

# HEALTH BRIEF

## Overweight & Obesity

### OVERWEIGHT AND OBESITY IN MONTEREY COUNTY

MONTEREY COUNTY HEALTH DEPARTMENT- PLANNING, EVALUATION, & POLICY UNIT

NOVEMBER 2015

#### CONTRIBUTING FACTORS

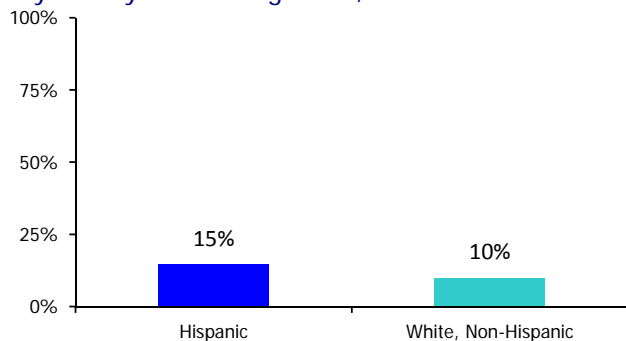
- Obesity is commonly the result of long-term imbalance between energy input (i.e. diet) and energy output (i.e. physical activity).
- Energy input and energy output are multifactorial and are strongly related to environmental influences.
- Public health agencies provide multi-strategy programs that address greater access to healthy nutritional and physical activity choices.
- Studies suggest that the risk of child obesity can be reduced to a moderate extent by breastfeeding to 6 months of age or older and delaying the introduction of solid foods until after 6 months of age.
- Individual awareness and policy changes are needed to reverse and prevent the many conditions that result in overweight and obesity among populations.
- Monitoring the percentages of Monterey County residents who obtain recommended amounts of physical activity and have access to healthy nutritional choices can help in planning appropriate programs and services.

#### OBJECTIVES

- The Healthy People 2020 objective is to reduce the proportion of children and adolescents ages 2-19 years who are overweight (having a BMI at or above the 85th percentile for height and weight) or obese (having a BMI at or above the 95th percentile for height and weight).
- The Healthy People 2020 objective for adults is to reduce the proportion of adults who are obese.

## OVERWEIGHT AND OBESE DATA

### Exhibit 1. Obesity of Children in a Federally Funded, Low Income Program by Ethnicity Monterey County Children Ages 0-4, 2010

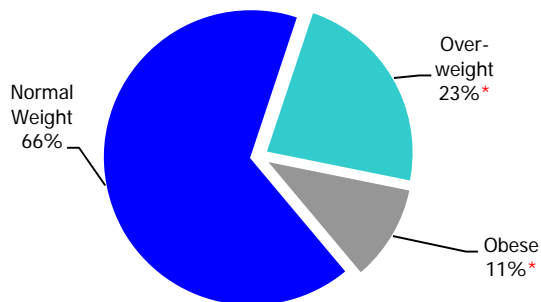


In 2010, 15% of low-income Hispanic children and 10% of low-income White non-Hispanic children ages 0-4 were obese.

Note: Data document children enrolled in the Child Health and Disability Prevention program. Only Hispanic and White Non-Hispanic data were available. Data were based on 2000 CDC growth chart percentiles for weight-for-length for children under 2 years of age and BMI-for-age for children 2 years of age and older.  $\geq 95$ th percentile category identifies obese children. Percentages were not calculated if  $< 100$  records are available for analysis after exclusions. Source: 2010 Pediatric Nutrition Surveillance Survey Table 16B.

### Exhibit 2. Weight Rankings for Teens

Monterey County Teens Ages 12-17, 2011, 2012, 2013, 2014 (combined data)

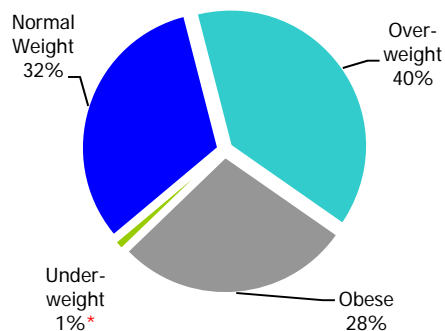


In the years 2011, 2012, 2013, 2014 combined, 11% of Monterey County teens ages 12 to 17 were obese, and 23% were overweight, although these numbers were statistically unstable.

\* Indicates a statistically unstable value. Note: This variable was created using age and gender specific BMI percentiles. This question was asked of respondents who were 12 to 17 years of age. Source: California Health Interview Survey, 2015.

