Muscatine County
Community Health Improvement Plan

Muscatine County Board of Health

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“Planning for a Healthier Muscatine County”
# A Thank You to Our Community Task Force Members

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- Ann Qual
  - West Liberty School District
- Rachel Riley Smock
  - Family Resources
- Fr. Joseph Sea
  - Muscatine Catholic Community
- Rochelle Schultz
  - Lutheran Services in Iowa
Overview

The Process: How did we get here?

In the spring of 2010, the Muscatine County Community Health Needs Assessment process began with the Board of Health reviewing the process and setting the agenda for input from the community. Key stakeholders were identified and invited to an organizational meeting which was held on August 19th, 2010. With more than 50 participants, lots of information sharing and conversations unfolded. Through group process, the following four highest needs were identified for further work.

Local Discussions of Key Findings by Topic

In the fall of 2010, the Community Health Needs Assessment task force teams were formed, which consisted of a variety of community stakeholders. Their purpose was to review the areas that the community felt important as well as review both local and state health data. Throughout the process of data review, county strengths, weaknesses, and resources were ascertained. The four task forces worked to identify goals and strategies for each of the health priorities discussed above. These teams met regularly identifying goals, objectives and strategies to move issues forward in the community plan.

**Health Priority One: Obesity**
- Wellness education and activities
- Nutrition education

**Health Priority Two: Mental Health**
- Medical management
- Reimbursement
- Transportation
- Access

**Health Priority Three: Family Effectiveness**
- Family support/effectiveness
- Domestic violence
- Substance use
- Safe sex

**Health Priority Four: Dental Services**
- Access
- Transportation
- Screening
The Process: What’s Next?

The Community Health Improvement Plan is a partnership among individuals, agencies, and organizations committed to improving the health of the citizens of Muscatine County. The Community Health Improvement Plan is a five-year community-initiated and driven plan.

The Benefits of a Community Health Improvement Plan:

There are numerous benefits to a Community Health Improvement Plan, which include:
- A raised awareness in the community regarding the health status of the residents, giving attention to what we do well and what we need to improve
- A shared sense of community responsibility for improving and meeting health needs
- A coordinated, community effort to address top health priorities
- The creation of original strategies to meet the needs and utilize the assets of Muscatine County

Muscatine County: Who We Are

- DEMOGRAPHICS:
  - Population – 42,745
    - A 2.5% population increase from 2000 (Census 2010).
  - Race distribution – 89.0% White, 15.9% Hispanic, 6.8% Other Races, 1.4% Black or African American, 0.8% Asian/Pacific Islander (Census 2010)

- SOCIOECONOMIC CHARACTERISTICS:
  - Average family income in 2008: $53,234
  - Iowa Workforce 2008 reports 11.9% of Muscatine County total population lives at or below the poverty level versus the state rate of 10.8%.
  - In 2009, 2,197 unduplicated persons received WIC (Women/Infants/Children Program) assistance relative to the state total of 102,020 persons. Muscatine is the 11th highest county for WIC children and the 12th highest for WIC pregnancy nutrition in the state.
  - During academic year 2009-2010, 45.7% of student enrollees were eligible to receive free or reduced school lunch compared with the state rate of 36.8%.
  - The unemployment rate in December 2010 for Muscatine County was at 7.1% compared to the state rate of 6.2%.
  - Muscatine County vacancy rate is 8.4% versus the state rate of 8.6% (Census 2010).
  - Muscatine County ranks 1st (highest) in the state for # of marriage dissolutions in 2006-2007 with 4.5 per 1,000 population (2009 Iowa Health Fact Book).
Health Priority 1: Obesity  
Nutrition, Physical Activity, & Behavior

**Background and Supporting Data:**
There is considerable potential for obesity to greatly affect a child’s quality of life. The risk of type 2 diabetes, cardiovascular problems, sleep apnea, asthma, orthopedic problems, fatty liver disease, cancer, and psychosocial complications are significantly increased in people defined as obese (Taras & Datema, 2005). Nationally, one in every three children ages 2-19 years is overweight or obese (White House Task Force).

The Body Mass Index (BMI) is typically used in the definitions of overweight or obesity and is a measurement of weight in relation to height that is used to determine weight status. A child’s weight status is determined based on an age- and sex-specific percentile for BMI. In children, overweight is defined as a BMI at or above the 85th percentile and lower than the 95th percentile. Obesity is defined as a BMI at or above the 95th percentile for children of the same age and sex. For adults, BMI is calculated into categories. An adult who has a BMI between 25 and 29.9 is considered overweight while an adult who has a BMI of 30 or higher is considered obese.

