

# Natural Environment

**ACTION Goal:** We maintain and enhance the health and beauty of the natural environment by living within our natural resources and human abilities, and we plan and manage development. (Note: This section includes the Growth and Open Space visions from the Foundation for Community Design)

## INDICATOR D1

### Air Quality

This indicator measures the quality of the air in San Luis Obispo County. The results are reported in terms of the number of days that air quality is considered unhealthy.

#### Why Is It Important?

High levels of air pollution can have a major impact on people's health, especially those with respiratory problems. In addition, high levels of ozone reduce photosynthesis, which reduces crop yields. Ozone and particulates (small particles floating in the air) are the pollutants of greatest concern in San Luis Obispo County because they exceed state standards most frequently.

Unhealthy ozone levels can cause impaired breathing and reduced lung capacity along with significant crop and forest damage. Particulate matter pollution from mining, motor vehicle exhaust, factories, construction, roads, wildfires and wind-blown dust can greatly reduce visibility in addition to being a health hazard.

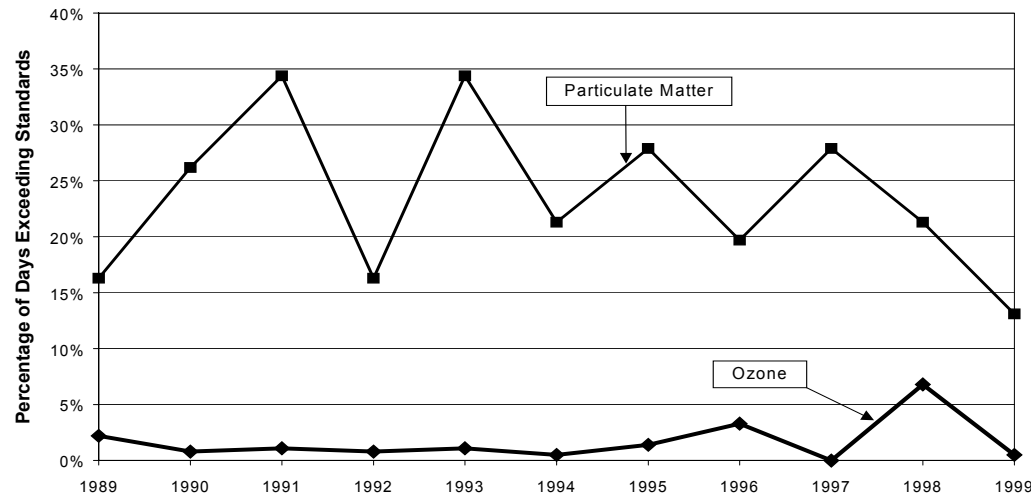
#### How Are We Doing?

A network of 10 monitoring stations throughout San Luis Obispo County routinely measures ozone and PM10 (particulate matter). Ozone levels are measured continuously and averaged each hour. PM10 is sampled for 24 hours every sixth day on the same schedule nationwide.

The Air Pollution Control District compares the average of the readings at the monitoring stations with the state's health-based standards. The results reveal how many days the average reading for the county exceeds the standards, or is considered unhealthy.

Although most people think the air in San Luis Obispo County is relatively pure, excessive particulate matter causes unhealthy air roughly one-quarter of the days in a given year. Ozone causes unhealthy conditions much less often. The low ozone levels experienced in 1997 and 1999, contrasted with the higher levels during 1998, demonstrate the effects of varying meteorology on the local formation of ozone, and on the transport of ozone to this county from distant urban sources.

**Air Quality**



Source: County Air Pollution Control District, 2001

INDICATOR D2

## Energy Use

This indicator measures the amount of electricity used in San Luis Obispo County per person by the residential, commercial, industrial and agricultural sectors.

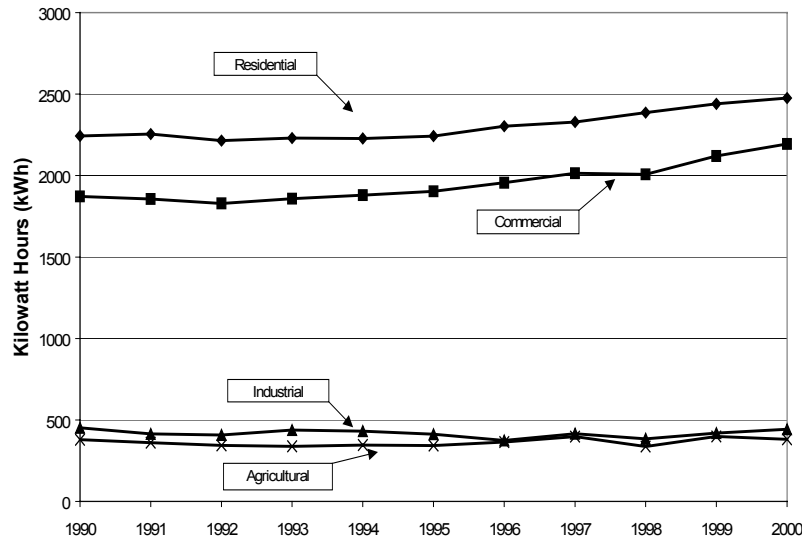
### Why Is It Important?

Reducing energy use has beneficial effects on both the county's economy and environment. Lower energy use means lower utility bills and more disposable income for residential users and lower operating costs for businesses. Lower per capita consumption in the residential sector reflects several factors, including higher energy efficiency resulting from better building construction, more efficient arrangement of urban land uses, use of more efficient electrical appliances and conservation of electrical energy by individual households.

### How Are We Doing?

The chart shows that per capita electrical use was stable during the first half of the decade, averaging about 2,234 kWh per capita. Since 1996, residential electrical energy use has increased by about 10 percent. This trend is going in the wrong direction. Per capita commercial electricity use also shows a rising trend, which may be due to the improved business environment in the last half of the 1990s. Industrial and agricultural electrical energy use have remained stable.

