



Community Health Needs Assessment 2013

St. Francis Hospital

Delta County

Prepared by Dr. Laurence G. Weinzimmer and Professor Eric J. Michel

Executive Summary

The Delta County Community Health-Needs Assessment (CHNA) is an undertaking by St. Francis Hospital to highlight the health needs and well-being of residents in Delta County.

Through this needs assessment, collaborative community partners have identified numerous health issues impacting individuals and families in the Delta County region. Several themes are prevalent in this health-needs assessment – the demographic composition of the Delta County region, the predictors and prevalence of diseases, leading causes of mortality, accessibility to health services and healthy behaviors.

Specifically, team members included representatives from St. Francis Hospital, public health specialists, RNs/physicians from clinics serving the at-risk population, social service providers, pastors, and representation from the United Way.

Why Focus on the Health Needs of Delta County?

Results from this study can be used for strategic decision making purposes as they directly relate to the health needs of the community.

The study was designed to assess issues and trends impacting the communities served by the hospital, as well as perceptions of targeted stakeholder groups.

Specifically, this assessment provides a detailed analysis of:

- (1) Delta County region community health needs using secondary data; and
- (2) An assessment of perceptions and behaviors regarding health-related challenges in the community, including accessibility to needed health care.

Methodology

The community health-needs assessment is divided into three distinct phases.

PHASE I

The collection of existing secondary data to develop a comprehensive health profile and identify strategic inferences.

The CHNA includes detailed analyses of secondary data to assess information regarding the health status of the community. In order to perform these analyses, information was collected from numerous secondary sources, including publically available sources, such as County-based data, as well as private sources of data, such as hospital-specific data. Strategic implications are discussed at the end of each chapter. Specifically, findings from secondary sources of data highlight several critical areas of community needs.

PHASE II

Survey data collection to assess perspectives of key stakeholders, including those with special knowledge. This includes a concerted effort to target the at-risk population in the region.

To collect data in this study, two surveying techniques were used. First, a pilot study was created to test the psychometric properties and statistical validity of the survey instrument. Second, online and paper surveys were employed to gain insight into resident perceptions of the community. To specifically target the at-risk population, surveys were distributed at all homeless shelters and soup kitchens. In sum, a total of 871 residents were surveyed.

PHASE III

A summary of key health-related issues. Using an importance/urgency matrix methodology, health-related needs are prioritized.

The identification and prioritization of the most important health-related issues in the Delta County region are identified in Phase III. After summarizing all of the issues in the Community Health Needs Assessment, a comprehensive assessment of existing community resources was performed to identify the efficacy to which health-related issues were already being addressed. Approximately 30 organizations that serve the needs of the Delta County region were identified. Finally a collaborative effort of leaders in the healthcare community used an importance/urgency methodology to identify the most critical issues in the area.

Phase 1: Demographics

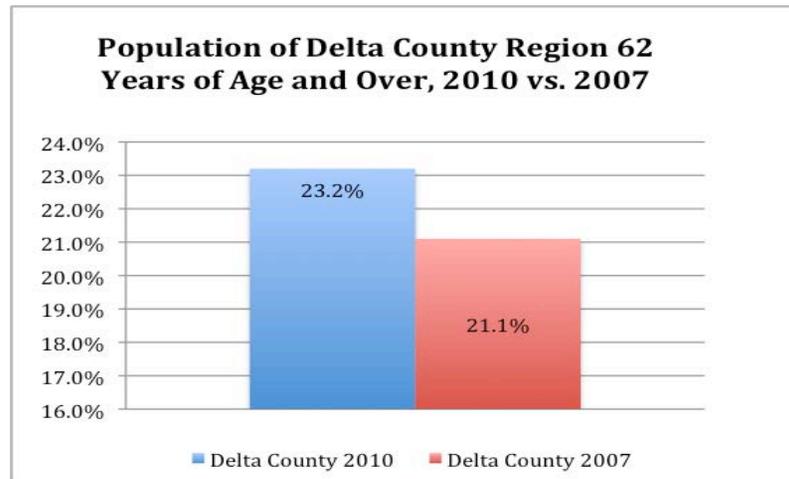
Demographics

including increasing of the elderly population, depression, risky behaviors, and poverty will have significant impact on the health needs of the Delta County Region

