

Monterey County Child Obesity Study



Where Do We Stand?



December 2005

Where Do We Stand? Child Obesity in Monterey County

“We’ve spent years making the healthy choice the most difficult choice. We need to make it the easy choice.”
— Ross Brownson, epidemiologist at St. Louis University

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The ACTION Council of Monterey County was created in 1994, in the wake of welfare reform, to address the reduction in government funding for health and human services for low-income and vulnerable people. Our goals are: to create public/private partnerships to promote economic and social justice; to initiate community dialogue and action on critical issues; to provide a focal point for achieving community transformation and to develop resources to facilitate needed change.

Almost daily, we see or hear news stories informing us of how overweight and obesity has reached epidemic levels across the country. However, despite the national attention on this topic, what is less understood is the status of this problem here in our own community, since most studies or surveys that provide information on obesity are conducted at the state or national level. Locally, we are left to wonder how conditions in Monterey County compare to the state or national statistics. Do the national or state levels trends apply? Is the problem more or less pronounced in Monterey County?

The purpose of this report is to answer these questions by compiling a series of indicators and data related to overweight and obesity here in our county. As the data will demonstrate, the scope of the problem in Monterey County is every bit as troubling as state and national reports suggest.

The focus of this report is on children and adolescents even though overweight and obesity is a growing problem for all segments of the population—both locally and throughout the nation. The focus on children is warranted since evidence suggests the prevalence of obesity is growing rapidly within this group. In fact, the prevalence of obesity has increased more than three-fold in the last 30 years. Research also indicates that overweight in childhood is correlated to obesity in adulthood, and as a consequence, a higher incidence of chronic disease later in life. Moreover, intervention and prevention strategies targeting youth are more likely to be effective since healthful behaviors that influence overweight and obesity – such as nutrition, food choice, and levels of physical activity—when established during childhood, are more likely to persist into adulthood.

The report begins with an overview of recent research and trends in overweight and obesity in order to summarize the state of the problem in the broader state and national context. In this section, state and national statistics on the prevalence of overweight and obesity are examined, factors linked to obesity are discussed, and the long-term health consequences are identified. Understanding the status of the obesity crisis in this larger context, with the benefit of a wider body of research, will inform the analysis of the local data, and will provide a reference point for establishing the particular aspects of the obesity crisis in need of the most attention in Monterey County.

Next, the study turns to an examination of the overweight and obesity related data in Monterey County. Although national and state-level data on the obesity epidemic is presented to establish the scope of the problem, its

causes and consequences, the real emphasis of this report is in providing a local profile of the status of the problem in our community. This includes not only prevalence rates of overweight, but also indicators of physical activity, physical fitness, nutrition, food choice, and community-level factors.

This study relies upon a variety of secondary data sources to paint a local picture of the obesity epidemic. In using these data sources, this report utilizes the definitions and terminology adopted in those research studies. No attempt is made here to change the data or the definitions to make measures consistent across different data sources. In many instances, there are multiple measures for a single indicator. It is important to keep in mind that although many of the measures appear quite similar, they may focus on different segments of the population, reflect different points in time, or rely upon different methods of measurement. These important characteristics of each data source are provided in the text along with the discussion of data.

In addition to providing a profile of the current status of obesity-related indicators among the children in Monterey County, the intent of this report is to extend the discussion of the problem beyond issues of personal behavior. Successfully confronting the obesity problem requires both individual and community level interventions. Human beings do not act independently of our environment, and increasingly, external forces are making it more difficult for children (and adults) to make the healthful choices. Although comprehensive local data on such community and environmental factors is not available, this report examines some of these factors at the local level, including a summary of some community-based research conducted by young women participating in a Girls Incorporated program, Smart Choices, at two local high schools.

In the final section, the report considers what action is needed to address the overweight problem in our community—both in terms of programming and in data development. Fortunately, many significant efforts are already underway to combat obesity. It is our hope that the information in this report proves to be a useful resource by establishing a common baseline of local information upon which to evaluate community progress on this problem, and in focusing attention on community-level interventions, as well as individual behaviors.

How 'Big' is the problem?

Obesity and overweight are defined by a mathematical calculation called the Body Mass Index (BMI). BMI is calculated by dividing an individual's body weight (kilograms) by their height squared (meters²). Typically, the 85th and 95th percentiles have been used as the cutoff points for determining overweight and obesity in children and adolescents. BMI in children is determined in relation to these percentiles using national growth charts that are standardized to age and sex.

In examining statistics based upon this measure, it is clear that overweight and obesity in the United States, and in California, has reached epidemic levels in all segments of the population. During the past 20 years, obesity among adults and children has risen significantly in the country. The latest data from the National Center for Health Statistics show that 30 percent of U.S. adults 20 years of age and older—over 60 million people—are obese. The percentage of young people who are overweight has more than tripled since 1980. Among children and teens aged 6–19 years, 16 percent (over 9 million young people) are considered obese (BMI > 95%). The table to the left shows the increase in overweight in children between 1963-2002 based upon the National Health and Nutrition Examination Survey (NHANES). In California, the prevalence of obesity in teens ages 12-19 is slightly higher, at 17.5% (BMI > 95%), based upon results from the 2003 California Health Interview Survey.

Though the prevalence of overweight in children and adolescents is increasing, the rate of increase is particularly pronounced among certain ethnic groups (Ogden et al., 2002). In particular, the increase in obesity among African-American and Hispanic children has been significant. Between the years of 1986 and 1998, obesity among African-American and Hispanic children increased by more than 120%, compared to 50% among white children (Kiefer, 2002).

What factors contribute to obesity?

Although the factors contributing to obesity are numerous and complex, the problem can be reduced to a simple equation – the amount of energy coming into the body exceeds the amount of energy expended by the body. Obesity is the result of a long-term imbalance in this equation. Research has identified several factors that contribute to the likelihood of someone's becoming obese.

Prevalence of Obesity (BMI > 95%) among children and adolescents ages 6-19 years, for selected years, 1963-2002					
AGE (YEARS)	NHANES 1963-1965, 1966-1970	NHANES 1971-1974	NHANES 1976-1980	NHANES 1988-1994	NHANES 1999-2002
6 years to 11 years	4%	4%	7%	11%	16%
12 years to 19 years	5%	6%	5%	11%	16%

Source: Centers for Disease Control, National Center for Health Statistics

Genetics, or heredity, plays a role in determining how susceptible people are to becoming overweight or obese by influencing how the body burns calories for energy and how the body stores fat (CDC, 2004). In addition, what people eat and their level of physical activity also determines whether, and how much, weight they will gain.

Recent research suggests that children in California are doing poorly on both sides of the energy equation. Increasingly, children are eating more foods that are high in calories and low in nutrition (e.g. fast food, soda, snack foods), and eating fewer nutritional foods low in calories (e.g. fruits, vegetables). For example, the California Health Interview Survey (2003) results show that among adolescents ages 12-17, two-thirds drink soda every day, and one-half eat fast food every day, but only one-quarter eat the recommended number of servings of fruits and vegetables.

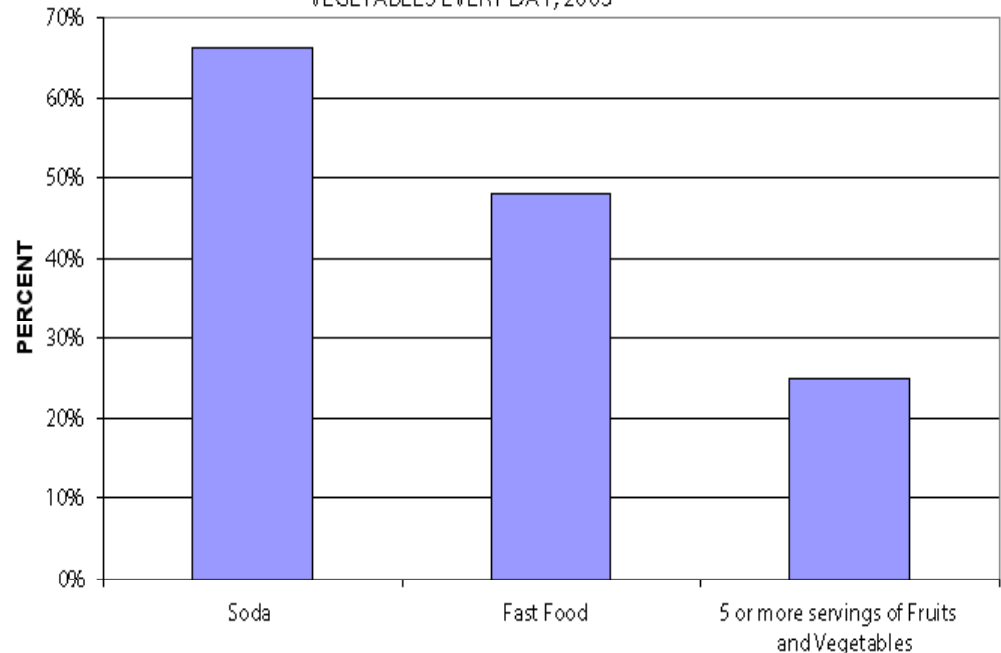
The Youth Risk Behavior Survey (2001), conducted by CDC, demonstrates that in addition to poor eating habits, adolescents are not getting enough physical activity. Among the key findings:

- ✓ 29% attend a physical education class daily
- ✓ 56% enrolled in a physical education class
- ✓ 65% participated in vigorous physical activity at least 3 times in the past week
- ✓ 54% participated in strengthening exercises at least 3 times in the past week
- ✓ 55% play on a sports team
- ✓ 43% watch more than two hours of television on school days.

In California, the results are no more encouraging. CHIS Survey results point to a decline in regular physical activity and an increase in no physical activity among California adolescents (ages 12-17) between 2001 and 2003. As the data indicates, only 71% of adolescents were engaging in the recommended level of regular physical activity, and 7% were not engaging in physical activity at all in 2003. This represents a 2% point change in both measures compared to 2001.

Although individual behavior is an important component in maintaining a healthy weight, in reality, a person's dietary and physical activity practices are influenced by a number of external social, environmental, and policy forces (Institute of Medicine, 2004).

