A Strategic Framework for Action

Moving South Carolina Towards a Healthy Weight:

Promoting Healthy Lifestyles and Healthy Communities

Comprehensive Nutrition and Physical Activity Approaches to Address Obesity

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

SCOPE
South Carolina Coalition for Obesity Prevention Efforts

MOVING SOUTH CAROLINA TOWARDS A HEALTHY WEIGHT:

Promoting Healthy Lifestyles and Healthy Communities

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Moving South Carolina Towards a Healthy Weight: *Promoting Healthy Lifestyles and Healthy Communities*

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SC SCOPE

Executive Summary

The prevalence of overweight and obesity has become one of the most critical health issues in both South Carolina and the United States. U.S. Surgeon General Richard Carmona has called obesity America's single biggest health problem. Overweight and obesity cut across all ages, economic levels, and racial and ethnic groups. In South Carolina, over sixty percent of all adults are now either overweight or obese. This issue also affects South Carolina's younger citizens, as 25% of high school students and 25 percent of low-income children, ages 2 -5, are overweight or at risk of overweight.

Overweight and obesity and the associated risk factors of unhealthy eating and inadequate amounts of physical activity increase the risk for developing other chronic conditions and diseases, such as diabetes, cardiovascular disease, certain cancers, arthritis, sleep apnea, and depression. These chronic conditions result in a significant toll to the health care system. The total cost of obesity in the United States was $117 billion in 2000. Obesity-attributable medical costs for South Carolina alone reached over one billion dollars in 2003.

Obesity is a complex condition, with behavioral, biological, and environmental factors, and the causes are not yet completely understood. However, for most people, overweight and obesity are the result of an imbalance between caloric intake and caloric expenditure. Healthy lifestyles that include regular physical activity and good eating habits are the most effective way to prevent obesity, yet these goals are often difficult for people to achieve in today's society.

To address these factors and influences, a comprehensive strategic approach for South Carolina has been developed. This framework for action, *Moving South Carolina Towards a Healthy Weight: Promoting Healthy Lifestyles and Healthy Communities,* is based on the best scientific evidence currently available. Activities and initiatives outlined will address the full spectrum of South Carolina life, from corporate boardrooms to rural churches; from medical centers to daycare centers to strategically influence individuals, families, communities, organizations, and the policies and environments that shape our behavior. This framework can be used by policy makers, individuals, and organizations at all levels to guide and inform actions and activities to create supportive environments for a healthier South Carolina.

Vision

Moving South Carolina towards a healthy weight through healthy lifestyles and healthy communities.

Mission

The mission of SCCOPE is to foster statewide coordinated, collaborative, and sustainable efforts leading to the increased capacity for promoting healthy weight, controlling obesity, and decreasing the burden of obesity-related chronic diseases in South Carolina.

Goals

1. Increase the percentage of South Carolinians who meet the current age specific recommendations for regular physical activity.
2. Increase the percentage of South Carolinians who consume at least five servings of fruits and vegetables a day.
3. Increase the percentage of South Carolina mothers who breast-feed for at least six months.
4. Increase the percentage of South Carolinians who achieve and maintain a healthy weight.
5. Decrease the burden of obesity and obesity-related chronic diseases.
6. Increase the number of research projects in South Carolina related to obesity prevention and control.

Milestones

A comprehensive, coordinated statewide effort to promote healthy weight.

Communities support and promote the adoption of policy and environmental strategies to improve nutrition and increase physical activity.

Improved health of all populations who are affected by the burden of obesity and chronic diseases.

Key Objectives include:

Business and Industry:

- Adopting policies supportive of physical activity
- Adopting healthy nutrition policies
- Making the workplace environment breastfeeding friendly

Community and Faith-Based Organizations:

- Nutrition
  - Ü Implementation of a Healthy Dining Program
  - Ü Increasing access to fruits and vegetables
  - Ü Increasing healthy food options in youth programs outside of school
- Physical Activity
  - Ü Providing accessible and affordable opportunities for physical activity
  - Ü Improving the built environment to support safe physical activity as a normal part of everyday life

Schools:

- Increasing the availability of healthy foods and opportunities for physical activity
- Adopting the State Department of Education's Recommendations for Improving Student Nutrition and Physical Activity
- Provide training and support to schools in pursuit of a healthy environment.

Health Care Systems:

- Increasing policies, improve the health care environment, and enhance provider knowledge to support breastfeeding
- Provide education to health professionals on national guidelines and protocols for weight management, and the role overweight and obesity play in chronic disease management
- Advocating for initiatives and policies that support breastfeeding, healthful eating, physical activity and healthy weight

Research:

Research efforts looking at the risk factors, health consequences, and economic impact of obesity will influence and shape how best to address all facets of obesity and associated chronic diseases, due to the complexity of the issue and the numerous unanswered questions that remain. Because of the strong research capacity in South Carolina, a goal to specifically increase obesity-related research in the state has been included.

- Collaborate to strengthen obesity-related research opportunities
- Form a SCCOPE Research Subcommittee

This guide underscores the importance of a strong foundation in all levels of the South Carolina community and the significant benefit from working together to leverage resources, knowledge, and energy toward a shared vision for the state.

This framework represents a starting point and a long-term commitment will be essential in effectively impacting this public health epidemic. A society and culture supportive of healthy behaviors designed to address every aspect of daily life is critical to address obesity and improve health.

SCCOPE

South Carolina Coalition for Obesity Prevention Efforts

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Milestones :

A comprehensive, coordinated statewide effort to promote healthy weight

~

Communities support and promote the adoption of policy and environmental strategies to improve nutrition and increase physical activity

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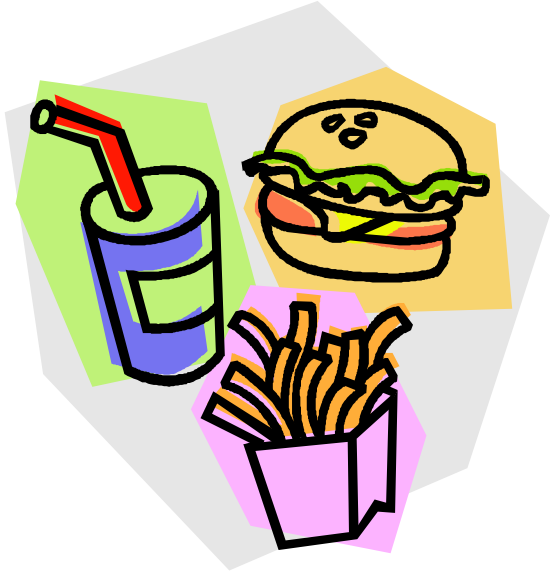
Improved health of all populations who are affected by the burden of obesity and chronic disease

Introduction

The prevalence of overweight and obesity has become one of the most critical health issues in both South Carolina and the United States. U.S. Surgeon General Richard Carmona has called obesity America's single biggest health problem. Overweight and obesity cut across all ages, economic levels, and racial and ethnic groups. In South Carolina, over sixty percent of all adults are now either overweight or obese. This issue also affects South Carolina's younger citizens, as 25% of high school students as well as 25 percent of low-income children, ages 2 -5, are at risk of overweight or are overweight.

Overweight and obesity and the associated risk factors of unhealthy eating and inadequate amounts of physical activity increase the risk for developing other chronic conditions and diseases, such as diabetes, cardiovascular disease, certain cancers, arthritis, sleep apnea, and depression. These chronic conditions result in a significant economic toll to the health care system. The total cost of obesity in the United States was $117 billion in 2000. Obesity-attributable medical costs for South Carolina alone reached over one billion dollars in 2003 *(TFAH, 2005).*

Obesity is a complex condition, with behavioral, biological, and environmental factors, and the causes are not yet completely understood. However, for most people, overweight and obesity are



caloric intake and caloric expenditure. Healthy lifestyles that include regular physical activity and good eating habits are the most effective way to prevent obesity, but these goals are often difficult for people to achieve in today's society.

There have been significant changes in American life that influence lifestyles and subsequent weight patterns. America has moved from a farm-based or labor-based economy to a more sedentary service-based economy.

- Physical education classes and recess time in schools have been reduced;
- Children are spending more time at home in front of televisions and computer games.

In South Carolina, over sixty percent of all adults are now either overweight or obese.

There has been a progressive shift in dietary habits, including increased consumption of convenience foods, sweetened beverages, and increased portion sizes *(IOM, 2005).*

A Strategic Framework

To address these factors and influences, a comprehensive strategic outline for South Carolina has been developed. This framework for action is based on the best scientific evidence currently available. Activities and initiatives outlined will address the full spectrum of South Carolina life, from corporate boardrooms to rural churches, from medical centers to child care centers. This framework can be used by policy makers, individuals, and organizations at all levels to guide and inform actions and activities to create supportive environments for a healthier South Carolina.

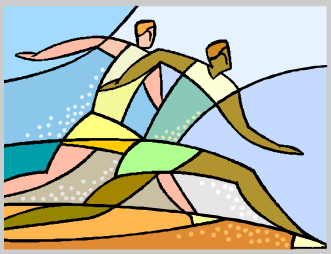
The development of this strategic framework is the first step in an ongoing collaborative and dynamic process between state agencies, business and industry, health care organizations, schools, academia, and a broad range of other stakeholders. Collectively, this diverse group of partners working together to promote healthy lifestyles and healthy communities, is the ***South Carolina Coalition for Obesity Prevention Efforts*** (SCCOPE).

The goals that will measure the success of statewide efforts are complemented by three milestones:

These milestones will guide efforts to address overweight and obesity, a critical health challenge that affects every facet of the South Carolina community:

- A comprehensive and coordinated statewide approach to obesity prevention and control that will enhance new and existing efforts in the state.
- Policy and environmental initiatives that will lead to sustainable changes throughout SC communities.
- Improved health of all affected by the burden of obesity and obesity-related chronic diseases.

Moving South Carolina towards a healthy weight will require initiatives at multiple levels reaching the individual, the community, and the environments in which South Carolinians live, work, and play.



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SCOPE

Section 1:

Burden and Overview of the Problem

Obesity has historically been viewed as an individual issue, with an individual solution. However, with the enormous increases in rates of overweight and obesity and the ensuing effects on society, obesity is now recognized as a critical public health problem. In the United States and in South Carolina, obesity is having a substantial negative impact on life expectancy, quality of life, and the economy. As society seeks solutions to this overwhelming epidemic, it is clear that overweight and obesity are deeply complex issues, rooted in behavioral, biological, cultural, and social factors.

> "If you looked at any epidemic -- whether it's influenza or plague from the Middle Ages -- they are not as serious as the epidemic of obesity in terms of the health impact on our country and our society." (Dr. Julie Gerberding, Director of the Centers for Disease Control and Prevention (CDC), in a speech delivered on Feb. 20, 2004)

Section 1 provides a starting point by:

- presenting an overview of the extent of the problem
- providing info on determining weight status
- identifying the lifestyle factors which influence the escalating trends
- discussing the impact of overweight and obesity towards the prevalence of associated chronic diseases
- outlining the associated economic costs
- describing the impact of health disparities

Determining Weight Status

The most commonly accepted measure of overweight and obesity for both children and adults is the ***Body Mass Index*** (BMI)******, that is calculated using an individual's height and weight. Adults are considered underweight if their BMI is less than 18.5, normal weight (healthy weight) if their BMI is 18.5-24.9, overweight if their BMI is 25.0-29.9, and obese if their BMI is 30.0 or higher (figure 1). Obesity is further categorized as Class I (BMI 30.0-34.9); Class II (BMI 35.0-39.9); and Class III (BMI >40.0). Class III obesity, once called morbid obesity, is now referred to as clinically severe obesity.

BMI	Weight Status
Below 18.5	Underweight
18.5 – 24.9	Normal
25.0 – 29.9	Overweight
30.0 & above	Obese

Figure 1

When an individual is evaluated in a clinical setting, ***waist circumference*** (WC) should also be measured along with BMI. The WC measurement is a tool to assess abdominal obesity, which is an independent risk factor for diseases. Men who have a WC of 40 inches and women who have a WC of 35 inches are at a higher risk of diabetes, high blood pressure, high lipid levels, and cardiovascular disease (CVD) due to excess abdominal fat *(NHLBI).* (figure 2, next page)

**** Bolded terms are in the glossary, Appendix C**

Classification of Overweight and Obesity by BMI, Waist Circumference, and Associated Disease Risks				
	BMI	Obesity Class	Disease Risk* Relative to Normal Weight and Waist Circumference**	
			Men 40 in. or less Women 35 in. or less	***Men >40 in. Women > 35 in.***
Underweight	<18.5			
Normal +	18.5 - 24.9			
Overweight	25.0 - 29.9		Increased	**High**
Obesity	30.0 - 34.9	**I**	High	**Very High**
Obesity	35.0 - 39.9	**II**	Very High	**Very High**
Clinically Severe Obesity	>40	**III**	Extremely High	**Extremely High**
* Disease risk for Type 2 Diabetes, Hypertension, and CVD				
** Increased waist circumference can also be a marker for Increased risk even in				

Figure 2

The term obesity is not used when describing children and youth. Instead, children and youth are said to be at risk of overweight or overweight. This terminology is used because children and youth are actively growing and their weight may change significantly during the growth period. Because ideal weight for children and youth is dependent on age and gender as well as height, adult BMI charts are not appropriate for children. BMI-for-age growth charts are used to determine a child's BMI percentile as compared to other children of the same age and gender. Children and youth who are between the 85th and 95th percentiles are said to be at risk of overweight; children and youth who exceed the 95th percentile on these charts are said to be overweight *(figure 3).*

Percentile	Category
Less than 5th	**Underweight**
5th to 84th	**Normal**
85th to 94th	**At risk of overweight**
95th and higher	**Overweight**

Figure 3

Overweight and Obesity

National: Adults

Although the prevalence of overweight and obesity has steadily increased over the past decade, much of this increase is due to levels of obesity rather than overweight.

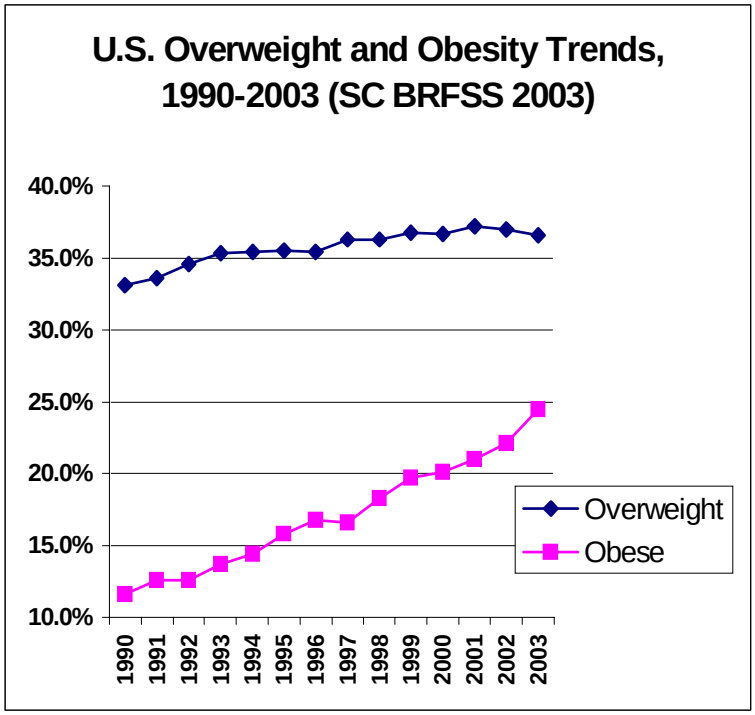


Figure 4

The rates of obesity have more than doubled since 1990. In 1990, an estimated 11.6% of U.S. citizens were obese; in 2003, an estimated 24.5% were classified as obese. During the same time period, the rate of overweight has only increased slightly.

The incidence of obesity among adults rises steadily for each successive age group until the 65-74 year old bracket, where it begins to decline. Despite that, the obesity rate for 65-74 year olds has continually risen during the past 40 years. Specifically, the percentage of obese women between the ages 65-74 has risen from 23 to 39% while the percentage of obese men has grown from 10% to 33%. With the enormous projected future increase in the number of US citizens in this age group, the implications of the obesity epidemic among older adults could potentially have substantial economic and social effects on all generations *(American Federation for Aging Research, 2005).*

"If obesity is left unchecked, almost all of Americans will be obese by 2050. Obesity is a normal response to the American environment."

Dr. James Hill, Director for Human Nutrition, University of Colorado

South Carolina: Adults

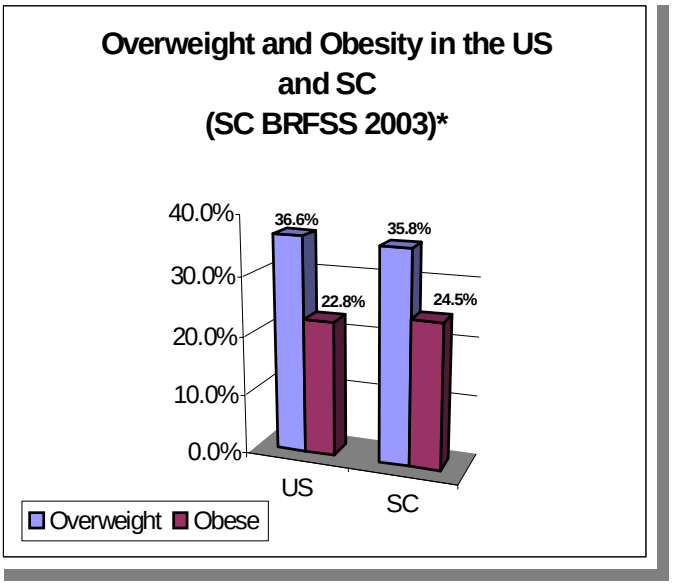


Figure 5

More than half of all Americans are overweight or obese, and South Carolinians are not an exception. In 2003, South Carolina's had the 13th worst obesity rate in the nation *(figure 5)*

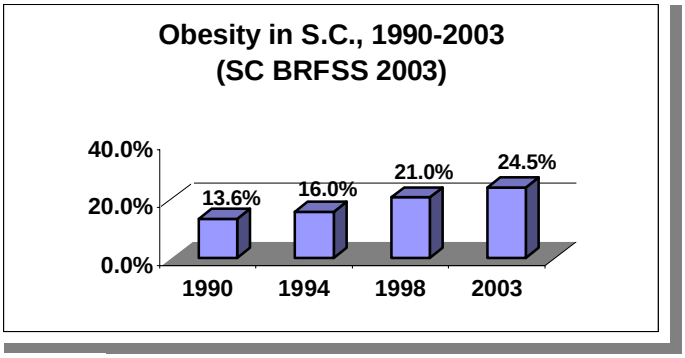


Figure 6

Similar to national trends, obesity rates in South Carolina have nearly doubled since 1990 *(figure 6)*

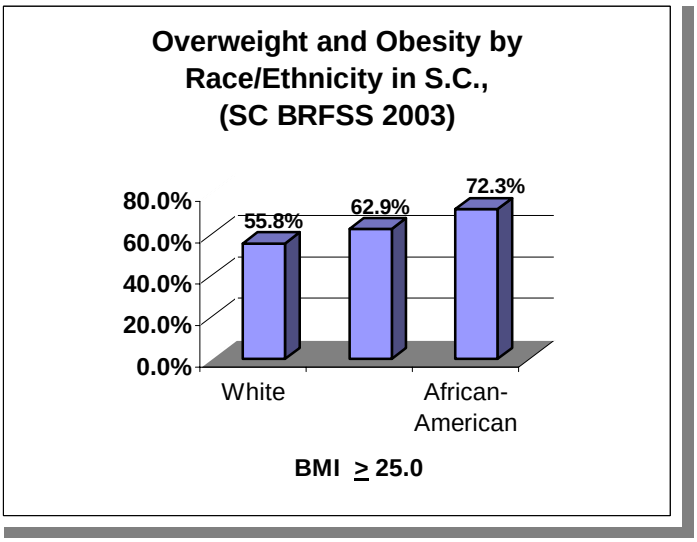


Figure 7

When examined across race/ethnicity in South Carolina, a larger proportion of African-Americans in the state are overweight or obese (72.3%) as compared to Hispanics (62.9%) and whites (55.8%) *(BRFSS 2003)* *(figure 7)*

**** Behavioral Risk Factor Surveillance System***

When examined across gender, a higher percentage of men (66.8%) than women (53.9%) in South Carolina are overweight or obese *(BRFSS 2003).*

Obesity levels are considerably higher among African-American women. In South Carolina, close to half of all African-American women are obese (44.8%) as compared to only 19.0% of white women.