Increasing Elderly Population -

The 62 and older population has seen a significant increase between 2007 and 2010. While individuals aged 62 and over have recently increased from 21.1% to 23.2% in Delta County, national forecasts estimate that individuals over age 65 will increase by one-third by 2022. In addition, advances in medical technology and medicine may enable individuals to live longer, thus requiring extensive medical care.

As individuals age and live with disabilities, it greatly impacts the degree of self-sufficiency and medical care required to maintain satisfactory well-being. With the changing demographics resulting from the aging of baby boomers, it is anticipated the Delta County region will experience an increase in the number of elderly individuals living with the difficulties of disabilities and chronic conditions, such as diabetes, asthma, and heart disease, and obesity will contribute to the growing cost of health care.



Phase 1: Demographics

Risky Behaviors

For those identifying themselves as smokers, Delta County is 8.5% higher than State of Michigan averages. Moreover, there has been a 4.5% increase for those identifying themselves as smokers in Delta County between 2005-2007 and 2008-2010. In contrast, there was a decrease for those identifying themselves as smokers for the State of Michigan during same time frame.

25% of Delta County respondents engage in binge drinking versus 18% in the State of Michigan. Both figures exceed the US national 90th percentile benchmark of 8%.

Also, alcohol abuse and drug abuse were rated the most prevalent unhealthy behaviors among survey respondents. Specifically those with more education rated alcohol abuse higher and those with a Native American background rated drug abuse higher.

Mental Health

While there was a slight decrease in average number of mentally unhealthy days indicated by Delta County residents between 2010 and 2012 from 4 to 3.5 days in the last month, it is 30% higher when compared to the U.S. 90th percentile.



Phase 1: Demographics

Poverty

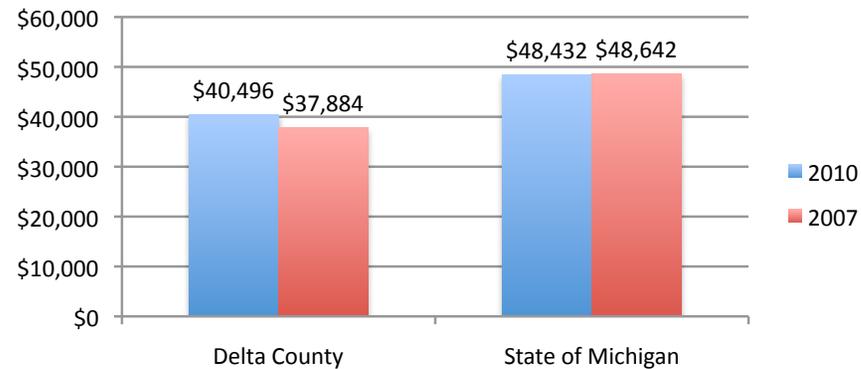
The Delta County region has seen a significant increase in families living in poverty from 2007 to 2010. Poverty has a significant impact on the development of children and youth.

Data from 2010 indicate poverty rates in Delta County are higher than the State of Michigan average for married-couple families and families led by single-mothers with no husband present.

