
- 8.8% (or 48) of the births were to teen mothers compared to 9.8% in Michigan.
- 35.6% (or 193) were unwed mothers compared to 41.3% in Michigan.
- 30.5% (or 166) of the mothers reported tobacco use before or during pregnancy compared to 20.6% in Michigan.
- 21.8% (or 118) of mothers had less than a high school education, compared to 15.9% in Michigan.



Source: Michigan Resident Birth Files, Vital Records and Health Statistics Section, Division for Vital Records and Health Statistics, Michigan Department of Community Health, 2008-2010.

Among the 543 average births in the county from 2008 to 2010:

- 51.5% (or 279) of deliveries were covered by Medicaid compared to 44.1% in Michigan.
- 7.1% (or 38) of the mothers received no or late prenatal care compared to 4.8% in Michigan.
- 16.5% (or 89) of the mothers received inadequate pre-natal care per the Kotelchuck Index compared to 12.6% in Michigan.



Source:

Michigan Resident Birth Files, Vital Records and Health Statistics Section, Division for Vital Records and Health Statistics, Michigan Department of Community Health, 2008-2010 average.

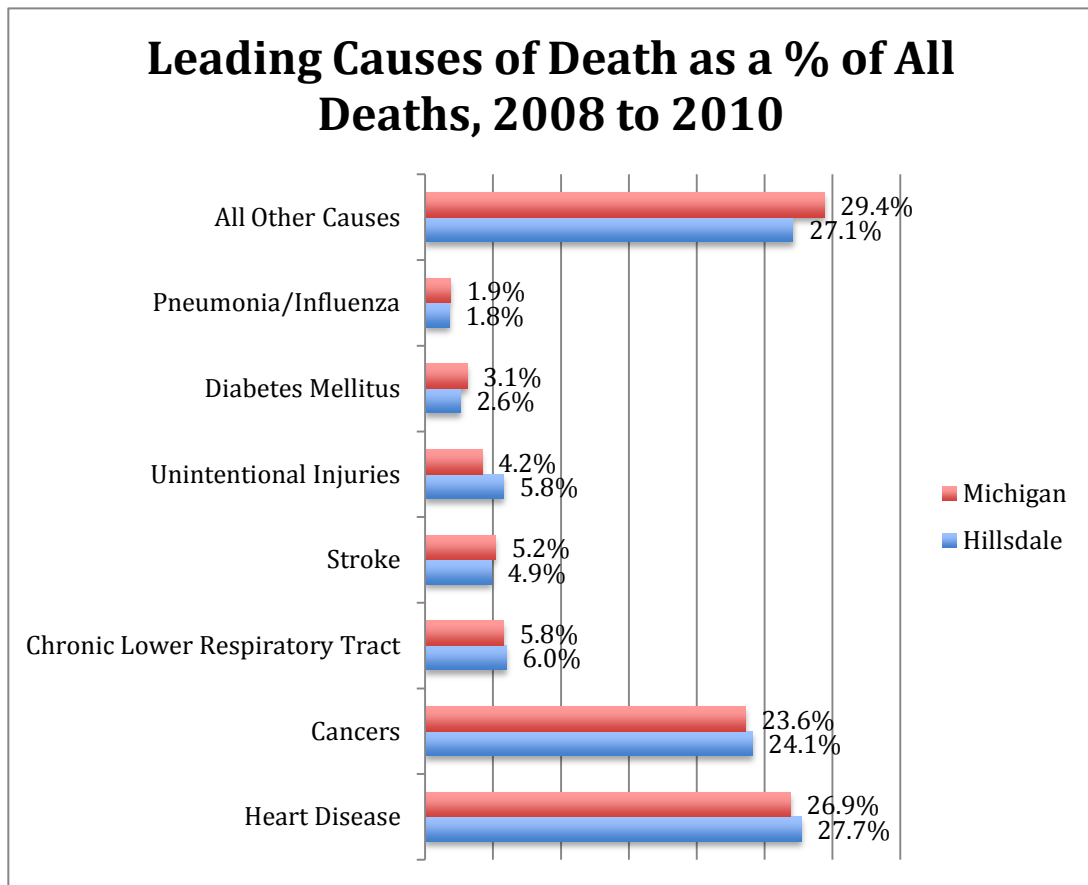
Many of the HSN members felt teen pregnancy and the lack of adequate prenatal care were important issues.

The county currently has no Title X program. Title X is a federally funded family planning and related preventive health program for low-income or uninsured individuals. One suggestion of the HSN members was that HCHC establish a woman's health and prenatal clinic to serve this population.

In addition, there are only three OB/GYN doctors in the county. Due to financial constraints, these private physicians must limit the number of Medicaid patients they can serve. Since the cost of more than half of county births are paid through Medicaid, the lack of available affordable prenatal care is a serious community issue.

Causes of Death

The leading causes of death in Hillsdale County from 2008 to 2010 were heart disease and cancer, a slightly higher percentage compared to Michigan.



Source: Michigan Death Files, 2008 to 2010

USE OF HEALTH CARE IN THE COMMUNITY

Availability of Health Care in Hillsdale County

Hillsdale County is served by:

- One hospital, the Hillsdale Community Health Center.
- One rural clinic in Reading with limited hours.
- One walk-in clinic in Jonesville with limited hours.
- 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 Community Health Agency. This data is available by request from the Agency.

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	Hillsdale Medical Assoc-Rural Health Clinic Primary Care Assoc. of Jonesville
Health Professional Shortage Area-Mental Health	Coldwater-Hillsdale Service Area-Geographic Primary Care Assoc. of Jonesville
Health Professional Shortage Area-Dental Care	Medicaid Population, Hillsdale Primary Care Assoc. of Jonesville
Medically Underserved Area/Population	Service Area-County