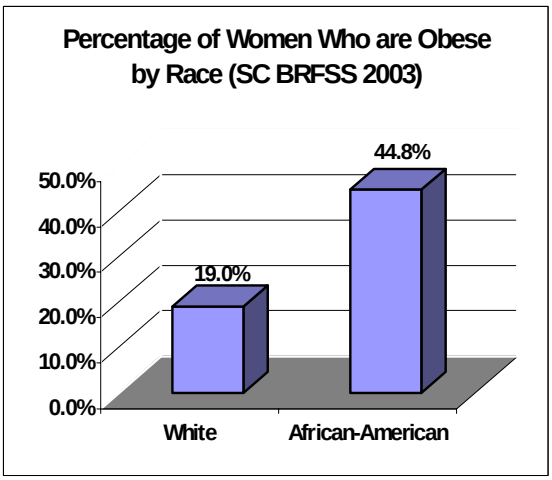


Figure 8

National: Adolescents and Children

If obesity trends continue, this generation of America's children will be the most obese generation in American history. Implications for the national health care system are staggering, but the impact on the individual health and well being is perhaps even more devastating.

Overweight children are more likely to miss school and experience problems with low self-esteem and depression. (*Chicago Consortium to Lower Obesity in Chicago Children*). In contrast, healthy behaviors in children and youth can have a positive impact on academic performance through improved concentration, reduced sickness, and reduced behavior problems *(Action for Healthy Kids, 2004).*

"Overweight adolescents have a 70 percent chance of becoming overweight or obese adults..."

U.S. Department of Health and Human Services. (2001)

South Carolina: Adolescents

Nearly 12 percent of all South Carolina high school students are overweight, with males more likely to be overweight than females (14.6% vs. 8.9%). There are differences by race/ethnicity for both overweight and at risk of overweight. While 12.9% of all high school students are considered at risk of overweight, this rises to 17.3% among Hispanic high school students. Variations for overweight prevalence are more pronounced. For example, 15.1% of African-American high school students are considered overweight, compared to 9.1% of white students. The overweight rate for African-American females is more than three times higher than white females (14.2% vs. 4.3%), which places these young girls at risk for weight problems persisting into adulthood *(YRBS - **Youth Risk Behavior Surveillance** - 1999).* *(Figure 9)*

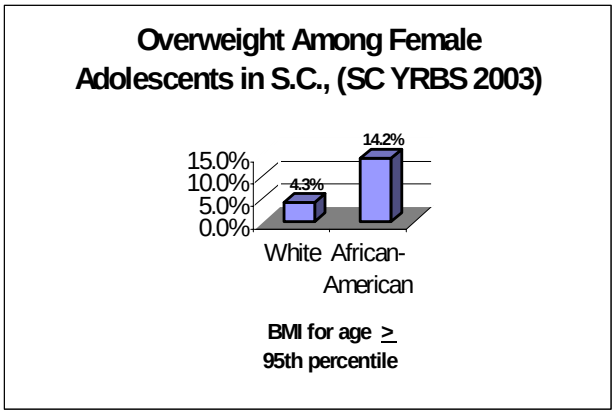


Figure 9

South Carolina: Children

South Carolina currently lacks comprehensive ***surveillance data*** for children younger than high school age. Data are available for the state's ***Women, Infants, and Children*** (WIC) program participants birth to 5 years old. Data for these children are reported by states to the CDC through the ***Pediatric Nutrition Surveillance System*** (PedNSS). A limitation of this data is that it can only be generalized to children five-years old and younger who meet the WIC eligibility requirements. Therefore, the data are not representative of all children under age 5 in South Carolina. Based on the number of WIC participants currently enrolled in South Carolina, the data represents approximately 50% of children from birth to 5 years.

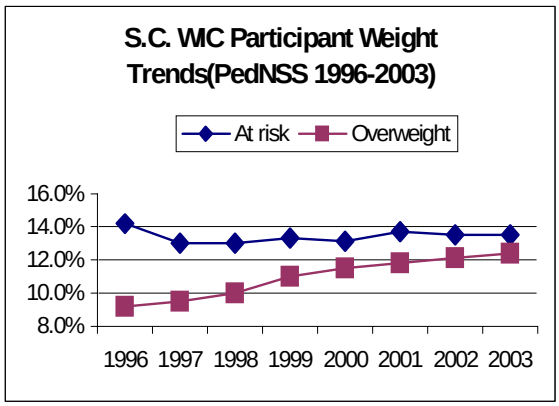


Figure 10

In South Carolina, at least one out of every four low-income children (ages 2-5) is overweight or at risk of overweight. In 1996, there was a considerable gap between the percentages of children in WIC who were at risk of overweight compared to those that are overweight. However, the trend lines from 1996 to 2003 indicate that the gap has narrowed. Similar to adult obesity trends, the prevalence of overweight in children has increased more than the prevalence rates for those at risk of overweight. (PedNSS 2003)

There are also notable racial/ethnic differences in weight status among WIC participants: a larger proportion of Hispanic (17.1%) children aged two to five years old are at risk of overweight as compared to white (13.2%) and African-American (13.0%) children in the same age range. In addition, there are more Hispanic (17.9%) children who are overweight as compared to white (11.1%) and African-American (12.3%) children.

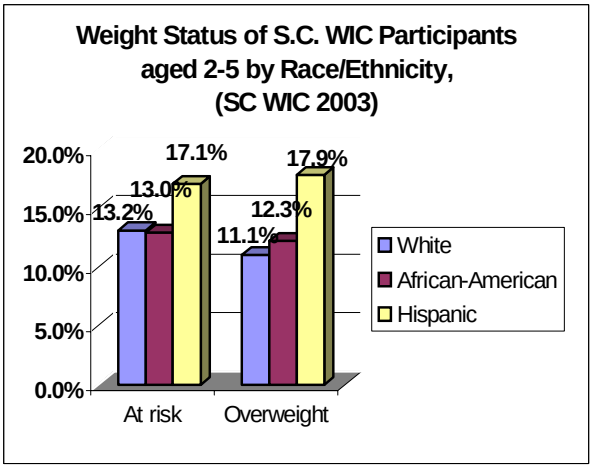


Figure 11

Nationally, overweight rates in children ages 6-11 have tripled since the 1970s while rates for adolescents ages 12-19 have more than doubled in the same time period.

(Centers for Disease Control, National Center for Health Statistics, 2000. NHANES IV Short Report.)

Genetics

The influence of genetics on the development of obesity is an area of active research, but there are still many unknowns. Genetics does play a role in obesity. However, it is unlikely that human genes could have changed quickly enough to account for the significant increases in obesity rates of the last few decades. The complex interaction of genetic, environmental, cultural, and behavioral factors has likely contributed to this dramatic increase in obesity prevalence.

Lifestyle Factors

Overweight and obesity are a result of an imbalance between caloric intake and caloric expenditure. Healthy lifestyles that include regular physical activity and good eating habits are the most effective way to prevent overweight and obesity; however, these goals are often difficult for people to achieve in today's society.

Physical Activity

Engaging in regular physical activity is one of the most important steps anyone can take to build physical and mental health, including maintenance of healthy weight. Physical activity provides benefits at even moderate levels of intensity that are within the capability of most individuals – activities like gardening or walking in the neighborhood. Yet, 45.9% of U.S. adults do not meet current recommendations for regular physical activity, putting them at risk for a score of chronic diseases and conditions *(BRFSS 2003).*

Major shifts in social and environmental conditions have triggered a rise in both inactivity and increased weight. Society has become increasingly suburbanized, and people are more inclined to drive than use active means of transportation. Work environments have shifted from a labor-based to service-based economy, which means that daily work has become more sedentary.

> It has been hypothesized that labor saving devices have contributed to decreased caloric expenditure. A recent study demonstrated that daily tasks such as clothes washing, dish washing, walking to work and stair climbing, which are now mechanized, contribute to the positive energy balance in our society.
>
> (Lanningham-Foster et al., 2003)

The ability to be physically active is partly dependent on how the community environment is designed and supported. The "environment" encompasses the structure and layout of neighborhoods, sidewalks and adequate lighting, walking or biking trails, and safety from traffic and crime.

Among children, competing academic priorities have resulted in less time for physical activity during school hours, both at recess and in physical education classes. Children are becoming increasingly sedentary and are spending hours each day in front of televisions and computer screens, rather than playing outdoors. Studies show that children now spend an average of 25% of their waking hours in front of the television or computer *(Kaiser, 2003).*

Although regular physical activity is important for all age groups, emerging evidence suggests that regular physical activity is also crucial for older adults to maintain and improve their quality of life. Physical activity helps maintain strong bones and muscles while also preventing falls. Studies also suggest that, even in older adults, regular physical activity may delay or prevent chronic diseases, such as arthritis, and reduce overall death and hospitalization rates *(Exercise: A Report From the National Institute on Aging, NIH, 2001).*

South Carolina: Adults

Over half of all South Carolinians do not participate in the recommended amount of daily ***moderate*** or ***vigorous physical activity.*** For those that do meet the recommended amounts of moderate ***or*** vigorous physical activity, Whites have the highest rate (48.9%), followed by Hispanics (42.9%), with the fewest African-Americans meeting the recommendations (37.1%) *(BRFSS 2003).*

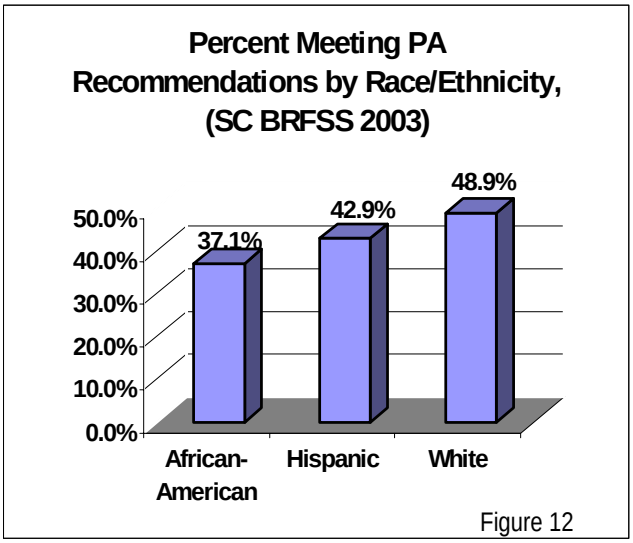


Figure 12

Recommendations are that children and adolescents participate in at least 60 minutes of moderate intensity physical activity most days of the week, preferably daily.

More disturbingly, 14.8% of all adult South Carolinians (regardless of race/ ethnicity) are considered physically inactive, meaning that they engage in no regular physical activity at all. This puts them at greatest risk for obesity and other chronic conditions.

National Physical Activity (PA) Guidelines: Moderate PA for at least 30 minutes on 5 or more days per week OR vigorous PA for at least 20 minutes on 3 or more days per week.

~

The rate of insufficient physical activity in South Carolina's youth was 10% higher than the national average.

South Carolina: Adolescents and Children

Physical activity is a critical factor in lifelong health. Only 60.0% of high school students meet recommendations for regular physical activity. Male students are slightly more active than females (66.1% vs. 54.0%). African-American and Hispanic students are less active than white students: 66.4% of white students meet the recommendations for regular physical activity, compared to 60.9% for Hispanic students and 52.9% for African-American students *(YRBS 1999).*

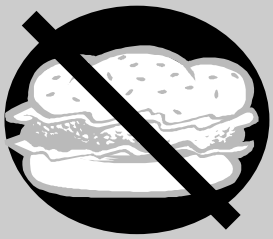
Nutrition

Along with adequate physical activity, good nutrition is another cornerstone of healthy living. This includes eating more whole grains, more fruits and vegetables, limiting calories from fat, and limiting total calories per day. According to the Healthy Eating Index for 1999-2000, only 10% of Americans eat a healthy diet consistent with federal nutrition recommendations. Consuming a calorie-dense diet, along with sedentary lifestyle patterns, are now typical behaviors for most Americans and are contributing factors to the obesity epidemic *(Bowman 1998).*

In recent years, the availability and accessibility to high calorie foods has increased significantly. Americans are eating food prepared away from home more than ever. Food eaten outside of the home tends to be less healthy, providing more calories, sugar, sodium, and fat than food prepared in the home. In 1970, households spent 26% of their total food spending on food-away-from-home; by 2002, this percentage had increased to 46% (*USDA Economic Research Report 4, 2005).*

> In America, average daily calorie consumption increased by 300 calories between 1985 and 2000.
>
> (USDA Economic Research Service)

During this same time period, portion sizes have increased dramatically. The most glaring example is the notorious "super-sizing." According to CDC, portion sizes began to rise in the 1970s, increased in the 1980s, and have grown ever since. For example, in 1957, the typical serving of soda was 8 fluid ounces. A typical serving size of soda is now 32 to 64 fluid ounces. During this time period, there has also been a steady rise in the prevalence of obesity *(CDC, 2003).*



Eating breakfast is an important lifestyle habit for healthy weight maintenance; skipping breakfast can lead to snacking and overeating later in the day. A recent study of young adults found that obesity and insulin resistance syndrome rates were 35% to 50% lower among people who ate breakfast every day compared to those who usually skipped breakfast. The report suggested that eating breakfast might have beneficial effects on appetite, insulin resistance and energy metabolism *(American Heart Association, 2003).*

Consumption of low-fat dairy products is another important part of a healthy diet. Dairy products are the richest sources of calcium in the diet and current recommendations are for 3 servings of dairy each day. Although additional research is needed, recent studies have begun to identify a possible link between consuming dairy foods and healthy weight maintenance and even weight loss in adults.

Nutrition - South Carolina: Adults

Fewer than one in four South Carolina adults consume at least five or more servings of fruits and vegetables daily as recommended for good health. Hispanics are more likely to meet these guidelines (27.8%) than Whites (22.7%) or African-Americans in the state. (19.5%) *(BRFSS, 2003).*

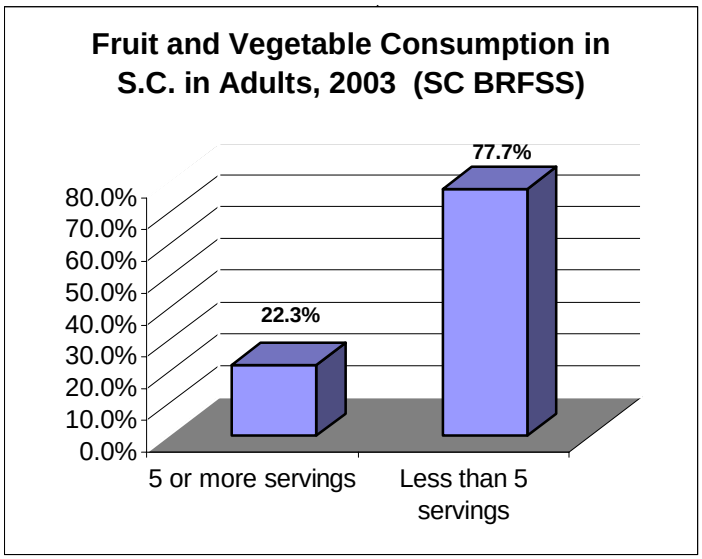


Figure 13

Nutrition - South Carolina: Adolescents and Children

Although South Carolina adults are not consuming adequate fruits and vegetables, even fewer South Carolina high school students are meeting the recommended five or more servings of fruit and vegetables each day. Less than one in five high school students consume this recommended amount for good health. This is consistent for both males and females, but there is variation among racial/ethnic groups: more African-American and Hispanic students (20.6% and 20% respectively) consume the recommended servings of fruits and vegetables each day than white students (13.9%) *(YRBS 1999).*

In addition to identifying intake of fruits and vegetables, YRBS assesses two other nutritional behaviors that may play a role in establishing and maintaining a healthy weight: eating breakfast and milk consumption. Unfortunately, 41.4% of adolescents in the state do not eat breakfast during a school week. More African-Americans (43.7%) report not eating breakfast than Whites (39.6%) or Hispanics (37.9%)*(YRBS 1999).*

Only 12.1% of South Carolina youth drink 3 glasses of milk per day. Hispanic children are more likely to consume 3 glasses of milk daily (20.0%) compared to Whites (13.3%) and African-Americans (9.9%) *(YRBS 1999).*

Another lifestyle factor that influences both physical activity levels and nutritional behaviors is screen time. Children who are watching television or playing computer games are not being physically active, and national research confirms a positive independent relationship between screen time and the prevalence of overweight in children *(CDC, 2003).* Additionally, more than half of television advertising to children promotes high calorie, high fat, and high sugar foods and beverages, such as fast food, snack foods, soft drinks, candy, and sugar-sweetened cereals. In the 1970s, a child watched about 20,000 commercials per year. This amount has increased dramatically; a child now watches more than 40,000 television commercials each year. Since exposure to television advertising can influence food and beverage choices, these unhealthy dietary choices along with sedentary time while watching television can lead to energy imbalance and weight gain *(IOM).*

American children watch television an average of 1,023 hours per year, as compared to 900 hours being spent in school. By the age of 17, a child has spent 38% more time in front of the TV than in school.

(Neilson Media 2003)

It is recommended that children engage in two hours or less of entertainment from television/ computer/video games. Almost half (47.5%) of 1999 YRBS respondents in the state report three or more hours of sedentary time per school day from television alone.

The American Academy of Pediatrics recommends that children watch no more than 2 hours per day of entertainment from television/ computer/video games sources.

Breastfeeding

A growing body of evidence suggests breastfeeding offers protection against childhood overweight. Although the exact mechanisms are still under investigation, theories regarding this protective link between breastfeeding and lower rates of obesity include (HHS Blueprint for Action on Breastfeeding):

> The American Academy of Pediatrics and numerous other health organizations recommend exclusive breastfeeding for the first six months of life.

- Breast-fed Infants have more self-control over when and how much they eat; this early regulation of food intake may be important for establishing long-term appetite regulation patterns.
- Breastfeeding babies experience a variety of tastes through breast milk, which may help in acceptance of a greater variety of food when solids are started; this greater variety in the diet may help in establishing long-term healthier eating patterns.
- Breast-fed babies' biological adaptations during breastfeeding may help defend against later energy imbalance.

Overall rates of breastfeeding have increased, and breastfeeding initiation is near the national goal of 75%. However, African-American mothers and lower or low-income mothers continue to consistently have the lowest breastfeeding rates.

> A minimum of $3.6 billion could be saved if exclusive breastfeeding increased from current levels to Healthy People 2010 recommended levels.
>
> (Weimer, J. "The Economic Benefits of Breastfeeding: A Review and Analysis." March 2001)

Despite the documented health benefits of breastfeeding for babies and mothers, along with the potential protection against overweight and obesity, breastfeeding duration rates remain low. National data show that only 15% of white mothers, 13% of Hispanic mothers, and 10% of African-American mothers exclusively breastfeed their babies for at least six months as recommended by the American Academy of Pediatrics and other health professional organizations.

> The Institute of Medicine report 'Nutrition During Lactation' defines exclusive breastfeeding as the consumption of human milk as the sole source of energy, and partial breastfeeding when breastfeeding is supplemented with formula, other foods, or both.

In South Carolina, less than 57% of new mothers ever breastfeed their babies, 27.3% are still breastfeeding at six months, and only 13.6% are exclusively breastfeeding at six months (*2003 National Immunization Survey*).

Impact of Weight on Chronic Diseases and Conditions

Individuals who are overweight or obese have increased odds of developing a chronic disease. Those who are obese are at the greatest risk. Obesity is associated with more than 30 major diseases, including diabetes, high blood pressure, coronary heart disease, stroke, and certain types of cancer (such as endometrial, breast, prostate, and colon).

Obesity is related to about:

- ***Two-thirds of Type 2 Diabetes***
- ***Two-thirds of heart disease***
- ***15% of cancer in men and 20% of cancer in women***

  (CDC 2005)

When assessing the most severe cases of obesity, Class III obesity rates have increased almost 3-fold from 1990 to 2000. Individuals with clinically severe obesity have twice the risk for all-cause mortality compared to people with Class I obesity. In addition, 75% of adults with clinically severe obesity have at least one co-morbid condition, such as diabetes or high blood pressure. African-American women and those with low educational levels have the highest rates of Class III obesity. When looking at age, 18 to 29 year olds have had the highest increase in rates of Class III obesity (JAMA, 2002).

Metabolic syndrome refers to a cluster of disorders that dramatically increases the likelihood to develop Type 2 Diabetes, heart disease or stroke. Metabolic syndrome affects almost a quarter of the American population. Risk factors for metabolic syndrome include obesity, high blood pressure, high insulin levels, and abnormal cholesterol levels. Although the exact cause of metabolic syndrome is not known, most researchers believe it is caused by a combination of genetic makeup and lifestyle choices – with being overweight and inactive as major contributors.

Obesity is a greater trigger for health problems and increased health spending than smoking or drinking. Individuals who are obese have 30% to 50% more chronic medical problems than those who smoke or drink heavily.

(The Effects of Obesity, Smoking, and Drinking on Medical Problems and Costs, Health Affairs, March/April 2002)

Overweight children and adolescents are also more vulnerable to chronic diseases, such as heart disease, high blood pressure, and particularly Type 2 Diabetes. Nationally, over the past ten years, the prevalence of diabetes has increased by more than 50% and over the next 50 years, it is projected to increase by another 165 percent (TFAH 2004).