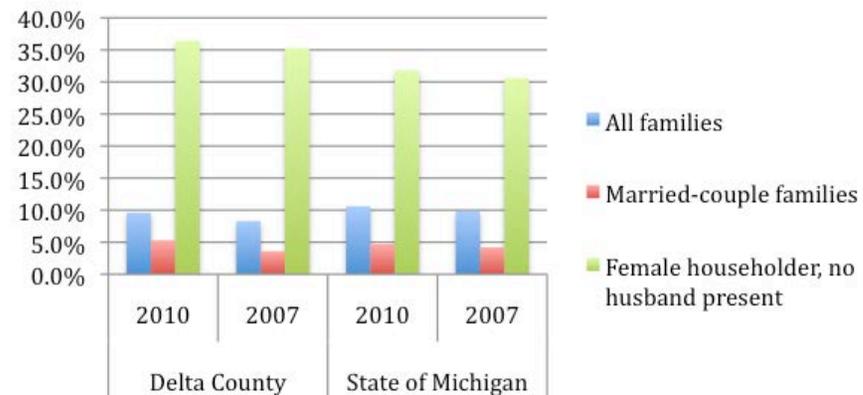
In Delta County, the percentages of all families, married couple families, and single-mother led households living in poverty increased between 2007 and 2010.

In 2010, the median household income in Delta County was \$8,000 less than the State of Michigan average.

Median Household Income for Delta County, 2007 vs. 2010



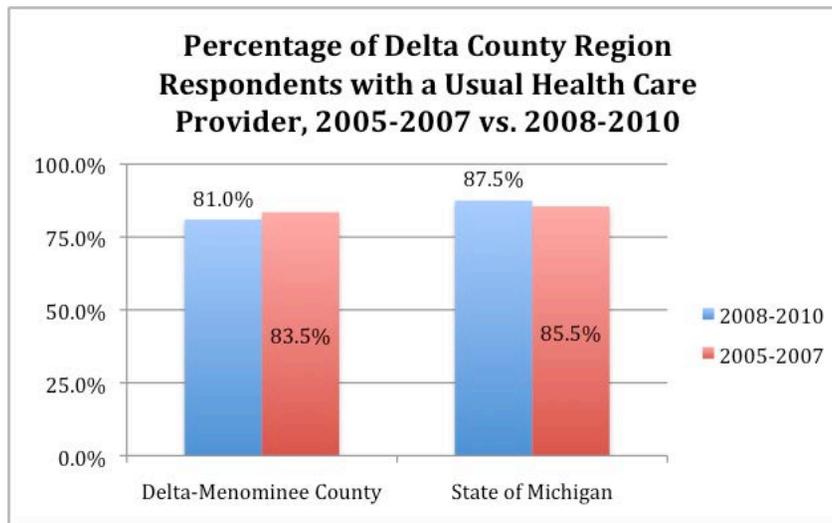
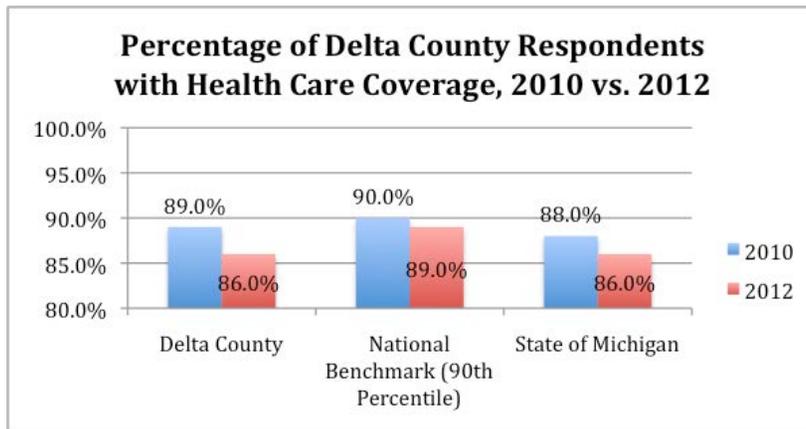
Percentage of Families Living in Poverty in Delta County, 2010 vs. 2007



Phase 1: Access to Health Services

Accessibility to Health Care

The lack of insurance coverage is more prevalent among socioeconomically disadvantaged groups that are often at high risk for disease and illness. Thus, a vicious cycle results where individuals who are at the highest risk for diseases are unable to receive screenings, thus perpetuating a cycle of disease. This is compounded by unhealthy lifestyles.



