PHYSICAL ACTIVITY AND FITNESS

Healthy People 2010 contains the following general observations about health and physical activity:

> The 1990s brought a historic new perspective to exercise, fitness, and physical activity by shifting the focus from intensive vigorous exercise to a broader range of health-enhancing physical activities. Research has demonstrated that virtually all individuals will benefit from regular physical activity. A Surgeon General's report on physical activity and health concluded that moderate physical activity can reduce substantially the risk of developing or dying from heart disease, diabetes, colon cancer, and high blood pressure. Physical activity also may protect against lower back pain and some forms of cancer (for example, breast cancer), but the evidence is not yet conclusive.

Issues and Trends

On average, physically active people outlive those who are inactive. Regular physical activity also helps to maintain the functional independence of older adults and enhances the quality of life for people of all ages. The role of physical activity in preventing coronary heart disease (CHD) is of particular importance, given that CHD is the leading cause of death and disability in the United States. Physically inactive people are almost twice as likely to develop CHD as persons who engage in regular physical activity. The risk posed by physical inactivity is almost as high as several well-known CHD risk factors, such as cigarette smoking, high blood pressure, and high blood cholesterol. Physical inactivity, though, is more prevalent than any one of these other risk factors. People with other risk factors for CHD, such as obesity and high blood pressure, may particularly benefit from physical activity.

Regular physical activity is especially important for people who have joint or bone problems and has been shown to improve muscle function, cardiovascular function, and physical performance. However, people with arthritis (20 percent of the adult population) are less active than those without arthritis. People with osteoporosis, a chronic condition affecting more than 25 million people in the United States, may respond positively to regular physical activity, particularly weight-bearing activities, such as walking, and especially when combined with appropriate drug therapy and calcium intake. Increased bone mineral density has been positively associated with aerobic fitness, body composition, and muscular strength.

Although vigorous physical activity is recommended for improved cardiorespiratory fitness, increasing evidence suggests that moderate physical activity also can have significant health benefits, including a decreased risk of CHD. For people who are inactive, even small increases in physical activity are associated with measurable health benefits. In addition, moderate physical activity is more readily adopted and maintained than vigorous physical activity. As research continues to illustrate the links between physical activity and selected health outcomes, people will be able to choose physical activity patterns optimally suited to individual preferences, health risks, and physiologic benefits.

For individuals who do not engage in any physical activity during their leisure time, taking the first step toward developing a pattern of regular physical activity is important. Unfortunately, few individuals engage in regular physical activity despite its documented benefits. Only about 23 percent of adults in the United States report regular, vigorous physical activity that involves large muscle groups in dynamic movement for 20 minutes or longer 3 or more days per week. Only 15 percent of adults report physical activity for 5 or more days per week for 30 minutes or longer, and another 40 percent do not participate in any regular physical activity.

Public education efforts need to address the specific barriers that inhibit the adoption and maintenance of physical activity by different population groups… Along with the public education efforts, public programs in a variety of settings (recreation centers, worksites, health care settings, and schools) need to be developed, evaluated, and shared as potential models. The availability of group activities in the community is important for many

(http://www.healthypeople.gov/Document/HTML/Volume2/22Physical.htm#_Toc4903 80794).

Healthy People 2010 Health and Fitness
The specific objectives employed to establish baseline measures and evaluate progress toward better health and physical fitness are summarized in the following Healthy People 2010 table.