If current trends continue, one out of every three children born in 2000 will be diagnosed with Type 2 Diabetes, primarily due to poor diet and a lack of physical activity *(Vehkat Narayan, K. JAMA, 2003).*

Children who develop Type 2 diabetes at a young age lose 20-28 "life years," and 28-35 "quality adjusted life years" *(Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity, DHHS, 2001).*

Among overweight 5-10 year olds, 60% already have at least one cardiovascular disease risk factor.

(Pediatrics, 2003)

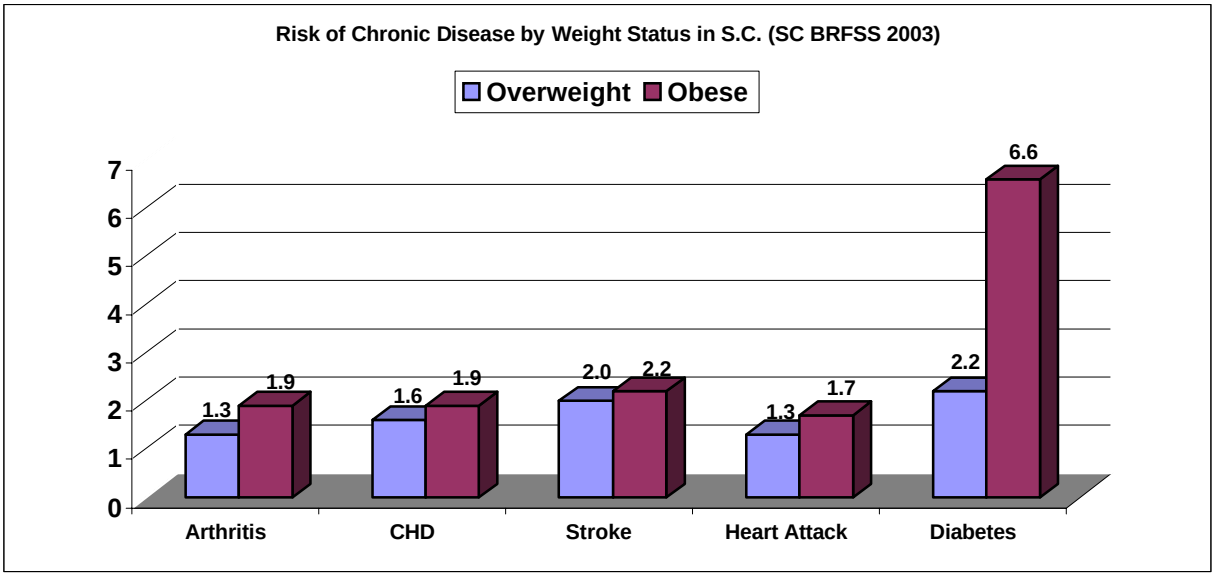


Figure 14

In SC, individuals who are obese are almost twice as likely to develop arthritis, coronary heart disease and stroke, over one and a half times more likely to have a heart attack, and *over six and a half times more likely to have diabetes* than those in the normal weight range *(BRFSS, 2003).* *(Figure 14)*

SC PREVALENCE RATES:

- **4th in the nation for diabetes**
- **2nd in the nation for diabetes among African-Americans**
- **3rd in the nation for rates of prostate cancer**
- **2nd in the nation for rates of stroke death**

(BRFSS, 2003)

Selected Chronic Diseases by Weight Status in South Carolina			
	Normal Weight (BMI <25)	**Overweight (BMI 25—29.9)**	**Obese (BMI ≥30)**
Arthritis	**24.9%**	**30.1%**	**38.8%**
Diabetes	**3.7%**	**20.3%**	**20.3%**
Coronary Heart Disease	**3.3%**	**6.3%**	**6.3%**
Heart Attack	**3.3%**	**4.4%**	**5.4%**
Stroke	**1.6%**	**3.2%**	**3.6%**

Figure 15

Quality of Life

Obesity and obesity-related chronic conditions can lead to decreased quality of life, which is a problem among all populations.
A significant percentage of obese individuals do not rate their general health as excellent or very good as compared to those with lower BMI.

Severely obese children have reported an even lower quality of life than children with cancer undergoing chemotherapy (TFAH, 2004).

A significantly higher percentage of South Carolinians report excellent general health as compared to those who are obese. Similarly, a significantly more obese SC residents report fair or poor health as compared to those who are at a healthy weight.

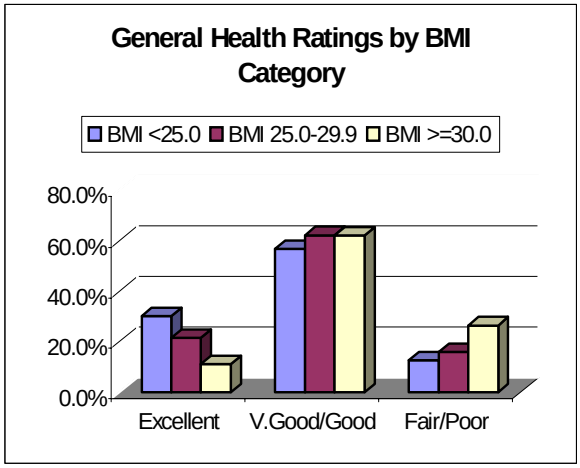


Figure 16

Obese individuals in the state also report a significantly higher average of physical or mental health days that were not good as compared to those with a lower BMI *(BRFSS 2003).*

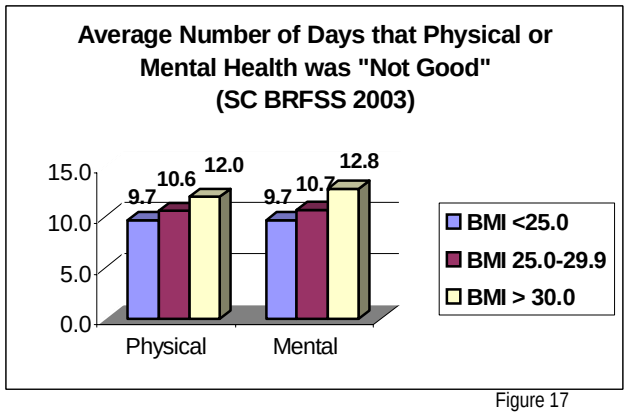
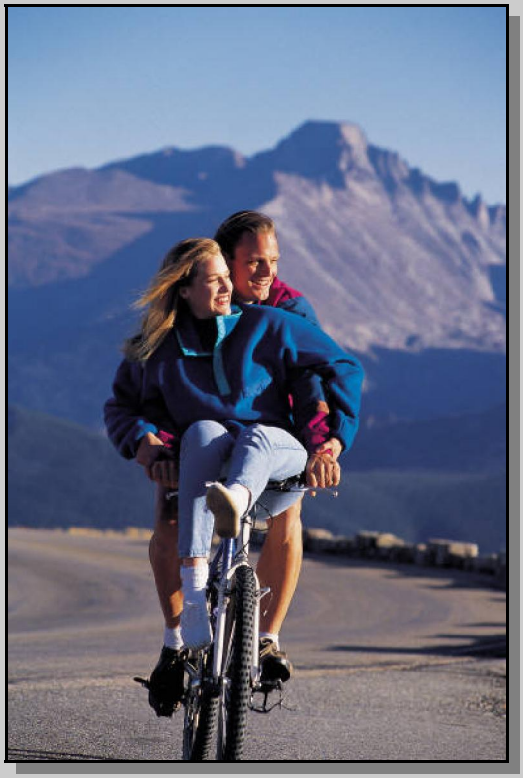


Figure 17



Impact of Overweight and Obesity: Economic Costs

"Obesity has become a crucial health problem for our nation... The medical costs alone reflect the significance of the challenge."

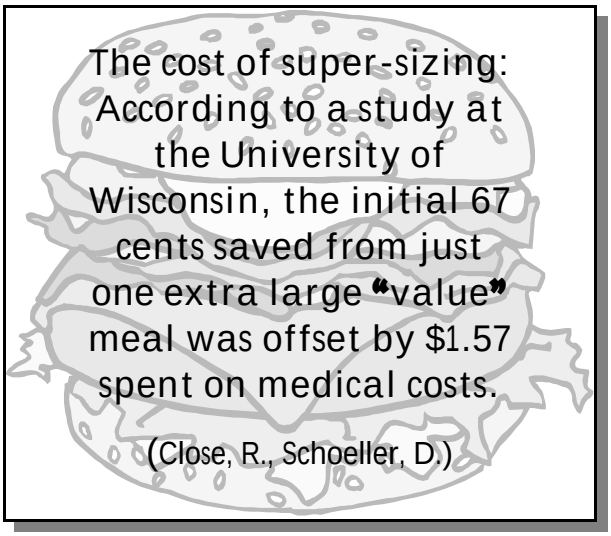
Tommy Thompson, Former U.S. Secretary of Health & Human Services

In recent years, researchers have documented the impact that obesity has on health care and related costs. The total cost of obesity in the United States was $117 billion in 2000.

Health care costs for obese individuals average 36% more than for people of normal weight. Obesity-attributable medical expenditures were estimated at $75 billion in 2003. (Finkelstein, et al, 2004).

In South Carolina, the obesity-attributable medical expenditures were estimated at $1.06 billion in 2003. More than half of these expenses were paid by taxpayer dollars through the Medicaid and Medicare programs.

Along with the impact of obesity to health care costs, employers of all sizes feel the impact of this enormous burden. The cost of obesity-related health problems to U.S. businesses in 1994 were almost $13 billion (with approximately $8 billion of this for health insurance expenditures, $2.4 billion for sick leave, $1.8 billion for life insurance, and close to $1 billion for disability insurance) *(DHHS, 2003).*



According to the USDA, healthier diets could prevent at least $71 billion per year in lost productivity, medical costs, and lost lives

(ERS, USDA, Agriculture Information Bulletin No. 750, 1999)

~

It has been estimated that if all physically inactive Americans became active, approximately $77 billion in annual medical costs would be saved

(Pratt, The Physician and Sports Medicine 2000)

Health Disparities

The National Institute of Health defines ***health disparities*** as: "*differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups in the United States."* Population groups can be defined by factors such as race, ethnicity, age, gender, and socioeconomic status.

Overweight and obesity prevalence is higher among people of lower socioeconomic status (defined by an income at or less than 130 percent of poverty). Women of lower socioeconomic status are about 50 percent more likely to be obese than those at higher economic levels. For reasons that are unclear, prevalence rates among men do not vary significantly by socioeconomic group *(BRFSS, 2003).*

Low-income families often consume lower-cost foods with relatively higher levels of calories when they lack resources to purchase a healthier balance of more nutritious food. Households often reduce food spending by changing the *quality* of food consumed before they reduce the *quantity* of food eaten. The Food Research and Action Center reported SC ninth among states in food insecure households: those who are unable, for financial reasons, to enjoy sufficient diet at all times *(FRAC 2003).*

South Carolina's demographics suggest that the burden of overweight and obesity will continue to increase. Almost 34% of the population, or 1.4 million people, belong to a racial or ethnic minority. African-Americans constitute approximately 30 percent of the state population (a 14% increase over the last decade), and the Hispanic population of South Carolina has more than doubled in the past decade *(SC DHEC).*

According to surveillance data, minorities in SC are disproportionately affected by overweight and obesity:

- Overall, 72.3% of African-Americans in South Carolina are overweight or obese, compared to 55.7 % of Whites.
- African-Americans are especially at risk for obesity, with 37.8% of African-American adults classified as obese, compared to 20.4% of white adults.
- Obesity levels are dramatically higher among African-American women: 44.8% of African-America women are obese compared to 19.0% of white women.
- Among high school females, the overweight rate for African-American females is more than three times higher than for white females (14.2% vs. 4.3%).
- More Hispanic children, ages 2 to 5, are overweight (17.9%) compared to African-American (12.3%) children, or white (11.1%) children.

14.1% of the population in South Carolina is below poverty as compared to 12.4 percent of the U.S. population

Section 2:

Framework for Action

Existing State Efforts

Addressing obesity prevention and control can only be successful through a collaborative approach involving a wide range of partners and stakeholders. Fortunately, South Carolina is a state small enough that diverse groups recognize the benefit of working together, yet large enough to have many experts committed to improving the health of the state's citizens. Collaborative efforts to promote healthy nutrition and physical activity, through individual behavior approaches and policy and environmental initiatives have long been a part of South Carolina's history.
One example of this is the CDC funded Florence Heart to Heart Program (1986-1991), which was one of the first instances in the nation where a state health department addressed risk reduction through policy and environmental change in a single community.

In 1999, South Carolina prepared two comprehensive reports describing the burden of obesity and physical inactivity in the state. The "Report on the Impact of Obesity on Health in South Carolina" was prepared for the South Carolina Legislature as a result of Concurrent Resolution S.252. Findings identified the need for the state to allocate annual funding for obesity efforts, including implementing prevention and treatment programs, enhancing surveillance, and developing policy to bring about changes in obesity rates among the population. However, no state funding has been allocated for obesity initiatives. DHEC contracted with the University of South Carolina School of Public Health's Prevention Research Center (PRC) to develop *Good Health: It's Your Move. Physical Activity in South Carolina*. This report was prepared to assist professionals and community leaders in efforts to promote physically active lifestyles.

South Carolina Healthy Schools (SCHS) is a collaborative project of the State Department of Education (SDE) and DHEC. This program, funded by CDC's Division of Adolescent and School Health, has enhanced the development of coordinated school health programs in the state. These programs include a focus on the reduction of risk behaviors associated with physical inactivity, unhealthy eating, and obesity.

The South Carolina Governor's Council on Physical Fitness, established in 1972, provides a forum for communication, collaboration and, coordination of individuals and organizations with an interest in physical activity and healthy lifestyles. The Council promotes the health and well-being of South Carolinians of all ages by advancing levels of physical activity and fitness.

The South Carolina Coalition for Promoting Physical Activity (SCCPPA) is a non-profit organization working to unite the efforts of organizations, schools, businesses, and individuals concerned with promoting physical activity and improving health for all citizens of the state. SCCPPA plays a lead advocacy role for physical activity initiatives in South Carolina, working with decision makers to influence public policy at the state and community level. SCCPPA also sponsors a statewide physical activity conference each year to provide professional development and training opportunities.

"It is our goal to address health in the Seventh Episcopal District to work toward a healthier district utilizing the Health Commission and other components of the Episcopal district working together to get this done."

Bishop Preston Warren Williams, II
Presiding Bishop of the Seventh Episcopal District African Methodist Episcopal Church

The *Strategic Health Plan for the African Methodist Episcopal (AME) Church* was released in January 2002. The statewide Seventh Episcopal District AME Church developed the plan in partnership with DHEC and the South Carolina Primary Health Care Association. These strategic planning efforts will be updated so that in conjunction with other activities and programs of the AME Church, will address quality of life for all along with eliminating racial and ethnic health disparities through prevention, awareness, and policy development.

The Office of Public Health Nutrition (OPHN) houses a food stamp nutrition education grant from USDA. The nutrition education campaign, “It’s Your Health…Take Charge,” is based on ***social marketing*** principles and designed to promote positive behavior changes in nutrition habits and physical activity patterns to impact obesity and other chronic diseases in the state.

Sumter County Active Lifestyles (SCAL) is a community-based coalition working to create and expand community environments and policy changes that support physical activity in Sumter County. SCAL came about as a result of a grant awarded to the DHEC Wateree Health District from the USC Prevention Research Center.

The extensive cadre of state agencies, organizations, community groups, academic professionals, and individuals sharing the same desire for a healthier South Carolina, along with existing health promotion efforts all contributed towards DHEC securing CDC funding for obesity prevention efforts in 2003. This ***Capacity Building*** grant was designed to establish infrastructure and develop a partnership for obesity prevention initiatives in the state. As a result, the Division of Obesity Prevention and Control (DOPC) was formed within the Bureau of Community Health and Chronic Disease Prevention to coordinate statewide obesity prevention efforts. DOPC program focus areas, as outlined by the CDC, include: increasing consumption of fruits and vegetables, increasing physical activity, promoting breastfeeding, reducing screen time, and balancing caloric intake and expenditure.

The Advisory Council outlined six overall goals for the South Carolina strategic framework:

1. Increase the percentage of South Carolinians who meet the current age specific recommendations for regular physical activity.
2. Increase the percentage of South Carolinians who consume at least five servings of fruits and vegetables a day.
3. Increase the percentage of South Carolina mothers who breastfeed for at least six months.
4. Increase the percentage of South Carolinians who achieve and maintain a healthy weight.
5. Decrease the burden of obesity and obesity-related chronic diseases.
6. Increase research projects in South Carolina related to obesity prevention and control.

Engaging Stakeholders

As a first step in building a statewide infrastructure, an internal DHEC committee was convened to identify partners for collaboration on obesity prevention efforts. These identified partners represented seven key sectors: community-based organizations, health care systems, voluntary health organizations, academic institutions, professional organizations, government/policy makers, and the media. An Advisory Council representing a composite of partners from these key sectors was selected. This group was charged with the task of guiding Work Groups in the development of a comprehensive state format to address obesity in South Carolina.

The Advisory Council initially met in March of 2004 to discuss tactics to address obesity prevention and control in the state. DOPC provided comprehensive resources and the most current data available on overweight and obesity issues to the Advisory Council. To guide the planning process and to identify a uniform focus, a vision and mission statements were developed.

Developing a Strategic Framework for South Carolina

In May of 2004, over 120 individuals and organizations attended a meeting in Columbia to launch statewide efforts to develop a strategic framework addressing obesity prevention and control. Participants self-selected into Work Groups: Business and Industry; Community and Faith-Based Organizations; Health Care Systems; and Schools. This broad-based, diverse group of South Carolinians formed the initial membership of the *South Carolina Coalition for Obesity Prevention Efforts (SCCOPE).*

Each Work Group was led by a member of the Advisory Council and staffed by a representative from the Bureau of Community Health and Chronic Disease Prevention within DHEC. Work Groups were provided with a collection of resources and examples of activities to create sustainable policy and environmental changes. The Work Groups met independently to develop objectives and strategies for the six goals and to expand and refine drafts.

Throughout this collaborative planning process, Work Group participants were encouraged to brainstorm, bring their diverse experience and expertise to the table, and introduce new and creative strategies to impact obesity in the state. As partners, Work Group participants were also charged to actively participate in the process and act as liaisons to other agencies, professional groups, and organizations to communicate the state planning efforts and solicit feedback and assistance in their focus areas.

A central premise used in the Work Group planning process was that recommendations developed for the state plan were to be data-driven, based on sound scientific evidence, grounded in the socio-ecologic model, and lead to policy and environmental changes. During Work Group meetings recurring themes revolved around the three milestones previously addressed: the importance of a comprehensive, coordinated approach; the necessity to enable communities to promote and support policy and environmental strategies; and ultimately, the improvement of the health of all citizens of the state. These core principles were used to guide efforts addressing overweight and obesity.

