Ottawa County Community-Wide Health Needs Assessment

Research Results from the 2011 Community-Wide Health Needs Assessment
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INTRODUCTION
Partners

The following community partners are responsible for the funding and implementation of the Ottawa County Community Health Needs Assessment 2011:

- Greater Ottawa County United Way
- Holland Hospital
- North Ottawa Community Health System
- Ottawa County Community Mental Health
- Ottawa County Health Department
- Spectrum Health Zeeland Community Hospital

A special acknowledgement to the Grand Haven Area Community Foundation for providing a portion of the funding for the Ottawa County Community Health Needs Assessment.
Background and Objectives

- The Carl Frost Center for Social Science Research was contracted by the Community Health Needs Assessment (CHNA) team of Ottawa County to conduct a community-wide health needs assessment in Ottawa County.

- The Patient Protection and Affordable Care Act (PPACA) passed by Congress in March of 2010 set forth additional requirements that hospitals must meet in order to maintain their status as a 501(c)(3) Charitable Hospital Organization. One of the main requirements states that a hospital must conduct a community health needs assessment (CHNA) and must adopt an implementation strategy to meet the community health needs identified through the assessment. The law further states that the assessment takes into account input from persons who represent the broad interests of the community including those with special knowledge of, or expertise in, public health.

- In response to the PPACA requirements, organizations serving both the health needs and broader needs of Ottawa County communities began meeting to discuss how the community could collectively meet the requirement of a CHNA. Currently, these Partners comprise a task force consisting of Ottawa County Health Department, Ottawa County Community Mental Health, Holland Community Hospital, North Ottawa Community Hospital, Spectrum Health Zeeland Community Hospital, and the Greater Ottawa County United Way.
Background and Objectives (Cont’d.)

- Information collected from this research will supply the Health and Health Care section of the broader United Way Community Assessment and the Community Health Needs Assessment for the three hospitals in Ottawa County.

- Specific objectives include:
  - Gauge the overall health climate or landscape in Ottawa County
  - Determine positive and negative health indicators
  - Identify risk behaviors
  - Discover clinical preventive practices
  - Measure the prevalence of chronic conditions
  - Establish accessibility of health care
  - Ascertain barriers and obstacles to health care
  - Uncover gaps in health care services or programs
  - Identify health disparities
EXECUTIVE SUMMARY
Executive Summary

In 2011, the Ottawa County Community Health Needs Assessment Task Force commissioned the Carl Frost Center for Social Science Research at Hope College to conduct an independent Community Health Needs Assessment (CHNA).

The primary goal of the study was to identify key health and health service issues in Ottawa County. The results will be used to assist in planning, implementation of programs and services, evaluating results, allocation of resources, and achieving improved health outcomes, specifically related to identified needs.

Data was gathered from a variety of sources and using multiple methodologies. Resident feedback was obtained via a Behavioral Risk Factor Survey (BRFS) (n=1,274) and focus groups (n=47). Health care professionals and other community leaders, known as Key Stakeholders or Key Informants, provided input via in-depth interviews (n=11) and an online survey (n=36). Secondary data gathered from state and national databases was also used to supplement the overall findings.

The findings from the CHNA paint a picture of a community that lives up to its billing as the healthiest county in Michigan, according to the County Health Rankings. Ottawa County is considered to be a giving community with a wealth of excellent resources, programs, and services. With three hospitals, two free medical clinics, and hundreds of health care professionals, health care is accessible to most people. Residents also report good health, life satisfaction, and low levels of major depression.
Ottawa County residents enjoy longer life expectancy and lower mortality rates than people in Michigan or the U.S., and immunizations for both children and adults are high. The prevalence of risk behaviors such as smoking or inactivity are low; however, binge drinking is higher than in the state and the nation. The most pressing risk behavior is dietary in nature, as there is a general lack of fruit and vegetable consumption among adults. This coincides with an adult population where the majority are overweight (36%) or obese (26%).

Most adults engage in clinical preventive practices such as routine physical checkups, Pap tests, mammograms, and colonoscopies. On the other hand, residents are less likely to visit a dentist, especially if they have no health care coverage.

The prevalence of chronic conditions is low; however, diabetes is considered a problem among health care professionals because it is linked to obesity and many other health problems. Moreover, they are less than satisfied with the community response to diabetes (as well the responses to obesity and depression).
Many health care professionals believe, and secondary data supports, there is a lack of primary care providers for both adults and children and this has the greatest impact on the underserved.

Although a myriad of programs and services exist, residents often have to travel outside of Ottawa County to access care. Usually this is due to a referral for specialized care or to get second opinions on health issues.

There is a direct relationship between positive health outcomes and both education and income; those with higher incomes and more education are likely to report better health, greater satisfaction with life, plentiful emotional and social support, that they have health coverage and a personal care provider, do not engage in risk behaviors such as smoking, and are more likely to visit a dentist.

Feedback from this assessment demonstrates there is room for improvement. For example, although health care is accessible to most residents, specific subpopulations experience barriers to health care programs and services. The populations considered underserved are low income, uninsured, underinsured, and Hispanic.

Not only are high health care costs a barrier to these groups, but even those with Medicaid find it hard to see a provider because more and more physicians are refusing to accept Medicaid. This has created critical consequences for primary health care, mental health treatment, and dental care.
Executive Summary (Cont’d.)

Key Stakeholders and Key Informants give Ottawa County high marks for having excellent emergency services, general surgery, OB/GYN, ophthalmology, and orthopedics. Conversely, their perspective is that there is an overall lack of services for mental health and substance abuse treatment, non-emergency transport, general dental care and oral surgery, especially for certain subpopulations, and that existing services do not meet the demand.

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

Community members (both residents and health care professionals) suggest strategies to improve the health care landscape. Specifically, they prioritize: increasing access to primary and oral health care, supporting and expanding agency resources to address community health needs, providing more opportunities to focus on wellness and prevention, and more educational opportunities to encourage knowledge of healthy lifestyle activities, self-care, and existing support services in the community.

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

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<th><strong>STRENGTHS</strong></th>
<th><strong>OPPORTUNITIES FOR IMPROVEMENT</strong></th>
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<tbody>
<tr>
<td>✓ Low crime and poverty rates</td>
<td>✓ Dissatisfaction with community response to depression, obesity, and diabetes</td>
</tr>
<tr>
<td>✓ Low mortality and morbidity rates</td>
<td>✓ Increasing rates and social acceptance of obesity and half of the youth population is inactive</td>
</tr>
<tr>
<td>✓ High life expectancy rates</td>
<td>✓ High proportion of single female families with children under 5 in poverty and repeat teen births</td>
</tr>
<tr>
<td>✓ Safe, walkable, and family-friendly community</td>
<td>✓ Lack of adequate fruits and vegetables in diets combined with a lack of affordable, healthy food</td>
</tr>
<tr>
<td>✓ Active organizations that promote health - Fitness centers, senior centers, beaches, trails, parks, YMCA</td>
<td>✓ Lack of adequate ancillary services and mental health care</td>
</tr>
<tr>
<td>✓ Caring and compassionate community</td>
<td>✓ Lack of affordable oral health care and available dentists for uninsured, low income, and Medicare/Medicaid residents</td>
</tr>
<tr>
<td>✓ Strong faith-based groups actively mobilizing around community causes</td>
<td>✓ Lack of health care access for unemployed, uninsured, and Medicare/Medicaid residents</td>
</tr>
<tr>
<td>✓ Strong volunteer force</td>
<td>✓ One-fourth of children are on Medicaid</td>
</tr>
<tr>
<td>✓ Excellent health resources, services, and programs</td>
<td>✓ Lack of motivation to engage in behavioral changes</td>
</tr>
<tr>
<td>✓ Most have health coverage and a PCP</td>
<td>✓ Lack of Spanish-speaking health care professionals</td>
</tr>
<tr>
<td>✓ Health partnerships are collaborative and cooperative</td>
<td>✓ Need for more focus on prevention and wellness, self-care, and general health literacy through community programming</td>
</tr>
<tr>
<td>✓ High prenatal care</td>
<td>✓ Not enough health care services to meet community demand for uninsured residents</td>
</tr>
<tr>
<td>✓ High proportion of immunized children and adults</td>
<td>✓ Shortage of physicians accepting Medicare/Medicaid, and a shortage of specialists</td>
</tr>
<tr>
<td>✓ Majority have routine checkups and health screenings/tests</td>
<td>✓ Larger proportion of “binge drinkers” than MI or US</td>
</tr>
<tr>
<td>✓ Most residents report good or better general health</td>
<td></td>
</tr>
<tr>
<td>✓ High satisfaction with life</td>
<td></td>
</tr>
<tr>
<td>✓ Strong social and emotional support networks</td>
<td></td>
</tr>
<tr>
<td>✓ Low prevalence of chronic disease such as cancer (other than skin), cardiovascular disease, COPD, and major depression</td>
<td></td>
</tr>
<tr>
<td>✓ Low prevalence of risk behaviors such as smoking, use of chewing tobacco, and inactivity</td>
<td></td>
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</tbody>
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DETAILED FINDINGS
Secondary Data Sources
Health Indicators
Both Ottawa County men and women have longer life expectancy rates (when adjusted for age) compared to men and women across Michigan or the U.S.

Ottawa County’s age adjusted and child mortality rates are far better than those of the state or nation. The most recent mortality rate data shows Ottawa County at just over 600 per 100,000 residents for age adjusted and 13.5 per 100,000 for children aged 1-14.

**Age Adjusted Mortality Rate**
Per 100,000 Population

- Ottawa County: 605.4
- Michigan: 784.6
- United States: 758.7

**Child Mortality Rate (Age 1-14)**
Per 100,000 Population

- Ottawa County: 13.5
- Michigan: 17.9
- United States: 19.0

Moreover, Ottawa County has fewer live births with low birth weight and lower infant mortality rates than the state or nation. In Ottawa County, roughly one in fifteen live births are classified as having low birth weight and the infant mortality rate is 4.9 for every 1,000 live births.

Low Birth Rates and Infant Mortality Rates

Proportion of Live Births with Low Birth Weight

Infant Mortality Rate Per 1,000 Live Births

Cancer is the leading cause of death in Ottawa County, compared to heart disease for the state and the nation. Alzheimer’s disease leads to death in Ottawa County more often than it does for the state and the nation. Conversely, diabetes tends to be a cause of death more in the state and the nation than in Ottawa County.

### Top 10 Leading Causes of Death

<table>
<thead>
<tr>
<th></th>
<th>Ottawa County</th>
<th>Michigan</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RANK</td>
<td>Rate</td>
<td>RANK</td>
</tr>
<tr>
<td>Cancer</td>
<td>1</td>
<td>147.3</td>
<td>2</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>2</td>
<td>138.5</td>
<td>1</td>
</tr>
<tr>
<td>Stroke</td>
<td>3</td>
<td>31.6</td>
<td>4</td>
</tr>
<tr>
<td>Alzheimer’s Disease</td>
<td>4</td>
<td>31.5</td>
<td>7</td>
</tr>
<tr>
<td>Chronic Lower Respiratory Diseases</td>
<td>5</td>
<td>29.4</td>
<td>3</td>
</tr>
<tr>
<td>Unintentional Injuries</td>
<td>6</td>
<td>28.3</td>
<td>5</td>
</tr>
<tr>
<td>Kidney Disease</td>
<td>7</td>
<td>13.7</td>
<td>8</td>
</tr>
<tr>
<td>Pneumonia/Influenza</td>
<td>8</td>
<td>11.8</td>
<td>9</td>
</tr>
<tr>
<td>Diabetes Mellitus</td>
<td>9</td>
<td>9.2</td>
<td>6</td>
</tr>
<tr>
<td>Intentional Self-Harm (Suicide)</td>
<td>10</td>
<td>7.3</td>
<td>10</td>
</tr>
<tr>
<td>All Other Causes</td>
<td>10</td>
<td>156.1</td>
<td>10</td>
</tr>
</tbody>
</table>

Compared to the state or the nation, cancer diagnosis rates are lower for Ottawa County residents. Further, cancer death rates are notably lower for Ottawa County residents than for Michigan or the U.S.

**Cancer Rates**

**Cancer Diagnosis Rate (Age Adjusted)**

<table>
<thead>
<tr>
<th></th>
<th>Per 100,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ottawa County</td>
<td>418.2</td>
</tr>
<tr>
<td>Michigan</td>
<td>489.1</td>
</tr>
<tr>
<td>United States</td>
<td>465.1</td>
</tr>
</tbody>
</table>

**Overall Cancer Death Rate**

<table>
<thead>
<tr>
<th></th>
<th>Per 100,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ottawa County</td>
<td>144.3</td>
</tr>
<tr>
<td>Michigan</td>
<td>202.4</td>
</tr>
<tr>
<td>United States</td>
<td>186.2</td>
</tr>
</tbody>
</table>

Preventable hospitalizations are a lower proportion of all hospitalizations in Ottawa County compared to the state of Michigan (13.7% vs. 20.5%). *Bacterial pneumonia* is the leading cause of preventable hospitalization in Ottawa County, followed by *congestive heart failure*. Kidney and urinary infections are more common in Ottawa County than Michigan, while asthma is more common throughout Michigan compared to Ottawa County.

### Top 10 Leading Causes of Preventable Hospitalizations

<table>
<thead>
<tr>
<th></th>
<th>Ottawa County</th>
<th>Michigan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RANK</td>
<td>% of All Preventable Hospitalizations</td>
</tr>
<tr>
<td><strong>Bacterial Pneumonia</strong></td>
<td>1</td>
<td>16.3%</td>
</tr>
<tr>
<td><strong>Congestive Heart Failure</strong></td>
<td>2</td>
<td>14.7%</td>
</tr>
<tr>
<td><strong>Kidney/Urinary Infections</strong></td>
<td>3</td>
<td>7.2%</td>
</tr>
<tr>
<td><strong>Cellulitis</strong></td>
<td>4</td>
<td>5.3%</td>
</tr>
<tr>
<td><strong>Chronic Obstructive Pulmonary</strong></td>
<td>5</td>
<td>5.0%</td>
</tr>
<tr>
<td><strong>Diabetes</strong></td>
<td>6</td>
<td>4.5%</td>
</tr>
<tr>
<td><strong>Asthma</strong></td>
<td>7</td>
<td>3.6%</td>
</tr>
<tr>
<td><strong>Grand Mal and Other Epileptic Conditions</strong></td>
<td>8</td>
<td>2.5%</td>
</tr>
<tr>
<td><strong>Dehydration</strong></td>
<td>9</td>
<td>2.4%</td>
</tr>
<tr>
<td><strong>Gastroenteritis</strong></td>
<td>10</td>
<td>1.4%</td>
</tr>
<tr>
<td><strong>All Other Ambulatory Care Sensitive Conditions</strong></td>
<td></td>
<td>37.3%</td>
</tr>
<tr>
<td><strong>Preventable Hospitalizations as a % of All Hospitalizations</strong></td>
<td></td>
<td>13.7%</td>
</tr>
</tbody>
</table>

Ottawa County women are more likely to begin prenatal care in the first trimester than women elsewhere in Michigan. Further, children aged 19-35 months are far more likely to be fully immunized in Ottawa County than children of the same age elsewhere in the state or in the nation.

### Prenatal Care and Childhood Immunizations

<table>
<thead>
<tr>
<th>Proportion of Women Who Begin Prenatal Care in First Trimester</th>
<th>Proportion of Births to Women Who Receive Late or No Prenatal Care</th>
<th>Proportion of Children Aged 19-35 Months Fully Immunized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ottawa County: 82.5%</td>
<td>Michigan: 73.5%</td>
<td>Ottawa County: 78.6%</td>
</tr>
<tr>
<td>Michigan: 69.9%</td>
<td>Michigan: 66.1%</td>
<td>Michigan: 69.9%</td>
</tr>
<tr>
<td>United States: 66.1%</td>
<td>United States: 69.9%</td>
<td>United States: 66.1%</td>
</tr>
</tbody>
</table>

Social Indicators
The unemployment rate is lower in Ottawa County than in Michigan or the U.S., nevertheless, 8% of people aged 16+ are unemployed. One in ten people live in poverty in Ottawa County, lower than the proportions for Michigan or the U.S.

Unemployment and Poverty Rates

<table>
<thead>
<tr>
<th>Population Age 16+ Unemployed and Looking for Work</th>
<th>Percentage of People in Poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ottawa County</td>
<td>Michigan</td>
</tr>
<tr>
<td>8.1%</td>
<td>10.5%</td>
</tr>
<tr>
<td>Michigan</td>
<td>United States</td>
</tr>
<tr>
<td>10.5%</td>
<td>9.2%</td>
</tr>
<tr>
<td>United States</td>
<td>16.1%</td>
</tr>
<tr>
<td>9.2%</td>
<td>United States</td>
</tr>
<tr>
<td>Michigan</td>
<td>14.3%</td>
</tr>
<tr>
<td>United States</td>
<td>14.3%</td>
</tr>
</tbody>
</table>

Source: Bureau of Labor Statistics, Local Area Unemployment Statistics; County Health Rankings. Ottawa Co. and MI 2011; Note: Data compiled from various sources and dates
The proportion of children living in poverty or being eligible for free or reduced school lunches is far lower in Ottawa County than the state of Michigan. Still, almost three in ten children are eligible for free or reduced lunches.

Source: County Health Rankings. Ottawa Co. and MI 2011; Note: Data compiled from various sources and dates; Fall 2010, Center for Educational Performance and Information (CEPI).
The proportion of families living in poverty in Ottawa County is lower than in Michigan and the U.S. Approximately 10% of families with children in Ottawa County live in poverty. This proportion rises drastically for single female families where over half (58.7%) of single female families with children under 5 years of age live in poverty. Moreover, this is higher than in Michigan or the U.S.

**Poverty Status of Families by Family Type**

*(% Below Poverty)*

<table>
<thead>
<tr>
<th>Family Type</th>
<th>Ottawa County</th>
<th>Michigan</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Families</strong></td>
<td>6.5%</td>
<td>11.6%</td>
<td>10.6%</td>
</tr>
<tr>
<td><strong>Married Couple Families</strong></td>
<td>3.8%</td>
<td>5.4%</td>
<td>5.1%</td>
</tr>
<tr>
<td><strong>Single Female Families</strong></td>
<td>28.7%</td>
<td>33.1%</td>
<td>29.4%</td>
</tr>
</tbody>
</table>

Source: US Census, 2009 American Community Survey, Data Profiles, Selected Economic Characteristics
For both men and women, more Ottawa County residents graduate high school compared to the state and the nation. However, Ottawa County lags slightly behind the state and the nation for doctoral and professional degrees.

**Educational Level Age 25+**

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ottawa County</td>
<td>Michigan</td>
</tr>
<tr>
<td>No Schooling Completed</td>
<td>0.9%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Did Not Graduate High School</td>
<td>9.7%</td>
<td>12.6%</td>
</tr>
<tr>
<td>High School Graduate, GED, or Alternative</td>
<td>30.7%</td>
<td>31.5%</td>
</tr>
<tr>
<td>Some College, No Degree</td>
<td>21.9%</td>
<td>23.0%</td>
</tr>
<tr>
<td>Associate’s Degree</td>
<td>7.4%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>19.6%</td>
<td>15.3%</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>6.8%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Professional School Degree</td>
<td>1.8%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Doctorate Degree</td>
<td>1.3%</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, American Community Survey, 1-year estimates
Ottawa County residents enjoy the safety of their community. In fact, Ottawa County has far lower violent crime, homicide, and child abuse/neglect rates than Michigan or the U.S.

**Crime Rates**

**Violent Crime Rate Per 100,000 Population**

<table>
<thead>
<tr>
<th></th>
<th>Ottawa County</th>
<th>Michigan</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violent Crime Rate</td>
<td>185.0</td>
<td>536.0</td>
<td>429.4</td>
</tr>
</tbody>
</table>

**Homicide Rate Per 100,000 Population**

<table>
<thead>
<tr>
<th></th>
<th>Ottawa County</th>
<th>Michigan</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homicide Rate</td>
<td>0.1*</td>
<td>6.6</td>
<td>5.4</td>
</tr>
</tbody>
</table>

*Caution small number, only 2 homicides during the year

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

<table>
<thead>
<tr>
<th></th>
<th>Ottawa County</th>
<th>Michigan</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Abuse/Neglect Rate</td>
<td>3.6</td>
<td>12.9</td>
<td>9.0</td>
</tr>
</tbody>
</table>

Youth Behavioral Risk Factors
Ottawa County teens are less likely to engage in sexual intercourse than teens across Michigan or the U.S. Still, three in ten (30.9%) Ottawa County youths have had sexual intercourse and one in five (23%) have had it in the past three months.

**Teenage Sexual Activity**

### Youth Who Have Ever Had Sexual Intercourse

- Ottawa County: 30.9%
- Michigan: 45.6%
- United States: 46.0%

### Youth Who Have Had Intercourse in Past 3 Months

- Ottawa County: 23.0% Female, 23.2% Male
- Michigan: 35.6% Female, 32.6% Male
- United States: 35.6% Female, 32.6% Male

Source: Michigan YRBS; Ottawa Youth Assessment Survey 2009. NOTE: YAS includes grades 8, 10, and 12, while YRBS includes grades 9-12.
Teen births are lower in Ottawa County (6.5%) than in Michigan (10.0%) or the U.S (10.2%). However, repeat teen births are more on par with the state and nation.

**Teenage Pregnancy**

<table>
<thead>
<tr>
<th></th>
<th>Teen Births, Ages 15-19 (% Of All Births)</th>
<th>Repeat Teen Births (% Of All Births to Mothers Aged 15-19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ottawa County</td>
<td>6.5%</td>
<td>18.6%</td>
</tr>
<tr>
<td>Michigan</td>
<td>10.0%</td>
<td>18.4%</td>
</tr>
<tr>
<td>United States</td>
<td>10.2%</td>
<td>19.0%</td>
</tr>
</tbody>
</table>

One in five Ottawa County youths reported depression in 2009, while 6% had attempted suicide. Both of these indicators are lower than Michigan or the U.S., although the rate for suicide attempts in Ottawa County is only slightly lower than the U.S.

**Mental Health Indicators Among Youth**

**Proportion of Youth Reporting Depression in Past Year**

- Ottawa County: 20.1%
- Michigan: 27.4%
- United States: 26.1%

**Proportion of Youth Reporting Suicide Attempt in Past Year**

- Ottawa County: 5.8%
- Michigan: 9.3%
- United States: 6.3%

Source: Michigan YRBS; Ottawa Co. Youth Assessment Survey 2009. NOTE: YAS includes grades 8, 10, and 12, while YRBS includes grades 9-12.
Fewer Ottawa County youths report current smoking (16.9%) than in Michigan (18.8%) or the U.S (19.5%), and far fewer report binge drinking or marijuana use compared to Michigan or the U.S.

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

- Ottawa County: 16.9%
- MI: 18.8%
- US: 19.5%

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

- Ottawa County: 14.4%
- MI: 23.2%
- US: 24.2%

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

- Ottawa County: 13.5%
- MI: 20.7%
- US: 20.8%

Source: Michigan YRBS; Ottawa County YAS 2009. NOTE: YAS includes grades 8, 10, and 12, while YRBS includes grades 9-12.
Fewer Ottawa County youth are obese, physically inactive, or reporting inadequate consumption of fruits and vegetables than youth from across the state or nation. However, these are areas of opportunity, especially since almost half (49.2%) of Ottawa County youth are not adequately partaking in physical activity.

### Obesity, Physical Activity and Diet

<table>
<thead>
<tr>
<th>Youth Who Are Obese (&gt;95th Percentile BMI for Age and Sex)</th>
<th>Youth Reporting Inadequate Physical Activity (&lt;60+ Minutes, 5+ Days Per Week)</th>
<th>Youth Reporting Less Than 5 Servings of Fruits/Vegetables Per Day (Past Week)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ottawa County: 9.1% MI: 11.9% US: 12.0%</td>
<td>Ottawa County: 49.2% MI: 53.2% US: 63.0%</td>
<td>Ottawa County: 66.6% MI: 80.4% US: 77.7%</td>
</tr>
</tbody>
</table>

Source: Ottawa: 2009 Youth Assessment Survey and 3rd Grade BMI Surveillance; Michigan YRBS; Ottawa County Youth Assessment Survey 2009. NOTE: YAS includes grades 8, 10, and 12, while YRBS includes grades 9-12.
Health Care Access
There are far fewer primary care physicians (PCP) per capita compared to the state. One in ten adults and one in four children have Medicaid as their health care coverage in Ottawa County.

**Primary Care Physicians and Medicaid Patients**

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

<table>
<thead>
<tr>
<th></th>
<th>Ottawa County</th>
<th>Michigan</th>
</tr>
</thead>
<tbody>
<tr>
<td>114.4</td>
<td>51.5</td>
<td></td>
</tr>
</tbody>
</table>

**Proportion of Medicaid Patients in Ottawa County**

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Adults</th>
<th>Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion</td>
<td>12.1%</td>
<td>9.0%</td>
<td>25.1%</td>
</tr>
</tbody>
</table>

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

Hospital and Clinic Data
Over half (54%) of hospital inpatient admissions in Ottawa County are for patients with government sponsored health coverage, while only 2% are uninsured. Conversely, 11% of emergency department visits are for patients without insurance. Nearly one in ten (9%) ED visits are from patients without a medical home (primary care physician).

**Hospital Data, Ottawa County**

**Insurance Status of Hospital Patients**

- Medicaid, Including HMO: 22%, 23%
- Medicare, Including HMO: 32%, 18%
- Commercial, HMO and Other: 44%, 47%
- Uninsured: 2%, 11%

**Hospital and Emergency Department (ED) Admissions/Visits**

- Admissions from ED to Hospital: 6.7%
- Left ED Without Being Seen: 0.3%
- ED Visits Without a PCP: 8.9%

Source: Holland Hospital, North Ottawa Community Hospital, Spectrum Health-Zeeland Community Hospital
The free medical clinics in Ottawa County are utilized disproportionately by minorities (non-Whites). Additionally, half of the patients who use them are unemployed. The value of the free clinics is supported by the fact that if these facilities were not an option for specific subpopulations, they would most likely go without care or to the Emergency Room (ER/ED).

**Free Clinic Data, Ottawa County**  
*(City on a Hill, Love INC)*

**Free Medical Clinic Utilization by Race/Ethnicity**
- **White**: 75%
- **Hispanic**: 18%
- **Asian**: 3%
- **African American**: 2%
- **Native American**: 1%
- **Other**: 1%

**Free Medical Clinic Utilization by Employment Status**
- **Full-Time**: 14%
- **Part-Time**: 24%
- **Unemployed**: 49%
- **Retired**: 2%
- **Seasonal**: 6%
- **Not in Labor Force**: 5%

**Where Patients Would Go if Free Clinic Was Unavailable**
- **No Medical Care**: 61%
- **Emergency Room**: 20%
- **Private Doctor**: 6%
- **Other**: 7%
- **No Response**: 6%
Behavioral Risk Factor Survey 2011
Health Status Indicators
One in ten (10%) Ottawa County adults perceive their general health as either fair or poor. The proportion of residents who perceive their health as fair or poor is indirectly related to level of education and household income. Hispanics report higher prevalence of fair or poor compared to other ethnic groups. Residents who live in central and southeast Ottawa County are less likely to report fair or poor health than residents in other regions.

**General Health Status**

<table>
<thead>
<tr>
<th>General Health Fair or Poor* (Total Sample)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(n=1273)</td>
</tr>
<tr>
<td>10%</td>
</tr>
</tbody>
</table>

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

**Health Fair or Poor by Demographics**

- **Age**
  - 18-24: 4%
  - 25-34: 8%
  - 35-44: 10%
  - 45-54: 10%
  - 55-64: 13%
  - 65-74: 9%
  - 75+: 21%

- **Gender**
  - Male: 10%
  - Female: 10%

- **Race/Ethnicity**
  - White, Non-Hispanic: 9%
  - Other, Non-Hispanic: 9%
  - Hispanic: 15%

- **Education**
  - < High School: 21%
  - High School Grad: 13%
  - Some College: 9%
  - College Grad: 5%

- **HH Income**
  - < $20,000: 22%
  - $20,000-$34,999: 13%
  - $35,000-$49,999: 11%
  - $50,000-$74,999: 7%
  - $75,000+: 4%

- **Region**
  - Northwest: 11%
  - Northeast: 14%
  - Central: 6%
  - Southwest: 11%
  - Southeast: 7%

Carl Frost Center for Social Science Research
Among adults, the prevalence of poor physical health is 8%. Prevalence is highest among residents with household incomes less than $20,000 (20%) and lowest among college graduates (5%).