Dental Care: 37.2% of Delta County Region residents did not see a dentist in the last year compared to 26.2% residents across the State of Michigan who visited a dentist in the last year.

Research suggests that private health insurance companies cover nearly 1/3 of national health expenditures. Medicare covered approximately 20.2% of national health expenditures in 2010, up nearly 4% since 2000. According to the Michigan BRFSS, nearly 20% of Delta County Region residents do not have a usual health care provider. Recent data suggest 89% of Delta County residents possess medical health care coverage. This percentage is slightly higher than the 88% response rate for the State of Michigan yet is lower than the national benchmark from the CDC.

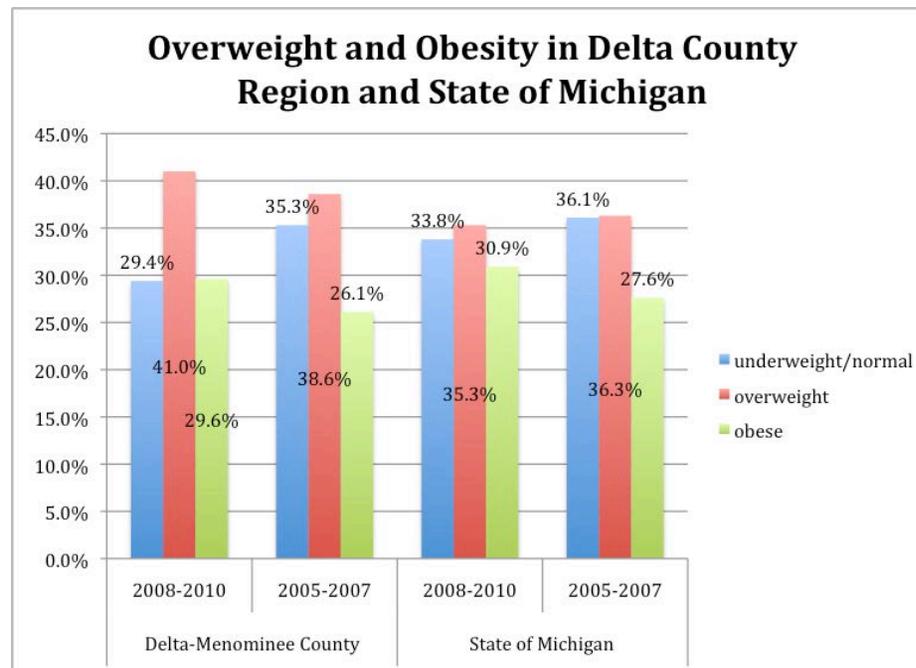
Phase 1: Predictors of Morbidity and Mortality

Predictors of Morbidity and Mortality

Research concludes that predictors such as obesity, drug abuse, alcohol abuse and unhealthy habits such as poor diet and lack of exercise dramatically impact incidence of both morbidity and mortality

Obesity – Research strongly suggests that obesity is a significant problem facing youth and adults nationally, in Michigan, and within the Delta County region. In terms of individuals who are overweight, rates in Delta County are higher than the state average. Considering Michigan had the 5th highest obesity rate in the United States in 2011, this is an important issue. Accordingly, the U.S. Surgeon General characterized obesity as “the fastest-growing, most threatening disease in America today.”

Data from 2010 indicate 71% of Delta County adults are obese or overweight, with a disproportionate number of obese or overweight individuals living in rural areas.



Within the Delta County region, leading indicators suggest obesity is a growing concern.

With regard to nutrition, evidence suggests residents in the Delta County region are not eating enough fruits and vegetables. Between 2005 and 2007, 25% of Delta County region residents consumed less than 5 servings of fruits or vegetables per day.

25% of Delta County region residents report that they did not participate in any leisure-time physical activities or exercises during the past month.