Healthy People 2010* Baselines and Targets for Priority: *Physical Activity

Objective		1997 Baseline*	2010 Target
22.1	Reduce the number of adults who engage in no leisure-time physical activity.	40% of adults aged 18 years and older	20%
22.2	Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day.	15%	30%
22.3	Increase the proportion of adults who engage in vigorous physical activity that promotes the development and maintenance of cardio-respiratory fitness 3 or more days a week for 20 minutes or more per occasion.	23%	30%
22.4	Increase the proportion of adults who perform physical activities that enhance and maintain muscular strength and endurance.	18% (1998)	30%
22.5	Increase the proportion of adults who perform physical activity that enhance and maintain flexibility.	30% (1998)	43%
22.6	Increase the proportion of adolescents who engage in moderate physical activity for at least 30 minutes on 5 or more days of the pervious 7 days.	27% (1999)	35%
22.7	Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardio-respiratory fitness 3 or more days a week for 20 minutes or more per occasion.	65% (1999)	85%
22.8	Increase the proportion of the Nation's public and private schools that require daily physical education for all students.	*1994*	*2010*
22.8a	Middle and junior high schools	17%	25%
22.8b	Senior high schools	2%	5%
22.9	Increase the proportion of adolescents who participate in daily school physical education.	29% (1999)	50%
22.10	Increase the proportion of adolescents who spend at least 50 percent of school physical education class time being physically active.	38% (1999)	50%
22.11	Increase the proportion of adolescents who view television 2 or few hours on a school day.	57% (1999)	75%
22.12	(Developmental) Increase the proportion of the Nation's public and private schools that provide access to their physical activity spaces and facilities for all persons outside of normal school hours (that is, before and after the school day, on weekends, and during summer and other vacations.)		
22.13	Increase the proportion of worksites offering employer-sponsored physical activity and fitness programs.	46% (1998-1999)	75%
22.14	Increase the proportion of trips made by walking	1995	2010
22.14a	Adults aged 18 years and older (trips of one mile or less)	17%	25%
22.14b	Children and adolescents aged 5 to 15 years (trips to school of one mile or less)	31%	50%
22.15	Increase the proportion of trip made by bicycling.		
22.15a	Adults aged 18 years and older (trips of five miles or less)	0.6%	5.0%
22.15b	Children and adolescents aged 5 to 15 years	2.4%	5.0%

* Except as noted.

The two objectives outlined below are singled out as leading indicators to measure progress toward objectives.

22-7. **Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion.**

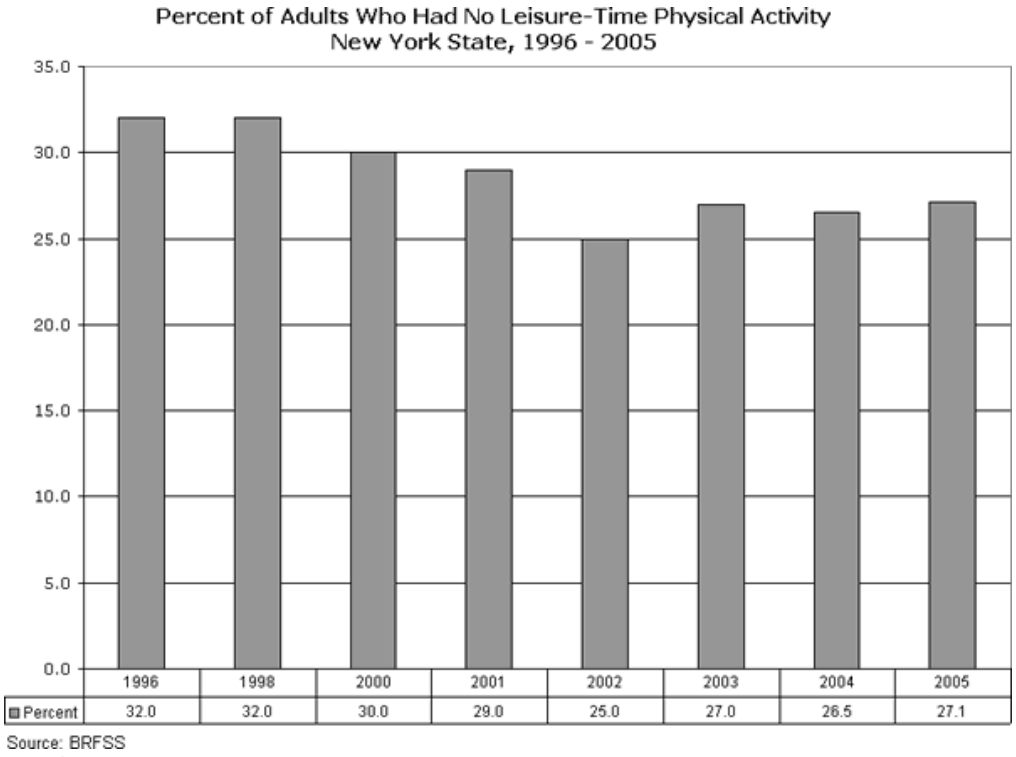
22-2. **Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day.**

(**http://www.healthypeople.gov/Document/HTML/Volume2/22Physical.htm#_Toc490380794**)

A. Health Data

New York State Data

The trend in low rates of physical activity in New York State between 1996 and 2005 is outlined in the chart below, which shows a decrease during the first 6 years of the data shown in the percentage of adults who had no leisure-time physical activity. In the years following, the percentage of adults who had no leisure-time physical activity rose slightly and leveled off.