*Among all adults, the proportion who reported 14 or more days of poor physical health, which includes physical illness and injury, during the past 30 days.
Similarly, the prevalence of poor mental health is 9% and is inversely related to age. It is highest among residents with household incomes less than $20,000 and/or Hispanics. Poor mental health is less common in men than women and less common in college graduates than those with less education.

*Among all adults, the proportion who reported 14 or more days of poor mental health, which includes stress, depression, and problems with emotions, during the past 30 days.
A small proportion (5%) of adults in Ottawa County experienced activity limitation, where for 14 or more days in the past 30 days poor physical or mental health prevented them from doing their usual activities. The prevalence of activity limitation is highest among those in households with incomes less than $20K (14%).

### Activity Limitation

<table>
<thead>
<tr>
<th>Age</th>
<th>Activity Limitation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>2%</td>
</tr>
<tr>
<td>25-34</td>
<td>4%</td>
</tr>
<tr>
<td>35-44</td>
<td>5%</td>
</tr>
<tr>
<td>45-54</td>
<td>4%</td>
</tr>
<tr>
<td>55-64</td>
<td>11%</td>
</tr>
<tr>
<td>65-74</td>
<td>3%</td>
</tr>
<tr>
<td>75+</td>
<td>8%</td>
</tr>
</tbody>
</table>

### Education

- < High School: 5%
- High School Grad: 7%
- Some College: 4%
- College Grad: 4%

### HH Income

- <$20,000: 14%
- $20,000-$34,999: 4%
- $35,000-$49,999: 4%
- $50,000-$74,999: 3%
- $75,000+: 3%

### Gender

- Male: 5%
- Female: 6%

### Race/Ethnicity

- White, Non-Hispanic: 5%
- Other, Non-Hispanic: 0%
- Hispanic: 9%

### Region

- Northwest: 6%
- Northeast: 3%
- Central: 6%
- Southwest: 5%
- Southeast: 4%

---

*Among all adults, the proportion who reported 14 or more days in the past 30 days in which either poor physical health or poor mental health kept respondents from doing their usual activities, such as self-care, work, and recreation.
A small proportion (5%) of Ottawa County adults are dissatisfied or very dissatisfied with their life. People in households with incomes less than $20,000 are least likely to be satisfied (14% dissatisfied). College graduates are more likely satisfied than those with less education and Hispanics are less likely to be satisfied than other racial/ethnic groups.

**Life Satisfaction**

**Dissatisfied or Very Dissatisfied With Life* (Total Sample)**

- 18-24: 0%
- 25-34: 7%
- 35-44: 7%
- 45-54: 7%
- 55-64: 3%
- 65-74: 3%
- 75+: 1%

**Dissatisfied/Very Dissatisfied by Demographics**

### Age
- 18-24: 0%
- 25-34: 7%
- 35-44: 7%
- 45-54: 7%
- 55-64: 3%
- 65-74: 3%
- 75+: 1%

### Education
- < High School: 10%
- High School Grad: 5%
- Some College: 6%
- College Grad: 2%

### HH Income
- <$20,000: 14%
- $20,000-$34,999: 8%
- $35,000-$49,999: 6%
- $50,000-$74,999: 2%
- $75,000+: 1%

### Gender
- Male: 4%
- Female: 5%

### Race/Ethnicity
- White, Non-Hispanic: 4%
- Other, Non-Hispanic: 4%
- Hispanic: 9%

*Among all adults, the proportion who reported either “dissatisfied” or “very dissatisfied” to the following question: “In general, how satisfied are you with your life?”
A small proportion (4%) of adults rarely or never receive the social and emotional support they need. Those lacking support tend to be Hispanic, have less than a high school education, and have lower household incomes (<$35K).

**Social and Emotional Support**

**Rarely or Never Receive the Social and Emotional Support That is Needed* (Total Sample)**

- 4%

**Rarely/Never Receive Support by Demographics**

<table>
<thead>
<tr>
<th>Age</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>&lt; High School</td>
</tr>
<tr>
<td>25-34</td>
<td>High School Grad</td>
</tr>
<tr>
<td>35-44</td>
<td>Some College</td>
</tr>
<tr>
<td>45-54</td>
<td>College Grad</td>
</tr>
<tr>
<td>55-64</td>
<td>HH Income</td>
</tr>
<tr>
<td>65-74</td>
<td>&lt;$20,000</td>
</tr>
<tr>
<td>75+</td>
<td>$20,000-$34,999</td>
</tr>
<tr>
<td></td>
<td>$35,000-$49,999</td>
</tr>
<tr>
<td></td>
<td>$50,000-$74,999</td>
</tr>
<tr>
<td></td>
<td>$75,000+</td>
</tr>
</tbody>
</table>

**Gender**

- Male 5%
- Female 4%

**Race/Ethnicity**

- White, Non-Hispanic 4%
- Other, Non-Hispanic 0%
- Hispanic 13%

*Among all adults, the proportion who reported either “rarely” or “never” to the following question: “How often do you get the social and emotional support you need?”
One in five (22%) Ottawa County adults are considered disabled. This proportion increases with age and women are slightly more likely to be disabled than men. Disability decreases with education and income. For example, 39% of people in households with incomes less than $20,000 are disabled, compared to 11% of people in households with incomes over $75,000.

*Among all adults, the proportion who reported being limited in any activities because of physical, mental, or emotional problems, or reported that they required use of special equipment (such as a cane, a wheelchair, a special bed, or a special telephone) due to a health problem.
One in five (21%) Ottawa County adults are limited in any activities because of physical, mental, or emotional problems. In general, this proportion increases with age. More than one-third (37%) of adults in households with incomes less than $20K experience this limitation, much higher than other income groups.

### Any Activity Limitation* (Total Sample)

- **18-24:** 10%
- **25-34:** 14%
- **35-44:** 19%
- **45-54:** 21%
- **55-64:** 33%
- **65-74:** 24%
- **75+:** 39%

*Among all adults, the proportion who reported being limited in any activities because of physical, mental, or emotional problems.

### Activity Limitation by Demographics

#### Age
- **18-24:** 10%
- **25-34:** 14%
- **35-44:** 19%
- **45-54:** 21%
- **55-64:** 33%
- **65-74:** 24%
- **75+:** 39%

#### Education
- < High School: 28%
- High School Grad: 20%
- Some College: 24%
- College Grad: 17%

#### HH Income
- <$20,000: 37%
- $20,000-$34,999: 23%
- $35,000-$49,999: 26%
- $50,000-$74,999: 18%
- $75,000+: 11%

#### Gender
- Male: 19%
- Female: 24%

#### Race/Ethnicity
- White, Non-Hispanic: 21%
- Other, Non-Hispanic: 26%
- Hispanic: 24%

#### Region
- Northwest: 25%
- Northeast: 22%
- Central: 17%
- Southwest: 19%
- Southeast: 24%
A small proportion (6%) of adults require the use of special equipment due to a health problem. This proportion also increases with age and with declining household incomes. Adults with less than a high school education are more likely to use equipment compared to adults with more education.

**Used Special Equipment***(Total Sample)**

*Among all adults, the proportion who reported that they required use of special equipment (such as a cane, a wheelchair, a special bed, or a special telephone) due to a health problem.*
One in four (26%) Ottawa County adults are considered obese per their BMI. People with less than a high school education are more likely to be obese than those with more education. Hispanics are more likely to be obese than other racial/ethnic groups. Adults living in central Ottawa County are less likely to be obese than those living elsewhere.

**Obese by Demographics**

**Age**
- 18-24: 14%
- 25-34: 24%
- 35-44: 33%
- 45-54: 26%
- 55-64: 38%
- 65-74: 25%
- 75+: 18%

**Education**
- < High School: 36%
- High School Grad: 28%
- Some College: 29%
- College Grad: 19%

**HH Income**
- <$20,000: 26%
- $20,000-$34,999: 35%
- $35,000-$49,999: 25%
- $50,000-$74,999: 31%
- $75,000+: 21%

**Region**
- Northwest: 27%
- Northeast: 29%
- Central: 18%
- Southwest: 26%
- Southeast: 27%

**Gender**
- Male: 25%
- Female: 27%

**Race/Ethnicity**
- White, Non-Hispanic: 25%
- Other, Non-Hispanic: 13%
- Hispanic: 34%

*Among all adults, the proportion of respondents whose BMI was greater than or equal to 30.0.
More than one-third (37%) of Ottawa County adults are considered overweight per their BMI. Men are far more likely to be overweight than women. Residents living in central or northeast Ottawa County are more likely to be overweight than residents living elsewhere.

*Among all adults, the proportion of respondents whose BMI was greater than or equal to 25.0, but less than 30.0.
Conversely, more than one-third (37%) of Ottawa County adults are considered to be at a more healthy weight per their BMI. This classification is more likely to apply to women than men, and to people aged 18-34 than older people.

Weight Status (Cont’d.)

Not Overweight or Obese* (Total Sample)

*(n=1234)

37%

Not Overweight/Obese by Demographics

<table>
<thead>
<tr>
<th>Age</th>
<th>Not Overweight/Obese (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>60%</td>
</tr>
<tr>
<td>25-34</td>
<td>49%</td>
</tr>
<tr>
<td>35-44</td>
<td>31%</td>
</tr>
<tr>
<td>45-54</td>
<td>25%</td>
</tr>
<tr>
<td>55-64</td>
<td>27%</td>
</tr>
<tr>
<td>65-74</td>
<td>30%</td>
</tr>
<tr>
<td>75+</td>
<td>38%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>Not Overweight/Obese (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; High School</td>
<td>29%</td>
</tr>
<tr>
<td>High School Grad</td>
<td>36%</td>
</tr>
<tr>
<td>Some College</td>
<td>38%</td>
</tr>
<tr>
<td>College Grad</td>
<td>39%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HH Income</th>
<th>Not Overweight/Obese (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$20,000</td>
<td>32%</td>
</tr>
<tr>
<td>$20,000-$34,999</td>
<td>32%</td>
</tr>
<tr>
<td>$35,000-$49,999</td>
<td>39%</td>
</tr>
<tr>
<td>$50,000-$74,999</td>
<td>31%</td>
</tr>
<tr>
<td>$75,000+</td>
<td>39%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Not Overweight/Obese (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>32%</td>
</tr>
<tr>
<td>Female</td>
<td>43%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Not Overweight/Obese (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White, Non-Hispanic</td>
<td>37%</td>
</tr>
<tr>
<td>Other, Non-Hispanic</td>
<td>51%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>37%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>Not Overweight/Obese (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>35%</td>
</tr>
<tr>
<td>Northeast</td>
<td>26%</td>
</tr>
<tr>
<td>Central</td>
<td>36%</td>
</tr>
<tr>
<td>Southwest</td>
<td>38%</td>
</tr>
<tr>
<td>Southeast</td>
<td>41%</td>
</tr>
</tbody>
</table>

*Among all adults, the proportion of respondents whose BMI was less than 25.0.
More than one in ten (13%) Ottawa County adults aged 18-64 have no health care coverage. Whether or not one has coverage is directly related to education and income. Additionally, younger residents (aged 18-34) are more likely to have no coverage than older residents, and Hispanics report no coverage more than other racial/ethnic groups.

Health Care Coverage Among Adults Aged 18-64 Years

No Health Care Coverage* (Total Sample)

<table>
<thead>
<tr>
<th>Age</th>
<th>No Coverage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>19%</td>
</tr>
<tr>
<td>25-34</td>
<td>17%</td>
</tr>
<tr>
<td>35-44</td>
<td>11%</td>
</tr>
<tr>
<td>45-54</td>
<td>7%</td>
</tr>
<tr>
<td>55-64</td>
<td>8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>No Coverage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>13%</td>
</tr>
<tr>
<td>Female</td>
<td>12%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>No Coverage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White, Non-Hispanic</td>
<td>11%</td>
</tr>
<tr>
<td>Other, Non-Hispanic</td>
<td>18%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>25%</td>
</tr>
</tbody>
</table>

Education

<table>
<thead>
<tr>
<th>Education Level</th>
<th>No Coverage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; High School</td>
<td>35%</td>
</tr>
<tr>
<td>High School Grad</td>
<td>19%</td>
</tr>
<tr>
<td>Some College</td>
<td>13%</td>
</tr>
<tr>
<td>College Grad</td>
<td>4%</td>
</tr>
</tbody>
</table>

HH Income

<table>
<thead>
<tr>
<th>Income Level</th>
<th>No Coverage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$20,000</td>
<td>35%</td>
</tr>
<tr>
<td>$20,000-$34,999</td>
<td>23%</td>
</tr>
<tr>
<td>$35,000-$49,999</td>
<td>11%</td>
</tr>
<tr>
<td>$50,000-$74,999</td>
<td>4%</td>
</tr>
<tr>
<td>$75,000+</td>
<td>2%</td>
</tr>
</tbody>
</table>

Region

<table>
<thead>
<tr>
<th>Region</th>
<th>No Coverage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>12%</td>
</tr>
<tr>
<td>Northeast</td>
<td>17%</td>
</tr>
<tr>
<td>Central</td>
<td>4%</td>
</tr>
<tr>
<td>Southwest</td>
<td>14%</td>
</tr>
<tr>
<td>Southeast</td>
<td>11%</td>
</tr>
</tbody>
</table>

*Among adults aged 18-64, the proportion who reported having no health care coverage, including health insurance, prepaid plans such as HMOs, or government plans, such as Medicare.
More than one in ten (12%) Ottawa County adults are without a medical home (no PCP). Those most likely to be without a medical home are younger (aged 18-34), male, Hispanic, have not graduated from high school, and/or have lower household incomes (<$35,000).

**No Personal Health Care Provider***
(Total Sample)

- **Gender**: Male 16%, Female 8%
- **Race/Ethnicity**: White, Non-Hispanic 10%, Other, Non-Hispanic 8%, Hispanic 28%
- **Age**: 18-24 27%, 25-34 19%, 35-44 11%, 45-54 7%, 55-64 5%, 65-74 4%, 75+ 1%
- **Education**: < High School 30%, High School Grad 14%, Some College 11%, College Grad 8%
- **HH Income**: <$20,000 29%, $20,000-$34,999 20%, $35,000-$49,999 10%, $50,000-$74,999 6%, $75,000+ 3%
- **Region**: Northwest 9%, Northeast 21%, Central 7%, Southwest 15%, Southeast 7%

*Among all adults, the proportion who reported that they did not have anyone that they thought of as their personal doctor or health care provider.
Risk Behavior Indicators
More than one in ten (13%) adults in Ottawa County do not participate in any leisure time physical activity. Participation in leisure time physical activity is directly related to education and income. In fact, almost three in ten (29%) adults with less than a high school diploma and one-fourth (25%) of residents who have household incomes less than $20,000 do not participate in leisure time physical activity.

### Leisure Time Physical Activity

**No Leisure Time Physical Activity* (Total Sample)**

- 13% (n=1272)

*Among all adults, the proportion who reported not participating in any leisure-time physical activities or exercises, such as running, calisthenics, golf, gardening, or walking, during the past month.

### No Leisure Time Activity by Demographics

<table>
<thead>
<tr>
<th>Age</th>
<th>No Leisure Time Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>11%</td>
</tr>
<tr>
<td>25-34</td>
<td>10%</td>
</tr>
<tr>
<td>35-44</td>
<td>13%</td>
</tr>
<tr>
<td>45-54</td>
<td>11%</td>
</tr>
<tr>
<td>55-64</td>
<td>15%</td>
</tr>
<tr>
<td>65-74</td>
<td>14%</td>
</tr>
<tr>
<td>75+</td>
<td>20%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>No Leisure Time Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; High School</td>
<td>29%</td>
</tr>
<tr>
<td>High School Grad</td>
<td>17%</td>
</tr>
<tr>
<td>Some College</td>
<td>13%</td>
</tr>
<tr>
<td>College Grad</td>
<td>6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HH Income</th>
<th>No Leisure Time Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$20,000</td>
<td>25%</td>
</tr>
<tr>
<td>$20,000-$34,999</td>
<td>20%</td>
</tr>
<tr>
<td>$35,000-$49,999</td>
<td>15%</td>
</tr>
<tr>
<td>$50,000-$74,999</td>
<td>5%</td>
</tr>
<tr>
<td>$75,000+</td>
<td>5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>No Leisure Time Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>12%</td>
</tr>
<tr>
<td>Female</td>
<td>13%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>No Leisure Time Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>White, Non-Hispanic</td>
<td>12%</td>
</tr>
<tr>
<td>Other, Non-Hispanic</td>
<td>5%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>17%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>No Leisure Time Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>15%</td>
</tr>
<tr>
<td>Northeast</td>
<td>14%</td>
</tr>
<tr>
<td>Central</td>
<td>5%</td>
</tr>
<tr>
<td>Southwest</td>
<td>12%</td>
</tr>
<tr>
<td>Southeast</td>
<td>17%</td>
</tr>
</tbody>
</table>
Inadequate fruit and vegetable consumption is common in Ottawa County, where 83% consume less than five servings of fruits or vegetables per day. Adequate fruit and vegetable consumption is directly related to education and income, although the proportions of inadequate consumption are still high for those with college degrees and high incomes. Fewer men than women consume adequate fruits and vegetables.

*Among all adults, the proportion whose total frequency of consumption of fruits (including juice) and vegetables was less than five times per day.
Just less than one in five (17%) adults currently smoke cigarettes. Cigarette smoking is inversely related to education and income; 35% of residents with less than a high school diploma and 26% of those with household incomes less than $20,000 currently smoke cigarettes.

### Current Cigarette Smoking*
*(Total Sample)*

<table>
<thead>
<tr>
<th>Age</th>
<th>% Smoking</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>20%</td>
</tr>
<tr>
<td>25-34</td>
<td>31%</td>
</tr>
<tr>
<td>35-44</td>
<td>16%</td>
</tr>
<tr>
<td>45-54</td>
<td>14%</td>
</tr>
<tr>
<td>55-64</td>
<td>15%</td>
</tr>
<tr>
<td>65-74</td>
<td>7%</td>
</tr>
<tr>
<td>75+</td>
<td>1%</td>
</tr>
</tbody>
</table>

### Current Cigarette Smoking by Demographics

- **Education**
  - < High School: 35%
  - High School Grad: 24%
  - Some College: 19%
  - College Grad: 5%

- **HH Income**
  - < $20,000: 26%
  - $20,000-$34,999: 24%
  - $35,000-$49,999: 19%
  - $50,000-$74,999: 15%
  - $75,000+: 7%

- **Region**
  - Northwest: 22%
  - Northeast: 17%
  - Central: 11%
  - Southwest: 17%
  - Southeast: 11%

- **Race/Ethnicity**
  - White, Non-Hispanic: 17%
  - Other, Non-Hispanic: 13%
  - Hispanic: 19%

- **Gender**
  - Male: 18%
  - Female: 15%

*Among all adults, the proportion who reported that they had ever smoked at least 100 cigarettes (5 packs) in their life and that they smoke cigarettes now, either every day or on some days.
One-quarter (25%) of the adult population in Ottawa County are former smokers per the BRFS definition, someone who ever smoked 100 or more cigarettes but do not currently smoke. Males are more likely than females to be former smokers. The northeast portion of the county has a lower proportion of former smokers than other portions.

*Among all adults, the proportion who reported that they had ever smoked at least 100 cigarettes (5 packs) in their life but they do not smoke now.
Six in ten (61%) current smokers have tried to quit for one day or longer within the past year. Younger and non-White smokers are more likely to attempt to quit than older or White smokers, respectively.

*Among current smokers, the proportion who reported that during the past 12 months, they had tried to quit smoking for one day or longer.
The use of smokeless tobacco by Ottawa County residents is low. Those most likely to use tend to be younger than 45 years of age and male.

### Current Smokeless Tobacco Use* (Total Sample)

*Among all adults, the proportion who reported that they currently use chewing tobacco, snuff or snus, either every day or on some days.

<table>
<thead>
<tr>
<th>Age</th>
<th>18-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
<th>65-74</th>
<th>75+</th>
</tr>
</thead>
<tbody>
<tr>
<td>5%</td>
<td>5%</td>
<td>4%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
<th>5%</th>
<th>0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race/Ethnicity</td>
<td>White, Non-Hispanic</td>
<td>Other, Non-Hispanic</td>
<td>Hispanic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3%</td>
<td>0%</td>
<td>3%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>&lt; High School</th>
<th>High School Grad</th>
<th>Some College</th>
<th>College Grad</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>2%</td>
<td>4%</td>
<td>3%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HH Income</th>
<th>&lt;$20,000</th>
<th>$20,000-$34,999</th>
<th>$35,000-$49,999</th>
<th>$50,000-$74,999</th>
<th>$75,000+</th>
</tr>
</thead>
<tbody>
<tr>
<td>3%</td>
<td>2%</td>
<td>1%</td>
<td>4%</td>
<td>4%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>Northwest</th>
<th>Northeast</th>
<th>Central</th>
<th>Southwest</th>
<th>Southeast</th>
</tr>
</thead>
<tbody>
<tr>
<td>4%</td>
<td>5%</td>
<td>0%</td>
<td>3%</td>
<td>2%</td>
<td></td>
</tr>
</tbody>
</table>

Carl Frost Center for Social Science Research
One in five (21%) Ottawa County residents engage in binge drinking (5+ drinks for men and 4+ drinks for women on at least one occasion in past 30 days). The prevalence of binge drinking is higher among men, higher among younger people (<35 years of age), and higher in the northern regions of Ottawa County.

*Among all adults, the proportion who reported consuming five or more drinks per occasion (for men) or four or more drinks per occasion (for women) at least once in the previous month.
Less than one in ten (7%) Ottawa County residents are heavy drinkers. Younger residents (<35 years of age) are slightly more likely to engage in heavy drinking than older residents. The largest proportion of heavy drinkers is found in the northwest region of Ottawa County.

*Among all adults, the proportion who reported consuming an average of more than two alcoholic drinks per day for men and one per day for women in the previous month.
Nearly all people report always using a seatbelt when driving or riding in a car. Seatbelt use is less common among younger (<35 years of age) adults.

**Seatbelt Use**

Always Uses a Seatbelt* (Total Sample)

Always Uses a Seatbelt by Demographics

- **Age**
  - 18-24: 81%
  - 25-34: 83%
  - 35-44: 94%
  - 45-54: 93%
  - 55-64: 94%
  - 65-74: 94%
  - 75+: 97%

- **Education**
  - < High School: 88%
  - High School Grad: 90%
  - Some College: 92%
  - College Grad: 95%

- **HH Income**
  - <$20,000: 89%
  - $20,000-$34,999: 92%
  - $35,000-$49,999: 90%
  - $50,000-$74,999: 89%
  - $75,000+: 91%

- **Gender**
  - Male: 88%
  - Female: 93%

- **Race/Ethnicity**
  - White, Non-Hispanic: 91%
  - Other, Non-Hispanic: 81%
  - Hispanic: 84%

*Among all adults, the proportion who reported always using a seatbelt when driving or riding in a car.
Almost one-third (31%) of adults in Ottawa County have high blood pressure (HBP). As expected, HBP is more common in older adults (55+). It is also more common in men than women and significantly more common in adults who have less than a high school education. Further, there is an inverse relationship between the prevalence of HBP and household income.

### Hypertension Awareness

#### Ever Told Had High Blood Pressure (HBP)*

<table>
<thead>
<tr>
<th>Age</th>
<th>Ever Told HBP by Demographics</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>16%</td>
</tr>
<tr>
<td>25-34</td>
<td>12%</td>
</tr>
<tr>
<td>35-44</td>
<td>26%</td>
</tr>
<tr>
<td>45-54</td>
<td>31%</td>
</tr>
<tr>
<td>55-64</td>
<td>49%</td>
</tr>
<tr>
<td>65-74</td>
<td>54%</td>
</tr>
<tr>
<td>75+</td>
<td>66%</td>
</tr>
</tbody>
</table>

#### Education

- < High School: 58%
- High School Grad: 31%
- Some College: 31%
- College Grad: 27%

#### HH Income

- <$20,000: 40%
- $20,000-$34,999: 37%
- $35,000-$49,999: 31%
- $50,000-$74,999: 27%
- $75,000+: 29%

#### Region

- Northwest: 36%
- Northeast: 34%
- Central: 36%
- Southwest: 29%
- Southeast: 30%

*Among all adults, the proportion who reported that they were ever told by a health care professional that they have high blood pressure (HBP). Women who had high blood pressure only during pregnancy and adults who were borderline hypertensive were considered not to have been diagnosed.
Clinical Preventative Practices
One-fourth (26%) of adults in Ottawa County had no routine physical checkup in the past year. Having a timely routine physical checkup is directly related to age. Also, women are significantly more likely to have had a routine checkup in the past year than men.

**No Routine Physical Checkup in Past Year**

*(Total Sample)*

<table>
<thead>
<tr>
<th>Age</th>
<th>No Checkup by Demographics</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>&lt; High School</td>
</tr>
<tr>
<td>25-34</td>
<td>High School Grad</td>
</tr>
<tr>
<td>35-44</td>
<td>Some College</td>
</tr>
<tr>
<td>45-54</td>
<td>College Grad</td>
</tr>
<tr>
<td>55-64</td>
<td>HH Income</td>
</tr>
<tr>
<td>65-74</td>
<td>&lt;$20,000</td>
</tr>
<tr>
<td>75+</td>
<td>$20,000-$34,999</td>
</tr>
</tbody>
</table>

**Gender**

- Male: 34%
- Female: 18%

**Race/Ethnicity**

- White, Non-Hispanic: 26%
- Other, Non-Hispanic: 30%
- Hispanic: 30%

*Among all adults, the proportion who reported that they did not have a routine checkup in the past year.*
Nearly all (94%) women 40 years of age or older in Ottawa County have had a mammogram at some point and there is very little difference regardless of demographics, with the exception of those aged 40-44.

**Mammography Indicators Among Women Aged 40 Years or Older**

<table>
<thead>
<tr>
<th>Ever Had Mammogram* (Total Sample)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
</tr>
<tr>
<td>40-44</td>
</tr>
<tr>
<td>45-54</td>
</tr>
<tr>
<td>55-64</td>
</tr>
<tr>
<td>65-74</td>
</tr>
<tr>
<td>75+</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
</tr>
<tr>
<td>White, Non-Hispanic</td>
</tr>
<tr>
<td>Other, Non-Hispanic</td>
</tr>
<tr>
<td>Hispanic</td>
</tr>
<tr>
<td><strong>Education</strong></td>
</tr>
<tr>
<td>&lt; High School</td>
</tr>
<tr>
<td>High School Grad</td>
</tr>
<tr>
<td>Some College</td>
</tr>
<tr>
<td>College Grad</td>
</tr>
<tr>
<td><strong>HH Income</strong></td>
</tr>
<tr>
<td>&lt;$20,000</td>
</tr>
<tr>
<td>$20,000-$34,999</td>
</tr>
<tr>
<td>$35,000-$49,999</td>
</tr>
<tr>
<td>$50,000-$74,999</td>
</tr>
<tr>
<td>$75,000+</td>
</tr>
<tr>
<td><strong>Region</strong></td>
</tr>
<tr>
<td>Northwest</td>
</tr>
<tr>
<td>Northeast</td>
</tr>
<tr>
<td>Central</td>
</tr>
<tr>
<td>Southwest</td>
</tr>
<tr>
<td>Southeast</td>
</tr>
</tbody>
</table>

*Among women aged 40 years and older, the proportion who reported ever having a mammogram.
Seven in ten (70%) women 40 years of age or older had a mammogram in the past year. Women in households with incomes $50,000 or more are more likely to have had a recent mammogram than women in households with lower incomes.