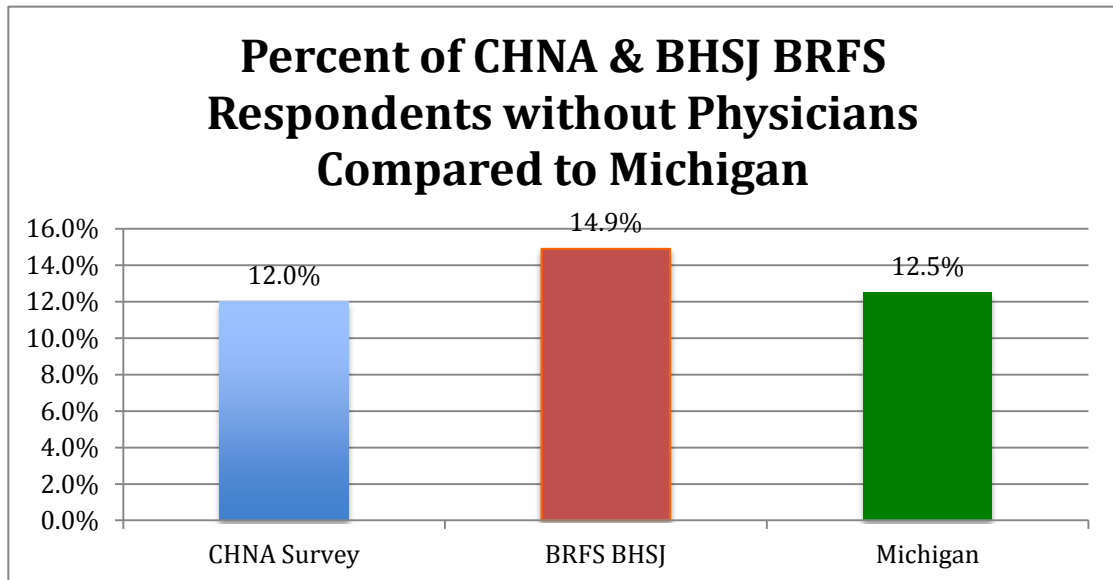
Source: Health Resources and Service Administration, 2013

Personal Physicians

Respondents were asked on the CHNA survey if they had a personal physician. Of the 950 who answered this question:

- 836 (or 88%) said they had a personal physician.
- 114 (or 12%) said they did not.

14.9% of Branch-Hillsdale-St. Joseph County residents reported they had no personal physician on the Michigan Behavior Risk Factor Survey (2008-2010 average.) This is higher than 12.5% reported for Michigan.



Sources: CHNA Survey, 2013 and Michigan Behavior Risk Factor Survey, Branch-Hillsdale-St. Joseph Residents compared to Michigan, 2008-2010 Average

Not all respondents to 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 Hillsdale County, only 819 people answered the question. Of those who answered:

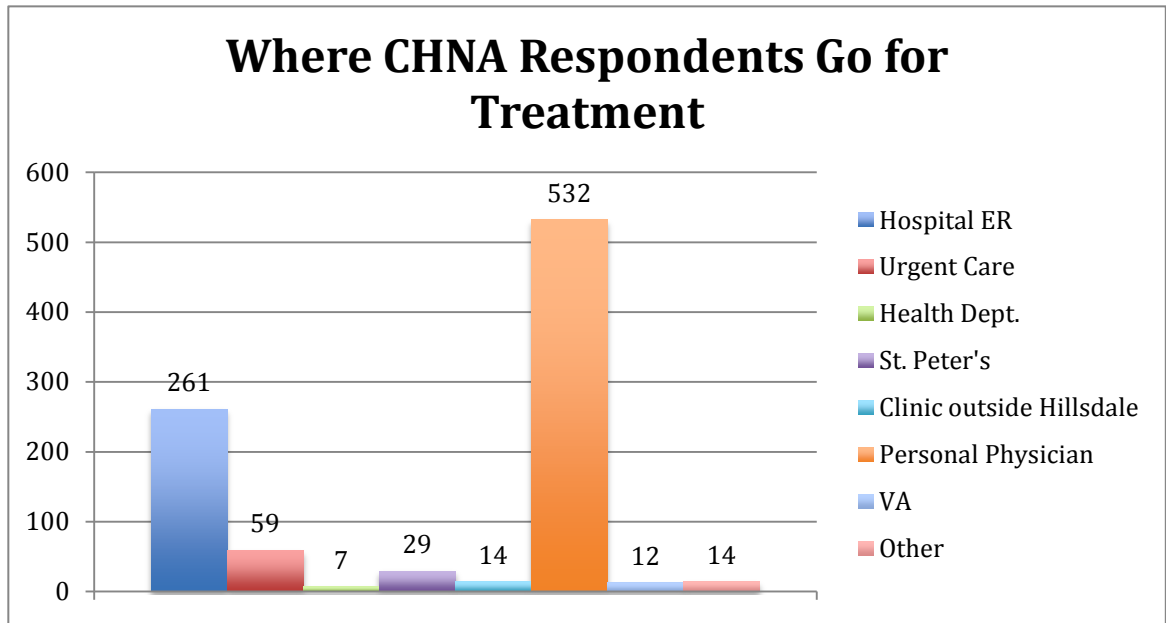
- 660 (or 80.6%) said their physician was in Hillsdale.
- 159 (or 19.4%) said their physician was in another county.

Where County Residents Go for Treatment

When respondents to the CHNA survey were asked where they went for treatment (not counting accidents or a crisis such as a heart attack), 928 people answered the question. Of those who answered:

- 532 (or 57%) said they went to their own physician.
- 261 (or 28%) went to the hospital ER.
- 59 (or 6.4%) went to urgent care.
- 29 (or 3.1%) went to St. Peter's free clinic.
- 14 (or 1.5%) went to clinics outside the area.

- 12 (or 1.3%) went to a Veteran's Hospital.
- 7 (or <1%) went to the Branch-Hillsdale-St. Joseph Community Health Agency (the Health Department).
- 19 (or 2%) went other places.



Source: CHNA Survey, 2013

Need for Urgent Care Facility

Hillsdale County currently has no round-the-clock urgent care facility. Both the rural health clinic in Reading and the Jonesville clinic have limited hours.

The HSN forum considered the lack of an urgent care facility in the area a major concern. They felt that many county residents use the emergency room for issues that could be easily handled in an urgent care situation. Others said that they are aware some residents go to other counties where urgent care is available.

Another suggestion of the HSN members was to establish a nurse hotline that might help residents with health care questions or direct them to appropriate treatment options.

Other HSN members made suggestions to aide private physicians in the delivery of individual care. Among these were:

1. Provide doctors with a check list for ascertaining whether immunizations are current, inquiring about weight management, reviewing prescriptions, and other health concerns.
2. Encourage doctors to use electronic record keeping.
3. Encourage doctors to have their offices open during lunch hour, even just keeping someone at the front desk so patients can pick up test forms and prescriptions.

Hospitalizations

Heart disease is the leading cause of hospitalization for Hillsdale County residents.