PERCENT OF CALIFORNIA ADOLESCENTS CONSUMING SODA, FAST FOOD, AND AT LEAST 5 SERVINGS OF FRUITS AND VEGETABLES EVERY DAY, 2003



A report by the California Endowment cites studies that have linked obesity to environmental factors such as:

- ✓ Excessive food portions, such as super-size
- ✓ Excessive consumption of high-calorie, high-fat, low-nutrient food, snacks and soft drinks.
- ✓ Lack of easily accessible places for physical activity, such as safe parks and bike paths.
- ✓ Insufficient physical activity opportunities for children in schools and after school programs
- ✓ Excessive time watching TV or playing video games
- ✓ Limited access to supermarkets, farmer's markets and other venues that carry affordable fresh produce in low-income neighborhoods
- ✓ Widespread marketing of high calorie, low-nutrient cereals, snacks and drinks to children
- ✓ Limited ability to be active at worksites.

The external environment has a substantial impact on food choices. According to a report by the California Obesity Prevention Initiative: "The pressure to eat more food has become increasingly pervasive. Large portions of high calorie foods with little nutritional value are mass produced, heavily advertised, and made widely available throughout the day, while the opposite is generally true for healthier foods like fruits and vegetables. Increased marketing of high calorie, low nutrient foods to children; lack of access to healthier foods in workplaces, schools, and many lower-income communities; and food insecurity—in addition to a host of other barriers—make it difficult for individuals to maintain a healthy diet."

The same report offers a synopsis of the social, economic, and environmental forces are reshaping our patterns of physical activity as well as our diet:

"Technology has decreased the extent of physical activity in most workplaces, in daily living, for transportation, and during leisure. Renewed emphasis on academic achievement in the educational system has reduced the time and space available for active play as well as for structured physical education. Long workdays and single parent households limit time for physical activity. Safety concerns, poor community design, and urban sprawl discourage walking, bicycling, and recreation in many neighborhoods. The impact of television viewing on the adolescent and childhood obesity epidemic is a significant concern."

- Moderate activity at least 5 of the last 7 days?

Percent of Adolescents Engaging in Regular Physical Activity and No Physical Activity by Demographic Characteristics, Ages 12-17, California, 2003				
	Regular Physical Activity (%)	Percentage Point Change from 2001	No Physical Activity (%)	Percentage Point Change from 2001
Race/Ethnicity				
White	76.4	-0.2	4.1	1.1
Latino	68.1	-1.1	9.5	1.4
Asian	62.3	-3.9	8.3	3.2
African-American	62.7	-11.5	12.3	5.9
Federal Poverty Level				
0-99%	67.5	-2.6	9.1	1.5
100-199%	65.3	-3.1	9.8	1.3
200-299%	68.9	-2.6	7.5	3.1
300% and above	75.4	-0.9	5.2	2.5
All Teens	70.6	-2.0	7.3	2.1

Table reproduced from: California Adolescents Increasingly Inactive, Exhibit 9
 UCLA Health Policy Research Brief, UCLA Center for Health Policy Research
 Data source: 2001-R and 2003 California Health Interview Survey

What are the health consequences of overweight and obesity?

There are serious long-term health consequences related to obesity. According to the Centers for Disease Control and Prevention, being overweight or obese increases the risk of many diseases and health conditions, including:

- Hypertension
- Dislipidemia
- Type 2 Diabetes
- Coronary heart disease
- Stroke
- Gallbladder disease
- Osteoarthritis
- Sleep apnea and respiratory problems
- Cancers (endometrial, breast, colon)
- Depression

Although most of these health conditions occur in adults, these consequences are of concern in children who are obese since studies show that being overweight and inactive in childhood is likely to persist into adulthood. Research suggests that between 50 to 80 percent of obese adolescents are likely to remain obese as adults. Increasingly however, obese children are encountering these health problems while still in their childhood. Prior to 1992, Type 2 diabetes represented only 2-4% of childhood diabetes cases. Presently, 45% of childhood diabetes cases are Type 2. (CA Endowment, 2005)

Monterey County: Where Do We Stand?

Obesity and Overweight

Obesity and overweight in childhood has significant short-term and long-term health consequences. Obesity and overweight are defined by a mathematical calculation called the Body Mass Index (BMI). BMI is calculated with the same formula for children and adults, but the results are interpreted differently. For adults the use of BMI to define overweight does not depend on age or gender. For children ages 2 – 20 years, BMI is plotted on a growth chart specific for age and gender. Typically, having a BMI at the 95th percentile or above for age and gender is considered obese, while a BMI at the 85th percentile or higher is considered overweight. The Healthy People 2010 objective is 5% or less for children ages 6-11 and adolescents ages 12-19 who are obese (>95th percentile for BMI).

Pediatric Nutrition Surveillance System Overweight and At-Risk for Overweight Data for Low-Income Children and Teenagers (2003)			
Age Groups	At-Risk for Overweight	Overweight	Total At Risk for Overweight and Overweight
	Percent	Percent	Percent
MONTEREY COUNTY			
New born to 11 months		11.3%	
12 to 23 months		15.6%	
2 to 5 years	17.3%	18.5%	35.8%
5 to 8 years	19.4%	20.9%	40.3%
9 to 11 years	21.1%	26.2%	47.3%
12 to 14 years	21.6%	23.0%	44.6%
15 to 19 years	18.6%	20.9%	39.5%
5 years to 19 years	20.1%	22.6%	42.7%
CALIFORNIA			
New born to 11 months		13.3%	
12 to 23 months		19.5%	
2 to 5 years	16.2%	17.6%	33.8%
5 to 8 years	17.0%	20.0%	37.0%
9 to 11 years	19.7%	25.1%	44.8%
12 to 14 years	20.2%	23.3%	43.5%
15 to 19 years	17.9%	18.9%	36.8%
5 years to 19 years	18.4%	21.7%	40.1%

California Healthy Kids Survey Body Mass Index for Monterey County Children Grades 7, 9, and 11			
BMI for Age and Gender	Grade 7	Grade 9	Grade 11
Underweight	2%	2%	2%
Acceptable	58%	64%	62%
At risk of overweight	20%	19%	18%
Overweight	20%	15%	18%

Source: California Healthy Kids Survey, Monterey County Technical Report, 2002/2004.

What are the indicators?

Several different sources of data were available on the prevalence of overweight and obesity of children in Monterey County:

- Pediatric Nutrition Surveillance System (PedNSS), 2003
- California Health Interview Survey (CHIS), 2001/2003
- California Center for Health Advocacy FITNESSGRAM, 2004
- California Health Kids Survey, 2002/2004

Each of these data sources look at different segments of the local population, and may use different levels of BMI to define overweight and obesity. The particular characteristics of each the data set is included in the discussion of the findings.

How are we doing?

Pediatric Nutrition Surveillance System (PedNSS)

The Pediatric Nutrition Surveillance System (PedNSS) provides data on children from birth to age 19 enrolled in the California Health and Disability Program (CHDP). These children are all low-income or high-risk medically. In Monterey County, among children ages 2-5 years, 17.3% are at-risk for overweight (85-95% BMI for age and gender), and another 18.5% are overweight (>95% BMI for age and gender). This means that over one-third (35.8%) of Monterey County CHDP enrolled children are either overweight or at-risk for overweight. In comparison, this is slightly higher than the 33.8% of 2-5 year olds enrolled in CHDP in California overall that are either overweight or at-risk for overweight.

The PedNSS data indicates that for children ages 5-19, the prevalence of overweight is even greater. In Monterey County, 20.1% of the children in this age range were in the 85-95% BMI range, and another 22.6% were above 95% BMI. When combined, we see that approximately 43% of the children ages 5-19 enrolled in Monterey County are either overweight, or at-risk for overweight.

For specific age groups, the rates are even higher. In Monterey County nearly one-half (47%) of children ages 9-11, and 45% of children ages 12-14 enrolled are either overweight or at-risk of overweight. These same age groups also have the highest rates of overweight among children enrolled in CHDP statewide.

California Health Interview Survey (CHIS)

California Health Interview Survey (CHIS) collected self-reported height and weight data for adolescents ages 12-17 in both the 2001 and 2003 surveys. However, given the small number sampled in Monterey County, the results for the two years are combined. The survey results indicate that approximately 16% of all adolescents in Monterey County are obese (BMI > 95% for age and gender); and that more boys (20.7%) are obese than girls (11.1%).

In California overall, CHIS results indicate that 12.4% of adolescents were obese (BMI > 95%) in 2003, which is virtually the same as 2001 (12.2%). As was the case in Monterey County, the statewide results indicate that boys (15.9%) are more likely than girls (8.7%) to be obese.

California Healthy Kids Survey (CHKS)

The California Healthy Kids Survey (CHKS) collected self-reported height and weight data on children in grades 7, 9, and 11 in public schools throughout the state. The results for Monterey County schools that participated in the survey reveal that a substantial number of students are either overweight or at-risk of overweight. For Monterey County children, 20% of 7th grade students, 19% of 9th grade students, and 18% of 11th grade students were at-risk of overweight (85%-95% BMI). This is very similar to the results for California overall, where 21% of 7th graders, 19% of 9th graders, and 17% of 11th graders were at-risk of overweight. In addition, 20% of 7th grade students, 15% of 9th grade students, and 18% of 11th grade students in Monterey County were overweight (>95% BMI). These rates are somewhat higher than the state overall, which found that 14% of 7th graders, 14% of 9th graders, and 13% of 11th graders were overweight.

California Department of Education FITNESSGRAM Overweight Children by Assembly District 2001-2004, Grades 5, 7, and 9		
Assembly Districts	2001	2004
Assembly Districts that include Monterey County		
27th	22.6%	24.2%
28th	35.0%	33.7%
Statewide Totals	26.5%	28.1%
Highest (46th district)	36.8%	39.1%
Lowest (70th district)	16.9%	18.2%

Note: Overweight as defined and used in the CDPHA analyses of California Physical Fitness Test data in 2001 and 2004, and is generally equivalent to the 90th percentile of BMI for age.