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

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

Had Mammogram in Past Year* (Total Sample)

<table>
<thead>
<tr>
<th>Age</th>
<th>Had Mammogram in Past Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>40-44</td>
<td>53%</td>
</tr>
<tr>
<td>45-54</td>
<td>72%</td>
</tr>
<tr>
<td>55-64</td>
<td>80%</td>
</tr>
<tr>
<td>65-74</td>
<td>73%</td>
</tr>
<tr>
<td>75+</td>
<td>67%</td>
</tr>
</tbody>
</table>

Race/Ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Had Mammogram in Past Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>White, Non-Hispanic</td>
<td>70%</td>
</tr>
<tr>
<td>Other, Non-Hispanic</td>
<td>57%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>68%</td>
</tr>
</tbody>
</table>

Education

<table>
<thead>
<tr>
<th>Education</th>
<th>Had Mammogram in Past Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; High School</td>
<td>68%</td>
</tr>
<tr>
<td>High School Grad</td>
<td>65%</td>
</tr>
<tr>
<td>Some College</td>
<td>73%</td>
</tr>
<tr>
<td>College Grad</td>
<td>74%</td>
</tr>
</tbody>
</table>

HH Income

<table>
<thead>
<tr>
<th>HH Income</th>
<th>Had Mammogram in Past Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$20,000</td>
<td>59%</td>
</tr>
<tr>
<td>$20,000-$34,999</td>
<td>69%</td>
</tr>
<tr>
<td>$35,000-$49,999</td>
<td>59%</td>
</tr>
<tr>
<td>$50,000-$74,999</td>
<td>76%</td>
</tr>
<tr>
<td>$75,000+</td>
<td>79%</td>
</tr>
</tbody>
</table>

Region

<table>
<thead>
<tr>
<th>Region</th>
<th>Had Mammogram in Past Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>67%</td>
</tr>
<tr>
<td>Northeast</td>
<td>66%</td>
</tr>
<tr>
<td>Central</td>
<td>72%</td>
</tr>
<tr>
<td>Southwest</td>
<td>71%</td>
</tr>
<tr>
<td>Southeast</td>
<td>72%</td>
</tr>
</tbody>
</table>
Almost all (92%) adult women have had a Pap test. Pap test rates are lowest among women aged 18-24 and non-White/non-Hispanic women.

**Cervical Cancer Screening**

**Ever Had Pap Test* (Total Sample)**

- Age:
  - 18-24: 69%
  - 25-34: 95%
  - 35-44: 96%
  - 45-54: 98%
  - 55-64: 100%
  - 65-74: 98%
  - 75+: 96%
- Race/Ethnicity:
  - White, Non-Hispanic: 94%
  - Other, Non-Hispanic: 52%
  - Hispanic: 91%
- Education:
  - < High School: 82%
  - High School Grad: 91%
  - Some College: 92%
  - College Grad: 97%
- HH Income:
  - <$20,000: 89%
  - $20,000-$34,999: 96%
  - $35,000-$49,999: 97%
  - $50,000-$74,999: 93%
  - $75,000+: 94%
- Region:
  - Northwest: 93%
  - Northeast: 93%
  - Central: 99%
  - Southwest: 89%
  - Southeast: 97%

*Among women aged 18 years and older, the proportion who reported ever having a Pap test.
Nearly eight in ten (79%) adult women had a Pap test in the previous three years. In addition to women aged 18-24 and non-White/non-Hispanic women having low rates, having an appropriately timed Pap test is directly related to education and income.

**Cervical Cancer Screening (Cont’d.)**

**Had Appropriately Timed Pap Test**
**(Total Sample)**

<table>
<thead>
<tr>
<th>Age</th>
<th>Appropriately Timed Pap Test (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>69%</td>
</tr>
<tr>
<td>25-34</td>
<td>92%</td>
</tr>
<tr>
<td>35-44</td>
<td>89%</td>
</tr>
<tr>
<td>45-54</td>
<td>85%</td>
</tr>
<tr>
<td>55-64</td>
<td>65%</td>
</tr>
<tr>
<td>65-74</td>
<td>49%</td>
</tr>
<tr>
<td>75+</td>
<td>79%</td>
</tr>
</tbody>
</table>

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

**Appropriately Timed Pap Test by Demographics**

**Education**

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Appropriately Timed Pap Test (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; High School</td>
<td>60%</td>
</tr>
<tr>
<td>High School Grad</td>
<td>69%</td>
</tr>
<tr>
<td>Some College</td>
<td>83%</td>
</tr>
<tr>
<td>College Grad</td>
<td>87%</td>
</tr>
</tbody>
</table>

**HH Income**

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Appropriately Timed Pap Test (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$20,000</td>
<td>69%</td>
</tr>
<tr>
<td>$20,000-$34,999</td>
<td>77%</td>
</tr>
<tr>
<td>$35,000-$49,999</td>
<td>79%</td>
</tr>
<tr>
<td>$50,000-$74,999</td>
<td>87%</td>
</tr>
<tr>
<td>$75,000+</td>
<td>91%</td>
</tr>
</tbody>
</table>

**Race/Ethnicity**

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Appropriately Timed Pap Test (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White, Non-Hispanic</td>
<td>79%</td>
</tr>
<tr>
<td>Other, Non-Hispanic</td>
<td>48%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>87%</td>
</tr>
</tbody>
</table>

**Region**

<table>
<thead>
<tr>
<th>Region</th>
<th>Appropriately Timed Pap Test (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>78%</td>
</tr>
<tr>
<td>Northeast</td>
<td>70%</td>
</tr>
<tr>
<td>Central</td>
<td>83%</td>
</tr>
<tr>
<td>Southwest</td>
<td>78%</td>
</tr>
<tr>
<td>Southeast</td>
<td>82%</td>
</tr>
</tbody>
</table>
Three-fourths (79%) of men in Ottawa County aged 50 years or older have had a PSA test screening for prostate cancer. The lowest rates are among men aged 50-54 and the highest rates are among men living in the northeast or southeast regions of the county.

**Prostate Cancer Screening Among Men Aged 50 Years and Older**

<table>
<thead>
<tr>
<th>Age</th>
<th>Had PSA Test by Demographics</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-54</td>
<td>61%</td>
</tr>
<tr>
<td>55-64</td>
<td>81%</td>
</tr>
<tr>
<td>65-74</td>
<td>93%</td>
</tr>
<tr>
<td>75+</td>
<td>87%</td>
</tr>
</tbody>
</table>

**Race/Ethnicity**

- White, Non-Hispanic: 77%
- Other, Non-Hispanic: 100%
- Hispanic: 88%

**Education**

- < High School: 73%
- High School Grad: 71%
- Some College: 80%
- College Grad: 80%

**HH Income**

- <$20,000: 75%
- $20,000-$34,999: 64%
- $35,000-$49,999: 74%
- $50,000-$74,999: 84%
- $75,000+: 82%

**Region**

- Northwest: 74%
- Northeast: 93%
- Central: 72%
- Southwest: 73%
- Southeast: 95%

*Among men aged 50 years and older, the proportion who reported ever having a prostate-specific antigen (PSA) test.*
Three-fourths (75%) of adults aged 50 or older have been screened for colorectal cancer at some point. Least likely to have been screened are people aged 50-54, of Hispanic origin, and/or have less than a high school degree. Having been screened is directly related to income.

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

**Ever Had Sigmoidoscopy or Colonoscopy***

<table>
<thead>
<tr>
<th>Age</th>
<th>(Total Sample)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-54</td>
<td>77%</td>
</tr>
<tr>
<td>55-64</td>
<td>75%</td>
</tr>
<tr>
<td>65-74</td>
<td>77%</td>
</tr>
<tr>
<td>75+</td>
<td>83%</td>
</tr>
</tbody>
</table>

**Had Sigmoidoscopy/Colonoscopy by Demographics**

- **Age**: 77% (50-54), 75% (55-64), 77% (65-74), 83% (75+)
- **Gender**: 74% (Male), 77% (Female)
- **Race/Ethnicity**: 76% (White, Non-Hispanic), 74% (Other, Non-Hispanic), 60% (Hispanic)
- **Education**: 58% (< High School), 77% (High School Grad), 75% (Some College), 77% (College Grad)
- **HH Income**: 66% (<$20,000), 67% ($20,000-$34,999), 75% ($35,000-$49,999), 78% ($50,000-$74,999), 82% ($75,000+)
- **Region**: 76% (Northwest), 81% (Northeast), 79% (Central), 71% (Southwest), 86% (Southeast)

*Among adults aged 50 years and older, the proportion who reported ever having a sigmoidoscopy or colonoscopy.
Six in ten (63%) adults aged 50 or older have been screened for colorectal cancer in the past five years. Least likely to have been screened in the past five years are people aged 50-54, of Hispanic origin, have less than a high school degree, and from households with annual incomes less than $20K. Again, having been screened in a timely manner is directly related to income.

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

| Had A Sigmoidoscopy or Colonoscopy in Past Five Years* (Total Sample) |
| Age         | HH Income        | Gender               | Race/Ethnicity | Education |
| 50-54       | 50-54            | Male                 | White, Non-Hispanic | < High School |
| 64%         | 63%              | 63%                  | 63%            | 53%        |
| 55-64       | 55-64            | Female               | Other, Non-Hispanic | High School Grad |
| 62%         | 62%              | 63%                  | 74%            | 64%        |
| 65-74       | 65-74            |                       | Hispanic       | Some College |
| 64%         | 64%              |                      | 48%            | 64%        |
| 75+         | 75+              |                       |                | College Grad |
| 69%         | 69%              |                      |                |            |
|             | 71%              |                      |                |            |

*Among adults aged 50 years and older, the proportion who reported ever having a sigmoidoscopy or colonoscopy in the past five years.
More than one in five (22%) Ottawa County adults have not visited a dentist in the past year. Visiting a dentist in a timely manner is directly related to education and income. In fact, more than four in ten people with less than a high school education and/or living in a household with income less than $20K have not visited a dentist in the past year.

### Oral Health

#### No Dental Visit in Past Year* (Total Sample)

<table>
<thead>
<tr>
<th>Age</th>
<th>No Dental Visit in Past Year (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>19%</td>
</tr>
<tr>
<td>25-34</td>
<td>35%</td>
</tr>
<tr>
<td>35-44</td>
<td>21%</td>
</tr>
<tr>
<td>45-54</td>
<td>20%</td>
</tr>
<tr>
<td>55-64</td>
<td>13%</td>
</tr>
<tr>
<td>65-74</td>
<td>20%</td>
</tr>
<tr>
<td>75+</td>
<td>18%</td>
</tr>
</tbody>
</table>

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

#### No Dental Visit in Past Year by Demographics

<table>
<thead>
<tr>
<th>Education</th>
<th>No Dental Visit in Past Year (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; High School</td>
<td>43%</td>
</tr>
<tr>
<td>High School Grad</td>
<td>30%</td>
</tr>
<tr>
<td>Some College</td>
<td>22%</td>
</tr>
<tr>
<td>College Grad</td>
<td>10%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HH Income</th>
<th>No Dental Visit in Past Year (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$20,000</td>
<td>44%</td>
</tr>
<tr>
<td>$20,000-$34,999</td>
<td>34%</td>
</tr>
<tr>
<td>$35,000-$49,999</td>
<td>25%</td>
</tr>
<tr>
<td>$50,000-$74,999</td>
<td>13%</td>
</tr>
<tr>
<td>$75,000+</td>
<td>8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>No Dental Visit in Past Year (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>23%</td>
</tr>
<tr>
<td>Northeast</td>
<td>37%</td>
</tr>
<tr>
<td>Central</td>
<td>13%</td>
</tr>
<tr>
<td>Southwest</td>
<td>23%</td>
</tr>
<tr>
<td>Southeast</td>
<td>16%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>No Dental Visit in Past Year (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>22%</td>
</tr>
<tr>
<td>Female</td>
<td>21%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>No Dental Visit in Past Year (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White, Non-Hispanic</td>
<td>21%</td>
</tr>
<tr>
<td>Other, Non-Hispanic</td>
<td>23%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>29%</td>
</tr>
</tbody>
</table>
Similarly, 22% of Ottawa County adults have not had a teeth cleaning in the past year. Again, having a recent teeth cleaning is directly related to education and income and those least likely to have had a cleaning have less than a high school education and/or are living in a household with income less than $20K.

*Among adults, the proportion who reported that they did not have their teeth cleaned by a dentist or dental hygienist in the previous year.
Almost one in ten (9%) have six or more missing teeth. Besides older adults (65+), those most likely to have six or more missing teeth have less than a high school education and come from households with incomes less than $35K.

*Among adults, the proportion who reported that they were missing 6+ teeth due to tooth decay or gum disease. This excludes teeth lost for other reasons, such as injury or orthodontics.
Two-thirds (68%) of adults aged 65 or older received a flu vaccine in the past year. Adults aged 75+ are more likely to have received one than those aged 65-74. Hispanics are least likely, by far, to have received a flu vaccine in the past year, as are people living in the northeast or central regions of the county.

**Immunizations Among Adults 65 Years and Older**

<table>
<thead>
<tr>
<th>Had Flu Vaccine in Past Year* (Total Sample)</th>
<th>Had Flu Vaccine by Demographics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Education</td>
</tr>
<tr>
<td>65-74</td>
<td>&lt; High School</td>
</tr>
<tr>
<td>61%</td>
<td>74%</td>
</tr>
<tr>
<td>75+</td>
<td>High School Grad</td>
</tr>
<tr>
<td>75%</td>
<td>57%</td>
</tr>
<tr>
<td>Gender</td>
<td>Some College</td>
</tr>
<tr>
<td>Male</td>
<td>College Grad</td>
</tr>
<tr>
<td>69%</td>
<td>72%</td>
</tr>
<tr>
<td>Female</td>
<td>HH Income</td>
</tr>
<tr>
<td>67%</td>
<td>&lt;$20,000</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>$20,000-$34,999</td>
</tr>
<tr>
<td>White, Non-Hispanic</td>
<td>67%</td>
</tr>
<tr>
<td>69%</td>
<td>$35,000-$49,999</td>
</tr>
<tr>
<td>Other, Non-Hispanic</td>
<td>68%</td>
</tr>
<tr>
<td>100%</td>
<td>$50,000-$74,999</td>
</tr>
<tr>
<td>Hispanic</td>
<td>75%</td>
</tr>
<tr>
<td>44%</td>
<td>$75,000+</td>
</tr>
<tr>
<td></td>
<td>Region</td>
</tr>
<tr>
<td></td>
<td>Northwest</td>
</tr>
<tr>
<td></td>
<td>73%</td>
</tr>
<tr>
<td></td>
<td>Northeast</td>
</tr>
<tr>
<td></td>
<td>46%</td>
</tr>
<tr>
<td></td>
<td>Central</td>
</tr>
<tr>
<td></td>
<td>41%</td>
</tr>
<tr>
<td></td>
<td>Southwest</td>
</tr>
<tr>
<td></td>
<td>71%</td>
</tr>
<tr>
<td></td>
<td>Southeast</td>
</tr>
<tr>
<td></td>
<td>69%</td>
</tr>
</tbody>
</table>
Additionally, seven in ten (71%) adults aged 65 or older received a pneumonia vaccine at some point and this rate is higher for those aged 75 or older. The lowest rates are among Hispanic adults, those with less than a high school degree and adults living in the northeast region of the county.

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

**Ever Had Pneumonia Vaccine* (Total Sample)**

**Had Pneumonia Vaccine by Demographics**

- **Age**
  - 65-74: 63%
  - 75+ : 80%

- **Gender**
  - Male: 71%
  - Female: 71%

- **Race/Ethnicity**
  - White, Non-Hispanic: 71%
  - Other, Non-Hispanic: 100%
  - Hispanic: 56%

- **Education**
  - < High School: 58%
  - High School Grad: 68%
  - Some College: 76%
  - College Grad: 73%

- **HH Income**
  - <$20,000: 63%
  - $20,000-$34,999: 72%
  - $35,000-$49,999: 64%
  - $50,000-$74,999: 75%
  - $75,000+: 75%

- **Region**
  - Northwest: 78%
  - Northeast: 45%
  - Central: 63%
  - Southwest: 73%
  - Southeast: 68%

*Among adults aged 65 years and older, the proportion who reported that they ever had a pneumococcal vaccine.
Chronic Conditions
More than one in ten (13%) adults in Ottawa County have been diagnosed with asthma in their lifetime. Other than this rate being slightly higher for females over males, and the rate being much lower in northeast Ottawa County, there are very little differences with regard to demographics.

**Asthma Among Adults**

<table>
<thead>
<tr>
<th>Lifetime Asthma Prevalence* (Total Sample)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13% (n=1267)</td>
</tr>
</tbody>
</table>

*Among all adults, the proportion who reported that they were ever told by a doctor, nurse, or other health care professional that they had asthma.

### Education

- **< High School**: 17%
- **High School Grad**: 11%
- **Some College**: 14%
- **College Grad**: 14%

### HH Income

- <$20,000: 18%
- $20,000-$34,999: 17%
- $35,000-$49,999: 10%
- $50,000-$74,999: 11%
- $75,000+: 12%

### Region

- Northwest: 14%
- Northeast: 5%
- Central: 14%
- Southwest: 13%
- Southeast: 14%

### Race/Ethnicity

- **White, Non-Hispanic**: 13%
- **Other, Non-Hispanic**: 12%
- **Hispanic**: 14%
Few (8%) adults in Ottawa County currently have asthma. Women are more likely to have asthma than men. The prevalence of asthma in northeast Ottawa County is low to non-existent. Other demographics show little differences.

Asthma Among Adults (Cont’d.)

Current Asthma Prevalence* (Total Sample)

Current Asthma by Demographics

Age
- 18-24: 7%
- 25-34: 8%
- 35-44: 7%
- 45-54: 10%
- 55-64: 11%
- 65-74: 6%
- 75+: 9%

Gender
- Male: 5%
- Female: 12%

Race/Ethnicity
- White, Non-Hispanic: 9%
- Other, Non-Hispanic: 8%
- Hispanic: 6%

Education
- < High School: 8%
- High School Grad: 7%
- Some College: 9%
- College Grad: 9%

HH Income
- <$20,000: 10%
- $20,000-$34,999: 10%
- $35,000-$49,999: 6%
- $50,000-$74,999: 8%
- $75,000+: 8%

Region
- Northwest: 9%
- Northeast: 0%
- Central: 5%
- Southwest: 9%
- Southeast: 9%

*Among all adults, the proportion who reported that they still had asthma.
Nearly one-fourth (23%) of Ottawa County adults have ever been told by a physician they have arthritis. This rate, not surprisingly, rises dramatically with age. Non-Hispanic minority residents are least likely to have received this diagnosis. Having arthritis is inversely related to income.

*Among all adults, the proportion who reported ever being told by a health care professional that they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia.
Very few Ottawa County adults have had a heart attack and this is true regardless of demographics. It is worth noting that the proportion of adults ever having a heart attack is highest among adults aged 65+.

### Cardiovascular Disease

**Ever Told Had Heart Attack**

<table>
<thead>
<tr>
<th>Age</th>
<th>18-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
<th>65-74</th>
<th>75+</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>0%</td>
<td>1%</td>
<td>1%</td>
<td>3%</td>
<td>7%</td>
<td>9%</td>
<td></td>
</tr>
</tbody>
</table>

**Told Had Heart Attack by Demographics**

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

<table>
<thead>
<tr>
<th>Education</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; High School</td>
<td>3%</td>
</tr>
<tr>
<td>High School Grad</td>
<td>4%</td>
</tr>
<tr>
<td>Some College</td>
<td>2%</td>
</tr>
<tr>
<td>College Grad</td>
<td>1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HH Income</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$20,000</td>
<td>3%</td>
</tr>
<tr>
<td>$20,000-$34,999</td>
<td>3%</td>
</tr>
<tr>
<td>$35,000-$49,999</td>
<td>4%</td>
</tr>
<tr>
<td>$50,000-$74,999</td>
<td>1%</td>
</tr>
<tr>
<td>$75,000+</td>
<td>1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>1%</td>
</tr>
<tr>
<td>Northeast</td>
<td>5%</td>
</tr>
<tr>
<td>Central</td>
<td>4%</td>
</tr>
<tr>
<td>Southwest</td>
<td>2%</td>
</tr>
<tr>
<td>Southeast</td>
<td>2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>White, Non-Hispanic</td>
<td>2%</td>
</tr>
<tr>
<td>Other, Non-Hispanic</td>
<td>1%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>3%</td>
</tr>
<tr>
<td>Female</td>
<td>1%</td>
</tr>
<tr>
<td>Male</td>
<td>3%</td>
</tr>
</tbody>
</table>
Further, very few Ottawa County adults have ever been told they have angina or coronary heart disease. The rate is slightly higher for adults aged 55+, however, there are very little differences with regard to demographics.

**Cardiovascular Disease (Cont’d.)**

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

- **Gender**: Male 4%, Female 2%
- **Race/Ethnicity**: White, Non-Hispanic 3%, Other, Non-Hispanic 4%, Hispanic 1%
- **Age**: 18-24 0%, 25-34 0%, 35-44 1%, 45-54 2%, 55-64 7%, 65-74 9%, 75+ 9%
- **Education**: < High School 2%, High School Grad 5%, Some College 3%, College Grad 1%
- **HH Income**: <$20,000 5%, $20,000-$34,999 5%, $35,000-$49,999 4%, $50,000-$74,999 2%, $75,000+ 1%
- **Region**: Northwest 2%, Northeast 9%, Central 4%, Southwest 3%, Southeast 3%
Even fewer Ottawa County adults have ever had a stroke.

**Cardiovascular Disease (Cont’d.)**

**Ever Told Had a Stroke***
*(Total Sample)*

<table>
<thead>
<tr>
<th>Age</th>
<th>18-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
<th>65-74</th>
<th>75+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**Told Had Stroke by Demographics**

<table>
<thead>
<tr>
<th>Education</th>
<th>Age</th>
<th>18-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
<th>65-74</th>
<th>75+</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; High School</td>
<td>3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School Grad</td>
<td>2%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some College</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Grad</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HH Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;$20,000</td>
<td>3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$20,000-$34,999</td>
<td>2%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$35,000-$49,999</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$50,000-$74,999</td>
<td>&lt;1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$75,000+</td>
<td>&lt;1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Region**

<table>
<thead>
<tr>
<th>Region</th>
<th>18-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
<th>65-74</th>
<th>75+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central</td>
<td>4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southwest</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southeast</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Race/Ethnicity**

<table>
<thead>
<tr>
<th>Gender</th>
<th>18-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
<th>65-74</th>
<th>75+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other, Non-Hispanic</th>
<th>1%</th>
<th>4%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>
The prevalence of diabetes is less than one in ten (7%). The rate is slightly higher for older adults (55+) and those with less than a high school degree.

**Ever Told Have Diabetes* (Total Sample)**

![Bar Chart]

- **Education**:<table>
<table>
<thead>
<tr>
<th>Education</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; High School</td>
<td>12%</td>
</tr>
<tr>
<td>High School Grad</td>
<td>7%</td>
</tr>
<tr>
<td>Some College</td>
<td>7%</td>
</tr>
<tr>
<td>College Grad</td>
<td>6%</td>
</tr>
<tr>
<td>HH Income</td>
<td></td>
</tr>
<tr>
<td>&lt;$20,000</td>
<td>7%</td>
</tr>
<tr>
<td>$20,000-$34,999</td>
<td>10%</td>
</tr>
<tr>
<td>$35,000-$49,999</td>
<td>10%</td>
</tr>
<tr>
<td>$50,000-$74,999</td>
<td>4%</td>
</tr>
<tr>
<td>$75,000+</td>
<td>7%</td>
</tr>
</tbody>
</table>
</table>

**Age**:<table>
<table>
<thead>
<tr>
<th>Age</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>1%</td>
</tr>
<tr>
<td>25-34</td>
<td>2%</td>
</tr>
<tr>
<td>35-44</td>
<td>6%</td>
</tr>
<tr>
<td>45-54</td>
<td>7%</td>
</tr>
<tr>
<td>55-64</td>
<td>12%</td>
</tr>
<tr>
<td>65-74</td>
<td>22%</td>
</tr>
<tr>
<td>75+</td>
<td>11%</td>
</tr>
</tbody>
</table>
</table>

**Gender**:<table>
<table>
<thead>
<tr>
<th>Gender</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>9%</td>
</tr>
<tr>
<td>Female</td>
<td>6%</td>
</tr>
</tbody>
</table>
</table>

**Race/Ethnicity**:<table>
<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>White, Non-Hispanic</td>
<td>7%</td>
</tr>
<tr>
<td>Other, Non-Hispanic</td>
<td>1%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>10%</td>
</tr>
</tbody>
</table>
</table>

*Among all adults, the proportion who reported that they were ever told by a doctor that they have diabetes. Adults who had been told they have prediabetes and women who had diabetes only during pregnancy were classified as not having been diagnosed.
One in twenty (5%) adults in Ottawa County suffer from major depression. Those most likely to meet this diagnosis tend to be younger (< age 55), Hispanic, have less than a high school education, and/or have household incomes less than $35K.

### Current Major Depression by Demographics

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>8%</td>
</tr>
<tr>
<td>25-34</td>
<td>7%</td>
</tr>
<tr>
<td>35-44</td>
<td>5%</td>
</tr>
<tr>
<td>45-54</td>
<td>5%</td>
</tr>
<tr>
<td>55-64</td>
<td>1%</td>
</tr>
<tr>
<td>65-74</td>
<td>1%</td>
</tr>
<tr>
<td>75+</td>
<td>1%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>&lt; High School</td>
<td>12%</td>
</tr>
<tr>
<td>High School Grad</td>
<td>7%</td>
</tr>
<tr>
<td>Some College</td>
<td>4%</td>
</tr>
<tr>
<td>College Grad</td>
<td>2%</td>
</tr>
<tr>
<td>HH Income</td>
<td></td>
</tr>
<tr>
<td>&lt;$20,000</td>
<td>13%</td>
</tr>
<tr>
<td>$20,000-$34,999</td>
<td>10%</td>
</tr>
<tr>
<td>$35,000-$49,999</td>
<td>3%</td>
</tr>
<tr>
<td>$50,000-$74,999</td>
<td>1%</td>
</tr>
<tr>
<td>$75,000+</td>
<td>1%</td>
</tr>
<tr>
<td>Region</td>
<td></td>
</tr>
<tr>
<td>Northwest</td>
<td>5%</td>
</tr>
<tr>
<td>Northeast</td>
<td>0%</td>
</tr>
<tr>
<td>Central</td>
<td>4%</td>
</tr>
<tr>
<td>Southwest</td>
<td>5%</td>
</tr>
<tr>
<td>Southeast</td>
<td>5%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3%</td>
</tr>
<tr>
<td>Female</td>
<td>6%</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
</tr>
<tr>
<td>White, Non-Hispanic</td>
<td>4%</td>
</tr>
<tr>
<td>Other, Non-Hispanic</td>
<td>5%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>11%</td>
</tr>
</tbody>
</table>

*Calculated from responses to Q. 23.1-23.7 where responses in number of days out of the past 14 were summed across all seven questions. A total of 48 points or greater, and either Q. 23.1 or Q. 23.2 greater than or equal to 7 days, is classified as Current Major Depression.
Less than one in ten (7%) Ottawa County adults have been told by a doctor they have skin cancer. Expectedly, this proportion rises dramatically with age; more than one-fourth (27%) of people aged 75 or older have been told they have skin cancer. Residents in northwest Ottawa County are more likely to have skin cancer than residents in other regions of the county.

### Skin Cancer

#### Ever Told Have Skin Cancer*

<table>
<thead>
<tr>
<th>Age</th>
<th>Told Have Skin Cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>1%</td>
</tr>
<tr>
<td>25-34</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>35-44</td>
<td>3%</td>
</tr>
<tr>
<td>45-54</td>
<td>4%</td>
</tr>
<tr>
<td>55-64</td>
<td>13%</td>
</tr>
<tr>
<td>65-74</td>
<td>21%</td>
</tr>
<tr>
<td>75+</td>
<td>27%</td>
</tr>
</tbody>
</table>

#### Told Have Skin Cancer by Demographics

**Education**
- < High School: 11%
- High School Grad: 5%
- Some College: 7%
- College Grad: 9%

**HH Income**
- <$20,000: 5%
- $20,000-$34,999: 5%
- $35,000-$49,999: 9%
- $50,000-$74,999: 7%
- $75,000+: 7%

**Region**
- Northwest: 13%
- Northeast: 9%
- Central: 7%
- Southwest: 5%
- Southeast: 7%

**Gender**
- Male: 7%
- Female: 8%

**Race/Ethnicity**
- White, Non-Hispanic: 8%
- Other, Non-Hispanic: 11%
- Hispanic: 0%

*Among all adults, the proportion who reported that they were ever told by a doctor that they have skin cancer.
One in twenty (5%) Ottawa County residents have been told by a doctor they have cancer. This proportion also rises dramatically with age; 23% of residents aged 75 or older have been diagnosed with some form of cancer other than skin. Residents in northeast Ottawa County are more likely to have cancer than residents in other regions of the county.