Short-term objectives:
1-2 years

Medium-term objectives:
3-4 years

Long-term objectives:
5 plus years

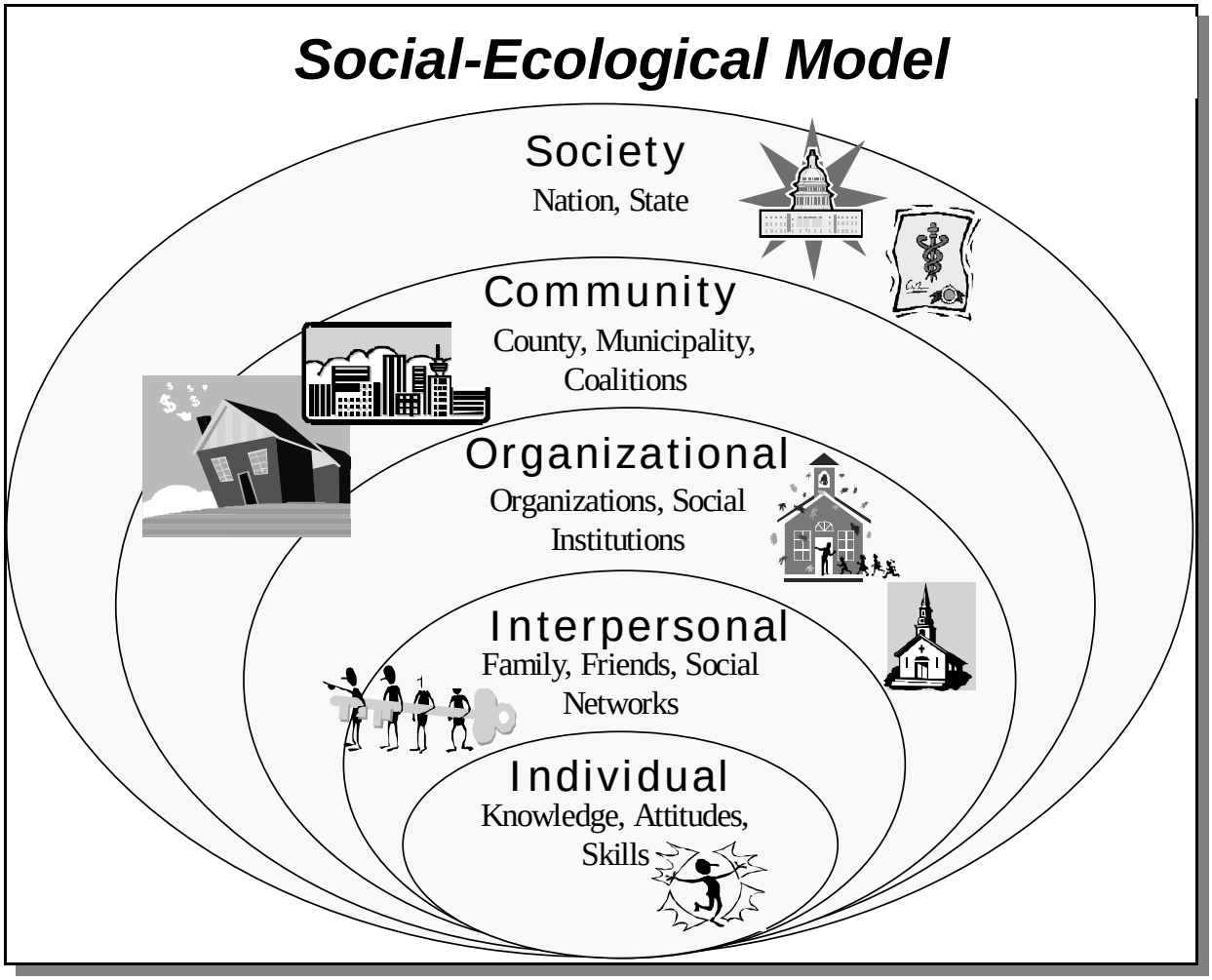
Because obesity is a complex issue requiring a long-term commitment, short, medium, and long-term time frames were outlined so objectives would result in a comprehensive approach to obesity prevention and control efforts.

DOPC continued to provide on-going technical assistance to Work Groups through different types of communication and additional resources to facilitate the planning process. Once initial drafts were submitted, a team of DHEC evaluators and epidemiologists assessed each of the Work Group drafts. This process was used to ensure that the objectives met SMART (Specific, Measurable, Achievable, Realistic, Time-bound) criteria, to identify gaps in current data and surveillance, and to begin an evaluation outline. The CDC State Plan Index was used as a guide to assist in determining the critical components for a comprehensive framework. Work Group participants provided feedback on draft revisions throughout fall 2004, with final drafts completed in December of 2004.

During this first phase of developing a statewide strategic framework for obesity, Work Group membership was typically limited to these initial participants. This helped to provide a more stable, committed planning group working on this specific activity. Having completed this initial planning stage, SCCOPE is open to a wide range of new partners to continue with the ongoing efforts to put the suggested frameworks into action.

Moving South Carolina Towards a Healthy Weight will require integrated strategies at multiple levels. This multi-level approach is based on the ***social-ecologic model*** (SEM), and that health promotion interventions are most effective when every element of a community is engaged. Given the magnitude of the obesity epidemic, traditional approaches solely targeting individuals alone cannot meet the challenges of obesity. While well-designed individual level approaches are essential, these efforts are most effective if they are matched with ***environmental*** and ***policy initiatives*** that support sustainable behavioral change across the community.

The SEM capitalizes on the premise that each element of a community is interconnected and change at one level can catalyze change in another.



The SEM provides a theoretical framework for obesity prevention and control efforts, showing that individuals are more likely to sustain healthy lifestyles when the environment in which they live supports those behaviors. South Carolina's comprehensive framework is built around three long-term desired milestones that can steer progress towards healthier citizens.

- Coordination and collaboration of different partners working together to share existing resources and to secure additional resources, as well as to share lessons learned, contribute to a more efficient process of addressing this chronic condition.

- Efforts focusing on the use of policy and environmental changes contribute toward sustainable support systems within different areas influencing daily lives. These can occur in the legislative arena, as well as at the community level, organizational level, and even family level.

- By using the SEM to guide interventions and activities, this complementary approach can lead to improving the health of those affected by the burden of obesity and related chronic diseases.

By using the social-ecological model to guide interventions and activities, this complementary approach can lead to improving the health of those affected by the burden of obesity and related chronic diseases.

In designing this strategic framework, a commitment was made to use the best evidence currently available to guide initial recommendations, and at the same time, develop a structure that is sufficiently flexible to incorporate new information. While a body of evidence is available to define the burden of obesity, research identifying the most effective measures to prevent obesity is far more limited. New studies, however, are beginning to point toward effective interventions. These ***promising practices*** are areas of emerging information that present potential for becoming ***evidence-based practices*** and are critical to expanding the knowledge base of what is or is not effective in addressing obesity and obesity-related chronic diseases.

Healthy People 2010 objectives, through various health indicators provide the measure by which to improve the health of Americans. Pertinent *Healthy People 2010* objectives were used as the foundation from which to build the goals and objectives for this strategic framework *(Appendix J).*

The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity (2001) identified overweight and obesity as national public health priorities. The report outlined a broad range of activities for community organizations, health care, industry, schools, individuals, families, and government to take action to help address overweight and obesity. *The Surgeon General's Call to Action* was a key resource used to assist in the development of SC's framework.

Other notable resources used to guide recommendations included:

* *Guide to Community Preventive Services*
* *Preventing Childhood Obesity: Health in the Balance*
* *Resource Guide for Nutrition and Physical Activity Interventions to Prevent Obesity and Other Chronic Diseases*

Promising Practices

Strategies or programs for which some studies in the scientific literature exist, but research is insufficient to determine effectiveness when repeated or used in different populations.

~

Best Practices

Strategies or programs for which a comprehensive review of available literature has determined effectiveness in addressing overweight and obesity issues; represents the strongest available evidence.

* *HHS Blueprint for Action on Breastfeeding*
* *Promising Practices in Chronic Disease Prevention and Control: A Public Health Framework for Action.*

Although this document outlines a wide collection of activities at different time intervals and projects over a 10-year period, changes made in the short term can contribute towards reaching and achieving the long-term desired outcomes. Evaluation of these activities and corresponding changes is critical to further guide decisions as new data, research, and information become available. Comprehensive evaluation involves multiple methods and data sources.

The "CDC Framework for Program Evaluation in Public Health" will be used as a guiding document for determining ***process***, ***impact***, and ***outcome*** measures. Moving South Carolina Towards a Healthy Weight framework incorporates both process and impact evaluation methods. Program activities will be monitored continuously using process evaluation. Short-term impacts and program outputs will be measured through primary data collection. Finally, the attainment of intermediate and long-term projected outcomes will be monitored and assessed through state-level surveillance systems.

Process Evaluation of the State Framework

Process evaluation methods will be used to document program implementation in order to monitor program fidelity and quality. Evaluation of each activity will be done in a timely manner. Additionally, a variety of process measures will be used as appropriate for each specific activity. Examples include, but are not limited to: establishment of partnerships, documentation of communications, partner/collaborator attendance and participation, implementation of new and existing programs, and the development of specific products and plans.

Short-Term Outcome Evaluation of the State Framework:

Short-term evaluation methods will be used to document if the effects of program activities are producing desired results. These indicators are critical in assessing if program efforts are moving toward meeting objectives. Short-term indicators are very specific and typically are not available from state-level surveillance data sources. Therefore, data will be collected to document education and advocacy efforts, the presence of and development of policies in various settings, and changes in environmental supports and capacity related to healthy weight.

Intermediate and Long-Term Outcome Evaluation of the State Framework:

CDC defines surveillance as "the ongoing systematic collection, analysis, and interpretation of outcome-specific data for use in the planning, implementation, and evaluation of public health practice." Surveillance will be used to monitor obesity trends, as well as intermediate and long-term outcomes associated with the implementation efforts.

For the purposes of monitoring obesity and obesity-related issues in South Carolina, several surveillance data sources are available. These sources include BRFSS, YRBS, National Immunization Survey, and the SC Women's Infants and Children (WIC) Data System reported through the Pediatric Nutrition Surveillance System (PedNSS).

- The BRFSS will be used to monitor obesity prevalence, physical activity and nutrition behaviors, as well as weight management behaviors among adults in SC.
- The YRBS will be used to monitor overweight prevalence, physical activity and nutrition behaviors (including breakfast consumption), weight management behaviors, as well as television viewing among high school aged youth.
- WIC data from the PedNSS will be used to monitor birth weight and the prevalence of obesity among low-income children from birth to 5 years old.
- National Immunization Survey data will be used to monitor breastfeeding prevalence among new mothers in the state.

Strategic Goals

1. **Increase the percentage of South Carolinians who meet the current age specific recommendations for physical activity.**

   Adults: Increase from 46.2% to 55.0%.

   Adolescents: Increase from 66.4% to 75.0%.

Qualifier: Regular physical activity is defined as at least 30 minutes of moderate activity on 5 or more days per week or 20 or more minutes of vigorous activity 3 or more days per week. Currently no state-representative physical activity surveillance data are available for children under 12 years of age.

2. **Increase the percentage of South Carolinians who consume at least five servings of fruits and vegetables a day.**

   Adults: Increase from 22.3% to 30.0%.

   Adolescents: Increase from 17.6% to 30.0%.

Qualifier: Currently no state-representative surveillance fruit and vegetable consumption data are available for children under 12 years of age.

3. **Increase the percentage of South Carolina mothers who breastfeed for at least six months.**

   Increase from 27.3% to 35.0%.

Qualifier: The American Academy of Pediatrics recommends that babies are exclusively breast fed for the first 6 months of life. The Healthy People 2010 Target of 50% of new mothers breastfeeding at 6 months, does not specify *exclusive* breastfeeding. Given the low rate of breastfeeding at 6 months in SC, the primary goal is to increase the rate of any breastfeeding at 6 months, with a secondary goal of increasing the rate of exclusive breastfeeding at 6 months.

Baseline data for Goals can be found in Appendix D

4. Increase the percentage of South Carolinians who achieve and maintain a healthy weight.

Adults: Decrease the percentage of adults
who are overweight or obese from 60.2% to 55.0%.

Adolescents: Decrease the percentage of adolescents
who are overweight or at risk for overweight from 24.6% to 20.0%.

Qualifier: Currently no state-representative surveillance weight data are available for children under 12 years of age.

5. Decrease the burden of obesity and obesity-related chronic diseases in South Carolina.

Increase the general health ratings of South Carolinians.

Qualifier: A significantly higher percentage of South Carolinians at a healthy weight (compared to those who are obese) report excellent general health. If more residents achieve and maintain a healthy weight, statewide general health ratings should improve.

Decrease obesity-attributable medical expenditures.

Qualifier: In 2003, obesity-attributable medical expenditures in SC totaled $1.06 billion.

6. Increase the number of population-based research projects in South Carolina related to obesity prevention and control.

Qualifier: Continued high-quality research in the areas of nutrition, physical activity as relates to obesity prevention and control among groups and communities is critical to continued expansion of the knowledge base.

Ongoing data collection will serve as the basis for yearly updates to the framework for action and the burden of obesity report. Data and reports will be disseminated to assist with raising public awareness and mobilizing additional partners to address obesity in a comprehensive manner.

Although SC does not have a mandate for schools to collect BMI data, legislative efforts proposed during the 2005 legislative session have addressed the need for obtaining data on children and have included a line item to collect BMI-for-age for all children in the state.

Even with the various data sources available, a comprehensive obesity surveillance and evaluation system does not exist. For instance, South Carolina does not have nutrition, physical activity, and weight surveillance mechanisms in place for children in kindergarten through eighth grade. DOPC, along with partners, will develop a population-based obesity surveillance and evaluation system for SC that will provide essential data for decision-making. This system will include information from sources currently available, and will also monitor the burden of obesity and obesity-related conditions; describe obesity as it relates to poor nutrition and physical inactivity; identify priority subgroups for interventions; assess the impact of policy and environmental supports; evaluate the economic impact of obesity; and evaluate progress toward achieving strategic goals.

Without this information (BMI-for-age in children), determining the scope of the problem and determining policies are virtually impossible. It is also not possible, therefore, to measure the effectiveness of overweight control and reduction programs aimed at children and youth...

(Grantmakers in Health, February 2003)

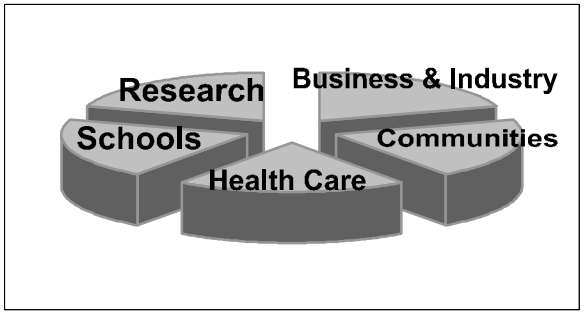
Section 3:

Moving SC Towards a Healthy Weight

This strategic framework was developed by collaborative partners who volunteered their time over the past year to help build a vision of a healthier South Carolina. *Moving South Carolina Towards a Healthier Weight* can be used in all walks of South Carolina life, with the guiding concept that all facets of a community are interrelated.

This section, representing a compilation of partner efforts, is divided into 5 segments, representing the 4 Work Groups and the settings in which activities will be focused. The fifth segment discusses research opportunities, which will cross all settings as outlined in this strategic framework:

- Business and Industry
- Communities
- Health Care
- Schools
- Research



Each segment highlights examples of proposed obesity-related activities developed by each Work Group. Although many resources were used in the development of the Work Group activities, one example of supporting evidence is listed. The strategic framework goal being addressed through the example activity has also been noted. Following the example activities for each segment, a complete listing of the specific objectives and strategies are provided for that setting (*the entire compilation of objectives and strategies, listed by goal, can be found in Appendix A).*

SCCOPE will reach across South Carolina to remove barriers to healthy lifestyles and to join together to build healthy communities for South Carolina.

Business & Industry

Most American adults now spend at least half of their waking hours at work. As overtime, commuting time, and demands of family life increase, the time available for physical activity and healthy eating has become increasingly diminished. In this changing environment, worksite wellness programs are becoming more critical than ever.

Business and industry can and should play an essential role in maintaining and improving the overall health and well-being of their employees. There is significant evidence documenting that healthy employees are more productive, take less sick leave, and incur lower medical costs. The total cost of obesity to U.S. companies has been estimated at $13 billion per year *(DHHS, 2003).* Between 1987 and 2001, obesity drove 27% of the medical cost increases *(Health Affairs, 2004).* Additionally, obesity is associated with 39 million lost work days and 239 million restricted activity days *(Obesity Research, 1998).* Worksite health promotion benefits employers in other ways as well, with improved employee morale, good-will toward management, and reduced employee turnover *(Partnership for Prevention, 2001).*

Worksites can support healthy behaviors by creating opportunities for physical activity within the normal workflow of a business day. Most people eat at least one meal a day at the worksite. Food available at work, in cafeterias, through vending machines, and at on-site meetings often determines what people eat during their workday. Too often, this food is of poor nutritional value and does not support efforts to adopt healthy eating habits.

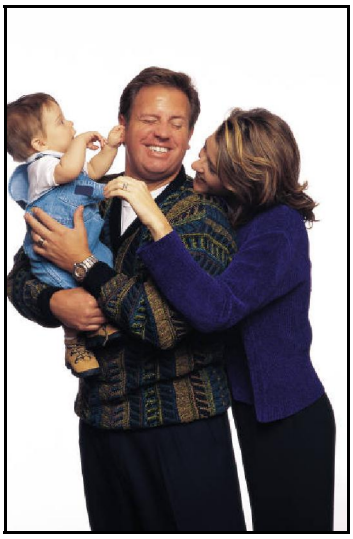
> The workplace environment can have a major impact on health-related behavior, including healthy nutrition and adequate physical activity.

In a recent survey by the USC School of Public Health, 90% of the companies who responded had food available to employees during working hours. This survey also indicated that few worksites had a physical activity health promotion policy. Only 8% of companies reported they had a written policy to include physical activity into employees' schedules, and only 15% of companies allowed employees to use paid work time and/or flex time for physical activity. Several corporate leaders in South Carolina have had the vision for improving the health and wellbeing of their employees and have established worksite wellness programs. This survey documented that employers with a designated wellness coordinator or a wellness committee were much more likely to implement worksite wellness initiatives *(SC DHEC CVH 2003).*

Of mothers enrolled in a worksite breastfeeding program implemented by CIGNA corporation, Working Well Moms, 70% were still breastfeeding after 6 months. CIGNA also reports an annual $240,000 savings in health care expenditures and $60,000 annual savings in reduced absenteeism among breastfeeding mothers enrolled in Working Well Moms.

(Supporting moms is good business: CIGNA's corporate lactation program pays off.)

The majority of mothers with children under 3 years of age now work full-time. One-third of these mothers return to work within 3 months and about two-thirds return within 6 months after the baby is born. Women report that re-entering the workforce after maternity leave is a significant barrier to the continuation of breastfeeding. The health benefits to mother and child from breastfeeding are well documented, but there are advantages for the employer as well. Benefits for companies include lower health care costs, improved employee satisfaction, reduced absenteeism, and a better corporate image *(AAHP, 2001).* Company policies which support breastfeeding can make a critical difference in whether a woman decides to continue breastfeeding after she has returned to work *(DHHS, 2000b).*



Resources used in the development of the following activities include:

- *Community Guide for Preventive Services*
- University of Minnesota's *Guidelines for Offering Healthy Foods at Meetings, Seminars and Catered Events*
- National Business Group on Health's *Healthy Vending*
- CDC's *Guidance for Healthy Eating at Work*
- *Healthy Worksite 2010*
- *HHS Blueprint for Action on Breastfeeding.*

In selecting strategies for action to support worksite wellness partners specified that bringing industry leaders, employees, and health professionals together to advise and direct implementation plans and provide peer education and advocacy on health promotion programs would be crucial. Partners were also mindful of the diversity of the South Carolina workplace, which ranges from giant multi-national corporations to small business owners in rural communities. The strategies selected work across many levels of the SEM, emphasize policy and environmental supports, and can be adapted to meet the resource levels of the individual company. Even small businesses can have a big impact on health.

Examples of Activities

Implement Environmental/Policy Approaches to Worksite Physical Activity

Encouraging employers to provide low-cost, incentive-based physical activity programs; offering flexible scheduling or work breaks to create time and opportunity for regular physical activity during the workday; and changing the work environment to create access to walking or jogging trails are approaches SCCOPE partners will pursue.

Supporting Evidence: Community Guide for Preventive Service

Goal 1. Increase the percentage of South Carolinians who meet current age-specific recommendations for regular physical activity.

Create Environments Supportive of Breastfeeding Mothers

SCCOPE will work to increase the number of worksites incorporating policy and environmental strategies supportive of breastfeeding. Business leaders will be provided education on the Return on Investment (ROI) and health benefits of breastfeeding. This advocacy building approach will not only educate employers on the cost effectiveness of breastfeeding promotion, but will also provide guidance for developing and implementing a model program inclusive of education, supportive policies, and environmental changes.

Model programs include strategies such as providing a private area for nursing, refrigerator for storing of expressed milk, access to a lactation professional for counseling and support, support groups for working mothers with children, and policies to ensure that mothers are allotted breaks from work to support breastfeeding.

Supporting Evidence: HHS Blueprint for Action on Breastfeeding

Goal 3: Increase percentage of South Carolina mothers who breastfeed for at least six months.

CAPITAL HEALTH

OUR PEOPLE...OUR GREATEST ASSET

The DHEC Strategic Plan 2005-2010 makes worksite wellness a priority for its employees. In spring 2005, the CVH Division, along with the entire Bureau of Community Health and Chronic Disease Prevention, kicked off the Capital Health worksite wellness program. Capital Health, in an effort to reduce cardiovascular disease risk factors, promotes increased physical activity, improved nutrition, healthy weight, and smoking cessation through policy and environmental strategies.

Provide Healthy Choices In Vending Machines, Cafeterias, and Meetings

Employers will be provided with the tools needed to improve the nutritional value of foods available at the work place to assist in providing healthy choices. For example, companies may choose to replace unhealthy food in vending machines with healthier snacks that are lower in fat, salt, and calories than traditional choices. In cafeterias, canteen, or other onsite venues, examples of healthy changes include providing nutrition information for all items served, adding more fruits and vegetables to meal choices, decreasing fried foods, offering leaner choices of meats, and reducing portion sizes. Additionally, information will be provided to assist employers on healthy catering options for trainings, conferences, and meetings.

Supporting Evidence: Healthy Vending

Goal 4. Increase the percentage of South Carolinians who achieve and maintain a healthy weight.

Business and Industry
Objectives and Strategies

Goal 1: Increase the percentage of South Carolinians who meet the current age-specific recommendations for regular physical activity.