Source: California Center for Public Health Advocacy, 2005

FITNESSGRAM — California Center for Public Health Advocacy Study

The California Center for Public Health Advocacy examined the California Department of Education's FITNESSGRAM data by Assembly district in its study of child overweight in California. This particular approach to examining the data was used to facilitate policy discussions on the issue of child overweight and obesity at the state level. This dataset consists of 5th, 7th, and 9th grade students in public schools in California.

Monterey County is represented in two of California's Assembly districts; the western part of the county is in the 27th district, and the eastern part of the county is in 28th district. In 2004, 24% of students in the 27th district and 34% of students in the 28th district were classified as overweight (BMI > 90% for age and gender). This represents a slight increase in the 27th district, but a slight decrease among students in the 28th district compared to 2001. In comparison to California overall (28.1%), the prevalence of overweight children is lower in 27th district, but is higher in the 28th district. This pattern also holds true when looking at the data for specific age, gender, racial and ethnic groups in the population.

In both districts, and in California overall, there was a higher prevalence of overweight in boys than in girls. In the 27th district, 30% of boys were overweight compared to only 18% of girls. In the 28th district, 40% of boys were overweight compared to 27% of girls. State-wide, the overweight rates were 34% for boys and 22% for girls. In both local Assembly districts, the prevalence of overweight is about the same for 5th and 7th graders. In the 27th district, 25% of both 5th and 7th grade students were overweight, while in the 28th district 35% of the 5th and 7th grade students were overweight. The rates were slightly lower among 9th grade students, with 24% overweight in the 27th district and 31% in the 28th district. In California, 29% of both 5th and 7th grade students were overweight and 25% of 9th grade students were overweight.

In the 27th district, the prevalence of obesity was highest among students of Pacific Islander (43%) and Latino (35%) race/ethnicity. The lowest rates of overweight were observed in students of Asian (16%) and White (19%) race/ethnicity.

California Department of Education FITNESSGRAM, Overweight Children in Grades 5, 7, and 9 by Race/Ethnicity, 2004

Race/Ethnicity	27th District	28th District	California
All Children	24.2%	33.7%	28.1%
African American	21.7%	31.1%	28.7%
American Indian/ Alaska Native	22.3%	43.7%	31.7%
Asian	15.6%	20.6%	17.9%
Filipino	25.4%	27.0%	24.7%
Latino	34.9%	36.6%	35.4%
Pacific Islander	42.9%	31.8%	35.9%
White	19.2%	25.9%	20.6%
Other	19.6%	27.9%	24.4%

California Department of Education FITNESSGRAM, Overweight Children in Grades 5, 7, and 9 by Gender and Grade, 2004

Grade and Gender	27th District	28th District	California
All Children	24.2%	33.7%	28.1%
Boys	29.9%	40.2%	33.9%
Girls	18.1%	27.0%	22.0%
5th Grade	24.7%	34.7%	29.3%
7th Grade	24.7%	34.7%	29.1%
9th Grade	23.3%	31.1%	25.4%

Physical Activity

Regular participation in physical activity helps build and maintain healthy bones and muscles, controls weight, builds lean muscle, reduces fat, reduces depression and anxiety, and promotes mental well-being. Regular physical activity also reduces the long-term risk of chronic diseases such as diabetes, high blood pressure, cancer, and heart disease. The Centers for Disease Control and Prevention recommends that adolescents engage in physical activity (preferably aerobic exercise) that requires movement of the large muscle groups at least three times a week for 20-30 minutes.

What are the indicators?

Survey questions from the California Health Interview Survey (CHIS) and the California Healthy Kids Survey (CHKS) provide information on the amount of physical activity children and adolescents in Monterey County engage in on a regular basis.

California Health Interview Survey, 2001

- Vigorous activity at least three days per week?
- Moderate activity at least 5 of the last 7 days?
- Got enough physical activity in the past week?

California Healthy Kids Survey, 1999/2000, 2002/2004

- Did you exercise or do a physical activity for at least 20 minutes that made you sweat or breathe hard?
- Did you participate in a physical activity for at least 30 minutes that did not make you sweat or breathe hard?
- How often have you exercised to strengthen or tone muscles in the past 7 days?

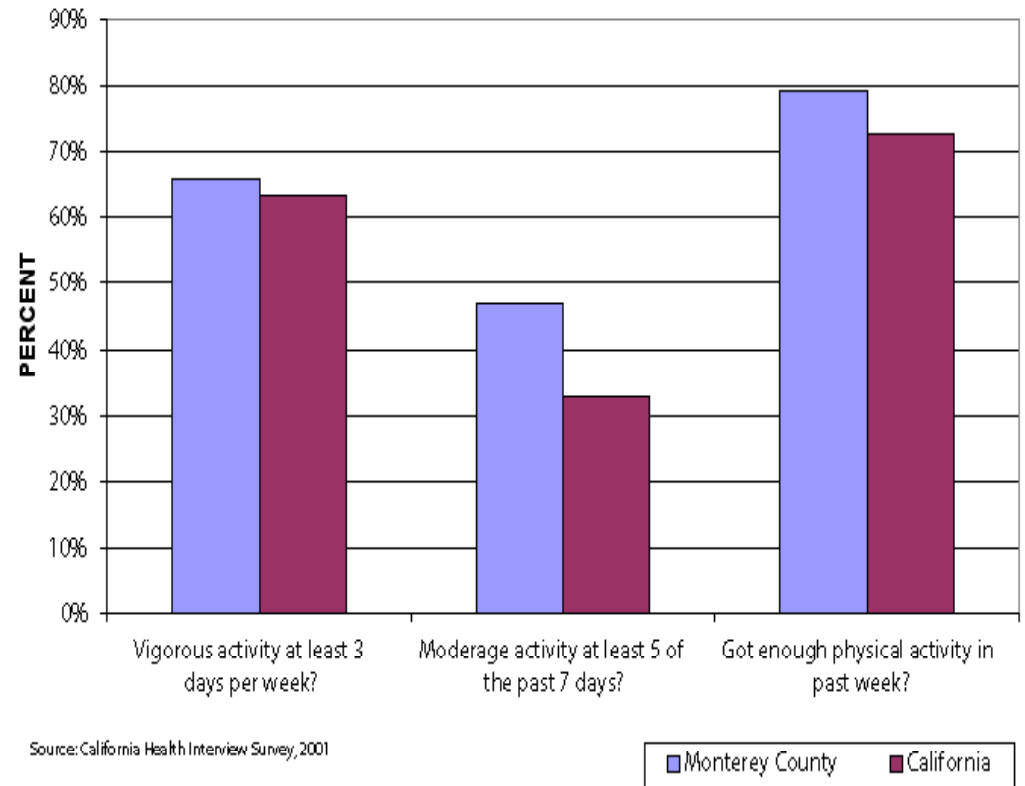
How are we doing?

California Health Interview Survey

The CHIS (2001) results reveal that nearly two-thirds of Monterey County adolescents between the ages of 12 and 19 years of age are engaging in vigorous physical activity at least three days per week. The percentage of adolescents with this level of physical activity in Monterey County is virtually identical to the percentage in California.

Nearly one-half (47%) of Monterey County adolescents responded

ADOLESCENTS (AGES 12-19) WHO ANSWERED "YES" TO QUESTIONS ON PHYSICAL ACTIVITY



California Healthy Kids Survey Monterey County Children Exercise on at Least 3 of the Past 7 days						
Frequency	Grade 7		Grade 9		Grade 11	
	1999-2000	2002-2004	1999-2000	2002-2004	1999-2000	2002-2004
Exercise or do a physical activity for at least 20 minutes that made you sweat or breathe hard	77%	76%	78%	75%	67%	66%
Participate in a physical activity for at least 30 minutes that did not make you sweat or breathe hard	not asked	47%	50%	54%	54%	51%

California Healthy Kids Survey Monterey County Children Frequency of Exercise to Strengthen or Tone Muscles in the Past 7 days						
Frequency	Grade 7		Grade 9		Grade 11	
	1999-2000	2002-2004	1999-2000	2002-2004	1999-2000	2002-2004
0 days	na	14%	14%	13%	21%	22%
1-2 days	na	26%	22%	26%	21%	26%
3 or more days	na	60%	63%	61%	58%	52%

that had engaged in moderate physical activity at least five of the last 7 days. In comparison, only one-third (33%) of adolescents state-wide indicated that they engaged in that amount of physical activity in the past week.

California Healthy Kids Survey

The CHKS survey results indicate that most students are getting at least 20 minutes of vigorous exercise at least 3 times a week. Approximately 76% of 7th grade students, 75% of 9th grade students, and 66% of 11th grade students reported that they exercised or did a physical activity for at least 20 minutes that made them sweat or breathe hard on at least 3 of the past 7 days. These results reflect a slight decrease, between 1 and 3 percentage points, compared to 1999/2000.

In addition, the CHKS survey results indicate that about one-half of students are getting 30 minutes of moderate exercise at least 3 times a week. Approximately, 47% of 7th grade students, 54% of 9th grade students, and 51% of 11th grade students reported that they exercised or did a physical activity for at least 30 minutes that did not make them sweat or breathe hard on at least 3 of the past 7 days. These results reflect a slight increase—4 percentage points—among 9th grade students, but a slight decrease—3 percentage points—among 11 grade students compare to 1999/2000. Data for 7th grade students from 1999/2000 was not available.

In response to a question on the frequency of exercise “to strengthen or tone muscles in the past seven days”, irrespective of duration or intensity, more than one-half of students reported 3 or more days of exercise. Among 7th grade students, 14% reported no days, 26% reported 1 or 2 days, and 60% reported 3 or more days of exercise. Among 9th grade students, 13% reported no exercise, 26% reported 1 or 2 days, and 61% reported 3 or more days. The 11th grade students reported a lower frequency of exercise than the younger students. Approximately 22% of 11th grade students reported no days of exercise, 26% reported 1 to 2 days, and only 52% reported 3 or more days or exercise. The percentage of 9th and 11 students exercising to strengthen or tone their muscles 3 or more days in the past week declined slightly—2 and 6 percentage points respectively—compared to 1999/2000. Data for 7th grade students from 1999/2000 was not available.