**Cancer (Other Than Skin)**

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

- **Age**
  - 18-24: 0%
  - 25-34: 1%
  - 35-44: 1%
  - 45-54: 4%
  - 55-64: 9%
  - 65-74: 13%
  - 75+: 23%

- **Education**
  - < High School: 3%
  - High School Grad: 5%
  - Some College: 4%
  - College Grad: 7%

- **HH Income**
  - <$20,000: 4%
  - $20,000-$34,999: 7%
  - $35,000-$49,999: 4%
  - $50,000-$74,999: 5%
  - $75,000+: 5%

- **Region**
  - Northwest: 7%
  - Northeast: 10%
  - Central: 6%
  - Southwest: 4%
  - Southeast: 6%

- **Gender**
  - Male: 3%
  - Female: 7%

- **Race/Ethnicity**
  - White, Non-Hispanic: 6%
  - Other, Non-Hispanic: 0%
  - Hispanic: 3%

*Among all adults, the proportion who reported that they were ever told by a doctor that they have cancer (other than skin).
A small proportion (5%) of Ottawa County residents have been told they have chronic obstructive pulmonary disease (COPD). The disease is more common among older residents (55+), those with lower annual household incomes (<$35,000), and those with less education (less than some college).

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

### Health Status Indicators

<table>
<thead>
<tr>
<th>Measure</th>
<th>Ottawa County</th>
<th>Michigan</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Health Fair/Poor</td>
<td>10%</td>
<td>14%</td>
<td>15%</td>
</tr>
<tr>
<td>Poor Physical Health (14+ days)</td>
<td>8%</td>
<td>11%</td>
<td>--</td>
</tr>
<tr>
<td>Poor Mental Health (14+ days)</td>
<td>9%</td>
<td>11%</td>
<td>--</td>
</tr>
<tr>
<td>Activity Limitation (14+ days)</td>
<td>5%</td>
<td>7%</td>
<td>--</td>
</tr>
<tr>
<td>Dissatisfied/Very Dissatisfied with Life</td>
<td>5%</td>
<td>6%</td>
<td>--</td>
</tr>
<tr>
<td>Rarely/Never Receive Social and Emotional Support</td>
<td>4%</td>
<td>7%</td>
<td>--</td>
</tr>
<tr>
<td>Total Disability</td>
<td>22%</td>
<td>25%</td>
<td>--</td>
</tr>
<tr>
<td>Any Activity Limitation</td>
<td>21%</td>
<td>23%</td>
<td>21%</td>
</tr>
<tr>
<td>Use Special Equipment</td>
<td>6%</td>
<td>8.0%</td>
<td>8%</td>
</tr>
<tr>
<td>Obese</td>
<td>26%</td>
<td>32%</td>
<td>27%</td>
</tr>
<tr>
<td>Overweight</td>
<td>37%</td>
<td>35%</td>
<td>36%</td>
</tr>
<tr>
<td>Not Overweight or Obese</td>
<td>37%</td>
<td>33%</td>
<td>35%</td>
</tr>
<tr>
<td>No Health Care Coverage</td>
<td>13%</td>
<td>17%</td>
<td>18%</td>
</tr>
<tr>
<td>No Personal Health Care Provider</td>
<td>12%</td>
<td>13%</td>
<td>--</td>
</tr>
</tbody>
</table>

= best measure among the comparable groups

Sources: Preliminary Estimates for Risk Factor and Health Indicators, State of Michigan, Selected Tables, Michigan BRFS, 2010
Comparison of BRFS Measures Across Regions (Cont’d.)

Risk Behavior Indicators

<table>
<thead>
<tr>
<th>Risk Behavior Indicators</th>
<th>Ottawa County</th>
<th>Michigan</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Leisure Time Physical Activity</td>
<td>13%</td>
<td>24%</td>
<td>24%</td>
</tr>
<tr>
<td>Inadequate Fruit and Vegetable Consumption</td>
<td>83%</td>
<td>77% (2009)*</td>
<td>77% (2009)</td>
</tr>
<tr>
<td>Current Cigarette Smoking</td>
<td>17%</td>
<td>19%</td>
<td>17%</td>
</tr>
<tr>
<td>Former Cigarette Smoking</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Current Smokers who Tried to Quit</td>
<td>61%</td>
<td>62%</td>
<td>--</td>
</tr>
<tr>
<td>Smokeless Tobacco</td>
<td>3%</td>
<td>3%</td>
<td>--</td>
</tr>
<tr>
<td>Binge Drinking</td>
<td>21%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Heavy Drinking</td>
<td>7%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Always Uses a Seatbelt</td>
<td>90%</td>
<td>90%</td>
<td>--</td>
</tr>
<tr>
<td>Ever Told High Blood Pressure</td>
<td>31%</td>
<td>29% (2009)*</td>
<td>29% (2009)*</td>
</tr>
</tbody>
</table>

= best measure among the comparable groups

Sources: Preliminary Estimates for Risk Factor and Health Indicators, State of Michigan, Selected Tables, Michigan BRFS, 2010
### Clinical Preventive Practices

<table>
<thead>
<tr>
<th>Measure</th>
<th>Ottawa County</th>
<th>Michigan</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Routine Checkup in Past Year</td>
<td>26%</td>
<td>34%</td>
<td>--</td>
</tr>
<tr>
<td>Ever Had Mammogram (Females, 40+ only)</td>
<td>94%</td>
<td>94%</td>
<td>--</td>
</tr>
<tr>
<td>Had Mammogram in Past Year (Females, 40+ only)</td>
<td>70%</td>
<td>61%</td>
<td>--</td>
</tr>
<tr>
<td>Had Mammogram in Past 2 Years (Females, 40+ only)</td>
<td>83%</td>
<td>78%*</td>
<td>76%</td>
</tr>
<tr>
<td>Ever Had Pap Test</td>
<td>93%</td>
<td>94%</td>
<td>--</td>
</tr>
<tr>
<td>Had Appropriately Timed Pap Test</td>
<td>79%</td>
<td>78%</td>
<td>81%</td>
</tr>
<tr>
<td>Ever Had PSA Test (Males, 50+ only)</td>
<td>77%</td>
<td>83%</td>
<td>--</td>
</tr>
<tr>
<td>Ever Had Sigmoidoscopy or Colonoscopy (50+ only)</td>
<td>75%</td>
<td>71%</td>
<td>65%</td>
</tr>
<tr>
<td>Had Sigmoidoscopy /Colonoscopy in Past 5 Years (50+)</td>
<td>63%</td>
<td>57%</td>
<td>--</td>
</tr>
<tr>
<td>No Dental Visit in Past Year</td>
<td>22%</td>
<td>27%</td>
<td>30%</td>
</tr>
<tr>
<td>No Teeth Cleaning in Past Year</td>
<td>22%</td>
<td>29%</td>
<td>--</td>
</tr>
<tr>
<td>Six or More Missing Teeth</td>
<td>9%</td>
<td>14%</td>
<td>--</td>
</tr>
<tr>
<td>Had Flu Vaccine in Past Year (65+ only)</td>
<td>68%</td>
<td>67%</td>
<td>67%</td>
</tr>
<tr>
<td>Ever Had Pneumonia Vaccine (65+ only)</td>
<td>71%</td>
<td>68%</td>
<td>69%</td>
</tr>
</tbody>
</table>

= best measure among the comparable groups

Sources: Preliminary Estimates for Risk Factor and Health Indicators, State of Michigan, Selected Tables, Michigan BRFS, 2010
### Comparison of BRFS Measures Across Regions (Cont’d.)

**Chronic Conditions**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Ottawa County</th>
<th>Michigan</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifetime Asthma Prevalence</td>
<td>13%</td>
<td>16%</td>
<td>14%</td>
</tr>
<tr>
<td>Current Asthma Prevalence</td>
<td>8%</td>
<td>11%</td>
<td>9%</td>
</tr>
<tr>
<td>Ever Told Had Arthritis</td>
<td>23%</td>
<td>32%</td>
<td>26% (2009)</td>
</tr>
<tr>
<td>Ever Told Had Heart Attack</td>
<td>2%</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Ever Told Had Angina/Coronary Heart Disease</td>
<td>3%</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Ever Told Had Stroke</td>
<td>1%</td>
<td>23%</td>
<td>3%</td>
</tr>
<tr>
<td>Ever Told Had Diabetes</td>
<td>7%</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td>Current Major Depression</td>
<td>5%</td>
<td>99%</td>
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= best measure among the comparable groups

*Sources: Preliminary Estimates for Risk Factor and Health Indicators, State of Michigan, Selected Tables, Michigan BRFS, 2010
Key Stakeholder Interviews
Health Care Issues and Accessibility
Lack of affordable access to basic primary care, particularly for the uninsured, Medicaid, and (to a lesser degree) Hispanic and migrant populations, is identified by Key Stakeholders as the most pressing health issue in Ottawa County. Other pressing issues include chronic disease management, prevention education, and obesity.

Most Pressing Health Needs or Issues

- Top reported health needs or issues are: lack of affordable access to primary care, chronic disease management, lack of prevention education, and obesity.

- Less frequently mentioned needs or issues are:
  - Rising health care costs
  - Lack of system coordination
  - Waste in system
  - Addressing unhealthy behavior (e.g., smoking)
  - Prenatal care & good pregnancy outcomes
  - Lack of good oral healthcare
  - Lack of patient advocates
  - Shortage of doctors accepting Medicaid
  - Transportation barriers

- The majority feel these are county-wide issues, as there are not enough existing services to address level of need.

- Holland is seen as being most accessible for primary care due to its available social services.

- Access in the north is viewed as limited by transportation while access in the city is limited by poverty.

Q1: What do you feel are the most pressing health needs or issues in Ottawa County? Q1i. Have you noticed any differences between: (a) older adults (b) low-income (c) children (d) minority groups (e) uninsured/underinsured/uninsurable? Q1ii. Are these issues the same at the county level and at the community level?
As people have lost jobs or as their employers have decreased benefits, now more of that healthcare burden is placed on the individual and their families so they’re making different choices about how they’re going to seek care and at what point they’re going to seek care.

What we’re finding is a lot of people who are not insured because they have been laid off have and chronic diseases now that aren’t being managed (e.g., high blood pressure).

With our Spanish speaking people here in Ottawa county and some of the disease burdens that may reside in those populations such as hypertension, diabetes, and obesity, I think that some of those probably are the conditions we have to focus the most on as well as health literacy and cultural competency around those health related issues … I would say that the ability to have healthcare paid for, for folks that don’t meet Medicaid eligibility and who are poor, or not working, or don’t have health insurance, is really the biggest challenge in Ottawa County.

Because 70% of mortality is related to diseases that can be prevented I think we really need to invest more in prevention rather than just treatment of diseases.
While most Key Stakeholders feel these issues are being addressed through community organizations and other resources, most feel these solutions do not meet existing needs due to an overall **lack of a health plan that coordinates a response as well as a general lack of resources** (e.g., funding, available providers) to support existing solutions.

**How Issues Are Being Addressed & Who is Affected**

- Most feel these issues are addressed by community organizations as well as other resources such as:
  - Access Health
  - City on a Hill
  - Community collaboration
  - Employee wellness plans
  - Free community health clinics
  - Healthy Life

- Although not able to specifically speak to size and scope of the most pressing issues, the majority of Key Stakeholders discussed these problems with a general awareness that these problems must be addressed to avoid larger community health problems in the future.

- The uninsured and Medicaid populations are most affected by these issues.

Q1a. Is there anything currently being done to address these issues? Q1b. (If yes) How are these issues being addressed? Q1bi. How effectively are these issues being addressed? Q1c. (If no) In your opinion, why aren’t these issues being addressed? Q1d. (If no) In what ways have these issues been addressed in the past, if any? Q1di. (If no) And how effectively were these issues addressed? Q2. What is the size and scope of the most pressing issue/problem? Q2i. How many or what percentage of people are effected by this issue? Q2ii. What specific groups are touched by this issue?
I just feel there are very limited resources and an awful lot of interest groups that don’t always agree and get along despite the collaborative efforts that do occur. I think many of the efforts are so small and so tiny they are a drop in the bucket in terms of addressing the whole need. So I think we have a lot of good people and a lot of good organizations trying to do a lot of very little things.

Ottawa County being geographically split, there’s no common core, you’ve got distinct communities with distinct identities. We’re not used to always pulling together. It makes it kind of hard to come up with a county health plan.

It’s a community issue, it will always be a community issue, and there are a large number of institutions and organizations that try to address it and step in. It can be anything from a one person physician’s office to the county health department to nurses that are in schools, to churches that try to facilitate addressing the issue. It is in no way a hospital problem only.

Practices are already losing money with Medicaid, how do you encourage them to take more, when reimbursement continues to go down?

Especially for the underserved, we’re looking at Medicaid in particular, or a lower income population, looking at InterCare, Holland Community Health Center, City on a Hill, all of those facilities right now are turning patients away because of the lack of providers available for that population in particular.

Q1a. Is there anything currently being done to address these issues? Q1b. (If yes) How are these issues being addressed? Q1bi. How effectively are these issues being addressed? Q1c. (If no) In your opinion, why aren’t these issues being addressed?
The vast majority of Key Stakeholders report that a downturn in the general economy has impacted the community’s health and health care landscape over the past 1-2 years. Additionally, they point out that fewer physicians are accepting Medicaid patients.

**Sentinel Events & Important Health Outcomes**

- Most feel that high unemployment rates, loss of insurance coverage, and state as well as federal deficits have impacted the community’s health care and health landscape.

- Stakeholders also mention fewer physicians accepting Medicaid as an additional factor.

- On the upside, technological improvements in offices have enabled offices to have a universal access point for health records, and more free clinics have opened to respond to needs.

- They identified the following as important measures for health-related outcomes:
  - Numbers with and without access to a primary care provider
  - Overall health, prenatal care, risk behaviors, quality of life indicators & improvement in these rates
  - Chronic disease rates
  - Mortality/Morbidity
  - Health literacy
  - Healthcare delivery methods and user rates
  - Use of wellness plans
  - Numbers using free clinics
  - Availability of mental & behavioral healthcare

Q3. What are the key sentinel events that may have impacted the community’s health and health care landscape in the past one to two years? Q3i. Such as: (a) infectious disease outbreaks, (b) significant local, state, and federal policy changes, (c) significant economic events, (d) disasters...

Q4. What are the outcomes that should be evaluated? Such as: Mortality, Morbidity, Risk Behavior...
The expansion of service has been a key determinant in driving positive health outcomes to our community and access. I also think that the work that has been done by First Steps which focuses on children the readiness for school and some of the other programs relative to children’s healthcare access have been very instrumental in reaching out to the community to provide an awareness of health issues.

Many of the working poor that have Medicaid for themselves or for their children are finding it more and more difficult to find healthcare providers in our county.

There’s a larger base of uninsured. With an economic downturn and pushing people out of employer-provided insurance, there’s a larger groundswell of individuals that do not have insurance and employers are moving to higher and higher deductible plans so I think there’s care avoidance even if they are employed and have insurance.

From a chronic disease management standpoint how well are we following and keeping up with a patient? Let’s say a patient who has diabetes - are they being managed well? Or are they winding up in the hospital in the emergency room on a frequent basis because they didn’t take their insulin or medication when they should have.

Q3. What are the key sentinel events that may have impacted the community’s health and health care landscape in the past one to two years? Q3i. Such as: (a) infectious disease outbreaks, (b) significant local, state, and federal policy changes, (c) significant economic events, (d) disasters…
Q4. What are the outcomes that should be evaluated? Such as: Mortality, Morbidity, Risk Behavior…
The majority of Key Stakeholders believe health care access is good, except for those individuals who are using Medicaid or are uninsured. While they note there is excellent hospital care, excellent emergency room care, and a strong physician network, they also mention there are not enough primary care physicians and significant barriers such as cost and transportation exist for many.

The State of Health Care Access

- Most believe health care access is good, except for those individuals who are using Medicaid or are uninsured.

- Further, Key Stakeholders feel these barriers result in:
  - Foregoing of prescriptions (esp. in older adults)
  - Less help-seeking behaviors
  - Sporadic care of chronic diseases
  - Overuse of the emergency room for primary care

- The majority think Holland has the most services available to the community, yet many residents in the outlying areas of the county may not be able to access such services due to transportation barriers.

- The view on disability services is mixed: 30% say there are adequate disability services, 20% say there are not, citing the population has multiple needs and the general lack of funding, while 50% are unsure. These issues can be addressed through policy changes as well as by the community providing an access safety net for its disabled residents.

Q5. Could you describe the current state of health care access in Ottawa County? Q5i. Are there any issues such as, (a) Transportation, (b) Health Coverage, (c) Differences in Subpopulations or groups such as: older adults, low-income, children, minority groups, uninsured/underinsured/uninsurable. Q5ii. Are these issues the same or different for the county versus your local community? Q6g. Are there adequate disability service programs? Q6h. (If no) What can be done to address this inadequacy?
For everybody else, and that’s probably 80%, Ottawa County has a very well developed and excellent healthcare delivery system. But it’s that 20%, access can be tough. It’s hit or miss for their availability. So I would have to rate it overall as good except for that population.

We’re having a really hard time recruiting primary care physicians - it’s a national trend, and if you do find them, you have to be able to pay them.

I do believe that our physician practices are opening up access in the way of extended hours and same day visits. What I don’t know is for the people who don’t have money, are we able to support them well enough via a free clinic or do they feel, “Gosh I can’t go to the doctor, I don’t have $200.” Because if they don’t have insurance, even if they go for a routine visit, that could be a couple hundred bucks. So do we have enough access for them? For the underinsured and the uninsured to seek services. That is what I don’t know and that is what I think our county should address.
While respondents disagree over whether or not there is a wide variety or choice of primary care physicians, the majority think there is little to no choice for the uninsured, those with transportation barriers, or for those using Medicaid. Lack of primary care physicians in the county is attributed to the difficulty in recruiting them to the area, as well as to a nation-wide decline in primary care physicians as more physicians move into more lucrative specialty fields.

**Choice of Providers**

No, there’s a shortage of primaries. That’s typical for the nation. Try to find pediatricians and see if you can count them on one hand for the entire county. There are few and far between. That’s one of the areas that’s least lucrative and yet highly needed.

Again, you’re at the mercy of who’s accepting those clients and that every year decreases. Ottawa County itself, the county switched health plans, and I had just kind of a personal ethical decision, I said I will only go to a doctor that will also accept Medicaid clients. We switched a year ago, I’m still looking for a primary care doctor. So here I am with excellent insurance. I can get in anywhere, they’ll take it. But if I had a Medicaid card, sorry. Now what is the only difference? Reimbursement rate for the physician’s office. So that is one of the biggest barriers and I think it is a ethical and moral crisis for healthcare professionals. They really need to think about what they’re really saying with that.

I think our primary care network here is very strong. Primary care nationwide has a reduction in physicians going into primary care. But I do think here in Holland we have a strong primary care infrastructure and that our primary care infrastructure could support the needs of our community by providing them with a medical home. I don’t know that we have an inadequate supply and I do know that supply we have is quite excellent. It’s available to both if they can pay.

**Wide Choice of Providers?**

- **Yes**: 46%
- **No**: 36%
- **Depends**: 18%

**Q5a. Is there a wide variety/choice of primary health care providers?**  
**Q5b. (If yes) Is this variety/choice available to both insured and uninsured people?**  
**Q5c. (If no) In your opinion, why is there a lack of primary health care providers?**
The majority of Key Stakeholders also see a general lack of insurance coverage for ancillary services such as for prescriptions or dental coverage as well as an inability to pay out-of-pocket expenses such as deductibles or co-pays for Ottawa County residents.

**Ancillary Service Coverage and Inability to Pay Out-of-Pocket Expenses**

**Lack of Ancillary Service Coverage**

- 82% Yes
- 18% No

*I think that the more visible are the seniors who, because they’re unable to pay, they forego getting their medication.*

*Especially in dental. There’s a huge gap in coverage for the poor and even Medicaid. They continually cut that.*

*Definitely dental care. I think the struggle that people have with prescriptions is that, especially with our Medicare patients, now that Medicare has a prescription plan that Medicaid won’t help with that, but then they fall into kind of a donut hole, where they spend so much and then Medicare doesn’t help until they get up to another limit, and that makes it difficult for people to get their prescriptions during that time.*

**Inability to Pay Out-of-Pocket Expenses**

- 91% Yes
- 9% No

*We do provide some safety net services and I can tell you that the clients that come in here in the past would be very eager to pay … they would make donations or they would pay on a sliding fee scale and we’ve seen an increase in the number of people who say I just can’t afford to pay on that sliding fee scale.*

*Yes. As well as, in many cases, the cost of the insurance itself. That’s why we set up Access Health and the Kent Health Plan, to make some insurance available for the places where the cost of traditional insurance is too high. So we use subsidized means to make coverage available.*

Q5d. Is there a lack of insurance coverage for ancillary services, such as prescriptions or dental care?  Q5e. Is there an inability to afford out-of-pocket expenses, such as co-pays and deductibles?
Existing Programs and Services
All Key Stakeholders think existing programs and services are meeting the community’s needs and demands at least *somewhat well*, and 30% say they meet the needs *very well* but believe there are also many services lacking, particularly for the uninsured and Medicaid populations.

**Programs/Services Meeting Needs & Programs/Services Lacking**

- Stakeholders believe Ottawa County has many dedicated people and organizations addressing community health needs, particularly focusing on the needs of Hispanic, Medicaid, and uninsured community residents.

- Many still stress an overall lack of resources to meet needs and point to *unmet mental health needs*.

- Services identified as lacking, particularly for the uninsured and Medicaid populations, include:
  - Primary care access
  - Free/reduced care
  - Oral health care
  - Culturally competent care
  - Substance abuse treatment
  - Mild/moderate mental health care (depression, anxiety)
  - Shortage in primary care physicians
  - Teen health services
  - Coordination of care
  - Wellness plans/individual initiative
  - Shortage in psychiatrists
  - Lack of teen health services

Q6. How well do existing programs and services meet the needs and demands of people in your community? Would you say they meet them exceptionally well, very well, somewhat well, not very well, or not at all well? Q6a. Why do you say (INSERT RESPONSE)? Q6ai. Are there differences among particular groups or sub-populations? Q6b. What programs or services are lacking in the community? Q6bi. Are there programs or services that are lacking for particular groups or sub-populations? (e.g., primary care, chronic disease....)
Verbatim Comments on Programs/Services Meeting Needs & Programs/Services Lacking in Community

**Programs/Services Meeting Needs**

From the standpoint of a community, we’re interested in and have done a good job at addressing many things. There’s still populations at risk. It’s the underinsured and the uninsured.

So I would say that addressing mental health symptoms or issues or events is problematic for the poor in every county but once it rises to the level of a significant disorder, then the system is excellent.

There’s a pretty good amount of collaboration here, and so if there’s an area and a need has been identified and the organization identifying that need doesn’t have the ability themselves to do it, they’re pretty good about reaching out.

**Programs/Services Lacking**

Most programs are available somewhere somehow, but you have to go out to get them. There has to be initiative on the part of the individual.

These are things that left untreated can lead to other social problems for people because they’re not managing their mental health enough.

I think we’ve got the infrastructure but is the infrastructure enough to meet the demand?

There does not seem to be a very good connection with how information is shared, who’s case managing that, it’s all left up to the family and the family’s not educated enough about what resources are there and available.

Q6. How well do existing programs and services meet the needs and demands of people in your community? Would you say they meet them exceptionally well, very well, somewhat well, not very well, or not at all well? Q6a. Why do you say (INSERT RESPONSE)? Q6ai. Are there differences among particular groups or sub-populations? Q6b. What programs or services are lacking in the community? Q6bi. Are there programs or services that are lacking for particular groups or sub-populations? (e.g., primary care, chronic disease....)
There is no consensus among Key Stakeholders as to whether or not some existing services aren't needed or if there is duplication of services. While some believe services that are not needed exist, none could volunteer any of those particular services. Further, while some duplication is believed to exist, they still feel services are necessary since some needs are going unmet. Overall, stakeholders want a more coordinated effort to address health care and health needs in Ottawa County.

**Service Duplication**

![Unneeded Services Pie Chart](chart1)

- **Yes**: 27%
- **No**: 73%

Q6c. Are there any programs/services that currently exist that aren’t needed? Q6d. (If yes) What are these programs/services? Why aren’t they needed? Q6e. Is there any duplication of services? Q6f. (If yes) What services are duplicated?

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_Carl Frost Center for Social Science Research_
Stakeholders would like to see a better coordinated approach to community health. They also suggest systematic needs assessments in order to identify needs to target for improvement and then measure progress toward that improvement.

Recommendations for Service Improvement & Improvement Plans

- Stakeholders overwhelmingly suggest a better coordinated approach to community health through increased collaboration between service providers and improved case management approaches.

- Systematic health needs assessments are seen as essential in identifying needs to target for improvement and progress toward improvement.

- More specifically, they would like to see or are planning on...
  - Expansion of services
  - Prevention programs
  - Pediatric coordination of mental health
  - Case management/ Increased coordination of care
  - Obesity focus
  - More free health clinics
  - Increased funding for mammograms
  - Expansion of mobile dentist
  - Evidence-based approaches to practice and care
  - Addition of mental health into primary care
  - Improved health literacy
  - More doctors in area
  - Community health plan

Q6i. In your opinion, how could any of the existing services/programs in your community be implemented better? Q7. Do you have any recommendations or plans for implementation of new programs or services that are currently lacking in the community? Q7a. (If yes) What are your recommendations or plans?
I know it’s an expensive model, however, if people had more care coordination, it would take us so much farther to achieving improved health outcomes. Because right now we’re not really making our population any healthier, we’re just sticking a Band-Aid on stuff and sending them out.

The big move across the nation is for the patient-centered primary care medical home. In basic terms, the primary care medical home would act pretty much as a clinic where a doctor will have other resources available, usually in his or her own practice, behaviorists, nutritionists and so on, who can be of great assistance with the total practice. You can see more people and you can see them at the level they need to be seen by the person they need to see and reserve the physician for those who have to see the doc. If you do that, every doctor’s office is practically turned into a clinic that can serve many times more people than can be seen by the [traditional] office.

When it comes to actually having the resources to do good planning with good baseline data, with measurable objectives, and agreed upon desired outcomes, I think that it does not happen, it simply cannot happen – we are all too stressed, too thinly staffed, and so we all go about doing our best at whatever little bits of things we can do. On top of our main core service.

We’re getting together a major, area-wide, 13 county-wide commission, blue-ribbon group to look into that very question. Not only to look into services but look at the organization of the services.

Q6i. In your opinion, how could any of the existing services/programs in your community be implemented better? Q7. Do you have any recommendations or plans for implementation of new programs or services that are currently lacking in the community? Q7a. (If yes) What are your recommendations or plans?
Barriers to Health Care Access
Many barriers to accessing health care programs and services are linked directly to high cost for services, lack of bi-lingual providers, and individual accountability for one’s health. While a little over half of the Key Stakeholders think these barriers have been addressed, all say that response to these barriers, including new efforts as well as those tried in the past, is not enough to match the level of community need.

### Key Stakeholders identified the following barriers or obstacles existing for Ottawa County:

- **Cost**
- Cultural and language barriers
- Individual awareness, health literacy and motivation
- Preventative treatments/appointments
- Specialized services
- Lack of access for Medicaid and uninsured
- Available, qualified staff
- Transportation
- Capacity
- Funding
- Mental health stigma
- Preventative treatments/appointments
- Specialized services
- Lack of access for Medicaid and uninsured
- Available, qualified staff
- Transportation
- Capacity
- Funding
- Mental health stigma

### Stakeholders have many ideas such as: increasing the number of mid-level providers, prioritizing specific needs to be addressed and aligning organizationally to address the issue(s) through careful planning, creating advisors/advocates for people entering into the system (case management), recruiting more bi-lingual professionals, and establishing a “house call” care system.

### Only a little over half see relevant stakeholders involved in planning. Those who don’t see them involved want more community members, business leaders, and service users at the table. Additionally, they would like to see more community-level planning to look at overall community health.

### Many feel solutions will involve policy changes and a more focused and strategic approach to community health care and planning.
**Verbatim Comments on Barriers & How They Can Be Addressed**

**Barriers**

We need an education campaign, but at the same time, we also need a little bit more accountability when folks are coming into an emergency room; to immediately redirect them to somewhere else, unless it’s an emergency. And that’s hard to do under the current legal structure or law that we have. But people are kind of doing this out of convenience sometimes.

Making sure that a patient or an individual receives the right care at the right time - that’s critical. And I think that’s based on incentives or some sort of mechanism to get that level of engagement. It’s reactive medicine, so you don’t typically go to the doctor when you’re feeling good.

Culturally, they [Hispanic residents] are one of the last ethnic cultures to seek mental health services. A lot of it has to do with the stigma associated in coming to a community mental health type of organization.

I can tell you that many single parents are very much afraid of the care system, for the effect on their family. ... Let’s say you are barely minimum wage if that, and someone says your kid needs braces, what are you going to do? Would you try to defer it if you can? Put it off? Let’s see if we can live with it? Most things you can live with. And if you can live with it, then why incur the expense? That’s the kind of math that goes on daily in people’s lives.

