Overweight & Obesity In Madison County

Strategies to Build a Healthier Community

Issue Profile

Madison County Department of Health

MADISON COUNTY
DEPARTMENT of HEALTH
Working to build a healthy community
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Eric Faisst, Director of Public Health *Dr. John B. Endres, President of Board of Health*

March 16, 2009

Dear Madison County:

The Madison County Department of Health is pleased to present the first ever report on overweight and obesity in Madison County. The report entitled *Overweight and Obesity in Madison County: Strategies to Build a Healthier Community* is an effort to create awareness and provide information to address this important health issue. The report serves as a "*call to action"* to inspire agencies, institutions and neighborhoods to recognize the importance of key preventative factors, especially nutrition and physical activity, by adopting one or more of these strategies. It is also meant to build momentum and support from the many organizations that are already successfully addressing the issue. Working collaboratively, we can leverage resources and promising practices to ensure a healthy future for Madison County residents.

The report will serve as a new beginning for all Madison County. The strategies contained in this report are based on population-based interventions that promote healthy growth and development among children and adolescents, and support healthy weights among adults. They are not meant to be all-inclusive, but to encourage and suggest ways for individuals, families, organizations, institutions, businesses, and as a community, to respond to how and what we eat and ways in which we can be more physically active throughout life.

The Madison County Department of Health would like to thank the many committed individuals whose insight and expertise lead to a vision for a more nutritious and physically fit future for our residents. We welcome your comments and your participation as we work with you, as individuals and as partners, to realize our collective goals in becoming a healthier Madison County.

Sincerely,

Eric W. Faisst, M.P.H., R.E.H.S.
Public Health Director

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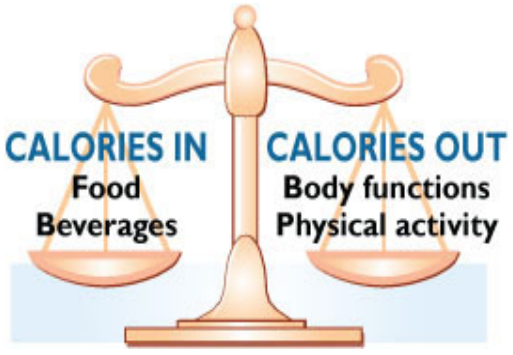
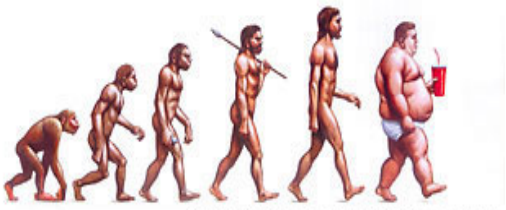
Overweight and Obesity: Overview

Obesity represents a growing global public health threat. The World Health Organization (September 2006) latest projections indicated that globally in 2005; Approximately 1.6 billion adults (age 15+) were overweight, and at least 400 million adults were obese. At least 20 million children under the age of 5 years were overweight globally in 2005. The World Health Organization (September 2006) further projects that by 2015, approximately 2.3 billion adults will be overweight and more than 700 million will be obese. Once considered a problem only in high-income countries, overweight and obesity are now dramatically on the rise in low-and middle-income countries, particularly in urban settings (World Health Organization 2000; 2006).

Statistics from the United States National Center for Health Statistics (2007), show that over the past thirty years the prevalence of overweight and obesity in our local communities and across the nation increased dramatically. The overweight and obesity epidemic represents one of the most serious health issues challenging our society today. The repercussions of the obesity trend are significant and are associated with a reduced quality of life, adverse medical and psychological consequences, increased medical care and other economic costs, and premature death. (U.S. Department of Health and Human Services 2001).



Source: CDC, 2008



Art Credit: John Berkeley, BigCheese Design

In its simplest form, obesity and overweight are the result of an imbalance between energy consumed and energy expended. (U.S. Department of Health and Human Services 2001). However, the factors that contribute to this imbalance are many, as are the means to address them. Factors including diet, physical inactivity, genetics, environment, social and health conditions all contribute to overweight and obesity in children and adults. (U.S. Department of Health and Human Services 2001). The public health response will require a multi-faceted approach and involve a wide array of public/private partners working in concert to successfully address this issue. The potential health benefits from reduction in the prevalence of overweight and obesity are of significant public health importance.

Background

In 2008, the Madison County Public Health Committee charged the Director of Public Health to report on the issue of overweight and obesity in Madison County.

The content of the report is derived from data obtained through national and state sources, and current community assessment activities that includes informational interviews, data collection, and independent research. The recommendations included in this report are based on the goals and objectives established in *Healthy People 2010*, federal guidance documents, the *New York State Strategic Plan for Overweight & Obesity Prevention*, evidence-based public health practice, regional reports and local initiatives.

Purpose

This report presents an overview of the obesity issue, provides a description of the condition of overweight and obesity in Madison County, and identifies strategies to reduce or prevent adult and child obesity. The *Overweight & Obesity In Madison County: Strategies to Build a Healthier Community* report is also intended to serve as a "call to action" to inspire agencies, institutions, businesses, and neighborhoods to recognize the importance of key preventative factors, specifically nutrition and physical activity, by adopting one or more of these strategies.

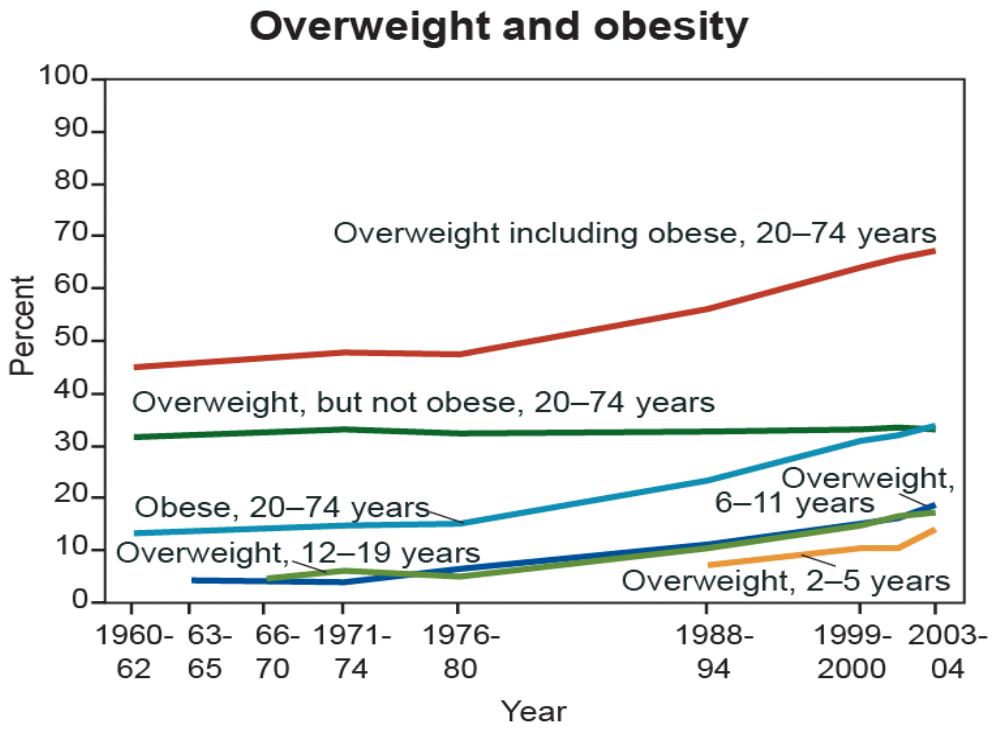
With the overarching goal of improving the health of children and families in Madison County, the objectives of the *Overweight and Obesity in Madison County: Strategies to Build a Healthier Community* report include the following:

- Building awareness about the problem of obesity
- Serving as a guide for all those in Madison County who are interested in addressing obesity, including agencies, institutions and neighborhoods
- Planting a seed and building momentum for action without being prescriptive
- Catalyzing partnerships for those already working on this issue with new organizations and new sectors
- Ensuring that strategies emphasize policy and environmental changes and not just individual and family efforts
- Creating a plan document that supports community partners in their efforts.

Overweight and Obesity in the United States

The prevalence of obesity in the U.S. among children and adults alike increased dramatically over the past thirty years (Figure 1). Findings from the National Health and Nutrition Examination Surveys, showed substantial increases in overweight among adults, with approximately 47% of adults ages 20-74 classified as overweight or obese in 1976-1980 compared to 67% in 2003-2004. (U.S. National Center for Health Statistics, 2007). Although the prevalence of obesity has remained relatively stable in adults between 2001 and 2006, the trends in weight distribution, as measured by body mass index (BMI) have shifted upwards, with the greatest shift observed in the upper percentiles of the distribution, signifying that the entire adult population is heavier, and the heaviest have become much heavier (Ogden, Carroll, McDowell & Flegal, 2007).

Likewise, the percentage of children (6–11 years of age) and adolescents (12–19 years of age) who are overweight has also risen since 1976–1980. In 2003–2004, 17%–19% of children and adolescents were overweight, triple the percentage observed in 1980 (5%-6.5%). The percentage of preschool-age children (2–5 years of age) who are overweight almost doubled from 1988–1994 (7%) to 2003–2004 (14%) (U.S. National Center for Health Statistics 2007). Unlike the adult groups however, there appears to be no signs of slowing or lessening of this trend among our youth, and is cause for concern. For children, the probability of childhood obesity persisting into adulthood is estimated to be 20% at the age four and 80% likelihood by adolescence (Guo & Chumlea, 1999).



SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, *Health, United States, 2007*, Figure 13. Data from the National Health and Nutrition Examination Survey.

Figure 1: Overweight & Obesity—United States

Demographic Characteristics

The overweight and obesity epidemic knows no boundaries as it affects all levels of our society. Overweight and obesity is observed in all age groups, both genders, all education and socio-economic levels, and spans all racial/ethnic groups across our society (Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey* (BRFSS) Data, 2007; www.cdc.gov/brfss). The following are demographic characteristics of obesity in the U.S. for 2007:

Education

Education level does appear to be associated with increased prevalence of obesity. As educational levels increase, prevalence of obesity tends to be lower.

Income

Prevalence of overweight and obesity appear to be higher among individuals whose income ranges between $15,000 and $50,000.

Ethnicity

Non-Hispanic black individuals show the highest levels of overweight and obesity at 72.3 percent.

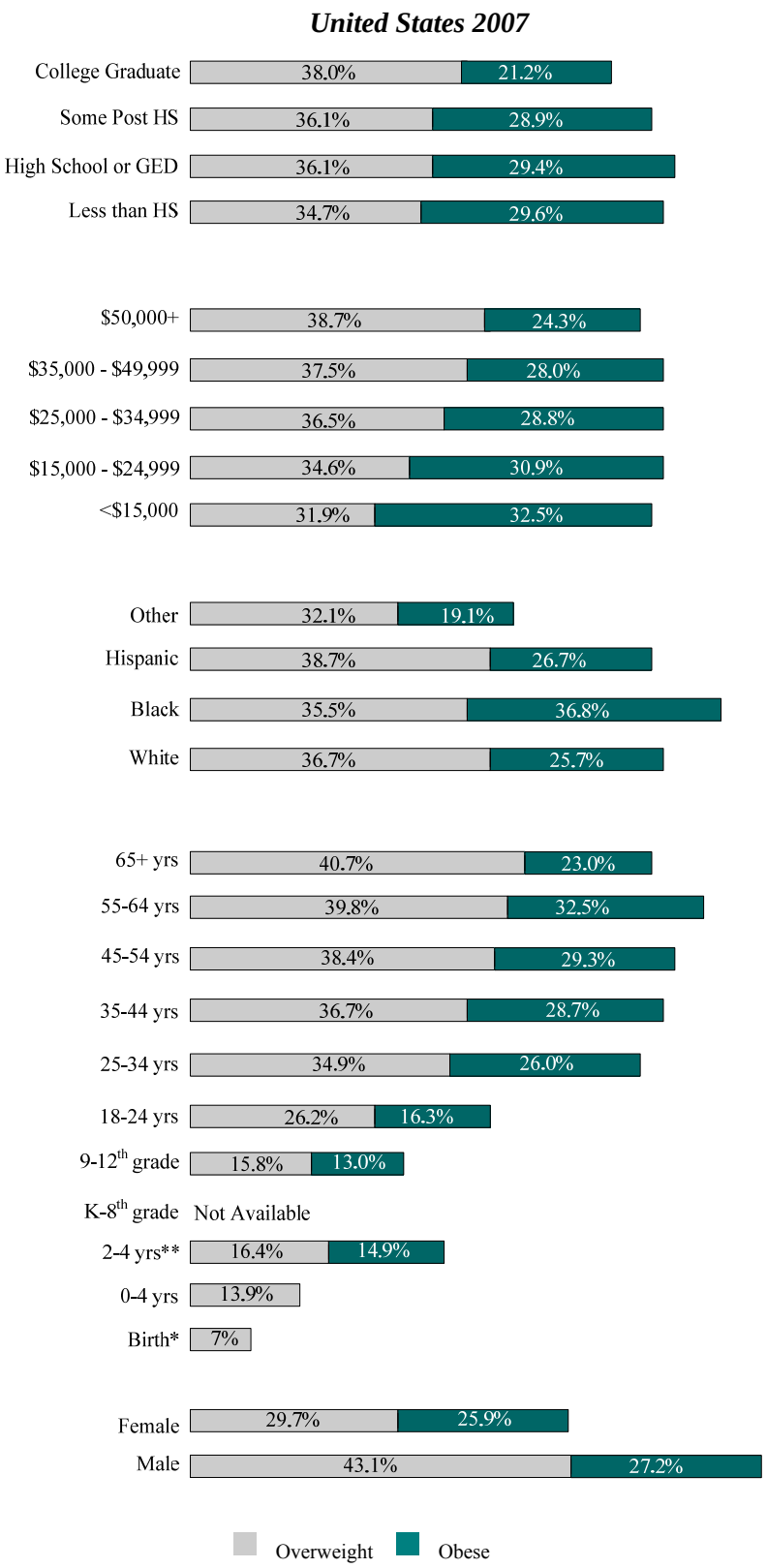
Age

Individuals between the ages of 45 to 64 years of age demonstrate the highest rates of overweight and obesity with 72.3 percent.

Approximately 28.8% of students in grades 9 – 12 were overweight or obese with students in 9th grade showing the largest percentage (31%). The percent of High school boys that were overweight or obese (16.3%) was almost two times higher than for high school girls 9.6%. (CDC 2007; MMWR 2008; 57, p 24-25).

Gender

Adult men demonstrate markedly higher rates of overweight and obesity (70.3%) compared to adult women (55.6%).



Source: Center for Disease Control and Prevention *Behavioral Risk Factor Surveillance System Survey* Data 2007; Center for Disease Control and Prevention Pediatric Nutrition Surveillance 2007.

Health Outcomes

With the rise in obesity we observe a parallel increased risk in developing various diseases and poor health conditions. A review by the American Obesity Association, listed obesity as an independent risk factor or an aggravating agent for 32 co-morbidities or health conditions including: birth defects, breast cancer, cardiovascular disease, colon cancer, end stage renal disease, gallbladder disease, impaired immune response, liver disease, diabetes mellitus, renal cancer, rheumatoid arthritis, stroke, and surgical complications (American Obesity Association www.obesity.org 2008). Injuries (Pollack KM et al., 2007), sleep apnea and respiratory problems, increased hypertension, and complications with reproductive functioning (The *Evidence Report* 1998) are also negative health outcomes associated with obesity. In fact, obesity's association with chronic health conditions is analogous to 20 years of aging (Sturm R, 2002).

Physical inactivity and dietary patterns, the major causes of obesity, are second only to tobacco use as a leading cause of preventable death in the United States, (MMWR 2001) In a 1993 study, 14% of all deaths in the United States were attributed to low patterns of activity and poor diet (McGinnis JM & Foege WH, 1993). Another study linked sedentary lifestyles to 23% of deaths from major chronic diseases (Hahn RA, Teuesch SM & Rothenberg RB 1998).

Overall, higher body weights are associated with increases in all-cause mortality (*The Evidence Report* 1998).

Cost to Society

A substantial increase in related health care costs, coincides with the rise in obesity (Wolf AM & Colditz GA, 1998). In 2000, the total direct and indirect costs attributable to obesity were estimated to be $117 billion (U.S. Department of Health and Human Services 2001). The economic consequences of the obesity epidemic on healthcare costs are substantial, not only for individuals, but also for employers and government health programs, such as Medicare and Medicaid. In 2004, approximately half of the state-wide estimates of annual medical expenses attributed to obesity are financed by Medicare and Medicaid (Finkelstein EA, Feibelkorn IC, & Wang G, 2004).

Medication use and inpatient and outpatient healthcare demonstrate similar spending trends (University of Alabama at Birmingham, Winter 2004). The average annual number of bariatric procedures among obese adults (18-64 yrs) more than tripled for both men and women between 1999-2001 and 2002-2004, (U.S. National Center for Health Statistics 2006) with the number of procedures topping 120,000 in 2003 (University of Alabama at Birmingham, Winter 2004). In 2002 the average cost for a bariatric procedure performed on obese patients ranged between $15,000 and $30,000 (Moody RJ, 2003).

The costs of treatments for obesity such as weight

loss programs and products were estimated to be more than $30 billion in 1989 alone (National Institute of Health, 1993). In 2003-2004, an evaluation of the major commercial and organized self-help weight loss programs yielded 3-month program costs to individual consumers ranging between $0 and $2,100 (Tsai AG & Wadden TA, 2005).

National Resources at a National Level

A tremendous number of resources exist about the issue of overweight and obesity at the national level. Appendix A provides listing of various agencies, publications, research centers and information related to the issue of obesity.

Overweight and Obesity in New York

The prevalence rate of overweight and obesity in New York State and Upstate New York mirrors national trends. The percentage of New Yorkers classified as overweight or obese rose from 50% in 1997 to 62% in 2007 (CDC/BRFSS, 2007).

The prevalence for overweight and obesity within the Central NY Region was approximately 58% in 2005 (Table 1). Similar to national trends, the prevalence of overweight has not significantly increased between 1997 and 2006, however, the prevalence of obese individuals increased from 16% in 1997 to 26% in 2007 (BRFSS Brief No. 0705, Overweight and Obesity, NYS Adults 2006).

As stated in the Trust for America's Health report (The state of your health: New York, www.healthyamericans.org/state/print.php?StateID-NY), New York ranked 38th for adult obesity rates with 22.4%, and 18th for overweight youth between the ages 10 – 17 at 15.3% in the nation (1 = highest percentage; 57 = lowest).