Physical Fitness Level

In addition to the survey data on the frequency and intensity of physical activity of children, there is data available on the level of fitness level of local students in grades 5, 7, and 9 from the California Physical Fitness Test. The California Physical Fitness Test requires students to perform specific fitness tasks and compares performance to criterion-referenced standards for each fitness areas. The Cooper Institute established the standards using current research, expert opinions, and known relationships. These standards represent a level of fitness that offers some protection against the diseases associated with physical inactivity.

What is the indicator?

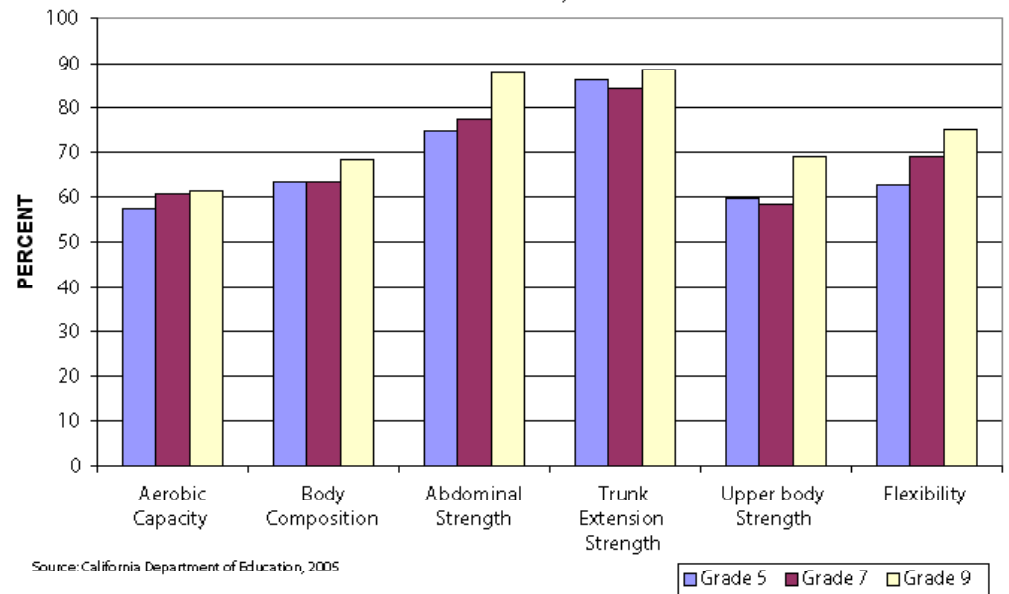
The California Physical Fitness Report (2004-2005) details the percentage of local 5th, 7th, and 9th grade students that are in the healthy fitness zone (HFZ) on each of six physical fitness tasks: aerobic capacity, body composition, abdominal strength, trunk extension strength, upper body strength, and flexibility.

How are we doing?

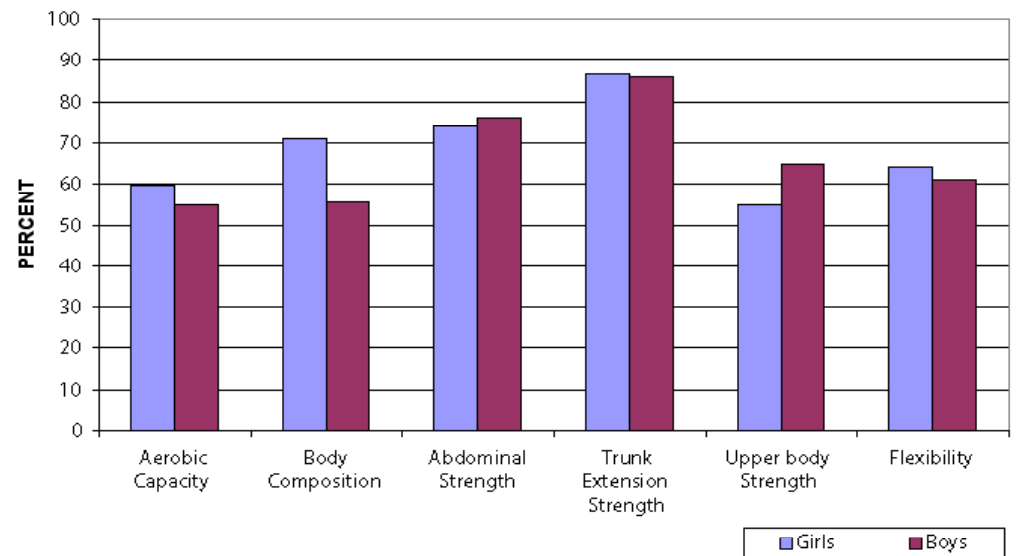
For 5th grade students, 57% were in the healthy fitness zone for aerobic capacity, 63% for body composition, 75% for abdominal strength, 86% for trunk extension strength, 60% for upper body strength, and 63% for flexibility. Only 20% of 5th grade students were in the healthy fitness zone for all 6 standards. Approximately 66% of 5th grade students achieved 4 or more of the fitness standards, while 34% achieved 3 or fewer of the fitness standards. At the 5th grade level, a higher percentage of girls were in the healthy fitness zone in 4 of the 6 fitness areas; only on the tests of abdominal strength and of upper body strength did boys outperform girls.

For 7th grade students, 61% were in the healthy fitness zone for aerobic capacity, 64% for body composition, 78% for abdominal strength, 84% for trunk extension strength, 59% for upper body strength, and 69% for flexibility. Only 22% of 7th grade students were in the healthy fitness zone for all 6 standards. Approximately 68% of 7th grade students achieved 4 or more of the fitness standards, while 32% achieved 3 or fewer of the fitness standards. At the 7th grade level, a higher percentage of girls were in the healthy fitness zone in 4 of the 6 fitness areas: aerobic capacity, body composition, trunk

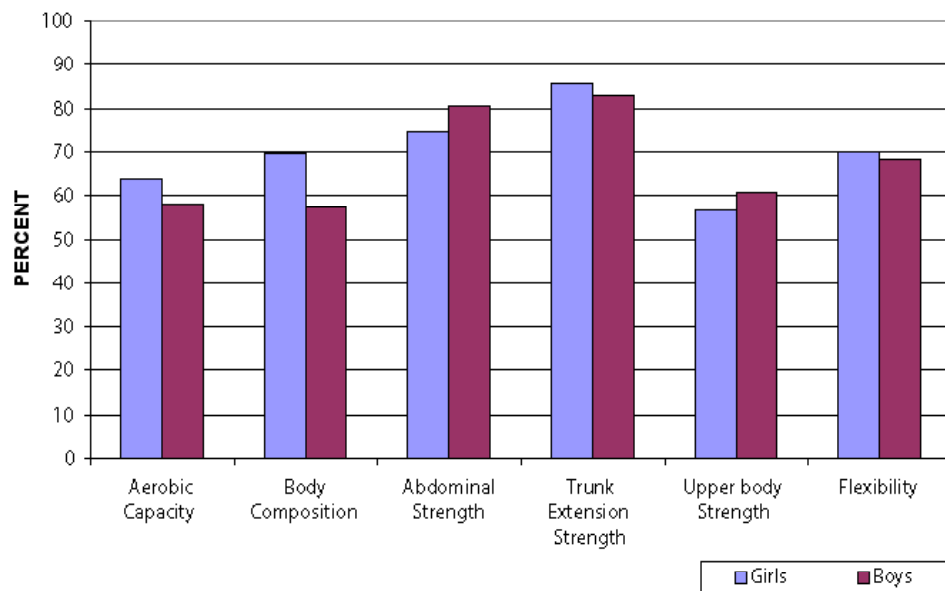
MONTEREY COUNTY STUDENTS IN HEALTHY FITNESS ZONE FOR PHYSICAL FITNESS TASKS, 2004-2005



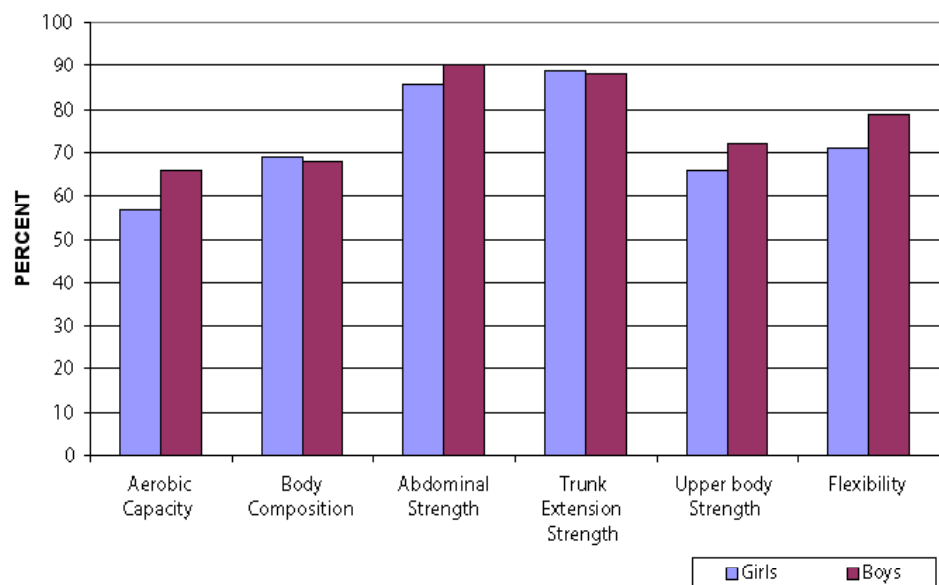
5th GRADE STUDENTS IN HEALTHY FITNESS ZONE FOR PHYSICAL FITNESS TASKS, BY GENDER



7th GRADE STUDENTS IN HEALTHY FITNESS ZONE FOR PHYSICAL FITNESS TASKS, BY GENDER



9th GRADE STUDENTS IN HEALTHY FITNESS ZONE FOR PHYSICAL FITNESS TASKS, BY GENDER



Television Viewing and Computer Use

extensor strength and flexibility, and flexibility. A higher percentage of boys were in the healthy fitness zone on the abdominal strength and upper body strength tests.