**Addressing Barriers**

It doesn’t have to be a physician. We could have large numbers of nurses or what we call mid-level providers, physician’s assistants and others that have a much more intentional focus even in their training curriculum, because there are much larger numbers of these folks.

There’re a lot of effective solutions. I think when we get to the point where we’ve prioritized our list of the most pressing and prevalent issues in Ottawa County, at least from a health perspective, it’s going to behoove us to really go out and look at those best practices and investigate not only what are the best practices but would those best practices fit within our community culture.

Hopefully people who are in positions where they can speak medical Spanish on one end and popular Spanish on the other end so they can be between the provider and the patient.
Community Resources and the Future of Health Care
Key Stakeholders believe they live in a caring and compassionate community that mobilizes its volunteer force well and contains a faith-based community deeply committed to addressing community needs. However, people feel the county lacks the funding and the ability to coordinate its approach to health care in order to better meet the community’s needs.

**Community Resources & Resource Limitations**

- Ottawa County is described as a very caring, compassionate community.

- Stakeholders feel residents can depend on the community for addressing community health care needs and issues as the following resources exist:
  - The large number of community volunteers
  - Business-friendly community
  - Faith-based community
  - Ottawa County Health Department
  - School nursing program
  - Faith-based organizations (e.g., City on a Hill, Good Samaritan Ministries)
  - The commitment of Holland citizens to improving the lives of its residents

- Resource limitations include:
  - A lack of physicians/number of providers
  - Funding limitations
  - Lack of a coordinated approach to the community’s health
  - Regional distribution of population – some very rural

**Q9.** What resources currently exist in your community beyond programs/services just discussed? (PROBE FOR FINANCIAL, SOCIAL CAPITAL, PEOPLE)  
**Q9a.** What are any resource limitations, if any? (PROBE FOR FINANCIAL, SOCIAL CAPITAL)
Verbatim Comments on Community Resources

Basically Ottawa County is blessed with lots of people who care, through the faith based community. We have a lot of organizations that have been funded at the grass roots level.

We have a very philanthropic community, we have a very business-friendly community, we have a very active chamber and visitors bureau and downtown business association and all kinds of community events that include arts. There are lots of ways around here people have found ways to support each other and help each other be successful.

It’s a very giving community and so you often find if there’s a need out there and you get the word out and you connect people together, Ottawa County has unbelievable social capital that way. And I will tell you that does hurt us in one way where the state will end up giving us less state funds because they know this.

I’m really proud to be a part of Ottawa County because the people here are really passionate, they’re very generous, very generous communities with lots of wealth and those folks that hold that wealth have shared that in order to make a positive impact on the community. ... We’ve got good leadership in Ottawa County.

Q9. What resources currently exist in your community beyond programs/services just discussed?
While most are unsure of the impact of Federal Health Care Reform on their community, they are cautiously optimistic that it will help with the community’s access issues and provide more federal funding to finance efforts to increase access.

The Future of Health Care

- Specifically, stakeholders think health care reform will result in:
  - Increased restrictions and bureaucracy
  - A focus on quality of care
  - More focus on preventative health
  - Redistribution of resources to focus on chronic disease
  - Development of patient-centered medical homes
  - More Medicaid patients with lower Medicaid reimbursement rates
  - Employers discouraged from offering employees insurance

- However, people are also unsure of how this reform will impact health outcomes and fear its implementation will cost their organizations more than they can afford.

- Key Stakeholders stress that: (1) health care must increasingly focus on educating people to make lifestyle changes, (2) the health care system must be made more efficient, (3) fees for servicing Medicaid patients need to improve, and (4) taking a regional approach to care is the right way to move forward.

Q11. What, if any, impact do you think Federal Health Care Reform will have on health care in your community?  Q11a. What do you think the future of health care might be?  Q11b. What impact will Federal Health Care Reform have on health outcomes, if any?  Q12. In concluding, do you have any additional comments on any issues regarding health or health care in your community or Ottawa County that we haven’t discussed so far?
You’re going to have to have a hospital group, a group of physicians, and an agency all working together to qualify to be an Accountable Care Organization so that they can accept the Medicaid population that’s going to be expanded. And there really are not a lot of details on how to do that.

I anticipate that our Medicaid numbers will grow. I think it has helped our young adults who can now be on their parent’s insurance until age 26. Or at least that option is there now for more kids. I believe there’s also that clause about prior illness and insurance companies can’t discriminate for that with the National Health Care Reform so that will certainly help people access insurance so they can access health care.

The federal government is going to reduce the amount paid to hospitals so our standpoint is we don’t think we’re going to see a lot of people come to the table who now have insurance who didn’t before, and our risk is that we will see a ratcheted down level of reimbursement for the Medicaid patients we take care of today.

Resources will go into things like the health promotion, the chronic care management, creation of patient-centered medical homes so that instead of investing so much money in the tertiary care and highly specialized care, that people have the resources to control their own health before they need the sub-specialists.
Key Informant Survey
Health Conditions
The most pressing health issues or needs that are top of mind to Key Informants revolve around *lack of health care programs or services for specific populations* (e.g. low income, un/under-insured). *Obesity* is considered the single most pressing issue. Other issues include *quality of care, access to mental health care, lack of wellness and prevention services*, and *health care costs*. 

### Most Pressing Health Needs or Issues in Ottawa County (Volunteered)

<table>
<thead>
<tr>
<th>Issue</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Obesity</td>
<td>31%</td>
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<tr>
<td>Lack of health care programs/services for uninsured/uninsured</td>
<td>28%</td>
</tr>
<tr>
<td>Lack of wellness/prevention programs/services</td>
<td>25%</td>
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<tr>
<td>Access to mental health services/counseling for all</td>
<td>22%</td>
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<tr>
<td>More/better primary, preventive, specialty care</td>
<td>19%</td>
</tr>
<tr>
<td>Health care costs/lack of affordable health care</td>
<td>19%</td>
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<tr>
<td>Diabetes</td>
<td>14%</td>
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<tr>
<td>Providers that don’t accept Medicaid, Medicare, Michild</td>
<td>11%</td>
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<tr>
<td>Lifestyle choices (e.g., smoking, diet, exercise)</td>
<td>8%</td>
</tr>
<tr>
<td>Lack of health insurance/coverage</td>
<td>8%</td>
</tr>
<tr>
<td>Access to dental care for all</td>
<td>8%</td>
</tr>
<tr>
<td>Lack of health care services/programs for low income</td>
<td>8%</td>
</tr>
<tr>
<td>Lack of bilingual programs/services</td>
<td>6%</td>
</tr>
<tr>
<td>Transportation</td>
<td>6%</td>
</tr>
<tr>
<td>Lack of adequate care for elderly/disabled</td>
<td>6%</td>
</tr>
<tr>
<td>Waste/inefficiency (misuse, duplication of services)</td>
<td>6%</td>
</tr>
<tr>
<td>Abuse and/or neglect</td>
<td>3%</td>
</tr>
<tr>
<td>Care for pre-existing conditions</td>
<td>3%</td>
</tr>
<tr>
<td>Indirect costs (loss of work, productivity)</td>
<td>3%</td>
</tr>
<tr>
<td>Lack of coordination among providers</td>
<td>3%</td>
</tr>
<tr>
<td>Affordable and healthy food</td>
<td>3%</td>
</tr>
<tr>
<td>Education on available resources</td>
<td>3%</td>
</tr>
</tbody>
</table>

(n=36)

Q1: To begin, what do you feel are the most pressing health needs or issues in Ottawa County? Please be as detailed as possible.

= specific subpopulations
Key Informants view **obesity** as the most prevalent health issue, by far, in Ottawa County, followed by **diabetes**, **heart disease**, and **cancer**. Childhood immunizations appear to occur fairly regularly and are not an issue.

**Prevalence of Health Issues in Ottawa County**

- **Obesity (n=35)**
  - 6% Not at All Prevalent
  - 11% Not Very Prevalent
  - 83% Very Prevalent
  - Mean: 4.77

- **Diabetes (n=32)**
  - 6% Very Prevalent
  - 37% Slightly Prevalent
  - 56% Not Very Prevalent
  - Mean: 4.50

- **Heart Disease (n=30)**
  - 63% Somewhat Prevalent
  - 37% Not Very Prevalent
  - Mean: 4.37

- **Cancer (n=28)**
  - 4% Very Prevalent
  - 54% Slightly Prevalent
  - 39% Not Very Prevalent
  - Mean: 4.29

- **Depression (n=33)**
  - 3% Not at All Prevalent
  - 9% Not Very Prevalent
  - 55% Slightly Prevalent
  - 33% Not Very Prevalent
  - Mean: 4.18

- **Stroke (n=24)**
  - 21% Not at All Prevalent
  - 54% Not Very Prevalent
  - 25% Very Prevalent
  - Mean: 4.04

- **Sexually Transmitted Diseases (n=25)**
  - 40% Not Very Prevalent
  - 48% Slightly Prevalent
  - 12% Not Very Prevalent
  - Mean: 3.72

- **Lack of Childhood Immunizations (n=27)**
  - 56% Very Prevalent
  - 22% Slightly Prevalent
  - 19% Not Very Prevalent
  - 4% Very Prevalent
  - Mean: 2.70

Q2: Please tell us how prevalent the following health issues are in Ottawa County.
Key Informants are most satisfied with the community’s response to childhood immunizations, followed by cancer. Conversely, they are least satisfied with the response to depression and obesity.

Q2a: How satisfied are you with the community’s response to these health issues?
The quadrant chart below depicts both problem areas and opportunities. The community’s response to stroke, cancer, and heart disease is fairly strong because they are all prevalent and Key Informants are satisfied with the community response. Conversely, diabetes, depression, and obesity are critical problem areas because they are not only prevalent, but the response has been less than satisfactory.

Q2: Please tell us how prevalent the following health issues are in Ottawa County. Q2a: How satisfied are you with the community’s response to these health issues?
Health Behaviors
According to Key Informants, **alcohol abuse** is the most prevalent negative health behavior in Ottawa County, followed by **domestic abuse, illegal substance use**, and **tobacco use**. Suicide, although it exists, is not considered to be as prevalent as other health behaviors.
Key Informants are moderately satisfied with the community’s response to the health behaviors rated. Opportunities for improvement exist with *child abuse/neglect* and *suicide*.

### Satisfaction with Community’s Response to Health Behaviors in Ottawa County

<table>
<thead>
<tr>
<th>Health Behavior</th>
<th>Not at All Satisfied</th>
<th>Not Very Satisfied</th>
<th>Slightly Satisfied</th>
<th>Somewhat Satisfied</th>
<th>Very Satisfied</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking and Tobacco Use (n=31)</td>
<td>13%</td>
<td>16%</td>
<td>45%</td>
<td>26%</td>
<td></td>
<td>3.84</td>
</tr>
<tr>
<td>Alcohol Abuse (n=30)</td>
<td>13%</td>
<td>17%</td>
<td>57%</td>
<td>13%</td>
<td></td>
<td>3.70</td>
</tr>
<tr>
<td>Motor Vehicle Accidents (n=24)</td>
<td>8%</td>
<td>37%</td>
<td>37%</td>
<td>17%</td>
<td></td>
<td>3.63</td>
</tr>
<tr>
<td>Domestic Abuse (n=29)</td>
<td>10%</td>
<td>28%</td>
<td>52%</td>
<td>10%</td>
<td></td>
<td>3.62</td>
</tr>
<tr>
<td>Illegal Substance Abuse (n=29)</td>
<td>14%</td>
<td>24%</td>
<td>59%</td>
<td>3%</td>
<td></td>
<td>3.52</td>
</tr>
<tr>
<td>Child Abuse/Neglect (n=27)</td>
<td>4%</td>
<td>26%</td>
<td>26%</td>
<td>33%</td>
<td>11%</td>
<td>3.22</td>
</tr>
<tr>
<td>Suicide (n=24)</td>
<td>25%</td>
<td>37%</td>
<td>33%</td>
<td>4%</td>
<td></td>
<td>3.17</td>
</tr>
</tbody>
</table>

Q3a: How satisfied are you with the community’s response to these health behaviors?
The quadrant chart shows moderate satisfaction with community response to most all health behaviors. The one area that could be addressed is the response to illegal substance abuse. Additionally, satisfaction with child abuse/neglect and suicide are low compared to other areas; however, these are less prevalent than other behaviors.

**Performance of Community in Response to Health Behaviors in Ottawa County**

Q3: Please tell us how prevalent the following health behaviors are in Ottawa County. Q3a: How satisfied are you with the community's response to these health behaviors?
Access to Health Care
Children and adults have the greatest variety and choice of primary medical care options, although there is room for improvement as roughly one in five disagree with this view. Residents who lack insurance, are low income, and/or are ESL find their options far more limited when it comes to primary medical care.

**Perceptions of Variety and Choice of Primary Medical Care Options**

<table>
<thead>
<tr>
<th>Group</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Disagree Nor Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children (n=34)</td>
<td>3%</td>
<td>15%</td>
<td>12%</td>
<td>62%</td>
<td>9%</td>
</tr>
<tr>
<td>Adults (n=35)</td>
<td>6%</td>
<td>17%</td>
<td>9%</td>
<td>57%</td>
<td>11%</td>
</tr>
<tr>
<td>Senior Adults (n=34)</td>
<td>3%</td>
<td>29%</td>
<td>12%</td>
<td>47%</td>
<td>9%</td>
</tr>
<tr>
<td>Non-English Speaking/ESL (n=28)</td>
<td>32%</td>
<td>46%</td>
<td>11%</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Underinsured (n=32)</td>
<td>41%</td>
<td></td>
<td></td>
<td>47%</td>
<td>3% 6% 3%</td>
</tr>
<tr>
<td>Low Income (n=32)</td>
<td>41%</td>
<td></td>
<td></td>
<td>44%</td>
<td>6% 9%</td>
</tr>
<tr>
<td>Uninsured (n=31)</td>
<td>45%</td>
<td></td>
<td></td>
<td>45%</td>
<td>3% 7%</td>
</tr>
</tbody>
</table>

**Mean**

- Children: 3.59
- Adults: 3.51
- Senior Adults: 3.29
- Non-English Speaking/ESL: 2.00
- Underinsured: 1.84
- Low Income: 1.84
- Uninsured: 1.71

Q4: Please tell us your level of agreement with the following statements about the variety and choices of primary medical care in Ottawa County.
Reasons cited for lack of primary care options for children center around the *limited number of physicians accepting Medicaid, lack of pediatric care, and barriers such as language and transportation.*

**Reasons for Perceiving a Lack of Primary Medical Care Options for Children**

Because of my experience seeing families who are not getting enough care. 

Families need to have private insurance and speak English to receive timely, high quality, preventative or non-urgent medical care that is easily accessible. Even care for health concerns is complicated by issues of language, insurance and location in the county of a consumer’s home.

I think that MIchild should give access to health care, but not sure that it is as widely used as it could be.

**Shortage of pediatric care physicians.**

The choice of provider depends on network, number of physicians taking new patients, source of payment, and ability to pay. Some children may have no difficulty finding care, others struggle.

Too many physicians do not accept or limit Medicaid patients.

Very few physicians accept Medicaid for children.
Adults find the same barriers to primary medical care access as children – the **limited number of physicians accepting Medicaid** and **issues of transportation**. In addition to the Medicaid hurdle, adults who have limited or no health coverage are at the greatest disadvantage when accessing the health care system in Ottawa County.

**Reasons for Perceiving a Lack of Primary Medical Care Options for Adults**

Because we compete with Kent County, which has many more options than Ottawa County, which is primarily limited to the tri-cities area. Grand Haven, Holland and Muskegon's quality is less than Grand Rapids area.

Health care is available in pockets of the county and not always where people live. Insurance plays a huge factor in accessing the primary care.

I see people all the time who do not get primary care for many ailments.

I'm not sure I know what "choice" would look like - does that mean just having enough primary care physicians? If so, it appears to be adequate for those with health insurance.

Only 2 providers in entire county, neither has accepted new patients for months. Intercare nor Holland Community Health Center.

Primary care capacity is not meeting the needs of the community.

The choice of provider depends on network, number of physicians taking new patients, source of payment, and ability to pay. Some adults may have no difficulty finding care, others struggle.

Too many physicians limit their Medicaid and Medicare adult patients in their practice.

---

Q4a: (If Strongly Disagree/Disagree/Neutral) Why do you [INSERT RATING] that there is a wide variety and choice of primary care for adults?
Senior adults, although covered by Medicare, experience limitations with this form of coverage. Key Informants report that many providers in Ottawa County do not accept Medicare as well. The limited gerontological care that exists in the county forces many older adults to go elsewhere for care and this becomes more complicated when transportation is already a barrier.

Reasons for Perceiving a Lack of Primary Medical Care Options for Senior Adults

Choice of quality care is dependent on financial ability to pay for such care.

I see many elderly people who do not get primary care unless it is thru Medicare--and that of course is limited.

It is difficult for adults on Medicare to find a primary doctor to accept Medicare if they are new to the area or do not have a previously established primary care provider.

Physicians limit how many Medicare patients they accept in their practice.

Seniors do not have access to affordable, timely, county-wide transportation to assist with access to care. Seniors on limited incomes often do not have the $10-$20 needed per ride, not do they have the ability to make transportation arrangements the 1-2 weeks in advance as is often required. Also, they may not be healthy enough to wait for the driver to be able to return to pick them up and ride on the bus for extended periods of time while others are picked up and dropped off. Therefore, instead of picking the best health care provider, they will pick the most convenient.

There is limited to no gerontological care for senior adults in our community. Some physicians will not accept Medicare patients.

There is some home care available for the insured. There is not much options between in home care to nursing home care for low income.

Very few physicians available in the Ottawa County community who specialize in senior care. As senior population continues to grow, Ottawa County will face an acute shortage of physicians who specialize in care for seniors.

Q4a: (If Strongly Disagree/Disagree/Neutral) Why do you [INSERT RATING] that there is a wide variety and choice of primary care for senior adults?
There are a number of reasons low income and ESL populations face PCP access challenges. In addition to lack of providers accepting Medicaid, too few providers accept patients who are uninsured or underinsured. For ESL patients, cultural and language barriers are the greatest hurdle, but this is compounded by the fact that they often have limited or no health coverage.

**Reasons for Perceiving a Lack of Primary Medical Care Options for Underserved Population**

**Low Income Population**

- Too few providers accept Medicaid: 36%
- Not enough providers/options for low income population: 21%
- Few providers accept patients without insurance/on sliding scale: 18%
- Limited community resources to meet demand: 11%
- Personally see low income people go without health care: 11%
- Can’t afford out of pocket expenses (e.g., treatment, co-pays, prescriptions): 11%
- Transportation barrier: 7%
- Tend to travel out of county for more/better options: 7%
- Those Who lack of money receive subpar health care: 7%
- Language barrier: 4%
- Lack of education/knowledge of health care options: 4%

**ESL Population**

- Few bilingual/Spanish speaking physicians/providers: 48%
- Limited community resources to meet demand: 22%
- Personally see ESL people go without health care: 9%
- Transportation barrier: 9%
- Too few providers accept Medicaid: 4%
- Not enough providers/options for ESL population: 4%
- Tend to travel out of county for more/better options: 4%
- Can’t afford out of pocket expenses (e.g., treatment, co-pays, prescriptions): 4%
- Language barrier: 4%
- Lack of education/knowledge of health care options: 4%
- Use of interpreters raises issues of confidentiality: 4%

Q4a: (If Strongly Disagree/Disagree/Neutral) Why do you [INSERT RATING] that there is a wide variety and choice of primary care for low income/ESL?
To reiterate, the underserved, which includes the uninsured/underinsured, have limited PCP options for many reasons but primarily because of a **dearth of physicians willing to accept Medicaid patients or patients who have no coverage.**

### Reasons for Perceiving a Lack of Primary Medical Care Options for Uninsured/Underinsured

- **Few places/options for uninsured/underinsured: 45%**
- **Can’t afford out of pocket expenses (e.g., treatment, co-pays, deductibles, prescriptions): 24%**
- **Personally see underserved go without health care: 10%**
- **Too few accept patients without insurance/on sliding scale/for free: 21%**
- **Too few providers accept Medicaid: 17%**
- **Limited community resources to meet demand: 17%**
- **Those who lack money receive subpar health care: 7%**
- **Transportation barrier: 7%**
- **Lack of education/knowledge of health care options: 3%**
- **Tend to travel out of county for more/better options: 3%**

Q4a: (If Strongly Disagree/Disagree/Neutral) Why do you [INSERT RATING] that there is a wide variety and choice of primary care for uninsured/underinsured?
Over three-fourths (78%) of Key Informants recognize that certain subpopulations or groups in Ottawa County are underserved with respect to health care. Those most at risk lack insurance, either completely or partially. The ESL population is also underserved.

Are Specific Subpopulations or Groups Underserved?

Q5: Are there specific subpopulations or groups of people in Ottawa County that are underserved with regard to health care?

Q5a: (If yes) Which of the following subpopulations are underserved? (Multiple responses allowed)

- Uninsured: 93%
- Underinsured: 93%
- Uninsurable: 79%
- Undocumented Immigrants: 54%
- Non-English Speaking: 50%
- Minorities: 32%
- Senior Adults: 18%
- Disabled: 18%
- Men: 14%
- Women: 11%
- Children: 11%
- Other: 4%

(n=36)
Gaps in Health Care
Ottawa County programs or services receiving the highest marks involve *emergency/ambulatory transportation*. A number of other programs, such as *general surgery, OB/GYN, emergency care, ophthalmology*, and *orthopedics*, are also highly respected.

Q6: How well do the following programs and services meet the needs and demands of Ottawa County residents?

<table>
<thead>
<tr>
<th>Program/Service</th>
<th>Not At All Well</th>
<th>Not Very Well</th>
<th>Slightly Well</th>
<th>Somewhat Well</th>
<th>Very Well</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambulatory/Emergency Transport (n=27)</td>
<td>7%</td>
<td>37%</td>
<td>56%</td>
<td></td>
<td></td>
<td>4.48</td>
</tr>
<tr>
<td>General Surgery (n=24)</td>
<td>13%</td>
<td>42%</td>
<td>46%</td>
<td></td>
<td></td>
<td>4.33</td>
</tr>
<tr>
<td>OB/GYN (n=25)</td>
<td>4%</td>
<td>32%</td>
<td>52%</td>
<td></td>
<td></td>
<td>4.32</td>
</tr>
<tr>
<td>Emergency Care (n=32)</td>
<td>3%</td>
<td>34%</td>
<td>53%</td>
<td></td>
<td></td>
<td>4.31</td>
</tr>
<tr>
<td>Ophthalmology (n=26)</td>
<td>8%</td>
<td>31%</td>
<td>54%</td>
<td></td>
<td></td>
<td>4.31</td>
</tr>
<tr>
<td>Orthopedics (n=26)</td>
<td>4%</td>
<td>11%</td>
<td>35%</td>
<td>50%</td>
<td></td>
<td>4.31</td>
</tr>
<tr>
<td>Urgent Care Services (n=31)</td>
<td>20%</td>
<td>30%</td>
<td>50%</td>
<td></td>
<td></td>
<td>4.30</td>
</tr>
<tr>
<td>Dermatology (n=23)</td>
<td>4%</td>
<td>9%</td>
<td>30%</td>
<td>52%</td>
<td></td>
<td>4.22</td>
</tr>
<tr>
<td>Oncology (n=22)</td>
<td>18%</td>
<td>45%</td>
<td>36%</td>
<td></td>
<td></td>
<td>4.18</td>
</tr>
<tr>
<td>Nursing Home Care (n=26)</td>
<td>8%</td>
<td>15%</td>
<td>35%</td>
<td>42%</td>
<td></td>
<td>4.12</td>
</tr>
<tr>
<td>Prenatal Care (n=27)</td>
<td>4%</td>
<td>15%</td>
<td>44%</td>
<td>37%</td>
<td></td>
<td>4.11</td>
</tr>
</tbody>
</table>

*Mean values were calculated based on the responses.*
Programs or services less likely to meet demands and needs of Ottawa County residents involve *older adults* (nursing home, assisted living, in-home care) as well as *oral health*. However, the widest gaps exist in the areas of *substance abuse* and the *treatment of mental illness*.

### Degree to Which Programs/Services Meet the Needs/Demands of Ottawa County Residents (Cont’d.)

<table>
<thead>
<tr>
<th>Program/Service</th>
<th>Very Well (%)</th>
<th>Somewhat Well (%)</th>
<th>Slightly Well (%)</th>
<th>Not Very Well (%)</th>
<th>Not At All Well (%)</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pediatrics (n=28)</td>
<td>4%</td>
<td>4%</td>
<td>14%</td>
<td>39%</td>
<td>39%</td>
<td>4.07</td>
</tr>
<tr>
<td>Podiatry (n=22)</td>
<td>5%</td>
<td>9%</td>
<td>9%</td>
<td>32%</td>
<td>45%</td>
<td>4.05</td>
</tr>
<tr>
<td>Assisted Living (n=26)</td>
<td>4%</td>
<td>8%</td>
<td>15%</td>
<td>27%</td>
<td>46%</td>
<td>4.04</td>
</tr>
<tr>
<td>Cardiology (n=24)</td>
<td>4%</td>
<td>21%</td>
<td>46%</td>
<td>29%</td>
<td>30%</td>
<td>3.96</td>
</tr>
<tr>
<td>In-Home Care (n=23)</td>
<td>4%</td>
<td>9%</td>
<td>13%</td>
<td>43%</td>
<td>30%</td>
<td>3.87</td>
</tr>
<tr>
<td>Oral Surgery (n=26)</td>
<td>11%</td>
<td>19%</td>
<td>8%</td>
<td>23%</td>
<td>39%</td>
<td>3.58</td>
</tr>
<tr>
<td>General Dental Care (n=32)</td>
<td>6%</td>
<td>19%</td>
<td>19%</td>
<td>31%</td>
<td>25%</td>
<td>3.50</td>
</tr>
<tr>
<td>Non-Emergency Transportation (n=21)</td>
<td>24%</td>
<td>19%</td>
<td>43%</td>
<td>14%</td>
<td>34%</td>
<td>3.48</td>
</tr>
<tr>
<td>Substance Abuse (n=27)</td>
<td>15%</td>
<td>26%</td>
<td>59%</td>
<td>3%</td>
<td>3%</td>
<td>3.44</td>
</tr>
<tr>
<td>Mental Health Treatment (Severe/Persistent) (n=30)</td>
<td>13%</td>
<td>23%</td>
<td>17%</td>
<td>43%</td>
<td>3%</td>
<td>3.00</td>
</tr>
<tr>
<td>Mental Health Treatment (Mild/Moderate) (n=32)</td>
<td>19%</td>
<td>22%</td>
<td>28%</td>
<td>28%</td>
<td>3%</td>
<td>2.75</td>
</tr>
</tbody>
</table>

Q6: How well do the following programs and services meet the needs and demands of Ottawa County residents?
Key Informants report that programs and services lacking in Ottawa County are those that *address the underserved; uninsured/underinsured* and *low income* residents. More often this void is evident in dental, mental health, and primary care areas. Four in ten are unable to think of a dearth in programs/services.

**Q7:** What programs or services are lacking in the community, if any? Please be as detailed as possible.
Three-fourths (75%) of Key Informants have had, or someone they know has had, to travel outside of Ottawa County for health care for a variety of conditions. Most commonly, residents travel to other counties for specialized care or for treatment of cancer.

Q8: Have you, or someone you know, ever had a health issue or need that necessitated travel outside of Ottawa County for health care?  
Q8a: (If yes) What necessitated travel outside of Ottawa County for health care, and why? Please be as detailed as possible.

(n=36)

(n=27)
Barriers to Health Care
According to Key Informants, **lack of health care insurance** is the top barrier or obstacle to health care programs and services. **Physicians declining Medicaid patients** and **inadequate health insurance** are also viewed as barriers. Conversely, **trust** is not considered to be an obstacle and **transportation** is considered an obstacle by a few.