### Exhibit 3: Weight Rankings for Adults

Monterey County Adults Ages 18+, 2011, 2012, 2013, 2014 (combined data)

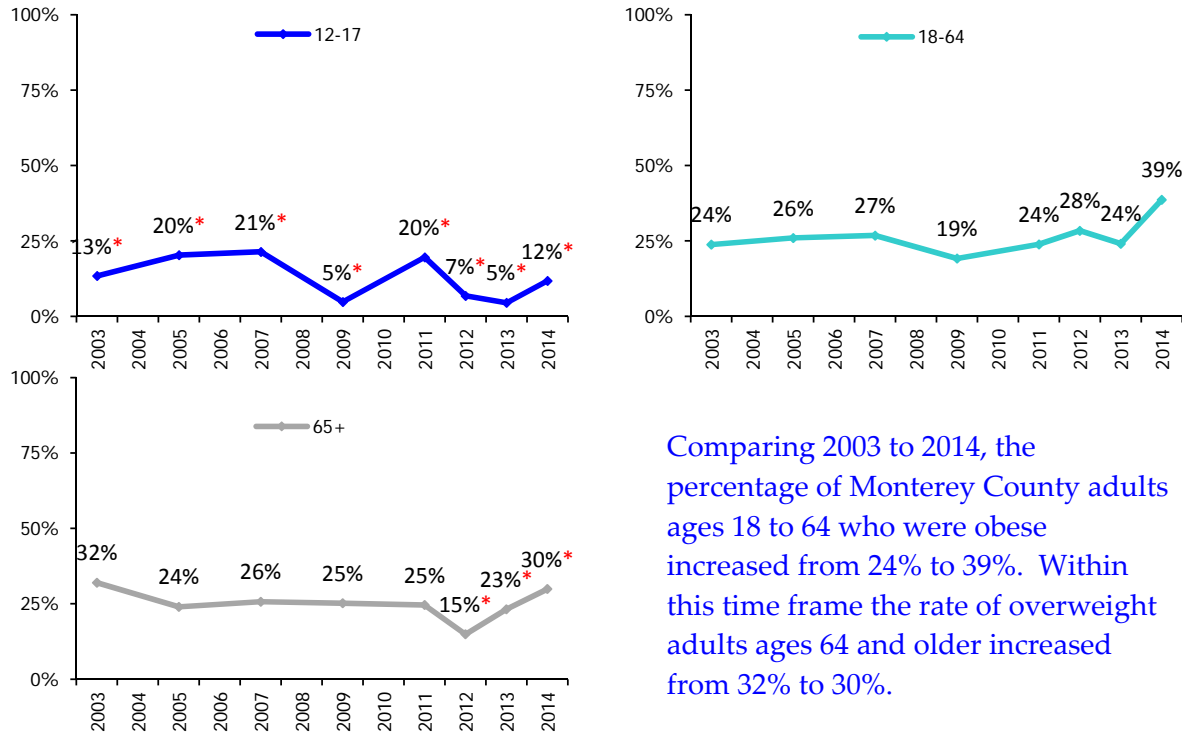


In 2011, 2012, 2013, 2014 combined, 39% of Monterey County adults ages 18+ were overweight and 28% were obese.

\* Indicates a statistically unstable value. Note: This question was asked of respondents who were 18 years of age or older. Source: California Health Interview Survey, 2015.

### Exhibit 4. Obesity ‡ Prevalence by Age Group

Monterey County Residents Ages 12 and Older, 2003, 2005, 2007, 2009, 2011, 2012, 2013, 2014



Comparing 2003 to 2014, the percentage of Monterey County adults ages 18 to 64 who were obese increased from 24% to 39%. Within this time frame the rate of overweight adults ages 64 and older increased from 32% to 30%.