For 9th grade students, 61% were in the healthy fitness zone for aerobic capacity, 68% for body composition, 88% for abdominal strength, 88% for trunk extension strength, 69% for upper body strength, and 75% for flexibility. Only 29% of 9th grade students were in the healthy fitness zone for all 6 standards. Approximately 78% of 9th grade students achieved 4 or more of the fitness standards, while 22% achieved 3 or fewer of the fitness standards. At the 9th grade level, boys outperformed girls in 4 of the 6 fitness areas. Girls outperformed boys in two areas – body composition and trunk extension strength.

Compared to students statewide in 2004-2005, a lower percentage of local 5th grade students performed in the healthy fitness zone in all six fitness standards. At the 7th grade level, a higher percentage of Monterey County students performed in the healthy fitness zone on one standard – aerobic capacity. However, local 9th grade students performed better than students statewide in all six of the fitness standards.

Sedentary lifestyles and physical inactivity may be risk factors for obesity in youth. Greater reliance on television and computers for entertainment might be associated with declining participation in physical education programs. The relationship between television viewing and the child and adolescent obesity epidemic is a significant concern. Children who watch four hours or more of television per day weigh significantly more than children watching fewer than two hours per day. According to the UC Berkeley's Center for Weight and Health, television viewing is a concern not only because it displaces physical activity time, but because it also provides opportunities for snacking and exposure to junk food advertising.

The American Academy of Pediatrics has issued guidelines recommending that parents limit their children's TV viewing to not more than two hours of quality programming a day.

What is the indicator?

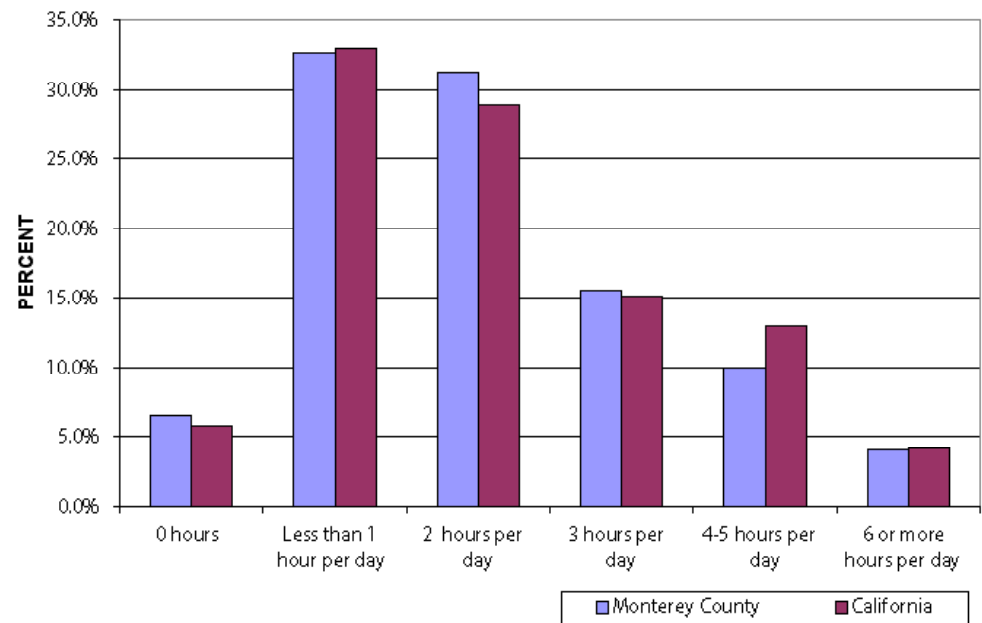
California Health Interview Survey (CHIS), 2001, asked questions on the amount of television viewing and computer use on weekdays among children and adolescents between the ages of 3 years and 18 years.

How are we doing?

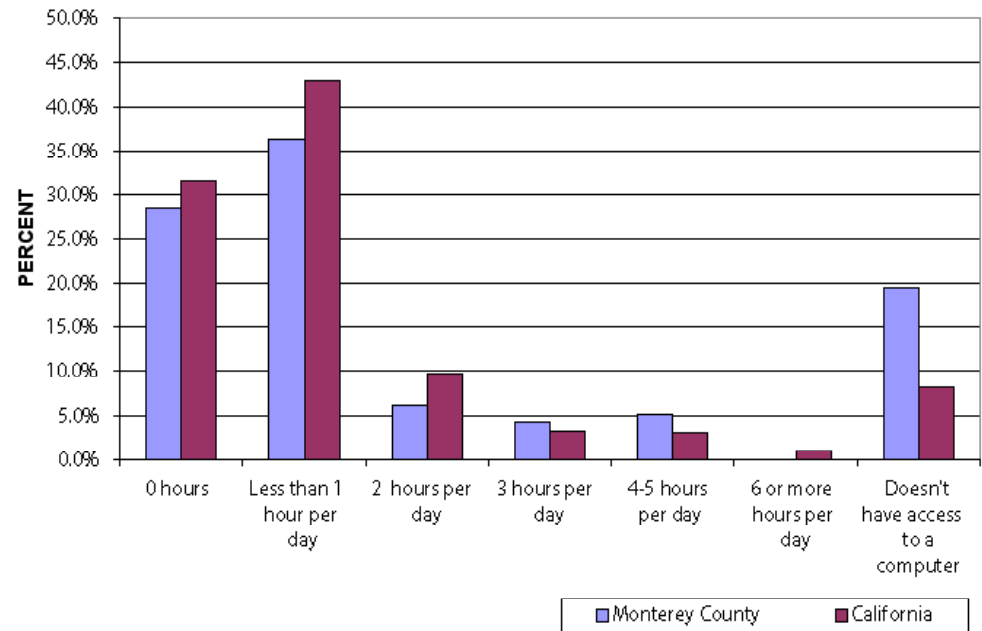
In Monterey County, approximately 6% of children and adolescents watched no television on weekdays, and 33% watched less than 1 hour per day, and 32% watched 2 hours per day. Approximately 30% of Monterey County children watched 3 or more hours of television per day. The results for Monterey County were similar to the results statewide. In California overall, 6% of children watched no television, 33% watched less than 1 hour per day, 29% watched 2 hours per day, and 32% watched 3 or more hours per day.

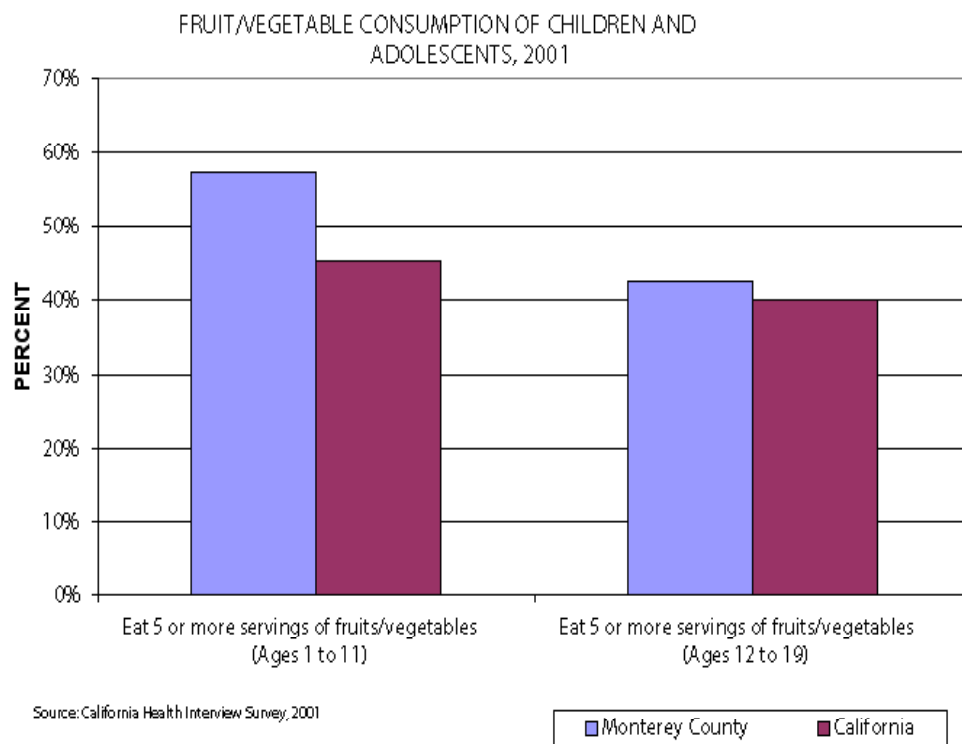
In Monterey County, in response to the CHIS question on weekday computer use, 29% of children and adolescents indicate they did not use a computer, 36% reported less than one hour per day, and 16% two or more hours per day. In addition, 19% indicated they did not have access to a computer. Statewide, only 9% of children and adolescents did not have access to a computer.

AMOUNT OF T.V. WATCHING ON WEEKDAYS, 2001



HOURS OF COMPUTER USE ON WEEKDAYS, 2001





Nutrition, Diet, and Food Choices

Poor diet and nutritional practices lead to excessive calorie intake and are a significant contributor to overweight and obesity. Dietary factors associated with risk of overweight in children include high fat intake, low daily fruit and vegetable intake, snack food consumption, and meal skipping.

What is the indicator?

California Health Interview Survey (CHIS) 2001, question of children (ages 1-11) and adolescents (ages 12-17) regarding eating 5 servings of fruits and vegetables a day.

California Healthy Kids Survey (1999/2000, 2002/2004) questions of 7th, 9th, and 11th grade students regarding their consumption of fruits, vegetables, soda, and eating of breakfast.

How are we doing?

California Health Interview Survey

In Monterey County, only 58% of children ages 1 to 11 are eating 5 or more servings of fruits and vegetable each day. Among adolescents, the rate is even lower, with only 42% eating the recommended 5 servings of fruits and vegetables each day. However, children and adolescents are doing better with respect to fruit and vegetable consumption than their peers statewide. Only 45% of children ages 1 to 11, and 40% of adolescents ages 12 to 17 eat five servings of fruit and vegetables each day.