(**http://www.health.state.ny.us/statistics/chac/general/leisure_time_activity.htm**)

When New York data are broken down by demographic and socio-economic factors **(http://apps.nccd.cdc.gov/brfss/Trends/sexchart.asp?qkey=10020&state=NY)**, the results confirm that higher rates of no physical activity, and therefore greater health risk, exist among a number of subpopulations. Health risks increase for females, Black, multiracial, and Hispanic populations. Risk also increases with age, and among lower income and education groups.

Data from the *Women's Health and Mortality Chart book* show rates of no leisure-time physical activity for New York women by race, along with 2010 national target and state rank. Rates for all groups are above the national target of 20%, and rates for all minority groups are substantially higher than for white non-Hispanic women. The highest health risk is found among Hispanic and Native American women. New York ranks better than 37 other states on this measure.

Physical activity and fitness among youth is an area of increasing concern, as it becomes clear that childhood inactivity and obesity lead to increased health risks in later years. The 2003 Youth Risk Behavior Surveillance System survey reports the following. Nationwide, 33.4% of students had not participated in sufficient vigorous physical activity and had not participated in sufficient moderate physical activity during the 7 days preceding the survey. Higher rates among specific adolescent subpopulations are consistent with adult subpopulations.

A comparison of 1999 and 2005 New York data broken down by race and Hispanic ethnicity shows an increase in insufficient physical activity among all groups **(http://apps.nccd.cdc.gov/brfss/display.asp?cat=PA&yr=2003&qkey=4418&state=NY).**

2. Chautauqua County

Chautauqua County physical fitness data are available from the Western New York Health Risk Assessment, Chautauqua County Report, which includes adult data on several levels of physical activity broken down only by one category of age (65+) and by overweight.

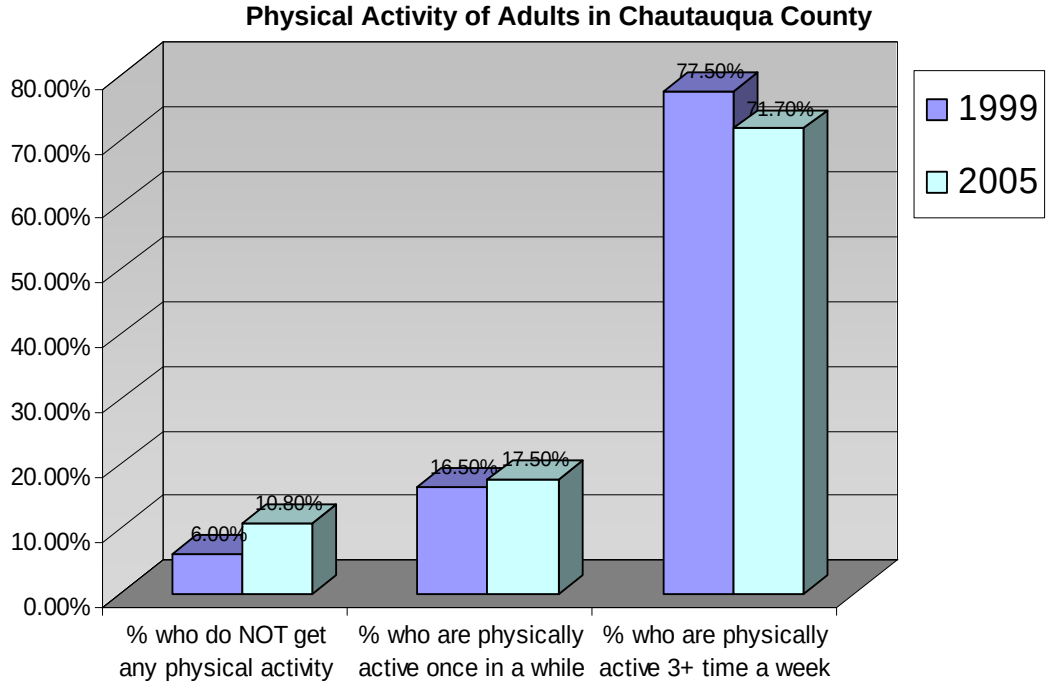
The table below is adapted from the 1999 and the 2005 Western New York Health Risks Assessments, Chautauqua County Report. Comparisons to the statewide data presented above are problematic, since the question asked pertained to leisure time physical activity, whereas the Chautauqua County questions refers to physical activity in general. However, comparisons can be made between the two years the Western New York Health Risks Assessment was administered, except for where data are not available (marked N/A on Table 5C). The table indicates that the percentage of adults not engaging in any physical activity more than doubles for the 65 and over age group (15.8%) compared to all ages (6.0%) in 1999. In 2005, this difference narrows, but the reduction occurs due to a higher percentage of all adults getting no physical activity (10.8%), as the rate of physical activity among those age 65 and over (14.1%) decreased only slightly. At the same time, the table shows a decline in the percentage of Chautauqua County residents who are physically active three or more times per week, from 77.5% in 1999 to 71.7% in 2005. In addition, for both years, the table indicates a lower rate of no physical activity among those who are overweight.