---

**Single Greatest Barrier/Obstacle**

- **Lack of Health Care Insurance**: 47%
- **Physicians Not Accepting Medicaid**: 14%
- **Inadequate Health Care Insurances**: 11%
- **Language/Cultural**: 8%
- **Personal Irresponsibility**: 6%
- **Lack of Awareness of Existing Services**: 6%
- **Unaffordable Co-Pays/Deductibles**: 6%
- **Transportation**: 0%
- **Lack of Trust**: 0%
- **There are no barriers/obstacles**: 3%

**(n=36)**

**Top 3 Barriers/Obstacles**

- **Lack of Health Care Insurance**: 78%
- **Physicians Not Accepting Medicaid**: 44%
- **Inadequate Health Care Insurances**: 42%
- **Personal Irresponsibility**: 31%
- **Language/Cultural**: 31%
- **Lack of Awareness of Existing Services**: 28%
- **Unaffordable Co-Pays/Deductibles**: 25%
- **Transportation**: 14%
- **Lack of Trust**: 0%
- **There are no barriers/obstacles**: 3%

---

Q9: What are the **top three barriers** or obstacles to health care programs and services? Please rank from 1 to 3, where 1 is the greatest barrier, 2 is the second greatest barrier, and 3 is the third greatest barrier.
The most often cited solution to barriers and obstacles to health care is **universal health care**, however it is mentioned by less than one-fifth of the Key Informants. Suggestions are varied and are targeted toward solving the problem of barriers, including **education, lifestyle choices, more acceptance of Medicaid, different models of health care and insurance**, and **better transportation**. Four in ten offer no solutions.

Q9a: What, if any, are the **effective solutions** to these barriers? Please be as detailed as possible and identify which problems you are referring to when discussing solutions.
Identifying and Addressing Needs
Key Informants believe input about addressing health care needs should be spread across a variety of groups or individuals, the most important being health care professionals, government social services, and mental health workers. Less important are civic organizations and school boards.

Q10: What individuals or organizations should be involved in addressing identified health and health care needs in the county? (Multiple responses allowed)
The most important element to the success of health care programs or services is **ongoing funding or sustainability**. Also important are **communication between organizations**, the **formation of strategic relationships** and **common goals** among them.

**Elements Necessary for Success of Programs that Address Identified Needs**

Q11: What elements are necessary to the success of programs to address identified needs? (Multiple responses allowed)
Overall satisfaction with the health climate in Ottawa County is moderate among Key Informants. Those who are satisfied cite excellent resources, programs, and services, and that the county is rated/ranked higher than most other counties in the state. Those dissatisfied see lack of health care access for many people and an inefficient system that wastes money and duplicates services.

**Overall Satisfaction with Health Climate in Ottawa County**

<table>
<thead>
<tr>
<th>Level of Satisfaction</th>
<th>Reasons for Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied/Very Satisfied</td>
<td>34%</td>
</tr>
<tr>
<td>6%</td>
<td>Excellent resources, programs, services</td>
</tr>
<tr>
<td>28%</td>
<td>County rated/ranked high compared to others in the state</td>
</tr>
<tr>
<td>42%</td>
<td>Quality of life is good</td>
</tr>
<tr>
<td>22%</td>
<td>Partnerships are collaborative and cooperative</td>
</tr>
<tr>
<td>3% (n=36)</td>
<td>Giving community</td>
</tr>
<tr>
<td>Very Satisfied</td>
<td>Free health clinics</td>
</tr>
<tr>
<td>Satisfied</td>
<td>Excellent resources, but only for those who can afford them</td>
</tr>
<tr>
<td>Neither Dissatisfied Nor Satisfied</td>
<td>Good services exist, but not enough to meet demand/need</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>Travel required outside of Ottawa County for many services</td>
</tr>
<tr>
<td>Very Dissatisfied</td>
<td>Lack of health care access for many groups (e.g., low income, inadequately insured, minorities)</td>
</tr>
<tr>
<td>Lack of money</td>
<td>Redundant facilities</td>
</tr>
<tr>
<td>Shortage of physicians</td>
<td>Wasted health care expenditures</td>
</tr>
<tr>
<td>Poor lifestyle decisions</td>
<td>Lack of money</td>
</tr>
</tbody>
</table>

Q12: Taking everything into account, including health conditions, health behaviors, health care availability, and health care access, how satisfied are you overall with the health climate in Ottawa County? Q12a: Why do you say that? Please be as detailed as possible.
Key informants offer a multitude of strategies for improving the overall health climate in Ottawa County. At the top of the list are **focusing on prevention and wellness** and **increased health education** that address issues from lifestyle choices to treatment options. It’s also evident that they support **offering health care to the underserved population**.

### Suggested Strategies to Improve the Overall Health Climate in Ottawa County

- **Focus on prevention/wellness**: 22%
- **More/better health education (e.g., services offered, payment options, lifestyle choices, personal responsibility)**: 22%
- **Make care available to underserved**: 14%
- **Better collaboration/communication among providers/programs/services**: 14%
- **More free/no cost clinics**: 11%
- **Explore different health care models/alternatives**: 11%
- **Access to mental health treatment for all**: 8%
- **Decreased costs/more affordable care**: 8%
- **Health care for all/universal care/single payer system**: 8%
- **Access to dental care for all**: 6%
- **Assistance to low income/uninsured**: 6%
- **More providers accepting Medicaid**: 6%
- **Avoid duplication of services**: 6%
- **Better language/cultural support/classes/training**: 6%
- **Eliminate gaps in services/coverage**: 3%
- **Ability of providers to share information/records**: 3%
- **Better public transportation (e.g., more bus routes, van system)**: 3%
- **Evidenced-based practices**: 3%
- **Focus on growing senior population**: 3%
- **More/better primary and specialty care physicians**: 3%
- **Provide more outreach services**: 3%
- **Nothing/Not much can be done**: 6%
- **Don’t know/no answer**: 6%
Focus Group Results
Current Health Situation
All focus group participants indicate they have some type of medical home, whether with a primary care physician or at a clinic. Most have recently interacted with family doctors (14) eye doctors (11), dentists (11), and pharmacists (5). The vast majority (82%) report satisfaction with their most recent visit, primarily because health care professionals listened to them and provided them with the answers to their questions. Dissatisfied residents experienced long waits and unhelpful pharmacy interactions.

**Health Care Visits**

- Family Physician (14)
- Eye Doctor (11)
- Dentist (11)
- Pharmacist (5)
- OBGYN (4)
- Cardiologist/Heart Specialist (3)
- Chiropractor (3)
- Clinic (4)
- Dermatologist (3)
- Ear, Nose, & Throat Specialist (3)
- Emergency Room (3)
- Orthodontist (3)
- Orthopedic Specialist (3)
- Pediatrician (3)
- Physical

**Satisfaction with Last Visit**

- Therapist (3)
- Specialist (3)
- Lab (2)
- Ophtalmologist (2)
- Christian Healing (1)
- Internal Medicine (1)
- Knee Specialist (1)
- Medical Weight Loss (1)
- Neurologist (1)
- Nurse
- Practitioner (1)
- Optometrist (1)
- Psychiatrist (1)
- Radiation Therapy (1)
- Urologist (1)

**Verbatim Comments on Last Visit**

**Good and thorough and very personable. (Parent, North)**

I’ve been unsatisfied at times because there’s been a long wait to get in. (Provider, North)

It’s “Your time’s up, you’ve got to go.” And they still want to share something and ask questions. Can’t do it, you have to make another appointment. And they seem to be too rushed and a lot of them are not caring enough. (Senior, North)

Because they found something out that I didn’t know was going on. (Low Income, South)

I felt like he was being very thorough, explained to me the numbers, what it meant. (Parent, North)
All residents look for a health care provider who is a *good listener*, and is *caring* and *empathetic*. Senior and low income individuals also want to know their *insurance will be accepted*, while parents with children at home value *location, availability*, and a *well-run office*. More than three-fourths (75%) rate their quality of life as high.

**Verbatim Comments on Most Important Quality of a Health Care Provider**

*With the kids, I look for somebody who’s thorough. Who’s listening to all of the symptoms I’m describing for the kids. And who will follow up.* (Parent, North)

*It’s insurance driven.* (Senior, South)

*Somebody that doesn’t take five minutes and then run off. And when you want to ask a question they answer you instead of saying I’ll be right back and then never come back.* (Low Income, North)

*Being concerned and considerate. Because I have had the experience with people being rude when I was trying to explain my situation, when she didn’t know my situation and I knew what was going on with me because she didn’t have my medical records. And I’m trying to let her know what was going on. So it was like she was there but she wasn’t there.* (Low Income, South)

*Somebody who will take the time to explain the language in layman’s terms, with what they’re talking about. It’s difficult otherwise.* (Parent, North)

*I like to have a good rapport and I like to know that I’m being understood and heard.* (Low Income, North)

**Quality of Life**

- 44%
- 33%
- 17%
- 6%

*(n=18)*

*What is the most important quality you look for in a health care provider? How would you rate your quality of life?*
All but three individuals (one low income, one senior, one parent) have a health care advocate. Advocates are primarily spouses or adult children, although one identified a senior center caseworker and another identified their doctor. The vast majority use the Internet at least somewhat when searching for health information, with providers using the Internet the most and low income and seniors using it the least.

**Health Information Sources**

- Internet
- Co-workers/Colleagues
- Family Physician
- Friends
- Television/Newspapers/Magazines
- 2-1-1
- Insurance Company
- Health Department
- Friends in Medical Field
- Nurse
- Senior Center
- Family

**Verbatim Comments on Health Information Sources and Use of the Internet**

*I do a lot of research on the Internet. Some results are very good but some results can be frustrating, if you can’t find the right answer that you’re looking for. You try to compare what the family physician has given you and what the Internet is saying. (Low Income, South)*

*Newspapers, magazines, Internet, and my providers. (Senior, South)*

*Just once in awhile I’ll look up a rash or something or what a term means. (Parent, North)*

*I Google it and compare information on sites. (Hispanic)*

*I would rather rely on information from 2-1-1, talking to a nurse, or talking to a spokesperson for a physician. (Low Income, South)*

*I am always concerned about the credibility of the site – is it researched based, accurate information? I’m always skeptical of the site. (Provider, South)*

*Other than yourself, do you have a health care advocate? What sources do you go to for health information? How heavily do you utilize websites and online services for health information?*
These community members are especially concerned about: **obesity, access to health care (primary and dental), lack of good nutrition/poor diets, and lack of available and affordable mental health services** (e.g., depression, substance abuse). They are also concerned about **chronic heart disease, diabetes, and cancer**. They feel these issues affect everyone, but especially impact children and the uninsured or underinsured.

### Current Community Health Problems

#### Seniors
- **North**
  - Caseworkers hard to reach
  - Depression
  - Heart issues
  - High blood pressure
  - Lack of dental care
  - Obesity
  - Social services moving to Holland
- **South**
  - A lot of illness
  - Inadequate facilities for handicapped
  - Lack of good nutrition
  - Not being able to talk to caseworkers – not enough workers and not enough time
  - Obesity stigma
  - Poverty

#### Providers
- **North**
  - Both types of diabetes
  - Cancer
  - COPD
  - Cost of service
  - Delivery of service methods
  - Mental health
  - Obesity
- **South**
  - Dental & primary care access for uninsured/underinsured
  - Cardiovascular disease
  - Dental health
  - Diabetes
  - Lack of Medicaid dental coverage
  - Mental health issues
  - Obesity
  - Sedentary life
  - Smoking
  - Substance abuse

#### Hispanics
- **North**
  - Addiction
  - Cancer
  - Diabetes
  - Obesity
  - Speech delay in kids
- **South**
  - Care for the elderly
  - Childhood obesity
  - Cholesterol rates
  - Dental health
  - Diabetes rate
  - Few physicians taking Medicaid
  - Lack of exercise - esp. youth
  - Nutrition & cost of food
  - Number of uninsured
  - Substance abuse

#### Parents
- **North**
  - Lack of exercise - esp. youth
  - Not knowing how to access health care
  - Obesity
  - Paperwork prevents access
  - Poor diets
  - Poor health knowledge
  - Smoking

#### Low Income
- **North**
  - No Medicaid dental coverage
  - Substance abuse
  - Mental health stigma
  - Less people getting yearly physicals
  - Cancer
  - COPD
  - Heart disease
  - ADD

- **South**
  - Heart attacks
  - Cancer
  - Bone Disease
  - Obesity
  - Aneurysm

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Are there any issues in Ottawa County that negatively impact quality of life for its residents? When you think about the community you live in, what are the common-serious health problems that come to mind?
Verbatim Comments on Current Community Health Problems

You can’t get a dentist that will accept Medicare, that’s for sure. I haven’t been to a dentist, and I used to go every 6 months. I haven’t been to a dentist in the last three and a half years. (Low Income, North)

I would say education for nutrition. We have so much good going on as far as food production and people still go for the potato chips and stuff like that. And children are obese because parents aren’t around or they’re too busy so they go to McDonalds all the time. (Senior, South)

Stigma. Like when I have to list my medications. I feel like they look at me like a quack job. (Low Income, North)

Sedentary life all the way from little children to adult life. (Provider, South)

The number of people who are uninsured, that cannot afford insurance and fall through the cracks. (Parent, South)

I think that there’s a lot that stands in the way of people accessing healthcare in Ottawa County. Because of either their knowledge-base of not understanding how serious it is - their health complaint, and because of health insurance. People in a lower socio-economic status have a terrible time getting through all of the paperwork to access healthcare for their kids or for themselves and they are very unhealthy because they don’t have insurance or can’t access it. So I think it really stands in the way as a community as understanding the seriousness of going to the doctor. (Parent, North)

Depression. There’s not enough money. That leads to bad choices. (Senior, North)
Community members across all groups mention **unhealthy lifestyle choices** as behavior that most significantly contributes to the health problems identified. Yet, those in the senior and low income groups more frequently identify an **inability to afford services** and **moderate mental illness** involving anger or depression as contributing to unhealthy behavior choices.

### Behaviors Contributing to Health Problems

- No time to exercise or eat right
- Poor eating habits & overeating
- Not enough sleep
- General noncompliance
- Depression
- “Ignorance is bliss”
- Inability to afford care
- Lack of physicians accepting uninsured residents
- Lack of transportation
- Drug abuse
- Isolation/Boredom
- Family

### Verbatim Comments

**I’m thinking of medication compliance, because a lot of times co-pays are a lot higher now even for generics.** (Provider, South)

**A lot of people can’t get to a free clinic. I personally know at least 15 people that don’t have cars. And Dial-a-ride don’t go out at night. They can get out there maybe, but how are they going to get home?** (Low Income, North)

**Lifestyle choices.** (Provider, North)

**Overeating fast food, like McDonalds.** (Low Income, South)

**People think if they don’t know what’s wrong with them it won’t hurt them. They’d rather not know than to face the facts. But then it’s a hard time, if they don’t have insurance, getting a physician that will accept them and if they don’t have insurance, then it’s a cash pay and that’s just impossible for a $140 doctor’s appointment.** (Low Income, North)

**Being busy all the time and not having time to exercise or eat right.** (Hispanic)

**I think a lot of people that are depressed eat too much, they eat all day long.** (Senior, South)
Residents feel the community has wonderful attributes that promote health – it is **safe, walkable, and family friendly**. They also feel the community has many programs and centers that promote health. Seniors in southern Ottawa County and low income residents in northern Ottawa County are less likely than their counterparts to be able to identify as many characteristics as other individuals.

### Primary Community Characteristics that Promote Health

**Seniors**
- **North**
  - Fewer factories so less pollution
  - Schools open so you can walk in the winter
  - The Senior Center – a lot of exercise classes
  - Walkable Grand Haven

- **South**
  - Churches
  - Fitness Centers
  - Hospital classes

**Providers**
- **North**
  - A lot of community programs
  - Beach
  - Family-friendly, safe community
  - Festivals and activities
  - Parks
  - Paths
  - Role models
  - Walkable community
  - Water sports
  - YMCA

- **South**
  - Beaches
  - Bike trails
  - Gym access
  - Indoor soccer arena
  - Insurance company incentives
  - No smoking in restaurants
  - Programs
  - Trails and beaches
  - Walkable community

**Parents**
- **North**
  - Farmer’s Market
  - Organized sports for kids
  - YMCA
  - YMCA camps – physical activities available to the kids at a reasonable price
  - Yoga

- **South**
  - Beautiful natural resources – parks and trails
  - Family Connections
  - Farmer’s Market
  - Health being a community priority
  - Libraries
  - Walkable community

**Low Income**
- **North**
  - Boardwalk
  - Fear
  - Parks
  - Skate park

- **South**
  - Promotion of exercise – bike riding
  - Outdoor festivals that bring people out
  - Brochures
  - Local news
  - A walkable community

- **Hispanics**
  - Girls on the Run
  - Library
  - Hospital events
  - Aquatic Center

*What are the primary characteristics of this community that promote health?*

Carl Frost Center for Social Science Research
Verbatim Comments on Community Characteristics that Promote Health

You can go to the library and you can get a list of things to do. I take my children. (Hispanic)

Classes at the hospital. Some are free, some are not. But they also have to be receptive to the ideas that are coming to them. They may go in so close-minded they may not accept it. (Senior, South)

Insurance companies have offered incentives too. If you make some healthy lifestyle changes, you get some of your premium back or you pay less. (Provider, South)

Fear might keep someone from going to the doctor and fear might make someone go to the doctor. (Low Income, North)

Having a community that sees the importance of different programs like Healthy Beginnings. (Parent, South)

This YMCA supports tons of different programs and wants to make it available to everybody regardless of income. (Parent, North)

Those who can afford it, the fitness center here. They’re probably everywhere, but you have to be able to afford it. (Senior, South)

You have all kinds of bike trails and with the beaches I think that actually helps with physical therapy. (Provider, South)
Many feel that **cost of activities**, a **lack of education** about being healthy or healthy local activities, and the high cost of good, nutritious food are community characteristics that deter good health. Additionally, people feel the **weather**, **transportation barriers**, and **lack of personal motivation** contribute to poor community health.

### Primary Community Characteristics that Deter Health

#### Seniors

<table>
<thead>
<tr>
<th>North</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptance of obesity – no emphasis on healthy lifestyles</td>
<td>Cost of activities/centers</td>
</tr>
<tr>
<td>Transportation barriers</td>
<td>Location</td>
</tr>
<tr>
<td>Winter weather</td>
<td>Personal motivation</td>
</tr>
<tr>
<td></td>
<td>Transportation barriers</td>
</tr>
<tr>
<td></td>
<td>Winter weather</td>
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</tbody>
</table>

#### Providers

<table>
<thead>
<tr>
<th>North</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of activities/centers</td>
<td>Cost of activities/centers</td>
</tr>
<tr>
<td>Food choices at festivals</td>
<td>Disparity in Hispanic population health</td>
</tr>
<tr>
<td>Lack of knowledge of preventive activities</td>
<td>Lack of health communication and outreach to Hispanic community</td>
</tr>
<tr>
<td>Resistant to new opportunities</td>
<td>Lack of healthy food options</td>
</tr>
<tr>
<td>Tourism keeps locals away</td>
<td>Winter weather</td>
</tr>
<tr>
<td>Transportation barriers</td>
<td></td>
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<td></td>
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</tbody>
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#### Parents

<table>
<thead>
<tr>
<th>North</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t have big city stores (e.g., Whole Foods Market)</td>
<td>Cost of activities/centers</td>
</tr>
<tr>
<td>Don’t know</td>
<td>Cost of fresh food</td>
</tr>
<tr>
<td></td>
<td>Generalized ranges for health inaccurately captures problem</td>
</tr>
<tr>
<td></td>
<td>Lack of focus on meal time and preparation</td>
</tr>
<tr>
<td></td>
<td>Lack of healthy carry-out options</td>
</tr>
<tr>
<td></td>
<td>Older people who have to work</td>
</tr>
<tr>
<td></td>
<td>Schools need to serve healthier foods</td>
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<td></td>
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</table>

#### Low Income

<table>
<thead>
<tr>
<th>North</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t want to admit you have a problem</td>
<td>A lack of facilities</td>
</tr>
<tr>
<td>Judgmental people</td>
<td>Cost of activities</td>
</tr>
<tr>
<td>Shame</td>
<td></td>
</tr>
<tr>
<td>Winter weather</td>
<td></td>
</tr>
</tbody>
</table>

#### Hispanics

<table>
<thead>
<tr>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weather</td>
</tr>
</tbody>
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*What are the primary characteristics of this community that deter health?*

Carl Frost Center for Social Science Research
I think, as a deterrent, there’re communities that live in Holland that don’t have access to healthy food choices as readily as some of the other areas in Ottawa County. (Provider, South)

It’s hard to get your kids to eat healthy when they go to school and all they eat is pizza and macaroni and cheese and chicken nuggets. Where’re the fruits? Where’re the vegetables? You come home and that’s what they want. (Parent, North)

If you don’t have the dollars, you can’t do a lot of these things. In this day and age, everything costs money. (Senior, South)

People who live on a fixed budget can’t afford using the facilities and so on. (Low Income, South)

Thinking specifically of young people, acceptance of obesity. Young people don’t have the peer pressure. In my opinion we got so overwhelmed with girls being anorexic that all of a sudden we went the other extreme saying it’s okay if you’re overweight. We don’t put an emphasis on healthy lifestyles. (Senior, North)

Tourism keeps locals away from the healthy stuff. (Provider, North)

It costs more money to eat organic. It costs more money to each fresh versus frozen or canned. (Parent, North)

Being in a diverse community, there’s certainly the disparity in health. Might be that we aren’t able to facilitate communication and networking in our Hispanic population, which is growing. (Provider, South)
All can name at least a few programs and services that promote health in the community. Community members from northern Ottawa County value and identify the **YMCA**. Those in the southern region are familiar with more specific services to help residents in need (e.g., **food banks**) and parents are more familiar with **school-based programs**.

### Community Programs Improving Health

- Aquatic Center
- Bike Ministry
- Bike trails
- Churches
- Community gardens
- Community Action House
- Employer incentive programs
- Evergreen Commons
- Farmer’s Market
- Fitness classes
- Feeding America
- Food banks
- Good Samaritan Ministries
- Girls on the Run
- Health education programs
- Health clinic
- Hospital programs/classes
- Love INC.
- Meals on Wheels
- Medical Weight Loss
- Miles of Smiles
- NOCCOA
- Nutrition classes
- Organized school sports
- Parks
- Red Cross
- Salvation Army
- School classes in conjunction with hospital
- Senior Center
- Support groups
- Walkable Grand Haven
- Walmart low-cost prescriptions
- WIC program
- YMCA (including the kids day camp)
- Zeeland Hospital

### Verbatim Comments on Programs Improving Health

**Classes at the hospital (e.g., CPR, First AID, Babysitting, Birthing). (Low Income, North)**

The YMCA in Grand Rapids. (Hispanic)

The Senior Center – works on all issues. (Senior, North)

I think a lot of that is from our religious support groups in this area. That’s very strong – the churches as well as the food clinics, health clinics. (Provider, South)

We have things available to us like the Aquatic Center and things that promote healthy activities that you can do indoors even in cold, winter months. (Parent, South)

The Red Cross is a good one. As far as getting you to the places that you need to go to, they will provide transportation for doctor’s visits and stuff like that. (Low Income, South)

Where my husband works they gave you gift certificates if you lose weight. It was nice. (Hispanic)

WIC promoting breast-feeding and healthy Mom and baby programs. (Parent, North)
While everyone feels more activities are needed that promote good health through exercise and nutrition, seniors would like to see more cultural celebrations, and parents would like to see more youth activities and education efforts. Residents in the southern region are more concerned about putting services in place that increase access and lower costs for both primary care and dental care.

### What is Lacking in Services
- Age-specific prevention programs
- Assistance with eye doctors
- Community Center
- Easily accessible YMCA
- Education programs (nutrition, aging process)
- Emergency payment funds
- Evening programs
- Free health screenings
- Health care champions
- Health fair
- Help for diabetes prevention care
- Increased health care access
- Lack of dentists that accept Medicare/Medicaid
- Less of a wait time to see a doctor/visit a clinic
- Mobile health clinic
- More awareness about existing programs & free services (including seasonal events)
- More cultural awareness and celebration
- More youth activities/school education programs
- Preventative service programs
- Prisoner reentry program
- Programs for access to primary care
- Support to increase health care access
- Programs geared toward mental health (e.g., depression)
- Weight loss support

### Verbatim Comments on What is Lacking

**More help with diabetes. We have a lot of patients who don’t check themselves because they don’t have insurance.** (Hispanic)

**Something that I encounter a lot is immediate access to funds to pay for something that’s needed at that moment. If somebody has a health need or concern, getting that medication right here and now means the free clinic but you have to get the approval process through the director and manufacturer, hospitals will sometimes have a community fund for this.** (Provider, South)

**A lot of people have lost their jobs and they would probably like to go to these but they just can’t afford it. And I think that would really help.** (Senior, North)

**For the uninsured, what we see is they’ll just keep putting something off, putting it off, putting it off, because they don’t come to the emergency room when maybe they should or they don’t go to a doctor because they don’t have insurance and all of a sudden they’re hospitalized for a number of days for something that could have been treated as outpatient (e.g., a boil).** (Provider, South)

**We are missing a YMCA, we don’t have one here in town. And I’ve known since I was a kid, the YMCA does good things in the community and it keeps kids occupied.** (Low Income, South)
Residents say a **personal health crisis** motivates most people to change from an unhealthy behavior to a healthy one. Additionally, **peer support**, **knowledge of family history**, **incentives** (employer or insurance-based), and a **general desire for change** play into this decision. These are the same key things that **personally motivated them to change as well** – seeing people become ill, engaging in activities with friends, and wanting to look and feel better.

**Motivation to Change from Unhealthy to Healthy Behavior**

- A mentor or friend’s support
- Collaboration between organizations – community initiative
- Crisis/Diagnosis
- Easy access to services
- Employer rewards for healthy behaviors/fitness plans/challenges
- Desire for change
- Familial support
- Fun activities
- Healthy food options in schools
- Illness in the family or of a friend
- Insurance incentives for healthy behavior/Premium rate changes
- Loss of mobility
- Money
- Peer support/pressure – not having to do it alone
- Sense of community

**Verbatim Comments on Motivation to Change**

*When you get diagnosed with something. When I got diagnosed with diabetes everything changed. (Hispanic)*

*Things that are simple, accessible, and functional. (Provider, North)*

*When there were five or six of us from church coming to Yoga class here I was much more able to come because I’d get called on it. (Senior, South)*

*A lot of times, if someone who’s sister was diagnosed with breast cancer then the other siblings, the other people in the family, are then more likely to be motivated. (Provider, South)*

*Maybe family cooperation, family support in saying you’ve got to take a look at this. (Low Income, North)*

*I think there’s more of an opportunity for collaboration with different sectors in this, so that maybe a healthy restaurant partnered with a corporation partnered with a fitness place or exercise - different entities can benefit. We’re talking about integration of information, a program that allows for that integration can be interesting. (Parent, South)*

*A major life event, like a divorce. A lot of people get skinny and divorced when suddenly they’re out in the world again. Or lose a spouse, you’ll see people change. (Senior, North)*

*What motivates people to change a behavior from an unhealthy one to a healthy one? (For example, eating more fruits & vegetables, drink more water, exercise more, drink less alcohol).*
While the majority think the community needs to raise more awareness about fun activities and events that improve health, they also see a need to increase health care access, and provide more education and awareness about healthy choices. Residents living in southern Ottawa County would like more low cost gyms or a YMCA accessible to them, while the low income group in the northern region would like to see an increased understanding of mental illness.

### How Community Can Assist in Changing Behavior

#### Seniors

**North**
- Offering of activities & exercise classes
- The senior center

**South**
- Community events/gatherings
- Community centers

#### Providers

**North**
- Connections with role models
- Fun competitions and events
- Getting recognized for health
- Increase access to care
- Media involved in promotion
- Practical opportunities

#### Parents

**North**
- Continued offering of programs
- Family support

**South**
- High school programming teaching about balance (life)
- More family activities involving both children & parents
- More low cost gyms
- Promote women’s health
- Teach kids how to cook healthy

#### Low Income

**North**
- Increased tolerance of mental illness
- Increased tolerance of class differences
- More education on commonness of mental illness

**South**
- Open a YMCA
- Free health care programs

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**Hispanics**

- Better food in schools
- Educate & raise awareness so people eat right & exercise
- Offer more programs

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**What can your community do to assist people in changing behaviors? What can be done to support people in making healthy choices?**

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Carl Frost Center for Social Science Research
**Offer more programs. Motivate people to get involved. Especially in the summer when you have the kids at home and they need to have something to do.** (Hispanic)

**Supports that I have seen are walk-a-thons, triathlons…. Things that encourage people to come out. The community participates.** (Senior, South)

**Right now there’s no primary care for the uninsured. Community Health Center hasn’t taken anyone for about 6 months, InterCare’s not taking anyone – they’re completely closed. The uninsured in the county have absolutely no place to go right now for primary care. So they’ll end up in your emergency room.** (Provider, North)

**There needs to be more education. In every family, there’s at least one member who suffers from mental illness. Be it depression, bipolar, but there’s still the stigma.** (Low Income, North)

**I guess just continuing to offer the programs. I find a great deal of support at the Y because they offer so many programs and I think the head of fitness keeps encouraging me.** (Parent, North)

**They go to school and they serve them fast food. Then you get kids who are depressed because they’re so big…. They can’t help it because they’re in school. But when they’re home, I’m so busy that we go to fast food places.** (Hispanic)

**Practical opportunities – realistic.** (Provider, North)

**You can throw programs left and right, but the real test of learning comes when you actually model what you’re trying to teach. So this idea of something that allows people to recognize that the female person in the household, the parent, models what we’re trying to do. You can’t expect programs to supplement this idea of behavior.** (Provider, South)
Barriers to Improved Health
While most community members feel a top barrier to improved health is **time**, those in the Hispanic and low income groups stress **lack of doctors accepting Medicare/Medicaid, cost**, and **transportation** as crucial barriers to better health. Additionally, all groups except low income cite **lack of motivation** as a barrier. More seniors say **lack of companionship or isolation** or **depression** are barriers, while more parents mention **scheduling**.

