

## Childhood Obesity, Nutrition, and Fitness

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***“Obesity constitutes one of the most important medical and public health problems of our time.”*** Philip James, M.D. Chairman, International Obesity Task Force

Childhood overweight and obesity has reached such epidemic levels that the Surgeon General compared it to the threats of bioterrorism and smallpox, calling it “the fastest-growing, most threatening disease in America today.”<sup>i</sup> Obesity rates have more than tripled among children and adolescents, making today’s youth the most inactive generation in American history. This generation could be the first to have a shorter life expectancy than their parents due to the rapid rise in childhood overweight.

The growing number of obese children has focused concern on this serious health issue, which comes with health risks and high costs. Children and youth who are overweight are at risk for developing Type 2 diabetes, asthma, hypertension and orthopedic problems; they are more likely to have risk factors for heart disease such as high blood pressure and cholesterol; they are more likely to suffer from psychosocial problems, including low self-esteem, poor body image, suicide and suicide ideation, and symptoms of depression.<sup>ii</sup> Obesity-related chronic diseases, which were previously almost unseen in children, are now becoming common in the young. Overweight children are more likely to be obese as adults, putting them at greater risk for heart disease, stroke and diabetes later in life.

Sonoma County children are disproportionately affected by obesity and overweight. Obesity is a condition that cuts across all socio-economic levels. However, it is most prevalent in low-income communities where families confront challenges that contribute to poor nutritional status, low fitness levels and reduced access to preventive health care. These conditions compound the environmental factors in many low-income communities where fast food outlets and corner stores – offering high-fat, high-sugar convenience foods and few fresh fruits and vegetables – are sometimes the only shopping choices. Options for regular physical activity for children are also more limited in low-income areas, because of safety concerns and poorly designed neighborhoods with limited opportunities for recreation.

The past 30 years have seen many dramatic changes in the way Americans work, live, and eat.<sup>iii</sup> Complex biological, social and environmental conditions contribute to the challenges our children face in making healthy decisions about eating and physical activity. Many underlying factors have been linked to the increase in obesity, such as increasing portion sizes; eating out more often; increased consumption of sugar-sweetened drinks; increasing television, computer and electronic gaming time; and fear of crime which prevents outdoor exercise.

Experts agree that childhood obesity is a *preventable* public health crisis, a crisis that can be stopped only by changing children's food and activity options and the surroundings in which they live. The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity (2001) addresses head-on one of the key misconceptions about the obesity epidemic: "Many people believe that dealing with overweight and obesity is a personal responsibility. To some degree they are right, **but it is also a community responsibility.**" Much research has focused on educating children and changing their behavior, but these approaches have had limited success.<sup>iv</sup> Changing the *environments* in which children live, eat and play is now seen as an essential strategy in fighting the obesity epidemic. Communities, schools, workplaces and homes can influence people's health decisions, and all must be part of the solution.

### ***Overweight and Obesity Defined***

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Overweight and obesity are complex issues related to lifestyle, environment, and genes. At its most basic level, a body becomes overweight (weighing more than is considered healthy) when there is an imbalance between the amount of calories consumed and the amount of physical activity used to burn those calories.

Overweight and obesity are generally defined by using the Body Mass Index (BMI) calculation. A BMI of 25 is considered overweight, 30 or more is considered obese.

- Overweight for children and adolescents is defined as being at or above the 85th percentile and obesity as being at or above the 95th percentile of BMI.
- The American Obesity Association (AOA) uses the 95th percentile as a criterion for obesity because it:
  - Is recommended as a marker for when children and adolescents should have an in-depth medical assessment.
  - Identifies children who are very likely to have obesity persist into adulthood.

### ***The Consequences of Poor Nutrition, Overweight and Obesity***

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***"The consequences of ignoring obesity are increasing levels of serious illness and rising health costs."*** *The International Obesity Task Force*

As the prevalence of overweight and obesity continues to rise, the long-term health and economic consequences will be staggering. This increase represents a major public health concern with the potential for future health risks and growing burdens on the healthcare system. Many health conditions once thought applicable only to adults are now being seen in children and with more and more frequency. Children are also more vulnerable

than adults to a unique set of obesity-related health problems because their bodies are growing and developing.<sup>v</sup>