Leading Causes of Hospitalizations by County of Residence for Hillsdale County and Michigan, Rates per 10,000 Population, 2008-2010

Principal Diagnosis	Hillsdale Average Number	Hillsdale Rate	Michigan Rate
All Hospitalizations	6082	1298	1319
Heart Disease	862	184	143
Newborns & Neonates (<7 days)	529	113	120
Females with Deliveries	495	106	115
Injury & Poisoning	476	102	104
Pneumonia	269	58	36
Infectious/Parasitic Diseases	192	41	51
Psychoses	197	42	48
Osteoarthritis & Allied Disorders	207	44	38
Chronic Bronchitis	134	29	26
Cerebrovascular Diseases	152	33	35
Cancer (Malignant Neoplasms)	193	41	41
Chest Pain	107	23	19
Diseases of Skin/Subcutaneous Tissue	87	19	25
Kidney/UTI	58	12	17
Diabetes Mellitus	58	12	18
Asthma	66	14	16
Disease of the Blood & Blood Forming Organs	50	11	15
All other Conditions	1949	416	436

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

Not all hospitalizations of county residents are at HCHC. But a study of the hospital discharge data confirms that the leading cause of hospitalization at HCHC is heart disease, followed closely by lung related illnesses.

Inpatient discharges, Hillsdale Community Health Center

	2009	2010	2011
All Discharges HCHC	2790	2674	2661
Cardiology	497	405	348
Pulmonary Medicine	449	510	521
General Medicine Adult	349	302	342
Obstetrics – Delivered	312	302	297
General Surgery-Adult	222	225	222
Orthopedics	211	211	219
Psychiatry	174	144	110
Gastroenterology-Medical	159	167	180
Neurology	124	106	104
KUB-medical	80	82	107
Gynecology	56	71	65
Obstetrics-not Delivered	16	21	26
Substance Abuse	12	4	10
All Other	129	124	110

Source: Michigan Inpatient Data Base, 2009 to 2011

Hillsdale Community Health Center 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 HCHC are sent by life flight to hospitals with the proper facilities.

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

Respondents to the CHNA survey were asked if they had been hospitalized in the past year. Of 950 who answered this question:

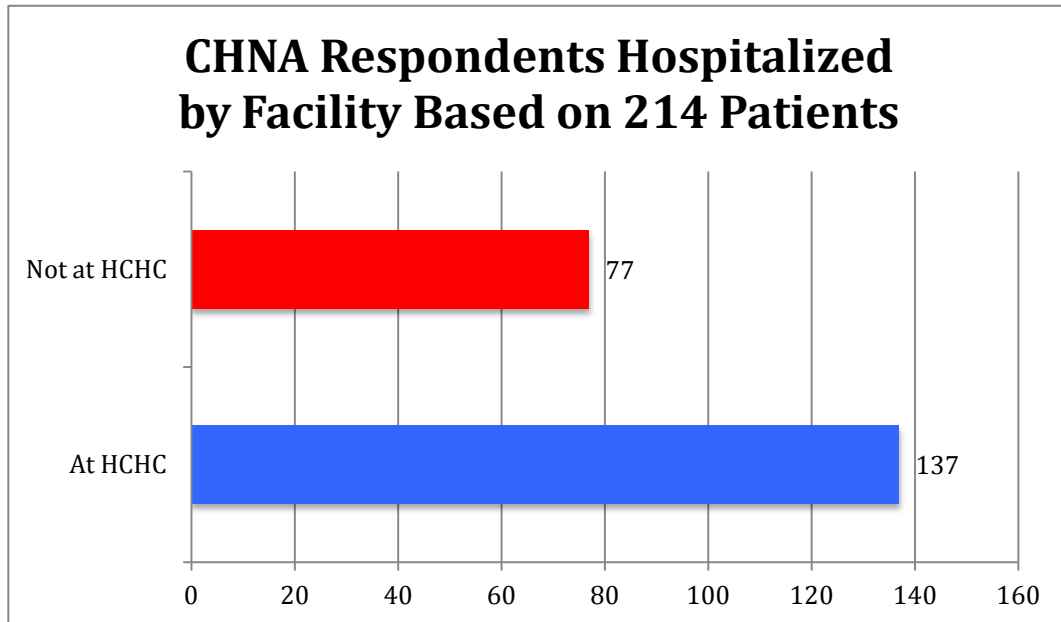
- 214 (or 22.5%) had been hospitalized.
- 736 (or 77.5%) had not been hospitalized.

Respondents were then asked if they were hospitalized, was it at the Hillsdale hospital. The answer to this question was confusing. Though only 214 had said they were hospitalized, 353 people answered the question. Of these:

- 137 said it was at HCHC.
- 216 said it was not at HCHC.

The best interpretation of this data is that of the 214 who were hospitalized:

- 137 (or 64%) were at HCHC.
- 77 (or 36%) were not at HCHC.



Source: CHNA Survey, 2013

Hospital Re-Admittance

Hospitals are monitored for the number of patients re-admitted to the hospital 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.

Respondents to the CHNA survey were asked how many times they had been hospitalized in the past year. Of 950 who answered this question:

- 150 (or 35.7%) said it was only once.
- 36 (or 16.8%) said it was two times.
- 28 (or 12.8%) said it was more than two times.

Although the survey did not ask if subsequent hospitalizations were for the same cause, the problem of hospital re-admittance was considered during the HSN open-forum.

The HSN membership discussed the possibility of partnerships between their organizations and the hospital to do follow-up calling or visiting with patients after they are discharged to lower the re-admittance rate.

- Perennial Park, Hillsdale County's Area on Aging Senior Center, has close contact with many of the elderly in the community and could use their resources to do follow up services.
- Patients discharged for substance abuse or mental health issues could be referred to appropriate social service agencies.
- Region 2 Area on Aging indicated they currently work with other regional hospitals on re-admission prevention campaigns and would be willing to discuss these initiatives with HCHC.