In 20 years, healthcare costs due to obesity may range from $860 to $956 billion nationally. In that same 20 years, it’s expected that close to 90% of all Americans will become overweight or obese (Wang et al.). In Iowa, adults (greater than 18 years old) who are overweight or obese have increased by 36% in the past ten years (Iowans Fit for Life, 2009) (Table 1).

One of the populations most affected by obesity are Mexican American men (91.1%) (Wang et al.). The number of Mexican American adolescents will increase two-fold (Wang et al.), which is of great concern to Muscatine County given the large Hispanic population. Current 2010-2011 student enrollment data shows that 27% of the Muscatine County student population identifies as Hispanic (Iowa Department of Education).

**TABLE 1: OVERWEIGHT & OBESITY RATES FOR ADULTS BY GENDER, IOWA, 2008**

<table>
<thead>
<tr>
<th></th>
<th>IOWA %</th>
<th>US %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>71.4%</td>
<td>69.0%</td>
</tr>
<tr>
<td>Female</td>
<td>51.0%</td>
<td>52.2%</td>
</tr>
</tbody>
</table>

According to the 2010 Muscatine County Health Snapshot overweight and obesity rate, Muscatine County has a combined male and female rate of 66% compared to the state combined rate of 63%.

In the 2009 Pediatric Nutrition Surveillance Report by WIC for Muscatine County, 16.3% of children under 2 were considered obese and 17.3% of children age 2-5 were obese. These are higher than the state and the national rates.
TABLE 2: OBESE PEDIATRIC NUTRITION SURVEILLANCE REPORT, WIC, 2009

<table>
<thead>
<tr>
<th></th>
<th>Number Age (under 2)</th>
<th>% Obese ≥ 95%</th>
<th>Number Age (2-5)</th>
<th>% Obese ≥ 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muscatine</td>
<td>1711</td>
<td>16.3%</td>
<td>790</td>
<td>17.3%</td>
</tr>
<tr>
<td>Iowa Average</td>
<td>79,717</td>
<td>14.1%</td>
<td>36,225</td>
<td>15%</td>
</tr>
<tr>
<td>Nation</td>
<td>7,107,000</td>
<td>14.1%</td>
<td>2,943,996</td>
<td>14.8%</td>
</tr>
</tbody>
</table>

According to data from the recent W.K. Kellogg Foundation grant to the University of Iowa, the prevalence of overweight and obesity in Muscatine children is greater when compared to the national dataset from the National Health and Nutrition Examination Survey (NHANES).

TABLE 3: MUSCATINE COUNTY OVERWEIGHT & OBESITY PREVALENCE, NHANES

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 85th percentile</td>
<td>64.1</td>
<td>57.4</td>
<td>56.5</td>
<td>64.8</td>
<td>60.7</td>
<td>60.9</td>
</tr>
<tr>
<td>Overweight 85th - &lt; 95th percentiles</td>
<td>14.7</td>
<td>19.4</td>
<td>19.1</td>
<td>17.2</td>
<td>18.4</td>
<td>17.5</td>
</tr>
<tr>
<td>Obese ≥ 95th percentile</td>
<td>21.2</td>
<td>23.2</td>
<td>24.4</td>
<td>18</td>
<td>20.9</td>
<td>21.6</td>
</tr>
</tbody>
</table>

According to the Iowa Youth Survey conducted in 2008, an average of 20% of students in 6th – 11th grade consider themselves slightly overweight (Graph 1).

GRAPH 1: IOWA YOUTH SURVEY, 2008

![Bar chart showing how students describe themselves in Muscatine and Iowa](chart.png)
**Nutrition:**
Nutrition plays an integral role in the determination of obesity and with the increase of fast food and sugar-loaded beverage consumption, education about proper diet and nutrition becomes even more important. The odds of obesity increase 1.6 times with each can of a “sugar-sweetened beverage” each day. In Muscatine County, 50% of students in 6th-11th grade reported consuming 1-2 servings of fruits on an average day and 52% reported consuming 1-2 servings of vegetables each day (Graphs 2 & 3) (Iowa Youth Survey, 2008).

**Physical Activity:**
Exercise and physical activity are a vital component to a healthy lifestyle. Physical activity functions to control weight, reduce fat, build muscle, and improve mental health and wellbeing. The highest risk factor contributing to obese students is due to a lack of physical activity – only 6-8% of schools require the recommended daily physical education (Taras & Datema, 2005). According to the Iowa Youth Survey conducted in 2008, 19% of 6th-11th grade students report exercising each day, which is on par with the rate for the state of Iowa (Graph 4).
GOAL:
MUSCATINE COUNTY RESIDENTS WILL ACHIEVE AND MAINTAIN HEALTHY WEIGHT

Objective 1

By December 31, 2011, Muscatine County will establish a community coalition that addresses obesity in Muscatine County.