California Healthy Kids Survey

Survey data was also available on fruit and vegetable consumption for Monterey County children in grades 7, 9, and 11. Among 7th grade students, 77% reported drinking 100% fruit juices at least once each day, while 81% eat fruit at least once a day, and 76% eat vegetables at least once each day. Among 9th grade students, 70% reported drinking 100% fruit juices at least once each day, while 74% eat fruit at least once a day, and 73% eat vegetables at least once each day. Among 11th grade students, 73% reported drinking 100% fruit juices at least once each day, while 74% eat fruit at least once a day, and 77% eat vegetables at least once each day. At each of these grade levels, adolescents in Monterey County showed sig-

California Healthy Kids Survey Monterey County Children Eating/Drinking of Fruits and Vegetables at Least Once per day						
	Grade 7		Grade 9		Grade 11	
	1999-2000	2002-2004	1999-2000	2002-2004	1999-2000	2002-2004
100% fruit juices	44%	77%	39%	70%	41%	73%
Fruit	46%	81%	39%	74%	42%	74%
Vegetables		76%		73%		77%
Five or more portions of any fruits or vegetables	42%	58%	35%	48%	33%	52%

Source: California Healthy Kids Survey, Monterey County Technical Reports, 1999-2000 & 2002-2004

nificant increases in the daily consumption of fruits and vegetables compared to 1999-2000.

There has also been a significant increase in the percentage of adolescents eating the recommended five or more servings of fruits and vegetables. In the most recent survey, 58% of 7th grade students reported eating five or more servings a day, compared to only 42% in 1999-2000. Among 9th grade students, 48% reported eating five or more servings a day in 2002/2004 compared to only 35% in 1999-2000. Among 11th grade students, 52% reported eating five or more servings a day in 2002/2004, which is a substantial increase compared to only 33% in 1999/2000.

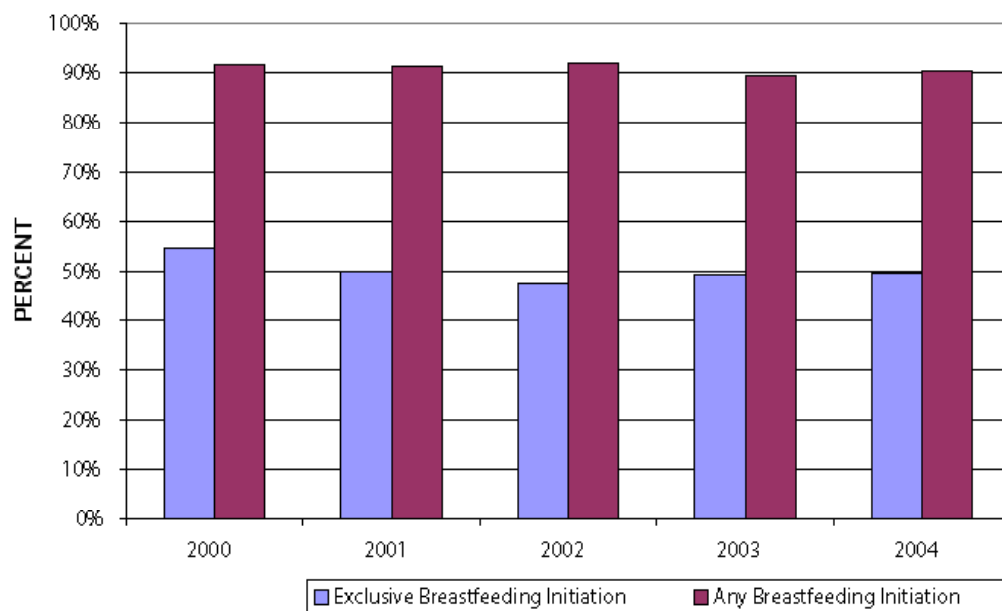
The CHKS also inquired about the frequency of consumption of soda beverages by adolescents in Monterey County. Among 7th grade students, 28% reported no drinking of soda, 30% indicated drinking soda once, and 42% reporting drinking soda 2 or more times in the past 24 hours. The results were similar for 9th grade students—28% reported no drinking of soda, 27% one instance of soda drinking, and 44% reporting 2 or more instances of drinking soda. Students in the 11th grade exhibited slightly lower levels of soda consumption. Just over one-third reported no drinking of soda in the last 24 hours, and an additional 30% reported drinking soda 1 time. Only 36% of 11th grade students indicated drinking soda 2 or more times in the past 24 hours.

Too few children in Monterey County are eating breakfast according to the CHKS survey results. Among 7th grade students only one-third reported eating breakfast, which is slightly higher than in 1999-2000. Among 9th grade students, the percentage of students eating breakfast declined from 58% in 1999-2000 to just 53% in 2002-2004. Among 11th grade students, the prevalence of breakfast eating remained constant at 55%.

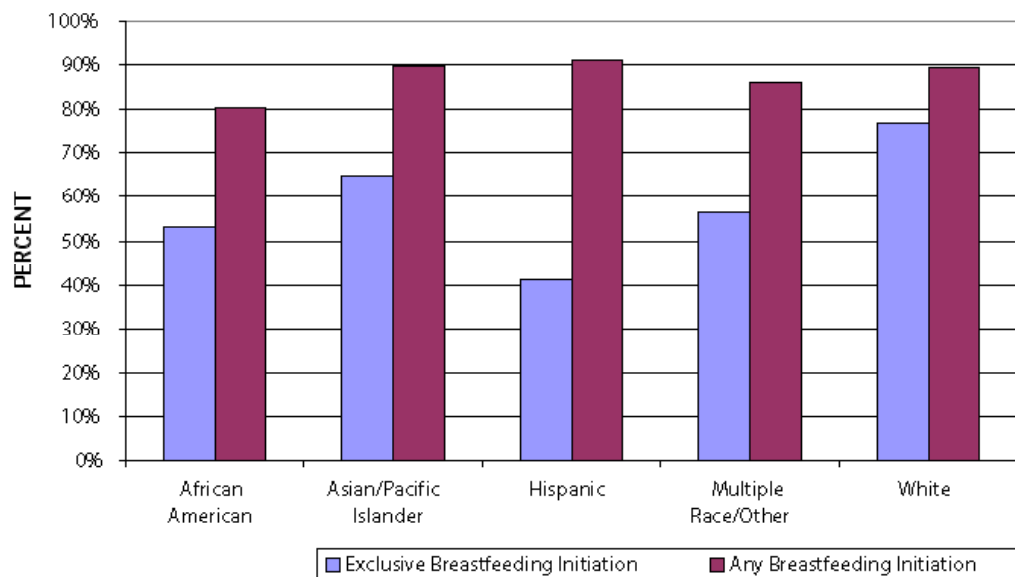
California Healthy Kids Survey, 2002/2004 Monterey County Children Drinking of Soda Drinks in the Past 24 hours			
Frequency	Grade 7	Grade 9	Grade 11
0 times	28%	28%	34%
1 time	30%	27%	30%
2 times	15%	16%	15%
3 times	10%	11%	8%
4 times	6%	6%	5%
5 or more times	12%	11%	8%

California Healthy Kids Survey Monterey County Children Eating Breakfast						
	Grade 7		Grade 9		Grade 11	
	1999-2000	2002-2004	1999-2000	2002-2004	1999-2000	2002-2004
Yes	31%	33%	42%	47%	45%	45%
No	69%	67%	58%	53%	55%	55%

MONTEREY COUNTY IN-HOSPITAL
BREASTFEEDING INITIATION, 2000-2004



MONTEREY COUNTY
IN-HOSPITAL BREASTFEEDING INITIATION BY ETHNICITY, 2004



Breastfeeding

Increasing breastfeeding rates is one of the Centers for Disease Control and Prevention (CDC) strategies for reducing childhood overweight. Extent and duration of breastfeeding have been found to be inversely associated with risk of obesity in later childhood. Children breastfed at any time are 15% to 25% less likely to become overweight, while children breastfed 6 months or longer are 20% to 40% less likely. Exclusive and sustained breastfeeding actually protects children from later obesity and even diabetes. The Healthy People 2010 national goal is 75% percent women breastfeeding in the early postpartum period. In addition, breastfeeding should be continued for at least the first year of life.

What is the indicator?

In-hospital breastfeeding (both exclusive breastfeeding and any breastfeeding) by women based upon data from the Newborn Screening Database, California Department of Health Services, Genetic Disease Branch.

How are we doing?

The percent of women initiating any breastfeeding has remained relatively constant in the last five years (2000-2004). Monterey County's 90% initiation rate of *any breastfeeding* meets the Healthy People 2010 national goal and exceeds the California average that ranged from 82% to 83.9% over the same five year period.

It is significant that approximately 40% of mothers who are initiating breastfeeding are also supplementing with formula. The American Academy of Pediatrics (AAP) recommends *exclusive breastfeeding* for optimal growth and development. Judging by the proportion of women exclusively breastfeeding in the hospital, very few women will meet the AAP recommendations.

The initiation rates of any breastfeeding while in-hospital show little variation with respect to race and ethnicity. However, there is considerable variation in exclusive breastfeeding initiation rates. In 2004, 75% of white women, 65% of Asian-Pacific Islander women, 57% of multiple or other race women, and 52% of African-American initiated exclusive breastfeeding in the hospital. Hispanic women, at 40%, had the lowest exclusive in-hospital breastfeeding initiation rate.

Community and Environment Factors

While it is easy to assign blame to the individual for eating too much and exercising too little, the scientific literature recognizes that obesity is a result of individual behavior influenced by social and environmental factors. However, strategies to reduce obesity have historically focused only on changing behavior. Not surprisingly, they have yielded only limited success. Insufficient attention has been devoted to the influence of people’s surroundings on their choices regarding eating and activity and what can be done to make healthy eating and regular physical activity the easiest choices. Addressing the obesity crisis requires both individual and community level interventions—supported by institutional practices and policies—that emphasize healthier eating and activity in all settings, including homes, schools, neighborhoods, health care and the media (California Endowment, 2005).

What are the indicators?