- **Preventable deaths.** Lack of physical activity and poor nutrition account for approximately 300,000 preventable deaths each year in the United States, making these risk factors second only to tobacco use as causes of preventable death.<sup>vi</sup>
- **Increased risk for developing chronic health conditions.** Unless trends change, one in three children born in the year 2000 will develop Type 2 diabetes. One in two children of color born in 2000 will develop the disease.<sup>vii</sup>
- **Increased risk for other health problems.** Excess body weight increases the risk of many health conditions, including: asthma, sleep apnea and respiratory problems, orthopedic conditions, and high blood pressure.
- **Impact on social and emotional development.** Children who are overweight may suffer from social stigmatization, discrimination, lowered self-esteem and depression.<sup>viii ix</sup> They tend to participate in fewer activities, to withdraw from social situations, and to be less physically active than their normal-weight peers.
- **Increased risk for injuries.** Injuries seem to occur more often in overweight individuals, likely due to decreased flexibility and lower bone density. Efforts to promote optimal body weight may not only reduce the risk of chronic diseases but also the risk of unintentional injury among overweight and obese individuals.<sup>x</sup>
- **School days missed due to overweight.** Overweight students miss, on average, one day of school per month. Absenteeism among overweight students is six times higher than that of their peers.<sup>xi</sup>
- **Long term impact.** Overweight adolescents have a 70% chance of becoming overweight or obese adults. This increases to 80% if at least one parent is overweight or obese.<sup>xii</sup>

### ***High Costs and Financial Barriers of Obesity and Overweight***

- Medical costs associated with obesity are greater than those associated with both smoking and problem drinking.<sup>xiii</sup>
- Treating chronic diseases resulting from overweight as well as other weight-related health conditions currently costs California \$7.7 billion annually and is often shouldered at the local level.<sup>xiv</sup>
- Absenteeism among overweight children costs the average California school district \$160,000 per year per district.<sup>xv</sup> With 40 school districts in Sonoma County, that could mean \$6.4 million in lost funding for our schools.

## ***Scope of the Problem***

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The increase in the percentage of overweight children in our community is a result of two significant changes in childrearing during the past 30 years. Our children have less unhealthy diets and lower levels of physical activity.

***“We need to return to the days when our public schools were special places, commercial-free zones that fed our children nutritious food, and saw to it that recess and physical education were a part of every school day. Schools should be a sanctuary, not just another marketplace hawking junk food and sugary sodas.”*** U.S. Senator Tom Harkin, (D) Iowa

### ***Key Findings on Childhood Obesity, Nutrition and Fitness in Sonoma County***

- **Overweight and obesity are increasing in Sonoma County.** Over the past three decades, the prevalence of overweight has doubled among preschool aged children and adolescents, and the prevalence has increased threefold among children 6- to 11-years old. In Sonoma County, in 2004, 42% of 5- to 20-year olds were overweight or at risk of overweight.<sup>xvi</sup> There was a slight decrease among this same age group in 2005 (40.9%), though still remaining of significant concern.<sup>xvii</sup> In 2006, 50% of 5th graders in Santa Rosa schools were overweight or at risk of overweight.<sup>xviii</sup> According to the 2005-06 California Physical Fitness Report, 30.9% of Sonoma County 7th graders failed the Aerobic Capacity Test.<sup>xix</sup>
- **Low-income children in Sonoma County are at highest risk for overweight and obesity.** The highest rates of obesity occur among population groups with the highest poverty rates. According to the annual pediatric nutrition surveillance data collected for low-income children in Sonoma County, one in three (33%) 2- to 4-year olds are overweight or at risk of becoming overweight. This rate is higher (40%) for 5- to 19-year olds.<sup>xx</sup> In 2002, 33% of all low-income children in Sonoma County were overweight.<sup>xxi</sup> By 2005, the percentage had grown to 43%.<sup>xxii</sup>
- **Higher rates of overweight and obesity are reported among Hispanic children.** In 2005, Sonoma County’s Hispanic children and teens represent higher rates of overweight and obesity than their white non-Hispanic counterparts.<sup>xxiii</sup>
  - 20 % Hispanic children (5-14) are overweight and 25% were obese.
  - 18% White non-Hispanic children (5-14) were overweight and 20% were obese.
- **Sonoma County children are not consuming the five daily recommended servings of fruits and vegetables.** The recommendation to consume vegetables and

fruits for protection from chronic diseases is based on studies linking higher consumption of vegetables and fruits to lower rates of cancer, cardiovascular diseases, and other chronic diseases.<sup>xxiv</sup> Current recommendations are to consume at least five servings of vegetables and fruit each day. The percentage of Sonoma County teens meeting this recommendation fell from 48 % in 2003 to 31% in 2005.<sup>xxv</sup>