**Per Capita Electric Utility Usage**



Source: California Energy Commission, 2001

INDICATOR D3

## Growth Patterns

This indicator shows the number of new dwelling units completed each year in the county's rural areas as a percentage of all new dwelling units built in the county. The indicator is a measure of the effectiveness of government policies in encouraging new residential construction in existing communities, to help reduce building in agricultural and open space lands.

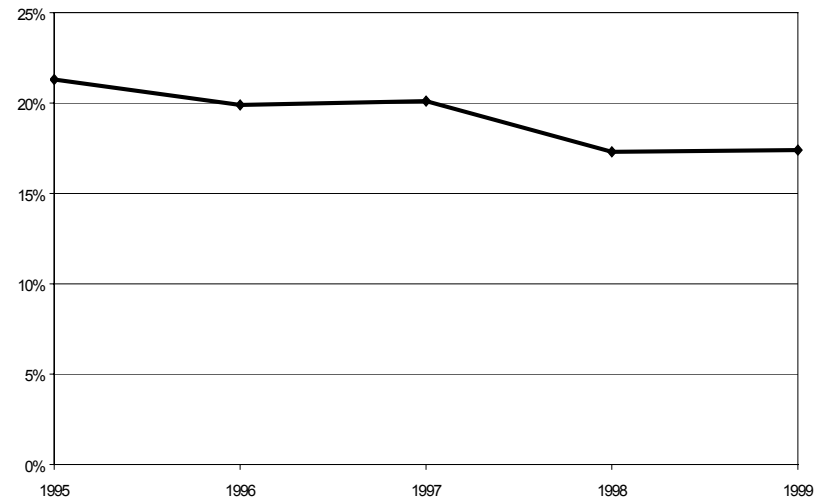
### Why Is It Important?

More compact development within existing communities enables more efficient provision of public services and helps maintain our sense of living in a rural county.

### How Are We Doing?

The County Department of Planning and Building tracks the number of new residences built in each part of the county and each incorporated city. In general, those built outside the cities and the Urban Reserve Lines (URLs) of unincorporated communities are built in what we think of as rural areas. In the 1990s, about 20 percent of all new homes built in the county were built in rural areas, with about 80 percent built in the cities and unincorporated communities. The trend for the last decade has been downward, which is a good sign. The goal is to reduce the percentage of rural building even more, by making sure that urban areas provide a quality of life that makes them attractive places to live.

**Percentage of New Homes in Rural Areas**



Source: San Luis Obispo Department of Planning & Building, 2001

INDICATOR D4

## School Overcrowding

This indicator shows the percentage of students in the county’s public schools who attend schools where enrollment exceeds the school’s design capacity.

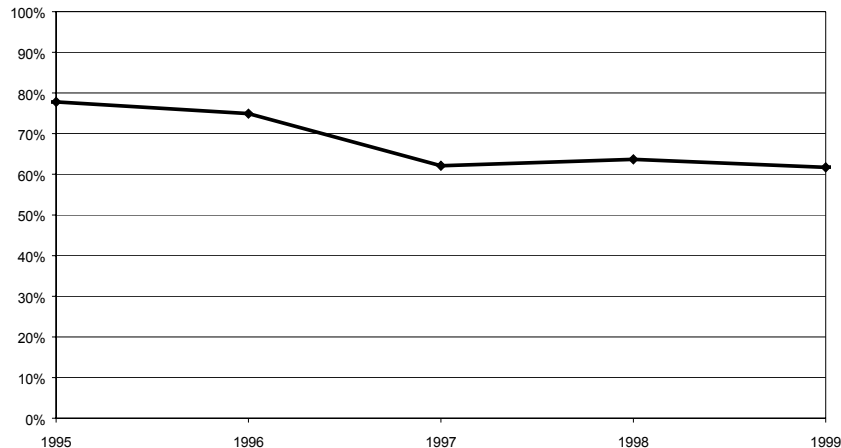
### Why Is It Important?

Schools are designed to accommodate a certain number of students. The size of the library, the cafeteria, the classrooms, the playfields and the number of restrooms are all determined by the expected student population. When the number of students exceeds the design capacity, each student’s “share” of these facilities is diminished and the overall learning environment suffers. At the extreme, students may perceive that the community does not place a high priority on maintaining a high-quality educational system. They may wonder why they should make a personal investment in such a system.

### How Are We Doing?

The way school facilities are funded in California makes it very difficult for districts to expand or build school buildings until existing facilities are overcrowded. State law limits the ability of school districts to collect fees from residential developers to expand facilities to accommodate a growing student population. Also, districts must demonstrate that existing schools are overcrowded to competing successfully for state building funds. Through 1996, about 75 percent of the county’s schools were over capacity. Since then, the figure has dropped to about 62 percent, primarily because San Luis Coastal Unified School District completed additions to most of its elementary and middle schools.

**Percent of Students in Overcrowded Schools**



SOURCE: School Districts in San Luis Obispo County and San Luis Obispo County Department of Planning and Building, 2001

INDICATOR D8

## Open Space Inventory

This is, or should become, an indicator of whether we are keeping or losing the open spaces in our county. The indicator uses an inventory of all the county’s open space acres, including their assignment to categories indicating their likelihood of development.

### Why Is It Important?

Open space resources are among the county’s most significant assets. They define the county as a place of natural beauty and rural character, making it a wonderful place for residents and tourists. The County Planning Department is developing a comprehensive list of open space resources in order to monitor these resources over time. Until this list is available, County Planning has prepared the table below, which is a preliminary inventory of the county’s open space resources.

### How Are We Doing?

For the purpose of monitoring the status of these lands, all open space acreage will be assigned to one of four categories: permanently protected, temporarily protected, unprotected, or converted to development.

Using the most current preliminary data available, the table below shows the county has approximately 2.1 million acres in open space, listed by category:

- Permanently Protected- this includes state parks a beaches, county parks, etc.;
- Temporarily Protected- this includes Forest Service and Bureau of Land Management lands, and all county agricultural land currently protected by the Williamson Act\*;
- Unprotected- this includes all agricultural land not protected by the Williamson Act.