Suggested Tactics:

- Utilize current task force to bring together county citizens and stakeholders.
- Promote joint planning through a common framework to create an annual plan; review and update each year.
- Pursue grant funding to create and sustain new initiatives.
- Develop common messaging to be utilized in branding healthy weight through behavior change.
- Use mass media to raise awareness of healthy weight strategies and to disseminate messages promoting optimal nutrition and the benefits of physical activity.
- Establish baseline data through utilization of Body Mass Index (BMI) in Muscatine County’s three school districts and Women Infants and Children (WIC) program to analyze, assess progress, and measure success.
- Develop a centralized database of all community supports for healthy weight.
- Commit to utilize interventions that have been proven successful or are evidence-based.
- Promote and develop wellness policies to sustain change at the system and organizational levels.
- Advocate for environments that support healthier lifestyle choices.
• Enhance and promote speaker’s bureau to support nutrition, physical activity education and healthy lifestyle.
• Explore feasibility of incentive and/or reward system for maintaining healthy weight.

**Objective 2**

**By December 31, 2015, at least 4 new initiatives will be implemented to support behavior change for improved nutrition for Muscatine County residents.**

**Suggested Tactics:**

• Provide increased educational opportunities on healthy eating.
• Create “Families Eating Together at Home” education.
• Increase knowledge of food shopping/selection, food preparation/cooking, portion control and decreased consumption of sugar sweetened beverages.
• Support continuation and expansion of community gardens.
• Promote farmers markets and use of community-supported agriculture.
• Develop tools and resources to support breastfeeding including breastfeeding – friendly policies for the workplace.
• Create partnerships with after school providers to provide “better for you” snack options.
• Create policies to increase access to healthy food choices in local schools and workplaces.

**Objective 3**

**By December 31, 2015, at least 4 new initiatives will be implemented to support behavior change encouraging daily physical activity for Muscatine County residents.**

**Suggested Tactics:**

• Increase access to physical activity opportunities throughout the county.
• Create materials to promote walking/biking trails in Muscatine County.
• Support employer-based physical activity promotions.
• Assess school district policies and support implementation of district-wide policies supporting daily physical education classes at all Muscatine County schools.
• Assess feasibility of “open gyms” at schools especially during winter months.
• Support “Women out Walking” activities.
• Assess the feasibility of implementing safe route to schools program.
• Promote “Live Healthy Iowa” to Muscatine County residents.
• Collaborate with the Muscatine County communities to implement new strategies to increase “walkability”/“bikability.”
• Implement public awareness campaign, featuring free or low cost recreation options.
• Promote “Bike to Work Week” to Muscatine County residents.
• Develop an awareness campaign to educate parents/caretakers about the hazards of inactivity due to screen time.
• Conduct a county-wide “TV Turn-Off Challenge” to educate citizens and facilitate changes in personal behavior.
Health Priority 2: Mental Health

Background and Supporting Data:
Mental Health is a general term referring not only to the absence of mental disorder, but also the ability of a person to successfully handle the daily challenges and social interactions of life. More than 52 million Americans have a mental disorder in a given year, although only about 8 million seek treatment. One of every five adults, or about 40 million Americans, experiences some type of mental disorder every year (Healthy Iowans 2010).

Mental health and mental disorders also have a significant impact on the total health-care system. Up to half of all visits to primary care physicians are due to conditions caused by or made worse by mental or emotional problems. People with depression are more than four times as likely to have a heart attack than those without such a history. Roughly 37% of alcohol abusers and 53% of drug abusers also have at least one serious mental illness (Healthy Iowans 2010).

Access & Management:
The 2008 United Way Needs Assessment Report of Muscatine County showed that 14,537 (34%) Muscatine residents suffered from anxiety and depression. Further, 5,746 (13.4%) residents said they could not afford mental health care, 17% of residents needed assistance dealing with teenagers or children with behavior problems, and 10.8% said they needed help dealing with substance abuse problems (Graph 5).

Service providers in this assessment identified four barriers to quality mental healthcare: 1. There is a stigma attached to seeking help, 2. The population has little influence or advocates in the Muscatine area, 3. There is not enough collaboration/cooperation between service providers, and 4. Mental health services are far down on the list of community priorities.