Table 5C (adapted). HRA Estimates--Total Adult Prevalence for Chautauqua County: Health Risk Behavior: Physical Activity

Data Item Description	1999	2005
% who do NOT get any physical activity	**6.0%**	**10.8%**
% 18-44 who do NOT get any physical activity	**N/A**	**3.9%**
% 45-64 who do NOT get any physical activity	**N/A**	**6.6%**
% 65+ who do NOT get any physical activity	**15.8%**	**14.1%**
% who are physically active once in a while	**16.5%**	**17.5%**
% who are physically active 3+ time a week	**77.5%**	**71.7%**
% overweight who do NOT get any physical activity	**3.9%**	**4.0%**

Source: Western New York Adult Health Risks Assessment, 1999 and 2005 (**http://www.wnyhra.org/index.html**)

The chart below derived from the previous table shows the proportion of all Chautauqua County adults by level of physical activity.



Almost three-quarters (71.7%) of all adults in the county respond that they are physically active three or more times per week. This rate is similar to, though slightly lower than, the 2005 rates for Allegany and Cattaraugus counties (76.3% and 72.6%, respectively), and higher than the Western New York region as a whole (67.4%). As seen in the chart below, groups with the highest percentages of no physical activity include those over 65 years old, females, Hispanics and Non-Hispanic Blacks, and those who are obese.

		% No Physical Activity
Total		10.8
Age		
	18-44	3.9
	45-64	6.6
	65 +	14.1
Sex		
	Male	3.9
	Female	7.4
Race/Ethnicity		
	Hispanic	36.2
	Non-Hispanic White	4.9
	Non-Hispanic Black	23.1
	Asian/Pacific Islander	0
	American Indian or Alaska Native	0
	Other	3.4
Weight Status (based on BMI Categories)		
	Underweight	0
	Healthy Weight	3.5
	Overweight	4
	Obese	13.7

Data concerning physical activity from the 2004-2005 *BRFSS* Survey of Chautauqua County are presented below.

	YES (%)	NO (%)
Walk for at least 30 minutes	65.5	34.5
Moderate Physical Activity, 5 or more days per week, for at least 30 minutes	43.1	56.9
Vigorous Physical Activity, 3 or more days per week for at least 20 minutes	30.1	69.9
Meets both moderate and vigorous recommendations	20.2	79.8

As the percentages show, while two-thirds of respondents report they walk for at least 30 minutes, less than half engage in moderate physical activity, and just under one-third engage in vigorous physical activity. At the same time, the 2010 Healthy People target to increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day from the 15% level in 1997 to a level of 30% is surpassed in Chautauqua County by a substantial amount by a substantial margin by this data, since 43.1% engage in activity that meets the criterion.