Objective 1: By July 31, 2008, at least 50 worksites in SC will promote physical activity for employees.

Strategies

1. Employers will encourage daily physical activity by implementing strategies such as providing easy access to stair-wells while limiting access to elevators, supporting and promoting lunchtime walking/running clubs or company sports teams, and providing on-site facilities such as walking trails and bike racks.
2. Increase the number of worksites providing weight-related physical activity educational materials to employees based on current, evidence-based information.
3. Employers will provide opportunities for employees to become engaged in self-management and goal setting relative to physical activity.
4. Employers and businesses will promote and support community efforts to reduce TV time and increase physical activity, such as “Turn off TV Week” and “Walk to School Day.”
5. Employers will be provided resources to implement low cost, incentive-based physical activity programs.
6. Employers will be provided with a list of non-profit agencies that can provide low or no-cost educational materials.

Objective 2: By December 31, 2008, at least 25 worksites in SC will have adopted policies supportive of physical activity.

Strategies

1. Provide flexible scheduling to allow employees to participate in exercise before work, during lunch, or after work.
2. Provide reimbursement for employees who are members of exercise facilities or participate in classes.
3. Provide discounted rates for membership to fitness and recreation facilities.
4. Provide incentives to employees participating in physical activity programs.
5. Provide up to 3 hours of paid time per week for employees to participate in physical activity.

Goal 3: Increase the percentage of South Carolina mothers who breast-feed for at least six months.

Objective 1: By July 31, 2010, at least 10 worksites in SC will promote and support breastfeeding practices in the workplace.

Strategies

1. Employers will be provided with education on ROI (return on investment) and health benefits of breastfeeding.
2. Facilities will support breastfeeding by providing a private area for mothers, and equipment, such as hospital grade breast pumps and refrigerators for storage of expressed breast milk.
3. A policy will be implemented to ensure that nursing mothers will be allotted the necessary breaks from work to express milk.
4. Employers will educate all employees on the benefits of sustained breastfeeding.

Goal 4: Increase the percentage of South Carolinians who achieve and maintain a healthy weight.

Objective 1: By July 31, 2008, at least 50 worksites in SC will promote healthy nutrition in the workplace.

Strategies

1. SCCOPE will ensure that employers have current, science-based nutrition information and resources.
2. Increase the number of worksites providing nutrition-related educational materials to employees, such as the 5 A Day program.
3. Increase the number of worksites providing access to nutrition counseling by a registered dietitian.

Objective 2: By July 31, 2008, at least 25 worksites will adopt healthy nutrition policies.

Strategies

1. SCCOPE Workgroup on Business and Industry will develop and disseminate a *Nutrition in the Workplace Policy Guide*.
2. Employers and agencies will provide opportunities for employees to provide feedback on healthy food policy development.

3. Provide healthy choices of food and drink (water, juice, yogurt, fruits, vegetables, salads, low fat foods) in vending machines, snack rooms, and/or cafeteria.
4. Provide healthy refreshments at worksite events, meetings, and conferences.
5. Require vendors/food service providers to visibly post nutrition information for all foods served and sold.
6. Employers, when feasible, will provide space and encourage employees to eat at a separate area away from their workstation.

Objective 3: By July 31, 2009, at least 15 worksites in SC will participate in and promote healthy weight initiatives to include environmental and policy change.

Strategies

1. Form a collaborative group comprised of South Carolina business and industry professionals, employees, and health professionals to advise and consult with SC employers on productivity and health.
2. Identify champions in the business and industry setting to provide peer education on the ROI of programs addressing nutrition, physical activity, and breastfeeding.
3. Increase the number of SC employers with a wellness council or committee responsible for worksite wellness.
4. Provide training for such individuals or groups, for example, at the SCCPPA 2006 fall conference.

Objective 4: By July 31, 2010, at least 15 worksites in SC will provide and support on-site healthy weight-related activities and initiatives.

Strategies

1. Employers will request, from insurers, weight-related benefit/cost and utilization data for their employee population.
2. Employers will perform a healthy weight policy and environmental assessment of their worksite.
3. Employers will provide access to wellness counseling services to include nutrition, breastfeeding, weight loss, physical activity, and stress management.
4. Employers will offer health risk appraisals and provide targeted interventions to those with a BMI of 25 or greater.
5. Employers will provide incentives for those employees participating in a disease prevention program or disease management program containing a healthy weight component.

6. Employers will provide incentives for those employees who document the attainment of established and significant weight reduction goals or who are at a healthy BMI.
7. The business community will help develop and support the delivery of messages concerning overweight, obesity, and productivity on radio, TV, and elsewhere.
8. SCCOPE will create a Healthy Worksite Award Program to include recognition and incentives for businesses exhibiting leadership in healthy weight-related policies and programs.
9. Designate a week or month, sponsored by the State or by SCCOPE, which challenges employers to communicate healthy weight initiatives to their employees and community (Employee Health and Fitness Day).

Community

There may be as many different definitions of a community as there are communities. A community can be a group of people in one neighborhood, one geographic region, or one ethnic or racial background. A community may be woven together by a shared cultural or spiritual background. A community has been described as "a group of people who share values and institutions" (Pate, 2000). The Institute of Medicine, in its comprehensive look at overweight among children, contends that "intrinsic to any definition of a community is that it seeks to protect for its members what is shared and valued" *(IOM, 2005).*

> "People tend to think of overweight and obesity as strictly a personal matter, but there is much that communities can and should do to address these problems."
>
> Former US Surgeon General David Satcher, MD

Faith-based organizations and public health are natural partners, sharing common ground in their vision to create environments of trust and comfort that nurture healthy people and build healthy communities. In the South, this collaboration is particularly powerful because religious organizations are often the heart of the community, particularly for African-Americans. In rural areas, there may be only one church serving an area with social activity revolving around this setting.

An example of using and developing church-based interventions is the African Methodist Episcopal Church (AME) Health Commission. The AME Church Health Commission has initiated active processes to address obesity and healthy lifestyles. Programs with positive results include the *Health-e-AME Physical-e-Fit Program* and a weight loss contest. A cookbook and website have also been developed in addition to strategic planning regarding health and prevention.

> Healthy and Whole is a congregational-based health education/health promotion project for African-American congregations in Lancaster and Chester Counties. Churches enrolled in this program form health and wellness committees and select congregational lay health promoters (CHP). Healthy and Whole provides health information on lifestyle risk factors and their association with disease development.

"Churches and other places of worship are accessible to large groups within the community; and offer important resources, including meeting places, groups of volunteers, and media access; and provide an avenue to reach both parents and children in a unified setting" *(Pate, 2000).*

The barriers to adequate physical activity go beyond the individual, to the community and physical environment in which people live. *Healthy People 2010* reports that the major barriers most people face when trying to increase physical activity are lack of time, lack of access to convenient facilities, and lack of safe environments in which to be active *(DHHS, 2000).*

Individuals are more likely to walk if there are sidewalks in the neighborhood and more likely to use physical activity facilities if those facilities are close to home or convenient transportation *(IOM, 2005).* According to the 2004 National Survey on Communities conducted for the National Association of Realtors, nearly half of those surveyed would like to see more places to bike, more shops or restaurants within walking distance, and more places to walk or be physically active in the community.

Sumter County Active Lifestyles (SCAL) is a community-based coalition focused on making it easier to be physically active in Sumter County. SCAL works in partnership with the Wateree Health District – DHEC and the Prevention Research Center at USC to advocate for places to exercise, such as parks, trails, sidewalks, and bicycle lanes. SCAL is working to increase awareness of the things Sumter has to offer that make it easier to get outside and be more active. The coalition also promotes the fact that being active includes routine, day-to-day activities like walking, biking, washing your car, or gardening.

Safety is also a factor when considering PA patterns. A higher level of inactivity has been observed among people who believed their neighborhoods to be unsafe. The amount of time a child spends outdoors is the most important correlate of physical activity, but for our children to spend time outdoors, they must have safe communities, with opportunities to run, bike, skate, climb, and play games *(IOM 2005).*

> I would argue that we need to promote active living in every design project that we do....
>
> Patrick Miller, President of the American Society of Landscape Architects

Another barrier cited by people for not getting adequate physical activity is lack of access to convenient recreational options. For low-income individuals, lack of transportation, high user's fees, and lack of information about available facilities and programs can all create obstacles to active lifestyles *(SCORP, 2002).*

Every member of a community needs and deserves access to healthy food. Unfortunately, this is not always the reality in South Carolina, particularly for people who live in inner cities, isolated rural situations, or underprivileged neighborhoods.

Barriers to making healthy nutrition choices often include cost, accessibility, and availability of nutritious foods. There is a correlation between socioeconomic status and risk for obesity: those with lower incomes tend to be more overweight and obese. Low-income areas often have convenient access to fast food restaurants. Lower-income neighborhoods also have fewer and smaller grocery stores, and more convenience stores with limited, if any, healthy food for sale. People in these areas often pay more for nutritious food like fresh fruits and vegetables. Limited availability and higher cost of healthy foods, along with more convenient access to inexpensive, high-calorie foods are some factors that can contribute to obesity *(TFAH, 2004).*

Farmer's markets play a vital role in providing communities access to fresh produce and opportunities for healthier eating at reasonable costs. The USDA's Senior Farmers' Market Nutrition Program (SFMNP) provides fresh, locally grown produce to low-income seniors to help improve nutrition by increasing consumption of fruits and vegetables. This program also benefits local farmers by bringing additional customers to markets. South Carolina is one of 37 states that has received funds from USDA to operate the SFMNP.

South Carolina also participates in the WIC Farmers' Market Nutrition Program (FMNP). This program is designed to provide nutrition education and encourage WIC participants to add more fresh fruits and vegetables to their diets. FMNP is also designed to promote and increase business for local farmers.

Farmer's markets play a vital role in providing communities access to fresh produce and opportunities for healthier eating at reasonable costs.

Community-based settings provide avenues for reaching individuals of all ages. A significant number of children spend all or part of their free time in camps, day camps or child care centers, especially during the summer months. These locations can offer ways to widen a child's opportunities to be physically active and maintain a balanced diet. Community-based programs for youth not only offer opportunities for physical activities and healthy eating, but reinforce healthy lifestyle messages from the school setting. The community setting also offers opportunities outside of school to involve families in the process of promoting healthy behaviors.

> "I'd like to issue a personal challenge tonight to every South Carolinian. In this year's list of New Year's resolutions commit to being just a bit more active"
>
> Governor Mark Sanford
> 2004 State of the State Address

The underlying principles of this framework reflect the *Healthy People 2010* premise that "the health of the individual is almost inseparable from the health of the larger community." This plan seeks to draw on the power of community to build a healthier South Carolina. This segment describes community-based approaches for healthy nutrition and increased physical activity. These approaches include increasing access and availability to healthy foods and increasing low cost physical activity opportunities in a variety of community environments such as faith-based settings, child care centers, and youth camps.

"As our state continues to decline in the area of being physically fit, we must look at the availability to the general public of facilities and programs. We remain one of the poorest in the country in this area. Everyone from Liberty, to Bluffton, to Williamsburg, to Awendaw, to Longs. to Rimini, to Wallace, deserves this opportunity. We must make the availability of safe facilities and programs available to every South Carolinian a top priority. Every local public park and recreation agency and member of the SC Recreation and Park Association stands firmly committed to helping that cause."

Jim Headley, Executive Director, SC Recreation & Parks Association

Examples of Activities

Expand Existing Facilities for Community Use

In addition to formal recreation centers, communities have a wealth of places that can be used as centers for physical activity, such as schools (walking tracks, outdoor fields, gyms), neighborhood parks, places of worship, and malls (walking clubs). The advantage of using these locales for PA opportunities that require little or no capital investment is convenience, and can easily lend themselves to community-wide programs. Community programs could include ***social marketing*** campaigns**,** health behavior education, health and fitness programs, and support systems for activity.

One obstacle to offering the use of facilities such as churches or schools is a fear of potential liability. As part of this initiative, SCCOPE will work to address concerns in expanding facilities for community use and develop a model policy which addresses both liability and access issues.

Supporting Evidence: The Community Guide for Preventive Services

Goal 1.

Increase the percentage of South Carolinians who meet the current age-specific recommendations for physical activity.

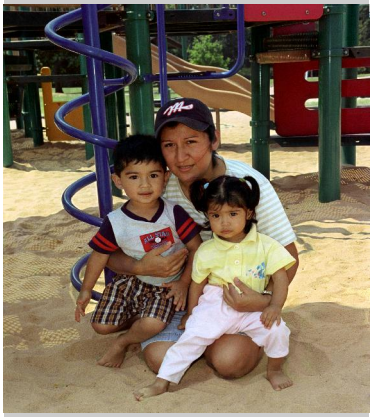
Increase participation in WIC Farmers' Markets

During summer months, select health departments in the state participate in the WIC FMNP. Program participants receive vouchers that are exchanged for fresh produce at local farmers' markets. SCCOPE, through its partners, will collaborate on ways to increase participation rates in these markets and work on marketing and publicity campaigns aimed at increasing fruit and vegetable consumption.

In March 2005, Governor Mark Sanford announced his second annual Family Fitness Challenge to encourage South Carolinians to make healthier choices in their day-to-day lives.

In May 2005, Governor Sanford and the First Lady launched the Healthy South Carolina Challenge to encourage communities to promote healthier lifestyles through increased physical activity and good nutrition.

www.healthysc.gov



Supporting Evidence: *Program Impact Report for the 2002 WIC Farmers' Market Nutrition Program, National Association of Farmers' Market Nutrition Programs (2003).*

Goal 2.

Increase the percentage of South Carolinians who consume at least five servings of fruits and vegetables a day.

Color Me Healthy (CMH)

DOPC has been collaborating with DHEC health promotion staff on the implementation of the *CMH* curriculum. Regional trainers throughout the state will continue training child care center providers on the implementation of the *CMH* curriculum in child care centers. This curriculum encompasses good nutrition and physical activity for 4 and 5 year olds. DOPC will develop evaluation measures for monitoring the curriculum throughout the state. To better impact all levels of the SEM, DOPC will also expand the *CMH* curriculum to include additional components such as reducing TV/screen time, enhancing family/parental involvement, and policy and environmental changes in child care centers.

Supporting Evidence: IOM

Goal 4.

Increase the percentage of South Carolinians who achieve and maintain a healthy weight.

A recent collaborative effort by the Spartanburg County Congregational Nursing Program and DHEC involves the introduction of the Color Me Healthy (CMH) curriculum to local congregations. CMH is a national award winning program designed to reach children aged 4-5 with fun interactive learning opportunities to teach children that healthy food and physical activity are fun. Several components of the curriculum are designed to also reach parents and caregivers. The Spartanburg County Congregational Nursing program has trained 70 parish nurses to incorporate CMH into existing congregational programs, such as church preschool, Vacation Bible School, and Scouts.

Community
Objectives & Strategies

Goal 1: Increase the percentage of South Carolinians who meet the current age-specific recommendations for physical activity.

Objective 1: By July 31, 2008, at least 92 free, sliding scale or publicly owned recreation facilities will be identified.

Strategies

1. Assess recreation centers in South Carolina to determine which need improvements or need brand new facilities.

   Action Steps:

   - *Secure funding for assessment development and implementation.*
   - *Work with SCRPA, which periodically polls its membership about needs and assets in local park and recreation departments.*
   - *Work with SC PRT, which develops a five-year state outdoor recreation plan.*

2. Develop a best practice resource tool to help communities develop comprehensive recreation and fitness centers.
3. Support and build advocacy to identify and establish a permanent funding mechanism for public park and recreation agencies to fund new recreation centers for the entire state.

Objective 2: By July 31, 2010, at least 46 non-public recreational facilities will be open to community use.

Strategies

1. Increase the number of school districts that allow community use of schools for recreational activities (e.g., walking tracks, outdoor fields, gyms).

   Action Steps:

   - *Assess district policies on public use of school recreation facilities, (for example, USC PRC work via a CDC Special Interest Project).*
   - *Develop a model policy that addresses issues of maintenance and liability.*

- *Work with the Department of Education and school board association to encourage districts to adopt policies allowing public use of school recreation facilities after regular school hours (evenings and weekends).*
- *Work with the Department of Education or school board association to identify old schools available for adaptive reuse as community centers with recreation facilities.*

2. Work with faith-based groups to find ways to increase community use of church recreational facilities.

Objective 3: By July 31, 2010, at least 46 communities will have free, sliding scale, or publicly funded physical activity opportunities.

Strategies

1. Work with SCRPA to identify needs and develop plans with their membership.
2. Work to identify funding sources to provide community physical activity opportunities.
3. Implement Hearts N Parks programs or similar programs in local recreation departments.
4. Survey current mall walking programs. Develop tools to help these programs advertise and increase participation.
5. Develop tools to promote new mall walking programs (for example, Sumter County Active Lifestyles Heart and Soles Mall Walking Program).
6. Develop a tool for communities to implement activity components into local festivals and community events.
7. Create a directory for physical activity resources in the community. Identify and distribute information about walks, runs, and other physical activity opportunities held in communities across the state.

Objective 4: By July 31, 2008, at least 20 communities will develop partnerships with stakeholders such as hospitals, municipal associations, and city and county councils, to collaborate on locally based physical activity initiatives and policy changes.

Strategies

1. Work with SCCPPA to identify local coalitions focused on physical activity.
2. Develop a toolkit to assist communities in developing local physical activity coalitions.
3. Provide networking opportunities for the sharing of resources for local coalitions throughout the state.

Objective 5: By July 31, 2010, at least 20 communities will have connectivity of at least 10 miles of sidewalks, walking trails, bike lanes/paths and other features of the built environment conducive to safe physical activity.

Strategies

1. Coalitions, in partnership with city planners and developers, will conduct walkability audits in the community.
2. Add bike lanes on at least 2 renovated roadways in South Carolina.

   Action Steps:

   - *Work with SC DOT and Metropolitan Planning Organizations throughout the state to establish a baseline assessment of existing and needed bike lanes.*
   - *Work with SC DOT/ MPO planning processes to prioritize construction of bike lanes.*

3. DOT or local jurisdictions will have plans to add sidewalks where needed, especially leading to schools, recreation departments and other physical activity sites.

   Action Steps:

   - *Work with SC DOT and Metropolitan Planning Organizations throughout the state to establish a baseline assessment of existing and needed sidewalks.*
   - *Work with SC DOT and MPO planning processes to prioritize construction of sidewalks.*

4. Increase the number of continuous sidewalks/walkways/bike lanes on main streets (with high connectability) in 3 cities.
5. Modify/assess MPO current organizational structure and develop policy requiring that bike/pedestrian coordinator be actively involved in MPO decision making.

   Action Steps:

   - *Survey MPO's to identify which have advisory groups and/or bike/pedestrian coordinators, how they are used, model policies/job descriptions.*
   - *If necessary, contact MPO's in states with good bike/pedestrian policies (e.g., Oregon) to use as models for South Carolina recommendations.*

6. Local municipalities and counties will develop and adopt ordinances that require sidewalks and bike lanes in new subdivisions.

   Action Steps:

   - *Identify model ordinances in South Carolina or elsewhere.*
   - *Work with SC Municipal Association and Association of Counties to develop a model ordinance for recommendation to local communities.*

7. Promote *Share the Road signage* and culture and other bike/pedestrian safety education programs.

   Action Steps:

   - *Partner with Palmetto Cycling Coalition, which is working to promote a "Share the Road" culture and a school-based bicycling curriculum in South Carolina.*

Objective 6: By July 31, 2007, implement *America On the Move* in South Carolina.

Strategies

1. Partner with SCCPPA, SC PRA, YMCA, AARP, and other programs to promote *America on the Move*.
2. Research other state models for collaborative approaches with *America on the Move*.
3. Develop strategies for engaging hard-to-reach populations in *America on the Move.*

Objective 7: By December 31, 2007, at least 150 faith based settings will support physical activity through programs and/or policies.

Strategies

1. Establish a baseline number of Faith-Based Settings (FBS) that offer programs and have policies, either formal or informal, that support physical activity.
2. Promote partnership with recreation facilities and community activities, through use of co-facilities (work with PA subgroup) and communication network (for PA classes, chair aerobics etc.) at FBS.
3. Increase the number of faith-based child care centers implementing the *Color Me Healthy* curriculum.
4. Encourage increased participation in physical activity for youth (e.g., sports, dance).
5. Promote family physical activity (e.g., walking, biking).
6. FBS with established physical activity programs will engage in community outreach to promote physical activity.

Goal 2: Increase the percentage of South Carolinians who consume at least 5 servings of fruits and vegetables a day.

Objective 1: By July 31, 2007, at least 3 South Carolina communities will have newly operating Farmers' Markets.

Strategies

1. In collaboration with other state agencies, clarify certification process for Farmers' Markets.
2. Work across state agencies to make it easier to set up local Farmers' Markets.
3. Through focus groups or key informant interviews with community partners/coalitions, identify 3 communities for implementation.
4. Educate and distribute information to farmers, churches, schools, and businesses in identified communities.
5. Review certification process and investigate use of Clemson Extension agents as certifiers to increase the number of certifiers so that more farmers are able to sell produce directly to consumers.
6. Publicize certification program.
7. Set policy so that all farmers want to be certified to sell in Farmers' Markets.