- **Physical activity positively contributes to preventable illnesses.** Regular physical activity in childhood and adolescence improves strength and endurance, helps build healthy bones and muscles, helps control weight, reduces anxiety and stress, increases self-esteem, and may improve blood pressure and cholesterol levels.<sup>xxvi</sup> Each year students in the 5th, 7th and 9th grades are evaluated for six basic fitness areas. In 2005-2006, only 35% of Sonoma County 7th graders met the basic fitness standards.<sup>xxvii</sup>
- **Food insecurity is linked to overweight.** Low income children, generally living in poor neighborhoods, with limited access to adequate food, are at particular risk for obesity at the same time they are at risk for food insecurity. Food insecurity can have grave consequences including poor dietary intake and nutritional status, poor health, increased risk for the development of chronic diseases, and devastating effects on cognitive and social development and academic achievement.<sup>xxviii</sup>
- **Anemia is prevalent among low income children.**<sup>xxix</sup> Sonoma County ranks among the top-five counties in California with the highest prevalence of anemia, a condition that can cause delays in infant and child development. In 2005, the prevalence of iron deficiency among children under age 5 was 18%. Among children 5 to 19, the rate was 13%.<sup>xxx</sup>
- **There are no easy solutions.** Key to controlling the development of obesity lies in uniting public and private sectors behind the message that healthy weight is critical to long-term health. Healthy weight can generally be achieved and maintained through moderate daily exercise with a well-balanced, portion-controlled diet. Community leaders need to provide enough resources toward maintenance of parks, playgrounds, community centers, and physical education opportunities. Insurers and health plans must partner with employers, patients and physicians to both prevent obesity and build integrative care systems for overweight and obese individuals, incorporating dietitians, health therapists and exercise specialists. And the media and entertainment industries need to show that physical activity is healthful and fun. Nothing short of a team approach will meet the challenges this critical issue presents.
- **Sonoma County schools must be part of the solution to solving overweight and obesity.** The Surgeon General's 2001 "Call to Action to Prevent and Decrease Overweight and Obesity" identifies changing the school environment as a key strategy to address this national health crisis. Schools, preschools, and after-school

programs play a unique and critical role in shaping children’s eating and activity behaviors. In schools, children learn significant and lasting lessons about nutrition and physical activity, both from the curriculum and physical education programs and from the examples of their teachers and peers. The influence of schools cannot be overstated.

## ***The Story Behind the Problem***

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***“As kids are exercising less and eating more, health care and policy experts see a perfect storm ahead.”<sup>xxxii</sup> Childhood Obesity Special Report, UCSF, Kaiser Permanente, UCSF, and UCLA Healthcare, January 2006.***

The obesity epidemic is the result of complex and intertwined factors, including: the built environment/community planning, diet, sedentary lifestyles, genetics, cultural issues, access to healthy foods, media and nutritional literacy, the availability of relatively few medical interventions, and competition for scarce public dollars.

### **Contributing Factors**

#### ***Poor Nutrition***

- An imbalance between the calories consumed and the calories used
- Limited access to healthy, affordable foods in low-income neighborhoods
- Fewer family meals eaten together
- Prevalence and consumption of inexpensive, high-calorie, fast foods that are high in calories, fat and salt, and low in fiber
- Trend to larger portions of restaurant and fast-foods
- Extensive advertising and marketing of unhealthy food products targeted toward children and youth

#### ***Sedentary Lifestyle***

- Increased use of electronic media – television, video and computer games - at the expense of outdoor play
- Fewer children and youth spend time outside of school in physical activities
- Neighborhoods with limited infrastructure for physical activity and recreation
- Community design which emphasizes car travel and discourages physical activity
- Inaccessible child activity programs due to cost or transportation
- Eliminated or severely curtailed physical education during school time

***“The modern America of obesity, inactivity, depression and loss of community has not ‘happened’ to us. We legislated, subsidized, and planned it this way. In 1973, 66% of kids either walked or biked to school. In 2000, only 13% did. As strapped as we are in California for educational funds, we are now spending more than a billion dollars a year on school buses to do what kids’ legs used to do.” Dr. Jackson, former director of the National Center for Environmental Health at the Centers for Disease Control and Prevention***

The conditions fueling these problems are a combination of policy, environment, social, cultural and individual factors that have been building over time.