CHRONIC HEALTH CONDITIONS

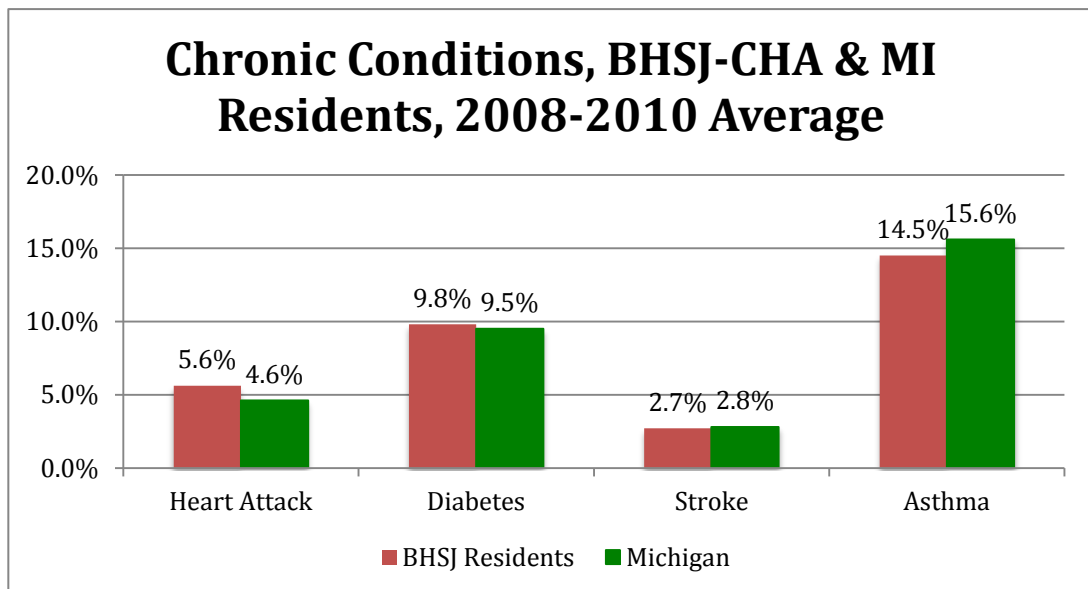
Many chronic conditions contribute to overall poor health.

Respondents to the CHNA survey were asked if they suffered from select chronic conditions. Of the 923 that answered this question:

- 315 (or 32%) identified high blood pressure.
- 220 (or 22.4%) said high cholesterol.
- 145 (or 14.7%) said diabetes.
- 110 (or 11.2%) said heart disease.
- 148 (or 15%) wrote in specific conditions including:
 - 30 COPD
 - 18 arthritis
 - 11 fibromyalgia
 - 8 high or low thyroid
 - 5 asthma

Secondary data from the Michigan Behavioral Risk Factor Survey for the Branch-Hillsdale-St. Joseph Community Health Agency (BHSJ-CHA) area compared to Michigan (2008-2010 Average) shows:

- 5.6% of residents had been told by a doctor that they had a heart attack, compared to 4.6% in Michigan.
- 9.8% reported having diabetes compared to 9.5% in Michigan.
- 2.7% reported they had a stroke compared to 2.8% in Michigan.
- 14.5% reported they had asthma compared to 15.6% in Michigan.



Source: Michigan BRFSS Regional & Local Health Department Estimates, 2008-2010.

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

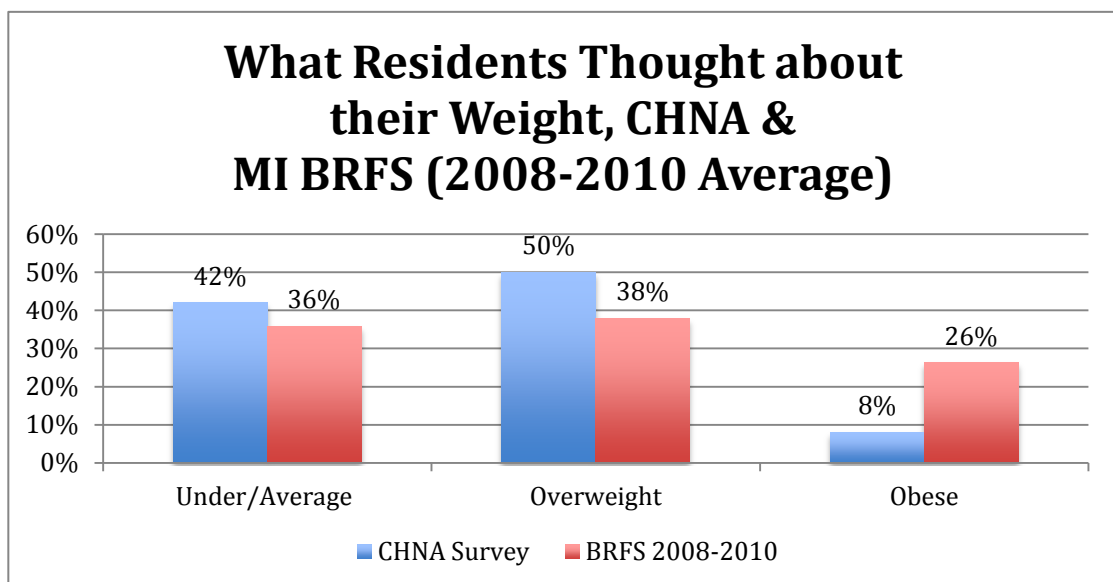
Obesity

Obesity is a major factor in the control of diabetes and heart disease.

When asked on the CHNA survey how they would best describe their weight, 941 respondents answered the question. Of those:

- 30 (or 3%) said they were underweight.
- 370 (or 39%) said they were average weight.
- 469 (or 50%) said they were overweight.
- 72 (or 8%) said they were obese.

These results are consistent with the Michigan Behavior Risk Factor Survey of Branch-Hillsdale-St. Joseph residents which showed a large proportion of adults considered themselves overweight or obese.



Sources: CHNA Survey, 2013 and Michigan Behavior Risk Factor Survey, Branch-Hillsdale-St. Joseph Residents, 2008-2010 Average

Although weight control is a problem for many residents, it did not rank as one of the major concerns among CHNA survey respondents.

When asked if they were very concerned, moderately concerned, or not at all concerned about obesity in the community, 907 respondents to the CHNA survey answered the question. Of those:

- 249 (or 27.5%) said they were very concerned.
- 341 (or 37.6%) were moderately concerned.
- 317 (or 35.0%) were not at all concerned.