Table 1: Overweight & Obesity in Central New York 2005

County	Adult Obesity (% age 18 and over)	Adult Overweight (% age 18 and over)	Healthy Weight Adults (% age 18 and over)
Cayuga	**22.9**	**36.3**	**40.8**
Cortland	**19.6**	**32.0**	**48.4**
Herkimer	**22.3**	**40.6**	**37.2**
Madison	**23.5**	**38.4**	**38.0**
Oneida	**25.7**	**36.0**	**38.3**
Onondaga	**20.3**	**39.2**	**40.5**
Oswego	**25.7**	**36.0**	**38.3**
Tompkins	**19.6**	**32.0**	**48.4**
8 County Rate	**22.5**	**25.9**	**41.7**
NYS	**20.6**	**36.1**	**43.3**

Source: Commission for a Healthy Central New York Regional Health Assessment 2005. Overweight and Obesity Focus Area. Downloaded October 15, 2008. http://www.upstate.edu/healthycny/rhadata.php?indicator=6&search=Search

Demographic Characteristics

Education

In NYS, education level does appear to be associated with increased prevalence of obesity. Between 1997 and 2007 we observe that as educational levels increase, prevalence of obesity is significantly lower .

Income

Prevalence of overweight and obesity appear to be higher among individuals whose incomes range between $15,000 and $50,000. This represents a change from 1997 when prevalence tended to be higher among those individuals with incomes below $15,000.

Ethnicity

Non-Hispanic black individuals continue to show the highest levels of overweight and obesity between 1997 and 2007. Hispanic individuals demonstrated the greatest increase in overweight and obesity during this same time period.

Age

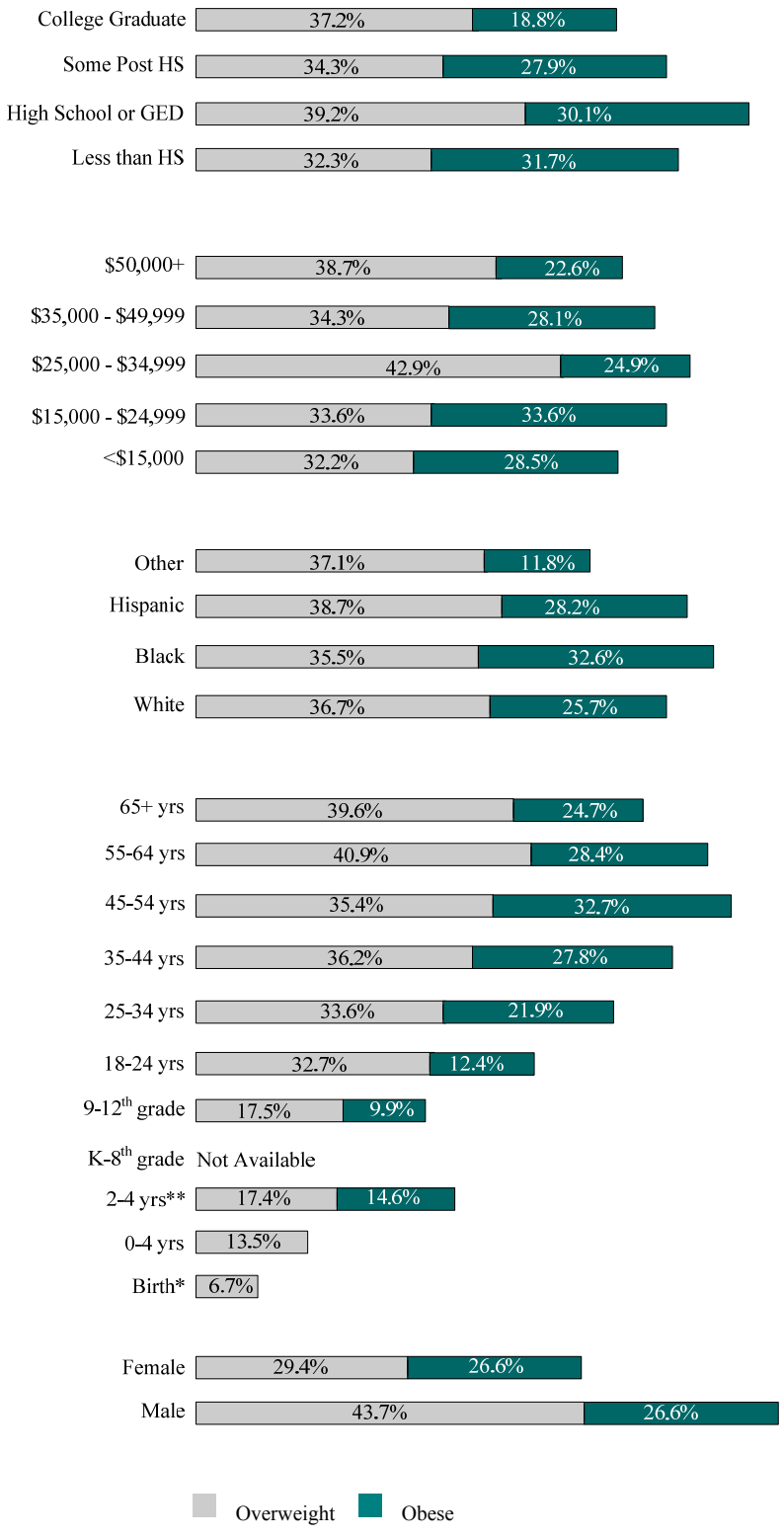
Individuals between the ages of 45 to 64 years of age demonstrate the highest rates of overweight and obesity.

In 2005, approximately 27% of students in grades 9 – 12 were overweight or obese with students in 9th grade showing the largest percentage (33%). Eleventh grade boys demonstrated the highest percentage (33%) of being overweight or obese (CDC, YRBSS www.cdc.gov/HealthyYouths/yrbss/index.htm).

Gender

Overweight and obesity percentages among adult New York men (70.3%) and women (53.9%) mirror national levels.

New York State 2007



Source: Center for Disease Control and Prevention *Behavioral Risk Factor Surveillance System Survey* Data 2007; Center for Disease Control and Prevention Pediatric Nutrition Surveillance 2007.

Table 2: Percentage Increase in Risk of Obesity Related Diseases Relative to Healthy Weight Individuals

Disease	Overweight (BMI of 25-29.9)	Obese Class I (BMI of 30-34.9)	Obese Class II (BMI of 35+)
Heart Disease	39%	86%	67%
Stroke	53%	59%	75%
Hypertension	92%	182%	277%
Diabetes (Type 2)	142%	235%	516%
Osteoarthritis	56%	87%	139%
Gallbladder Disease (Gallstones)	97%	230%	448%

Source: Centers for Disease Control and Prevention. Third National Health and Nutrition Examination Survey. Analysis by the Lewin Group, 1999. Presented in the Excellus BC/BS report *Overweight, Obesity, and Related Health Risks and Costs, Upstate New York, 2006.*

Health Outcomes - NYS

The increased risk of obesity-related disease can be considerable. The Excellus BlueCross/ BlueShield Fall 2007 report entitled *Overweight, Obesity, and Related Health Risks and Costs, Upstate New York, 2006* highlighted the increased risk of certain diseases relative to a individuals weight. (Table 2)

In an Excellus Blue Cross Blue Shield (BCBS) report (The Facts About, Fall 2007), 11.3% of individuals in Upstate New York who were overweight or obese were diabetic compared to 3.3% of the population who were neither overweight nor obese. Similar health disparities exist for other adverse health conditions such as heart disease and stroke (Excellus BCBS, Health Policy Reports, March 2004; www.excellusbcbs.com/download/files/_excellus_health_policy_report_7.pdf).

Table 3: Estimated Medical Costs Attributable to Obesity (2003 Dollars In Millions)						
States (rank)	Total Costs related to Obesity (millions)	Medicare Obesity related costs (millions)	Medicaid obesity related costs (millions)	% Medicare obesity related costs	% Medicaid obesity related costs	% Medicaid/ Medicare obesity related costs
California (1)	7,675	1,738	1,713	23%	22%	50%
New York (2)	**6,080**	**1,391**	**3,539**	**23%**	**58%**	**81%**
Texas (3)	5,340	1,209	1,177	23%	22%	45%
State Ave.*	1,472	347	418	24%	28%	52%

Source: Adapted from Finkelstein, EA, Fiebelkorn, IC, Wang, G. State-level estimates of annual medical expenditures attributable to obesity. *Obesity Research* 2004; 12(1):18-24. * State average includes the District of Columbia

Health Care Costs in New York

When comparing New York State (NYS) to national averages, New York State ranked second highest in the United States in medical expenditures for adult related obesity health issues, with spending estimated at approximately $6.1 billion in 2003 (Finkelstein EA, Fiebelkorn IC & Wang G, 2004). More staggering is that in New York State, approximately 81% of the estimated medical costs attributed to obesity are covered by Medicaid and Medicare. Of the three states with the highest total costs, NYS's percentage of Medicaid/Medicare obesity related costs is almost 60% to 80% higher than California and Texas (Finkelstein EA, Fiebelkorn IC & Wang G, 2004).

The estimated aggregate health care costs in the Utica/Rome/North Country Region, which includes Madison County, attributed to obesity and overweight prevalence totaled $156 million in 2006 (Excellus BCBS, Fall 2007).

According to the Trust for America's Health 2007 report, medical costs of obesity, per capita (2003) is $317 for New Yorkers compared to $258 for the US, ranking NY number 5 for the highest medical costs per capita associated with obesity.

NYS Strategic Plan for Overweight & Obesity

In 2005 the New York State Department of Health released its strategic plan to address the issue of overweight and obesity in New York State. The plan entitled *New York State Strategic Plan for Overweight & Obesity Prevention* outlines goals and objectives, and highlights strategies and action steps that are vital to reining in the obesity epidemic in NYS (State of New York, Department of Health, December 2004).

The Plan identifies the State's top three priorities as: 1) increase the proportion of New Yorkers who are physically active; 2) increase perception of obesity as a public health risk and use of body mass index to improve early recognition, and 3) increase access to healthy food choices, particularly by low-income populations. The resulting overarching strategies were set forth:

- Increase the awareness of overweight and obesity as a major public health threat.
- Increase early recognition of overweight and/or excessive weight gain.
- Improve management (medical and non-medical) of people who are overweight or obese and those with obesity-related diseases.

- Increase initiation, exclusivity and duration of breastfeeding during infancy.
- Improve lifelong healthy eating.
- Increase lifelong physical activity.
- Decrease exposure to television and other recreational screen time.
- Increase policy and environmental supports for physical activity and healthy eating, including breastfeeding.
- Increase and maintain effective public health responses to the obesity epidemic in NYS.
- Expand surveillance and program evaluation to prevent overweight and obesity.

Along with its strategic plan, New York State offers a wide variety of programs to address overweight and obesity. The following program descriptions were taken from the New York State Department of Health website (http://www.health.state.ny.us/prevention/obesity/index.htm):

Active Kids - Childhood Obesity Prevention Program

The Active Kids program was launched in June 2005 to fight childhood obesity and promote healthy lifestyles among children. The goal of Active Kids is to instill in children before the age of eight a daily regimen that includes consuming at least five (5) fruits and vegetables; engaging in at least one (1) hour of physical activity; and reducing TV and video games screen time to fewer than (2) two hours. In addition, the State Department of Health along with the State Department of Education developed the Active Kids School Nutrition and Physical Activity Toolkit to help further improve the health of New York's children by providing a resource to help schools improve their nutrition and physical activity environments and assist Local Education Agencies (LEAs) in developing local wellness policies to create a healthier school environment.

Healthy Heart Program

The Healthy Heart Program (HHP) encourages policy and environmental changes that make it easier for people to eat well and be active to ultimately decrease rates of heart disease, stroke and cardiovascular risk factors. Funds are provided to local communities to conduct physical activity and nutrition interventions in schools, worksites and the community, and to ensure people receive appropriate health care for risk factors for cardiovascular disease. HHP programs include such activities as worksite wellness programs, projects to encourage individuals, families and schools to switch to 1% or skim milk, and helping communities develop and encourage the use of walking paths and trails.

Eat Well Play Hard

The goal of Eat Well Play Hard (EWPH) is to prevent childhood overweight and reduce long term risks for chronic disease by encouraging healthy eating and increased physical activity. EWPH strategies and messages are incorporated into many Department of Health programs that target low-income families and their children ages 2 years and older.

Steps to a Healthier NY

Steps to a Healthier NY is part of a national program developed by the Department of Health and Human Services and administered by the Centers for Disease Control and Prevention (CDC), highlighting the influence of healthy lifestyles and behaviors on reaching and maintaining good health. In New York, four counties are the focus of Steps activities: Broome, Rockland, Jefferson and Chautauqua. The Steps Program applies community-driven initiatives to reduce the problems related to 3 chronic diseases obesity, diabetes and asthma.

Office of Minority Health Minigrant Program

The Office of Minority Health (OMH) minigrant program supports small-scale, short-term, well-defined, neighborhood specific projects designed to address health disparities. Recent projects have specifically focused on addressing overweight and obesity.

The NYSDOH also provides educational and informational materials for parents and child care professionals including:

- Preventing Childhood Obesity: Tips for Child Care Professionals
- Preventing Childhood Obesity: Tips for Parents
- BMI Screening Tools
- Choose Low-fat or Fat-free Milk

In the January 7, 2009 State of the State address, the Governor unveiled a five-point plan to fight obesity. His proposal included:

- The Healthy Food/healthy Communities Initiative, which offers a new revolving loan fund that will increase the number of healthy food markets in underserved communities.
- Banning trans fats in restaurants;
- Requiring calorie posting in chain restaurants;
- Banning junk food sales in schools;
- Placing a tax on sugared beverages like soda.
    - The $404 million this tax would raise would go toward public health programs, including obesity prevention programs, across New York State.

In addition, the Governor will roll out the Healthy Steps to Albany Initiative in five or more cities in February 2009 to encourage children to eat right and to exercise.

Healthy Steps to Albany is a contest that challenges New York State middle school students to increase their physical activity by competing with each other to walk approximately four million steps in six weeks. It is estimated that this program will serve over 26,000 children and their families.

Overweight and Obesity in Madison County

Overweight and obesity is on the rise in Madison County, demonstrating rates similar to those observed in New York State and the Nation (New York State Department of Health, Madison County: Health Risks and Behavior Indicators, 2004-2006). Unfortunately, further observations and inferences about overweight and obesity in Madison County is challenged by the paucity of accurate, reliable local data. Information about overweight and obesity in adults is derived from a state-wide *Behavioral Risk Factor Surveillance System survey* whereby participants self-report their height, weight, leisure time, and other relevant information. The potential reporting bias that results lessons the reliability of the data. Moreover, the data collected from the survey for Madison County is arbitrarily combined with data for Chenango County and reported as a "locality," further obscuring any inference we can make regarding overweight and obesity in Madison County.

Obesity represents a recent identified health issue for Madison County. The 1998 *Madison County Community Health Needs Assessment* report contained no mention or reference to the issue of overweight or obesity. The report provided limited information on wellness with most of the focus on physical activity. The issue of nutrition was briefly mentioned as a concern by community agencies; however, this concern was directed towards issues pertaining to eating disorders.

The 2005 *Madison County Community Health Needs Assessment* report first identified obesity in adults and children as a local public health concern in Madison County, and introduced objectives targeted at unhealthy behaviors related to diet and exercise.

This report presents the most recent information on overweight and obesity for Madison County and is derived from existing state sources and from both formal and informal local, data collection efforts.

Photo Courtesy of John Hubbard

Demographic Characteristics

A recent national report indicates that the prevalence of obesity in Madison County continues to rise with 28.1% of Madison County adults obese in 2006, up from 23.5% in 2003. (United States Department of Health & Human Services, 2007).

Age

In 2003, 62% of adults age eighteen and older were overweight or obese ranking Madison County as the county with the 6th highest prevalence of overweight and obesity in New York State, excluding New York City.

Approximately 34% of children between the ages of 2 to 4 in Madison County are overweight or obese placing the County in the bottom 25% of the counties in New York State.

Amongst our youngest children 0 to 5 years of age we tend to have children who are heavier than their peers from other counties.

Birth Weight

Between 2003 and 2005, 12.3% of the babies born in Madison County demonstrated high birth weights, ranking Madison County 56th out of 57 counties on this issue.

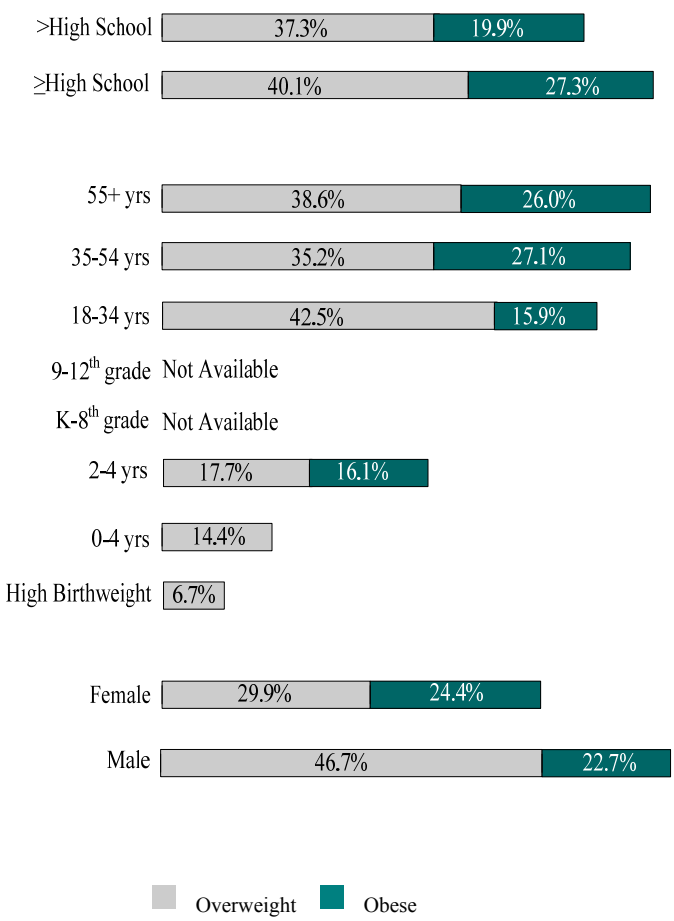
Gender

Almost 70% of adult men in Madison County are overweight or obese, compared to 54% of adult women.

Education

Individuals who have completed high school demonstrate a lower prevalence of overweight and obesity.