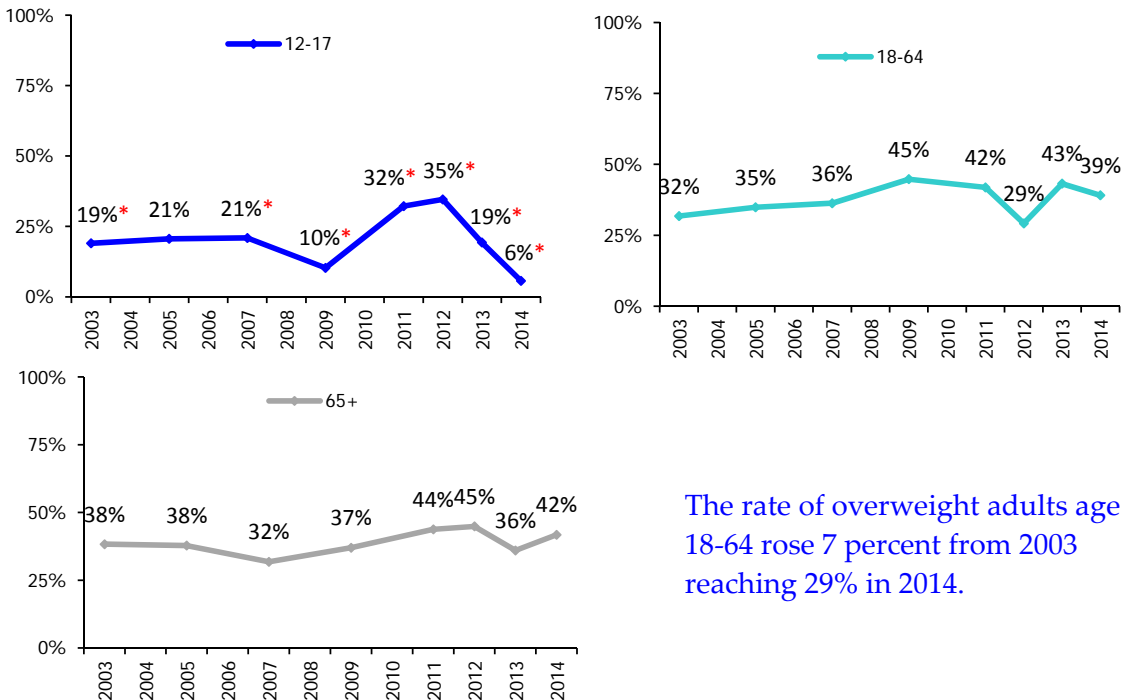
\* Indicates a statistically unstable value

Note: For ages 12-17, individuals with a Body Mass Index (BMI) in the highest 5th percentile with respect to age and gender were considered "overweight/obese." For ages 18 and over, "obese" is defined as individuals having a BMI of 30 or greater.

Source: California Health Interview Survey, 2015.

### Exhibit 5. Overweight ‡ Prevalence by Age Group

Monterey County Residents Ages 12 and Older, 2003, 2005, 2007, 2009, 2011, 2012, 2013, 2014

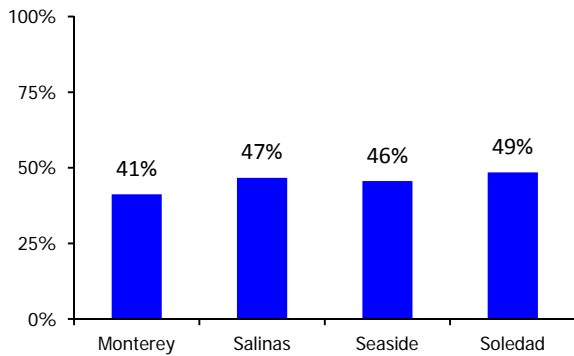


The rate of overweight adults age 18-64 rose 7 percent from 2003 reaching 29% in 2014.

Note: For ages 12-17, individuals with a Body Mass Index (BMI) in the 85<sup>th</sup>-95<sup>th</sup> percentile with respect to age and gender were considered "at risk of overweight." For ages 18 and over, "overweight" is defined as individuals having a BMI of 25 to 29.9.

Source: California Health Interview Survey, 2015.

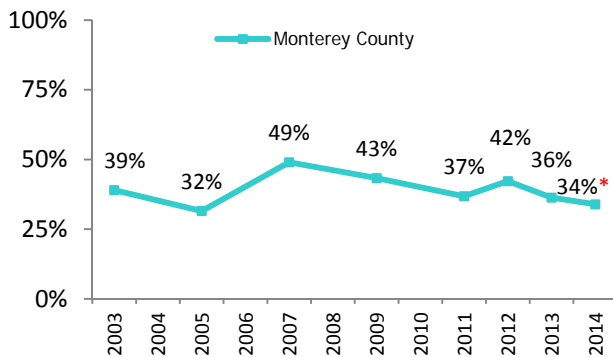
**Exhibit 6. Overweight/Obese Students by City**  
 Monterey County, 2010



In 2010, 49% of students in grades 5, 7, and 9 were overweight or obese in Soledad compared with 47% in Salinas, 46% in Seaside, and 41% in Monterey.