**Policy.** Well-designed communities and built environments are essential to ensuring that children achieve optimal health and development. And yet, policy makers have inadvertently fueled the obesity epidemic. Many common pediatric conditions, such as obesity, are associated with risk factors linked to the environment in which children live, yet parents, community leaders, and policy-makers do not always make the connection between access to parks and recreational facilities, safe streets, and bike lanes with child health.

School systems have contributed to the current condition in both their food and fitness policies. Schools have relied upon vending and a la carte programs that sell foods and beverages high in calories and low in nutrients. With decreased funding, and increased pressure to improve test scores, many schools have eliminated physical education, despite data showing that physical activity improves learning for most children.

**Societal factors.** A dizzying change has occurred in American society over the past few decades. Adults are working harder, traveling farther to work, and becoming more and more dependent on automobiles for transportation. Neighborhoods have fewer recreational options and are increasingly separated from commercial centers. Increased safety concerns discourage parents from sending their children unattended out to play. Children's lives are packed full of extra-curricular activities to which they must be driven because of distance and safety concerns. Children are eating too much fast food and soda and are immersed in sedentary technology rather than vigorous outdoor play. Advances in our culture have brought with them many positive changes, but have also brought with them the "perfect storm" of childhood obesity.

**Socioeconomic factors.** Low-income families are especially vulnerable to poor nutrition and overweight. For low-income families, poor access to nutritious and affordable food, along with restricted opportunities for physical activity, contributes to and aggravates obesity and overweight.<sup>xxxii</sup> The flight of supermarkets to the suburbs, inadequate public transportation, and a paucity of healthy foods at corner stores are all factors that contribute to the lack of healthy food access in low-income neighborhoods.<sup>xxxiii</sup> A report issued in 2002 by the Urban and Environmental Policy Institute revealed that middle- and upper-income neighborhoods have more than twice as many supermarkets as low-income neighborhoods.<sup>xxxiv</sup> Low-income residents are often at the mercy of corner grocery stores, which serve as outlets for alcohol, cigarettes and convenience foods and offer few nutritious choices. Families in these communities are left with few resources for healthy food.

**Calorie consumption.** A changing environment has broadened food options and eating habits. Super-sized portions in America are becoming the norm, particularly in restaurants and fast-food establishments. People are eating more during meals and snacks because of larger portion sizes and as a result are consuming more calories.<sup>xxxv</sup> Grocery stores stock their shelves with a greater selection of pre-packaged and processed foods products. While such foods are convenient, they also tend to be high in fat, sugar, salt and calories.

**Good nutrition begins in infancy.** There is overwhelming scientific evidence that breast milk is the optimal food for infants. The Center for Disease Control and Prevention lists increasing breastfeeding as one of its obesity prevention strategies for children. Children who are breastfed are less prone to overweight, asthma, and some childhood infections. According to the Sonoma County Public Health Annual Report, in 2005, 34% of children ages 2-5 enrolled in the Women's Infant and Children's Program (WIC) were overweight or at risk of becoming so. However, only 22 % of the same age group who were breastfed for 27 to 52 weeks are overweight or at risk of overweight.<sup>xxxvi</sup>

Now 70% of women with young children work outside of the home and two-thirds return to work within 6 months after giving birth. Women who return to work soon after giving birth breastfeed for a shorter period than other women or not at all.<sup>xxxvii</sup>

***“Kids imitate parents. Parents have power, and carry weight. With kids, parents are the voice of authority and permission. With administrators and school boards, they're the voice of the taxpayer. It only makes sense for us to try to engage parents in our efforts.”*** Katie Bark, Montana State University Nutritionist

**Parental knowledge and practices.** Engaging and supporting parents and other caregivers is a crucial link to success in addressing childhood overweight. Parental beliefs, perceptions and role modeling about healthy eating and levels of physical activity play a large part in directing and supporting children's choices. Additionally, parents influence the nature and amount of physical activity in which their children engage and may not recognize the importance of this in reducing the potential of obesity.<sup>xxxviii</sup>

**Advertising and food choices.** There is a link between food and beverage advertising and rising childhood obesity rates. Scientific research shows that advertising influences children's preferences and purchase requests. Children under 8-years old do not understand the persuasive intent and biased nature of advertising.<sup>xxxix</sup> Research suggests that the mere appearance of a television or movie character with a product can significantly alter a child's perception of that product.<sup>xl</sup>

## *What Our Service System Offers and Where the Gaps Are*

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### **Resources**

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**BMI screenings and counseling.** Community health centers in Sonoma County are shifting toward routine assessment and monitoring of children's nutrition and weight. They are institutionalizing BMI screening as a vital sign at routine medical visits. They are providing staff training on effective communication and interventions to sensitively counsel patients who are at risk for or are overweight. Kaiser Permanente offers an online tutorial for working with children and their families on the subject of pediatric weight management.