Objective 2: By September 30, 2007, 25% more seniors will be participating in the Senior Farmers' Market voucher program.

Strategies

1. In collaboration with other state agencies, simplify application procedures and help farmers with applications to accept vouchers.
2. In collaboration with other state agencies, simplify application procedures and help seniors with applications for vouchers.
3. Work with community leaders to set up a system so that farmers can bring produce to community locations (such as housing authority neighborhoods, senior centers, and churches).
4. Work with community leaders and state agencies to set up a system of transportation from low-income neighborhoods to Farmers' Markets and community market locations.
5. Publicize the Senior Farmers' Market.

Objective 3: By September 30, 2007, 25% more WIC participants will be participating in the WIC Farmer's Market program.

Strategies

1. In collaboration with other state agencies, simplify application procedures and help farmers with applications to accept vouchers.
2. In collaboration with other state agencies, simplify application procedures and help WIC participants with applications for vouchers.
3. Work with community leaders to set up a system so that farmers can bring produce to community locations (such as housing authority neighborhoods, worksites, child care centers, schools, and churches).
4. Work with community leaders and state agencies to set up a system of transportation from low-income neighborhoods to Farmers' Markets and community market locations.
5. Publicize the WIC Farmers' Market program.

Objective 4: By July 31, 2007, at least 3 communities will establish delivery of fresh produce to various sites, such as child care centers, faith-based organizations, schools, worksites, and hospitals.

Strategies

1. In identified communities, promote the delivery of farm produce to child care centers, faith-based organizations, schools, worksites, and hospitals.

   Action Steps:

   - *Encourage collaboration between Department of Agriculture, State Department of Education, Department of Social Services, Department of Health and Environmental Control, Chamber of Commerce, and Hospital Association to help farmers bring produce directly to consumers.*
   - *Investigate the Department of Defense fresh buying program and opportunities for expansion into communities, especially in rural areas where access and transportation issues are barriers to purchasing healthy foods.*

2. Market and publicize the distribution program.

Objective 5: By July 31, 2007, at least 3 communities will establish delivery of fresh produce from local farmers to small grocers in the area.

Strategies

1. Build a coalition of small grocers, farmers, SC Department of Agriculture, and commodity boards to develop relationships of benefit to the farmers, grocers, and community.
2. In identified communities, discuss distribution plans for delivery of produce to grocers.
3. In identified communities, promote and publicize the "farm to small grocer" program.

Objective 6: By July 31, 2008, at least 3 communities will have a communication plan for consumers, including information on buying, storing, and using fresh fruits and vegetables.

Strategies

1. Identify or develop multi-lingual, multi-cultural tapes, videos, printed materials, and calendars to help consumers use fresh produce.
2. Identify or develop limited literacy materials suitable for families with limited resources.
3. Develop system to print and distribute available printed materials (Commodity Board, USDA, EFNEP, NCI, etc.) to consumers at markets.
4. Develop system to provide demonstrations at the markets on how to prepare fresh produce (chefs/nutritionists at markets).
5. Work with local supermarkets to help communicate message of eating more fruits and vegetables and distribution of materials at their stores (print messages on bags, signs in stores, etc.).

Goal 4: Increase the percentage of South Carolinians who achieve and maintain a healthy weight.

Objective 1: By December 31, 2008, at least 3 communities in SC will have effective healthy dining programs.

Strategies

1. Through processes such as focus groups or key informant interviews with community partners/coalitions, select communities to participate in a healthy dining program.
2. Identify model dining programs, such as *NC's Winner's Circle; Eat Smart! Ontario's Healthy Restaurant Program; and Maine's Diner's Choice*, that would be appropriate for use in SC.
3. Work with professional restaurant industry groups to identify incentive options for participating restaurants, such as a healthy dining certificate/award similar to inspection ratings, or recognition through local media, local restaurant reviews, etc.
4. Develop the healthy dining program. Criteria examples may include:
    - Healthy menu options for children;
    - Nutrient analysis of menu items (calories, carbohydrates, saturated fat, trans fat, protein);
    - Trained wait staff on assisting customers with healthy selections;
    - Half portion sizes available as menu options;
    - Trained chefs on incorporating healthy foods;
    - Increased fruit and vegetable options available.

5. Develop a plan for implementation and evaluation of the program.

6. Work with media, community leaders, DHEC, and restaurants in communities to advertise the program and encourage participation.
7. Implement the healthy dining program.
8. Evaluate the program.

Objective 2: By July 31, 2007, at least three 4-H youth programs or camps will pilot food, fitness and health programs.

Strategies

1. Through collaboration with Clemson Extension, identify three 4-H youth programs or camps for pilot programs.
2. Work with 4-H parents, leaders, and youth to identify ways to increase healthy eating and physical activity options available in programs.
3. Explore alternative low cost options so that youth sites can obtain healthy food alternatives.

   Action Steps:

   - Develop cooperatives for buying products for programs.
   - Explore Department of Defense fruit and vegetable program (possibly link with purchases for military bases).
   - Determine if youth programs can participate in DSS summer food program and/or after school food program; work with DSS on ways to make application process easier.

4. Ensure that foods served in the pilot youth programs follow 2005 Dietary Guidelines.
5. Demonstrate that children will eat the healthy foods and that costs can be contained.
6. Encourage older youth to do community projects (such as 4-H pinnacle projects), which encourage other youth and younger children to enjoy more fruits and vegetables and be more physically active (farm projects, garden projects, shopping and cooking projects).
7. Evaluate program efforts.

Objective 3: By July 31, 2010, at least 25 youth programs or camps across the state will offer healthy food choices.

Strategies

1. Investigate youth programs such as Boy and Girl Scouts, Boys and Girls Clubs, YMCA, and faith-based programs to identify foods served at youth programs and identify food-related activities.
2. Bring together partnership of parents, youth workers, school leaders, and youth group funders for update on results of pilot programs at 4-H camps and discussion on ways to expand program statewide.
3. Identify and advertise clear, consistent messages (more fruits and vegetables and healthy foods) in youth- and youth group-specific educational and promotion materials.
4. Develop and distribute a new *Guide for Food to be Served at Youth Programs and Camps* based on the 2005 Dietary Guidelines.
5. Work with youth organizations to add training modules related to healthy weight, foods served, physical activity, and reducing TV/screen time to existing trainings.
6. Encourage older youth to do community projects (Eagle service projects, badges, 4-H pinnacle projects, etc.) that encourage other youth and younger children to enjoy more fruits and vegetables (farm projects, garden projects, shopping and cooking projects).
7. Explore alternative low-cost options so that youth sites can obtain and sustain healthy food alternatives.

Action Steps:

- Develop cooperatives for buying products for programs.
- Identify and widely distribute lists of healthy foods and beverages that are inexpensive, easy to prepare, easy for children to eat, taste good, are easy to store, and have a long shelf-life.
- Encourage potential participation in DSS summer food program and/or after school food program.

Objective 4: By July 31, 2006, increase by 20% the percentage of child care centers in the state implementing the Color Me Healthy curriculum.

Strategies

1. Increase the number of participants who complete the *Color Me Healthy* "train the trainer" workshop.
2. Increase the number of *Color Me Healthy* trainings provided to child care centers.
3. Inform and educate parents/caregivers about the importance of nutrition and physical activity programs for preschoolers.
4. Publicize to child care centers that the *Color Me Healthy* training has been approved for 4 hours of continuing education through the South Carolina Child Care Training System.
5. The *Color Me Healthy* State Trainer will present program updates at the annual meeting of the South Carolina Early Childhood Association and other statewide, regional, and local meetings.

Objective 5: By July 31, 2010, at least 25 child care centers in SC will implement the expanded *Color Me Healthy* curriculum.

Strategies

1. Expand the *Color Me Healthy* curriculum to include impact and process evaluation measures.

   Action Steps

   - Investigate examples of pertinent surveys to identify variables to measure.
   - DOPC will take the lead on the development of evaluation measures, monitoring the impact of the curriculum on children, parents/caregivers, and child care providers.

2. Expand the *Color Me Healthy* curriculum to include additional components, such as reducing TV/screen time, enhancing family/parental involvement, and enhancing policy and environmental supports.

   Action steps

   - Identify models and resources for child care centers to assist in development of expanded curriculum.
   - Collaborate with Clemson Extension and the *Cooking with a Chef* program to provide food/cooking demonstrations and nutrition education as part of the enhanced curriculum components.
3. Increase the number of participants who complete the *Color Me Healthy* "train the trainer" workshop.
4. Increase the number of trainings provided to child care centers throughout the state.
5. Inform and educate parents/caregivers about the importance of nutrition and physical activity programs for preschoolers.
6. Establish a "Healthy Child Care Center Award" program for centers effectively implementing the curriculum.

Objective 6: By July 31, 2008, 50 SC faith-based settings will have policies in place and offer formal or informal programs that support healthy eating and physical activity.

Strategies

1. Identify churches that have already established "healthy foods at church" policies.
2. Identify existing on-going educational programs and workshops available at faith-based settings that help adults and children improve eating habits and increase physical activity.
3. Develop and conduct 6 training workshops for health and faith leaders (congregational nurses, health ministers, other interested congregants) on how to introduce and sustain healthy eating and physical activity policies and programs at their churches.

4. Identify, obtain permissions, and duplicate program resources for use at the workshops, including examples of policies, practices, and program curricula already in use in other faith-based settings.
5. Establish and maintain a health and faith resources website with links to *Search Your Heart, Body and Soul, Health-e-AME Physical-e-Fit* program and other programs and materials, and links to other websites for information on obesity and health, such as CDC sites, 5-A-Day, WIN, and NHLBI sites.
6. Pilot the development of policies and programs to help members improve eating habits and increase physical activity at 10 additional SC churches.

Action Steps

- Survey SC churches to find out if churches have healthy food and activity policies and programs, the details about the policies and programs, and whether they have any information on program outcomes.

- Develop working groups of church members and pastors at 10 interested churches to develop recommendations that encourage healthy meal and food choices at church events and more physical activity. Examples of activities these groups might consider:
  - ⇒ Establish a church vegetable garden.
  - ⇒ Support bringing farmer's market to churches on regular schedule.
  - ⇒ Have recipe contests / develop a collection of winning recipes for reduced fat salads, vegetables, soups, fruit desserts, one-dish meals for church suppers.
  - ⇒ Establish recommendations for foods to serve at church events. Duplicate recipes from contest.
  - ⇒ Encourage church members to form walking groups. Post group mileage in prominent place in church.

Objective 7: By July 31, 2007, at least 100 congregational pastors, ministers, and other leaders in the faith based setting will receive information and assistance regarding promoting and supporting faith and health messages, policies and programs.

Strategies

1. Convene group of spiritual leaders interested in bringing a model faith and health curriculum to one seminary in SC.
2. Determine if there are any faith and health programs or curricula in use in SC seminaries.
3. Select a faith and health curricula for use / dissemination (from other states if not already in SC).
4. Identify speakers/ champions/ leaders; incorporate segments on faith and health into conference agendas to build support and interest.
5. Help spiritual leaders identify and support appropriate groups in their churches who can lead faith and health programs, such as: congregational / parish nurses, health educators, lay health coordinators, lay health promoters, and youth health 'promoters.'

Health Care

The health care system is a crucial setting for addressing overweight and obesity among both children and adults. Most Americans see a health care practitioner at least once a year: the 2002 National Health Interview Study found that 75% of children had seen a health care professional at some time during the past six months *(IOM, 2005)* Health care professionals have the access and authority to influence the dietary choices of their patients, their physical activity habits, and to monitor weight. Unfortunately, most physicians receive limited training in behavioral and social science areas, so nutrition, physical activity, and weight management issues are often not addressed with patients. A recent assessment of pediatric health professionals showed that fewer than 20% of pediatricians were performing BMI-for-age assessments. To assist in increasing obesity related education for providers, various tools have been developed. In 1998, the National Heart, Lung, and Blood Association released *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults*. This document provides evidence for the effects of different treatment strategies on weight loss and the impact that weight control has on the major risk factors for heart disease and stroke. The American Medical Association, in collaboration with the Robert Wood Johnson Foundation, released *Assessment and Management of Adult Obesity: A Primer for Physicians* in 2003. This publication was designed as a tool to educate primary care physicians about providing medical care to overweight and obese adults. Although pediatric weight management tools are more limited, the CDC provides an on-line training module on the use of BMI-for-age growth charts. Using these charts enables health care providers to take the first step toward assessing and treating overweight among pediatric patients *(Caprio and Genel, 2005).*

"Although physicians are trained to treat the consequences of obesity—diabetes, high blood pressure, and elevated blood lipid levels, among others—they are woefully unprepared to treat or prevent the underlying causes."

Robert F. Kushner, MD, Medical Director, The Wellness Institute, Northwestern Memorial Hospital, Chicago, IL (NIHCM, 2005)

A growing body of evidence suggests that breastfeeding offers protection against childhood overweight. Despite the documented benefits of breastfeeding for improving the health of both infants and mothers, along with the potential protection against infants overweight, less than 30% of new mothers in South Carolina are breastfeeding their children at six months. Health care provider encouragement is one way to significantly increase the rates of breastfeeding among new mothers *(Lu, et al. Obstet Gynecol Feb 2001).*

Health care professionals also play a significant role in improving health through advocacy efforts. Health care providers bring powerful voices to community health initiatives as champions for increased awareness, and can exert great influence on public attitudes as well as on legislative policy. The powerful influence of health care professionals has proven to be effective in tobacco cessation, diabetes control, and managing facets of cardiovascular disease, and will be pivotal in in addressing the escalating trends in obesity in South Carolina.

This framework targets key areas where the health care system, from rural clinics to medical schools, can directly impact overweight and obesity from professional education and training efforts to advocate for policy and environmental changes.

Examples of Activities

Create Breastfeeding Friendly Hospitals

Partners will work with hospitals and maternity centers to adopt the *Ten Steps to Successful Breastfeeding*, outlined by the World Health Organization and the United Nation Children's Fund. These steps include: staff training; education for pregnant women about the benefits and management of breastfeeding; early initiation of breastfeeding; education of mothers on how to breastfeed and maintain lactation; rooming-in; and fostering of breastfeeding support groups and services.

"The SC Chapter of the AAP is committed to increasing the number of breastfeeding mothers in our state. With the recent formation of a Chapter Breastfeeding Section, a plan is underway to increase pediatricians' support and advocacy in the promotion of breastfeeding. The section's goal is the dissemination of the health and economic benefits breastfeeding provides for both the infant and the mother as well as society as a whole, such as the way breastfeeding protects against the development of childhood overweight."

Dr. Jennifer Amrol, Chapter Breastfeeding Coordinator for the SC Chapter of the American Academy of Pediatrics

Supporting Evidence: Evidence for the Ten Steps to Successful Breastfeeding. World Health Organization, Division of Child Health and Development, 1998.

Goal 3.

Increase the percentage of South Carolina mothers who breastfeed for at least six months.

Provide Professional Education and Training

SCCOPE partners will promote breastfeeding education as a routine component of health professional education/curricula, including medical, residency, nursing, nutrition, health education, and social work programs. In addition, SCCOPE will conduct trainings for health care providers and disseminate current, evidence-based information on the importance of breastfeeding and its benefit in reducing obesity and other chronic diseases.

Supporting Evidence: HHS Blueprint for Action on Breastfeeding

Goal 3.

Increase the percentage of South Carolina mothers who breastfeed for at least six months.

"At MUSC, physician education is recognized as an essential strategy in the promotion and support of breastfeeding. Our lactation consultants provide breastfeeding education to Obstetrical and Pediatric residents and all third year medical students. Medical students are not only taught the basics of breastfeeding counseling during their newborn nursery rotation, they also have the unique opportunity of electing a two week clinical rotation in Lactation and Breastfeeding. The rotation is a collaborative effort offered by Dr Carol Wagner, Neonatologist, and the Lactation Consultation Service."

Lactation Consultation Service: Jean Rhodes, CNM, PhD, IBCLC; Jeanne Barreira, CNM, MSN, IBCLC; Barbara Haase, CPNP, IBCLC , Medical University of SC

Examples of Activities

Implement Curriculum Changes and Provide Continuing Education for Health Professionals

Partners will work with leaders from medical schools to ensure that obesity prevention and treatment modules are included in curricula at all levels, from clinical training to continuing professional education for practicing clinicians. Continuing education efforts will include training on standard guidelines, protocols, and evidence-based practices.

Supporting Evidence: *Roadmaps for Clinical Practice: Case Studies in Disease Prevention and Health Promotion, American Medical Association, 2003*

Goal 4.

Increase the percentage of South Carolinians who achieve and maintain a healthy weight.

Advocate for Policy Change

SCCOPE will enlist the aid of respected medical professionals within the state to advocate in support of healthy weight management services and to support this advocacy through legislative action. Advocacy efforts will include initiatives and policies that support breastfeeding, healthful eating habits, physical activity, and healthy weight maintenance. SCCOPE, through its partners, will alsoadvocate for legislative policies that support insurance coverage of weight management services by registered dietitians, social workers, psychologists, health educators, and other health professionals.

Supporting Evidence: *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity, 2001.*

Goal 4.

Increase the percentage of South Carolinians who achieve and maintain a healthy weight.

Provide Education to Policy and Decision Makers

SCCOPE will educate policy and decision makers and purchasers of major health care plans on the burden of obesity and obesity-related chronic diseases. This education will include information on the economic benefit of good health and model policies that support healthy eating, physical activity, and healthy weight maintenance.

Supporting Evidence: *Health Plans Emerging as Pragmatic Partners in Fight Against Obesity, 2005.*

Goal 5.

Decrease the burden of obesity and obesity-related chronic diseases.

Health Care Systems
Objectives and Strategies

Goal 3: Increase the percentage of South Carolina mothers who breastfeed for at least six months.

Objective 1: By July 31, 2009, at least 10 health care facilities in South Carolina will have a breastfeeding policy in place.

Strategies

1. Through collaboration with organizations such as the SC Breastfeeding Coalition, SC Primary Health Care Association, and the La Leche League, complete an assessment of breastfeeding policies in health care organizations in the state to establish baseline measurements of policy and environmental supports for breastfeeding.
2. Provide sample policy statements and examples of environmental supports for breastfeeding to health care organizations in the state.
3. Work with hospitals, maternity centers, physician offices, and clinics to reinforce guidelines from WHO/UNICEF (International Code on the Marketing of Breast Milk Substitutes) and work toward eliminating practices that discourage breastfeeding (such as visible signs of formula promotion and infant formula discharge packs).
4. Work with hospitals and maternity centers to adopt the "Ten Steps to Successful Breastfeeding."

Objective 2: By July 31, 2008, at least 50 health care providers in South Carolina will provide education and counseling in support of breastfeeding.

Strategies

1. Identify breastfeeding "champions" to assist in educating peers about the importance of promoting and supporting breastfeeding.
2. Conduct trainings for health care providers and disseminate current, evidence-based information on the importance of breastfeeding and its benefit in reducing obesity and other chronic diseases.
3. Promote breastfeeding education as a routine component in professional education/ curricula, including medical, nursing, nutrition, health education, and social work programs.
4. Develop and disseminate materials to educate health care providers about the need to promote and support breastfeeding efforts.
5. Develop and disseminate a listing of breastfeeding resources (such as local lactation consultants, breastfeeding peer counselors, and lay support groups) to health care providers for use in the promotion and support of breastfeeding.

Action Step:

- Inform and educate health care providers about the importance of referring mothers with breastfeeding questions, concerns, or problems to a specialized professional.

6. Provide positive public messages in support of breastfeeding.

Goal 4: Increase the percentage of South Carolinians who achieve and maintain a healthy weight.

Objective 1: By December 31, 2010, at least 75 health care providers will follow national guidelines and standard protocols for weight management and the treatment of obesity.

Strategies

1. Collaborate with leadership of SC medical schools and other health care professional programs to include the prevention and treatment of obesity as a module in the curriculum.
2. Educate health care providers about the importance of healthy weight maintenance and prevention of overweight and obesity across the lifespan.

   Action Steps
   - Distribute NHLBI Clinical Guidelines.
   - Conduct trainings on assessment of overweight and obesity using BMI and BMI-for-age.

3. Promote self-study modules on healthy weight/weight management, which will include appropriate counseling and behavior change theory.

   Action Step:
   - Educate health care professionals on patient self-management models using examples such as the Chronic Care Model.

4. Provide resources to health care providers to assist with referrals for healthy weight maintenance.

   Action Steps:
   - Develop and maintain a website accessible to health care providers that includes information about weight management programs and patient education materials.
   - Maintain a resource listing of health care professionals trained to provide weight management services, including physical activity and nutrition specialists.
   - Initiate a statewide referral phone line accessible to health care providers for weight loss/prevention programs.