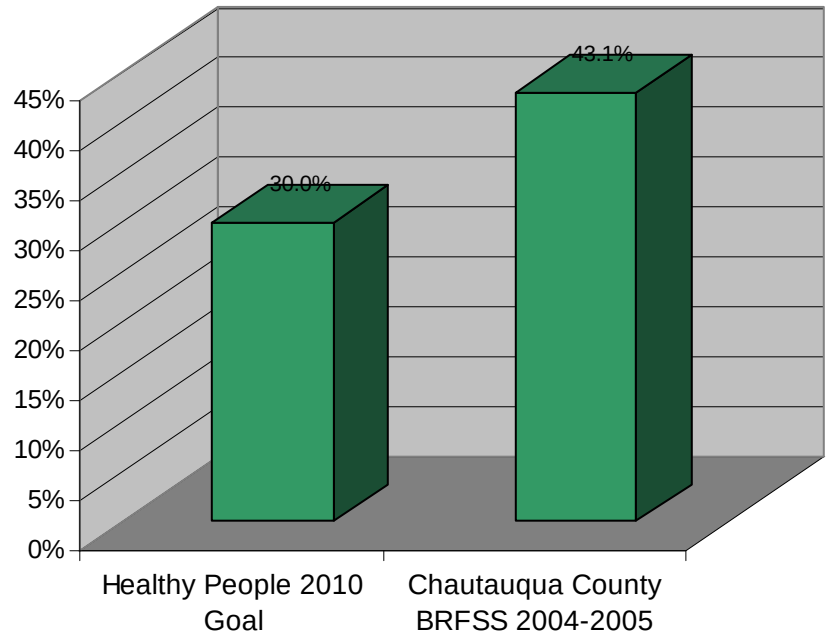
The following data show the breakdown of responses to the same questions by sex and age group. Both males and females exceed the 2010 Healthy People target to increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day. Males score higher than females in each of the categories of physical activity, except in the moderate physical activity category, where females score slightly higher.

		YES	NO
Walk for at least 30 minutes	MALE	67.7	32.3
	FEMALE	63.4	36.6
Moderate Physical Activity, 5 or more days per week, for at least 30 minutes			
	MALE	42.9	57.1
	FEMALE	43.3	
	56.7		
Vigorous Physical Activity, 3 or more days per week for at least 20 minutes			
	MALE	36.5	63.5
	FEMALE	24.1	75.9
Meets both moderate and vigorous recommendations			
	MALE	24.1	76.0
	FEMALE	16.4	83.6

The objective for moderate physical activity is also exceeded by each age group, based on the 2004-2005 data. The highest percentage of participation in physical activity is achieved by the 18-34 age group in all categories., while the lowest percentage is among those age 65 and older. This difference is narrowest in the “moderate physical activity” category.

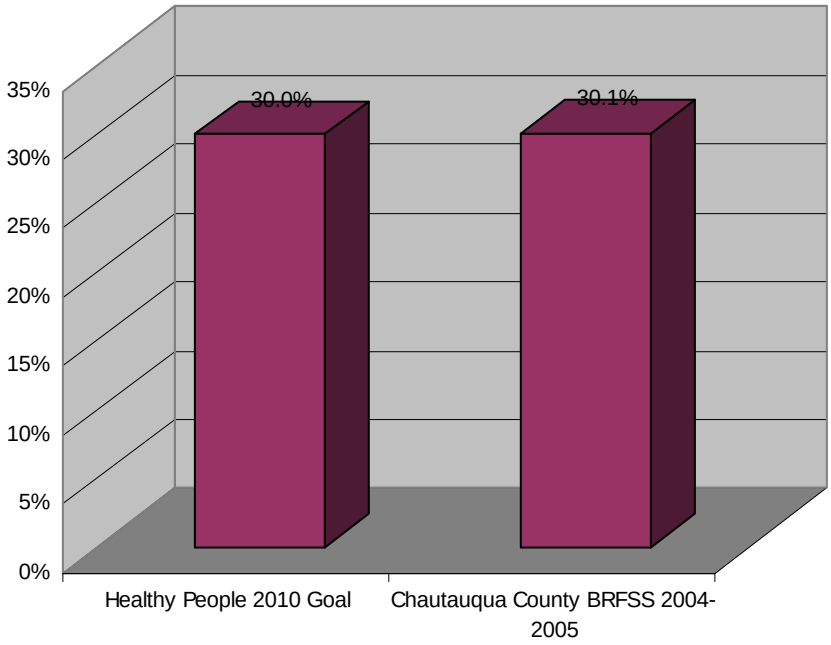
		YES (%)	NO (%)
Walk for at least 30 minutes			
	18-34	73.5	26.5
	35-64	68.6	31.4
	65+	46.5	53.5
Moderate Physical Activity, 5 or more days per week, for at least 30 minutes			
	18-34	48.4	51.6
	35-64	43.3	56.7
	65+	33.9	66.1
Vigorous Physical Activity, 3 or more days per week for at least 20 minutes			
	18-34	45.2	54.8
	35-64	27.5	72.5
	65+	14.4	85.6
Meets both moderate and vigorous recommendations			
	18-34	29.8	70.2
	35-64	18.8	81.7
	65+	10.1	89.9

The following charts compare the 2004-2005 *BRFSS* results from Chautauqua County to the 2010 targets listed above. For the two targets for which comparable data are available, Chautauqua County exceeds the goal for moderate activity and meets the goal for vigorous activity. The goal for moderate physical activity is also exceeded by both males and females, and by each of the three age groups.