Source: Babey S. H., et al. (2012). Overweight and obesity among children by California cities, 2010. UCLA Center for Health Policy Research and California Center for Public Health Advocacy. Note: This question was asked of students in grades 5, 7, and 9.

**Exhibit 7. Percent of Monterey County residents who experienced food insecurity, 2003 to 2013**  
 (asked of those living at less than 200% of the Federal Poverty Level)



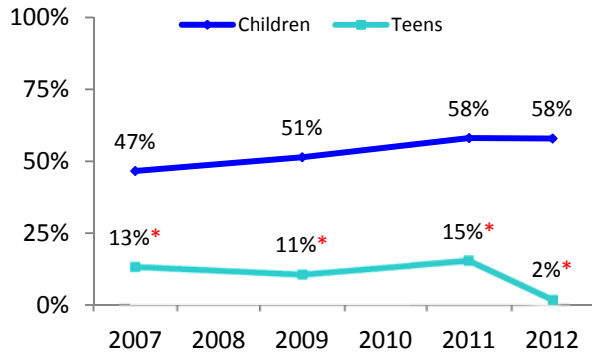
Food insecurity at 200% FPL in Monterey County has demonstrated an overall increase over the ten year period from 2001 to 2013. With a period high of 49.0% in 2007 and low of 31.5% in 2005, roughly one third of Monterey County residents living at the 200% FPL have been experiencing food insecurity.

\* Indicates a statistically unstable value  
 Source: California Health Interview Survey, 2015.

## NUTRITIONAL CHOICES

### Exhibit 8. Ate 5 or More Servings of Fruits and Vegetables Daily

Monterey County Children and Teens, 2007, 2009, 2011, 2012



In 2012, 58% of Monterey County children ages 2-11 ate five or more servings of fruits and vegetables daily.

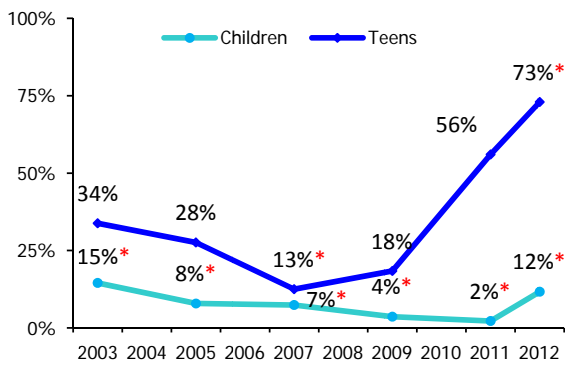
\* Indicates a statistically unstable value

Note: Children's results were reported by parent.

Source: California Health Interview Survey, 2015.

### Exhibit 9. Consumed Two or More Glasses or Cans of Soda on the Prior Day

Monterey County Children and Teens, 2003, 2005, 2007, 2009, 2011, 2012



The percentage of Monterey County teens who reported drinking two or more cans/glasses of soda per day was 73% in 2012, a huge increase from 28% in 2005.

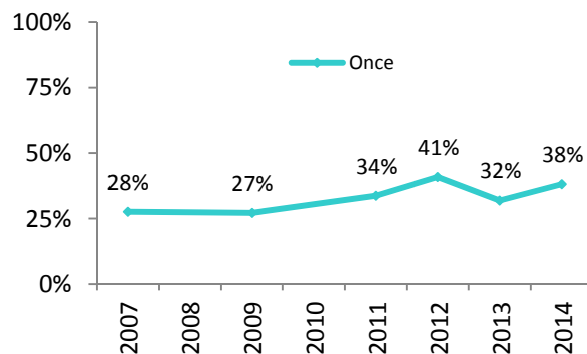
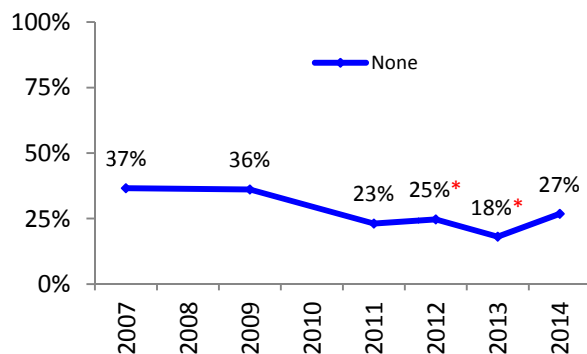
\* Indicates a statistically unstable value