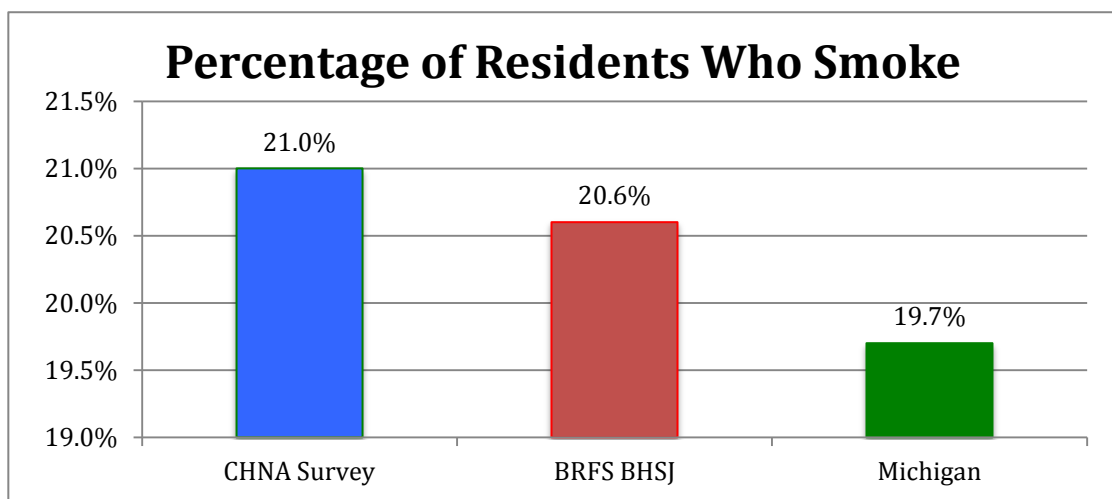
The HSN membership was concerned about obesity among county residents.

- Many saw a need for education on the relationship between weight and certain diseases, and they expressed concern about the lack of wellness programs at HCHC.
- Some suggested that HCHC initiate efforts to promote healthy lifestyles, including diet modification.
- Some thought the hospital dietician might hold classes for specific groups (such as diabetics), to teach patients how to manage their diets.

Smoking

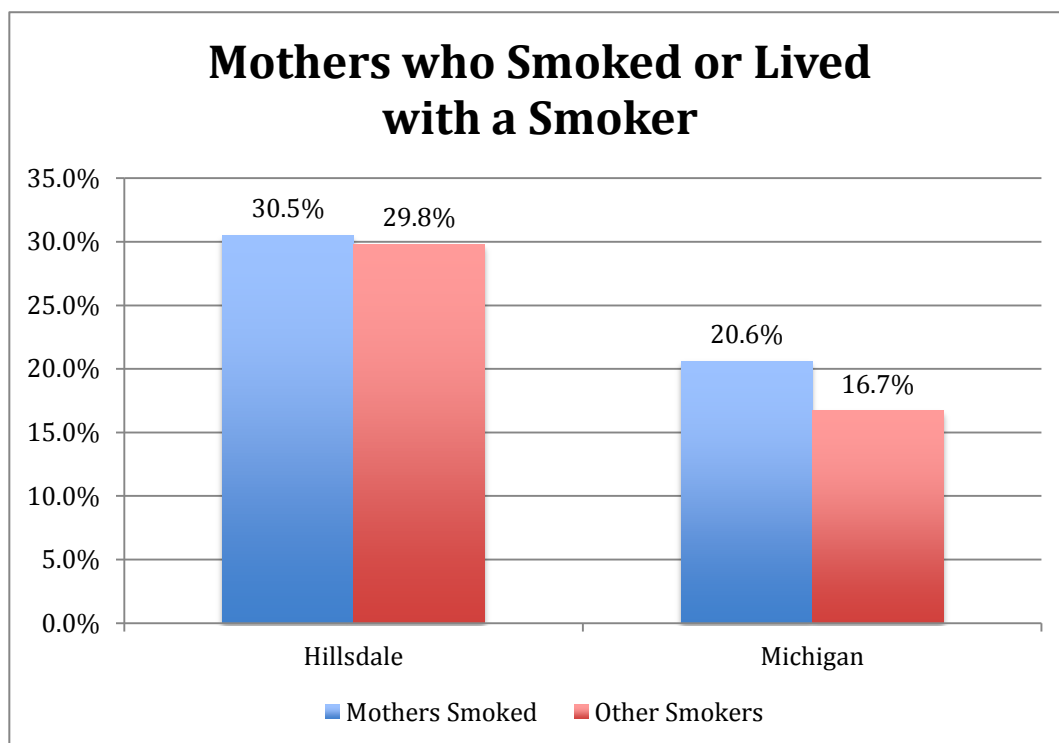
A higher percentage of Hillsdale County residents smoke compared to Michigan. 20.6% of Branch-Hillsdale-St. Joseph County adult residents said they smoke on the Michigan Behavioral Risk Factor Surveys, 2008-2010 average, compared to 19.7% in Michigan.

198 (or 21%) of the 945 respondents to the CHNA survey who answered this question said they smoke.



Sources: CHNA Survey, 2013 and Michigan Behavior Risk Factor Survey, Branch-Hillsdale-St. Joseph Residents and Michigan, 2008-2010 Average

Smoking is a significant problem among pregnant women. The Michigan Resident Birth Files reveal that a larger percent of Hillsdale mothers used tobacco before or during pregnancy or lived with someone who did compared to all Michigan residents.



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

The HSN membership felt there were adequate smoking cessation programs in the county, but many residents, especially the young, were not receptive to giving up the habit.