Madison County 2003



Source: New York State Department of Health Expanded Behavioral Risk Factor Surveillance System, 2003 and the Center for Disease Control and Prevention 2003-2003 Pediatric Nutrition Surveillance, New York, Table 6B
Web site www.health.state.ny.us/nysdoh/brfss/expanded/2003/index.htm Accessed 10/21/08

Table 4: Selected Health Risks and Behaviors Indicators
Madison County - 2004-2006

Indicator	3 Year Total (2004-2006)	County Rate	NYS Rate	NYS Rate excluding NYC
% Pregnant Women in WIC Who Were Pre-pregnancy Overweight (BMI 26 - 29), Low SES (2005-07)	**150**	**14.1**	**15.4**	**15.3**
% Pregnant Women in WIC Who Were Pre-pregnancy Very Overweight (BMI Over 29), Low SES (2005-07)	**351**	**33.1**	**26.1**	**30.0**
Behavior/Risk Indicator Chenango & Madison (2003)	**County Rate**	**CI***	**NYS Rate**	**County Rank** 1 = best, 38 = worst
% adults that participated in leisure time physical activity in last 30 days	**72.4**	**3.9**	**74.6**	**34th**
% adults eating 5 or more servings of fruit or vegetables daily	**20.6**	**3.5**	**25.8**	**30th *****
% adults reporting physician diagnosed diabetes	**5.3**	**1.6**	**7.2**	**3rd**
% adults reporting physician diagnosed heart attack, angina or stroke	**8.8**	**2.3**	**6.9**	**31st**
Expanded BRFSS Chenango & Madison (2003)	**Yes**	**No**	**CI***	**County Rank** 1 = best, 32 = worst
% adults trying to lose weight	**42.7**	**57.3**	**4.4**	**30th**
% adults trying to maintain current weight of those not trying to lose weight	**60.4**	**39.6**	**5.9**	**15th**
% adults eating fewer calories or less fat to lose or maintain weight	**76.3**	**23.7**	**4.4**	**17th**
% adults using physical exercise to lose or maintain weight	**69.6**	**30.4**	**4.5**	**25th**

* = 95% confidence interval for Madison/Chenango County data
** = Percentage compared to scores for other localities (single or multi-county percentages).
*** = 1 = best, 30 = worst
Source: Health Risks and Behavior Indicators 2004-2006 – Madison County – accessed NYSDOH web site on 10/17/08
www.health.state.ny.us/statistics/chac/chai/docs/beh_madison.htm
Note: The BRFSS survey combines Madison County and Chenango County data in determining percentages.

Almost half (47%) of pregnant women certified for WIC are overweight or obese, i.e., with a BMI≥ 26.1 (WIC Report CT035T, 2007).

According to a pediatric study by the Centers for Disease and Control Prevention (CDC), from 2003 to 2005, 61.4 percent of children younger than 5 years of age were ever breastfed, with only 12 percent breastfed for the recommended 12 month period.

From 2003 to 2005, 66 percent of children under the age of 5 watched up to 2 hours of television a day (CDC Pediatric Survey 2003 to 2005, Web site).

In 2003, adults in Madison County are less likely to eat the recommended number of servings of fruits and vegetables when compared to the NYS and National averages. (Table 4)

The percentage of physician diagnosed diabetes among adults in Madison County (5.3%) is lower than the State level of 7.2%. Among the thirty-eight localities presenting like data, Madison/Chenango County locality demonstrated one of the lower percentages (ranked 3rd) for this issue. (Table 4)

For heart attack, angina or stroke, the percent of adults (8.8%) diagnosed with these conditions in Madison County is higher than the State percentage of 6.9%. The Madison/ Chenango County locality ranked 31 out of 38 localities. (Table 4)

Adults living within the Madison/Chenango County locality tend to rank lower than most other localities when looking at the percent of individuals who are trying to lose or maintain weight, eating fewer calories, or exercising more. (Table 4)

In 2007, Madison County students in grades 9 through 12 identified a variety of activities and the length of time spent on these activities that they might engage in during non-school hours.

According to the survey, approximately two-thirds (66%) of the students spend two or more hours watching television, playing video or computer games; and over half of them (54%) spend two or more hours online. Both areas show a slight decrease in time spent doing these activities from the 2003 survey (*Madison County, Teen Assessment Project* (2007)).

In recent focus group discussions held with youth from around the State, including Madison County, obesity was identified as one of the top five health concerns. Discussions with Madison County youths revealed that our youth demonstrate an awareness and understanding of the key factors (nutrition and physical activity) that contribute to obesity and other health issues. In addition, they were able to articulate credible solutions to address this issue, e.g., increase access to exercise by adding more activities and through increased upkeep of local parks (*ACT for Youth Group Discussion results*, Unpublished 2008).

The Madison County Living Well Partnership (LWP), a public/private member group, promotes healthy living by encouraging families to eat well and be physically active. In carrying out this charge the LWP works in partnership with state agencies on grant-funded projects including "Eat well play hard" (EWPH). The goal of the EWPH project is to prevent childhood overweight by partnering with community organizations to implement programs, policies and environmental changes targeting children age two to ten and their families in Madison and Herkimer Counties. A component of their efforts included a parent survey targeting low-income families with children ages two to ten, and a survey or social audit of local churches (*Eat Well Play Hard Community Assessment Report*, 2007).

"Eat Well Play Hard"
Community Survey 2007

Parents indicated that having free or low-cost physical activity programs (67%), adding new playground toys in community parks and playgrounds (56%), and providing safe places to walk (45%), such as walking trails and marked routes, would help them and their families become more physically active. If organized programs were available, parents felt that they would most likely become involved with these activities if they were located in area parks (77%), at schools (68%), or at recreational/ youth centers (48%).

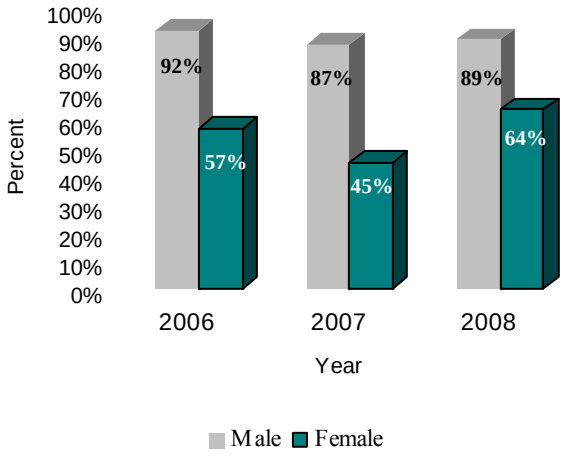
Parents also indicated that reducing the cost of fresh fruits and vegetables (82%), availing local farmers' markets (47%), and having more healthy foods (i.e., fruits and vegetables) available in vending machines and grocery stores (40%) would support their efforts to eat more fruits, vegetables, and low fat dairy foods.

The church survey identified several opportunities and potential venues for affecting positive change in the area of nutrition and physical activity including: "policies around food donations or foods served at church functions and in soup kitchens, offering a physical activity program for the community, and regularly disseminating nutrition and physical activity information in sermons, bulletins, or on bulletin boards." Of the 24 churches responding to the survey, 19 indicated a willingness to collaborate on activities related to healthy eating and physical activity in their communities. Fifteen of those nineteen churches have existing task groups that provide health and social services to those in need.

County Employee Health Quotient

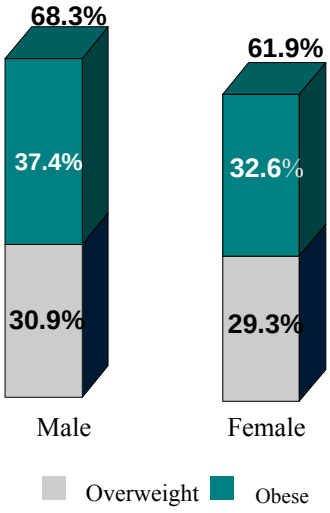
For the past three years the American Cancer Society conducted a health survey of Madison County employees. The purpose of the survey is to understand certain health and wellness issues among county employees in order to develop and support employee wellness activities and health practices. The data collected allows for the determination of BMI, dietary and physical fitness practices, and assists the county in developing wellness-related programming activities for its employees. In the 2006 survey, approximately 57% of the women respondents were overweight or obese. Of the 30 male respondents, 28 were overweight or obese (93%). Follow up surveys conducted in 2007 and 2008 revealed that BMI for both males and females increased over this three-year period (Figure 1).

Figure 1: Overweight & Obesity Among County Employees 2006-2008



Source: Madison County Health Quotient Report 2008

Figure 2: Percent Overweight & Obese Among Home Care Patients 1/1/08 to 6/30/08



Source: Madison County Department of Health 2008

Overweight & Obesity - Home Care Patients

The Madison County Department of Health operates the County's home health care agency and long-term home healthcare programs. These programs provide both short and long-term skilled nursing and therapeutic care within the home environment. Overweight and obesity among adult homecare patients presents a co-morbidity factor that could exacerbate a patient's health condition as well as affect patient care.

An internal analysis of overweight and obesity among adult home care patients was conducted in July 2008. During the first six months of 2008, 378 patients ages 18 to 101 were provided care through the agency. Of the total 378 patients, three hundred twenty-three (323) patients had complete height and weight data that allowed for a BMI determination. Approximately 64.7% of the patients were overweight or obese, consistent with the trends for adults; males = 68.3%; females = 61.9% (Figure 2).

Resource Guide

In 2006, the Madison County Department of Health surveyed local organizations to identify existing programs, services, and current initiatives available throughout Madison County that pertain to the prevention and treatment of obesity. Surveys were mailed to 283 organizations in Madison County, with 76 organizations responding (27% response rate).

The survey results were compiled, along with similar information from neighboring counties into a regional resource guide for an eight-county region. The regional resource guide provides information on programs and services including counseling and support, weight loss management, education, farm stands/markets, food preparation, and physical fitness. Through the efforts of the Commission for a Healthy Central New York, of which Madison County was a member, an Internet based version of the regional resource guide was developed and launched for public use in the fall of 2006 (www.fitcny.org).

Child Obesity Prevalence Project

Locally, as well as at the state and national levels, virtually no data exists on the prevalence of overweight and obesity for children and adolescents between the ages of 5 and 18 years. Recent New York State legislation now requires schools to begin reporting student's body mass index (BMI) as part of the student's health record, beginning in the 2008-2009 school year. (State of New York. Senate-Assembly Bill S.2108-C.A. 4308-C, R.R., 24 January 31, 2007). However, this data will not be available to the counties until 2010 or 2011. Local efforts are underway to establish baseline childhood overweight and obesity prevalence rates for Madison County.

Through a collaborative partnership between the Madison-Oneida BOCES, the Morrisville State College's Baccalaureate Nursing Program, and the Madison County Department of Health, a comprehensive prevalence study on childhood obesity is currently underway within the local school districts.

Above photo, left to right: Margaret Argentine, PhD, Morrisville State College; Nancy Greene, RN Stockbridge School, and Marilyn Caldwell, NP, Morrisville State College.

Height and weight measurements for children between Pre-K and twelfth grade are being measured and BMI values calculated among students from participating schools. Data collection activities are scheduled to be completed by early 2009, with the study report available sometime in mid-2009.

Bassett 2009 Census

The Bassett Research Institute is scheduled to begin its decennial multi-county health census in the last part of 2009. This third edition of the survey will replicate the 1999 census survey instrument and expand to include five (5) in-depth research modules, of which one is obesity. The obesity module will consist of four study components – adult obesity, child obesity, rural geography and physical activity, and weight maintenance, and will provide a more accurate picture of obesity in Madison County. The resulting health census report is slated for publication sometime in 2011 (personal meeting with Guila Earl-Richardson, PhD. Of Bassett Research Institute in October 2007).

Cost to Madison County

Determining an accurate picture of the medical health care costs attributable to obesity for Madison County is difficult and complex, requiring additional research and analytical efforts that are beyond the scope of this report. However, it is possible to generate a rudimentary understanding of the potential medical care costs attributed to obesity in Madison County by looking at the County's Medicaid expenditures.

It is estimated that in 2003 dollars, approximately $3.5 billion of the New York State's $6.1 billion in total costs attributed to obesity, or 58%, were covered by Medicaid (Table 3). The total Medicaid expenditures for New York State in 2003 were $32 billion (NYSDOH Medicaid Statistics Reports for 2003). If we apply these Medicaid cost estimates to New York State's actual expenditures for 2003, the medical care costs attributed to obesity would constitute roughly ten percent (10%) of the State's total Medicaid expenditures. In 2003, Madison County's total Medicaid expenditures were $61 million (NYSDOH Medicaid Statistics Reports for 2003). For Madison County, ten percent of the total Medicaid expenditures would result in medical care cost attributable to obesity of approximately $6.1 million.

Madison County contributes a local share of approximately 17% towards the total costs to cover the Medicaid expenditures allocated to the County (M. Fitzgerald, email correspondence on November 6, 2008). Therefore, in 2003, the estimated local share of the medical costs to the County would be approximately $1,037,000.

Using the percentages from Table 3 a rough estimate for Medicare costs attributable to obesity for Madison County can be calculated. In 2003 New York State Medicaid costs constituted 58% of the total medical costs attributed to obesity (Table 3).

By applying this percentage (58%) to Madison County's expenditures, the total medical costs attributed to obesity in Madison County would be approximately $10.5 million.

Medicare costs related to obesity represented approximately 23% of the total medical costs for New York State, in 2003 (Table 3). Applying the same percent to Madison County expenditures results in Medicare costs related to obesity of approximately $2.4 million.

Defining Overweight & Obesity

Obesity is defined as an excessively high amount of body fat or adipose tissue in relation to lean body mass, (Stunkard AJ & Wadden TA, 1993). Overweight refers to increased body weight in relation to height, which is then compared to a standard of acceptable weight (Stunkard & Wadden, 1993). The National Institute of Health developed a standard measurement of obesity called the Body Mass Index or BMI. The BMI is a measure of weight in relation to height, which correlates with the total body fat content for the majority of individuals. BMI is a useful tool in identifying greater health risks for individuals. The BMI ranges are based on the relationship between body weight and disease and death (WHO 1995) signifying that higher BMI's may be associated with greater health risks.

BMI is just one indicator of potential health risks associated with being overweight or obese. The National Heart, Lung, and Blood Institute guidelines (1998) recommend looking at two other predictors:

- The individual's waist circumference (because abdominal fat is a predictor of risk for obesity-related diseases).
- Other risk factors the individual has for diseases and conditions associated with obesity (for example, high blood pressure or physical inactivity).

The use of BMI as a primary measure of obesity has its limits. For instance, BMI does not distinguish between fat and muscle, and traits of certain people groups, i.e., Asian, Aboriginal, and those of African and/or Polynesian ancestry, and may require modifications in BMI levels and

health risk determinations (Prentice AM & Jebb SA, 2001; Gallagher D, et al., 1996).

Although these issues exist, BMI still represents one of the best methods for population assessment of overweight and obesity. Because a BMI calculation requires only height and weight, and for children - age, it is inexpensive and easy to use for clinicians and for the general public. Furthermore, the use of BMI allows people to compare their own weight status to that of the general population.

For adults 20 years old and older, BMI is interpreted using standard weight status categories that are the same for all ages and for both men and women. Table 5 depicts the standard weight status categories associated with BMI ranges for adults.

Table 5. Adult Weight Status Categories

BMI	Weight Status
Below 18.5	Underweight
18.5 – 24.9	Normal
25.0 – 29.9	Overweight

Source: CDC, 2008; http://www.cdc.gov/nccdphp/dnpa/healthyweight/index.htm

For children and teens, 2 to 19 years of age, the BMI number is calculated the same way as it is for adults, however the criteria used to interpret the meaning of the BMI number for children and teens are different from those used for adults. For children and teens, BMI age- and sex-specific percentiles are used.

There are two reasons for this different approach:

- The amount of body fat changes with age.
- The amount of body fat differs between girls and boys.

As a result, the interpretation of BMI is both age- and sex-specific for children and teens. The CDC BMI-for-age growth charts take into account these differences and allow translation of a BMI number into a percentile for a child's sex and age. Weight status for the child is determined based on the where their percentile falls within a categorized percentile range (Table 6). For example, if the BMI of an child/teen is between the 85th and 95th percentile for age and sex, the person is considered overweight. An individual at or above the 95th percentile can be considered obese (Himes JH & Dietz WH, 1994).

BMI-for-age weight status categories and the corresponding percentiles for individuals 2 to 19 years of age, are shown in Table 6.

Table 6. Weight Status Categories -Ages 2 - 19

Weight Status Category	Percentile Range
Underweight	Less than the 5th percentile
Health weight	5th percentile to less than the 85th percentile
Overweight	85th to less than the 95th percentile
Obese	Equal to or greater than the 95th percentile

Source: CDC, 2008; http://www.cdc.gov/nccdphp/dnpa/healthyweight/index.htm

Aspects of Overweight & Obesity

In general, a variety of factors play a role in overweight and obesity. This makes it a complex health issue to address. This section will look at several of the more prominent factors that may have an effect in causing people to be overweight and obese.

These factors include:

- What and where we eat
- Lack of physical activity
- Social and demographic determinants
- Genetic predisposition
- Our communities and built environment
- Public awareness
- Legislation and policy
- Health insurance

What and Where We Eat

A change to our food consumption and nutritional practices over the years has coincided with the rise in obesity. Social and economic trends that include the high percentage of women employed outside the home, smaller households, and the increased supply of restaurants, including the proliferation of relatively inexpensive fast-food restaurants have contributed to these practices (Lin, Guthrie & Frazao, 1999; Kant & Graubard, 2004).

The National Center for Health Statistics, Health (US-2007) reported that the majority of Americans eat an average of one to three restaurant meals on a weekly basis. Our spending on food away from home over the last thirty years nearly doubled as has the number of food service establishments in the United States (Hill JO, Wyatt HR, Reed GW & Peters JC, 2003; US Dept. of Labor, US Bureau of Labor Statistics 2006; The Keystone Center 2006). These away-from-home meals tend to be larger in their portion size (Young LR & Nestle M, 2002) and on average higher in overall calories, fat, saturated fat, and sodium content than foods eaten at home (Lin, Guthrie & Frazao, 1999; Kant & Graubard, 2004). In today's society, unlike in the past, we are able to obtain substantial amounts of energy-dense foods with little physical exertion or effort (Friedman JM, 2003; Hill JO, Wyatt HR, Reed GW & Peters JC, 2003).