### Personal Barriers to Improved Health
- Depression
- Few doctors accepting Medicare/Medicaid
- Generational poor health habits
- Illness of spouse
- Insurance limits
- Isolation
- Lack of insurance
- Lack of motivation
- Lack of prescription coverage
- Lack of providers
- Lack of support
- Lack of transportation
- Length of wait time for an appointment
- Limited insurance coverage
- Money/finances
- Not seeing doctor preventatively
- Physical pain
- Stress
- Time constraints

### Verbatim Comments on Barriers to Improved Health

There’re not enough hours in the day, if you have kids, to find time for yourself. (Parent, North)

The wait to get into a clinic is ridiculous. A month to a month and a half. (Hispanic)

No gas money to get to a certain appointment. (Low Income, North)

I think some people don’t want to maybe do something alone. They need to have someone go with them and if they can’t, then they don’t do it. Some friends of mine, if they don’t have someone to walk with, they won’t do it. (Senior, North)

The dentists in Grand Haven are pretty much anti-Medicaid. (Low Income, North)

It’s hard not having dentists. They’ll put you on the list and you have to wait up to 6 months. And that’s if they call you. (Low Income, South)

Not taken seriously because they know they’re not going to get their full payment for a procedure. (Low Income, North)
The vast majority (85%) of community members feel there are not enough resources or affordable health care. Providers in the northern region and seniors in the southern region report that what exists is not widely accessible. Parents feel it depends on the service and who needs it. All but low-income residents have reliable transportation to health care providers.

### Enough Resources for Affordable Health Care
- **Yes**: 85%
- **No**: 15%
- **Depends**: 0%

### Have Reliable Transportation
- **Yes**: 86%
- **No**: 9%
- **Depends**: 5%

### Verbatim Comments on Resources

I think there are a great deal of resources available, however not enough. The key word here is not enough. (Provider, South)

My feeling is that some people put off going to the doctor or going for different things because of the cost. Because I know everything has gone up. Our co-pays have gone up. (Seniors, North)

Those that need the extra resources, I think we have a system that’s not always friendly. They’re overworked at DHS and understaffed and our clients are not getting telephone calls back. Their mailboxes are always filled up so they can’t leave voicemails. It’s not a real user-friendly system, but I think they’re doing the best they can do with what they have. (Parent, South)

Are there enough resources for affordable health care? Do you know how to access them? Do you think if you had to find a support for healthcare would you know where to go and how to get it? Do you have reliable transportation to health care providers?
While most individuals agree that dental and prescription medication would be the type of care dropped if financially necessary, parents added they would stop buying fresh food and providers would, more than any other group, drop the care of specialists. People would prioritize primary care for their children first, and then for themselves.

<table>
<thead>
<tr>
<th>Health Care that Would Be Dropped</th>
<th>Health Care that Would Be Kept as a Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental</td>
<td>Family Physician/Primary care</td>
</tr>
<tr>
<td>Prescriptions/Medications (cholesterol, high blood pressure)</td>
<td>Pediatrician</td>
</tr>
<tr>
<td>Care of a specialists (e.g., chiropractor, rehabilitation)</td>
<td>Prescriptions</td>
</tr>
<tr>
<td>Annual check-ups/preventative visits</td>
<td>Specialists (chiropractic, knee)</td>
</tr>
<tr>
<td>Primary care physician</td>
<td>Dental</td>
</tr>
<tr>
<td>Eye doctor</td>
<td>Annual check-ups/preventative visits</td>
</tr>
<tr>
<td>Lab work</td>
<td></td>
</tr>
<tr>
<td>Fitness organization membership</td>
<td></td>
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<tr>
<td>Orthodontist</td>
<td></td>
</tr>
<tr>
<td>Christian Healing</td>
<td></td>
</tr>
<tr>
<td>OB/GYN</td>
<td></td>
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</tbody>
</table>

**Verbatim Comments on Services**

*If I didn’t have Medicaid assistance, I’m sure I wouldn’t be taking all my medications that I’m supposed to be on and would choose those diseases that are most invisible.* (Senior, South)

[Keep] anything to do with the kids. (Parent, North)

*The dentist. We basically go without right now because we don’t have healthcare coverage.* (Parent, South)

*Right now I go to the dentist twice a year. If that happened I’d maybe go once a year so I wouldn’t necessarily give it up but definitely cut back. Instead of going to my doctor annually maybe two years – just trying to space things out more.* (Provider, South)

*If the household’s finances are tight, which health care service will you most likely go without? Which would be a priority?*
Residents would attend a community health class or event if personally interested or invested in the topic—such as attending a class on a disorder with which they or a friend had been diagnosed. They also would consider attending a class or event that it is low-cost, provides giveaways, is convenient to their schedule, involves a famous or familiar speaker, or is family friendly.

<table>
<thead>
<tr>
<th>Prompts to Attend/Not Attend a Community Health Class/Event</th>
<th>Verbatim Comments on Community Classes/Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personally of interest (e.g., diagnosis-related)</td>
<td>Mostly my schedule. I’m a second shifter. So early morning or afternoon would be better. (Hispanic)</td>
</tr>
<tr>
<td>Convenience – timing, location (e.g., evening, early morning, close to home)</td>
<td>Location – “bring the event to me.” (Provider, North)</td>
</tr>
<tr>
<td>Doctor’s orders</td>
<td>Depends on the leader, the moderator. Is it somebody I would have faith in or have contact with or know a little bit about them. That they do know the subject they are discussing. I would come to support someone. (Senior, South)</td>
</tr>
<tr>
<td>Family-friendly</td>
<td>First, finding out about it. (Low Income, North)</td>
</tr>
<tr>
<td>Famous name speaker</td>
<td>I would say, making it fun. It doesn’t matter what age you are. A little bit of fun in your life, you’ll get up and go. (Low Income, South)</td>
</tr>
<tr>
<td>Free giveaways/gifts/incentives</td>
<td>I’d have to be personally impacted in some way. (Provider, South)</td>
</tr>
<tr>
<td>Good promotion/awareness of event</td>
<td></td>
</tr>
<tr>
<td>Interest in topic</td>
<td></td>
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<tr>
<td>Low cost or free event</td>
<td></td>
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<tr>
<td>Schedule</td>
<td></td>
</tr>
<tr>
<td>Trust in validity of speaker</td>
<td></td>
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</tbody>
</table>

What would prompt you to attend or not attend a (community health) class or event?
Overall, almost half of providers do not feel they have adequate time with each patient to give the best care. However, a regional look at the data reveals providers in southern Ottawa County are more likely to feel they do not have enough time. Interestingly, providers in the southern region are also the group most likely to prefer seeing more patients with shorter blocks of time.

**Total Providers – Enough Time?**

- **Yes**: 41%
- **No**: 12%
- **Depends**: 47%

**(n=17)**

**Total Providers – More Time or More Patients?**

- **See less for more time**: 35%
- **See more for less time**: 30%
- **Unsure**: 35%

**(n=17)**

**North Providers – Enough Time?**

- **Yes**: 50%
- **No**: 20%
- **Depends**: 30%

**(n=10)**

**North Providers – More Time or More Patients?**

- **See less for more time**: 20%
- **See more for less time**: 50%
- **Unsure**: 30%

**(n=10)**

**South Providers – Enough Time?**

- **Yes**: 29%
- **No**: 71%
- **Depends**: 0%

**(n=7)**

**South Providers – More Time or More Patients?**

- **See less for more time**: 43%
- **See more for less time**: 57%
- **Unsure**: 0%

**(n=7)**

*As a provider, do you feel you have adequate time with each patient to give the best care? Would you say that you need to see patients for longer blocks of time or more frequently with shorter blocks of time?*
Barriers to both receiving and providing care are similar for providers and non-providers; **cost-related access, Medicaid reimbursement issues**, and **lack of patient motivation to engage in services**. However, those in the southern region low income group identify **transportation, doctor availability**, and **lack of a caregiver after surgery** as additional barriers.

### Provider Barriers
- Access
- Capacity
- Cost of co-pay/services not covered
- Distrust of government
- Lack of awareness of coverage
- Lack of collaboration
- Literacy
- No payer source/No ability to pay
- Transportation
- Unmotivated patients (to engage in services)

### Non-provider Barriers
- Cost
- Doctor availability
- Inadequate answers from insurance company
- Insurance
- Lack of a caregiver after a procedure
- Lack of a local, easily accessible doctor
- Lack of motivation/initiative
- Needing smaller health issues resolved before serious one can be addressed
- Time
- Transportation

### Verbatim Comments on Barriers

*Before I got insurance, it was, do I go to the doctor or do I eat? (Low Income, South)*

*Difficulty in getting Medicaid coverage in a timely manner. (Provider, South)*

*Those living in poverty, so often they haven’t been to primary care physicians. They only react when they are in pain or there is a severe need. (Provider, South)*

*It’s expensive. I go to Wal-Mart to get their cheap prescriptions. (Hispanic)*

*Awareness of coverage. Every child in Michigan can have MIChild. It’s a matter of making them aware and getting them signed up. (Provider, South)*

Have you had any barriers/obstacles providing health care services in the past? If yes, what problems? How recent? What are the biggest barriers you face in getting medical care?
Views on the Health Care System
All individuals except for parents feel it is at least somewhat difficult to navigate through the health care system. Some parents, seniors, and Hispanic residents feel it depends on the doctor and the insurance type. Seniors comment on the difficulty of understanding the paperwork, while low income or Hispanic residents feel it is difficult to get timely coverage and care.

**Verbatim Comments on Difficulty in Navigating the Health Care System**

*It depends on what health insurance you have. They have to find out if you're covered for something or not. Sometimes it takes forever. (Hispanic)*

*It's difficult for me because I have a hard time. I almost feel like I need a health advocate to tell me what my Medicare does pay for, because those books they give you are just overwhelming. (Low Income, North)*

*S有时候 it’s hard. Because I didn’t have insurance, when I would get to the point where my knee was swollen so big that I couldn’t hardly walk or tolerate the pain, I would have to go to ER and ER sometimes didn’t want to take me, because you know, you need a family physician, well I didn’t have insurance. (Low Income, South)*

*It’s not hard but then if you’re going for Medicaid or welfare you’ve got a long waiting period before you find out am I or am I not going to get the help. (Senior, South)*

*My mother-in-law was very ill for awhile and had multiple issues and it became a full-time job for him [father] to decipher the reports from Medicare that came in, to match them up from the various bills that came in, so it’s more than confusing, it was so overwhelming because there were so many different bills and depending on what got paid or what didn’t get paid, the bills didn’t match up. It almost became a full-time job for him and I don’t know how to label that. (Senior, North)*

*S有时候 they tell you to find out for yourself if you’re covered. (Hispanic)*
The majority of residents feel the paperwork needed to get health care is at least somewhat burdensome, as individuals struggle with interpreting it and in communicating with providers and insurance carriers. Paperwork to pay for care is also seen by most as at least somewhat burdensome, but people feel it depends on the insurance provider.

**Verbatim Comments on Burdensome Paperwork to Get Health Care**

_It's a doable thing. There's a lot of annoyance level stuff. Like I just filled that out three times._ (Senior, South)

_Just the difficulty in getting the paperwork filled out and in a timely fashion and there's such a bad stigma attached to having to get public assistance in some way. I mean, just the people at the Department of Health and Human Services, how she talked to me on the phone, I even said I went to college and I can't get this figured out. I'm sad that you will talk to people on the phone that haven't even completed high school, that can't give their babies any food, and you're giving them this much trouble just to get them to the doctor? Here I am, with all my needs being met except this one thing and I can't even get through this phone conversation or fill the paperwork out correctly._ (Parent, North)

_When you're not feeling well and you're sitting there with a clipboard and you've got to answer all of these questions. They did that to me at the hospital one time. I had to get 11 stitches and they're saying well fill this out and I've got blood gushing out of me!_ (Senior, North)

**Verbatim Comments on Burdensome Paperwork to Pay for Health Care**

_Some insurance companies, you have to do everything and others they do everything for you._ (Hispanic)

_It's because sometimes some of the wording you can't understand it._ (Low Income, North)

_Really when I had health insurance through my work, it was very easy. We just paid our co-pay, we didn't have to submit anything or keep trying to re-qualify. That part of our life was very easy._ (Parent, South)

_We have a rule – never pay that first bill. Wait for the second one to come around because you can overpay and unless you catch it, you don't get it back!_ (Senior, North)
Residents would like health care changes that lead to more access options, easier processes for accessing care, lower costs, better information and service, team approaches to care, more prevention education and more information about events to the local community.

**Important Changes in the Health Care System to Improve Service Delivery and Health Outcomes**

### Seniors

**North**
- Focus on service instead of insurance
- More options/better choices in services & delivery

**South**
- Change Medicaid part D
- Make coverage more affordable
- Medicaid bargaining for prescriptions
- Simplify multiple payer system

### Providers

**North**
- Better phone answering
- Better websites
- Stop care business increases in cost
- Less complicated system
- Team approach to patient care

**South**
- Quicker turnaround with Medicaid as payer source
- More advocacy for residents to get help in applying and receiving services

### Parents

**North**
- More information on how to access options
- Need universal, quality care
- No stigma attached to Medicaid

**South**
- Teach nutritional education much earlier (e.g., schools)
- Teach preventative healthcare in insurance companies and medical school

### Low Income

**North**
- Cut the red tape
- No more checklist
- Prior authorizations
- Team approach to address a problem

**South**
- Better explanations about what you can do to improve your health
- More information about events and access options

### Hispanics

- Get results sooner
- Lower costs

In your opinion, what important changes in the health care system could improve service delivery and health outcomes (insurance, laboratory, records, etc.)
Verbatim Comments on Important Changes to the Health Care System to Improve Service Delivery and Health Outcomes

I would love to see a Medicaid application approved within 48-72 hours so you can get people what they need when they leave the hospital. (Provider, South)

We really don’t have that much of a choice for insurance. As you get older, you have your supplementary, with your Medicare. (Senior, North)

A better explanation of what you can do to better the situation. (Low Income, South)

Just in general? We’re like the only industrialized nation in the world without universal healthcare coverage. I don’t want to have my kids have the crappy Medicaid coverage that the doctor doesn’t want to take just because my husband works at a small company that’s not providing great healthcare. And I have such a problem with how they run it through the Department of Human Services anyway. (Parent, North)

It’s the complexity of multiple payer systems. One insurance says yes, one insurance says no. We take this one, we don’t take that one. (Senior, South)
While the majority feel their providers communicate well with them and with each other about a patient, many feel it depends on who one works with. Those who think providers don’t communicate well with each other are primarily concerned about the time it takes to get records transferred.

I had a difficult time getting my records from my prior physician over to the one that I have now. It took months to get my records over there so they could have a look. (Parent, North)

Because she knows what I’m going through is very painful and I have to have all these other small things done before I have the actual job done so she’s been kind of lenient and understanding. (Low Income, South)

He doesn’t take time to listen. I have more response from his physician assistant than I do him. (Senior, South)

They do, but there’s always a little gap. (Hispanic)

The computer communication I think has increased. I had to go from my primary, to my orthopedic to my PT and everyone had the x-rays so I was pleased with that. (Senior, South)
Residents want the future of health care to **improve health care access and outcomes** but are nervous about any coming change. Providers see **more mergers, more strain on services**, and **increased community ownership of care**. Parents see a **disconnect between providers and those seeking care**, resulting in **fewer doctor visits and more general illness**. Seniors are concerned about **losing Medicare**. Overall, people feel **health care is too expensive**.

### The Future of Health Care

- Disconnect between providers and consumers
- Downhill
- Fewer doctors = less quality care
- Harder on doctors
- Hope it gets better
- Improved access to mental health and substance abuse services
- Improved training on prevention to professionals
- More community ownership
- More health coverage
- More organizational mergers
- More personal responsibility
- More prevention education
- Not good
- Overall community health declining
- The end of Medicare
- Too expensive – care and prescriptions
- Want national health care

### Verbatim Comments on the Future of Health Care

**Everything is skyrocketing. Prescriptions are ridiculous. I don’t think it looks good, even with Obama Care. You see people going to other countries because it’s cheaper.** (Hispanic)

**We worry! All those big shots out there trying to make these decisions. Listen to us. Let them go one month without money and see how they feel. We worry.** (Senior, North)

**I’m concerned about access. Because as more people get it, access can be a problem now. What’s it going to be like if more people get access to coverage, will there be enough doctors because everything I’ve seen says there’s going to be a shortage.** (Provider, South)

**People are choosing to not go to the doctor, to not take their medication, and then their health is declining, which then affects your whole community. To have a whole sick community and then the kids are not as healthy. I mean something has to change with the way people can access good health care.** (Parent, South)

**Professional schools need to be more open - the training changes.** (Provider, North)

**I think in the future they should have the meds there at the hospital for you or at your doctor’s office. Walk out with the meds. Instead of going to the pharmacy have it right at the hospital. Unite the pharmacy with the hospital.** (Low Income, South)
CONCLUSION
Summary of Findings

Social Indicators

- Ottawa County is a community that has limited social factors that negatively impact health and quality of life. For example:
  - The violent crime rate, homicide rate, and rate of confirmed victims of child abuse or neglect, are all significantly lower in Ottawa County than in the state of Michigan or the U.S.
  - Slightly more Ottawa County adults have a college degree than adults around the state or nation
  - Far fewer students are eligible for free or reduced lunches, compared to students around the state

- Additionally, Ottawa County has lower poverty rates than the state of Michigan or the U.S. for the following:
  - People in general
  - Families in general, including those with children under age 5 and under age 18
  - Married couples, including those with children under age 5 and under age 18

- Although the overall proportion of single female families living in poverty in Ottawa County is lower than in Michigan or the U.S., the proportion of single female families with children under age 5 living in poverty is much higher.
Focus group participants report that Ottawa County has wonderful attributes that promote health. For example, it is a safe, walkable, and family-friendly community.

- There are also existing aspects and services that promote health, such as farmer’s markets, fitness centers, senior centers, beaches, paths/trails, parks, organized sports, and the YMCA.

Alternatively, certain community factors deter health, such as:

- General acceptance of obesity
- Cost of activities/centers
- Transportation barriers
- Lack of affordable and healthy food
- Winter weather
Summary of Findings (Cont’d.)

Overall Health Climate

- Key Informants are moderately satisfied overall with the health climate in Ottawa County. Those satisfied cite:
  - Excellent resources, services, and programs
  - Good quality of life
  - County ranked as healthiest in Michigan
  - Giving community
  - Partnerships are collaborative and cooperative

- Those less than satisfied cite:
  - Lack of health care access for many groups/subpopulations
  - Shortage of physicians
  - Increasing rates of obesity
  - Redundancy and waste
  - Not enough services to meet demand

- Top suggested strategies to improve the health climate in Ottawa County include an increased focus on prevention and wellness and an increase in health education for a myriad of issues such as services offered, payment options, lifestyle choices, and personal responsibility.
Overall Health Climate (Cont’d.)

- Key Stakeholders point to the economy as the sole and key sentinel event that has impacted the health and health care landscape in Ottawa County over the past couple of years.
  - High unemployment rates have led to loss of health insurance coverage
  - Additionally, large state and federal deficits have resulted in less funding for area programs and services, ultimately effecting the overall health landscape

- If funding were in place, many health issues could be better addressed as Ottawa County is a caring and compassionate community comprised of a volunteer force and a faith-based foundation that is easily mobilized to causes that tackle community needs.

- Although most health care professionals are unsure of the impact of Health Care Reform, they are optimistic that it will improve health care access and provide more funding to finance efforts that will increase access and allow for an increased focus on prevention and wellness as well as increased health education.
Summary of Findings (Cont’d.)

Health Indicators

- Compared to the state of Michigan or the U.S., Ottawa County residents experience far lower infant, child, and adult mortality rates. Moreover, Ottawa County residents have higher life expectancy rates.

- Although the top two leading causes of death, cancer and heart disease, are the same for Ottawa County, the state and the nation, the rate for Ottawa County is significantly lower for both. Two additional differences worth noting are:
  - The death rate from Alzheimer’s Disease is much higher in Ottawa County than the state or the nation, while
  - The death rate for Diabetes Mellitus is far lower in Ottawa County

- Preventable hospitalizations are a much lower proportion of all hospitalizations in Ottawa County compared to the state of Michigan.

- Most pregnant women begin prenatal care in the first trimester and this proportion is higher than for Michigan as a whole.

- Childhood immunizations are a strength in Ottawa County. The proportion of fully immunized children aged 19-35 months is much greater than the state.
  - Key informant feedback supports this as a major plus in Ottawa County
Summary of Findings (Cont’d.)

Health Indicators (Cont’d.)

- At least nine in ten Ottawa County adults report good or better general health status and satisfaction with their life. This finding is corroborated by feedback from the focus groups.
  - Conversely, less than one in ten report poor physical health, poor mental health, or rarely/never receiving the social and emotional support they need.

- Nearly one-fourth of the adult population is disabled to the extent that their daily activities are limited due to physical, mental, or emotional problems, or they require the use of special equipment.

- Over six in ten adults are considered to be at an unhealthy weight, with 37% overweight and 26% obese.
  - Obesity is the most pressing health issue in Ottawa County according to Key Informants and they are less than satisfied with the community response to obesity.
  - Almost one in ten (9.1%) youth in Ottawa County are considered obese.
Summary of Findings (Cont’d.)

Risk Behavior Indicators

- Most adults participate in leisure time physical activity. Least likely to participate include those who:
  - Have less than a high school degree
  - Live in households with annual incomes less than $20,000

- Most adults lack an adequate diet of fruits and vegetables, and this is true regardless of demographics.

- The current proportion of adult cigarette smokers is on par with the state and the nation.
  - On a positive note, the majority of current smokers have tried to quit during the past year
  - The likelihood of smoking is inversely related to education and income

- The proportion of heavy drinkers is less than one in ten (7%), but this is rate is higher than the state or nation. Further, the proportion of binge drinkers is higher than the state or nation.
  - Binge drinking is linked to age (less than 34) and gender (male)

- Key Informants consider alcohol abuse to be the most pressing health behavior issue in Ottawa County.
Summary of Findings (Cont’d.)

Risk Behavior Indicators (Cont’d.)

- Nearly all Ottawa County adults wear seat belts while driving or riding in cars.

- The proportion of adults with high blood pressure (HBP) is on par (even slightly higher) with Michigan and the U.S. HBP is more common among:
  - Men, older adults (aged 55+), and those with less than a high school degree
Summary of Findings (Cont’d.)

Youth Behavioral Risk Factors

- The teen (aged 15-19) birth rate is lower in Ottawa County than in Michigan or the U.S., however, the repeat teen birth rate in Ottawa County is on par with the state and the nation.
  - Further, three in ten teens have had sexual intercourse and 23% have had it within the past three months

- The proportion of youth in Ottawa County reporting depression or suicide attempts are lower than Michigan and the U.S. Still, these numbers are large enough to indicate an area of opportunity.

- With respect to substance use, Ottawa County youth have lower levels of binge drinking and marijuana use than youth across the state or the nation. The proportion who currently smoke cigarettes is also lower, although not nearly as disparate.

- Half (49.2%) of Ottawa County youth report inadequate amounts of physical activity
Summary of Findings (Cont’d.)

Clinical Preventive Practices

- The vast majority of Ottawa County adults have had a routine physical checkup in the past year.
  - Men and younger adults (<35) are less likely to have routine checkups

- Almost all women who fall within the recommended age guidelines for a mammogram and a Pap Test have had them.
  - Further, the majority (at least 70%) have been received in a timely manner

- Among adult men, the majority have had tests screening for prostate, and the majority of both men and women have been screened for colon cancer.
  - Although the majority of men have received these tests, the proportions are far lower when compared to the proportion of women who have received comparable tests (above) screening for cancer

- Further, the majority of residents aged 65 or older have been immunized for the flu and pneumonia.
Summary of Findings (Cont’d.)

Clinical Preventive Practices (Cont’d.)

- Oral health is an area that the health care community may want to address for several reasons:
  - One in five have not visited a dentist, even for a teeth cleaning, in the past year
  - Both Key Stakeholders and Key Informants mention the lack of dental care available for the uninsured, those with Medicaid, and low income groups
Summary of Findings (Cont’d.)

Chronic Conditions

- The prevalence of the following chronic conditions is very low (5% or less of adults):
  - Cardiovascular disease, including heart attack, angina, coronary heart disease, or stroke
  - Cancer (other than skin)
  - Chronic obstructive pulmonary disease (COPD)
  - Major depression

- Moreover, small proportions (10% or less) of adults have been told they have:
  - Diabetes
  - Skin cancer
  - Asthma (currently)

- Although the prevalence of diabetes is relatively low, Key Informants believe it is an important health issue in the county.
  - In fact, they are less than satisfied with the community response to diabetes compared to most other health issues

- The prevalence of arthritis (23%) is highest among chronic conditions.
  - This proportion increases drastically after age 55
Summary of Findings (Cont’d.)

Health Care Access

- Most adults have health care coverage and have a personal health care provider. However, specific subpopulations are far less likely to have either of these, such as those who:
  - Have less than a high school degree
  - Live in households with annual incomes less than $20,000
  - Are of Hispanic origin
  - Are younger (18-24)

- Key Stakeholders and Key Informants confirm these findings and suggest that the most pressing health issues revolve around the lack of health care programs and services for specific subpopulations, such as low income residents and those who are uninsured or underinsured.
  - This is especially true for primary care options
  - One of the biggest criticisms is that there are not enough physicians or providers who accept Medicaid
  - Which is concerning since one-fourth (25.2%) of children in Ottawa County have Medicaid
  - The ESL or Hispanic population is also affected because they tend to fall into one of these groups
  - Programs and services most scarce for these populations are dental care, mental health treatment, and primary care
  - Senior adults often have to travel out of county for gerontological services
Summary of Findings (Cont’d.)

Health Care Access (Cont’d.)

- Local hospital data shows that compared to inpatient admissions, a higher proportion of Emergency Department visits are for uninsured residents.

- Additionally, local free medical clinic data illustrates that minority groups are overrepresented among their patient base. The value of the free clinics is supported by the fact that:
  - Half of their patients are unemployed
  - If these clinics did not exist, patients report they would probably go without care, or would visit the ED

- Even those with health care coverage find that their policies neglect to cover ancillary services such as prescriptions, vision, or dental care.

- There is also a lack of mental health care, especially for low income, uninsured, and Medicaid residents.
  - Key Informants report some dissatisfaction with the community response to depression

- Key Informants point to a lack of wellness and prevention programs or services that could offset health costs.
Summary of Findings (Cont’d.)

Barriers or Obstacles to Health Care

- Health care professionals say the single greatest barrier to health care in Ottawa County is lack of health care insurance.

- Additionally, the lack of physicians and providers accepting Medicaid extends beyond mental illness to all realms of health care.
  - This impacts both adults AND children

- Further, some providers are now limiting the number of new patients they see with Medicare.
  - Senior adults are obviously impacted most

- In addition to providers not accepting Medicaid and Medicare, those with no or limited health care coverage have trouble finding providers who will see them if they have no insurance.
  - There are two free clinics in Ottawa County that can serve this population, but not as a source of primary care.
  - Additionally, for people who utilize these clinics, the demand is greater than the supply

- Cost is a barrier as those without insurance or with limited insurance often cannot afford the high costs of care or the out-of-pockets costs such as deductibles and co-pays.
Summary of Findings (Cont’d.)

Barriers or Obstacles to Health Care (Cont’d.)