Open Space Resources	Total Open Space Acres	Permanently Protected	Temporarily Protected	Unprotected
U.S. Forest Service	188,000		188,000	
U.S. Bureau of Land Management	241,493		241,493	
State Parks, Beaches & Reserves	14,549	14,549		
County & City Parks & Open Space	14,326	14,326		
County Agricultural Use Category	1,387,200		807,000	580,200
County Irrigated Agricultural Land	60,000		42,000	18,000
County Open Space Land Use Category	211,900			
<b>Total Open Space Acres</b>	<b>2,057,468</b>	<b>28,875</b>	<b>1,236,493</b>	<b>580,200</b>

SOURCE: County Department of Planning & Building, 2001

\*Voluntary program that provides property owners with tax reductions in exchange for agreeing to use their property for agricultural uses.

INDICATOR D5

# Traffic Volume

This indicator shows the level of vehicle traffic on our roadways.

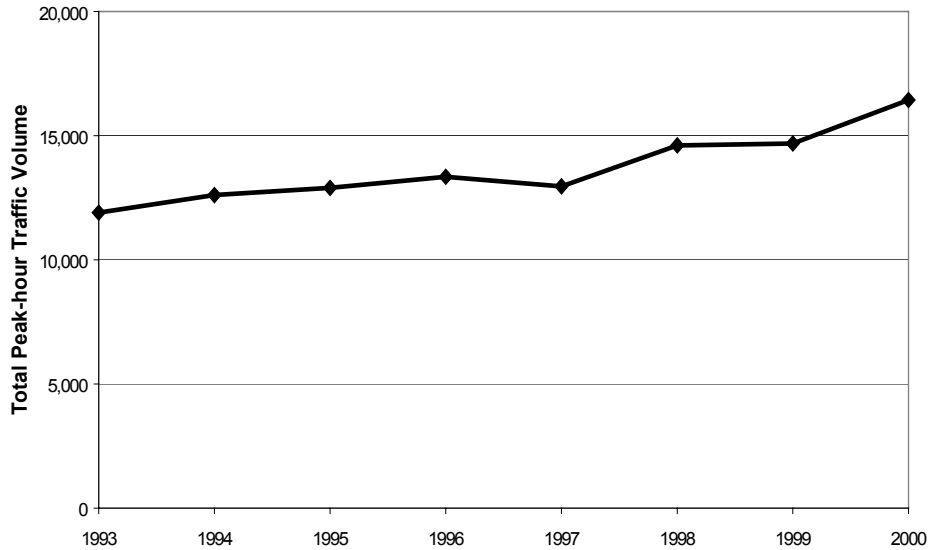
### Why Is It Important?

Growth in the numbers of vehicles on our roads has a number of disadvantages, including slower travel times, increased energy use, rising air pollution, more accidents, and added consumer cost, as well as the sense that we are becoming a congested urban area. Increases in the numbers of vehicle trips can result from: population growth, commuting because homes are not near jobs, and development outside of existing communities. The use of public transit, vanpools, carpools, bikes, and walking reduces the number of trips by single-occupant vehicles, which saves energy as well as reducing air pollution and traffic congestion.

### How Are We Doing?

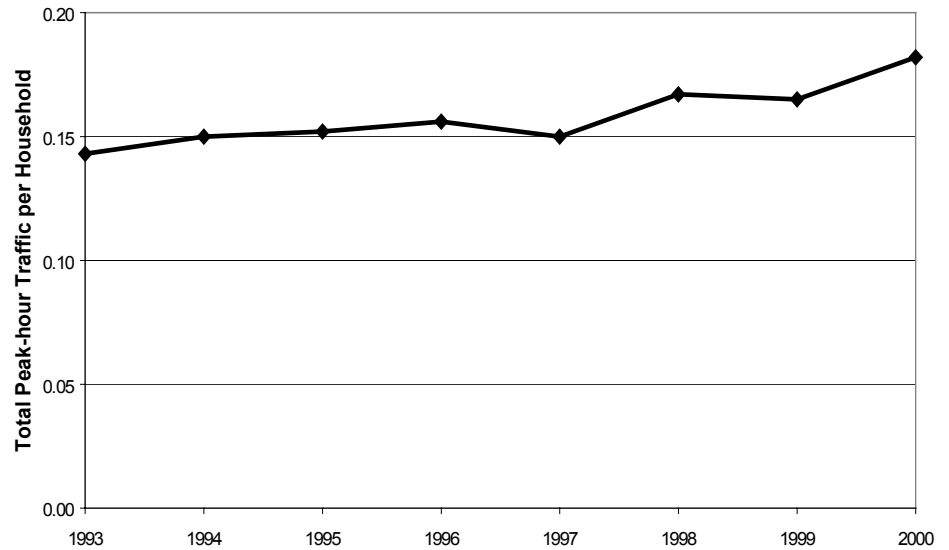
The San Luis Obispo County Department of Planning and Building measures the numbers of vehicles using 21 road segments in the county-maintained road network during the peak traffic hour. Although traffic on city streets is not included, changes in traffic levels on county roads are probably a reflection of changes on all types of roads within the county. Vehicles on state highways, which is largely pass through traffic, are not measured in these data. As the graph indicates, San Luis Obispo County does not seem to be an exception to the tendency of Californians in general to use their cars more and more. The graph on the left shows that traffic volume is increasing. However, this is, in part, a consequence of the increase in the county's population. The graph on the right is a measure of the amount of peak hour traffic per household. It can be used as a measure of the success of local policies that encourage the use of public transit, bicycles and our own two feet as alternatives to the automobile, and of policies to encourage compact communities that make it convenient to make short trips on foot or by bicycle. Apparently, such policies have been unable to overcome the tendency of county residents to make more automobile trips. However, it may be that the increase in peak hour traffic per household from 1993 to 2000 would have been even greater in the absence of adopted policies and programs.