Delta County rates for both fruit and vegetable consumption and physical exercise are lower than rates in the State of Michigan.

Phase 1: Predictors of Morbidity and Mortality

Consequences of Obesity for Children...

With children, research has linked obesity to numerous chronic diseases including Type II diabetes, hypertension, high blood pressure, and asthma. Adverse physical health side effects of obesity include orthopedic problems with weakened joints and lower bone density. Detrimental mental health side effects include low self-esteem, poor body image, symptoms of depression and suicide ideation. Obesity impacts educational performance as studies suggest that overweight students miss one day of school per month on average and school absenteeism of obese children is six times higher than that of non-obese children.

...and Adults

With adults, obesity has far-reaching consequences. Obesity-related illnesses contribute to worker absenteeism, slow workflow, and high worker compensation rates. A Duke University study on the effects of obesity in the workforce noted 13 times more missed workdays by obese employees than non-obese employees. Nationwide, lack of physical activity and poor nutrition contribute to an estimated 300,000 preventable deaths per year. Data from the State of Michigan suggest an estimated \$3.1 billion in medical costs was spent on obesity-related illnesses in 2008 with these figures expected to rise to \$12.5 billion by 2018.



Phase 1: Morbidity and Mortality Issues

Morbidity and Mortality Issues

Several different disease categories have been identified as very important to the community

Heart disease, the leading cause of death in Delta County is impacted by the following related cardiovascular conditions:

Hypertension – High blood pressure, which is also known as hypertension, is dangerous because it forces the heart to work extra hard to pump blood out to the rest of the body and contributes to the development of the hardening of arteries and heart failure.

Congenital cardiac anomalies – Defined as any structural or functional abnormality or defect of the heart, congenital heart anomalies are a major cause of neonatal distress and the most common cause of death in the newborn other than problems related to prematurity.

Dysrhythmia and cardiac arrest – Cases of dysrhythmia and cardiac arrest at St. Francis Hospital have decreased by 29.8% between 2008 (57 cases) and 2011 (40 cases) for inpatient admissions. Of particular interest, cases of dysrhythmia and cardiac arrest in individuals age 65 and over have decreased by 22.2% during the same time frame for inpatient admissions.

Heart Failure – There has been a 22.6% decrease in the number of treated cases of heart failure at St. Francis Hospital between 2008 (84 cases) and 2011 (65 cases) for inpatient admissions. The number of cases peaked between July 2009 and June 2010 when 97 cases were reported.

Cases of stroke – Cases of stroke at St. Francis Hospital have decreased by 15.2% between 2008 (46 cases) and 2011 (39 cases) for inpatient admissions. Cases of brain tumor have ranged from zero to six cases during the same time frame for inpatient admissions.

Phase 1: Morbidity and Mortality Issues

Other prevalent issues in the Delta County Region include:

Asthma – Treated cases of asthma in Delta County have increased by 47% between 2008 (17 cases) and 2011 (25 cases) for inpatient admissions. According to the Michigan BRFSS, asthma rates in the Delta County Region are higher than the average rate for the State of Michigan.

Diabetes - Diabetes is the leading cause of kidney failure, adult blindness and amputations and is a leading contributor to strokes and heart attacks. It is estimated that 90-95% of individuals with diabetes have Type II diabetes (previously known as adult-onset diabetes).

Data from the Michigan BRFSS indicate that nearly 10% of Delta County BRFSS Region residents have diabetes. Compared to data from the State of Michigan, the prevalence of diabetes now exceeds the state average.

Cancer – Cancer is one of the leading causes of death in Delta County.

Cases of breast cancer at St. Francis Hospital have remained relatively stable between 2008 and 2011, averaging approximately 5 cases per year.

Cases of colorectal cancer at St. Francis Hospital have increased by 22.2% between 2008 and 2011 for inpatient admissions. The number of cases of colorectal cancer peaked between July 2009 and July 2010 when 14 cases were reported.