**School Wellness Policy.** In recognizing the critical role of schools in promoting student health, the U.S. Congress passed legislation requiring all school districts with federally funded school meals programs to develop and implement wellness policies that address nutrition and physical activity by the start of the 2006-2007 school year. The legislation places the responsibility of developing a wellness policy at the local level and requires active involvement of parents, and students in designing the district policies. According to the requirements for the local wellness policy, school districts set goals for nutrition education, levels of physical activity, nutritional quality of food provision, fund raising and other school-based activities that promote student wellness.

**California Children's 5 a Day—Power Play! Campaign.** 5 a Day is a statewide social marketing initiative, which uses a multi-channel, community-based approach to encourage 9 to 11 year olds from low income households to eat at least 5 servings of fruits and vegetables and to participate in at least 60 minutes of activity every day. The campaign promotes its message in schools, after-school programs, media, farmers' markets, restaurants, and grocery stores. Sonoma County coordinates the North Coast Regional campaign, which reaches over 5,000 children each year.

**Women Infants and Children (WIC) program.** WIC is a nutritional program that provides pregnant women, new mothers and young children (up to age 5) with food vouchers and nutritional counseling about eating well and staying healthy. Sonoma County has three WIC programs serving more than 8,000 low-income mothers, infants and children.

**The Sonoma County Breastfeeding Coalition.** Sonoma County's Breastfeeding Coalition was formed in 1996, with a mission to educate and empower women to breastfeed; to encourage breastfeeding-friendly attitudes, policies, and images in the community; to promote unity among breastfeeding professionals and advocates; and to increase public awareness of the value of breastfeeding. The coalition includes

representatives from the hospitals, community health centers, private physician offices, WIC and the County Health Department.

## **Gaps**

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***“Many people have begun to draw analogies between preventing obesity and smoking cessation. Clearly, both are broad public health problems that require an integrated medical and public health approach. But obesity has its own unique set of issues. The sooner we begin to define those issues and start effectively helping people achieve a healthy body weight, the better.”*** *George Isham, MD, Medical Director/Chief Health Officer, HealthPartners, Minnesota*

**Comprehensive, public health approach.** Many obstacles impede the management of childhood overweight and obesity. Approaches limited to medical settings will not be effective without reinforcing strategies in schools, communities and at home.

Collaboration among community leaders and government, health care providers, schools, and families is critical to helping families and children adopt and maintain healthier lifestyles. School and community programs must continue to address the availability of junk food, make school meals more nutritious, address sedentary behaviors and increase daily exercise.

**Competing priorities in schools.** Meeting strict academic requirements imposed by the ‘No Child Left Behind Act’ is today’s top priority for school district superintendents. Most school leaders accept the belief that healthy students learn better. However, many school leaders do not feel they can elevate school wellness to the top of their list given other pressing priorities, such as: raising academic outcomes, closing achievement gaps, hiring and retaining quality staff, insuring school safety and budget constraints.

A report from the U.S. Surgeon General on physical activity and health describes school-based interventions for youth as particularly promising, not only for their potential scope - almost all young people between the ages of 6 and 16 years attend school - but also for their potential impact. Nearly half of young people 12-21 years of age are not vigorously active; moreover, physical activity sharply declines during adolescence. Childhood and adolescence may thus be pivotal times for preventing sedentary behavior among adults by maintaining the habit of physical activity throughout the school years. School-based interventions have been shown to be successful in increasing physical activity levels. With evidence that success in this arena is possible, every effort should be made to encourage schools to require daily physical education in each grade and to promote physical activities that can be enjoyed throughout life.

**Limited health insurance coverage.** Overweight and obesity still remain an ‘excluded benefit’ for many insured patients. Most insurance carriers do not reimburse medical

providers for incorporating universal screening and nutrition and physical activity education into regular preventive health care visits. Most interventions that are covered under insurance are at the end of the obesity spectrum such as surgical interventions for the morbidly obese. Improved treatment will depend on the development of interventions that can be applied effectively and efficiently in primary care settings and must include appropriate reimbursement for the care that is given.