Our consumption patterns of fruits & vegetables, i.e., 5 or more servings per day – remained relatively unchanged over the last decade. Approximately 77% of Americans eat too little fruit, 95% eat too few vegetables, and 64% eat too much saturated fat (Healthy People 2010, US Department of Health and Human Services, 2008). However, in recent years this trend appears to be changing – for the better. Over the last few years more adults are eating fruits and vegetables. In 2007, the percentage of US adults who consumed five or more fruits

and vegetables a day rose to 24.4%, up from 22.6% in 2003 (CDC, BRFSS 2007). A similar trend was observed for NY; from 25.8% in 2003 to 27.4% over this same time period (CDC, BRFSS 2007).

According to the USDA *Food Pyramid* guidelines, 45% of all U.S. children failed to meet any of the recommended servings and only 1% regularly ate diets that resembled those portrayed in the pyramid guidelines (Munoz KA, Krebs-Smith SM, Ballard-Barbash R, & Cleveland, 1997).

Among students in grades 9^{th} – 12^{th} only 23 percent, with a higher percentage of boys (26%) compared to girls (20%) ate the recommended number of servings per day for fruits and vegetables (Centers for Disease Control and Prevention (CDC), Youth Risk Behavior Surveillance (YRBS), US 2007).

The growing consumption of sugar sweetened beverages, particularly soda, has fueled poor nutritional habits. Soda, with its high caloric content and low nutritional value, has replaced juice and milk as the drink for children. Soda consumption is associated with increased body weight, so much so, that the risk of obesity increases 1.6 times with each additional soda

What and Where We Eat cont'd

consumed (Nestle M, 2002). Within the school setting for instance, soda company "pouring-rights" contracts and cafeteria fast-food offerings limit healthy food choices; thereby further exacerbating poor eating behaviors. "Pouring rights" contracts involve large payments to school districts and additional compensation over a five to ten year period for the exclusive sale of their beverages in vending machines and at school events (*Obesity in Onondaga County: A Community's Call to Action, 2004*).

Lack of Physical Activity

Low patterns of activity, along with poor diet, is credited with approximately 14% of all deaths in the United States (McGinnis JM & Foege WH, 1993). Likewise sedentary lifestyles were associated with 23% of deaths from major chronic diseases (Hahn RA, Teuesch SM, Rothenberg RB & Marks, 1998).

The 1996 Surgeon General's report on physical activity and health concluded that people of all ages benefit from regular physical activity and that significant health benefits are obtained through a moderate daily amount of physical activity (US Dept of Health & Human Services, CDC, 1996). Examples of a moderate level of physical activity are 30 minutes of walking, or raking leaves, or vacuuming.

Nationwide in 2007, approximately one out of every two adults engaged in moderate physical activity for 30 or more minutes five or more days a week, with New Yorkers demonstrating similar levels of physical activity (CDC, BRFSS 2007). As may be expected, activity decreases with age, and sufficient activity is less common in women than in men and among those with lower incomes and education (Surgeon General's Call to Action—US Dept. of Health & Human Services, 2001).

In 2008, the U.S. Department of Health and Human Services (HHS) issued the *2008 Physical Activity Guidelines for Americans.* The Guidelines provide information and guidance on the types and amounts of physical activity that provide substantial health benefits with a focus on reducing the risk of chronic disease and promoting health-related fitness. The Guidelines take a lifespan approach and provide recommendations for three age groups: Children and Adolescents, Adults, and Older Adults. The amount of physical activity an adult gets every week was separated into four categories: inactive, low, medium, and high (Table 7).

The new guidelines modified previous CDC/ ACSM guidelines for the amount of moderate physical activity a person should engage in from the "30 minutes on 5 days a week" to "150 minutes a week in various ways."

In 2007, 35% of students in grades 9 – 12, were physically active for a total of 60 minutes or more per day on five or more of the past seven days, with boys demonstrating a higher percentage who were physically active (44%) compared

Table 7. Classification of Total Weekly Amounts of Aerobic Physical Activity into Four Categories

Levels of Physical Activity	Range of Moderate-Intensity Minutes a Week	Summary of Overall Health Benefits	Comment
Inactive	No activity beyond baseline	None	Being inactive is unhealthy.
Low	Activity beyond baseline but fewer than 150 minutes a week	Some	Low levels of activity are clearly preferable to an inactive lifestyle.
Medium	150 minutes to 300 minutes a week	Substantial	Activity at the high end of this range has additional and more extensive health benefits than activity at the low end.
High	More than 300 minutes a week	Additional	Current science does not allow researchers to identify an upper limit of activity above which there are no additional health benefits.

Source: USDHHS *2008 Physical Activity Guidelines for Americans.*

Lack of Physical Activity (cont'd)

to girls (26%) and 9th grade students exhibiting the highest percentage at 38%. New York state demonstrated higher, yet similar trends. (38% of 9-12 grade students; boys 47%; and girls 29%) (CDC, YRBS, US 2007).

Nationwide, 30.3% of students went to physical education (PE) classes 5 days in an average week when they were in school (i.e., attended PE classes daily) (CDC, YRBS, US 2007).

Nationwide, 53.6% of students 9 -12 grades, went to PE classes on one or more days in an average week when they were in school (i.e., attended PE classes) (CDC, YRBS, US 2007).

Overall, the prevalence of attending PE classes was higher among male (57.7%) than female (49.4%) students (CDC, YRBS, US 2007).

Nationwide, 24.9% of students played video or computer games or used a computer for something that was not school work for 3 or more hours per day on an average school day (i.e., used computers 3 or more hours per day). Overall, the prevalence of using computers 3 or more hours per day was higher among male (29.1%) than female (CDC, YRBS, US 2007).

Nationwide, 35.4% of students watched television 3 or more hours per day on an average school day. Overall, the prevalence of having watched television 3 or more hours per day was higher among male (37.5%) than female (33.2%) students (CDC, YRBS, US 2007).

The percentage of students who used computers 3 or more hours per day increased during 2005–2007 (21.1%–24.9%). During 1999–2007, a significant linear decrease occurred in the percentage of students who watched 3 or more hours per day of television (42.8%–35.4%) (CDC, YRBS, US 2007).

The percentage of students who attended PE classes daily decreased during 1991– 1995 (41.6%–25.4%) and then did not change significantly during 1995–2007 (25.4%–30.3%) (CDC, YRBSS, US 2007).

Excess screen affects adults in a similar manner as youth. Data released in 2003 as part of Harvard University's Nurses Health Study indicate that the average woman, in a nationwide sample, watched about 34 hours of TV a week, which is over 4 1/2 hours a day (Hu FB, Li TY, Colditz GA, Willett WC & Manson JAE, 2003). Furthermore, researchers correlated every two hours per day of television watching with a 23% increase in obesity and found that television watching burns even fewer calories that other sedentary behaviors like sewing, playing board games, and reading (Hu FB, Li TY, Colditz GA, Willett WC & Manson JAE, 2003).

Even without weight loss, adopting sensible eating behaviors and cultivating a physically active lifestyle has significant health benefits. Even modest weight loss, between 5-15% of excess total body weight, markedly reduces the risk factors for both premature death and chronic health conditions (Surgeon General's Call to Action—US Dept. of Health & Human Services, 2001).

Social & Demographic Determinants

Although obesity effects all aspects of society, it does not effect all groups equally, creating health disparities in certain populations. Obesity is present in almost 37% of black adults, compared to nearly 27% in Hispanic adults, and 26% in white adults (CDC, BRFSS—US 2007).

Wealthier, more educated individuals usually lead healthier lives and choose better diets. Among lower income households, 34% of children are obese, compared with 19% from higher income households CDC, BRFSS—US 2007) (Hu FB, Li TY, Colditz GA, Willett WC & Manson JAE, 2003).

Although nutrient intake across income groups appears to be the same, lower income groups tend to choose diets that are higher in calories, fat, meat, sugar, and therefore exhibit higher rates of obesity and disease (Wilde, McNamara & Ranney, 1999).

Childbearing, when it is accompanied by excessive weight gain during pregnancy, is associated with increased risk of becoming obese. Obesity in the post partum period is now viewed as putting infants at risk at developing obesity in early childhood. Breastfeeding until one year postpartum while associated with weight retention in the woman promotes her infant to have a healthier weight gain (Olson, Christine, Principal Investigator, Wells, Nancy & Allan Green, Co-Investigators, 2005).

Adverse childhood experiences, such as abuse and household dysfunction, are associated with various health issues that manifest themselves later in life including a higher rate of obesity (Williamson DF, Thompson TJ, Anda RF, Dietz WH & Felitta V, 2002).

The perception or reality of a dangerous neighborhood, whether it is in reference to crime or traffic concerns, discourages residents from physical activity in the communities in which they live (Wood L, Shannon T, Bulsara M. Pikora T, McCormack G & Giles-Corti B, 2007).

As pointed out by the Obesity Society, "the social consequences of being obese and overweight are serious and pervasive". The stigma and bias generally associated with being overweight or obese, i.e., ridicule and stereotyping, or physical barriers, such as the size of airplane or amusement ride seating, may extend into forms of discrimination within schools and the workplace, as well as have a direct negative impact on the quality and utilization of health care services (Obesity Society, www.obesity.org/information/weight_bias.asp).

Studies of health care providers demonstrate negative biases these providers have towards obese patients and how these negative biases may directly affect the care provided (Klein D, Najman J, Kohrman AF & Muncro C, 1982; Davis-Coelho K, Walts J & Davis-Coelho R,

Social & Demographic Determinants (cont'd)

2000). As a result of such biases, providers tend to spend less time, engage in less discussion, perform fewer preventive health screenings, and/or do less interventions when seeing overweight patients (Amy NK, Aalborg A, Lyons P & Keranen L, 2006).

Individuals that are overweight and obese are therefore less likely to seek medical care, delay in seeking medical care (Fontaine, KR, Faith MS, Allison DB & Cheskin LJ, 1998) or attend medical appointments (Olson, Schumaker & Yawn, 1994). At present there are no federal laws that protect overweight people from discrimination. Only one state (Michigan) and a few cities have actual laws prohibiting discrimination against overweight people (Yale University: *Weight Bias*, Rudd Report, 2008).

Genetic Predisposition

Understanding the genetic influence and contribution to the obesity epidemic is challenging on account of the complex interactions of genes, environment and lifestyle. Although we tend to hear more about the influence of the environment and lifestyle choices on obesity, it appears a person's underlying genetic composition may affect their ability to maintain a healthy weight. Studies conducted on identical twins, even when raised in different environments, demonstrate a high correlation on body mass index (Stunkard AF, Harris JR, Pedersen N and McClearn GE, 1990). Other studies linked parental obesity as a predictor of children obesity even after controlling for dietary, activity and environmental factors (Maffeis C, Talamini G & Tato L 1998; Wardle J, Guthrie C, Sanderson S, Birch L & Plomin R, 2001; Whitaker RC, Wright JA, Pepe MS, Seidel KD & Dietz WH, 1997).

Unfortunately, there does not appear to be a "smoking gun" or single gene that can be used to explain this hereditary relationship. Following a review of genetic epidemiological studies, researchers concluded that only 1% to 5% of obesity cases can be explained by a single gene mutation (Loos & Bouchard, 2003). More than 400 genes or markers are associated with obesity (Snyder EE et al., 2004). Variations in these genes along with variations in environmental and behavioral influences, and their interactions further add to the complexity of understanding the role of genetics in the issue of obesity.

Our Communities & Built Environment

Where we live and how we design the communities in which we live may impact the prevalence of obesity among our residents. Our increasing dependence on the automobile together with planning and zoning policies and practices has turned our communities into environments that discourage physical activity and limit dietary choices.

Zoning and other conventional land development codes control the physical form of communities. They classify land uses (residential, commercial, industrial, and agricultural) and regulate building activities.

The focus on automobile efficiency has grown with land development patterns that increase distances between origin and destination, even in school settings (Mishkovsky N, 2002). In comparisons of the most sprawling and most compact areas in the country, each degree of additional suburban sprawl has meant additional weight, less walking, and increased blood pressure (McCann & Ewing, 2003; New York Times, 2003).

Community design practices often present barriers to physical activity, contributing to increased risk for obesity, and certain chronic diseases. Barriers include, but are not limited to, the absence of sidewalks/bike lanes, heavy traffic, non-handicap accessible, long distances, and high levels of crime (Nestle M, Jacobson & Michael F, 2000; Wood L, Shannon T, Bulsara M. Pikora T, McCormack G & Giles-Corti B, 2007).

The "neighborhood food environment" refers to the availability of healthy foods within a community and how easily residents can access those foods. There is a growing understanding that barriers to accessing healthy foods play a role in poor dietary decisions. It's hard to make healthy choices if healthy foods aren't available

or require more effort or expense to obtain (Mikkelsen L, Chehimi S and Prevention Institute, 2007).

Nationwide, twelve percent (12%) of households are food insecure (Gregory S, 2002), i.e., "limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways." (Wikipedia, www.wikipedia.org/wiki/Food_insecurity 2008). Although this sounds counter-intuitive, food insecurity actually increases risk for excess body weight (Adams EJ, Grummer-Strawn L and Chavez G, 2003).

A recent study demonstrated that residents living in neighborhoods with better walking environments and availability of healthy foods were associated with lower body mass index (Mahasin S et al., 2008).

Rural America, once seen as being synonymous with robust health now leads the way in the obesity epidemic. Recent research concluded that adults and children living in rural areas demonstrate a higher level of obesity compared to their urban counterparts (Liu J. et al., 2008; Patterson, Moore, Probst & Shinogle, 2004). The studies also show that in addition to being at increased risk for obesity and overweight, rural children are also at increased risk of poverty, are less likely to

Our Communities & Built Environment (cont'd)

have health insurance, are less likely to have accessed preventive care in the past year, and have lower levels of physical activity (Liu J. et al., 2007) (Lutfiyya, Lipsky, Wisdom-Behounek & Inpanbutr-Martinkus, 2007). Overall, children living in rural areas are about 25 percent more likely to be overweight or obese than children living in metropolitan areas (Lutfiyya et al., 2007).

According to a report by the National Advisory Committee on Rural Health and Human Services (2005), "Health status and provision of health services are worse in rural America for almost any disease or health issue, and obesity is no exception." The report identifies additional factors that contribute to this disparity including; limited coverage by Medicare for preventive services, a lack of coordination of local providers as well as provider shortages; geographic isolation; a lack of transportation; availability of nutritious foods ("food deserts"), limited opportunities for physical activity, and lifestyle changes.

Furthermore, rural communities still face those factors similar to those confronted by more urban communities, which include: the struggle against the effects of marketing of unhealthy foods to children; the over-abundance of and easy access to calorie dense foods; and the overall trend of less active lifestyles.

The findings of the NACo Rural Obesity Initiative noted that "Rural communities at times may lack the same funding, technical assistance and resources that may be available to their urban counterparts" (NACo's County Services Department, 2008).

Much of the research and evaluation on obesity prevention efforts has focused on solutions that work best in urban and sub-urban communities and may be difficult to implement, or are not as effective in rural areas. Many rural communities are spread out over large distances, making sidewalk implementation, mixed-use development, and public transportation prohibitively expensive on a community-wide basis. The distance and time it takes residents to travel from their homes to schools and other facilities may also challenge the success of after-hours community programs.

Built Environment

Defined broadly to include land use patterns, the transportation system, and design features that together provide opportunities for travel and physical activity. *Land use patterns* refer to the spatial distribution of human activities. The *transportation system* refers to the physical infrastructure and services that provide the spatial links or connectivity among activities. *Design* refers to the aesthetic, physical, and functional qualities of the built environment, such as the design of buildings and streetscapes, and relates to both land use patterns and the transportation system.

Source: *Does the built environment influence physical activity? : examining the evidence.* Committee on Physical Activity, Health, Transportation, and Land Use, Transportation Research Board, Institute of Medicine of the National Academies. p. cm.—(Special report; 282) ISBN 0-309-09498-4. 2005

Our Communities & Built Environment (cont'd)

In recent years there has been a growing movement away from traditional zoning ordinances and land development codes, rules and policies, which have encouraged sprawling, automobile-reliant development patterns, towards the concept of smart growth (Creating a Regulatory Blueprint for Healthy Community Design A Local Government Guide to Reforming Zoning and Land Development Codes, 2005). Health considerations, including; whether farmers' markets and community gardens are permitted uses; where fast food establishments locate; reduced automobile use; and the construction of places that are more attractive to pedestrians and cyclists, are embedded within the smart growth concept and present opportunities to enhance the built environment and improve overall health.

Public Awareness

Most Americans are aware of the issue of obesity and its severity. In 2003, over 70% of the adults surveyed understand that obesity is a major health concern comparable to smoking, with approximately 90% to 95% of respondents recognizing that obesity increases the risks of developing heart disease, high blood pressure and diabetes (Lake, Snell, Perry and Associates, 2003).

The majority of survey respondents were also aware that excess weight has an impact on cancer risk. Although respondents were divided as to whether obesity "is a private issue that people need to deal with on their own" or "a public health issue that society needs to help solve", an overwhelming majority stated that healthcare providers (94%), schools (92%), government (81%), and employers (70%) all have roles to play in addressing this issue.

The wealth of advertising campaigns marketing unhealthy food items may foster poor dietary habits, especially among children (Stillman L, MM; Truslow E; MPH & Woods M, DSC, 2002; Out of Balance, Consumers Union, 2005).

A report by the Henry J. Kaiser and Family Foundation (2004) looked at the existing research regarding the role media plays in childhood obesity. They concluded that although the impact media has on childhood obesity remains unclear, the body of evidence does indicate that the vast amount and constant barrage of unhealthy food advertising and cross promotional activities does influence our children's dietary behaviors.

To address the influence advertising has on our behavior and the subsequent choices we make, the Institute of Medicine issued a report advocating that the food and beverage industries and restaurants should encourage healthier diets for children and youth through advertising, and should work with the government, interest groups, and schools to improve marketing practices. The report also suggests governmental action including the use of taxes, incentives, and subsidies to encourage better marketing practices among these industries, and if necessary, legislate and regulate advertising practices (Institute of Medicine, 2006).

Legislation and Policy

Obesity represents the latest issue for public health law (Mello MM, Studdert DM, & Brennan TA, 2006). The climbing costs and dramatic increases in obesity among children have caught the attention of state lawmakers leading to the introduction of numerous legislative initiatives over the last several years. In 2007, state lawmakers across the United States introduced over 300 bills in an attempt to curb obesity in both children and adults. The majority of these bills focused on nutrition and physical education requirements in schools, joining community efforts to improve nutrition and physical fitness and encouraging "walk-able" communities, while others focused on obesity related lawsuits, health insurance coverage of obesity, soda taxes, menu labeling, and Medicaid benefits (Trends in State Public Health Legislation, 2007).