According to the County Health Rankings: Snapshot 2010, 15% of Muscatine County respondents rated their health as poor or fair compared with the state of Iowa at 12% and a target of 8%. Further, Muscatine County residents reported 3.3 poor physical health days in the last 30 days compared with
the overall state rate of 2.8 days and target rate of 1.9 days. Finally, residents reported 3.4 poor mental health days in the last 30 days compared with the overall state rate of 2.7 days and the target of 1.6 days. Muscatine County ranks 77th out of 99 counties in health factors, placing it in the bottom quartile.

The following graph from Muscatine County Community Services Mental Health Assistance Annual Report, Fiscal Year 2010 shows the number of commitments per month.

**GRAPH 6: FISCAL YEAR 2010 MUSCATINE COUNTY**

Hearing adequate access to health care can significantly influence patient use of the system and ultimately, improve outcomes. Even when health care is readily available, people may not have a usual source of care or may have barriers to receiving services. These could include financial problems, such as transportation, lack of insurance or too little insurance, high-deductible insurance, structural barriers, such as lack of nearby facilities or providers; and personal problems, such as those related to culture, language or knowledge as well as physical barriers to the disabled (Healthy Iowans 2010).

**GOAL**
**MUSCATINE COUNTY RESIDENTS WILL HAVE IMPROVED MENTAL HEALTH**

**Objective 1**

*By December 31, 2011, the Board of Health will demonstrate support and participation in efforts to establish increased collaboration and coordination of mental health services outlined in the County Mental Health Plan.*

**Suggested Tactics**

- Bring together current mental health providers and other interested stakeholders.
- Participate in joint planning providing input in to the County Mental Health Plan.*
• Evaluate a standardized assessment tool to increase access to needed care.
• Evaluate mechanisms to increase coordination among providers.
• Advocate for increased local, state and federal funding support for mental health services.

Objective 2

By December 31, 2011, work toward improved psychiatric assessment/consultation in crisis situations for Muscatine County residents.

Suggested Tactics

• Support the effort of groups providing emergency mental health services to evaluate and implement better processes for delivery of emergency mental health services.
• Improve the emergency process for psychiatric assessment/consultation.
• Provide professionals involved with the additional training needed on the process.
• Support efforts to provide behavioral health support in physicians’ clinics.
• Support community awareness of the patient process in crisis situations.

Objective 3

By December 31, 2015, at least 4 new initiatives will be implemented to support provision of mental health providers in Muscatine County.

Suggested Tactics

• Provide primary care health professionals with additional training in the use of mental health related drug management.
• Assess the feasibility of child behavioral health services.
• Increase the number of mental health professionals fluent in Spanish.
• Establish a mental health community awareness campaign focusing on prevention and wellness.
• Support employer-based mental health promotions.
• Improve access mental health programming for homeless/near homeless.
• Pursue grant funding to create and sustain new initiatives.
• Advocate for systems that support healthy mental health.
Health Priority 3: Family Effectiveness
Family support, safe sex, substance abuse, & violence

Background and Supporting Data:
Family effectiveness is a broad category in which encompasses family support, safe sexual practices, substance abuse and violence. Each of these topics plays an integral role as to how effectively a family functions. Muscatine County offers a plethora of social services and support groups; however, a greater emphasis needs to be placed on ensuring the community is aware of the available resources.

Child Abuse:
In Iowa, the Legislature has defined “child abuse” as several types of harm suffered as the result of acts or omissions of someone who is responsible for the care of a child. There is a well-documented link between childhood abuse and long-term health effects. These long-term effects can include increased risk of teen pregnancy or sexually transmitted disease, central nervous system damage, speech problems, inhibited growth, mental and emotional disturbances, delayed language development, low self-esteem, and aggressive tendencies (Chalk, Gibbons & Scarupa, 2002; Kelley, Thornberry, & Smith, 1997).

The Adverse Childhood Experiences (ACE) study (1999) also found that children who suffer maltreatment and/or are exposed to dysfunction in the home have an increased risk of smoking, obesity, depression, alcoholism, illicit drug use, heart disease, and hepatitis. The new report estimates the costs of long-term health and mental health care at $67.8 million. The most costly long-term effects are those associated with lost productivity to society from adult survivors of child abuse, who are disproportionately affected by unemployment and underemployment later in life. The report estimates the cost of lost productivity at $33 billion annually. Some of the most costly long-term effects are those associated with responding to adults, who, because of earlier abuse, are involved in criminal activity. The report puts those costs at over $27.9 billion annually.

In 2009, Muscatine County ranked 23rd out of 99 counties for confirmed child abuse cases; 35.9% of all reported were founded. If any of the allegations for any child is confirmed, the entire report is counted as a confirmed report. If any of the confirmed allegations conclude that the perpetrator should be placed on the child abuse registry, the report is counted as founded.