Objective 2: By July 31, 2007, at least 3 health care champions will assist with advocacy efforts in support of healthy weight management services.

Strategies

1. Identify health care providers interested in being advocates for healthy weight management efforts throughout the state.
2. Advocate for the state legislature to establish policies for insurance coverage of weight management services by registered dietitians, social workers, psychologists, health educators, and other health professionals.
3. Collaborate with insurance regulators and insurance companies to enhance advocacy for initiatives and policies that support breastfeeding, healthful eating habits, physical activity, and healthy weight maintenance.
4. Champions to encourage peers to offer weight management programs at physician of fices, managed-care settings, and health departments.

Goal 5: Decrease the burden of obesity and obesity-related chronic diseases.

Objective 1: By July 31, 2007, at least 200 health care providers will be trained on the health and economic implications of obesity and obesity-related chronic diseases.

Strategies

1. In collaboration with DHEC chronic disease program areas, state and community coalitions/alliances, educate health care providers on the health implications of obesity and obesity-related chronic diseases.

Action Steps:

- DOPC will collaborate with DHEC chronic disease program areas and state and community coalitions/alliances to incorporate education on the burden of obesity during health care provider trainings.
- Collaborate with ORS and health economists to obtain data on the economic costs of obesity for trainings for health care providers.

Objective 2: By December 31, 2008, at least 50 policy and decision makers will be provided training on the burden of obesity and obesity-related chronic diseases.

Strategies

1. Educate health care plan policy makers and purchasers of health care plans regarding the cost of overweight and obesity to the health care system.
2. Educate policy makers on the economic benefit of initiatives and policies that support healthful eating habits, physical activity, and healthy weight maintenance for treatment of obesity-related chronic diseases.

Schools

Schools represent one of the most effective venues for childhood overweight initiatives because children spend almost half of their waking hours at school or in after-school programs. Students may eat breakfast as well as lunch at school, and often receive two-thirds of their daily caloric intake while at school. Additionally, schools may provide the only opportunity for regular physical activity.

Being healthy is the foundation of a child's ability to learn and succeed. Schools and communities working together can ensure that all children come to school healthy and ready to learn, and that good health habits follow them not only during their school careers, but throughout their lives.

(Inez Tenenbaum, State Superintendent of Education (www.healthylearner.com)

The National School Lunch Program (NSLP) was established in 1946 to provide healthful lunches to children from low-income families and to encourage the consumption of US agricultural products. While school lunch programs must meet minimum dietary standards established by federal regulations, competitive food products in schools are unregulated in most states *(SC SDE, 2004).* As of last year, only 2 states have set nutritional standards for school lunches, breakfasts, and snacks that go beyond existing USDA requirements *(TFAH, 2004).* Funding cuts to public education have resulted in the introduction of food products in schools that compete with meals provided by school lunchrooms.

Funding cuts to public education have resulted in the introduction of food products in schools that compete with meals provided by school lunchrooms.

National guidelines state that elementary school children should accumulate 60 minutes of physical activity every day since half of a child's day is spent at school, experts recommend that *at least* 30 minutes of this time be accumulated during normal school hours. This may include organized physical education (PE) activities or recess during school hours, intra-mural or extra-mural sports activities, unstructured playground activities before or after school or physical activity clubs.

Estimates indicate that less than 16% of kids walk or bike to school, compared with about 50% just a generation ago.

(EPA, 2003)

Source: Environmental Protection Agency, Travel and Environmental Implication of School Sitings, October 2003

There are barriers to children obtaining the recommended amount of physical activity at school. PE programs, at all levels, have been cut both to save funds and to provide more time for academic preparation and testing *(SCSDE, 2004).* One survey has shown that only 8% of elementary schools, 6.4% of middle schools, and 5.8% of high schools offer daily physical education classes at all grade levels for the entire academic year *(IOM, 2005)*. In addition, fewer children walk or ride their bikes to school due to safety concerns and increased travel by car. Observational studies have shown that, because it represents a regular physical activity for large parts of the year, walking or biking to school significantly increases the physical activity that contributes to a healthy lifestyle.

In South Carolina, recommended efforts to improve nutrition and increase physical activity in schools have been outlined by the SDE. In 2004, a SDE Task Force drafted *Recommendations for Improving Student Nutrition and Physical Activity*. School Work Group members developed objectives and strategies to complement the recommendations in the SDE report.

The newly reauthorized Child Nutrition Act provides a federal mandate that reinforces the need for increased physical activity and improved nutrition during the school day.

Moving South Carolina children toward a healthy weight will require everyone's help, and schools have the opportunity to play an essential role. A comprehensive approach involving all levels of the SEM model is essential for impacting childhood overweight. Students, families, teachers, principals, school board members, and other decision makers must work together for this comprehensive approach to be successful.

The Child Nutrition Act, reauthorized by Congress in 2004, requires all schools receiving federal funds for food-service programs adopt a wellness policy by the beginning of the 2006-2007 school year. These policies must include items such as goals for nutrition and physical activity, as well as nutrition guidelines for all foods available during the school day with the objectives of promoting student health and reducing childhood obesity.

(NASBE, 2004)

Examples of Activities

Increase Opportunities for Students to Participate in Physical Activity During the School Day.

Partners will collaborate to establish a state level policy to require a minimum amount of minutes for physical education in schools. Additional opportunities for physical activity during the school day could include walking programs and recess.

Supporting Evidence: Community Guide to Preventive Services

Goal 1: Increase the percentage of South Carolinians who meet the current age-specific recommendations for regular physical activity.

Examples of Activities

Implement Nutrition and Physical Activity Curriculum in SC Schools

Training will be provided to schools on evidence-based nutrition and physical activity curricula, such as *CATCH, Planet Health*, and *Eat Well, Keep Moving*. This initiative will include train-the-trainer programs in school districts, along with evaluation and follow-up to determine implementation and technical assistance needs.

Supporting Evidence: *IOM*

Goal 4:

Increase the percentage of South Carolinians who are at a healthy weight.

Increase the Availability and Consumption of Fruits and Vegetables

School personnel will receive training on ways to increase fruit and vegetable options, alternative venues for purchasing fruits and vegetables, and ways to increase fruit and vegetable consumption in schools.

Supporting Evidence: *Guidelines for School Health Programs to Promote Lifelong Healthy Eating.*

Goal 2:

Increase the percentage of South Carolinians who consume at least five servings of fruits and vegetables a day.

Provide Education to Students and Families on the Importance of Achieving and Maintaining a Healthy Weight

This initiative will help educate school nurses and physical education teachers on how to measure BMI in children; develop suggested procedures for schools regarding how to best communicate this information to parents; provide health education materials on maintaining a healthy weight; and develop a resource and referral list for families for students who are overweight.

Supporting Evidence: *TFAH*

Goal 4:

Increase the percentage of South Carolinians who are at a healthy weight.

School
Objectives & Strategies

Goal 1: Increase the percentage of South Carolinians who meet the current age specific recommendations for regular physical activity

Objective 1: By December 31, 2007, at least 50 schools will provide opportunities for students to participate in physical activity during the school day.

Strategies

1. Establish/adopt state level policy that requires and funds Physical Education Program Assessment for grades K-8.
2. Establish state level policy that requires 150 minutes weekly of physical education in grades k-5.
3. Establish state level policy that requires 250 minutes weekly of physical education in grades 6-8 (NASPE's recommendation for Middle grades).
4. Establish state level policy that requires three Carnegie units of physical education for high school graduation.
5. Provide models for increasing PE time in grades K-8, middle and high school
6. Provide training to elementary schools to implement walking programs such as Duck Walking, Walk Across America, and Walk For Life.
7. Disseminate the SC Governor's Council on Physical Fitness' Recess Policy Statement to all middle and elementary school Principals.
8. Provide training and distribute model programs to middle and high school Principals for implementing intramurals, physical activity clubs, and physical activity elective courses into the school day.
9. Provide training to Physical Educators on implementing the SC Physical Education Standards and Assessment Program. *(Partner: SDE and SCAHPERD- SCPEAP)*
10. Provide training to district and school personnel on increasing physical activity opportunities into the core curriculum ("Take 10" program).
11. Increase the active time in physical education classes to 90% of class time.

Objective 2: By December 31, 2009, at least 50 schools will provide opportunities for faculty and staff to participate in physical activity at school.

Strategies

1. Create a packet of model staff physical activity program ideas and disseminate these to all elementary, middle and high schools (or school districts).

2. Provide presentations on staff physical activity programming at school related conferences (middle school, school nurse, etc.). *Work with SC School Administrators.*
3. Provide school districts and schools with model policies and programs that encourage faculty and staff physical activity (such as the use of recreational/sports equipment in the school)

Objective 3: By December 31, 2008, increase in the number of children that will walk or bike to school.

Strategies

1. Work with YRBS or YTS to add appropriate question(s) to survey.
2. Identify schools in SC where it is physically possible and potentially safe to begin a Safe Routes to School Program.
3. Provide grants/resources to identified schools through the SC Governor's Council on Physical Fitness and the SC Coalition for Promoting Physical Activity to participate in Walk to School Day.
4. Disseminate information to all school Superintendents and Principals on the Safe Routes to School bill and Walk To School Day.
5. Provide training to school administrators on model policies and programs to implement a Safe Routes To School program.
6. Provide resources to identified schools on how to set up a SR2S committee at the SCCPPA Fall 2005 SR2S Conference)

Objective 4: By December 31, 2010, at least 150 school and community members will be identified as leaders in improving school physical activity.

Strategies

1. Provide training to school administrators on the SC Physical Education Assessment Project at the SCAHPERD Conference
2. Provide a one-day training to potential school health leaders through the SC Healthy Schools Leadership Institute
3. Provide a weeklong training to school health teams for implementing the CDC's School Health Index through the SC Healthy Schools Summer Leadership Institute.
4. Work with existing awards processes to identify and recognize school champions (SC Governor's Council School Awards, DHEC All Health Team, SC Healthy School Awards).

Objective 5: By December 31, 2010, at least 100 schools will provide opportunities for students to be physically active on school property before and after school.

Strategies

1. Provide information, resource materials and training to schools on before and after school models for implementing physical activity clubs, intramural sports and extended use of school physical activity facilities.
2. Partner with after school providers such as the SC After School Alliance, AFHK, SC Recreation and Parks Association and the YMCA to adopt policies that require the incorporation of physical activity as a portion of their programming.

Goal 2: Increase the percentage of South Carolinians who consume at least five servings of fruits and vegetables a day.

Objective 1: By December 31, 2008, at least 3 school districts will participate in a social marketing campaign to encourage students to consume 2 or more fruit and vegetable (non-fried) servings during the school day.

Strategies

1. Provide training and resources for conducting an age appropriate social marketing campaign in schools, making eating F/V "cool".
2. Provide resources to school on ways improve the packaging of available fruits and vegetables, making servings more individualized (cups of F/V that they can take, rather than being served, or single serving packages).

Objective 2: By July 31, 2009, at least 100 schools will implement the Five-A-Day programs in schools.

Strategies

1. Provide training and share model programs to school personnel on the 5-A-Day campaign at the SCASA , School Nurses, SCAHPERD, Early Childhood and Elementary Education conferences.
2. Provide a one-day training to potential school health leaders through the SC Healthy Schools Leadership Institute.
3. Provide a 5 A Day training as part of the SC Healthy Schools Summer Institute.
4. Educate teachers on the variety of 5 A Day resources for use in the classroom.

Objective 3: By December 31, 2007, at least 25 school districts will receive training on policies and other strategies for increasing the availability and consumption of fruits and vegetables.

Strategies for School Meals

1. Disseminate "how to" strategies to increase fruit and vegetable options including menu suggestions to district school food service directors, managers and staff.
2. Provide training to Food Service Personnel on the importance of having more fruits and vegetable options available and provide strategies to increase these options using model meal programs and marketing these options to students, staff and parents.
3. Provide training and ideas to above groups on how schools can afford more fresh fruits and vegetables as part of the school meal (school gardens, farmers markets)
4. Provide training on implementing school community gardens to interested teachers/ staff.

*Strategies for Other Foods and Beverages**

*Other Foods and Beverages refer to any food sold or served on school grounds outside of the USDA Reimbursable meal program.

1. Develop and disseminate model policies that increase the availability of fruits and vegetables (and 100% fruit and vegetable products) through all other food and beverage sales outlets.

   A. **Vending Machines**

   Distribute policy that assures that vending machines are stocked with fruits and vegetables and 100% fruit and vegetable products.

   B. **A-La-Carte**

   Distribute policy that assures that all fruit and vegetable components of the school meal are available to purchase as a-la-carte.

   C. **Concessions**

   Distribute policy that assures that fruits and vegetables and 100% fruit and vegetable products are sold at concession stands.

2. Disseminate model programs that increase the availability of fruit and vegetable options for students. (This includes 100% F& V juice products)

   A. **Vending Machines**

   Provide information about model vending programs that increase fruit and vegetable options while maintaining profit margins.

   Provide information to Principals and District personnel on negotiating vending contracts that provide healthy choices, including fruit and vegetable options.

B. **A-La-Carte**

Disseminate model school food service programs that increase fruit and vegetable options on a-la-carte offerings.

C. **Concessions**

Distribute model guideline and suggestions for having F/V available at concession stands, school stores and other school sponsored events

D**. Fundraisers**

Distribute ideas for selling fruits and vegetables as fundraisers to Principals, PTA/ PTO and booster club leaders

E**. Parties**

Distribute model guidelines and suggestions for having F/V available during parties and class rewards

Goal 4: Increase the percentage of South Carolinians who are at a healthy weight.

Objective 1: By December 31, 2008, at least 100 schools will implement proven, effective nutrition and physical activity curricula.

Strategies

1. Provide training to schools on proven, effective nutrition and physical activity curricula (*Planet Health, Eat Well, Keep Moving and Color Me Healthy*.

    - Provide Train the Trainer programs in school districts and regions
    - Trainers provide training on curricula to teachers.
    - Teachers implement curricula in schools.
    - Evaluate and follow up to determine implementation and technical assistance needs.

Objective 2: By December 31, 2008, at least 25% of students will consume three or more servings of calcium rich low fat dairy daily.

Strategies

1. Partner with AFHK
2. Partner with milk bottlers to improve the packaging of 1% or less milk making it more appealing to students.

Objective 3: By December 31, 2008, at least 70% of students will report eating breakfast.

Strategies

1. Provide parent and student education regarding the importance of breakfast.
2. Provide information and technical assistance to school food service personnel and principals on alternative breakfast delivery strategies such as breakfast in the classroom, grab and go stations and the Universal Breakfast Program.
3. Provide marketing strategies to schools to promote eating breakfast.

Objective 4: By December 31, 2009, at least 300 schools will adopt the SDE Task Force Recommendations for improving student nutrition and physical activity.

Strategies

1. Provide all school principals with a copy of the SDE Task Force Recommendations.
2. Develop a rating system to award schools that have implemented the recommendations.
3. Adopt state level policy that establishes nutrition and physical activity standards for k-12. Refer to the SDE Task Force on Improving Student Nutrition and Physical Activity and work with the Legislature or the State Board of Education.

Objective 5: By December 31, 2008, at least 150 schools will provide education and awareness to students and parents on the importance of achieving and maintaining a healthy weight.

Strategies

1. Include BMI fields in the SASSI reporting system
2. Educate school nurses and PE teachers on how to measure BMI and record in SASSI.
3. Develop a local resource and referral list to give to families of students who are overweight.
4. SDE in conjunction with partners will develop suggested procedures for schools regarding communication of BMI and suggestions for reaching and maintaining a healthy weight to students and parents.

Research

Although there is much known about obesity, due to the complexity of the issue, numerous unanswered questions remain. Research efforts looking at the risk factors, health consequences, and economic impact of obesity will influence and shape how best to address all facets of obesity and associated chronic diseases.

> "The challenges of today's obesity epidemic are daunting, yet the discoveries emanating from previous research investments offer unprecedented opportunities for new scientific research efforts to help meet these challenges."
>
> (Strategic Plan for NIH Obesity Research, 2004)

In the past few years, obesity-related research has been made a priority at the national level. In April 2003, the NIH Obesity Research Task Force was established to develop a strategic plan for obesity research. *The Strategic Plan for NIH Obesity Research (2004)* includes research themes around preventing and treating obesity through lifestyle modification and through medical approaches, and research addressing the link between obesity and its associated health conditions. The strategic plan also encourages research examining cross-cutting topics including health disparities, technology, fostering of multidisciplinary and interdisciplinary research teams, investigator training, translational research, and education/outreach efforts.

The *Community Guide to Preventive Services*, developed by the Task Force on Community Preventive Services, summarizes what is known about the effectiveness and feasibility of interventions to promote health and prevent disease. The Task Force uses a variety of both qualitative and quantitative factors to assess the strength of evidence for population-based interventions.

The *Community Guide* indicates several interventions as having insufficient evidence, which simply indicates a lack of quality data supporting the various interventions and approaches. Many of these interventions have shown promise with designated populations, but an abundance of high quality evidence does not exist to recommend the intervention for the general population. Consequently, more well-designed, high quality research studies are needed to determine the effectiveness of these promising practices.

Recommendations for interventions in the Community Guide to Preventive Services are made based on the strength of evidence of effectiveness and assessed as:

- Recommended based on strong evidence
- Recommended based on sufficient evidence
- Recommended based on expert opinion
- Insufficient evidence to determine effectiveness
- Recommended against

Research is also needed to evaluate the effectiveness of obesity-related interventions in various populations. Some potential research questions include:

- How do policy and environmental strategies impact physical activity and nutrition behaviors?
- How effective is a media campaign as a stand-alone intervention?
- How to best address factors leading to obesity in populations impacted by health disparities?
- What are the best methods to understand the psychological and biological factors contributing to weight gain?

Research design is equally important. One research method that is becoming more recognized in both public health institutions and funding agencies is Community Based Participatory Research (CBPR). CBPR is a collaborative process of research involving researchers and community representatives. It engages community members, employs local knowledge in the understanding of health problems and the design of interventions, and invests community members in the processes and products of research.

CBPR is especially valuable when applied to research aimed at improving the health of disadvantaged (minority, low-income, rural, or other) populations. Conventional research in these communities has faced many barriers and offered limited opportunities for improved health outcomes. With CBPR, community members are invested in the dissemination and use of research findings and ultimately in the reduction of health disparities.

The state of South Carolina is fortunate to have several renowned researchers and supporting academic institutions. This asset, combined with the need for an expanding pool of evidence-based practices, research plays a key role in this strategic framework.

CLEMSON:

Clemson University and Clemson Extension Services are actively engaged in numerous activities relating to healthy nutrition and physical activity for different age groups. The Expanded Food and Nutrition Education Program (EFNEP) is a nutrition education program for children, youth, and families with limited resources that has been provided for more than 35 years. Promotion of food safety and health issues to limited income families is also being provided through the Clemson Extension Food Safety and Nutrition Agents. Clemson and Vorhees College have a joint research project focusing on outreach activities targeting African-American school aged children and adults. The EXPORT project has three main studies focusing on the identification and comparison of lifestyle choices of diet and physical activity as well as socio-cultural factors that influence lifestyle choices in rural and underserved minority populations. The Institute for Family and Neighborhood Life focuses on developing/supporting families and communities including establishing community food banks.

MUSC:

MUSC has several programs addressing overweight and obesity. The Weight Management Center approaches the complexity of obesity with a multi-disciplinary team of psychologists, physicians, dietitians, and exercise physiologists. The Weight Management Center also participates in research regarding the use of medications for weight loss. MUSC Children's Hospital has developed the Heart Health program, a comprehensive, family-focused program specifically for children and adolescents ages 2-21 with a history of chronic abnormal weight gain and cardiovascular risk factors. MUSC publishes papers and conducts presentations incorporating clinical data, including data from the MUSC Bariatric Surgery Program.

USC:

As the only School of Public Health in SC, the USC Arnold School of Public Health encompasses many programs involved in obesity-related research. For example, the USC PRC is one of 33 university-based centers that is part of the Prevention Research Center Programs of the CDC. The PRC in South Carolina conducts applied research in chronic disease prevention and control, with a focus in the area of physical activity. Translating research into practice is integral to PRC to ensure that research findings are put into practice in communities throughout the state. In addition, the Center for Research in Nutrition and Health Disparities, also in the Arnold School of Public Health is involved with researching the combinations of dietary intake, genetic and cultural influences on obesity, and obesity-related conditions – especially in the minority populations most burdened with health disparities and the health problems that result from obesity. These two centers are currently involved in developing grant proposals for research projects related to the initiatives addressed in this strategic framework.

In July 2003, South Carolina's three research universities: MUSC, Clemson University, and USC joined with the South Carolina Research Authority to develop the South Carolina Nutrition Research Consortium. The Consortium was originally chartered to leverage resources of the three research universities, along with other state colleges and universities, government, and industry for innovative research and outreach programs that will promote good nutrition and disease prevention for all South Carolinians.