Some lawmakers have introduced legislation to limit liability for food vendors to reinforce personal responsibility for behaviors that lead to obesity (National Conference for State Legislators,10/21/2008,www.ncsl.org/programs/). However, these legislative efforts have had inconsistent results. While legislatures realize the importance of this issue, budget constraints and politically feasibility often prevail, leaving proposed legislation either stalled or passed without funding.

Federal Farm Policy

Over the years government supported subsidies, marketing assistance programs, special taxation, farm credit system, market regulations, commodity programs, and trade policies have lead to lower prices and the overproduction of certain food commodities such as wheat and corn. As a result, farm policy has been criticized for subsidizing the production of corn and, thereby, of high-fructose corn syrup, which is now common in soft drinks, fruit juices, jelly, and other foods (Bray GA, Nielsen SJ, & Popkin BM, 2004; Pollan Michael, 2003; Critser, Greg, 2003)

Federal Programming

Federal food programs and federal farm policy influence the consumption patterns of the American public. The United States Department of Agriculture, Food and Nutrition Services provides children and low-income people access to food, a healthful diet, and nutritional education through several Nutrition Assistant Programs (USDA-FNS www.fns.usda.gov/fns/services.htm, 11/21/2008). FNS Programs include:

- Supplemental Nutrition Assistance Program: As of Oct. 1, 2008, Supplemental Nutrition Assistance Program (SNAP) is the new name for the federal Food Stamp Program. SNAP provides low-income households with electronic benefits they can use like cash at most grocery stores. SNAP provides crucial support to needy households and to those making the transition from welfare to work. State agencies administer the program at State and local levels, including determination of eligibility and allotments, and distribution of benefits. SNAP helps low-income people and families buy the food they need for good health. SNAP can be used to buy healthy foods but these foods cost more and are less available, hence, there is no

Legislation and Policy (cont'd)

incentive in the program for the purchase of healthier foods.

The Women, Infants and Children (WIC) program: WIC supplies supplemental food, health care referrals, and nutrition education to low-income pregnant, postpartum and breastfeeding women, and infants and children up to age 5 who are at nutrition risk. WIC is a federally funded program, administered through state grants to pay for WIC foods, nutrition education, and administrative costs.

- The WIC Farmers' Market Nutrition Program (FMNP): FMNP is associated with the Women, Infants and Children program. The FMNP was established by Congress in 1992, to provide fresh, unprepared, locally grown fruits and vegetables to WIC participants, and to expand the awareness, use of and sales at farmers' markets. Women, infants (over 4 months old) and children that have been certified to receive WIC program benefits or who are on a waiting list for WIC certification are eligible to participate in the FMNP. A variety of fresh, nutritious, unprepared locally grown fruits, vegetables and herbs may be purchased with FMNP coupons. State agencies can limit sales to specific foods in order to encourage FMNP recipients to support the farmers in their own States. In New York State the Div of Agricultural Protection & Development Services administers this program.
- School-based Nutrition Programs: The National School Lunch Program is a federally assisted meal program operating in public and non-profit private schools and residential child care institutions. It provides low-cost or free lunches to children each school day. In 1998, Congress expanded the National School Lunch Program to include reimbursement for snacks served to children in after school educational and enrichment programs to include children through 18 years of age. Most of the support USDA provides to schools in the National School Lunch Program comes in the form of a cash reimbursement for each meal served. In addition to cash reimbursements, schools are entitled by law to receive commodity foods, called "entitlement" foods, at a value of 20.75 cents for each meal served in Fiscal Year 2008-2009. Schools can also get "bonus" commodities as they are available from surplus agricultural stocks. At the state level, the National School Lunch Program is usually administered by state education agencies, which operate the program through agreements with school food authorities.
- The School Breakfast Program: The School Breakfast Program operates in the same manner as the National School Lunch Program. Generally, public or nonprofit private schools of high school grade or under and public or nonprofit private residential child care institutions may participate in the School Breakfast Program. School districts and independent schools that choose to take part in the breakfast program receive cash subsidies from the U.S. Department of Agriculture (USDA) for each meal they serve. In return, they must serve breakfasts that meet Federal requirements, and they must offer free or reduced price breakfasts to eligible children.

  The Summer Food Service Program (SFSP): The SFSP provides free, nutritious meals and snacks to help children in low-income areas get the nutrition they need to learn, play, and grow, throughout the summer months when they are out of school. Children 18 and younger may receive free meals and snacks through SFSP. Meals and snacks are also available to persons with disabilities, over age 18, who participate in school programs for people who are mentally or physically disabled.

Legislation and Policy (cont'd)

- Team Nutrition: Team Nutrition is an initiative of the USDA Food and Nutrition Service to support the Child Nutrition Programs through training and technical assistance for foodservice, nutrition education for children and their caregivers, and school and community support for healthy eating and physical activity. Team Nutrition's Goal is to improve children's lifelong eating and physical activity habits by using the principles of the *Dietary Guidelines for Americans* and MyPyramid.
- The Emergency Food Assistance Program (TEFAP): Under TEFAP, commodity foods are made available by the U.S. Department of Agriculture to States. States provide the food to local agencies that they have selected, usually food banks, which in turn, distribute the food to soup kitchens and food pantries that directly serve the public. Each State sets criteria for determining what households are eligible to receive food for home consumption. Income standards may, at the State's discretion, be met through participation in other existing Federal, State, or local food, health, or welfare programs for which eligibility is based on income.
- Child and Adult Care Food Program: Child and Adult Care Food Program (CACFP) is authorized to provides meals and snacks adults who receive care in nonresidential adult day care centers, meals to children residing in emergency shelters, and snacks and suppers to youths participating in eligible after school care programs. CACFP is administered nationally by the USDA Food and Nutrition Service, and by the Department of Health at the state level. The NYS Department of Health contracts with various community based agencies to sponsor CACFP programs in their service area, and these sponsors contract with family day care homes and day care centers interested in providing meals through CACFP. CACFP providers receive reimbursement for breakfasts, lunches, suppers and snacks that that meet federal nutrition requirements
- The Senior Farmers' Market Nutrition Program (SFMNP): SFMNP is a program in which grants are awarded to States, to provide low-income seniors with coupons that can be exchanged for eligible foods at farmers' markets, roadside stands, and community supported agriculture programs.
- Commodity Supplemental Food Programs (CSFP) CSFP which works to improve the health of low-income pregnant and breastfeeding women, other new mothers up to one year postpartum, infants, children up to age six, and elderly people at least 60 years of age by supplementing their diets with nutritious USDA commodity foods. It provides food and administrative funds to States to supplement the diets of these groups. CSFP is similar to the Women, Infants, and Children (WIC) program, but CSFP also serves elderly people, and provides food rather than the food vouchers that WIC participants receive. Eligible people cannot participate in both programs at the same time. Local agencies determine the eligibility of applicants, distribute the foods, and provide nutrition education. Local agencies also provide referrals to other welfare, nutrition, and health care programs such as SNAP, Medicaid, and Medicare.

New York State Legislation

Legislation passed in 2007 amends Education Law Sections 903 and 904 to require student health certificates/appraisals to include Body Mass Index (BMI) and weight status category data. It also requires a selected sample of school districts to participate is surveys of such

Legislation and Policy (cont'd)

data conducted by the Department of Health. Beginning in school year 2008-2009 a certain percentage of schools, each year, will be required to report this information (State of New York, Senate—Assembly, Section S.2108-C, January 31, 2007). New York is one of 16 states that screen students' body mass index (BMI) or fitness status and confidentially provide information to parents or guardians (*Trust for America's Health* 2007).

New York is one of 26 states that limit when and where soda and/or candy may be sold on school property beyond federal requirements (Trust for America's Health 2007). According to New York State Law, Chapter 647 of the Laws of 1987 prohibits the sale of: soda, water ices, gum, hard candy, jellies and gummies, marshmallow candies, fondants, licorice, spun candy and candy-coated popcorn from the beginning of the school day until the end of the last scheduled meal period in all parts of the building. A public school cannot sell or serve soda or candy of any type in the student store or from a machine located anywhere in the building, including the faculty lounge, before the last lunch period ends.

In a non-public school, foods of a minimal nutritional value are not allowed to be sold during the lunch period, and otherwise may only be sold in the food service area.

Starting January 2009, new food packages will be issued in New York through the Women, Infants & Children (WIC) program. These new WIC food packages are intended to improve dietary quality of the foods provided through this program.

WIC Program nutritionists specify quantities and types of nutritious foods to eligible participants as part of what is called a "food package." WIC checks are then issued to purchase the prescribed items. Participants redeem the checks at approved WIC supermarkets and grocery stores.

Driven by the need to close New York's budget deficit, Governor Patterson proposed an additional 18 percent rate of sales tax on fruit drinks that contain less than 70 percent natural fruit juice and non-dietetic soft drinks, sodas and other beverages in 2009 (Governor Paterson's State of the State Address, 2009).

A considerable number of proposed bills are currently in the New York State legislature that address obesity and related issues. Appendix B contains a summary table of the proposed bills.

Health Insurance

Obesity's impact on health-related economic cost to U.S. business is significant, representing about 5 percent of total medical care costs (Thompson D, Edelsberg J, Kinsey KL, & Oster G, 1998). Employees and employers are paying considerably more in healthcare costs than in previous years (Towers Perrin HR Services, 2006). The rise in overweight and obesity across the nation, and in particular among our nation's workforce contributes to these growing costs now and into the future. As body mass index (BMI) increased in the adult workforce, so did the number of sick days, medical claims and healthcare costs (Burton WN, Chen CY, Schultz AB, Edington DW, 1999).

As Heinen points out in her article on *Obesity in (Corporate) America (2006)*, the growing obesity epidemic will force "an expected proliferation of new treatment options [that] will further challenge cost and quality management efforts." Treatments and combination of treatments that include drugs, surgery, and behavior therapy will drive significant healthcare cost increases. These additional costs only compound the growing healthcare expenditures faced by employers, cutting further into their profits and forcing business leaders to look adversely on continued employee healthcare spending.

The cost savings realized through prevention is understood by health insurance providers to the extent that they are capitalizing on this opportunity by providing incentives for physicians to counsel patients on the negative impacts of being overweight in order to prevent unhealthy behaviors from progressing into significant health threats. The more progressive insurance companies have instituted initiatives that promote healthy lifestyle changes leading towards better management of high-risk patients and potentially less costly health care in the future (National Governor's Association, www.nga.org/cda/files/OBESITYIB.pdf)

Health insurance can be grouped into two broad categories, public insurance and private insurance. Public insurance includes programs such as Medicare, Medicaid, and State Children's Health Insurance Programs (SCHIP).

Public Plans

Medicare reimburses for an annual check-up but does not currently reimburse for anti-obesity care. Should a secondary condition develop, e.g. diabetes, Medicare will cover individuals by reimbursing physicians and hospitals for diabetic supplies and diabetic services. Specifically Medicaid covers a portion of self-testing equipment including glucose testing monitors, blood glucose test strips, lancet devices and lancets, and glucose control solutions. Medicare does not cover the necessary diabetic prescription medications, including insulin (Centers for Medicare and Medicaid Services. www.cms.hhs.gov).

Medicaid covers therapeutic depth-inlay shoes, custom-molded shoes and shoe inserts for people with diabetes. Medicaid also covers diabetes services including: self-management training; nutrition therapy services for patients referred by a doctor; flu and pneumoccocal pneumonia vaccinations; glaucoma screening once every 12 months; and referrals for more information.

Medicaid and SCHIP, federal/state partnership programs administered by the states, vary in accordance with state-specific initiatives. Programs must meet both federal and state guidelines. In general, supplies and services provided are similar to those provided to Medicare beneficiaries (Centers for Medicare and Medicaid Services. www.cms.hhs.gov).

Private Plans

Private insurance is often provided through employers who have contracted with local in-

Health Insurance (cont'd)

surance companies to provide a package of services for their employees. In addition, some individuals may be able to purchase private insurance from local insurance companies. Most insurance packages don't include weight loss and maintenance elements. These plans allow for routine annual doctors visits, during which health concerns associated with being overweight or obese may be discussed. Once a patient has developed secondary health conditions associated with being overweight or obese, e.g. diabetes, treatment of those conditions is often covered by the plan.

The nature of a private health insurance plan allows members to choose a plan that caters to their needs within an appropriate price range. While these plans may vary vastly, a basic health insurance package may include an annual check-up and potential referrals for nutritional counseling.

STRATEGIES & RECOMMENDATIONS

Madison County offers a favorable environment for healthy living. Several initiatives are currently underway in the county to prevent or reduce obesity, but more work needs to be done. Taking further action to address overweight and obesity will have profound effects on increasing the quality of life and eliminating health disparities in Madison County.

To adequately address the issue of obesity, the public health response will require a multi-faceted approach and involve individuals and organizations, at all levels, working together in a concerted effort. Recognizing that a comprehensive approach to the problem is necessary, the report outlines key domain areas that have the most influence on developing conditions that support healthy choices and behavior change.

Overweight & Obesity Strategic Construct

The key domain areas and subsequent strategies developed for this report are based on a strategic construct (Figure 3) that incorporates three components in its design. The first part of the construct is based on the Essential Public Health Services. The Essential Public Health Services (Essential Services) provide the fundamental framework describing the public health activities that should be undertaken in all counties and communities (Public Health Functions Steering Committee. *Public health in America*, July 2004). In essence, the Essential Services represent those services that the local public health system needs to perform to ensure conditions in which people can be healthy. By applying the Essential Services to the issue of obesity, we are able to ask questions such as "how well is the local public health system performing these services in regards to obesity?" or more specifically, "Who is charged with monitoring the status of obesity in Madison County, and how is that done?"

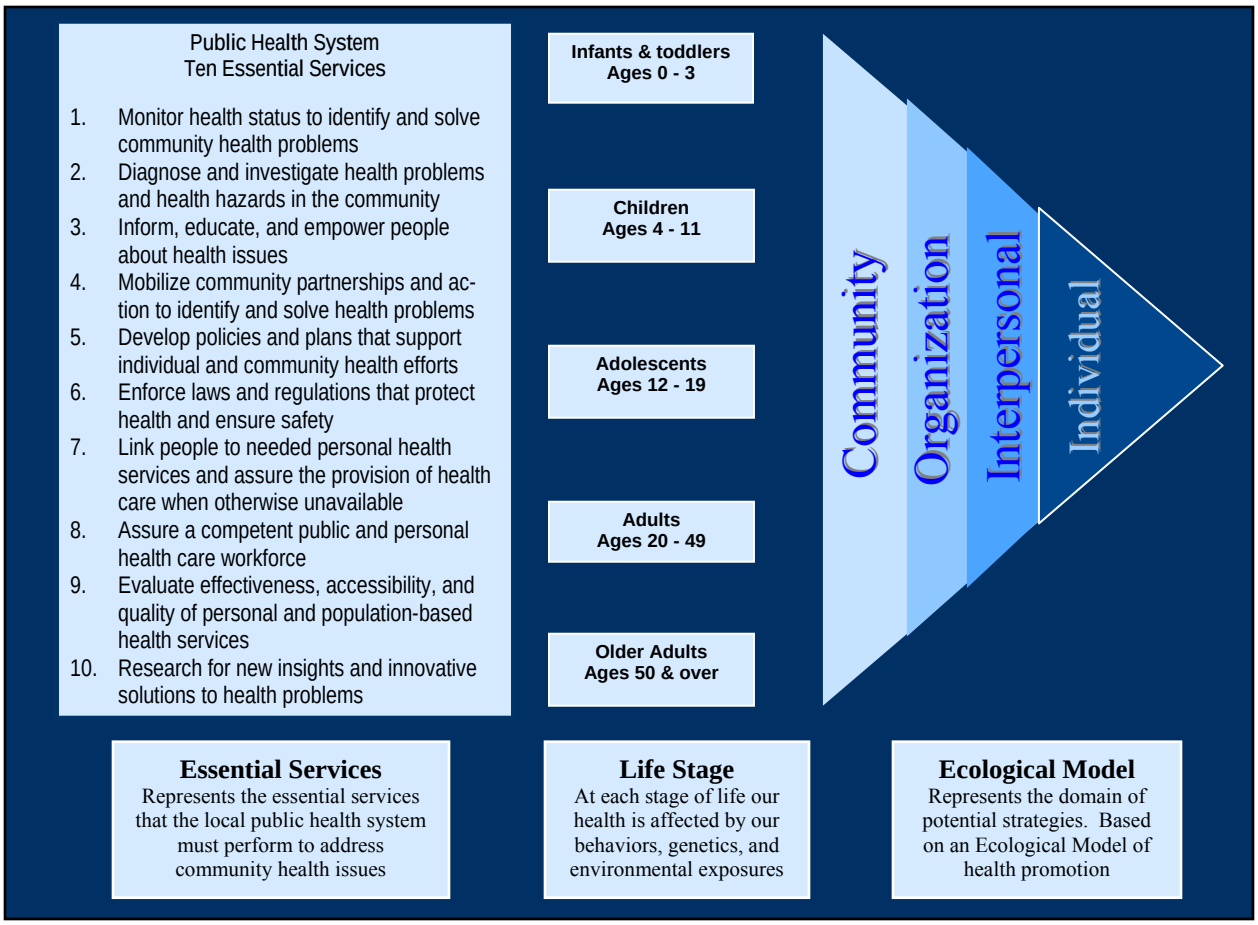
The second component of the construct encompasses a life stage approach (CDC Health Protection Goals, www.cdc.gov/osi/goals/goals.htm). Many of the health issues we face later in life result from the accumulated effects of our behavioral choices, our genetic predisposition, environmental and social conditions, and illnesses and injuries that occur, or that we are exposed to over the course of our lives. For example, affecting positive change in dietary practices among pregnant women will reduce the risk of obesity and other health issues that may arise later on in the life of the child (Olson, Christine et al., 2005). The life stage approach, when used in conjunction with the Essential Services allows us to further identify possible gaps in services, or opportunities for intervention. For instance, we can ask "How do we educate and inform children about proper nutrition and physical activity?"

The third component of the construct involves an ecological model for health CDC Social-Ecological Model www.cdc.gov/nccdphp/dnpa/obesity/state_programs/se_model,htm). The ecological model focuses on the environmental changes, behaviors and policies that help individuals make healthy choices in their daily lives. The foundation of the ecological model is the concept that behavior does not change in a vacuum and that a supportive environment is necessary for individuals to make healthy choices. For example, improving access to nutritious food in rural areas and on menu items at restaurants will increase the likelihood of individuals making healthy food choices. This model takes into account the physical and social environments and their relationship to people at individual, inter-

personal, organizational and community levels.