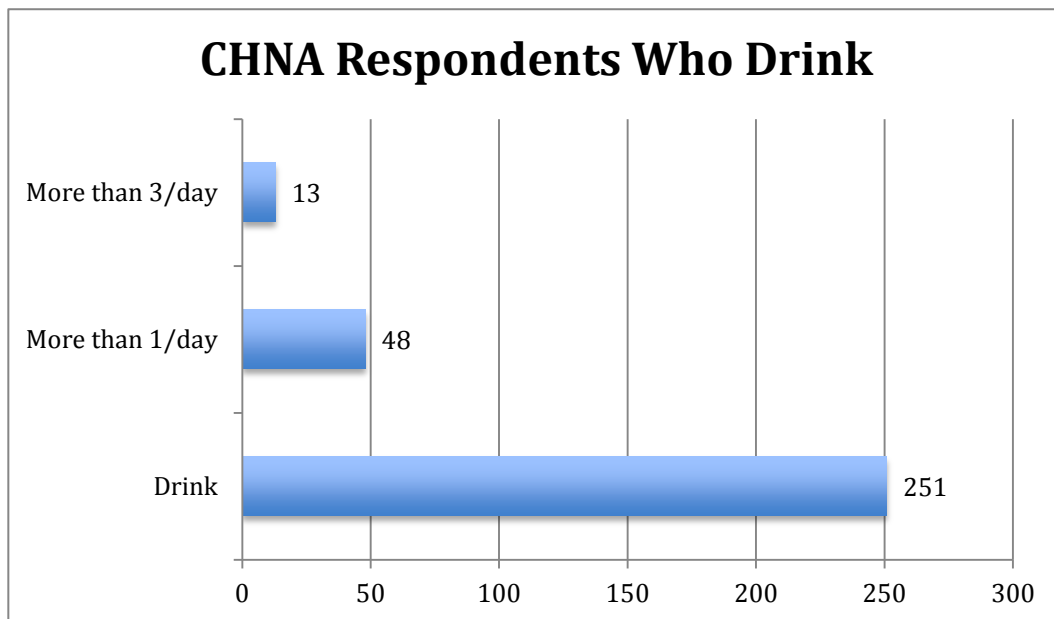
Drinking

Respondents to the CHNA survey were asked about their drinking habits.

Of the 921 people who told us about consuming any alcohol, 251 (or 25%) said they did.

Fewer people answered the question about how many drinks they had each day. When asked if they drink more than one a day, only 403 people answered. Of those that answered the question, 48 said they consume more than one a day.

An even smaller number, 13, said they drink more than three a day (though only 305 respondents answered this question).



Source: CHNA Survey, 2013

11.2% 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, 2008-2010 average. This is lower than 16.2% reported for Michigan.

Although drinking is less of a problem in Hillsdale than in other counties of Michigan, some HSN members noted it is often a major factor in cases of child abuse and neglect.

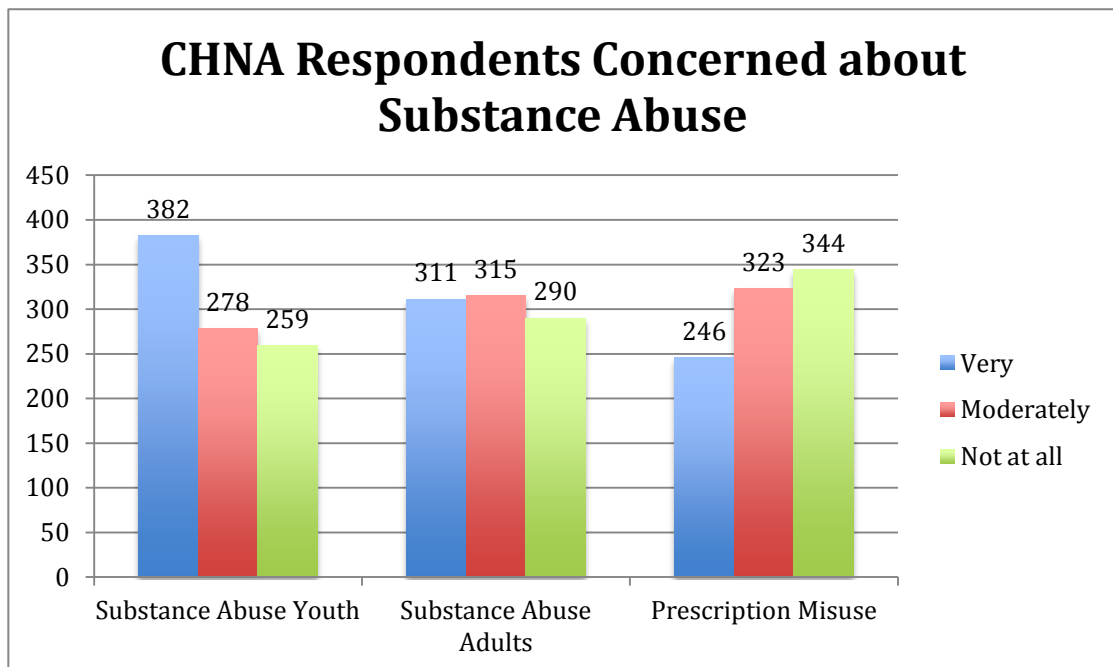
Substance Abuse

Substance abuse can involve both legal and illegal substances.

Misuse of prescription drugs is a growing concern. Some adults are misusing their prescription drugs by not following the recommended dosage schedule. Additionally, medications may be used by those for whom the drugs were not prescribed.

There is also a community awareness of illegal drug activity in the county.

When respondents on the CHNA survey were asked if they were very concerned, moderately concerned, or not at all concerned about substance abuse, more were concerned about substance abuse in youth than in adults or about the misuse of prescription drugs.



Source: CHNA Survey, 2013

Use of Marijuana, Cocaine or Illegal Drugs

Michigan voters approved the medical use of marijuana in November, 2008; the law became effective in December of that year.

19 of the respondents to the CHNA survey said they use 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.

Two respondents said they use cocaine; two said they use some other illegal drug.

PREVENTIVE CARE

Many diseases can be prevented, detected early, or managed by the use of routine medical services. Among these are:

- Immunizations for influenza or bacterial pneumonia.
- Screenings for breast, colorectal and prostate cancer.

Influenza vaccines

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

When asked on the CHNA survey if they had a flu shot within the last year, 952 people answered the question. Of those who answered, 502 (or 51%) said they had.

The Michigan Behavior Risk Factor Survey, 2008-2010 average, showed 65.9% of Branch-Hillsdale-St. Joseph residents age 65 or older had received a flu shot in the last year. This is about the same as the 68.9% reported for all Michigan residents in this age group.

Bacterial pneumonia

Bacterial pneumonia is caused by *Streptococcus pneumoniae* (pneumococcus). The Centers for Disease Control estimates that 40,000 deaths occur annually in the United States, and about half of these are preventable through the use of the available vaccine.

One pneumococcal vaccination is recommended for people under age 65, or those with immunocompromised conditions. A second immunization is recommended after the age of 65, but with at least a five-year interval between vaccinations.

178 (or 18%) of 923 respondents to the CHNA survey who answered this question said they had received a pneumonia shot in the past year.

The Michigan Behavior Risk Factor Survey, 2008-2010 average, showed 72.2% of Branch-Hillsdale-St. Joseph residents aged 65 or older had ever received a pneumonia vaccine. This exceeds the 67.1% reported for all Michigan residents in this age group.