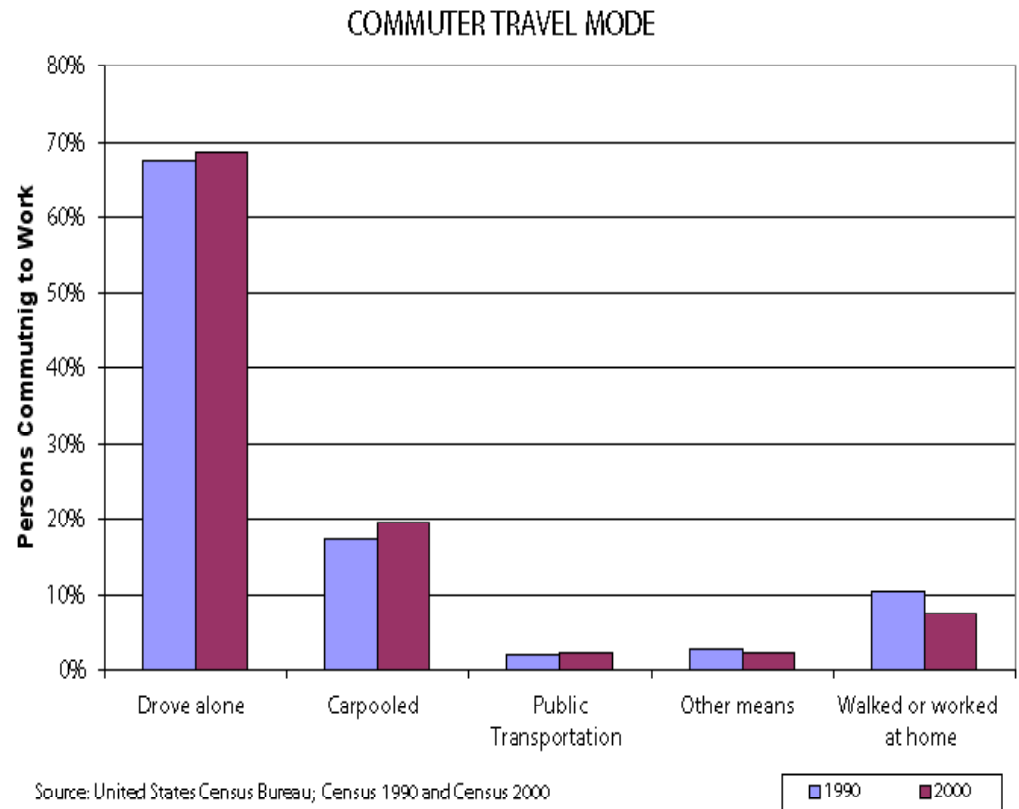
Although there is little local-level data available to measure the impact of these external forces directly, it should be clear, based upon the data presented, that factors beyond individual behavior are contributing to the dramatic increase in the prevalence of obesity of children in Monterey County.

While not comprehensive, there is some information that provides insight on the environmental and community factors that are having an impact locally on healthful behaviors related to the prevalence of obesity. A few such examples are provided in this report: U.S. Census data on commuting patterns of local workers, the ‘Walkable Communities’ Survey conducted by the Nutrition and Fitness Collaborative of the Central Coast, and campus surveys on physical activity conducted by Girls Incorporated participants in two local high schools.

How are we doing?

Commuting to Work, U.S. Census

One way to get a sense of how the built environment influences patterns of behavior that can contribute to obesity in our children is to look at how people typically commute to their jobs. Specifically, a greater dependence on automobiles for getting to work, and more time spent commuting to reach our jobs, suggest a physical environ-



Campus Survey Worksheet

1. What low-fat, fat-free, and healthy food items are offered for students to eat on campus?

Items	High School 1	High School 2
a. salad/fresh vegetables	√	√
b. low-fat dressing		
c. fresh fruit	√	
d. dried/canned fruit	√	√
e. fat-free milk		
f. low-fat milk	√	√
g. 100% fruit juice	√	
h. low-fat entrée		
i. vegetarian entrée		√
j. whole grain item		
k. others		

2. What kind of nutrition information is posted for foods on campus?

Information	High School 1	High School 2
a. low-fat		
b. fat-free		
c. nutrition label		
d. other	√ (food pyramid)	√ (none)

3. Where else on campus can students get food? What low-fat/fat-free/healthy items are available?

Types of places	High School 1	High School 2
Branded fast food	Subway	Subway
Snack bar	Baked chips	Pretzels
Food cart	Salad	Subway
Vending machine	water	Pretzels
Other		water

4. What promotions of healthy eating can be seen or heard at your school?

Promotions	High School 1	High School 2
posters/signs	√	
student paper		
over the public announcement		
parent newsletter		
other promotions		√ (none)

ment that is constructed in a way that discourages physical activity and therefore, increases the likelihood of being overweight.

According to Census 2000 data, 89% of all Monterey County workers traveled to work by automobile—69% drove alone and 20% carpoled. In contrast, only 4% walked to work, worked at home (4%), used public transportation (2%), or used other means (2%). Compared to similar data from 1990, slightly more people in Monterey County are using their cars to get to work (85% in 1990) and fewer people are walking to work or working at home (10% in 1990).

Moreover, the average travel time to work (one-way) for Monterey County residents who do not work at home was 23 minutes in 2000, compared to 18 minutes in 1990. In 1990, only 8% of Monterey County residents had a one-way commute time of 40 minutes or greater, compared to 14% of workers in 2000. The number of people with one-way commutes in excess of 60 minutes more than doubled between 1990 and 2000 – from 3% to 7%.

Nutrition and Fitness Collaborative of the Central Coast, Walkable Communities Survey

The results from this survey of residents in three Central Coast communities (Salinas, Watsonville, and Hollister) show that there are many barriers to safe walking in this region that are contributing to the obesity problem. Surprisingly, nearly 40% of residents consider themselves “non-walkers”. Among the barriers to walking identified in the survey were: sidewalks in disrepair, lights timed for vehicle flow not pedestrians, scary dogs, scary people, better freeways, and bigger shopping centers that are difficult to access by foot. However, there is encouraging news—many respondents indicated that they would walk more if communities were pedestrian friendly. Moreover, according to the authors, most of the barriers to walking identified in the survey can be overcome with simple changes in city planning and better enforcement of traffic and civil codes.

Girls Incorporated of the Central Coast, Smart Choices Program Campus Physical Activity Surveys & Campus Inventories

This past year, the girls participating in Girls Incorporated Smart Choices program in Soledad and Greenfield High Schools completed community action projects in which they identified barriers to students engaging in physical activity. The girls developed, distributed and analyzed surveys they received from over half of the student body.

Following is a summary of each project.

The goal of Soledad High School project was to have the school build private shower stalls in the girls and boys locker rooms. The girls developed an action plan that included developing, distributing, analyzing a survey, and presenting the results to the school board. The girls made a formal presentation to the school board in May 2005. The results of their survey show that only 1.7% of the girls and 8.4% of the boys have ever used the school's showers. The number one reason for not using the showers is because they are not private. 76% of the girls and 56.3% of the boys said that they would work out more in P.E. class if the showers were private.

In the Greenfield High School program, the goal of their project was to increase non-competitive after school physical activities. The action plan included developing, distributing and analyzing a student survey. They received surveys from 56% of the student body. The survey revealed that:

- 61.6% males and 79.6% females said yes, that they would participate in non-competitive after school physical activities. When asked what types of after school physical activities that boys and girls would like available in Greenfield, the most common response was swimming.
- The girls recommended that the City of Greenfield build an indoor swimming pool located at the High School or near the high school. This could be a shared pool between the high school and the city to benefit all Greenfield residents. They are also recommending that the city sponsor non-competitive after school physical activities at the high school. Having the physical activities at the school site would make it easier and more accessible to students.

Girls Incorporated program participants also conducted inventories of two high school campuses for this report during May 2005. To conduct their campus inventory, they utilized the *Campus Survey Worksheet* from California Project LEAN's *Playing the Policy Game*. The results of the inventory are provided in the accompanying tables (pages 18 and 19). While this information reflects just two area high schools, and is not necessarily representative of all areas high schools, the results provide a snapshot of how campus environments contribute to the physical activity and nutritional choices of high school students.

5. What promotions of physical activity can be seen or heard at your school?

Promotions	High School 1	High School 2
posters/signs		
student paper		
over the public announcement	√	√
parent newsletter		
other promotions		

6. Does your school require physical education in order for students to graduate?

High School 1	High School 2
Yes (3 years)	Yes (3 years)

7. In addition to physical education class, what school physical activity options and facilities do students use **during** school hours?

Physical activity options and facilities during school hours

	High School 1	High School 2
organized activity/sports		
playing fields		
gym/weight room	√	
basketball courts	√	
equipment check-out		
other, during school		√ (none)

8. What physical activity options and activities do students use after school hours? (This does not include competitive and/or varsity sports)

Physical activity options and facilities after school hours

	High School 1	High School 2
sports clubs/teams		
playing fields	√	
gym/weight room	√	√
basketball courts		
YMCA/YWCA	√	
boys/Girls clubs		
community sports leagues	√	
health clubs/gym	√	
other, after school		√ (open gym)

Where do we stand?

Clearly, child obesity is a significant problem in Monterey County. As the data illustrates, the prevalence of obesity in our community is greater than either in the state or the nation. In addition, too few children are getting the levels of physical activity and nutrition they need for a healthy life. Moreover, the same troubling patterns of racial, ethnic, and income disparities in obesity-related factors that are evident at the national level are also present in our community.

Reversing the current trends in overweight, physical activity, and nutritional practices will require the efforts of the entire community. Solving a multi-faceted problem such as obesity necessitates a “multi-sector, shared-responsibility approach, supported by ongoing revenues” (California Endowment, 2005). Fortunately, a recent statewide survey by the California Endowment suggests the public understands this need. In their survey, they found that nearly all Californians (92%) believe the problem of childhood obesity is serious, and 80% believe the problem has gotten worse. The survey results further indicate that a majority of California residents favor “a community approach to resolve the crisis, such as improvements to school health environments, and fast food restaurant nutrition labeling, rather than leaving it solely to individual children and their families.”