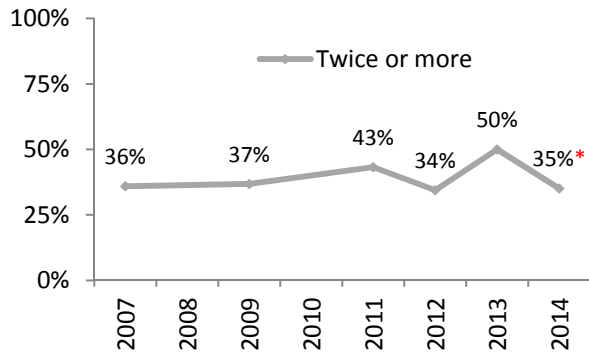
Note: Children's results were reported by parent. Survey question excluded diet and sugar-free drinks.

Source: California Health Interview Survey, 2015.

### Exhibit 10. Consumed Fast Food Items in the Past Week

Monterey County Children and Teens Ages 2 to 17, 2007, 2009, 2011, 2012, 2013, 2014





In 2014, about 38% of Monterey County children and teens ages 2-17 reported consuming fast food items once in the previous week compared to 27% in 2009.

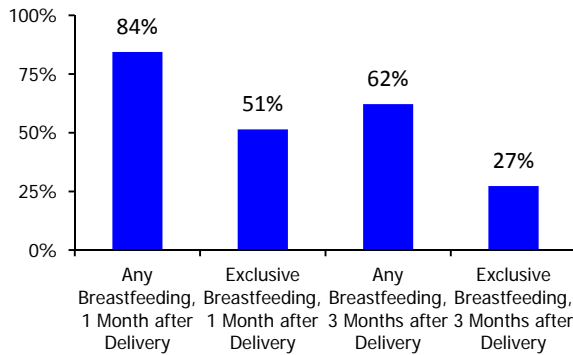
\* Indicates a statistically unstable value

Note: Survey question includes fast food items eaten at school, home, or at fast food restaurants (including carry out or drive through). Children's results were reported by parent.

Source: California Health Interview Survey, 2015.

### Exhibit 11. Breastfeeding

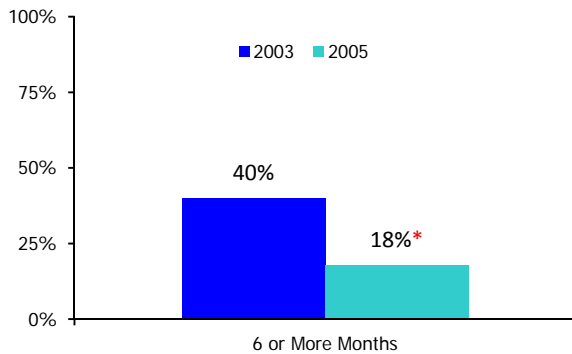
Monterey County Infants, Ages 0-3 Months, 2012



Source: California Department of Public Health, Maternal, Child Adolescent Health, 2015.

### Exhibit 12. Age at Which Child's Breastfeeding/Breast Milk Consumption Stopped

Monterey County Children Ages 0-3, 2003 and 2005



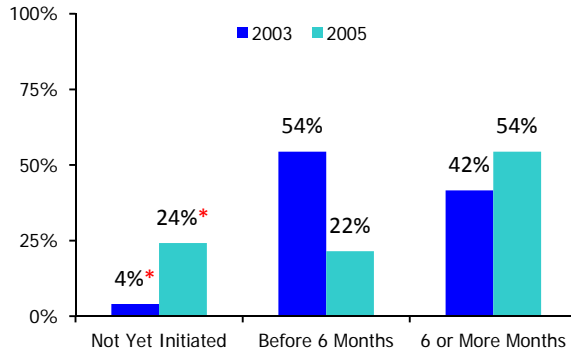
Of the parents whose children were breastfed or fed breast milk, 18% reported continuing this practice beyond 6 months of age in 2005 compared with 40% in 2003

\* Indicates a statistically unstable value

Note: Asked of parent whose children were breastfed or fed breast milk.

Source: California Health Interview Survey, 2015.