The HSN membership organizations, especially Perennial Park (Hillsdale County's Area on Aging Senior Center) and the Branch-Hillsdale-St. Joseph Community Health Agency, heavily promote immunizations for influenza and bacterial pneumonia.

Mammograms

The National Institute for Health recommends women age 40 and older should have a mammogram every one to two years. Women at higher risk of breast cancer due to family history or other reason should follow the recommendations of their physicians.

When asked on the CHNA survey if they had a mammogram in the past year, 277 (or 38%) of the women said yes.

Prostate Screening

The effectiveness of the current prostate specific antigen test (PSA) remains controversial, and there is also disagreement about how frequently it should be conducted. Therefore, its appropriateness should be evaluated on a case-by-case basis.

When asked on the CHNA survey if they had a prostate screening in the past year, 70 (or 28%) of the men said yes.

Colonoscopy

The American Cancer Society (ACS) recommends both men and women have a colonoscopy every 10 years beginning at age 50, with follow-up tests on a more frequent basis if polyps or cancer are detected. ACS also recommends a yearly fecal sample test to detect the presence of blood.

When asked on the CHNA survey if they had a colonoscopy in the past year, 121 (or 12%) of the respondents said yes.

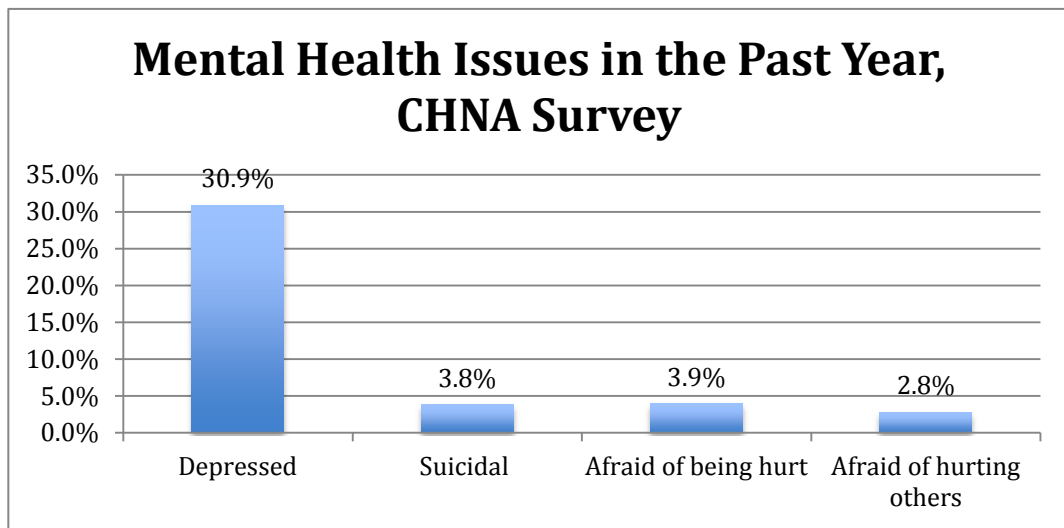
The HSN membership felt the community has a need for more free or reduced-cost cancer screenings. These could be provided at community health fairs, through the Hillsdale Community Health Center, or through collaboration with multiple providers in the community.

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

- 293 (or 30.9%) of the 948 respondents to the question had been depressed for more than a week.
- 35 (or 3.8%) of the 920 respondents to the question had been suicidal.
- 36 (or 3.9%) of the 921 respondents to the questions were afraid of being hurt.
- 26 (or 2.8%) of the 921 respondents to the question were afraid they would hurt others.



Source: CHNA Survey, 2013

The Michigan Behavioral Risk Factor Survey asked respondents about their mental health. The proportion of adults in the Branch-Hillsdale-St. Joseph health jurisdiction who said their mental health was not good (including stress, emotional difficulties, or depression) on 14 out of the last 30 days was 12.1% compared to 10.8% in Michigan (2008-2010 average).

The HSN members discussed the fact that depression can be caused or exacerbated by impaired physical conditions and can also be a side effect of certain prescription drugs. This is especially so among the elderly.

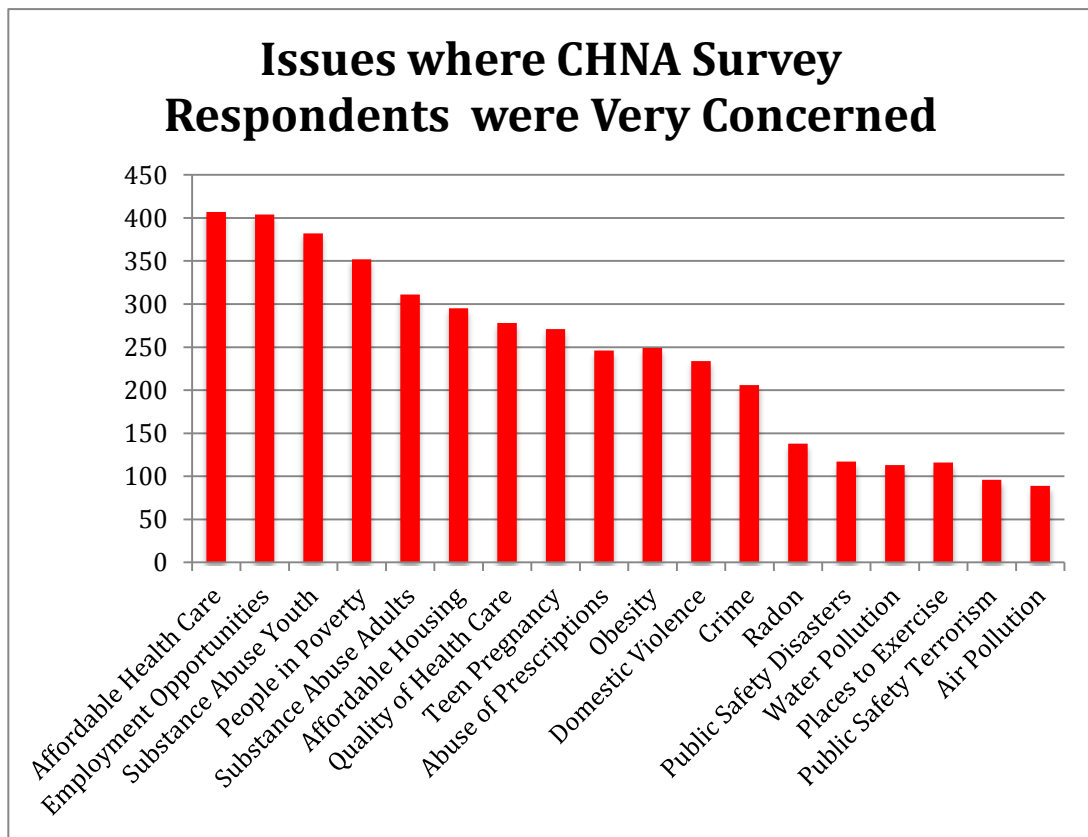
Though free mental health evaluations are offered at some health fairs, the residents are often reluctant to participate.