<table>
<thead>
<tr>
<th>County</th>
<th>2003 Population 0-17 Years</th>
<th>2007 Poverty Rate</th>
<th>2009 Accepted Reports</th>
<th>2009 Confirmed or Founded Reports</th>
<th>2009 Confirmation Rate</th>
<th>2009 Abused Children</th>
<th>2009 Confirmed Children Abused per 1,000 Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muscatine</td>
<td>10,728</td>
<td>14.9%</td>
<td>448</td>
<td>161</td>
<td>35.9%</td>
<td>228</td>
<td>21.25</td>
</tr>
</tbody>
</table>

Domestic Violence:
Domestic violence is a pattern of behavior that is used to gain power and control over one’s intimate partner, and it can occur in both dating and marital relationships. The violence can be in the form of physical injury, but it may also be in the form of threats, isolation, sexual assault, and emotional abuse. According to the American Psychology Association, nearly one in three women experiences at least one physical assault by a partner. Family Resources Domestic Shelter (FRDS) provided 4,946 shelter nights in fiscal year 2009 and provided 825 shelter nights in the first quarter of FY 2010. Further, of
the 199 clients served in FY 2009, 55% were from the city of Muscatine, 35% were from Muscatine County, and 10% were from other states including Illinois. Counseling and advocacy services were provided to 83 women, 116 children, and assistance to 1,690 callers through 24-hour crisis lines; the center averaged assistance to three to four families per day. Overall, capacity has averaged 70-100% capacity from November 2008 to January 2009 and again from June 2009 to November 2009.

**Alcohol Use:**
Alcohol consumed on an occasional basis will pose little risk to most people and may even promote health. Even at this level, factors such as family history, health condition, and use of medications can pose problems. Furthermore, many people find it impossible to consume alcohol in a controlled manner. In fact, excessive alcohol use is the 3rd leading lifestyle-related cause of death for people in the United States each year. Binge drinking and heavy drinking are two indicators frequently used to measure excessive alcohol use at the population level (County Health Rankings). Binge drinking is a serious problem and is defined by the Behavioral Risk Factor Surveillance System (BRFSS) as five or more drinks for men and four or more drinks for women on one occasion. The BRFSS is the world’s largest telephone survey.

Students who binge drink are more likely to damage property, have trouble with authorities, miss classes, have hangovers, and experience injuries than those who do not. Finally, binge drinkers appear to engage in more unplanned sexual activity and to abandon safe sex techniques more often than those students who do not binge (National Center for Health Statistics, 2008).

Binge drinking is a risk factor for a number of adverse health outcomes. These include alcohol poisoning, hypertension, acute myocardial infarction, sexually transmitted infections, unintended pregnancy, fetal alcohol syndrome, sudden infant death syndrome, suicide, interpersonal violence, and motor vehicle crashes (County Health Rankings).

In Muscatine County, 20% of adults engage in binge drinking (County Health Rankings, Snapshot:2010) and 60% of 11th graders have had encounters with alcohol (Iowa Youth Survey, 2008). Of 11th graders, 31% have had at least one episode of binge drinking in the last 30 days as compared with a state of Iowa rate at 23% (Iowa Youth Survey, 2008). Of 11th graders, 38% have had at least 1 drink in the last 30 days and 14% of 8th graders have had at least 1 drink in the last 30 days (Iowa Youth Survey, 2008). Finally, 26% of students between 6-11th grade report it is easy to obtain alcoholic beverages (Iowa Youth Survey, 2008).

**Tobacco Use:**
Tobacco use remains the leading preventable cause of death in the United States. It is responsible for more than 440,000 deaths each year, or one in every five deaths (U.S. Department of Health and Human Services, 2004). Over $75 billion is spent every year on direct medical expenditures, and another $82 billion on indirect costs such as lost work time resulting from tobacco use (U.S. Department of Health and Human Services, 2006). Tobacco use is known to cause heart disease, peripheral vascular disease, and chronic lung disease, as well as cancers of the lung, larynx, esophagus, pharynx, mouth, and bladder. In addition, cigarette smoking contributes to cancer of the pancreas, kidney, and cervix. In fact, smoking causes disease in nearly every organ of the body (U.S. Department of Health and Human Services, 2004).

In Muscatine County, 21% of adults reported smoking every day or “most days” (BRFSS). Of school students, 20% reported either smoking or having tried smoking by the 11th grade as compared to the
state of Iowa rate at 15% (Iowa Youth Survey, 2008). Finally, 15% of 11th graders reported having their first cigarette by age 15-16 relative to the state of Iowa at 11% (Iowa Youth Survey, 2008).