**Exhibit 13. Age of Solid Food Initiation**  
 Monterey County Children Ages 0 to 3, 2003 and 2005

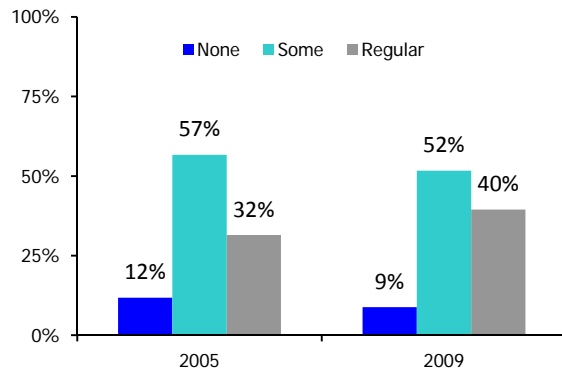


In 2003, 42% of Monterey County mothers initiated solid foods at or before 6 months; this increased to 54% in 2005.

\* Indicates a statistically unstable value  
 Note: Question not asked in 2007, 2009, or 2011-12.  
 Source: California Health Interview Survey, 2015.

**PHYSICAL ACTIVITY/SEDENTARY BEHAVIORS**

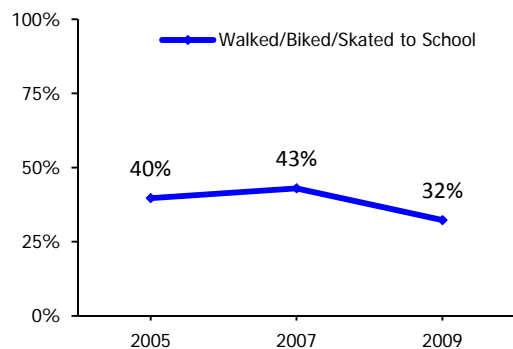
**Exhibit 14. Physical Activity Level**  
 Monterey County Adults Ages 18 and Older, 2005 and 2009



In 2009, 9% of Monterey County adults ages 18+ reported routinely getting no physical activity, 52% reported getting some activity, and 39% reported getting regular activity over the past 7 days. These data indicate some improvement over 2005.

Source: California Health Interview Survey, 2015.

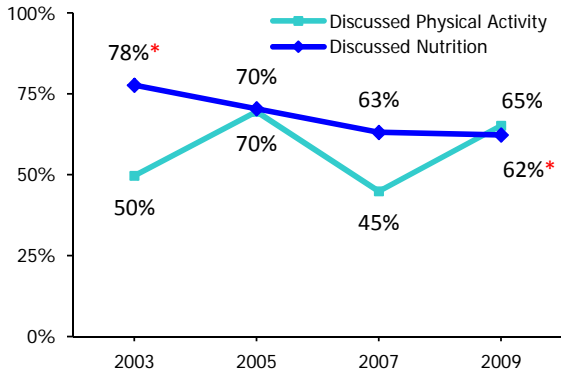
**Exhibit 15. Walked/ Biked/ Skated To or From School in Past Week**  
 Monterey County Teens Ages 12 to 17, 2005-2009



In 2009, only 32% of Monterey County teens reported that they walked, biked, or skated to and from school in the prior week, compared to 43% in 2007.

Question not asked in 2003 or 2011-12. Source: California Health Interview Survey, 2015.

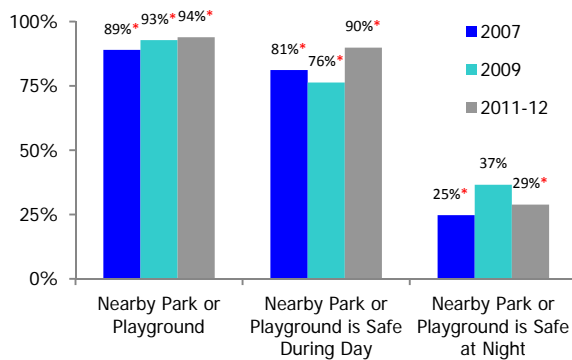
**Exhibit 16. Discussed Activity and Nutrition during Last Physical Exam**  
 Monterey County Teens Ages 12 to 17, 2003-2009



\* Indicates a statistically unstable number.  
 Note: Question not asked in 2011-12.  
 Source: California Health Interview Survey, 2015.

In 2009, 65% of Monterey County teens reported discussing physical activity with their doctor during their last physical exams – an increase from 45% in 2007. From 2007 to 2009, the percentage of Monterey County teens who reported discussing nutrition with their physician during their last physical exams remained consistent; however, not all of these percentages were statistically stable.