Objective: Increase moderate physical activity from 15% to 30%

The goal for vigorous physical activity is exceeded by males (36.5%), while females, at 24.1%, are below the goal of 30%. The vigorous activity goal is exceeded by the 18-34 age group, but not by the two older groups. Overall, Chautauqua County, at 30.1%, meets the goal for vigorous activity.



Objective: Increase vigorous physical activity from 23% to 30%

No local data on adolescents are available for these indicators, and so progress on 2010 Healthy People target to increase the proportion of adolescents who engage in vigorous physical activity that promotes cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion can not be evaluated.

B. Unmet Needs

According to Healthy People 2010 *t*he major barriers most people face when trying to increase physical activity are lack of time, lack of access to convenient facilities, and lack of safe environments in which to be active. In addition low rates of physical activity vary among specific subpopulations based on demographic and socio-economic factors, including the following:

Women generally are less active than men at all ages.

People with lower incomes and less education are typically not as physically active as those with higher incomes and education.

African Americans and Hispanics are generally less physically active than whites.

Adults in northeastern and southern States tend to be less active than adults in North-Central and Western States.

People with disabilities are less physically active than people without disabilities.

By age 75, one in three men and one in two women engage in *no* regular physical activity.

Health promotion efforts need to identify barriers to physical activity faced by particular population groups and develop interventions that address these barriers.

Data demonstrate that major decreases in vigorous physical activity occur during grades 9 through 12. This decrease is more profound for girls than for boys, whether the measure is engaging in vigorous physical activity in general or in team sports. The President's Council on Physical Fitness and Sports concluded that because of the physical health and emotional benefits of physical activity, it should have an increasingly important role in the lives of girls. Adolescents' interest and participation in physical activity differ by gender. Therefore, strategies to increase the amount of physical activity for boys and girls must address these differences and must begin before the disparities in levels of physical activity manifest themselves. Compared to boys, girls are less likely to participate in team sports but more likely to participate in aerobics or dance. Often girls and boys perceive different benefits from physical activity, with boys viewing such activity as competition and girls as weight management. These factors must be considered in developing programs to address the needs of girls. Because boys are more likely than girls to have higher self-esteem and greater physical strength, programs addressing the needs of girls should provide instruction and experiences that increase their confidence and their opportunities to participate in activities, as well as social environments that support involvement in a range of physical activities (**http://www.healthypeople.gov/Document/HTML/Volume2/22Physical.htm#_Toc490380794**).

Although 2010 leading indicators are achieved in general, although only according to preliminary data, local data reviewed above suggest unmet needs related to low rates of physical activity still exist among specific Chautauqua County subpopulations.

- Increase vigorous physical activity among females.
- Increase vigorous physical activity among 35 and over.
- Implement health promotion efforts targeting these groups, and also low income and education populations.
- Identification of barriers related to access to physical activity that are magnified for these groups in specific ways that need to be addressed. For example, financial barriers limit access to many opportunities for physical activity, since fitness centers, Y's, etc. often involve costly memberships. Transportation barriers increase in rural areas and among aging populations, and cultural barriers exist for minority groups.

- In addition to these subpopulations defined by demographic characteristics, similar efforts also need to be directed toward subgroups at high risk of cardiovascular disease, diabetes, and other chronic illnesses for which the benefits of physical activity have been established.

C. Local Resources

Current and planned programs involving physical activity include the following.