**Peak Traffic Volume**  
(21 Road Segments in SLO County)



SOURCE: San Luis Obispo Department of Planning & Building, 2001

**Peak Hour Traffic Per Household**  
(21 Road Segments in SLO County)



SOURCE: San Luis Obispo Department of Planning & Building, 2001

INDICATOR D6

## Drinking Water Quality

This indicator would measure how often our drinking water fails to meet state and federal water quality standards.

### Why Is It Important?

Pure water is essential to building and maintaining healthy communities. Most of us take healthy drinking water for granted, in part because our water supplies are periodically checked for contaminants.

### How Are We Doing?

Although all larger water providers conduct quality testing, there is no central repository of such data. The county government has indicated that it hopes to develop countywide data on water quality, including test results for an array of both bacteriological and chemical constituents (e.g., MTBE, arsenic, and nitrates). ACTION supports such an effort as a way to provide the public and decision makers with better data about this important resource.

INDICATOR D7

## Water Consumption

This indicator shows how efficiently we are using our limited water supplies. The indicator shows the average amount of water used each day by customers (mostly homes) of the larger water providers in the county.

### Why Is It Important?

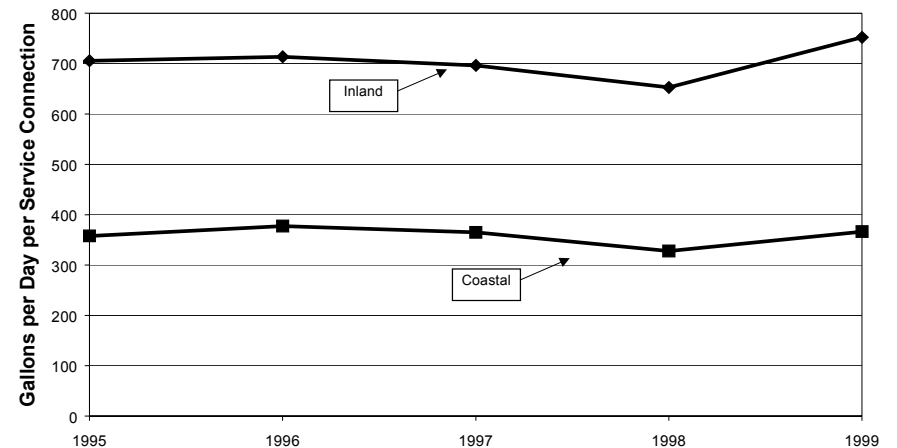
The water supply in San Luis Obispo County is limited largely to the annual rainfall, which is stored in reservoirs and underground aquifers. Many people are concerned that we are pumping more water from the aquifers than is replaced by the winter rains. Importing water from outside the county and desalinating ocean water are expensive alternatives. A growing population, increasing crop irrigation, and expanding businesses all increase the demand for water. One of the easiest and least expensive ways to increase the supply of water is to use what we have more efficiently, through the adoption of water conservation practices by individual consumers and water suppliers.

### How Are We Doing?

The San Luis Obispo County Department of Planning and Building compiles water use data from the incorporated cities, community service districts (CSDs) and some larger private water companies. These data do not include water pumped privately for agricultural irrigation. Consumers in the inland areas (north of the Santa Lucia range) use more water because of their higher summer temperatures. Therefore, the graph shows average annual water use per connection separately for inland and coastal areas.

Water demand is influenced by the annual weather patterns. In hotter, drier years, more water is used for landscaping and crops. The graph reflects these annual weather fluctuations. As conservation measures are more widely used, we should begin to see a downward trend in water use per connection. Such a trend is not yet apparent.

Water Use per Service Connection



SOURCE: Water purveyors; San Luis Obispo County Department of Planning and Building, 2001

# Health Issues

ACTION Goal: All persons practice healthy behaviors, have access to & use preventive & primary healthcare services that enable them to maximize their physical & mental well-being

## INDICATOR E1

### Exercise

This indicator measures county residents' self-reported frequency of concentrated exercise (30 minutes or more). Specifically, phone survey respondents were asked the question: "How many days a week do you engage in physical activity (such as brisk walking or gardening) for a combined total of 30 minutes or more?"

#### Why Is It Important?

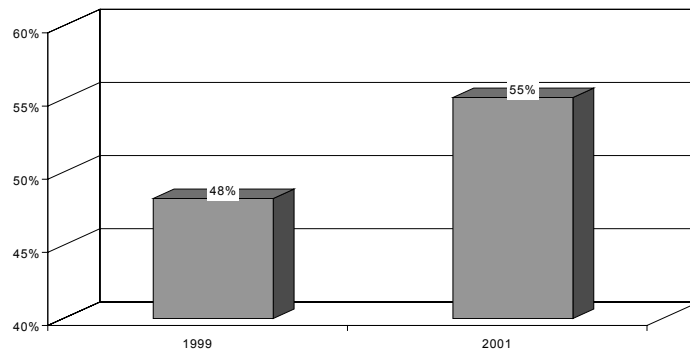
Regular, sustained exercise is shown to be a key to maintaining good health, longevity and well-being. Through sustained exercise the heart enters an aerobic state, strengthening the heart muscle, burning fat, directing additional oxygen to body organs and causes the brain to release endorphins improving attitude and mental acuity.

#### How Are We Doing?

In 1999 and again in 2001, telephone survey respondents were asked to indicate the number of days each week that they participate in physical activity for 30 minutes or more. While some may exaggerate their answers to questions about a socially acceptable behavior, such as exercise, tracking responses to the same question over time can uncover *change* in the level of behavior.

In 2001, more than half of San Luis Obispo County respondents said they exercise at least five days a week. This represents a statistically significant increase from 1999. Perhaps more importantly, the percentage of respondents reporting no days of exercise dropped substantially, from 14 percent in 1999 to less than five percent in 2001.

% Exercising at Least Five Days a Week



Source: ACTION for Healthy Communities telephone surveys, 1999 & 2001

INDICATOR E5

# Physical Health

This indicator measures the proportion of county residents who report being in “good” or “excellent” physical health.