Overall, *the leading causes of death* in Delta County include diseases of the heart at 26%, malignant neoplasm at 24%, followed by chronic lower respiratory disease at 6%, stroke at 5% and accidents at 4%.

Phase 2: Survey Results

Misperceptions of Community Health Issues

Inconsistencies exist
between people's
perception of health
issues and actual
data

Heart Disease – Residents in Delta County region rate heart disease relatively low compared to actual causes of mortality. Specifically, younger people, individuals with lower incomes, and individuals who are less educated tend to have the largest misperceptions regarding the importance of understanding heart disease in the community. While heart disease is the most common cause of mortality in Delta County, often times, it did not make the top-five perceived health issues for survey respondents.

Diabetes– Residents of Delta County also rate diabetes relatively low, even though rates in Delta County are higher than state averages. Data from the Michigan BRFSS indicate that nearly 10% of Delta County BRFSS Region residents have diabetes. Compared to data from the State of Michigan, the prevalence of diabetes now exceeds the state average.

Phase 2: Survey Results

Perceptions of the Importance of Access to Health Services

Access to health services was the second most important determinant to quality of life (after availability of jobs), particularly among women and older respondents in Delta County. However, there is a perception from the at-risk population that access to health care is limited.

Physical Exercise – Men are more likely to engage in physical exercise. However, only 13% of the population engages in exercise at least 5 times a week.

Healthy Eating – Less than 2% of the population consumes at least the minimum recommended servings of fruits/vegetables in a day. Those that are more likely to have healthy eating habits include women, people with higher educations and more income, and older people.

Decrease Smoking – Less educated people, men, younger people, Native Americans and homeless people are more likely to smoke.

Self-Perceptions of Health – In terms of self-perceptions of physical and mental health, 95% of the population indicated that they were in average or good physical health. Similar results were found for residents' self-perceptions of mental health.

Healthy Behaviors

Several issues relating to healthy behaviors were identified

Phase 2: Survey Results

Access to Medical Services

Several issues relating to health service access were identified

Choice of Medical Care - Only 60% of people living in deep poverty seek medical services at a clinic or doctor's office. For this segment of the population, it is very common to seek medical services from an emergency department (11%). Those that tend to use the ED for primary care include men, younger people, and less educated people with lower incomes.

Access to Medical Care and Prescription Medications - Thirty percent of the population living in poverty indicated there was a time in the last year when they were not able to get medical care when needed. The leading causes were lack of insurance and inability to afford a copayment or deductible. Similar results were found for access to prescription medication.

Access to Dental Care - While significant research exists linking dental care to numerous diseases, including heart disease, only 55% of the aggregate population had a checkup in the last year and only 31% of those living in poverty had a checkup. Moreover, 25% of those living in poverty have not been to the dentist for 5 or more years. Specifically, younger respondents, Native Americans, lower income, homeless individuals and less educated people were less likely to visit a dentist.

Access to Counseling - Approximately 21% of people living in poverty indicated they were not able to get counseling when they needed it over the last 12 months. Leading indicators are younger people, less educated and homelessness. While affordability and insurance were the leading reasons, fear and embarrassment were also significant.

Access to Information - Across categories, residents of Delta County get most of their medical information from doctors.

Type of Insurance - Across Delta County, the most prevalent type of insurance is private or commercial; however, those living in poverty are disproportionately more reliant on Medicaid. Also for those living in poverty, 30% do not have any type of insurance at all.

Phase 3: Prioritization of Community Health-Related Issues

Specific criteria used to identify these issues included:

- (1) magnitude to the community;
- (2) strategic importance to the community;
- (3) existing community resources;
- (4) potential for impact; and
- (5) trends and future forecasts

The collaborative team identified the five most critical health-related issues in the Delta County region as:

Community Misperceptions

Inconsistencies exist between people's perceptions of health issues and actual data. For example, residents in Delta County rate heart disease relatively low compared to actual causes of mortality. Residents of Delta County also rate diabetes relatively low, even though rates in Delta County are higher than state averages.