OVERALL CONCERNS OF SURVEY RESPONDENTS

Respondents on the CHNA survey were asked about select health, economic, and environmental issues. They considered each issue and marked whether they were:

- Very concerned about the issue.
- Moderately concerned
- Not at all concerned.

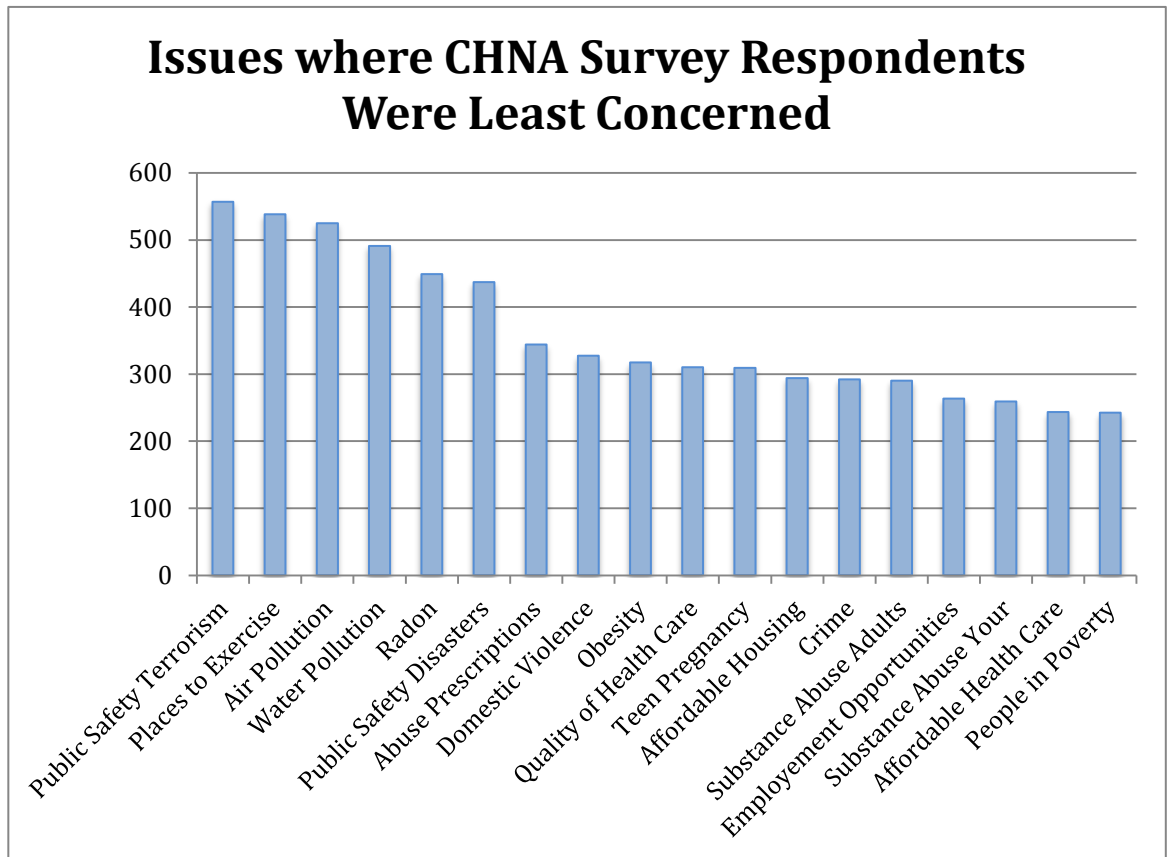
Their responses showed more of them concerned with economic and health issues than environmental ones.



Source: CHNA Survey, 2013

Conversely, respondents to the CHNA survey said they were least concerned than health or economic issues.

I



Source: CHNA Survey, 2013

INITIAL RECOMMENDATIONS BY COMMUNITY LEADERS

Primary data from the CHNA survey was presented in the form of a PowerPoint display to a general meeting of the Hillsdale Human Services Network (HSN) on Tuesday, March 19, 2013. Secondary data was included where appropriate to aid discussion.

In an open-forum discussion members were asked what they considered the major health issues facing the county. Their responses, recorded on paper as the discussion progressed, included the need for:

1. Greater mental health awareness and education.
2. Education on the safe use of prescription drugs.
3. Addressing substance abuse issues with adults and minors.
4. Recognizing the role of obesity in many illnesses and promoting wellness (with a focus on lifestyle change).
5. Healthy eating and nutrition counseling.
6. Free or reduced cost health screenings, possibly at health fairs, at the hospital, or through collaboration with partners.
7. Establishing an urgent care facility in the county.
8. Smoking prevention, especially for women during pregnancy.
9. Better cardiac care management.
10. Adequate prenatal care.
11. Ways to reduce non-emergency ER use, perhaps by establishing a nurse hotline.
12. Acquiring a Federally Qualified Health Center (FQHC) designated site.
13. More affordable health care.
14. Educating residents on affordable or free health care plans, such as Medicaid.
15. Establishing a woman's health and prenatal clinic.
16. Creating school health clinics with a nurse at each facility on a rotating basis.
17. Early intervention programs.

Final Prioritized List from Community (HSN)

(To be forwarded to Hospital Board of Trustees for action decision)

When asked to identify the one issue they considered most important, and which they felt the hospital could best address, the members said in order of decreasing importance:

1. Working toward more affordable health care by:
 - Conducting more free or reduced health screenings.
 - Educating people on affordable or free health insurance options, possibly through a designated hospital case worker.
 - Partnering with others in the community to lower re-admission rates.
2. Establishing an urgent care facility in the county.
3. Establishing a woman's health and prenatal clinic
4. Addressing substance abuse issues with adults and minors, especially by educating patients to prevent prescription drug misuse.