It appears the attitudes and opinions in Monterey County would mirror the findings from this survey. Already, many organizations, groups and coalitions, such as the Nutrition and Fitness Collaborative of the Central Coast, United Way of Monterey County’s Success by Six, Salinas Steps to Health, the Monterey County Health Consortium, the ACTION Council of Monterey County, the Healthy Mothers, Healthy Babies Coalition and Healthy Eating Lifestyle Principles (HELP) are working to effect change on both the individual and community level.

For some, the focus is on the healthy behavior of the individual — decreasing and preventing obesity and the diseases associated with chronic obesity — by promoting nutrition and fitness education through community groups, child care providers, schools, workplaces and the local media. Other programs emphasize the community and environmental factors that encourage overeating and sedentary lifestyles. Their work centers on policy change. The ACTION Council’s breastfeeding promotion project is focused on creating system’s change within local hospitals, promoting the Lactation Accommodation Law with employers and determining the extent and duration of exclusive breastfeeding among new Latina mothers.

In the past year, these efforts have resulted in successes: families are involved in nutrition and exercise programs at school sites and child care centers; three companies have participated in wellness programs, with two paying employees while attending; attention has been focused on markets, restaurants and schools to provide healthier meals and fresh food displays; youth have been trained to advocate for healthier policies in schools; there are Wellness Councils in 22 school districts; “Simply Fresh” is on TV; progress has been made on creating new revenue streams; breastfeeding education is provided at WIC and hospital sites; one hospital is “Baby Friendly” and others are moving in that direction; nurses at two hospitals are receiving lactation education; and local employers give verbal support to accommodating mothers in the workplace.

There have also been challenges: nutrition education is not covered by health care, so physicians need affordable referrals; schools are sometimes resistant because of administrative and teacher workload; awareness and change are slow; Latinas continue to have the lowest exclusive breastfeeding rate and few employers have actual private spaces for mothers to express milk, and the focus on policy rather than individual behavior is a difficult concept for some to grasp.

To meet those challenges, Monterey County groups working on obesity issues believe that more organizations must take a policy approach, long term support from schools for wellness programs is needed, reliable sources of funding must be identified, evaluation tools to measure effectiveness must be developed, the media should become active in limiting the marketing of junk foods to kids and in promoting breastfeeding, and groups should work together to develop and send a consistent message to the community and policy makers.

The data suggests local efforts are starting to pay dividends. Although the prevalence of obesity in Monterey County continues to be at a concerning level, there do seem to be some positive changes in individual behaviors linked to obesity. While further improvement is needed, children are reporting increased consumption of fruits and vegetables, greater amounts of physical activity and improved levels of physical fitness. Growing rates of obesity despite improvements in eating and increases in physical activity suggest that dealing with the obesity epidemic requires a greater emphasis on the community and environmental factors, and not just efforts aimed at modifying individual behaviors.

As the California Center for Public Health Advocacy states (2005), “The epidemic of childhood obesity will not be solved by calling for individual behavior change alone. To address this health crisis, state and local leaders must address the conditions in schools and communities that contribute to the epidemic and undermine parents’ efforts to protect their children’s health.”

In Monterey County, a focus on the various ways our external environment makes healthy options the most difficult for individuals is still missing in the public discourse. Two areas in particular, the “built environment” and breastfeeding, that receive little attention in the dialogue on child obesity, illustrate how external factors constrain individual choices.

These are not problems unique to Monterey County. As Richard Jackson, a physician and former California state public health officer, states, “Since the 1950s, community development patterns in the U.S. have centered around our cars, causing us to spend more time driving and less time walking. We have built an environment with tremendous obstacles to physical activity, seemingly doing everything we can to discourage healthy living, and creating an epidemic of obesity, type-II diabetes, heart disease, asthma, and other serious health problems.”

In communities where civic leaders have focused on addressing these issues from a systemic and policy perspective, it has been demonstrated that by designing neighborhoods to be more pedestrian friendly (with more sidewalks and fewer cars, moving more slowly) and closer to stores, schools and other elements of daily living, physical activity increases measurably.

As we know from other studies (*Newsweek*, October 3, 2005), people who live in mixed-use, more compact communities are “without even trying...exercising enough to ward off chronic illness.” Making the point that where we live and work can make it easier for us – or harder – to make healthy choices, the authors go on to say “If you live in a subdivision, work in an office park and can’t buy a stamp without getting on the interstate, going with the flow is enough to make you sick. Staying fit in such places has long been a lonely act of resistance. [We need] to launch a new kind of health campaign – one that focuses on improving people’s options instead of reforming their behavior.”

It is these community and environmental factors that underpin the pattern of greater risk of obesity in lower income communities in Monterey County. Does this mean that low-income families need more education, support and neighbor intervention than other families? Yes, but that is not the beginning or the end of the story.

Children, people with disabilities, the elderly and low income families all cope with decisions about daily living with fewer options at their disposal. Those with mobility, time and money can work around inconveniences and obstacles; those with fewer resources are more likely to be at the mercy of their environment.

In Monterey County, where the cost of living is high and wages for most workers are low, individuals frequently work more than one job to make ends meet. In addition, jobs are often not in close proximity to places people live, so the pressures of time and money are great for a very large segment of our population. Clearly, these ingredients of life in our county contribute to the scarcity of time and money and further exacerbate the challenge our working families face in making healthy choices. The result is that parents are less likely to have the time to spend with their children engaged in physical activities, and to shop for and prepare healthy meals.

In order to address the obesity issue on a community-wide level and move beyond the focus on individual behaviors, it is incumbent upon our civic leaders to adopt policies that create an environment that fosters community health; where people live, shop, work, attend school and play in their home communities. Thus, building housing affordable to workers in the communities where they work and adopting local transportation and land use policies that promote mixed-use, walkable communities become priorities. This also means the adoption of “complete streets” policies to provide safe and convenient roadway access for people who walk, bicycle, or use wheel chairs.

No discussion of safe streets would be complete without raising the issue of public safety — both real and perceived. Over the past 15 years, the data reveals that violent crime rates have decreased, while the public’s perception of imminent danger remains high. Although the California Healthy Kids Survey reports that nearly 90% of children feel safe in their neighborhoods, parents drive their children to school and after school activities rather than allowing them to walk or take available public transportation. However, while neighborhood violence is a perceived threat in some areas of our county; in others, it is a genuine concern. It is dangerous for children, or adults, to walk and play in many of our neighborhoods. In Monterey County, as in communities across the country, the people most disproportionately affected by violence and crime are those living in poverty.

Community residents and students would likely increase their physical activity if they had greater access to school facilities, playgrounds, parks and recreation areas. And to encourage healthy eating rather than snacking, zoning and coding ordinances can be established that promote full service grocery

stores and farmers' markets in all neighborhoods, instead of convenience stores, especially in low income areas.

With respect to breastfeeding, the CDC promotes increasing breastfeeding rates as a proven strategy for reducing childhood obesity. Recent research concludes that exclusive and sustained breastfeeding actually protects children from later obesity and diabetes. Thus strategies that protect, promote and support exclusive breastfeeding are critical in the effort to reduce child obesity.

Interventions such as education, peer support and policy changes in hospitals and the workplace have been reported to impact breastfeeding initiation and duration. Breastfeeding education was reported to be effective in increasing rates in women from different income and ethnic groups while peer support programs were particularly effective among low-income women. The evidence suggests that training health care professionals results in increased knowledge. Similarly, hospital and maternity care policies implemented as a single intervention or in combination with others also impact breastfeeding rates.

The challenge presented by the call for increased breastfeeding rates underscores a need for stronger support and facilitation of breastfeeding in health-care, environmental policy and the community while continuing surveillance and evaluation. At a minimum, communities can benefit from collaborating with internal and external partners including local breastfeeding coalitions, hospital authorities, state and/or local health departments and other groups involved in promoting breastfeeding. [Centers for Disease Control and Prevention; Nutrition, Physical Activity, and Obesity Prevention Program, 2003]

As previously stated, in Monterey County Latinas have the lowest initiation rate of exclusive breastfeeding. While individual education through Women, Infants and Children (WIC) sites, Salinas Adult School, Community Hospital and some Medi-Cal providers is available, only WIC provides this education in Spanish. Many physicians continue to give pregnant women samples of formula and information about infant feeding provided by formula companies, as do some of the local hospitals. Peer support for these moms is limited to Salinas. And while labor and delivery and maternity care nurses at Natividad and Mee Memorial Hospitals are receiving training, comprehensive breastfeeding education is not included in physicians' education.

But the major factor that influences the duration of any breastfeeding is the workplace. Through its work, the ACTION Council has found that most employers and the general public are not aware of the Lactation Accommodation Law. Continuing education is needed to promote the law and its

enforcement. Accommodating mothers who work in the fields is a tremendous challenge, not only because of the nature of the work, but because the workers do not feel empowered to exert their right to a private place to pump milk — even if they are aware of the law. Although exclusive breastfeeding is the norm in Mexican culture, in Monterey County moms do not breastfeed when they return to work unless they work for an employer who already accommodates new mothers. Again, this disproportionately impacts low-income workers, who are reluctant to make demands on their employers because they fear for their jobs. Thus, policies that promote compliance with the Lactation Accommodation Law are essential to exclusive breastfeeding and its resultant health benefits.

Of course, confronting this epidemic at these various levels — improved individual behaviors and policy and systems change — will require a significant commitment of resources. However, in considering the potential costs of obesity prevention and intervention, it is important to bear in mind that there are significant costs associated with in-action. The economic cost of obesity to California alone in direct medical expenses, worker's compensation, and lost productivity is currently estimated at \$28 billion per year (Chenoweth, 2005). National costs associated with youth obesity increased 263% between 1979 and 1999. In fact, the medical care associated with obesity costs are greater than those associated with both smoking and problem drinking.

Given the skyrocketing cost of health care and the dramatic increase in the number of people that will need treatment for largely preventable obesity-related chronic diseases, the future costs — economic, social and environmental— of in-action will make current costs seem insignificant.

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Where Do We Stand?



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