**Illicit Drug Use**

According to the State of Iowa Substance Use Epidemiological Profile of 2009, illicit drug use in Iowa appears to be holding steady at a level lower than the national prevalence. Marijuana is the most common illicit drug used by Iowans with methamphetamine second. Current marijuana use by adults in Iowa is significantly lower than the national rate and 18-25 year old Iowans are four times more likely to use marijuana than older Iowans. Iowa adults’ perception of risk associated with marijuana use was similar to the perception of adults nationally. The illicit drug dependence or abuse rate in Iowa was significantly lower than the national rate in 2006.

In Muscatine County, 31% of 11th graders have tried marijuana and 4% of 11th graders have used prescription medication that was not prescribed for them in the last 30 days (Iowa Youth Survey, 2008). Of 6th graders, 3% sniffed glue or breathed inhalant sprays to get high relative to a state rate of 2% (Iowa Youth Survey, 2008). Finally, school youth in Muscatine County had no appreciable use rates in methamphetamine, cocaine, and steroids according to the 2008 Iowa Youth Survey.

**Teen Pregnancy**

Teen pregnancy is associated with poor prenatal care and pre-term delivery. Pregnant teens are more likely than older women to receive late or no prenatal care, have gestational hypertension and anemia, and achieve poor maternal weight gain. They are also more likely to have a pre-term deliver and low birth weight, increasing the risk of child developmental delay, illness and mortality.

According to The National Campaign to Prevent Teen and Unplanned Pregnancy, teenage mothers are less likely to complete school, less likely to go to college, more likely to have large families and more likely to be single- increasing the likelihood that they and their children will live in poverty. Negative consequences are particularly severe for younger mothers and their children. Children of teenage mothers are likely to have less supportive and stimulating home environments, lower cognitive development, less education, more behavior problems and higher rates of both incarceration (for boys) and adolescent childbearing.

Muscatine County continues to have a higher than average rate of teen pregnancy ages 13-19. Although this number has decreased, it is still above the state average. The following table summarizes births to adolescents (13-19) as a percentage of all births in Muscatine County.

**TABLE 5: NUMBERS AND RATES OF BIRTHS TO TEENS 13-19 YEARS OLD AS A PERCENTAGE OF ALL BIRTHS, 1996-2009**

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>16.2%</td>
</tr>
<tr>
<td>1997</td>
<td>16.5%</td>
</tr>
<tr>
<td>1998</td>
<td>15.5%</td>
</tr>
<tr>
<td>1999</td>
<td>19.2%</td>
</tr>
<tr>
<td>2000</td>
<td>16%</td>
</tr>
<tr>
<td>2001</td>
<td>14.9%</td>
</tr>
<tr>
<td>2002</td>
<td>10.9%</td>
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<tr>
<td>2003</td>
<td>12.9%</td>
</tr>
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<td>2004</td>
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<td>2005</td>
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<td>12.6%</td>
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<td>2007</td>
<td>12.3%</td>
</tr>
<tr>
<td>2008</td>
<td>14.0%</td>
</tr>
<tr>
<td>2009</td>
<td>11.1%</td>
</tr>
</tbody>
</table>

Muscatine County is 28th in percentage of births to teens 13-19. In 2009, Muscatine County has a rate of 11.1% and 66 births out of 596 overall births, down from 90 births in 2008. The 2009 overall state average is 8.7%.

Data from births in 2000, indicated that Muscatine County had 40 births to teens ages 13-17, this was the highest birth rate in the state (26.2 per 1,000 females). Latest figures for 2009 births indicate that there were 21 births to teens ages 13-17, down from 31 in 2008. The 2009 rate of 17.4 per 1,000
females this age is a decrease from the previous year, yet still over the state average of 12.2. Currently, Muscatine County ranks twentieth in the state, which is down from third highest in the state two years ago and twelfth last year.

TABLE 6: NUMBERS AND RATES OF BIRTHS TO TEENS 13-17 YEARS OLD PER 1,000 IN MUSCATINE COUNTY, 2000-2009

<table>
<thead>
<tr>
<th>Year</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007*</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Births</td>
<td>42</td>
<td>40</td>
<td>29</td>
<td>19</td>
<td>24</td>
<td>25</td>
<td>33</td>
<td>29</td>
<td>23</td>
<td>31</td>
<td>21</td>
</tr>
<tr>
<td>Rate</td>
<td>24.6</td>
<td>26.2</td>
<td>26.8</td>
<td>12.5</td>
<td>15.7</td>
<td>16.4</td>
<td>21.6</td>
<td>18.2</td>
<td>17.0</td>
<td>17.9</td>
<td>17.4/1000</td>
</tr>
</tbody>
</table>

*2007 rate is based on teens 14-17, whereas earlier years are based on 13-17

**Sexually Transmitted Infections:**
Sexually transmitted infections (STI) refer to more than 25 infectious organisms that are primarily transmitted through sexual activity. Sexually transmitted infections are known to cause infertility, premature births, and miscarriage. **Chlamydia** is the most common STI and can damage a woman’s reproductive organs. Symptoms of Chlamydia are usually mild or absent, therefore serious complications that cause irreversible damage can occur “silently” before a woman ever recognizes the problem, including infertility. Muscatine County ranked 8th in the state out of 99 counties for Sexually Transmitted Infections according to 2008 data and dropped to 16th in 2009 (IDPH STD Prevention Program).