- Language barriers primarily impact the Hispanic population.
  - Key Informants and Key Stakeholders report a lack of not only Hispanic health care professionals, but also non-Hispanic professionals who speak Spanish and can translate
  - There is also a need for education/workshops on how to best address cultural differences that can become obstacles

- The jury is out as to whether transportation is an issue. On the one hand, Key Stakeholders mention it because there is a lack of public transportation in the rural areas and this makes up a great deal of the landscape in Ottawa County. On the other hand, very few Key Informants list transportation as a barrier to health care.

- Key Informants offer the following suggestions for effective solutions to health care barriers:
  - Universal health care/single payer system
  - Education on services offered, payment options, prevention, wellness
  - More acceptance of Medicaid by providers
  - Incentives for better lifestyle choices
  - Different local health care model/plan/paradigm
  - More free/no cost clinics
Barriers or Obstacles to Health Care (Cont’d.)

- A lack of physicians accepting Medicaid, transportation and cost are not only barriers to health care, community residents say there are also barriers to good health.

- Providers say there are also barriers and obstacles to providing health care, such as Medicaid reimbursement rates and lack of patient motivation to engage in services.
Summary of Findings (Cont’d.)

Gaps in Health Care or Services/Programs Offered

- Health care professionals agree that Ottawa County has a wealth of health care services and programs that meet the demand of the population, including:
  - Emergency services – such as ambulatory/emergency transport, emergency care, and urgent care services
  - General surgery
  - OB/GYN
  - Ophthalmology
  - Orthopedics

- Conversely, there is a lack of programs and services to meet the demands of the population for:
  - Mental health treatment, whether for mild, moderate, severe, or persistent
  - Substance abuse
  - Non-emergency transport (transportation barrier)
  - General dental care and oral surgery

- The inability to meet the demand partly stems from a lack of coordination among providers and a general lack of resources to support existing programs. Better coordination and communication across services will result in a more effective referral system and increase access by the sharing of resources.
Summary of Findings (Cont’d.)

Gaps in Health Care or Services/Programs Offered (Cont’d.)

- Many health care professionals believe there is not a wide variety and choice of primary care physicians for both adults and children.
  - Again, the lack of primary care options hits the underserved the hardest
  - Lack of primary care options is attributed to the difficulty in recruiting primary care physicians to Ottawa County and the fact that fewer physicians overall are seeking a career in primary care

- The majority of residents have to travel outside of Ottawa County, or know someone who does, for certain services, in order to receive specialized care, cancer treatment, treatment for heart conditions, pediatric-related, or to seek a second opinion/better diagnosis.

- Focus group participants believe more activities and services are needed that promote good health through exercise and nutrition. Senior adults would like to see more cultural celebrations and parents would like to see more youth activities and education efforts.
  - Residents in southern Ottawa County want more services in place that increase access to, and provide lower costs for, both primary health care and dental care
Summary of Findings (Cont’d.)

Health Disparities

- There is a direct relationship between health outcomes and both education and income, meaning positive outcomes are more prevalent with higher education and income levels on the same measure.

Examples include:
- General health status
- Satisfaction with life
- Likelihood of receiving social/emotional support
- Having health care coverage
- Having a personal health care provider
- Engaging in leisure time activity
- Smoking cigarettes
- Having an appropriately timed Pap test
- Having a colonoscopy
- Visiting a dentist
- Having major depression

- The link between both education and income and positive health outcomes goes beyond the direct relationship. Those in the very bottom groups, for example no high school education and/or less than $20K in household income, are most likely to experience the worst health outcomes.
SUGGESTED PRIORITIES/ NEXT STEPS
Suggested Priorities/Next Steps

Overall, this research identifies the pressing and prevalent health needs and concerns in Ottawa County as the following: health care access - primary and oral care - for the uninsured or low income, monitoring chronic disease rates, levels of obesity, mental health care services, health literacy, preventative activities, and lack of a coordinated community approach to tackling these issues in the community. These issues are organized by each identified need.

**Health Care Access**

Clearly, access to quality and affordable health care is a challenge for Ottawa County’s low income and uninsured residents. Not only does this lead to unhealthy individuals and families, it results in an overuse of other services, such as the emergency room, to address needs that grow more severe with neglect. Therefore, the following are suggested to address the issue of access:

- Encourage physicians in Ottawa County to accept more Medicaid patients through incentives (e.g., increased Medicaid reimbursement rates, local government or community foundation-subsidized reimbursement).

- Increase Medicaid reimbursement for both primary and dental care.

- Explore the degree to which services can be provided by mid-level providers to increase health care access.
Suggested Priorities/Next Steps (Cont’d.)

- Consider the development of a more team-oriented approach to care, such as where a physician works with a team of mid-level providers (e.g., nurse practitioners, physician’s assistants) to be able to see more patients and effectively address patient concerns.

- Expand insurance coverage opportunities in the county, especially for those suffering from chronic conditions. This could occur through government decisions to subsidize the cost of health care for individuals or families or by encouraging currently uninsured residents to use different models of health care coverage (e.g., Access Health), and promoting coverage for preventive services.

- Build upon existing safety net programs for dental health and primary care by increasing investment in existing providers of free or low-cost dental and primary care (such as free clinics) to enable them to better address the existing community need.

- Policy efforts should be made to incorporate dental care into the community’s overall health care delivery system. For example, the task force or committee that will take the information from this report and move forward with it, needs to work with people at the state level to change definitions, determine ways to obtain funding, etc. Legislation has to occur at the state level to ensure dental care is accessible to all residents.
Suggested Priorities/Next Steps (Cont’d.)

- Implement a community service that provides residents with support and general advocacy in getting their health care needs met as well as paid for, and in navigating the overall health care system.

- Consider implementing primary and dental care services to residents in need through new community avenues (e.g., hospital-based outpatient walk-in clinics, schools).

- Hire more bi-lingual health care providers to both hear and address the needs of the county’s Hispanic residents. This may prove difficult, thus, alternatively hire more mid-level health care practitioners who speak Spanish and/or hire bilingual liaisons who can simply translate for ESL patients. These measures will address the “trust” barrier if it exists.

- Explore the establishment of a prescription drug assistance program that allows a patient immediate access to needed prescriptions. For example, one Key Stakeholder suggested providing prescription drugs onsite (e.g., at physician’s office, hospital) because many people face transportation barriers that make it difficult to travel to multiple places to tend to their medical needs.

- Implement transportation service options for low income and senior residents in need (such as reimbursement system or nonprofit service provider).
Chronic Disease Care

Chronic disease care, especially in the case of diabetes, is linked directly to future health outcomes and care for residents. It is important that residents receive consistent care, be knowledgeable about their disease, and take steps toward active self care, or conditions will worsen, creating greater health problems and more strain on health care delivery.

- Create a system in which walk-in clinics are linked to primary care physicians for information and follow-up opportunities that will increase communication between providers and refer patients with chronic conditions to education and support services.

- Make changes to policy and practice that improve patient self-management such as providing more education and support.

- Determine what types of specialist providers are needed in the community to improve the management of chronic conditions.
Suggested Priorities/Next Steps (Cont’d.)

*Mental Health Support*
Residents are unsatisfied with how the community is addressing mental health needs (e.g., depression, substance abuse). There is also a lack of affordable and available services for moderate mental health needs in the community. Therefore…

- Mental health diagnosis and care should be enhanced based upon the specific needs and resources available in the community.

- Provide more resources for services to residents with mild and moderate mental illness or substance abuse problems.

- Mental health care needs to be integrated into the approach to primary care (e.g., co-location of such services, coordinating communication and treatment between mental health care provider and primary care physician).

- Coordinate the delivery of care across agencies to better meet the needs of residents with mental as well as physical health problems.
Addressing Obesity

Obesity is clearly recognized as a health problem existing in the community, and is linked to many undesirable health outcomes. The following recommendations are made to address this community issue, some of which come from recommendations identified by the Centers for Disease Control and Prevention.

- Encourage healthy eating, diets, and exercise through a public awareness campaign in the community.

- Increase access to high quality, fresh, and affordable foods.

- Provide insurance-based incentives to address self management education needs and provide support that motivates residents to address issues concerning weight.

- Increase the availability of healthy foods and beverages in public venues.

- Support physical education and nutrition classes in school systems by assisting in the evaluation and assessment of their effectiveness.
Suggested Priorities/Next Steps (Cont’d.)

- Provide incentives to retailers in geographically underserved areas to provide healthier food and beverage options to the public.

- Improve upon and advertise affordable venues for physical fitness activities. Investigate whether or not local fitness centers, personal trainers, and dieticians would be willing to provide discounted services if reimbursed some way.

- Develop community partnerships that look to reduce obesity rates through evidence-based approaches.
Health Literacy & Preventative Education

Overall, there is a need to promote health literacy and increase prevention education and activities in the community. Therefore, the following recommendations are made to address this need:

- More community education opportunities that teach and promote healthy lifestyle choices promoted by local health organizations can benefit the community.

- Employee insurance policies should promote coverage for prevention services and activities (e.g., quitting smoking).

- More development of structured employee wellness programs that offer incentives (e.g., reduced insurance premiums, health challenges for prizes) to encourage the practice of healthy lifestyle choices.

- Free or subsidized gym memberships should be offered to increase access to exercise opportunities.
Developing a Coordinated Community Approach

A coordinated approach to community health and health care can enable the community to focus on its most important targets for improvement, have a complete understanding of the services available and the extent of need, and allow for sharing of patient information across medical providers to ultimately increase access and make the process of accessing services easier for county residents. Therefore, the following ideas are recommended:

- Make technology improvements that allow for a regional system permitting local data exchange concerning patient care.

- Create a community health care action plan that creates a plan to support efforts to improve community health. Community members want a coordinated community plan that allows people to strategize.

- Focus these coordinated efforts on increasing ease of use in order to encourage more engagement in the health care delivery system by community residents.

- The community must develop and agree upon population health outcomes and targets for intervention.
Sub-population Focus

There are groups within the general population that deserve specific focus in implementing any improvements to the health care service delivery and overall health outcomes in Ottawa County.

- Hispanic residents – Hispanic residents are more likely to report their health as fair or poor than other residents, and also face language barriers in accessing services. Consideration of this population’s health needs and care is critical to improving community health.

- Low education and low income residents – The majority of health care access and health outcomes identified in this needs assessment are directly or indirectly related to income as well as education. Considering these factors in any attempt to increase access or achieve desired health outcomes should improve the overall effectiveness of these efforts.
Suggested Priorities/Next Steps (Cont’d.)

- Teen and single mothers – repeat teen birth rates are high, as well as the number of single mothers with children under 5 living in poverty. This group is deserving of further investigation and efforts to increase access to care for these families will benefit the health of the community.

- More women than men tend to have regular screening for disease or chronic conditions. Therefore, the community must develop strategies to get more men to participate in this type of preventative health care.

**Next steps may include the creation of a steering committee to work on prioritizing and then developing a coordinated response to issues deemed most important to work on, within a specific time frame, such as 1 year, 3 year, and 5 year goals. Additionally, the steering committee might consider using the information provided in this needs assessment to facilitate discussions with different community stakeholders on how to best address the needs identified here, in pursuit of funding for new efforts, and as a baseline to provide the community with its health profile. Above all, next steps involve the establishment of careful priorities for action that once implemented, will benefit the community for the long haul.**
METHODOLOGY
Methodology

- This research involved the collection of primary and secondary data. The table below shows the breakdown of primary data collected with the target audience, method of data collection, and number of completes:

<table>
<thead>
<tr>
<th>Data Collection Methodology</th>
<th>Target Audience</th>
<th>Number Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Stakeholders</td>
<td>In-Depth Telephone Interviews</td>
<td>Hospital Directors, Clinic Directors</td>
</tr>
<tr>
<td>Key Informants</td>
<td>Online Survey</td>
<td>Physicians, Nurses, Dentists</td>
</tr>
<tr>
<td>Community Residents</td>
<td>Focus Groups (9 groups, 47 participants)</td>
<td>Providers Low Income Hispanic Senior Adults Parents with Children at Home</td>
</tr>
<tr>
<td>Community Residents</td>
<td>Telephone Survey (BRFS)</td>
<td>Ottawa County Adults (18+)</td>
</tr>
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- Secondary data was derived from local hospital utilization data and various government and health sources such as the U.S. Census, Michigan Department of Community Health, County Health Rankings.
Methodology (Cont’d.)

- Of the 11 Key Stakeholders invited to participate, all 11 completed an in-depth interview (100% response rate). Key Stakeholders were defined as executive-level community leaders who:
  - Have extensive knowledge and expertise on public health issues
  - Can provide a “50,000 foot perspective”
  - Are often involved in policy decision making
  - Examples include hospital administrators and clinic directors

- Of the 80 Key Informants invited to take the online survey, 36 completed it for a 45% response rate. Key Informants are also community leaders who:
  - Have extensive knowledge and expertise on public health issues, or
  - Have experience with subpopulations impacted most by issues in health/health care
  - Examples include health care professionals or directors of non-profit organizations

- There were 9 focus groups conducted, 5 in southern Ottawa County and 4 in northern Ottawa County, with a total of 47 participants. The breakdown of participants per group is as follows:
  - Seniors, North (n=7)
  - Seniors, South (n=3)
  - Low income, North (n=2)
  - Low income, South (n=4)
  - Parents with children, North (n=2)
  - Parents with children, South (n=7)
  - Providers, North (n=11)
  - Providers, South (n=7)
  - Hispanic, South (n=4)
Methodology (Cont’d.)

- A Behavioral Risk Factor Survey was conducted in Ottawa County via telephone with 1,274 county residents. The response rate was 41%.

- Disproportionate stratified random sampling (DSS) was used to ensure results could be generalized to the population of Ottawa County. Characteristics of DSS are:
  - Landline telephone numbers are drawn from two strata (lists) that are based on the presumed density of known telephone household numbers
  - Numbers are classified into strata that are either high density (listed) or medium density (unlisted)
  - Telephone numbers in the high density strata are sampled at the highest rate, in this case the ratio was 1.5:1.0

- In addition to landline telephone numbers, the design also targeted cell phone-only Ottawa County residents. Of the 1,274 completed surveys, 286 were cell phone-only (22%).

- The 1,274 households represent 1.4% of the 93,775 households in Ottawa County according to the 2010 U.S. Census.

- The margin of error for the entire sample of 1,274, at a 95% confidence level, is +/- 2.7%. This is based on a population of roughly 195,064 Ottawa County residents 18 years or older, according to the 2010 U.S. Census estimate.
Methodology (Cont’d.)

- Unless noted, as in the Michigan BRFS, respondents who refused to answer a question or did not know the answer to a specific questions were normally excluded from analysis. Thus, the base sizes vary throughout the section regarding the BRFS.

- Data weighting is an important statistical process that was used to remove bias from the BRFS sample. The formula consists of both design and post-stratification weights. The purpose of weighting the data is to:
  - Correct for differences in the probability of selection due to non-response and non-coverage errors.
  - Adjusts variables of age and gender between the sample and the entire adult population in Ottawa County.
  - Allows the generalization of findings to the whole population, not just those who respond to the survey.
APPENDIX
Definitions of Commonly Used Terms
ESL – means “English as a second language.” For this population/group, English is not their primary language. For purposes of this report, it most often refers to the Hispanic population that has Spanish as their primary language.

PCP – refers to “primary care provider” or “primary care physician,” but the key terms are “primary care.” Examples of this are family physicians, internists, and pediatricians.

Binge drinkers – those who consume five or more drinks per occasion (for men) or four or more drinks per occasion (for women) at least once in the previous month.

Heavy drinkers – those who consume an average of more than two alcoholic drinks per day for men and one per day for women in the previous month.
Respondent Profiles
Key Stakeholder Interviews

Chief Executive Officer/President of Alliance for Health
Chief Executive Officer/President of Holland Hospital
Chief Executive Officer/President of Innovation Health and Wellness Benefits
Chief Executive Officer/President of North Ottawa Community Health Systems
Chief Executive Officer/President of Spectrum Health Zeeland Community Hospital
Chief Operating Officer for Ottawa County Health Programs
Director of Medical Management for Priority Health
Director of Ottawa County Department of Human Services
Executive Director for Ottawa County Community Mental Health
Executive Vice President of Intercare Community Health Network
Vice President of Human Resources, Shape Corporation
## Behavioral Risk Factor Survey

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<tr>
<th></th>
<th>TOTAL</th>
<th>Northwest</th>
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<th>Southwest</th>
<th>Southeast</th>
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<td>(n=35)</td>
<td>(n=95)</td>
<td>(n=651)</td>
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<td>52%</td>
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<td>48%</td>
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### Behavioral Risk Factor Survey (Cont’d.)

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<th>Marital Status</th>
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<th>Southeast (n=201)</th>
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<td>21%</td>
<td>21%</td>
<td>20%</td>
<td>15%</td>
<td>25%</td>
<td>17%</td>
</tr>
<tr>
<td>A member of an unmarried couple</td>
<td>3%</td>
<td>2%</td>
<td>0%</td>
<td>5%</td>
<td>2%</td>
<td>3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Children Less Than Age 18 At Home</th>
<th>TOTAL (n=1274)</th>
<th>Northwest (n=285)</th>
<th>Northeast (n=35)</th>
<th>Central (n=95)</th>
<th>Southwest (n=651)</th>
<th>Southeast (n=201)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>53%</td>
<td>64%</td>
<td>62%</td>
<td>65%</td>
<td>48%</td>
<td>50%</td>
</tr>
<tr>
<td>One</td>
<td>17%</td>
<td>13%</td>
<td>3%</td>
<td>9%</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>Two</td>
<td>18%</td>
<td>15%</td>
<td>24%</td>
<td>14%</td>
<td>19%</td>
<td>17%</td>
</tr>
<tr>
<td>Three or more</td>
<td>12%</td>
<td>8%</td>
<td>11%</td>
<td>12%</td>
<td>135</td>
<td>17%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Adults and Children in Household</th>
<th>TOTAL (n=1274)</th>
<th>Northwest (n=285)</th>
<th>Northeast (n=35)</th>
<th>Central (n=95)</th>
<th>Southwest (n=651)</th>
<th>Southeast (n=201)</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>9%</td>
<td>14%</td>
<td>7%</td>
<td>9%</td>
<td>8%</td>
<td>7%</td>
</tr>
<tr>
<td>Two</td>
<td>30%</td>
<td>33%</td>
<td>34%</td>
<td>42%</td>
<td>27%</td>
<td>30%</td>
</tr>
<tr>
<td>Three</td>
<td>16%</td>
<td>22%</td>
<td>12%</td>
<td>17%</td>
<td>16%</td>
<td>9%</td>
</tr>
<tr>
<td>Four</td>
<td>23%</td>
<td>18%</td>
<td>26%</td>
<td>17%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Five</td>
<td>13%</td>
<td>10%</td>
<td>16%</td>
<td>14%</td>
<td>15%</td>
<td>12%</td>
</tr>
<tr>
<td>More than five</td>
<td>10%</td>
<td>3%</td>
<td>5%</td>
<td>2%</td>
<td>10%</td>
<td>17%</td>
</tr>
<tr>
<td>Education</td>
<td>TOTAL  (n=1274)</td>
<td>Northwest (n=285)</td>
<td>Northeast (n=35)</td>
<td>Central (n=95)</td>
<td>Southwest (n=651)</td>
<td>Southeast (n=201)</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>-----------------</td>
<td>-------------------</td>
<td>------------------</td>
<td>----------------</td>
<td>-------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Never attended school, or only Kindergarten</td>
<td>&lt;1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>&lt;1%</td>
<td>0%</td>
</tr>
<tr>
<td>Grades 1-8 (Elementary)</td>
<td>2%</td>
<td>&lt;1%</td>
<td>0%</td>
<td>0%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Grades 9-11 (Some high school)</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>2%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Grade 12 o GED (High school graduate)</td>
<td>30%</td>
<td>29%</td>
<td>33%</td>
<td>2%</td>
<td>33%</td>
<td>31%</td>
</tr>
<tr>
<td>College 1 year to 3 years (Some college)</td>
<td>31%</td>
<td>30%</td>
<td>38%</td>
<td>31%</td>
<td>30%</td>
<td>37%</td>
</tr>
<tr>
<td>College 4 years or more (College graduate)</td>
<td>33%</td>
<td>37%</td>
<td>26%</td>
<td>34%</td>
<td>32%</td>
<td>35%</td>
</tr>
<tr>
<td>Employment Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed for wages</td>
<td>51%</td>
<td>45%</td>
<td>46%</td>
<td>56%</td>
<td>54%</td>
<td>47%</td>
</tr>
<tr>
<td>Self-employed</td>
<td>7%</td>
<td>9%</td>
<td>11%</td>
<td>2%</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Out of work for more than a year</td>
<td>4%</td>
<td>7%</td>
<td>6%</td>
<td>5%</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Out of work for less than a year</td>
<td>3%</td>
<td>4%</td>
<td>0%</td>
<td>2%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>A homemaker</td>
<td>7%</td>
<td>3%</td>
<td>15%</td>
<td>11%</td>
<td>8%</td>
<td>9%</td>
</tr>
<tr>
<td>A student</td>
<td>7%</td>
<td>5%</td>
<td>0%</td>
<td>7%</td>
<td>7%</td>
<td>11%</td>
</tr>
<tr>
<td>Retired</td>
<td>17%</td>
<td>23%</td>
<td>20%</td>
<td>13%</td>
<td>14%</td>
<td>22%</td>
</tr>
<tr>
<td>Unable to work</td>
<td>4%</td>
<td>4%</td>
<td>3%</td>
<td>5%</td>
<td>4%</td>
<td>1%</td>
</tr>
</tbody>
</table>
## Behavioral Risk Factor Survey (Cont’d.)

<table>
<thead>
<tr>
<th></th>
<th>TOTAL</th>
<th>Northwest</th>
<th>Northeast</th>
<th>Central</th>
<th>Southwest</th>
<th>Southeast</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Household Income</strong></td>
<td>(n=1101)</td>
<td>(n=252)</td>
<td>(n=27)</td>
<td>(n=77)</td>
<td>(n=571)</td>
<td>(n=170)</td>
</tr>
<tr>
<td>Less than $20,000</td>
<td>15%</td>
<td>18%</td>
<td>28%</td>
<td>11%</td>
<td>14%</td>
<td>13%</td>
</tr>
<tr>
<td>$20,000 to less than $35,000</td>
<td>18%</td>
<td>15%</td>
<td>18%</td>
<td>21%</td>
<td>18%</td>
<td>18%</td>
</tr>
<tr>
<td>$35,000 to less than $50,000</td>
<td>18%</td>
<td>17%</td>
<td>32%</td>
<td>15%</td>
<td>19%</td>
<td>13%</td>
</tr>
<tr>
<td>$50,000 to less than $75,000</td>
<td>21%</td>
<td>20%</td>
<td>6%</td>
<td>16%</td>
<td>23%</td>
<td>19%</td>
</tr>
<tr>
<td>$75,000 or more</td>
<td>29%</td>
<td>30%</td>
<td>15%</td>
<td>38%</td>
<td>26%</td>
<td>37%</td>
</tr>
<tr>
<td><strong>Poverty Status</strong></td>
<td>(n=1078)</td>
<td>(n=243)</td>
<td>(n=25)</td>
<td>(n=79)</td>
<td>(n=555)</td>
<td>(n=172)</td>
</tr>
<tr>
<td>Income under poverty line</td>
<td>11%</td>
<td>10%</td>
<td>25%</td>
<td>1%</td>
<td>11%</td>
<td>16%</td>
</tr>
<tr>
<td>Income over poverty line</td>
<td>89%</td>
<td>90%</td>
<td>75%</td>
<td>99%</td>
<td>89%</td>
<td>84%</td>
</tr>
<tr>
<td><strong>Region</strong></td>
<td>(n=1274)</td>
<td>(n=285)</td>
<td>(n=35)</td>
<td>(N=95)</td>
<td>(n=651)</td>
<td>(n=201)</td>
</tr>
<tr>
<td>Northwest</td>
<td>21%</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>3%</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central</td>
<td>7%</td>
<td></td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southwest</td>
<td>52%</td>
<td></td>
<td></td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southeast</td>
<td>17%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>
Key Informant Surveys

Assistant Administrator, Ottawa County Health Department

Assistant Administrator, GVSU, Campus Wellness & Recreation

Associate Director, Hope College Health Clinic

CFO, Spectrum Health Zeeland Community Hospital

Chair, Health and Human Services Committee, Ottawa County Board of Commissioners

Coordinator, Ottawa County Great Start Collaborative

Dean of Students, Western Theological Seminary

Deputy Director, Community Mental Health of Ottawa County

Director of Adult Ministries, Second Reformed Church, Zeeland, MI

Director, City on a Hill Free Health Clinic

Director, Holland Community Health Center

Director, Holland Free Health Clinic

Director, Holland Hospital Center for Good Health
Key Informant Surveys (Cont’d.)

Director, Tri-Cities Ministries Counseling
Executive Director, Allendale Love INC
Executive Director, Bethany Christian Services
Executive Director, Children’s Advocacy Center
Executive Director, Coopersville Cares
Executive Director, Grand Haven Community Foundation
Executive Director, Lakeshore Ethnic Diversity Alliance
Executive Director, Latin Americans United for Progress
Executive Director, Ottawa County Human Services Coordinating Council
Executive Director, Northwest Ottawa County Council on Aging
Executive Director, Senior Resources
Executive Director, The People Center
Health and Wellness Coordinator, GVSU, Human Resources
Key Informant Surveys (Cont’d.)

Parish Nurse, Christ Memorial Church

Past Board Member, Spectrum Health Zeeland Community Hospital

President, Community Foundation of Holland/Zeeland Area

President, Greater Ottawa County United Way

President, Holland Area Chamber of Commerce

President, Lakeshore Advantage

President, West Michigan Strategic Alliance

Recreation Director, Zeeland Public Schools/Zeeland Recreation

Retired VP of Human Resources, Gentex Corporation

Senior Vice President, Huntington National Bank
Ottawa County Community Health Needs Assessment Task Force
CHNA Task Force Members

Liz DeLaLuz, Director of Community Impact, Great Ottawa County United Way
Lynne Doyle, Deputy Director, Community Mental Health of Ottawa County
Jodi Gogolin, Community Outreach Director, Holland Hospital
Melissa Kamara Liggins, Community Relations Manager, Spectrum Health Zeeland Community Hospital
Marcia Knol, Community Health Planner/Analyst, Ottawa County Health Department
Donald Longpre, Vice President – Finance/CFO, North Ottawa Community Health System
Patrick Moran, President, Greater Ottawa County United Way
Andre Pierre, Director of Business Operations – Healthier Communities, Spectrum Health System
Ryan Powers, Vice President of Finance and System Services, Spectrum Health Zeeland Community Hospital
Lisa Stefanovsky, Health Officer, Ottawa County Health Department
Jennifer VanSkiver, Chief Communications Officer, North Ottawa Community Health System
Ottawa County Map with Regions

2011 Ottawa BRFS Geographic Zones for Crosstab Tables

<table>
<thead>
<tr>
<th>Community Area Description</th>
<th>Zone</th>
<th>ZIP Codes Included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grand Haven, Spring Lake &amp; Ferrysburg</td>
<td>NW</td>
<td>49409, 49415, 49417, 49456*, 49448*</td>
</tr>
<tr>
<td>Coopersville, Conklin, Harrisburg, Wright</td>
<td>NE</td>
<td>49404*, 49403, 49330</td>
</tr>
<tr>
<td>Allendale, West Olive, Mame</td>
<td>C</td>
<td>49460, 49401, 49534, 49435</td>
</tr>
<tr>
<td>Holland, Zeeland</td>
<td>SW</td>
<td>49422, 49423*, 49424, 49464</td>
</tr>
<tr>
<td>Hudsonville, Jamesstown, Jenison</td>
<td>SE</td>
<td>49323, 49315, 49426, 49427, 49428, 49429</td>
</tr>
</tbody>
</table>

Northwest:
- 49409
- 49415
- 49417
- 49448*
- 49456*

Northeast:
- 49403
- 49404*

Central:
- 49460
- 49401
- 49534
- 49435

Southwest:
- 49422
- 49423*
- 49424
- 49464

Southeast:
- 49315
- 49323
- 49330
- 49426
- 49428
- 49429

*Indicates ZIP codes where all respondents in that ZIP were included in the sample even though it crosses county lines (county of residence for each respondent was also collected). ZIP codes 49448, 49456, & 49404 cross over into Muskegon County while 49423 crosses over into Allegan County. Other ZIP codes that lay across county lines only had the Ottawa County portion in the BRFS sample.