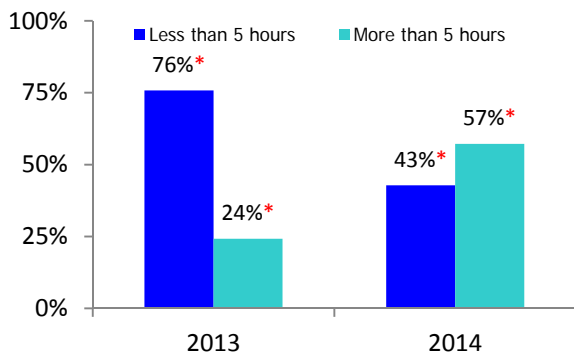
**Exhibit 17. Availability and Safety of Nearby Opportunities for Physical Activities**  
 Monterey County Teens Ages 12 to 17, 2007 to 2011-12



\* Indicates a statistically unstable value.  
 Note: This question was not asked in 2003 or 2005.  
 Source: California Health Interview Survey, 2015.

In 2011-12, 94% of Monterey County teens ages 12-17 reported there was a park, playground, or open space located within walking distance of their home; 90% of those teens reported the location was safe during the day, and 29% reported it was safe at night; however, these numbers were statistically unstable.

**Exhibit 18. Time Spent on Sedentary Activities per day during Weekends**  
 Monterey County Teens Ages 12 to 17, 2013, 2014



\* Indicates a statistically unstable value.  
 Source: California Health Interview Survey, 2015.

In 2014, 57% of Monterey County teens ages 12-17 spent five or more hours per day engaging in sedentary activities on weekends, compared to 24% in 2013.



### **In Schools**

- The Network for a Healthy California program provides nutrition education for students, teachers, and parents in nineteen elementary schools in and around Salinas, South County, North Monterey County and on the Monterey Peninsula. Some of the activities offered are:
  - Training staff to incorporate nutrition and garden education; how to weave effective physical activity programs into the school day; revising fundraising activities that involve sales of foods and beverages; providing healthy options for classroom celebrations.
  - Providing Harvest of the Month (HOTM) nutrition education and taste testings to the students (k-8). Providing HOTM preschool nutrition activity bin to teachers in six preschools.
  - Training afterschool staff to incorporate nutrition education, physical activity and cooking with the kids into the afterschool structure.
  - Collaborating with food service staff to provide trainings, salad bar orientation or other cafeteria activities to support the concept of encouraging students to eat more fruits and veggies.
  - Providing schools with a healthy fruit and vegetable tile mural, created by the students to further promote a healthy school and neighborhood.
- Walk to School Days, Bike to School Days, Fitness Days, Harvest Fairs and other events offered at schools, providing tastings, physical activity and information on healthy food and beverage education.
- *Food for Thought; Fruit and Veggies 101; I am Moving, I am Learning* are nutrition and physical activity curriculum utilized by teachers for children ages 3-5, enrolled in over 40 Monterey County Head Start classes.
- Teacher training, in-classroom nutrition education sessions, food demonstrations, and physical activities are promoted in 19 Monterey County schools, as are parent education sessions focusing on improved nutrition and the importance of physical activity.

### **In the Community**

- The Network for a Healthy California program provides nutrition education at sites and events attracting Latino families with the goal of empowering the Latino population with healthy eating and physical activity messages. The primary venues are Latino festivals and farmers'/flea markets in communities with high Latino populations.

- The Network for a Healthy California program provides resources and support to help grocers in low-income communities to more effectively market their produce, provide store tours, and seasonal produce tastings to help increase the consumption and purchase of fruits and vegetables among CalFresh eligible residents.
- The Network for a Healthy California program provides nutrition, healthy beverage, and physical activity education and training, plus resources, food, and physical activity demonstrations to low income housing unit residents in hopes to develop champion residents in sustaining the program.
- WIC (Women, Infants and Children), a federally-funded health and nutrition program for women, infants, and children, helps income-qualifying families by providing checks for buying healthy supplemental foods from WIC-authorized vendors, providing nutrition education, and help finding healthcare and other community services.

### **In Organizations**

- The YMCA of Salinas, Monterey, and Soledad provide structured physical activity and nutrition education programming to after-school participants.
- The Boys and Girls Clubs of Monterey County provide programs emphasizing nutrition, physical activity, and overall healthy lifestyles.
- JUST RUN, a program of the Big Sur International Marathon, assists in the development of school-based running clubs, which resulted in over 8,000 Monterey County children running over 256,000 miles during the 2012-2013 school year.