- 19 workplaces have participated in Mission Meltaway and lost 1,300 pounds
- Active Communities Coalition
- Brooks Memorial Hospital offers cardiac rehabilitation, aerobic activity and exercise, Dunkirk
- Cassadaga Walking Path
- Chautauqua County Cooperative Extension: community education related to physical fitness
- Cool Walkers: Indoor walking at the Jamestown Skating Rink
- Eat Well, Play Hard Grant
- Exercise classes for senior citizens: Jamestown, Dunkirk
- Hiking and walking trails exist or are being developed
- Jamestown Community College and SUNY Fredonia have fitness centers available to students and staff
- Mall Walkers: indoor walking at the Chautauqua Mall in Lakewood
- Public Schools: health and physical education programs exist in the county's school districts
- Rails to Trails-convert unused railroad track beds to walking or cycling trails
- Recreation path set to be constructed in 2007-2008, Dunkirk
- State Lands: hiking and cross-country skiing trails
- Wellness programs are offered at WCA and Westfield Hospitals
- YMCA, YWCA, Boys and Girls Clubs
- The following organizations provide health fitness clubs programs:

North County:

Curves for women	1170 Central Ave.	Dunkirk
Curves for Women.	17 North Portage Street.	Westfield
Darwin's Health Club	47-53 Water St.	Fredonia
Ramada Inn	30 Lake Shore Drive East	Dunkirk
Women's Wellness Facility	10-12 Clark St.	Fredonia
Image Fitness Center	16 Lake Shore Drive West	Dunkirk
YWCA-Westfield Workout center	58 South Portage St.	Westfield

South County:

Boys and Girls Club	62 Allen St.	Jamestown
Chautauqua Lake Central School	100 North Erie Street	Mayville
Curves for Women	709 W. 3rd St.	Jamestown
Curves for Women	99 E. Chautauqua Ave.	Mayville

Gaffar Adamas Karate and Fitness Center	2171 Allen St. Ext.	Falconer
Jamestown Fitness Center	707 Fairmount Ave.	Jamestown
JCC Fitness Center	525 Falconer St.	Jamestown
Lake Chautauqua Fitness	6580 Lighthouse Point Rd.	Mayville
Pretty Women Fitness	1635 W. 3rd St.	Jamestown
St. Elmo Spa	1 Pratt Ave.	Chautauqua
Sideline Sports	165 Jones & Gifford	Jamestown
YMCA-Jamestown	101 E. 4th St.	Jamestown
YMCA-Lakewood Family	183 Fairmount Avenue	Lakewood

D. Physical Activity and Fitness Opportunities for Action

The Community Health Assessment Project included the following items related to physical fitness on its 2004 survey. Each was to be rated from 1-5, with higher numbers indicating greater need. The following items are related more or less directly to physical activity. The first two items listed were among the top ten highest rated needs. Responses to all questions pertaining to physical activity and fitness presented in the following table suggest not only needs but also opportunities for action.

HEALTH & **WELLNESS**	Number	Mean	SD
29 Widespread encouragement for people to assume responsibility for taking better care of themselves.	150	3.86	1.24
10 Increased emphasis on encouraging routine exercise.	150	3.55	1.26
33 Increased attention to healthy living/healthy lifestyles.	150	3.47	1.22
45 Additional awareness, support, and services for Children and Youth with Obesity.	150	3.38	1.36
4 Increased community-wide valuing of personal health.	150	3.37	1.25
32 Additional awareness, support, and services for those dealing with Obesity.	150	3.35	1.41
23 Weight intervention clinics (especially for youth).	150	3.28	1.37
1 Increased access to general health education.	150	3.17	1.31
26 Better access to worksite fitness programs.	150	3.11	1.52
14 The establishment of a community exercise program.	150	3	1.43
25 A county operated fitness center.	150	2.92	1.57

Opportunities for action related to physical activity and fitness are derived from Healthy People 2010 suggestions (**http://www.healthypeople.gov/Document/HTML/Volume2/22Physical.htm#_Toc490380794**)and Chautauqua County data and information.

Public education efforts should address the barriers that inhibit the adoption and maintenance of physical activity programs.

- Identify ways to increase public understanding that any type or amount of physical activity in leisure time can provide important health benefits.
- Implement STEPS objectives for enrollment in America on the Move and in worksite and school activity groups.
- Promote strength and flexibility activities that protect against disability, enhance functional independence, and encourage regular physical activity participation, particularly among older age groups.
- Work with schools to promote moderate and vigorous physical activity among youth, particularly girls, to lay the groundwork for healthy adult lifestyles.
- Work with primary care providers about the need to encourage physical activity as a component of prevention and treatment.

- Identify and remove barriers involving cost, transportation, accessibility, and safety that limit participation in physical activity, particularly among subpopulations known to be at greater risk, such as racial minorities, those with low incomes, and older age groups.

- Use existing demographic and socioeconomic data to identify geographic locations and specific subpopulations so that programming efforts can be more carefully and systematically targeted.