**Inconsistent support to ensure successful breastfeeding.** There is a lack of consistent and accurate knowledge about breastfeeding among health care professionals and the general population. Hospital feeding schedules, lack of ‘rooming-in’ facilities, early discharge of mothers and babies without time to establish breastfeeding, and discharging mothers with formula packets and advertising can all interfere with establishing exclusive and sustained breastfeeding in the immediate postpartum period. Lack of a support network during the critical postpartum period frequently lead mothers to abandon their plan to breastfeed.

**Scarcity of clinical data, research and evidence based best practices.** There is a scarcity of clinical data and research available on the subject of overweight and obesity. The epidemic’s rapid rise over the past three decades has left researchers scrambling. While the federal government has lately placed greater emphasis on funding studies relating to childhood obesity, answers about effective prevention and treatment protocols remain elusive.<sup>xli</sup> A number of projects, such as Healthy Living Active Living (see below) are in the early stages of developing best practices for addressing childhood overweight and obesity.

### ***Examples of Innovation***

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**Community Activity and Nutrition-Coalition.** In 1998, Sonoma County formed the Family Activity and Nutrition Task Force (FANTF) to address child overweight. Renamed in 2005, the Community Activity and Nutrition-Coalition’s (CAN-C) mission is to promote optimal health for the general population with a focus on nutrition and physical activity, and to promote access to treatment for children who have nutritional needs. In January 2006, CAN-C was one of three collaboratives awarded a Kaiser Permanente Healthy Eating Active Living (HEAL) grant. This grant provides funding to effect changes in social and physical environments, and public policy and organizational practices, to increase access to affordable, healthy food and increase opportunities for physical activity in South East and South West Santa Rosa. Residents and other stakeholders in the community are guiding the initiative.

**Megan Furth Harvest Pantry.** The Furth Family Foundation established the Megan Furth Harvest Pantry to combat childhood anemia and obesity among low-income

children in Sonoma County. This mobile "farmer's market" provides nutritious, iron rich food, especially fresh fruit and vegetables, to families with young children in targeted neighborhoods where high anemia rates are found.

**The School Garden Network.** The Network is a collaboration of garden coordinators, classroom teachers, parent volunteers and community partners dedicated to the creation and support of sustainable garden and nutrition based learning programs for Sonoma County students. The network provides opportunities for students to establish a life-long dedication to the environment and their communities, to develop a healthy understanding of nutrition, and to further their academic achievement through hands-on learning. Since its inception late in 2003, participation has increased to 21 schools in six cities.

### ***Key Indicators to Track – How We Might Measure Progress***

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**Overweight and Obesity.** Promote good nutrition and healthier weight.

<b><i>Indicator</i></b>
The percentage of 6 to 19 year olds who are overweight or obese.
The percentage of mothers who breastfeed their babies for 6 to 9 months.
The percentage of children in Sonoma County who eat five servings of fruits and vegetables daily.
The percentage of 6 to 19 year olds whose intake of meals and snacks at schools contributes to good overall dietary quality.

**Physical Activity.** Promote regular physical activity.

<b><i>Indicator</i></b>
The percentage of students who participate in moderate or vigorous physical activity for at least 20 minutes, three or more days per week.
The percentage of children and adolescents who engage in more than three hours daily of sedentary activity, such as TV, computer and video games.

### ***What would it take to make progress on childhood overweight and obesity?***

***“The leaders of Sonoma County will be the main drivers in stopping the childhood obesity epidemic. Although there are significant challenges in Sonoma County, there are also great strengths. We look forward to partnering with the community on this very important mission.”*** Scott Gee, MD pediatrician and Director for Prevention and Health Information for The Permanente Medical Group in Northern California

The dramatic increase in the number of overweight and obese children in Sonoma County is a community health crisis that requires immediate action. Given the complex nature of this health crisis, interventions and solutions cannot be solely dependent upon individual behavior change. Experts agree that the children themselves, and their families, cannot adequately address the problem. Change will take the determination and commitment of our entire community – health care and other service providers, educators, policy makers and community leaders.