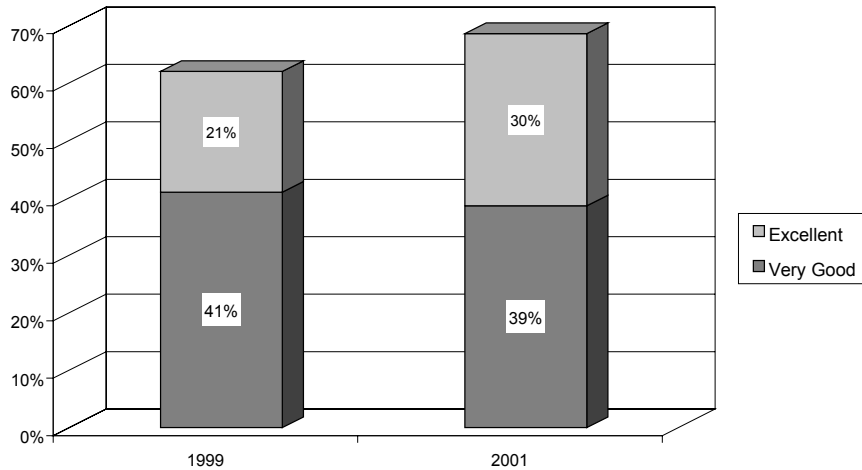
### Why Is It Important?

Good physical health makes it easier for people to participate in nearly every aspect of personal and community life.

### How Are We Doing?

Respondents to the 1999 and 2001 telephone surveys were asked to assess their physical health (including physical illness and injury) on a five-point scale: excellent, very good, good, fair and poor. Results show that more than two-thirds of county residents consider their physical health to be “very good” or “excellent.” This represents an increase from 1999, including a statistically meaningful rise in the proportion of those citing “excellent” health.

**Self-assessment of Physical Health**



Source: ACTION for Healthy Communities telephone surveys, 1999 & 2001

INDICATOR E2

# Tobacco Use

This indicator reports on the proportions of adults and teens that smoke.

### Why Is It Important?

The Centers for Disease Control reports that, in addition to the well-known association with cancer, cigarette smoking also causes heart disease and stroke. On average, someone who smokes a pack or more of cigarettes each day lives seven years less than someone who never smoked.

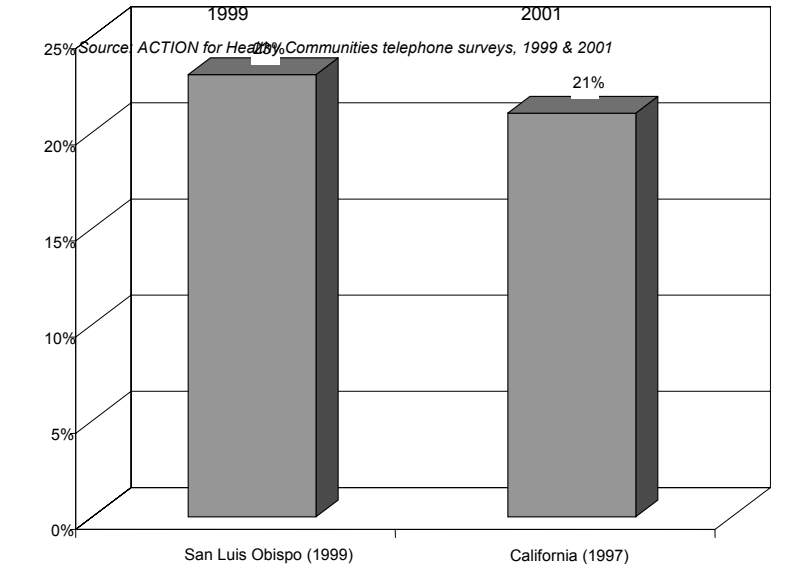
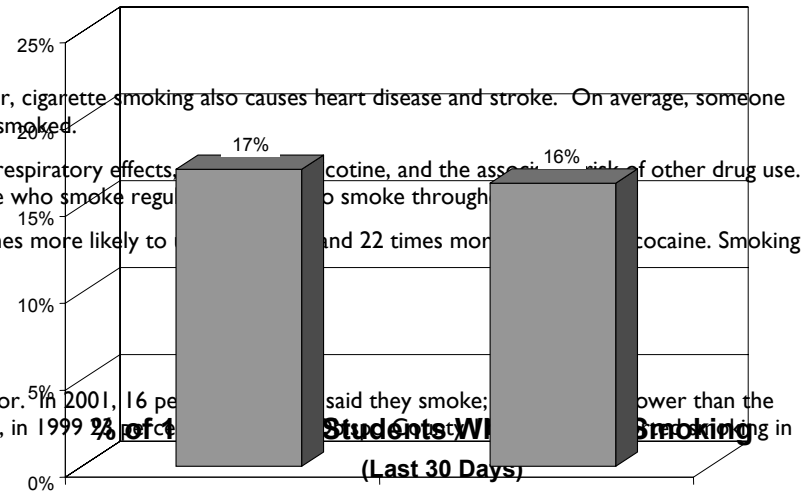
Among young people, the short-term health consequences of smoking include respiratory and non-respiratory effects, such as chronic bronchitis, emphysema, and the associated risk of other drug use. Long-term health consequences of youth smoking are reinforced by the fact that most young people who smoke regularly use other substances, such as alcohol, marijuana, and cocaine.

In addition, teens who smoke are three times more likely than nonsmokers to use alcohol, eight times more likely to use marijuana, and 22 times more likely to use cocaine. Smoking is associated with a host of other risky behaviors, such as fighting and engaging in unprotected sex.

### How Are We Doing?

Respondents in the 1999 and 2001 ACTION phone surveys were asked about their smoking behavior. In 2001, 16 percent of adults reported smoking cigarettes, down from 17 percent in 1999. This is lower than the statewide average of 21 percent. Among student respondents in the California Healthy Kids Survey, in 1999, 17 percent of students reported smoking in the last 30 days, which was two percent above the most recently obtained state average (1997).