### **By Health Providers**

- Central California Alliance for Health offers “Healthy Weight for Life,” a program for children ages 2-18 years in Monterey, Santa Cruz, and Merced counties.
- Natividad Medical Center Resident Training program provides obesity and diabetes training in clinical chronic care management to Center for Community Advocacy Promotoras and Sun Street Center clients.
- Healthy Eating Lifestyle Principles, Inc. (HELP) is a non-profit agency whose mission is to promote healthy eating, physical activity, and the increased consumption of fresh fruits and vegetables among youth and adults. Programs include after school activities, family nights, parent education, and community television broadcasts.
- Community Hospital of the Monterey Peninsula provides a Shapedown program for children focusing on eating healthy, making healthy lifestyle changes and being active. They also have a “Kids Eat Right” program that provides nutrition education over 5 weeks in several afterschool programs throughout the County during the school year.

## *DEFINITIONS*

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- Body Mass Index (BMI) is used to determine if an individual is overweight or obese.
- BMI is calculated by dividing a person's body weight by their height squared and, if the weight and height used are in pounds and inches, multiplying by a constant.
- BMI levels above the 85<sup>th</sup> and below the 95<sup>th</sup> classify overweight and above the 95<sup>th</sup> percentile of the population classify obese conditions for children and youth.
- The 85<sup>th</sup> and 95<sup>th</sup> percentiles BMI are standardized using national growth charts for age and sex for children and adolescents.
- Adults are classified as overweight at a BMI greater than 25, and as obese at a BMI greater than 30.

## *DATA SOURCES*

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- The Pediatric Nutrition Surveillance System (PedNSS) is a public health surveillance system that monitors the nutritional status of low-income children in federally funded maternal and child health programs. Data on birthweight, breastfeeding, anemia, short stature, underweight, and overweight are collected for children who attend public health clinics for routine care, nutrition education, and supplemental food.
- The California Health Interview Survey (CHIS) was conducted in Monterey County in 2001, 2003, 2005, 2007, 2009, and 2011-12. CHIS is a computer assisted telephone interview survey that uses a geographically stratified random-digit-dial sample. The survey's objective is to produce statistically reliable estimates for local areas and for different racial and ethnic populations in the state of California. CHIS is conducted every two years with many core questions repeated in each survey for measuring significant shifts over time. New questions are also added each survey year to address emerging concerns that are important for planning and policy development. Survey questions were not always available for every year. Survey responses for years 2001 and 2003 include those from residents of San Benito County; however, the small numbers of San Benito County survey respondents were such that when weighted, the data largely represent Monterey County residents.

### CHIS Sample Sizes by Age Group for Monterey County, 2001 to 2011-12.

Survey Year	Children 0-11 years	Teens 12-17 years	Adults 18+ years
2001	213	102	800
2003	126	44	542
2005	158	62	554
2007	131	44	626
2009	131	49	598
2011-12	95	36	512
2013	44	15	302
2014	32	18	189

Survey results are presented according to three measures:

1. the prevalence (%) for the county population by specified age group.
2. the 95% confidence interval which is a range within which the actual value lies.
3. the estimated population in the county that is affected, based on the prevalence.



- The Behavioral Risk Factor Surveillance System (BRFSS) is a state-based system of health surveys that collects information on health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury. For many states, the BRFSS is the only available source of timely, accurate data on health-related behaviors. BRFSS was established in 1984 by the Centers for Disease Control and Prevention (CDC); currently data are collected monthly in all 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and Guam. More than 350,000 adults are interviewed each year, making the BRFSS the largest telephone health survey in the world. States use BRFSS data to identify emerging health problems, establish and track health objectives, and develop and evaluate public health policies and programs. Many states also use BRFSS data to support health-related legislative efforts.
- The Youth Risk Behavior Surveillance System (YRBSS) was developed in 1990 to monitor priority health risk behaviors that contribute markedly to the leading causes of death, disability, and social problems among youth and adults in the United States. The YRBSS includes national, state, territorial, tribal, and local school-based surveys of representative samples of 9th through 12th grade students. These surveys are conducted every two years, usually during the spring semester. The national survey, conducted by CDC, provides data representative of 9th through 12th grade students in public and private schools in the United States. The state, territorial, tribal, and local surveys, conducted by departments of health and education, provide data representative of public high school students in each jurisdiction.