TABLE 7: DISEASE SPREAD AND EPIDEMIC PREVENTION, MUSCATINE DATA

<table>
<thead>
<tr>
<th>Disease Type</th>
<th># of Muscatine County Cases</th>
<th># of Iowa Cases</th>
<th>% of state total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS/HIV</td>
<td>&lt; 3</td>
<td>215</td>
<td>N/A</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>122</td>
<td>9406</td>
<td>1.3%</td>
</tr>
<tr>
<td>Gonorrhea</td>
<td>14</td>
<td>1655</td>
<td>0.8%</td>
</tr>
<tr>
<td>Hepatitis B acute or chronic</td>
<td>1</td>
<td>293</td>
<td>0.3%</td>
</tr>
<tr>
<td>Syphilis</td>
<td>1</td>
<td>65</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

GOAL
MUSCATINE COUNTY RESIDENTS WILL SUPPORT AND PROMOTE BEHAVIORS AS IT RELATES TO HEALTHY FAMILIES

Objective 1

By December 31, 2011, Muscatine County will establish a community coalition that addresses healthy families in Muscatine County.

Suggested Tactics

- Utilize current task force to initiate joint meeting with United Way Family Dynamics Affinity Group to explore feasibility of combining efforts into one coalition.
- Promote joint planning through a common framework to create an annual plan; review and update each year.
• Promote greater community awareness of family effectiveness services in Muscatine County (i.e. service programs to assist with: domestic violence, substance abuse, parenting education, family strengthening, financial education, nutrition, food assistance, general relief, healthcare, religious needs, family counseling, advocacy, housing, dental, etc.).
• Develop common messaging to be utilized in branding the importance of a healthy family.
• Use mass media to raise awareness of the importance of healthy families and to dissemiate messages promoting optimal family functioning.
• Support and utilize one centralized database of all community supports for families.
• Commit to utilize interventions that have been “proven to be successful” or evidence-based practices.
• Promote and develop family friendly policies to sustain change at the systems and organizational level.
• Develop tools and resources for workplaces to implement family-friendly policies.
• Advocate for healthy families at the local, state and national level.
• Pursue grant funding to create and sustain new initiatives.

Objective 2

By December 31, 2015, at least 2 new initiatives will be implemented to support improved family functioning.

Suggested Tactics

• Increase the proportion of children who are ready for school in all five domains of health development: physical development, social-emotional development, approaches to learning, language, and cognitive development.
• Increase the proportion of parents who use positive parenting and communicate with their doctors or other professionals about positive parenting.
• Increase the proportion of parents who use positive communication with their child.
• Provide increased educational opportunities on family support.
• Enhance childcare opportunities for families in Muscatine County (i.e. crisis nursery, 2nd/3rd shift childcare, additional childcare slots, more affordable childcare, childcare for temporary employees, summer childcare, before/after school childcare, no school and early out days, etc.).
• Create partnerships with after school providers to provide increased family supports.

Objective 3

Muscatine County residents will promote policies and practices to decrease domestic violence and child abuse.

Suggested Tactics

• The Child Protection Center Multi-Disciplinary Team, Prevent Violence Coalition, and Muscatine County CARES will continue to work to increase community awareness and collaborative efforts aimed at the prevention of violence in Muscatine County.
• Support programs and practices designed to reduce violence in Muscatine County.
• Pursue grant funding to create and sustain new initiatives aimed at the prevention of domestic violence and child abuse in Muscatine County.
• Increase community awareness of available resources to assist victims of domestic violence and child abuse.

Objective 4

Muscatine County residents will promote policies and practices to decrease substance use.

Suggested Tactics

• Support and sustain programs and practices designed to reduce substance abuse in Muscatine County.
• Support utilization of proven programs and practices for successful substance abuse reduction.
• Promote consistent messages via local media venues.
• Support practices that reduce the proportion of adolescents who have been offered, sold, or given an illegal drug on school property.
• Engage youth in discussions about solutions to substance use.
• Increase awareness and knowledge of problems related to substance abuse as well as dispel myths about substance use.