**% of Adults Who Report Smoking Cigarettes**



SOURCE: California Healthy Kids Survey, 2001



INDICATOR E3

## Teen Alcohol Abuse

This indicator measures self-reported episodes of heavy drinking episodes among students.

### Why Is It Important?

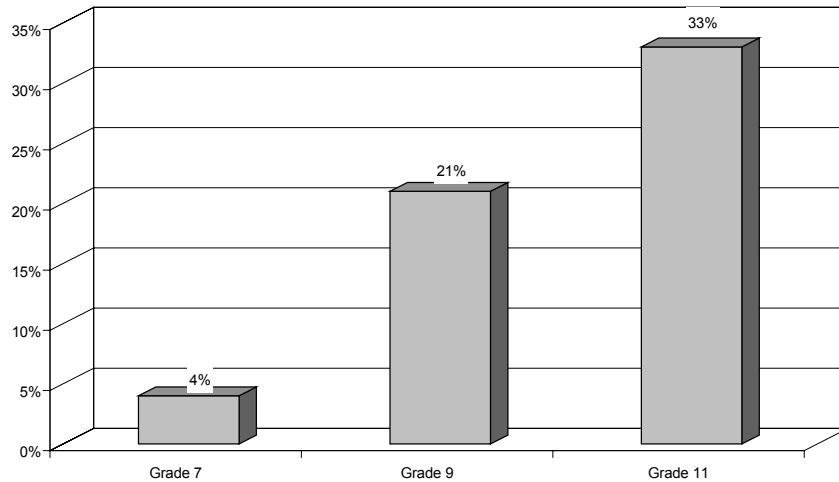
In addition to increased likelihood of addiction, as well as short-term and long-term health risks, binge drinkers open themselves up to many alcohol-related problems, including losing control over their actions, making poor choices, and taking part in high-risk activities such as unprotected sex or driving while intoxicated.

### How Are We Doing?

In Fall 1999 the California Healthy Kids Survey asked students the following question: “During the past 30 days, did you drink five (alcoholic) drinks in a couple of hours?” The consumption of five drinks in a single setting is one of the most widely used definitions of heavy drinking, frequently referred to as “binge drinking.”

Results show that alcohol is widely used (and therefore widely available) among San Luis Obispo County high school students, and that social drinking pressure accelerates rapidly when a student enters high school. It appears that last-month binge drinking among county youth may be higher than the state average, estimated at 10.5 percent in the 1999 National Household Survey on Drug Abuse (conducted by the Substance Abuse and Mental Health Services Administration).

**% of Students Who Report Binge Drinking  
in the Last Month**



Source: California Healthy Kids Survey, 2001

INDICATOR E9

## Teen Birth Rate

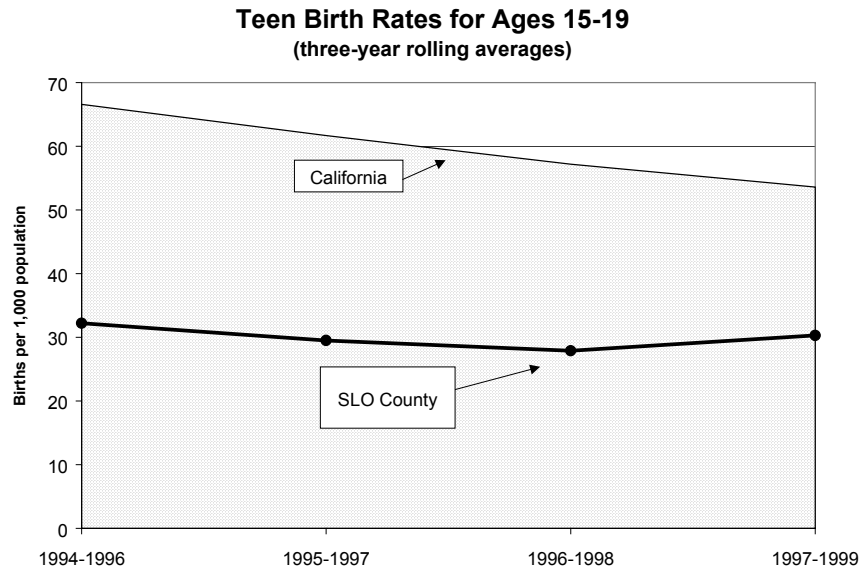
The teen pregnancy rate measures the number of births to teen women between the ages of 15 and 19 for every thousand women of the same age in the population.

### Why Is It Important?

Pregnancy and child bearing during adolescence can jeopardize the health of both the mother and unborn child. Teen mothers are at greater risk for having pregnancy complications, premature births, and low birth weight infants. Young mothers can also face decreased employment opportunities, lower educational attainment, and increased likelihood of poverty and welfare dependence. Further, teen births represent a significant financial burden to the public. The state estimates that close to 75 percent of all teen births are paid by MediCal, and the total public program costs (i.e., CalWorks, MediCal) for the first year of one teen pregnancy conservatively hovers around \$10,000.

### How Are We Doing?

During the 1990s, the county's teen birth rate generally trended downward. That trend appears to have leveled off, although the county's teen birth rate remains well below the statewide average.



SOURCE: California Department of Health Services, 2001

INDICATOR E4

## Access to Health Care

This indicator measures the number of people who reported being unable to obtain needed healthcare in the past year because they could not afford it.

### **Why Is It Important?**

The California Health Care Foundation states, "Californians have access to some of the best health care in the world. Yet on any given day, there can be a disappointing gap between the quality of medical care that scientific research has shown we can achieve and the quality of care that we actually receive. Variations in the quality of our health care--delivered by health plans, hospitals, provider groups, and long-term care facilities--have serious implications for all Californians."

### **How Are We Doing?**

In the 1999 community phone survey, 10 percent of respondents answered yes to the question, "Have you or a member of your household needed health care in the past year and been unable to receive it?" In 2001, even though a qualifier, "because you could not afford it," was added to the question, those answering yes rose to more than 12 percent. While results from the two years are not statistically comparable, the direction does not appear encouraging. There may be fewer affordable health insurance alternatives available to county residents now than a few years ago because some insurance companies have withdrawn from the county and others have raised rates.