The construct provides a framework for the strategies and recommendations that were derived from national guidelines and strategies (e.g., *Healthy People 2010, 2008 Physical Fitness Guidelines* and the *New York State Strategic Plan for Overweight & Obesity Prevention*, 2004) evidence-based public health practice, regional reports, local initiatives.

Figure 3 : Overweight and Obesity Strategic Construct



A Call to Action

This plan calls for every person in Madison County to join the fight against obesity. The recommended strategies are based on population-based interventions that promote healthy growth and development among children and adolescents and support healthy weights among adults. The following section presents the strategies within key domain areas along with examples of promising local programs that address obesity for each domain:

- Individual/Interpersonal
- Organizations & Institutions
  - Healthcare systems and providers
  - Schools
  - Adult care, Childcare, preschools, and before- and after-school providers
  - Businesses and Worksites
  - Community-based organizations, faith-based organizations and youth organizations
- Community
  - County, town, city, and village governments
  - Health Promotion & Marketing

The strategies suggested in this plan are not meant to be all-inclusive. Community partners are encouraged to develop additional strategies for the prevention of obesity based on their experience, abilities and communities.

Individual/Interpersonal

Addressing obesity begins by changing individual behaviors as they relate to eating and physical activity. Interpersonal groups, e.g., family, friends, and social clubs, are an important way to encourage more healthful behaviors, giving individuals knowledge and support they need to make good nutrition and physical activity choices.

Individual & Interpersonal

- Implement a healthy eating plan that emphasizes fruits, vegetables, whole grains, and fat-free or low-fat milk and milk products, Includes lean meats, poultry, fish, beans, eggs, and nuts, and is low in saturated fats, *trans* fats, cholesterol, salt (sodium), and added sugars.
- Set personal goals for physical activity – e.g., a brisk walk in the neighborhood with friends for 45 minutes 3 days a week and walking to lunch twice a week.
- Develop knowledge to attain goals. Know and understand the issue of obesity, proper nutrition and physical activity and related issues. Simple ways to enhance your knowledge include:
    - Read the Nutrition Facts label on foods.
    - Check serving sizes and calorie levels
    - Skill building in Parenting, meal planning, and behavioral management
    - Learn about the types and amount of physical activity needed to attain personal goals
    - Using a Pedometer To Track Walking
    - Seek advise from your health care provider
    - Learn more about the behaviors associated with risky and healthy eating and exercise habits on the internet by visiting such sites as the Madison County Department of Health (www.healthymadisoncounty.org), NY State Dept. of Health (www.health.state.ny.us) and the Centers for Disease Control & Prevention (www.cdc.gov).
- At the store, plan ahead by buying a variety of nutrient-rich foods for meals and snacks throughout the week.
- When grabbing lunch, have a sandwich on whole- grain bread and choose low-fat/fat-free milk, water, or other drinks without added sugars.
- In a restaurant, opt for steamed, grilled, or broiled dishes instead of those that are fried or sautéed.
- On a long commute or shopping trip, pack some fresh fruit, cut-up vegetables, string cheese sticks, or a handful of unsalted nuts—to help you avoid impulsive, less healthful snack choices.
- Limiting screen time (television, computer, etc.) for all family members to a maximum of two hours per day.
- When given the choice between walking or driving, choose walking, use the stairs instead of the elevator, parking further away from the store, or walk the kids home from school or activities.
- Adults – engage in physically active for at least 150 minutes of moderate-intensity aerobic physical activity (2 hours and 30 minutes) a week. Perform 10-15 minute sessions, several times a day -- whether it's walking, playing with the kids, swimming, gardening, hiking, playing a sport. taking a fitness class, or another activity that you enjoy.
- Children and teenagers should engage in moderate- and vigorous-intensity physical activity for periods of time that adds up to 60 minutes (1 hour) or more each day.
- Parents - serve as good role models by practicing healthy eating habits and engaging in regular physical activity in order to instill lifelong healthy habits in their children. Provide children and adolescents with positive feedback.

Individual/Interpersonal (cont'd)

- Get a walking or exercise partner, or become part of walking groups, community dances, etc.
- For mothers with infants – breastfeed infant for up to one year, exclusively for the first 6 months if possible.
- Provide time for both structured and unstructured physical activity during school and outside of school.

Madison County
Eat Well Play Hard Family Fun Day

This past August (2008), the Living Well Partnership sponsored its sixth annual Eat Well Play Hard Family Fun Day. The purpose of the event is to teach parents and children the importance of healthy eating and an active lifestyle and to teach them the skills that will help them to be successful. For example, families can engage in activities that can be easily replicated at home, such as active games that can be played with inexpensive items found around the house or making a healthy snack.

The event has grown each year with over 700 participants filling Allen Park in the City of Oneida. Eighty staff and volunteers help to run the 25 fun, free activities that are sponsored by community organizations, including local businesses and a local church. The Family Fun Day has come to be a well established and well attended event that has great community support.

Organizations & Institutions

Organizations and institutions include schools, places of employment, places of worship, and community-based agencies. Organizations can help members and clientele make better choices about healthful eating and physical activity through changes to organization policies and environments, services and programs, as well as by providing health information.

Health Care Systems & Providers

- Conduct research on obesity prevention and weight reduction to confirm their effects on improving health outcomes.
- Include obesity prevention, screening and referrals in routine clinical practice and quality assessment measures.
- Use formative evaluation to assess the needs of high-risk populations in understanding "healthy weight". Routinely track body mass index (BMI) to assess overweight and obesity and define weight status.
    - The BMI should be used to classify overweight and obesity and to estimate relative risk for disease compared to normal weight.
    - The waist circumference should be used to assess abdominal fat content.
    - For adult patients with a BMI of 25 to 34.9 kg/m2, sex-specific waist circumference cutoffs should be used in conjunction with BMI to identify increased disease risks.
    - For children, aged 2-18 years, using gender-specific BMI-for-age-percentiles
    - For infants, aged 0-2 years using gender-specific weight-for-height percentiles
    - For pregnant women, using weight gain charts based on a woman's pre-pregnancy BMI
- Develop a family-centered, multidisciplinary curriculum based on best practices for teaching patients about obesity prevention and treatment.
- Promote breastfeeding, 30 to 60 minutes of daily physical activity, and consumption of a minimum of five fruits and vegetables a day in collaboration with organizations that target nutrition education outreach.
- Use evidence-based counseling and guidance to patients and parents about promoting a healthy weight and preventing overweight and obesity by healthy eating and physical activity.
- Develop effective preventive and therapeutic programs for obesity.
- Expand and implement culturally appropriate health education classes on exercise, nutrition, food shopping, meal planning, cooking and other areas that would increase patients' knowledge and skills to make healthy changes.
- Partner with businesses, government, associations of schools, faith communities and other organizations to finance healthcare provider activities including obesity screening and nutrition and physical education.
- Collaborate with the insurers, and other medical professional organizations, managed care programs and healthcare systems to provide incentives for maintaining healthy body weight.
- Collaborate with professional, medical and allied health organizations and community leaders to develop culturally-sensitive methods of discussing weight status and weight-related issues, especially with high-risk population groups
- Collaborate with medical and other healthcare providers who use BMI to guide recommended weight gain during pregnancy using Institute of Medicine guidelines.
- Work with Medicaid and other healthcare providers to increase the use of counseling regarding nu-

Organizations & Institutions (cont'd)

trition, physical activity and appropriate weight gain during pregnancy.

- Work with insurers and employers to identify, prioritize and evaluate insurance coverage by public and private payers for behavioral, nutritional, medical and surgical treatment of overweight and obesity.
- Work with medical and allied healthcare providers, educators and others to develop efficient ways to counsel individuals, families, and other caregivers about limiting television viewing and other recreational screen time (videos, computer or video games, internet, etc.) to no more than 1-2 hours per day (for persons two years and older) and discourage any viewing by children under two years. (American Academy of Pediatrics Guideline).
- Encourage partnerships between health care providers, schools, faith-based groups, and other community organizations in prevention efforts targeted at social and environmental causes of overweight and obesity.
- Explore mechanisms that will partially or fully cover reimbursement or include as a member benefit health care services associated with weight management, including nutrition education and physical activity programs
- Review and evaluate the reimbursement policies of public and private health insurance providers regarding overweight and obesity prevention and treatment efforts.
- Include obesity prevention and screening in quality assessment measures for health insurers, health plans, and quality improvement and accrediting organizations.
- Analyze the cost-effectiveness data on clinical obesity prevention and treatment efforts and conduct further research where the data are inconclusive.
- Promote research on the maintenance of weight loss.
- Promote research on breastfeeding and the prevention of obesity.
    - Train health care providers and health profession students in effective prevention and treatment techniques for overweight and obesity.
- Consider the following training issues:
    - Use of BMI as a screening tool by medical providers to improve identification of children who are overweight and adults who are overweight or obese.
    - The importance of appropriate weight gain during pregnancy, based on Institute of Medicine guidelines
    - Skills related to nutrition, physical activity, and other life behaviors, consistent with accepted guidelines (e.g., *Dietary Guidelines for Americans, 2008 Physical Fitness Guidelines*)
    - Awareness of critical or high risk periods during the lifecycle for excessive weight gain and the development of overweight or obesity (i.e., pregnancy, infancy, early childhood, adolescence).
    - The burden of overweight and obesity on the health care system in terms of mortality, morbidity, and cost
    - Identification and reduction of barriers involving patients' lack of access to effective nutrition and physical activity interventions, and regarding the implementation of practice recommendations and policies to support obesity prevention and control
    - Effective ways to promote and support breastfeeding.
    - Patient counseling

Organizations & Institutions (cont'd)

- Foster and support conferences on obesity in the hospital setting.
- Identify, develop and provide resources to providers regarding best practices in identifying, monitoring, and optimizing treatment of obesity-associated risk factors in provider settings, and to improve referral practices to local health departments, qualified nutrition professionals, rural health networks, and other community agencies for various complimentary services regarding nutrition, physical fitness and behavior counseling.
- Improve continuing education about breastfeeding to physicians, midwives, nurses, and dietitians.
- Increase training opportunities for certified lactation specialists.

Provide advocacy to:

- Classify obesity as a disease category for reimbursement coding.
- Assure that food assistance programs such as Women, Infants and Children (WIC) provide adequate vouchers for fruits and vegetables and other healthy foods that can be used at farmers' markets and other venues.
- Reform food labeling so that information can be easily understood by the public.
- Increase government resources to support healthcare and treatment of obesity.
- Increase availability of affordable, nutritious and safe foods to decrease hunger and reduce the tendency to fend off hunger with readily available, inexpensive, high-calorie foods that have little or no nutritional value.
- Create incentives for providers to allocate more time and resources towards obesity prevention and healthy weight maintenance.

Community Memorial Hospital Community Wellness Center

The Community Wellness Center offers primary/preventive health and wellness programs to all residents of the Hamilton-Bassett-Crouse Rural Health Network. The center provides a wellness-oriented program with an emphasis on physical fitness as a means of maintaining good health. The center provides guidance and motivational support within a dedicated and structured environment. Reducing the risk factors associated with obesity is a key component of the program. Basic healthy lifestyle practices are used to counter many of the ongoing medical problems associated with obesity. The center's program includes a wellness assessment, individualized fitness and dietary plans, availability of extended dietary and psychological services and rigorous monitoring and evaluation of all participants.

Source: Community Memorial Hospital web site (http://www.communitymemorial.org/services/wellnesscenter.htm).

Organizations & Institutions (cont'd)

Schools

- Adopt and implement a "Gold Standard" school wellness policy that includes the following provisions:
    - Provide students with health education that addresses nutrition, physical activity and adoption of other obesity preventive lifestyle choices. Use sequential, skills-based and evidence-based curricula that include family involvement. Incorporate the parents in school based wellness initiatives
    - Integrate obesity prevention content into the general education curriculum.
    - Expand physical activity opportunities beyond state physical education requirements. Enhance health curricula to include reducing sedentary behaviors, specifically targeting television and other recreational screen use, and include a behavioral skills focus.
    - Ban use of food as a reward/punishment.
    - Adopt standards for cafeteria, other food outlets, vending machines and school stores that meet USDA Dietary Guidelines and state mandates.
    - Develop guidelines for healthy fundraising.
    - Eliminate on-campus advertising of high-sugar and high-fat foods and beverages.
    - Encourage and support the creation of a staff development day
    - Assess nutrition, physical activity and other wellness policies and change following federal legislation requiring wellness policies (for schools participating in federal school meals program). (effective July 2006)
- Provide culturally and linguistically appropriate education on nutrition and physical activity to students, teachers, food service staff, coaches, nurses and parents at low or no cost to participants.
- Provide all students with physical education classes and other opportunities for physical activity during the school day to help children have at least 60 minutes per day of vigorous physical activity.
- Reduce or subsidize student fees related to school athletic activities including the purchase of athletic uniforms and equipment.
- Establish school gardens and use the resulting produce in school meals.
- Improve access to and affordability of fresh fruits and vegetables in all schools.
- Partner with community agencies and healthcare providers to provide school-based counseling programs that address the emotional needs of overweight children and their parents, eliminate related bullying at school, and direct children and families to resources where they can set and meet nutrition and fitness goals.
- Use school facilities outside of school hours for physical activity programs offered by schools and/or community-based organizations.
- Partner with businesses, government, faith communities and other organizations to finance school activities including wellness policies and nutrition and physical education.
- Collaborate with the NY State Education Department and the NY Department of Health, local school districts and other stakeholders to develop and sustain a system to collect students' height and weight and gender-specific BMI-for-age percentile and report findings to the DOH for monitoring and program planning purposes.
- Collaborate with schools of medicine, nursing, allied health and nutrition to improve nutrition education and health-promoting behavioral counseling skills taught to students and professionals
- Work with local and state policymakers to develop and implement guidelines and policies to ensure

Organizations & Institutions (cont'd)

that foods and beverages available in schools and/or childcare settings are consistent with nutritional guidelines, and support the goal of preventing excess energy intake among students, and helping students achieve energy balance at a healthy weight.

- Work with schools to increase the use of school-based media literacy programs.
- Develop and disseminate model nutrition and physical activity guidelines and policies for schools.
- Partner with organizations such as the Statewide Center for Healthy Schools, Childcare Coordinating Councils and the After-School Corporation to provide training and technical assistance in assessing and improving the nutrition environments in schools, childcare centers, and after-school programs.
- Educate parents, teachers, coaches, staff, and other adults in the community about the importance they hold as role models for children, and teach them how to be models for healthy eating and regular physical activity.
- Develop sensitivity of staff to the problems encountered by the overweight child.
- Provide food options that are low in fat, calories, and added sugars, such as fruits, vegetables, whole grains, and low-fat or nonfat dairy foods.
- Ensure that healthy snacks and foods are provided in vending machines, school stores, and other venues within the school's control.
- Prohibit student access to vending machines, school stores, and other venues that compete with healthy school meals in elementary schools and restrict access in middle, junior, and high schools.
- Provide an adequate amount of time for students to eat school meals, and schedule lunch periods at reasonable hours around midday.
- Provide daily recess periods for elementary school students, featuring time for unstructured but supervised play.
- Provide extracurricular physical activity programs, especially inclusive intramural programs and physical activity clubs.
- Conduct research on the relationship of healthy eating and physical activity to student health, learning, attendance, classroom behavior, violence, and other social outcomes.
- Evaluate school-based behavioral health interventions for the prevention of overweight in children.
- Develop an ongoing, systematic process to assess the school physical activity and nutrition environment, and plan, implement, and monitor improvements.
- Conduct research to study the effect of school policies such as food services and physical activity curricula on overweight in children and adolescents.
- Evaluate the financial and health impact of school contracts with vendors of high-calorie foods and beverages with minimal nutritional value
- Conduct research on the relationship of healthy eating and physical activity to student health, learning, attendance, classroom behavior, violence, and other social outcomes.
- Evaluate school-based behavioral health interventions for the prevention of overweight in children.
- Develop an ongoing, systematic process to assess the school physical activity and nutrition environment, and plan, implement, and monitor improvements.
- Conduct research to study the effect of school policies such as food services and physical activity curricula on overweight in children and adolescents.

Organizations & Institutions (cont'd)

- Evaluate the financial and health impact of school contracts with vendors of high-calorie foods and beverages with minimal nutritional value

Broome County Steps Partners collaborate to increase healthier options on school menus.

Broome Tioga BOCES in partnership with the Broome County Steps program and in concert with many other community partners, brought together food service directors from 15 school districts in Broome and Tioga counties under one menu plan to provide healthier meal options to students in the school cafeteria.

This initiative includes a county wide food bid system, which allows for higher quality, more nutritious produce at a lower cost. Stealth nutrition at its best, the program substitutes enriched breads with whole grain, as well as replaces fried foods with baked choices. Students have several healthier options such as salad bars, fresh fruits and vegetables.

Organizations & Institutions (cont'd)

Adult Care, Childcare, Pre-School (before/ after school providers)

- Train adult care and childcare providers, preschool staff and before- and after school staff to provide education and resources to parents and families on nutrition and physical activity.
- Assist adult care and childcare providers to utilize innovative methods and provide fun activities to promote healthy nutrition and physical activity.
- Educate parents/families on how to assess and select adult care and/or childcare sites, preschools and before- and after-school programs for their healthy nutrition and physical activity opportunities, as well as for their ability to involve families in physical activity and nutritional programming.
- Encourage teachers and childcare providers to model behaviors that demonstrate healthy eating and physically active lifestyles for parents and children.
- Eliminate advertising, selling and distribution of unhealthy foods and beverages to children and youth at before- and after-school programs.
- Encourage schools and before- and after-school providers using school space to collaborate to develop healthy policies and facilities for their mutual use.
- Institute healthy food and beverage standards that are consistent with USDA Dietary Guidelines and state mandates for all food items available at adult care, before-school and after-school programs, childcare sites and preschools.
- Partner with businesses, government, associations of schools, faith communities and other organizations to finance activities including nutrition and physical education.
- Work with community adult and youth organizations to develop ways to increase the number and variety of physical activity programs provided by these organizations.
- Collaborate with local produce growers and community organizations to increase the availability and affordability of fruits and vegetables in childcare, and after-school settings through promotion of farm-to-school and similar initiatives.
- Collaborate with the Child and Adult Care Food Program (CACFP), Child Care Health Promotion Specialists, Child Care Coordinating Councils and other resources to improve the food and nutrition environments of adult and child care centers.
- Ensure that adult daycare settings and amenities are designed to support physical and nutritional health. Structured programs should include physical activities, social engagement, health monitoring, and nutritional meals.
- Provide fresh, nutritious, unprepared, locally grown fruits, vegetables, and herbs from farmers' markets, roadside stands and community supported agriculture programs to low-income seniors
- Ensure that adult meal programs provide hot nutritionally balanced meals to County residents. Each meal site should offer an environment that supports social, educational and recreational activities.
- Ensure that home delivered meals to a individual who is homebound or unable to prepare their own meals and lives in Madison County are nutritious and meet USDA Dietary Guidelines.
- Provide nutrition counseling and assistance to individuals with special diet problems.