Risky Behaviors - Substance Abuse

For those identifying themselves as smokers, Delta County is 8.5% higher than State of Michigan averages. Moreover, there has been a 4.5% increase for those identifying themselves as smokers in Delta County between 2005-2007 and 2008-2010. In contrast, there was a decrease for those identifying themselves as smokers for the State of Michigan during same time frame. Also, in Delta County, 25% of respondents engage in binge drinking versus 18% in the State of Michigan. Both figures exceed the US national 90th percentile benchmark of 8%. Also, alcohol abuse and drug abuse were rated the most prevalent unhealthy behaviors among survey respondents. Specifically those with more education rated alcohol abuse higher and those with a Native American background rated drug abuse higher.

Diabetes

Type II Diabetes rates are higher in Delta County (9.8%) versus rates for the State of Michigan (9.5%).

Phase 3: Prioritization of Community Health-Related Issues

Mental Health

While there was a slight decrease in average number of mentally unhealthy days indicated by Delta County residents between 2010 and 2012 from 4 to 3.5 days in the last month, it is 30% higher when compared to the U.S. 90th percentile.

Obesity

Research strongly suggests that obesity is a significant problem facing youth and adults nationally, in Michigan, and within the Delta County region. In terms of individuals who are overweight, rates in Delta County are higher than the state average. Considering Michigan had the 5th highest obesity rate in the United States in 2011, this is an important issue. Data from 2010 indicate 71% of Delta County adults are obese or overweight, with a disproportionate number of obese or overweight individuals living in rural areas.

With regard to nutrition, evidence suggests residents in the Delta County region are not eating enough fruits and vegetables. Between 2005 and 2007, 25% of Delta County region residents consumed less than 5 servings of fruits or vegetables per day. Results from the survey of Delta County residents suggest less than 2% of the population consumes at least the minimum recommended servings of fruits/vegetables in a day. Those that are more likely to have healthy eating habits include women, people with higher educations and more income, and older people. Furthermore, 25% of Delta County region residents report that they did not participate in any leisure-time physical activities or exercises during the past month. Results from the survey of Delta County residents suggest men are more likely to engage in physical exercise. However, only 13% of the population engages in exercise at least 5 times a week. In sum, Delta County rates for both fruit and vegetable consumption and physical exercise are lower than rates in the State of Michigan.

Data from the State of Michigan suggest an estimated \$3.1 billion in medical costs was spent on obesity-related illnesses in 2008 with these figures expected to rise to \$12.5 billion by 2018.

Collaborative Team and Facilitators

Collaborative Team

Erik Barnhart, OSF Home Care Services

Dave Berg, Pathways Community Mental Health

Ruth Botbyl, Public Health, Delta & Menominee Counties

Mary Busick, Lutheran Social Services

Charlene Carlson, formerly of St. Anne Catholic Church

Tamie Cunningham, Tri-County Safe Harbor

Joan Ecclesine, MDS CAA Early Childhood Program

Mary Lu Gaudette, Escanaba St. Vincent de Paul

Sandy Guenette, St. Francis Hospital

Irene Lenbergis, Public Health, Delta & Menominee Counties

Julie Mallard, United Way of Delta County

Dan Powers, Catholic Social Services

Kay Pryal, Lutheran Social Services

Kathy Ryno, Delta Schoolcraft I.S.D.

Caron Salo, Northern Lights YMCA

Lanna Scannell, St. Francis Hospital

Elsie Staffort, Bishop Noa Home Senior Community

Jim Wayne, St. Francis Hospital

Sherry Whitman, UPCAP

Mary Williams, Medical Access Coalition

Facilitators

Michelle A. Carrothers, OSF Healthcare System

Dawn Irion, OSF Healthcare System

Eric J. Michel, Christopher Newport University

Dr. Laurence G. Weinzimmer (Principal Investigator),
Bradley University