INDICATOR E6

## Primary Health and Dental Care

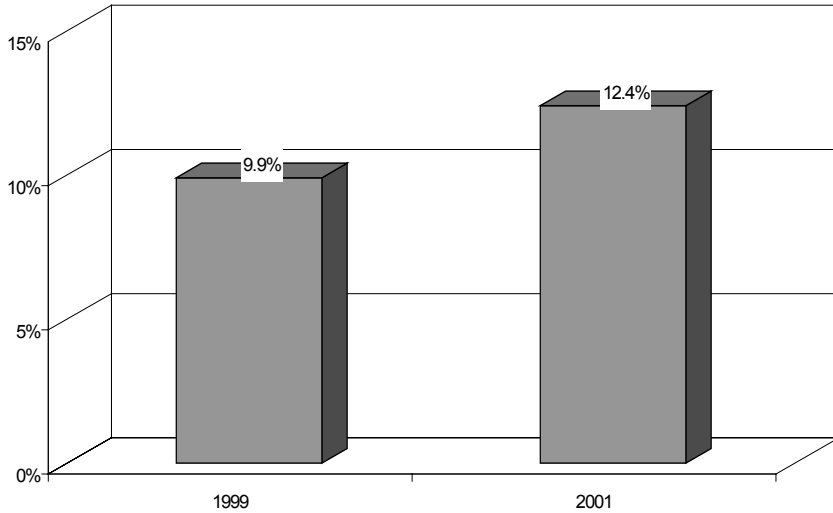
This indicator measures the availability of a regular source of medical and dental care

### **Why Is It Important?**

Maintaining health through regular preventive care is the most effective and least expensive form of health care, and represents one of the best investments of public health resources. In addition, if residents know in advance where to turn for medical or dental care, they are more likely to be able to access appropriate care when needed.

### **How Are We Doing?**

## % of Households Unable to Receive Needed Health Care



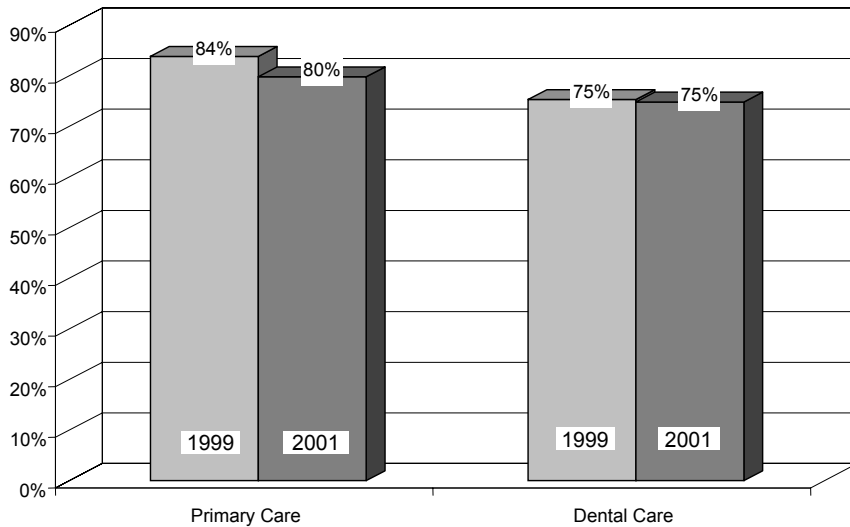
Source: ACTION for Healthy Communities telephone surveys, 1999 & 2001

Note: 2001 survey wording was changed to add "because you could not afford it"; results are not statistically comparable

In the 1999 and 2001 telephone surveys, residents were asked, "Do you have a regular source or primary health care?" and "Do you have a regular source of dental care?" Results show that in 2001, three out of four residents have regular access to dental care and four out of five have access to primary health care. Of those, 73 percent go to private physicians, 34 percent to medical clinics, and seven percent to emergency rooms (results add to more than 100 percent because multiple responses were allowed).

Access to dental care is unchanged from 1999. Access to regular medical care has dropped slightly since 1999, though it should be noted that the difference is not statistically significant and may be the result of chance.

## Regular Source of Care



Source: ACTION for Healthy Communities telephone surveys, 1999 & 2001

INDICATOR E7

# Student Physical Fitness

This indicator measures the physical fitness of elementary and high school students.

### Why Is It Important?

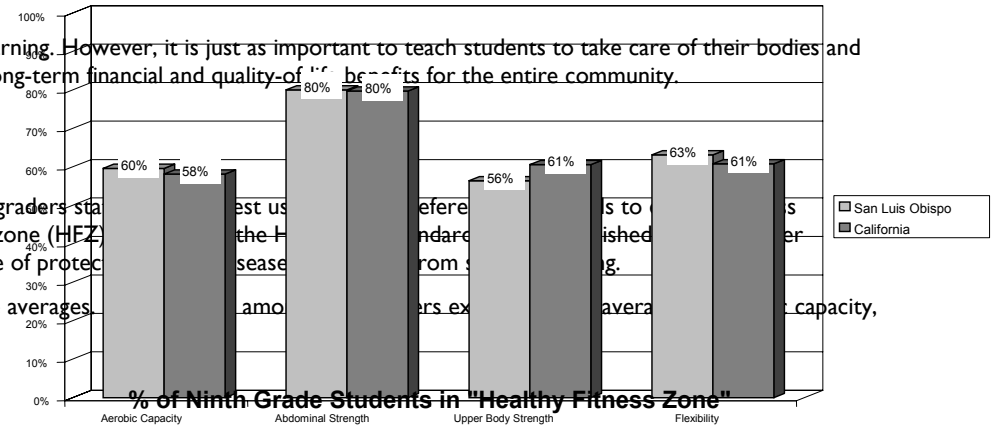
Many people think educational efforts mainly involve mental, social, and emotional learning. However, it is just as important to teach students to take care of their bodies and health. Good health habits learned in childhood are likely to last a lifetime, yielding long-term financial and quality-of-life benefits for the entire community.