Madison County Office for the Aging, Inc. Congregate Meals

Noonday meal program provides hot nutritionally balanced meals to county residents who are age 60 and over. Each meal site offers a friendly atmosphere and the opportunity to join a variety of social, educational and recreational activities.

Organizations & Institutions (cont'd)

Business & Workplace

- Include healthier food and beverage choices consistent with USDA Dietary Guidelines at fast food and full-service restaurants.
- Participate in efforts to publicly acknowledge businesses that support and promote the prevention of obesity through window logos, certificates, media releases, etc.
- Partner with government, associations of schools, faith communities and other organizations to organize and financially support community physical activity clubs and healthy lifestyle projects.
- Incorporate a comprehensive approach to health management at the workplace.
- Utilize point-of-decision prompts in the workplace
- Increase the proportion of restaurants that offer healthy menu options with appropriately-sized portions and caloric content and general nutritional information available at point-of-purchase.
- Collaborate with employers, the NYS Business Council, Chambers of Commerce, the Retail Council of NYS, the National Federation of Independent Businesses (NFIB) and other business groups to identify barriers and develop incentives to support maternity leave and to promote breastfeeding in the workplace.
    - Work with employers to expand the use of "NYS Best Practices for Breastfeeding Promotion in Workplace."
- Collaborate with medical, allied health, educational and community partners to raise awareness and improve dissemination of physical activity guidelines and recommendations
- Work with the NYS Business Council, Chambers of Commerce, insurance payers, health care plans, Wellness Councils of America, the Retail Council of NYS, National Federation of Independent Businesses (NFIB), and other business organizations, partners and policymakers to develop ways to affect environmental and policy changes in work sites to increase opportunities for work site wellness.
- Develop best strategies, e.g., training partners such as occupational nurses, Chambers of Commerce, and others to provide technical assistance to employers to expand worksite exercise and wellness programs for all types of employers.
- Increase the work site supports for healthy eating, use of NYS Guidelines for Healthy Meetings, and support of farmers' markets and Community Supported Agriculture (CSA).
- Inform employers of the direct and indirect costs of obesity. Communicate to employers the return-on-investment (ROI) data for worksite obesity prevention and treatment strategies.
- Change workflow patterns, including flexible work hours, to create opportunities for regular physical activity during the workday.
- Provide protected time for lunch, and ensure that healthy food options are available
- Establish worksite exercise facilities or create incentives for employees to join local fitness centers.
- Create incentives for workers to achieve and maintain a healthy body weight.
- Encourage employers to require weight management and physical activity
- Encourage the food industry to provide reasonable food and beverage portion sizes.
- Increase availability of nutrition information for foods eaten and prepared away from home.
- Evaluate best practices in worksite overweight and obesity prevention and treatment efforts, and disseminate results of studies widely.

Organizations & Institutions (cont'd)

- Evaluate economic data examining worksite obesity prevention and treatment efforts.
- Conduct controlled worksite studies of the impact of overweight and obesity management programs on worker productivity and absenteeism.
- Implement a campaign to urge restaurants to voluntarily provide point-of-sale nutrition information

Madison County
Employee Wellness Program

After a more than year long pilot program with a portion of its workforce, Madison County entered into a contract with Wellness Coaches USA in April 2008 to improve employee morale and control health and workers' compensation insurance costs. The program began with nearly 90% of all of our more than 575 full-time employees participating in health risk assessments to identify health areas of potential concern on an individual level. Then, a wellness coach began spending 12 hours a week in the County workplace providing individualized coaching to interested employees and engaging others in discussions on a health topic of the month. Participation in individualized coaching continues to increase. Increased physical activity is the primary change noted by participants so far. A joint labor-management committee will continue to monitor the program in 2009.

Organizations & Institutions (cont'd)

Community-based Agencies & Organizations

- Enlist and empower faith congregations to reach their members to organize family physical activities and to increase awareness of healthy lifestyles.
- Enlist and empower community organizations to reach their members to organize physical activities and to increase awareness of healthy lifestyles.
- Eliminate advertising and selling of unhealthy foods and beverages at community, faith-based and youth organizations.
- Partner with businesses, government, and other organizations to finance healthy activities including nutrition education and physical fitness.
- Develop a common means of communication such as weekly e-messages or mailers so that involved organizations can stay informed about what each entity is doing about obesity.
- Create community environments that promote and support breastfeeding.
- Create faith-based initiatives that support healthy lifestyles.
- Create neighborhood based community programs that support healthy lifestyles.
- Encourage healthy food choice availability in underserved areas.
- Encourage alternate forms of transportation.
- Increase opportunities for women to be physically active during pregnancy, e.g. by encouraging community organizations and health clubs to offer physical activities for pregnant women.
- Increase access by local agency staff of the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) and Prenatal Care Assistance Program (PCAP) staff to breastfeeding education through innovative techniques such as distance learning, teleconferences, website development, and the expansion of peer counselor training programs.
- Identify barriers to breastfeeding among participants enrolled in the WIC, Food Stamp Nutrition Education Program (FSNEP) and related food and nutrition programs in the community.
- Conduct outreach and enrollment campaigns to increase the number and percentage of eligible households, children, adults and elderly that participate in federal and state food and nutrition programs including WIC, food stamps and Farmers' Market Nutrition Programs.
- Collaborate with statewide non-profit organizations to identify and reduce barriers to federal and state food and nutrition program participation.
- Increase the amounts of fruits and vegetables procured by food banks for distribution to emergency food providers such as food pantries and soup kitchens.
- Work with local communities and neighborhoods, retail marketing associations, retailers economic development agencies and the NYS Department of Agriculture and Markets to improve access to: supermarkets, farmer's markets, community gardens, urban farm stands, and local markets that provide affordable fresh fruits, vegetables and low-fat dairy products.
- Increase access to certified farmers' markets, food cooperatives, and community gardens to expand healthy and affordable food options, particularly in low-income and underserved neighborhoods.
- Support the expansion of wireless electronic benefits transfer (EBT) machines and other mechanisms that enable farmers' markets to serve Food Stamp Program participants with high-quality fruits and vegetables.
- Form community coalitions to support the development of increased opportunities to engage in lei-

Organizations & Institutions (cont'd)

sure time physical activity and to encourage food outlets to increase availability of low-calorie, nutritious food items.

- Create more community-based obesity prevention and treatment programs for children and adults.
- Provide demonstration grants to address the lack of access to and availability of healthy affordable foods.
- Promote healthful dietary patterns, including consumption of at least five servings of fruits and vegetables a day.

Madison County
Oneida Farmers' Market

The Food Stamp program helps low-income families gain access to nutritious foods. But until recently, families could not use their food stamps to buy fresh, healthy, local vegetables and fruit at the Farmers' Market. The Eat Well Play Hard (EWPH) program helped food stamp recipients get greater access to fresh produce by setting up an Electronic Benefits Transfer (EBT) machine at the Oneida Farmers' Market. Families can now use their food stamp benefits at the market to purchase vegetables and fruits. The EBT machine is now available at the market every week. The volunteers currently conduct an average of 35 EBT transactions per day, bringing over $200 of new business to the market each week.

Community

At the community level changes to policy and the environment can give residents the best possible access to healthful foods and places to be physically active. Changes to zoning ordinances, improvements to parks and recreation facilities, creating ways to distribute free or inexpensive fruits and vegetables: These are only a few of the many ways community residents, groups, and organizations can work together to improve nutrition and physical activity.

County, Town, City & Village Government

- Modify current county, town, city and village general plans, zoning and subdivision ordinances, land use policies, and other planning practices so that walking and cycling paths are incorporated into existing communities to safely accommodate pedestrians, cyclists and others using non-motorized transportation. Priorities should be paths that lead to food outlets that serve healthy foods as well as to parks and other venues that provide opportunities for physical activity.
- Design plans for new communities, capital improvement projects and large construction projects so that schools, parks, stores and other facilities are within easy walking and bicycling distance to residential areas and so that there are walking/cycling paths that encourage physical activity.
- Establish "safety corridors" and routes to school including "complete streets" design for children to encourage walking and bicycling. This includes wider sidewalks, barriers between the streets and walkways, increased security during hours that children are traveling to and from school, and strictly enforced speed zones.
- Increase quantity, quality and accessibility of parks and natural open spaces in order to encourage physical activity for individuals across the lifespan including those with disabilities. Support capital improvement projects that increase opportunities for physical activity in existing areas.
- Encourage smart growth.
- Promote and encourage an **Active Living Community**: An **Active Living Community** is designed with a pedestrian focus and provides opportunities for people of all ages and abilities to engage in routine daily physical activity.
- Provide local government managers, department heads, and staff with a basic understanding of the connections between active living and social equity removing the overarching barriers that limit access to economic opportunity, transportation, services, open space, education, and health and safety.
- Revise and disseminate maps of walking and bicycling routes throughout the county including information on mileage, sidewalk routes, bike paths, etc.
- Work with local and state government to change transportation policies and practices to promote safe non-motorized transportation.
- Develop social and environmental policy that would help communities and families be more physically active and consume a healthier diet.
- Work with development planners to facilitate placement of daycare centers at and near worksites.
- Sponsor and promote opportunities for children, youth and their families, and adults to engage in physical activities, with focus on the following:
    - A large and varied selection of activities (i.e., competitive and non-competitive; individual and team; separated genders and mixed) that attract persons of various cultures so that any individual is likely to regard one or more as "fun"
    - Activities that are likely to meet needs of people with various abilities and body types

Community (cont'd)

  - Activities that lend themselves to life-long participation
  - Activities that are located in low-income areas and areas with high rates of obesity-related conditions.
- Develop breastfeeding accommodations in public facilities, as breastfeeding helps prevent childhood obesity.
- Ensure that vending machines on all county- and municipal-owned and/or leased land, space and facilities have healthy choices and encourage community partners to do the same.
- Coordinate efforts to address and prevent obesity across government departments and jurisdictions.
- The Madison County Department of Health (MCDOH) will coordinate with other County government agencies and municipalities to help advance and implement this Reports' strategies and recommendations, and work collaboratively with private and public sectors to increase resources that address obesity.
- Provide increased accessibility to purchase affordable nutritious food, such as increasing the number of grocery stores and farmers markets in lower-income areas.
- Support Initiatives that Increase Access to Healthy Foods – e.g., Madison County Living Well Partnership, Madison Bounty, Buy Local, etc.
- Invest in Affordable, Community-Supported Agriculture.
- Raise consumer awareness about the effect of being overweight on overall health.
- Highlight programs that support healthful food and physical activity choices to community decision makers.
- Provide demonstration grants to address the lack of public access to safe and supervised physical activity.
- Leverage additional resources for obesity prevention programs and research efforts through grants and other sources.
- Expand surveillance and program evaluation to prevent overweight and obesity to include the following:
  - Analyze, synthesize and disseminate existing data related to overweight, obesity, obesity-related diseases, nutrition, physical activity, television viewing, breastfeeding, food insecurity and related issues to monitor progress toward achieving program goals.
    - Assess the utility of existing data systems for population-based surveillance of obesity-related indicators, risk factors and outcomes including data sources from partners outside the Department of Health.
    - Routinely analyze reports of prevalence and trends from existing surveillance and other relevant data systems.
    - Report on the health and economic burden of obesity in Madison County.
  - Summarize and disseminate science-based best practices for the prevention of overweight and obesity on an ongoing basis.
    - Ensure timely access and dissemination of surveillance findings to meet the information needs of obesity prevention stakeholders.
    - Apply the results of research to improve program effectiveness.
  - Enhance, expand and strengthen surveillance to ensure that information is available across the population and within defined geographic areas.
    - Expand routine collection of data pertaining to breastfeeding, perinatal weight gain, and

Community (cont'd)

television viewing.
    - Identify gaps in surveillance information and develop strategies and resources to conduct surveillance across the population and within defined geographic areas.
    - Modify and integrate existing surveillance and other data systems to measure and report on obesity-related indicators.
    - Utilize school-based monitoring system to assess the prevalence of childhood obesity.
  - Develop and implement data collection systems to evaluate the impact of the overweight and obesity prevention program.
    - Utilize formative evaluation to assess design needs and program implementation needs.
    - Develop and validate policy and environmental indicators of overweight and obesity prevention.
    - Develop community evaluation tools to measure the availability of opportunities for physical activity and healthful eating.
    - Develop a Community Check tool to be used at the local level to measure environmental and policy supports for physical activity and to guide local action.
  - Evaluate the design, implementation and effectiveness of interventions to reduce overweight and obesity and to improve health outcomes.
- Develop strategies for formative process, impact and outcome evaluation for the obesity prevention program.
- Collaborate with New York State academic institutions, health care providers, and community organizations to:
  - Determine the root causes, behaviors, and social and ecological factors leading to obesity and how such forces vary by race and ethnicity, gender, and socioeconomic status.
  - Assess the factors contributing to the disproportionate burden of overweight and obesity in low-income and minority racial and ethnic populations.
  - Develop and evaluate preventive interventions that target infants and children, especially those who are at high risk of becoming obese.
  - Coordinate research activities to refine risk assessment, to enhance obesity prevention, and to support appropriate consumer messages and education.
  - Study the cost-effectiveness of community-directed strategies designed to prevent the onset of overweight and obesity.
- Conduct behavioral research to identify how to motivate people to increase and maintain physical activity and make healthier food choices.
  - Evaluate the feasibility of incentives that support healthful dietary and physical activity patterns.
  - Identify techniques that can foster community motivation to reduce overweight and obesity.
  - Examine the marketing practices of the fast food industry and the factors determining construction of new food outlets.
    - Evaluate and incorporate new research to support the obesity prevention program.
  - Increase the number and diversity of obesity prevention programs across age, gender, educational levels, income levels and racial/ethnic groups that are being evaluated.
    - Identify high-risk populations and target specifically tailored interventions to those groups.
    - Provide technical assistance to obesity program partners and coalitions to conduct local level program evaluation.

Community (cont'd)

Link Trail/North Country National Scenic Trail

A hiking trail linking natural, cultural, and historic resources in Central New York, provides a connection between the Finger Lakes Trail and the Old Erie Canal Park in Canastota. Attractions include Muller Hill State Forest, The Tioughnioga Wildlife Management Area, the Nelson Swamp Unique Area, the Stone Quarry Hill Art Park. The trail includes connections with the local Cazenovia Preservation Foundation Trail System and a major segment south of Canastota.

Community (cont'd)

Health Promotion & Marketing

- Encourage Media outlets and marketing industry to partner with other domains (i.e., government; healthcare; schools; childcare, preschools and before- and after-school providers; community-based, faith-based and youth organizations; and businesses) to create a culturally sensitive, media campaign that addresses healthy lifestyles including the health benefits of regular physical activity, healthy nutrition choices, and maintaining a healthy weight.
- Increase awareness of programs that provide low/no-cost physical activity opportunities for adults, families and youths.
- Encourage Media outlets and marketing industry to partner with schools to promote the appeal of healthy foods at primary and secondary schools in the same way fast foods are marketed.
- Encourage Media outlets and marketing industry to partner with businesses to limit advertising and promotion of unhealthy foods and beverages aimed directly at young children.
- Encourage Media outlets and marketing industry to partner with businesses, government, associations of schools, faith communities and other organizations to finance marketing activities that promote nutrition education and physical activity.
- Develop and implement public education campaigns that encourage individuals to adopt and maintain lifestyle changes.
- Increase access to education on healthy lifestyles for low literacy individuals.
- Use social marketing to develop culturally-appropriate messages tailored to specific high-risk populations and low-income groups to increase knowledge, attitudes, beliefs and change perceptions.
- Use social marketing strategies to increase the knowledge and awareness of the benefits of healthy food choices that are culturally-appropriate and tailored to specific populations, particularly low income groups, minorities and those at increased risk of obesity.
- Increase the awareness of availability of locally-grown fruits and vegetables through the Buy Local program, local farmers' markets, Madison Bounty, and the Department of Agriculture and Markets' Farm Fresh Guide.
- Work with partners to implement a sustained, targeted, communitywide information campaign for individuals and families to change knowledge, attitudes, and beliefs about the importance of balancing caloric intake with energy expenditure.
- Use social marketing strategies to increase awareness and knowledge of U.S. Dietary Guidelines.
- Educate the public, specifically targeting boards of education, teachers, parents and pediatricians, about the health benefits of reducing television viewing.
- Work with schools and preschools to implement TV and media reduction curricula such as Student Media and Awareness for the Reduction of Television-viewing (SMART) and Fit by 5 to reduce use of television and other recreational screen time in schools, aftercare/ before care programs and childcare settings.
- Work with schools and communities to increase participation in "National TV Turn-off Week" campaigns.
- Develop training programs for educators and healthcare providers to implement media literacy programs in other settings.
- Work to restrict commercials for high calorie, low-nutrient foods on school television programs.
- Enhance communication and collaboration among the overweight/obesity prevention program, com-

Community (cont'd)

munity partners and statewide stakeholders

- Emphasize to media that obesity is one of health rather than appearance.
- Emphasize to media professionals the disproportionate burden of overweight and obesity in low-income and racial and ethnic minority populations and the need for culturally sensitive health messages.
- Communicate the importance of prevention of overweight through balancing food intake with physical activity at all ages.
- Promote the recognition of inappropriate weight change.
- Build awareness of the importance of social and environmental influences on making appropriate diet and physical activity choices.
- Provide professional education for media professionals on policy areas related to diet and physical activity.
- Emphasize to media professionals the need to develop uniform health messages about physical activity and nutrition that are consistent with the *Dietary Guidelines for Americans.*
- Encourage truthful and reasonable consumer goals for weight loss programs and weight management products.
- Train nutrition and exercise scientists and specialists in media advocacy skills that will empower them to disseminate their knowledge to a broad audience.
- Encourage community-based advertising campaigns to balance messages that may encourage consumption of excess calories and inactivity generated by fast food industries and by industries that promote sedentary behaviors.
- Encourage media professionals to utilize actors' influences as role models to demonstrate eating and physical activity lifestyles for health rather than for appearance.
- Encourage media professionals to employ actors of diverse sizes.
- Evaluate the impact of community media advocacy campaigns designed to achieve public policy and health-related goals.
- Conduct consumer research to ensure that media messages are positive, realistic, relevant, consistent, and achievable.
- Increase research on the effects of popular media images of ideal body types and their potential health impact, particularly on young women.
- Each media partner will have a sustainability clause built into their contracts to establish a policy systems or environmental change in their worksites, or how they communicate news or weather, for example the clear channels radio stations have instituted the walking weather forecast as their suitability contribution to the mission of the Steps program.
- Educate individuals, families, and communities about healthy dietary patterns and regular physical activity, based on the *Dietary Guidelines for Americans.*
- Educate parents to serve as good role models by practicing healthy eating habits and engaging in regular physical activity in order to instill lifelong healthy habits in their children
- Raise consumer awareness about reasonable food and beverage portion sizes.
- Educate expectant parents and other community members about the potentially protective effect of breastfeeding against the development of obesity.