### Spectrum of Prevention

<i>Strategies</i>	<i>Activities</i>
<b>Influencing policy and legislation</b>	<ul style="list-style-type: none"> <li>• Advocate for local planning departments to develop planning tools to support a built environment that promotes healthy eating and active living.</li> <li>• Advocate for health insurance to cover nutrition and physical activity counseling.</li> <li>• Advocate for businesses to stop advertising unhealthy foods to children.</li> </ul>
<b>Mobilizing neighborhoods and communities</b>	<ul style="list-style-type: none"> <li>• Encourage community projects/development to increase parks and park programming, trails, and bike lanes to schools.</li> <li>• Make school buildings available for physical activity during and outside of school hours.</li> <li>• Organize communities to advocate for greater availability of fresh foods and reduction of fast food outlets.</li> </ul>
<b>Changing organizational practices</b>	<ul style="list-style-type: none"> <li>• Promote the measurement of Body Mass Index (BMI) as a clinical vital sign.</li> <li>• Encourage culturally appropriate and sensitive patient education about the importance of healthy weight to long-term health.</li> <li>• Advocate for the food industry to serve reasonable portion sizes.</li> <li>• Continue to improve hospital practices that promote and support breastfeeding.</li> </ul>
<b>Fostering coalitions and networks</b>	<ul style="list-style-type: none"> <li>• Support comprehensive nutrition and physical education/activity programs in preschools, schools and communities.</li> <li>• Encourage networking of organizations working to reduce food insecurity such as emergency food and meal programs, community-supported agriculture and others.</li> </ul>

<i>Strategies</i>	<i>Activities</i>
<b>Educating providers</b>	<ul style="list-style-type: none"> <li>• Educate health professionals, and health educators to sensitively communicate with families regarding overweight and health-related problems, physical activity and healthy eating practices.</li> <li>• Promote family participation in well-baby checkups as important strategies to address cultural norms that support unhealthy eating patterns.</li> </ul>
<b>Changing school practices</b>	<ul style="list-style-type: none"> <li>• Encourage schools to actively implement their school wellness policy and participate in the school lunch program.</li> <li>• Ensure daily quality physical education for all children in grades K-12.</li> <li>• Provide culturally appropriate education about nutrition and physical activity in schools.</li> <li>• Promote active ways of getting from school to home - safe walking and biking routes to school.</li> </ul>
<b>Strengthening individual knowledge and skills</b>	<ul style="list-style-type: none"> <li>• Promote healthier food choices, including at least 5 servings of fruits and vegetables each day, and reasonable portion sizes at home, in schools, and in the community.</li> <li>• Help families and individuals to develop the skills for effective weight management.</li> <li>• Promote American Academy of Pediatrics' recommendation to limit children's total daily media time to no more than one to two hours of quality programming.</li> <li>• Fund media campaigns that promote healthy eating and physical activity.</li> </ul>

<sup>i</sup> *Childhood Obesity: An epidemic is gripping California and the nation. How did we get here? What do we do now?*, Advertising Supplement to the New York Times, Kaiser Permanente, UC San Francisco Medical School, UCLA Medical School, January, 2006.

<sup>ii</sup> Crawford, P., Mitchell, R., and Ikeda, J., *Childhood Overweight: A Fact Sheet for Professionals*, UCB/Cooperative Extension University of California, Berkeley, Department of Nutritional Sciences, Prepared by, January 2000.

<sup>iii</sup> *The Future of Children*, Spring 2006.

<sup>iv</sup> *Guide for Community Preventive Services*, Centers for Disease Control and Prevention, 2005.

<sup>v</sup> Daniels, S., *The Consequences of Childhood Overweight and Obesity*, *The Future of Children*, Vol. 16, No. 1, Spring 2006, pp. 47-67.

<sup>vi</sup> Centers for Disease Control and Prevention, *Unrealized Prevention Opportunities: Reducing the Health and Economic Burden of Chronic Disease*, Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2000.

<sup>vii</sup> *California Obesity Prevention Plan: A Vision for Tomorrow, Strategic Actions for Today*, Sacramento (CA): Department of Health Services, 2006.

<sup>viii</sup> [www.healthypeople.gov](http://www.healthypeople.gov). *Healthy People 2010 Leading Indicators*.

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- xi <http://actionforhealthykids.org>. David Satcher, *Action for Healthy Kids*.
- xii US Department of Health and Human Services, *Physical Activity and Health: A Report of the Surgeon General*, Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 1996.
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- xv <http://actionforhealthykids.org>. David Satcher, *Action for Healthy Kids*.
- xvi Pediatric Surveillance Data, Centers for Disease Control, 2004.
- xvii Ibid.
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