### How Are We Doing?

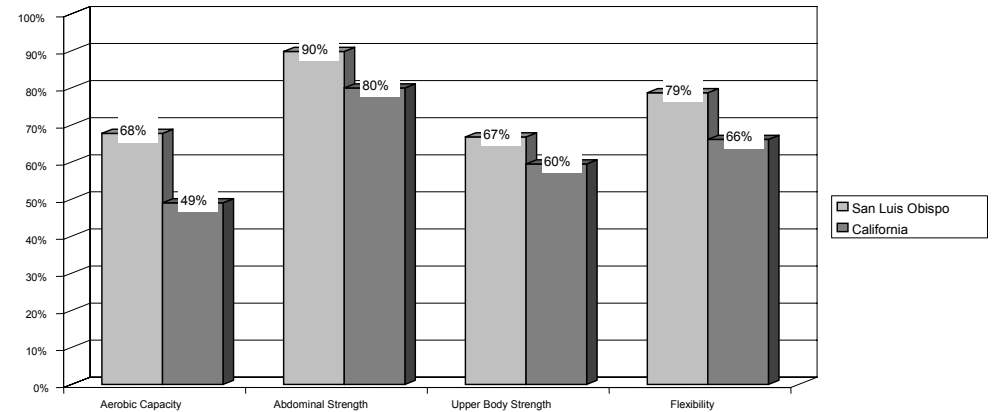
The Fitnessgram tests several types of physical ability among fifth, seventh, and ninth graders statewide. Performance is classified into two general areas: "in the healthy fitness zone (HFZ)" and "not in the HFZ." The HFZ is based on the FITNESSGRAM norms developed by the American College of Sports Medicine and the American Heart Association. The HFZ is defined as a level of fitness that offers some degree of protection against chronic disease and disability.

Among local students, fitness levels in Spring 1999 among fifth graders mirrored state averages in aerobic capacity, abdominal strength, upper body strength and flexibility.

**% of Fifth Grade Students in "Healthy Fitness Zone"**



**% of Ninth Grade Students in "Healthy Fitness Zone"**



SOURCE: California Department of Education, 2001

INDICATOR E8

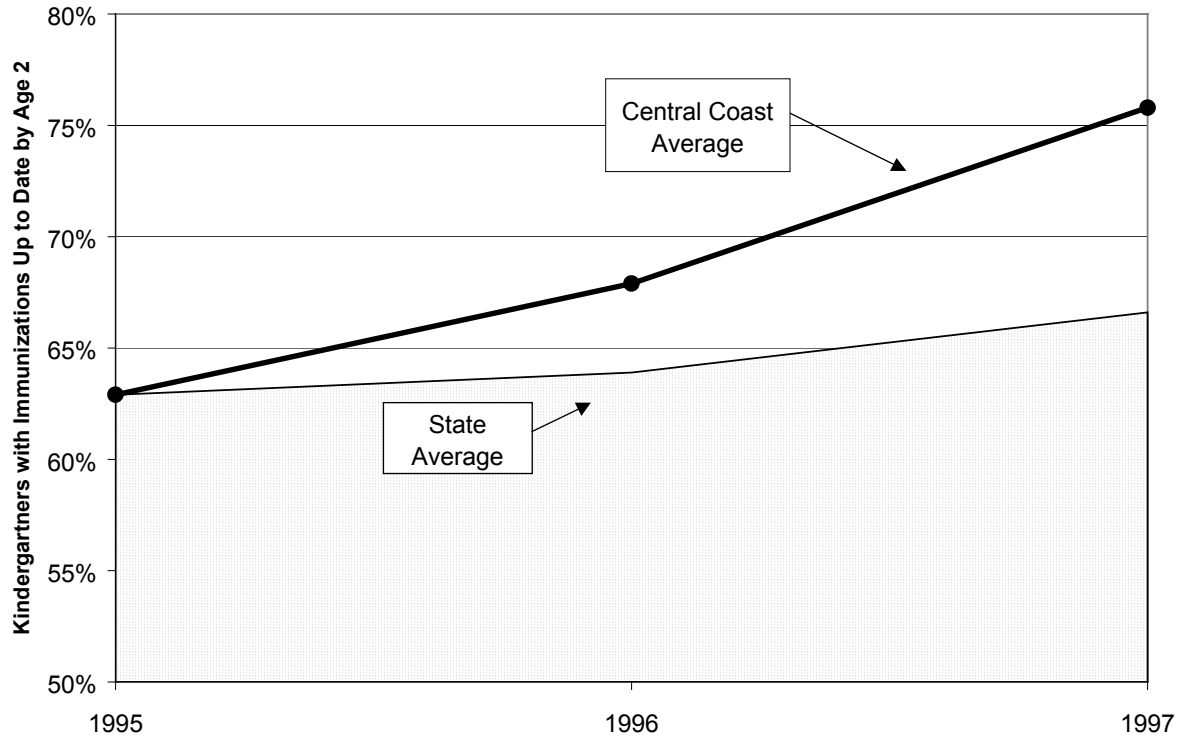
# Immunization Rate

This indicator measures the percentage of children immunized against preventable diseases by age two.

## Why Is It Important?

Immunizations are a key preventative measure that safeguards the health of children as well as the overall community. The widespread success of immunization programs in the United States has resulted in a drastic reduction of many harmful infectious diseases.

## Early Childhood Immunization Rates



SOURCE: California Department of Health Services, 2001

**How Are We Doing?**

By the time they get to kindergarten, the vast majority of children, countywide and statewide, have received adequate immunizations. Public health officials reviewing kindergartners' immunization records also determine the proportion that had immunizations up to date by age two. This accounts for a three-year lag in available data.

In recent years the county has strongly promoted early immunization. These efforts appear to have had a very positive effect. Since matching the statewide rate of early childhood immunization in 1995, the Central Coast region has scored the highest of seven California regions in the two years since.