Community (cont'd)

Madison County
Mobile Farmer's Market

Madison County, in collaboration with neighboring Chenango County developed a "mobile farmers' market" call ***Madison Bounty***. Both individual households, as well as business, e.g., grocery stores and restaurants, are able to order locally grown and processed items online and have them delivered directly to their door.

NEXT STEPS

Considerable effort is needed to assure the successful implementation of recommended strategies and the sustainability and ongoing support of this plan. Working together with a common purpose, we can make a difference in preventing obesity and improving the health and well-being of our Madison County residents.

Sustaining Our Efforts

A multi-faceted approach affecting systemic changes in the social and physical environments that contribute to unhealthy behaviors is needed. Over time, individuals and organizations representing the various domain areas must be involved and engaged to establish a strong foundation and assure the ongoing support of obesity prevention efforts. Specific recommendations include:

1. Raise awareness about the issue of overweight and obesity in Madison County through a defined marketing strategy.
2. Raise awareness of local programs and services available in our local communities pertaining to nutrition and physical activity through the development of a web-based resource guide, and other efforts and materials.
3. Raise awareness of the *Overweight & Obesity in Madison County* report through a defined communications strategy, public relations and other efforts.
4. Secure commitments from organizations representing all domain areas to implement recommended strategies including identifying "champions" in each domain area to lead the cause.
5. Create an ongoing countywide infrastructure and oversight team to monitor, coordinate, and evaluate obesity prevention efforts by all domain areas.
    - Initial efforts of the oversight team may include the following:
        - Establishment of evaluation and tracking mechanisms to determine the effectiveness of implemented strategies
        - Development of a website dedicated to obesity prevention
        - Establishment of countywide domain-specific meetings and an adult populations in Madison County over time, building on present services and opportunities.
        - Secure additional funding to assure ongoing efforts.
        - Formal recognition of the efforts of partnering organizations.
        - Develop mechanisms to track, over time, the eating and physical activity patterns of child and adult populations in Madison County, building on present opportunities.
        - Identify experts to evaluate the success of the engagement of the domain areas.
        - Advocate with all partnering organizations to ensure that a formal evaluation component is incorporated into the design of all projects that are not evidence-based.
6. Create and fund the position of a Coordinator for the Obesity Initiative, who will be responsible for providing leadership and coordination among stakeholders to facilitate the implementation of the strategies and recommendations established in the *Overweight & Obesity in Madison County: Strategies to Build a Healthier Community* report.

Implementing the Plan

The Madison County Department of Health is committed to the health and well being of our residents. To support this commitment departmental resources will be re-aligned to better address the preventable causes of obesity — lack of physical activity and poor nutrition. County activities will involve most sections of the County government and focus on the different levels of the ecological model.

Partnering organizations are encouraged to:

- Review the strategies and recommendations presented in this report across all domain areas.
- Conduct an internal review to:
    - Determine which recommended strategies you are currently implementing; and
    - Identify new strategies your organization can implement.
- Make a formal commitment to adopt new strategies by completing the "Commitment of Significance" form (see Appendix C) available online at www.healthymadisoncounty.org.
- Work with other organizations within and across domain areas to coordinate efforts.
- Work with oversight team to document, evaluate and report your efforts on an ongoing basis.

Appendix A

Overweight & Obesity
National Resources

Organizations

- The Academy for Eating Disorders
- America on the Move (tm)
- American Academy of Pediatrics (AAP)
- American Board of Physician Nutrition Specialists (ABPNS)
- American Council for Fitness & Nutrition
- American Diabetes Association
- The American Dietetic Association
- American Heart Association
- American Obesity Association
- American Physiological Society
- American Society for Bariatric Surgery
- American Society for Clinical Nutrition
- American Society for Nutritional Sciences
- Canadian Obesity Network
- Centers for Disease Control
- European Association for the Study of Obesity
- Federation of American Societies for Experimental Biology (FASEB)
- The Hormone Foundation
- International Association for the Study of Obesity
- International Obesity Task Force
- Intersociety Professional Nutrition Education Consortium (IPNEC)
- Kidney & Urology Foundation of America
- Obesity Action Coalition
- Partnership for Healthy Weight Management
- Shaping America's Youth
- Society for the Study of Ingestive Behavior
- Worldwide listing of Associations for the Study of Obesity (from the IOTF website)
- Yale Rudd Center for Food Policy & Obesity

Obesity Journals

- Obesity —the leading journal on obesity
- International Journal of Obesity

Research Centers

- Aberdeen Centre for Energy Regulation and Obesity (ACERO)
- Mayo Clinic & Foundation for Medical Education and Research
- Medical University of South Carolina Weight Management Center

- Merck Frosst/CIHR Research Chair in Obesity
- The Minnesota Obesity Center
- Monell Chemical Senses Center
- The National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health
- The New York Obesity Research Center
- Obesity Research Center, Boston Medical Center
- Pennington Biomedical Research Center
- University of Alabama at Birmingham Department of Nutrition Sciences (and Obesity Research Center)
- University of Colorado Center for Human Nutrition
- University of North Carolina at Chapel Hill's Interdisciplinary Obesity Center (IDOC)
- University of Pennsylvania Weight and Eating Disorder Program

Information on Obesity

- Association for Coordination and Research in Obesity and Nutrition (in French and English)
- CDC: Overweight and Obesity
- Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: Evidence Report
- Food and Nutrition Center (USDA)
- Food Surveys Research Group (USDA)
- National Heart, Lung, and Blood Institute of the National Institutes of Health
- Patient Information Documents on Nutrition and Obesity (NIDDK)
- Shape Up America
- TOPS: Take Off Pounds Sensibly
- Toward a National Action Plan on Overweight and Obesity: The Surgeon General's Initiative (December 7 & 8, 2000) (archived video cast)

Source: The American Obesity Society, 2008.

Appendix B

2007-2008 Legislative Proposals Related to Obesity		
Bill No.	**Summary**	**Status**
A729B	AN ACT to amend the public health law, in relation to the posting of caloric value of food items. Requires certain restaurants and food service establishments to post the caloric value of food items.	**Last Act:** 06/17/08 reported referred to Rules Comm.
A898	AN ACT to amend the elder law, in relation to creating the senior benefits card program. Creates the senior benefits card program to enable and encourage seniors to purchase healthy and appropriate foods at a discounted price.	**Last Act:** 01/09/08 referred to aging
A2343B	AN ACT to amend the highway law, in relation to including bicycle paths and pedestrian paths within certain construction and improvements by the department of transportation. Provides for use of certain state aid funding for construction and improvement of bicycle and pedestrian paths	**Last Act:** 07/07/08 signed chap.161
A2502	AN ACT to amend the public health law, in relation to creating a food security, empowerment and economic development program. Authorizes the department of health to implement a community food security, empowerment and economic development program (SEED) to help meet the food need of low-income people and promote comprehensive responses to local food, farm and nutrition issues; provides grants for the cost of program projects which will be available to non-profit organizations and local governments, with limited partnership with for-profit enterprises; makes related provisions.	**Last Act:** 01/23/08 reported referred to ways and means
A2921	AN ACT to amend the state finance law, in relation to establishing the farm-to-school enhancement fund. Establishes the Farm-to-school enhancement fund to promote and assist in the purchase of New York farm products by educational institutions.	**Last Act:** 01/09/08 referred to Ways and Means
A2985	AN ACT to amend the education law, in relation to instruction in nutrition. Requires students to be given instruction on nutrition as part of their health education curriculum.	**Last Act:** 01/09/08 referred to Education
A3114	AN ACT to amend the insurance law, in relation to reimbursement for nutrition and dietetic services. Authorizes certified or registered dietitians and certified nutritionists as providers for direct reimbursement when a policy provides coverage for nutrition and dietetic services and such services are provided pursuant to a physician's order.	**Last Act:** 01/09/08 referred to Insurance
A3560	AN ACT to amend the general business law, in relation to requiring persons offering weight loss services to provide notice of certain risks. Requires persons selling or offering to sell weight loss services or weight loss products to provide consumers with a weight loss and dieting information notice	**Last Act:** 06/02/08 referred to Rules
A3825	AN ACT to amend the education law, in relation to the required instruction in physical education in elementary schools.	**Last Act:** 01/09/08 referred to education
A3857	AN ACT to amend the insurance law, in relation to making coverage for medical nutrition therapy applicable to insurance policies and contracts. Requires all accident and health insurance policies to provide coverage of medical nutrition therapy; defines medical nutrition therapy to mean the nutritional diagnostic, therapy, and counseling services for the purpose of disease management which are furnished by a dietician or nutrition professional.	**Last Act:** 01/09/08 referred to insurance
A4280A	AN ACT to amend the tax law, in relation to providing an occupational wellness tax credit for businesses; and providing for the repeal of such provisions upon expiration thereof. Relates to providing a tax credit to businesses for qualified expenses relating to occupational wellness;	**Last Act:** 01/09/08 referred to ways and means

Source: New York State Association of County Health Officials. Cristina Dyer-Drobnack, Project Coordinator. Received October 9, 2008 through email correspondence.

Bill No.	Summary	Status
A4316	AN ACT to establish a task force on occupational wellness and providing for the repeal of such provisions upon expiration thereof. Establishes a task force on occupational wellness in the NYSDOH to study and evaluate the existing health of the state's workforce and the potential benefits of implementing occupational wellness programs	Last Act: **01/09/08 referred to health**
A4368	AN ACT to amend the executive law, in relation to the creation of a New York state council on food policy.	**Last Act:** 01/09/08 referred to governmental operations
A4809	AN ACT to amend the public health law, in relation to the development of a nutrition and fitness website by the department of health. Require the NYS Department of Health, in conjunction with the NYS Department of Education, the NYS PTA and other relevant school organizations, to develop a nutrition and fitness website database that will provide day care providers and parents with information available to fight childhood obesity	**Last Act:** 01/09/08 referred to health
A4832	AN ACT to create the "Healthy Kids Act" pilot program to encourage students to develop healthy eating habits and makes an appropriation therefore. Creates the "healthy kids act" pilot program to encourage students to develop healthy eating habits at school; includes ten participating school districts and grant to offset costs.	**Last Act:** 01/09/08 referred to education
A5443	AN ACT to amend the tax law, in relation to providing a tax credit for qualified expenses relating to healthy living. Relates to providing a tax credit, up to $1000, for qualified expenses relating to healthy living.	**Last Act:** 06/19/08 held for consideration in ways and means
A5708A	AN ACT to amend the public health law and the state finance law, in relation to creating the New York state governor's council on physical fitness, sports and health. Creates the New York state governor's council on physical fitness, sports and health; establishes the membership of such council; creates the New York state governor's council on physical fitness, sports and health fund.	**Last Act:** 06/19/08 held for consideration in ways and means
A6103	AN ACT to amend the education law, in relation to providing for the sale, availability and distribution of healthy foods and beverages for school lunch programs. Provides for the sale, availability and distribution of healthy foods and beverages as part of a school lunch program; sets forth portion size and food requirements; requires nutritional information on all food items and beverages which are not prepackaged with such; provides for a ten cent reimbursement from the state per lunch sold; requires the commissioner to establish a procedure for engaging school wellness committees.	**Last Act:** 01/09/08 referred to education
A6376	AN ACT to amend the tax law, in relation to imposing an additional tax on certain items; and to amend the state finance law, in relation to creating the childhood obesity prevention program fund. Imposes additional tax on certain food and drink items, and imposes a tax on video games, commercials, and movies.	**Last Act:** 06/19/08 held for consideration in ways and means
A7015	AN ACT to amend the social services law, in relation to including medical nutrition therapy for obesity in children under medical care, services and supplies provided for the purposes of medical assistance. Allows for medical nutrition therapy for obesity in children eighteen years or younger to be included under medical care, services and supplies for the purposes of medical assistance.	**Last Act:** 06/19/08 held for consideration in ways and means
A7086A	AN ACT to amend the education law, in relation to providing for the sale, availability and distribution of healthy foods and beverages on school property and at school-sponsored functions. Provides for the sale, availability and distribution of healthy foods and beverages on school property and at school sponsored functions; sets forth portion size and food requirements; sets forth requirements and provides for the sale of such foods in school stores, vending machines, school cafeterias; requires nutritional information on all food items and beverages which are not prepackaged with such; and requires the commissioner of education, in consultation with the commissioner of health, to establish a procedure for engaging school wellness committees.	**Last Act:** 06/04/08 held for consideration in education

Source: New York State Association of County Health Officials. Cristina Dyer-Drobnack, Project Coordinator. Received October 9, 2008 through email correspondence.

Bill No.	Summary	Status
A8642	AN ACT to amend the public health law, in relation to requiring the department of health to develop media health promotion campaigns to communicate positive correlations between health, physical activity and academic performance; to require the department of health to identify and promote best practices in communities to support healthful nutritional choices; to require the department of health to conduct BMI surveys; to require the department of health to provide technical assistance to schools in complying with nutritional standards; to amend the education law and chapter 537 of the laws of 1976, relating to paid, free and reduced price breakfast for eligible pupils in certain school districts, in relation to establishing nutritional standards for food and beverages available in schools, requiring school wellness policies, and expanding the school breakfast program; and repealing section 915 of the education law relating thereto	Last Act: **01/09/08 referred to education**
A8743	AN ACT to amend the education law, in relation to creating the children's healthy access to meals program (CHAMP); and to amend the general municipal law, in relation to certain school district contracts. Establishes the children's healthy access to meals program (CHAMP); establishes an advisory body to develop statewide nutrition standards for all food and beverages sold to students during the school day; relates to certain school district contracts	**Last Act:** 01/09/08 referred to education
A9122	AN ACT to amend the executive law, in relation to creating the office of nutrition and fitness	**Last Act:** 01/09/08 referred to governmental operations
A9378	AN ACT to amend the education law, in relation to establishing the fresh fruit and vegetable program. L Directs the department of education to establish a fresh fruit and vegetable program providing sponsors of non-profit school breakfast, lunch or other school child feeding programs with payments for the purchase of fresh or minimally processed fruits and vegetables or providing such sponsors with purchased fresh or minimally processed fruits and vegetables to be offered to students as part of school lunches, breakfasts or snacks in the cafeteria or classroom.	**Last Act:** 06/04/08 held for consideration in education
A9831	AN ACT to amend the public health law, in relation to the posting of caloric value, carbohydrate, fat and sodium content of food items. Requires certain restaurants and food establishments to post the caloric value, carbohydrate, fat and sodium content per serving.	**Last Act:** 01/29/08 referred to consumer affairs and protection
A10248	AN ACT to amend the vehicle and traffic law, in relation to enacting the "pedestrian safety enhancement act of 2008. Requires that all vehicles emit sound to aid in the safety of blind pedestrians, other pedestrians, cyclists and children. This legislation would enhance walk-ability and safety in communities to allow for more opportunity for regular physical activity.	**Last Act:** 06/10/08 held for consideration in transportation
A10496	AN ACT to amend the general obligations law, in relation to landowner liability. Relates to landowner liability for injury during recreational use of property; defines occupant to include organizations that develop or maintain trails and recreational facilities. This bill would expand opportunities for physical activities by removing current barriers in connecting public and private land trails.	**Last Act:** 01/09/08 referred to judiciary
A10884A	AN ACT to amend the insurance law, in relation to authorizing accident and health insurers, medical and health service corporations, and health maintenance organizations to establish wellness programs. Authorizes health insurers, medical service corporations and health maintenance organizations to establish wellness programs for the insured.	**Last Act:** 09/25/08 signed chap.592
S40A	AN ACT to amend the public health law, in relation to promoting on-the-job wellness programs for public and private employees. Requires the Department of Health and Commissioner of Health to promote on-the-job wellness policies for public and private employees as part of efforts to address obesity.	**Last Act:** 01/09/08 referred to health
S2595A	AN ACT to amend the tax law, in relation to providing an occupational wellness tax credit for businesses; and providing for the repeal of such provisions upon expiration thereof. Relates to providing a tax credit to businesses for qualified expenses relating to occupational wellness.	**Last Act:** 01/09/08 referred to investigations and government operations.

Source: New York State Association of County Health Officials. Cristina Dyer-Drobnack, Project Coordinator. Received October 9, 2008 through email correspondence.

Appendix C

Working to build a healthy community

Madison County
DEPARTMENT of HEALTH

COMMITMENT OF SIGNIFICANCE

Before completing this form, please review the Obesity Report.
To Complete this form or review the document online, go to
www.healthymadisoncounty.org

Contact Information

Organization: _____

Domain Category (please check one): ☐ Business ☐ Childcare

☐ Healthcare Systems and Providers ☐ City and County Government ☐ Media and Marketing ☐ Schools

☐ Community-Based Organizations (Youth, Community or Faith) ☐ Other _____

Contact Name: _____ Title: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____

Email: _____ Web Page: _____

Strategy Implementation:

Is your organization currently implementing Strategies for obesity? ☐ Yes ☐ No

If so, what strategies is your organization currently implementing? _____

_____

_____

What new or recommended strategies will your organization commit to and implement? _____

_____

_____

With which other organization within your domain and/or other domains will you coordinate efforts? _____

_____

_____

Who in your organization will be the liaison to represent your organization to report and evaluate your efforts?

Name: _____ Title: _____

Email Address: _____ Phone: _____

Please Fax or Email your completed form to:
Eric W. Faisst
Fax: 315.366.2697 Email: eric.faisst@co.madison.ny.us
Or you may submit online at www.healthymadisoncounty.org

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