Objective 5

Muscatine County residents will promote policies and practices to decrease teen pregnancy and sexually transmitted infections.

Suggested Tactics

• Explore ways to provide education to parents on “how to talk to your teens about sex.”
• Support programs designed to improve teen access to reproductive health services and comprehensive sexuality education.
• Support practices that provide teens with instruction in technically/medically accurate and up to date basic reproductive health.
• Sustain and enhance services that support pregnant and parenting teens to prevent subsequent pregnancies and encourage school completion.
• Promotes use of condoms as a method to protect against sexually transmitted infections (STI).
• Evaluate data on other similar counties with lower STI rates and teen pregnancies to determine what those counties are doing.
Health Priority 4: Dental Health
Access, Transportation & Screening

Background and Supporting Data:

During the last 50 years, there have been dramatic improvements in oral health, and most middle-aged and younger Americans expect to retain their natural teeth over their lifetimes. However, profound disparities remain that affect those without the resources to achieve good oral care or the knowledge of its importance. This fact inspired the first Surgeon General’s Report on Oral Health, which identified a “silent epidemic” of dental and oral diseases and called for a national effort to improve Americans’ oral health (Surgeon General’s Report, 2000).

Oral health is integral to overall health. Left untreated, the pain and infection caused by dental disease can lead to problems in eating, speaking, the ability to learn, and the quality of life in general. A person may even die from oral-based diseases (Surgeon General’s Report, 2000). Mouth and throat diseases, which range from cavities to cancer, cause pain and disability for millions of American each year, yet almost all oral diseases are largely preventable. Over 40% of poor adults (20 years and older) have at least one untreated decayed tooth compared to 16% of non-poor adults. (CDC).

Major barriers to oral health include socioeconomic factors, such as lack of dental insurance, the inability to pay for dental care out of pocket, or problems of access that involve transportation and the need to take time off from work for health needs. Many studies have documented poorer dental care among those in poverty, racial minorities, and rural areas (U.S. General Accounting Office, 2000).

Access, Transportation, & Screening

Currently, there are seven dental offices accepting Medicaid in the Muscatine County area, several only selectively. Further, 36.1% of eligible children on Medicaid aged 0 – 5 years received any dental service in 2009, compared with the state of Iowa at 43.7%. Of eligible children on Medicaid aged 1-5 years, 44.1% received any dental service in 2009, compared with the state of Iowa rate at 50.5%. Lastly, 50.2% of eligible children on Medicaid aged 1 – 20 years received any dental care as compared with the state of Iowa at 52.8% (Table 8).

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Muscatine County</th>
<th>Iowa</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 years</td>
<td>36.1%</td>
<td>43.7%</td>
</tr>
<tr>
<td>1-5 years</td>
<td>44.1%</td>
<td>50.5%</td>
</tr>
<tr>
<td>1-20 years</td>
<td>50.2%</td>
<td>52.8%</td>
</tr>
</tbody>
</table>
GOAL: MUSCATINE COUNTY RESIDENTS WILL HAVE IMPROVED DENTAL HEALTH

Objective 1

By December 31, 2011, Muscatine County will establish a community coalition that addresses dental needs in Muscatine County.

Suggested Tactics

- Utilize current task force to bring together county citizens and stakeholders.
- Promote joint planning through a common framework to create an annual plan; review and update each year.
- Pursue grant funding to create and sustain new initiatives.
- Collaborate with the Muscatine Health Education committee.
- Compile a list of available transportation services and identify how to access those services.
- Promote existing transportation services and advocate for increased transportation.
- Advocate for increased local, state and federal support for dental services.

Objective 2

By December 31, 2012, establish a network of dental providers to provide service to uninsured/underinsured patients as needed, on a case-by-case basis for Muscatine County residents.

Suggested Tactics

- Identify community “champions” for importance of dental services.
- Establish trust with local dental providers.
- Explain screening and referral process to providers.
- Enlist help of peer dentists to get providers to agree to service two to three uninsured or underinsured patients per month to more evenly distribute the patient load of this population and ultimately, better serve the community.
- Advocate for increased Medicaid reimbursement for providers.

Objective 3

By December 31, 2015, if feasible, establish a location where adult dental care services can be provided to uninsured/underinsured patients in Muscatine County.

Suggested Tactics

- Explore options of fixed and mobile units and cost involved.
- Approach existing entities with a plan to utilize space to house a dental clinic.
- Explore avenues of funding to cover start up costs and ongoing funding for costs of supplies.
- Initiate conversations with local dentists to provide services on a volunteer basis.