The health consequences, along with the economic costs of obesity, will be additional areas for investigation through research projects in the state. To meet the challenges obesity presents, translating research into practice and disseminating practical guidelines to individuals, families, communities, and organizations will be critical to the prevention and control of obesity in South Carolina. Research findings will also promote the implementation of evidence-based obesity-related activities to change behavior and policy in the state.

Examples of Activities

Obtain Obesity Related Research Grants

Leveraging resources through collaborative partnerships will help with increasing opportunities for obtaining research grants for South Carolina.

Establish a Clearinghouse for Partners

A clearinghouse will be established and maintained to provide updates on obesity research opportunities.

Provide Technical Assistance to Partners

Assistance on topics such as grant writing and CBPR will be provided to community partners and grassroots organizations in the state.

Form SCCOPE Research and Grant Writing Subcommittee

A research and grant writing subcommittee will be formed within SCCOPE to assist with increasing research efforts in the state.

Goal 6.

Increase the number of research projects in South Carolina related to obesity prevention and control.

Goal 6: Increase the number of research projects in South Carolina related to obesity prevention and control.

Objective 1: By December 31, 2010, collaborate with the South Carolina Nutrition Research Consortium (SCNRC) on at least 3 research efforts dealing with obesity in the state.

Strategies

1. At least one member of the South Carolina Nutrition Research Consortium will serve as an Advisory Council member for SCCOPE.
2. DOPC will correspond at least monthly with the Nutrition Research Consortium contact to maintain communication on potential research opportunities.
3. SCCOPE will use research results to implement proven effective state-wide obesity related activities.

Objective 2: By December 31, 2009, DOPC will have provided ongoing updates to partners on potential obesity related research opportunities for the state.

Strategies

1. Establish and maintain a clearinghouse for obesity research opportunities.
2. Provide technical assistance on grant writing and community based participatory research to community partners and grass roots organizations.

Objective 3. By July 31, 2010, SCCOPE through its partners, will have obtained at least 5 obesity related research grants for the state.

Strategies

1. Within SCCOPE, form a research and grant writing subcommittee to lead the SCCOPE research efforts.
2. DOPC will identify individuals within DHEC who are interested and skilled in research activities.

Section 4:

IMPLEMENTATION

"Possible Implementation Criteria"

- Ü State demographics
- Ü Gaps in existing programs
- Ü Opportunities to build on successes
- Ü Partner resources
- Ü High risk groups identified through surveillance
- Ü Populations (such as young children, that benefit from primary prevention)
- Ü Legislative efforts
- Ü Future resources
- Ü New national policy statements/ guidelines that influence the management and treatment of obesity
- Ü Clear evidence of effectiveness

Moving from the planning phase to the implementation phase opens avenues for even broader partner participation for obesity prevention and control efforts in SC. Each existing and future partner brings different skills and resources to the table, thus, providing a mechanism to facilitate networking, collaboration, implementation, and sustainability of the framework for action.

In the implementation phase, DOPC will convene quarterly meetings to facilitate the selection of annual priorities for each of the Work Groups. Selection of these priority activities and target populations will be based on the particular needs of the state and various criteria (see figure 18). As activities are selected, a specific partner/agency will be identified to lead efforts as Work Groups begin taking steps towards implementation of these initiatives.

A comprehensive inventory of statewide obesity prevention activities and initiatives will be developed and updated on an annual basis. This inventory will outline partners' programs and resources and will be used for learning, sharing and communication among SCCOPE partners.

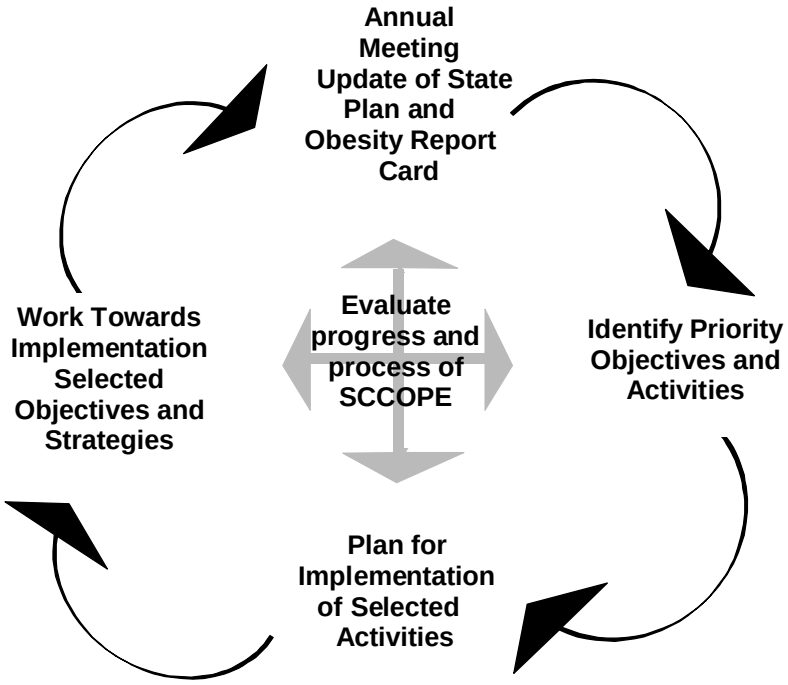


Figure 18

Section 5:

LOOKING FORWARD

Moving SC Towards a Healthy Weight

Obesity is a complex condition, influenced by behavioral, environmental, and biological factors. Improving the health of South Carolinians by preventing and controlling obesity and obesity-related chronic diseases will take a coordinated and cohesive effort.

A society and culture supportive of healthy behaviors designed to address every aspect of daily life is critical to impact obesity and improve health. Strategies and activities for obesity prevention and control can be initiated now, but a long-term commitment will be critical to effectively impact this public health epidemic.

This document is designed to be dynamic and flexible – a framework for action to move South Carolina towards a healthy weight. This framework represents a starting point from which to identify ways South Carolinians can work together and leverage resources and energy toward a shared vision for the state. SCCOPE will continue to evolve, welcome new partners, and revise initiatives to support the pursuit of a healthier South Carolina.

Change does not automatically flow from a plan or structure; it has to be driven by people who champion the cause.

APPENDICES

Objectives/Strategies by Goal

Goal 1: Increase the percentage of South Carolinians who meet the current age-specific recommendations for regular physical activity.

Objective 1: By July 31, 2008, at least 50 worksites in SC will promote physical activity for employees.

Strategies

1. Employers will encourage daily physical activity by implementing strategies such as providing easy access to stair-wells while limiting access to elevators, supporting and promoting lunchtime walking/ running clubs or company sports teams, and providing on-site facilities such as walking trails and bike racks.
2. Increase the number of worksites providing weight-related physical activity educational materials to employees based on current, evidence-based information.
3. Employers will provide opportunities for employees to become engaged in self-management and goal setting relative to physical activity.
4. Employers and businesses will promote and support community efforts to reduce TV time and increase physical activity, such as "Turn off TV Week" and "Walk to School Day."
5. Employers will be provided resources to implement low cost, incentive-based physical activity programs.
6. Employers will be provided with a list of non-profit agencies that can provide low or no-cost educational materials.

Objective 2: By December 31, 2008, at least 25 worksites in SC will have adopted policies supportive of physical activity.

Strategies

1. Provide flexible scheduling to allow employees to participate in exercise before work, during lunch, or after work.
2. Provide reimbursement for employees who are members of exercise facilities or participate in classes.
3. Provide discounted rates for membership to fitness and recreation facilities.
4. Provide incentives to employees participating in physical activity programs.
5. Provide up to 3 hours of paid time per week for employees to participate in physical activity.

Objective 3: By July 31, 2008, at least 92 free, sliding scale or publicly owned recreation facilities will be identified.

Strategies

1. Assess recreation centers in South Carolina to determine which need improvements or need brand new facilities.

Action Steps:

- *Secure funding for assessment development and implementation.*

- *Work with SCRPA, which periodically polls its membership about needs and assets in local park and recreation departments.*
- *Work with SC PRT, which develops a five-year state outdoor recreation plan.*

2. Develop a best practice resource tool to help communities develop comprehensive recreation and fitness centers.

3. Support and build advocacy to identify and establish a permanent funding mechanism for public park and recreation agencies to fund new recreation centers for the entire state.

Objective 4: By July 31, 2010, at least 46 non-public recreational facilities will be open to community use.

Strategies

1. Increase the number of school districts that allow community use of schools for recreational activities (e.g., walking tracks, outdoor fields, gyms).

Action Steps:

- *Assess district policies on public use of school recreation facilities, (for example, USC PRC work via a CDC Special Interest Project).*
- *Develop a model policy that addresses issues of maintenance and liability.*
- *Work with the Department of Education and school board association to encourage districts to adopt policies allowing public use of school recreation facilities after regular school hours (evenings and weekends).*
- *Work with the Department of Education or school board association to identify old schools available for adaptive reuse as community centers with recreation facilities.*

2. Work with faith-based groups to find ways to increase community use of church recreational facilities.

Objective 5: By July 31, 2010, at least 46 communities will have free, sliding scale, or publicly funded physical activity opportunities.

Strategies

1. Work with SCRPA to identify needs and develop plans with their membership.

2. Work to identify funding sources to provide community physical activity opportunities.

3. Implement Hearts N Parks programs or similar programs in local recreation departments.

4. Survey current mall walking programs. Develop tools to help these programs advertise and increase participation.

5. Develop tools to promote new mall walking programs (for example, Sumter County Active Lifestyles Heart and Soles Mall Walking Program).

6. Develop a tool for communities to implement activity components into local festivals and community events.

7. Create a directory for physical activity resources in the community. Identify and distribute information about walks, runs, and other physical activity opportunities held in communities across the state.

Objective 6: By July 31, 2008, at least 20 communities will develop partnerships with stakeholders such as hospitals, municipal associations, and city and county councils, to collaborate on locally based physical activity initiatives and policy changes.

Strategies

1. Work with SCCPPA to identify local coalitions focused on physical activity.
2. Develop a toolkit to assist communities in developing local physical activity coalitions.
3. Provide networking opportunities for the sharing of resources for local coalitions throughout the state.

Objective 7: By July 31, 2010, at least 20 communities will have connectivity to at least 10 miles of sidewalks, walking trails, bike lanes/paths and other features of the built environment conducive to safe physical activity.

Strategies

1. Coalitions, in partnership with city planners and developers, will conduct walkability audits in the community.
2. Add bike lanes on at least 2 renovated roadways in South Carolina**.**

Action Steps:

- *Work with SC DOT and Metropolitan Planning Organizations throughout the state to establish a baseline assessment of existing and needed bike lanes.*
- *Work with SC DOT/ MPO planning processes to prioritize construction of bike lanes.*

3. DOT or local jurisdictions will have plans to add sidewalks where needed, especially leading to schools, recreation departments and other physical activity sites.

Action Steps:

- *Work with SC DOT and Metropolitan Planning Organizations throughout the state to establish a baseline assessment of existing and needed sidewalks.*
- *Work with SC DOT and MPO planning processes to prioritize construction of sidewalks.*

4. Increase the number of continuous sidewalks/walkways/bike lanes on main streets (with high connectability) in 3 cities.
5. Modify/assess MPO current organizational structure and develop policy requiring that bike/pedestrian coordinator be actively involved in MPO decision making.

Action Steps:

- *Survey MPO's to identify which have advisory groups and/or bike/pedestrian coordinators, how they are used, model policies/job descriptions.*
- *If necessary, contact MPO's in states with good bike/pedestrian policies (e.g., Oregon) to use as models for South Carolina recommendations.*

6. Local municipalities and counties will develop and adopt ordinances that require sidewalks and bike lanes in new subdivisions.

Action Steps:

- *Identify model ordinances in South Carolina or elsewhere.*
- *Work with SC Municipal Association and Association of Counties to develop a model ordinance for recommendation to local communities.*

7. Promote "Share the Road" signage and culture and other bike/pedestrian safety education programs.

Action Steps:

- *Partner with Palmetto Cycling Coalition, which is working to promote a "Share the Road" culture and a school-based bicycling curriculum in South Carolina.*

Objective 8: By July 31, 2007, implement *America On the Move* in South Carolina.

Strategies

1. Partner with SCCPPA, SCPRA, YMCA, AARP, DHEC, and other programs to promote *America on the Move*.
2. Research other state models for collaborative approaches with *America on the Move*.
3. Develop strategies for engaging hard-to-reach populations in *America on the Move.*

Objective 9: By December 31, 2007, at least 150 faith based settings will support physical activity through programs and/or policies.

Strategies

1. Establish a baseline number of Faith-Based Settings (FBS) that offer programs and have policies, either formal or informal, that support physical activity.
2. Promote partnership with recreation facilities and community activities, through use of co-facilities (work with PA subgroup) and communication network (for PA classes, chair aerobics etc.) at FBS.
3. Increase the number of faith-based child care centers implementing the *Color Me Healthy* curriculum.
4. Encourage increased participation in physical activity for youth (e.g., sports, dance).
5. Promote family physical activity (e.g., walking, biking).
6. FBS with established physical activity programs will engage in community outreach to promote physical activity.

Objective 10: By December 31, 2007, at least 50 schools will provide opportunities for students to participate in physical activity during the school day.

Strategies

1. Establish/adopt state level policy that requires and funds Physical Education Program Assessment for grades K-8.
2. Establish state level policy that requires 150 minutes weekly of physical education in grades k-5.
3. Establish state level policy that requires 250 minutes weekly of physical education in grades 6-8 (NASPE's recommendation for Middle grades).

4. Establish state level policy that requires three Carnegie units of physical education for high school graduation.
5. Provide models for increasing PE time in grades K-8, middle and high school
6. Provide training to elementary schools to implement walking programs (such as Duck Walking, Walk Across America, Walk For Life).
7. Disseminate the SC Governor's Council on Physical Fitness' Recess Policy Statement to all middle and elementary school Principals.
8. Provide training and distribute model programs to middle and high school Principals for implementing intramurals, physical activity clubs, and physical activity elective courses into the school day. (Work with the Middle School Association)
9. Provide training to Physical Educators on implementing the SC Physical Education Standards and Assessment Program. *(Partner: SDE and SCAHPERD- SCPEAP)*
10. Provide training to district and school personnel on increasing physical activity opportunities into the core curriculum ("Take 10" program).
11. Increase the active time in physical education classes to 90%.of class time.

Objective 11: By December 31, 2008, at least 50 schools will provide opportunities for faculty and staff to participate in physical activity at school.

Strategies

1. Create a packet of model staff physical activity program ideas and disseminate these to all elementary, middle and high schools (or school districts). (Partner with Prevention Partners and DHEC's Capital Health Program).
2. Provide presentations on staff physical activity programming at school related conferences (middle school, school nurse, etc.) *Work with SC School Administrators.*
3. Provide school districts and schools with model policies and programs that encourage faculty and staff physical activity (such as the use of recreational/sports equipment in the school).

Objective 12: By month December 31, 2008, increase the percentage of children that walk or bike to school.

Strategies

1. Work with YRBS or YTS to add appropriate question(s) to survey.
2. Identify schools in SC where it is physically possible and potentially safe to begin a Safe Routes to School Program.
3. Provide grants/resources to identified schools (through the SC Governor's Council on Physical Fitness and the SC Coalition for Promoting Physical Activity) to participate in Walk to School Day.
4. Disseminate information to all school Superintendents and Principals on the Safe Routes to School bill and Walk To School Day.
5. Provide training to school administrators on model policies and programs to implement a Safe Routes To School program (SCASA Conference).
6. Provide resources to identified schools on how to set up a SR2S committee (SCCPPA Fall 2005 SR2S Conference).

Objective 13: By December 31, 2010, at least 150 school and community members will be identified as leaders in improving school physical activity.

Strategies

1. Provide training to school administrators on the SC Physical Education Assessment Project at the SCAHPERD Conference.
2. Provide a one-day training to potential school health leaders through the SC Healthy Schools Leadership Institute.
3. Provide a weeklong training to school health teams for implementing the CDC's School Health Index through the SC Healthy Schools Summer Leadership Institute.
4. Work with existing awards processes to identify and recognize school champions (SC Governor's Council School Awards, DHEC All Health Team, SC Healthy School Awards).

Objective 14: By December 31, 2010, at least 100 schools will provide opportunities for students to be physically active on school property before and after school.

Strategies

1. Provide information, resource materials and training to schools on before and after school models for implementing physical activity clubs, intramural sports and extended use of school physical activity facilities.
2. Partner with after school providers such as SC After School Alliance, AFHK, SC Recreation and Parks Association, and the YMCA, to adopt policies that require the incorporation of physical activity as a portion of their programming.

Goal 2: Increase the percentage of South Carolinians who consume at least 5 servings of fruits and vegetables a day.

Objective 1: By July 31, 2007, at least 3 South Carolina communities will have newly operating Farmers' Markets.

Strategies

1. In collaboration with other state agencies, clarify certification process for Farmers' Markets.
2. Work across state agencies to make it easier to set up local Farmers' Markets.
3. Through focus groups or key informant interviews with community partners/coalitions, identify 3 communities for implementation.
4. Educate and distribute information to farmers, churches, schools, and businesses in identified communities.
5. Review certification process and investigate use of Clemson Extension agents as certifiers to increase the number of certifiers so that more farmers are able to sell produce directly to consumers.
6. Publicize certification program.
7. Set policy so that all farmers want to be certified to sell in Farmers' Markets.

Objective 2: By September 30, 2007, 25% more seniors will be participating in the Senior Farmers' Market voucher program.

Strategies

1. In collaboration with other state agencies, simplify application procedures and help farmers with applications to accept vouchers.
2. In collaboration with other state agencies, simplify application procedures and help seniors with applications for vouchers.
3. Work with community leaders to set up a system so that farmers can bring produce to community locations (such as housing authority neighborhoods, senior centers, and churches).
4. Work with community leaders and state agencies to set up a system of transportation from low-income neighborhoods to Farmers' Markets and community market locations.
5. Publicize the Senior Farmers' Market.

Objective 3: By September 30, 2007, 25% more WIC participants will be participating in the WIC Farmer's Market program.

Strategies

1. In collaboration with other state agencies, simplify application procedures and help farmers with applications to accept vouchers.
2. In collaboration with other state agencies, simplify application procedures and help WIC participants with applications for vouchers.
3. Work with community leaders to set up a system so that farmers can bring produce to community locations (such as housing authority neighborhoods, worksites, child care centers, schools, and churches).
4. Work with community leaders and state agencies to set up a system of transportation from low-income neighborhoods to Farmers' Markets and community market locations.
5. Publicize the WIC Farmers' Market program.

Objective 4: By July 31, 2007, at least 3 communities will establish delivery of fresh produce to various sites, such as child care centers, faith-based organizations, schools, worksites, and hospitals.

Strategies

1. In identified communities, promote the delivery of farm produce to child care centers, faith-based organizations, schools, worksites, and hospitals.

Action Steps:

- *Encourage collaboration between Department of Agriculture, State Department of Education, Department of Social Services, Department of Health and Environmental Control, Chamber of Commerce, and Hospital Association to help farmers bring produce directly to consumers.*
- *Investigate the Department of Defense fresh buying program and opportunities for expansion into communities, especially in rural areas where access and transportation issues are barriers to purchasing healthy foods.*

Objective 5: By July 31, 2007, at least 3 communities will establish delivery of fresh produce from local farmers to small grocers in the area.

Strategies

1. Build a coalition of small grocers, farmers, SC Department of Agriculture, and commodity boards to develop relationships of benefit to the farmers, grocers, and community.
2. In identified communities, discuss distribution plans for delivery of produce to grocers.
3. In identified communities, promote and publicize the "farm to small grocer" program.

Objective 6: By July 31, 2008, at least 3 communities will have a communication plan for consumers, including information on buying, storing, and using fresh fruits and vegetables.

Strategies

1. Identify or develop multi-lingual, multi-cultural tapes, videos, printed materials, and calendars to help consumers use fresh produce.
2. Identify or develop limited literacy materials suitable for families with limited resources.
3. Develop system to print and distribute available printed materials (Commodity Board, USDA, EFNEP, NCI, etc.) to consumers at markets.
4. Develop system to provide demonstrations at the markets on how to prepare fresh produce (chefs/ nutritionists at markets).
5. Work with local supermarkets to help communicate message of eating more fruits and vegetables and distribution of materials at their stores (print messages on bags, signs in stores, etc.).

Objective 7: By December 31, 2008, at least 3 school districts will participate in a social marketing campaign to encourage students to consume 2 or more fruit and vegetable (non-fried) servings during the school day.

Strategies

1. Provide training and resources for conducting an age appropriate social marketing campaign in schools, making eating F/V "cool".
2. Provide resources to school on ways improve the packaging of available fruits and vegetables, making servings more individualized (cups of F/V that they can take, rather than being served, or single serving packages),

Objective 8: By July 31, 2009, at least 100 schools will implement the Five-A-Day programs in schools.

Strategies

1. *Provide training and share model programs to school personnel on the 5-A-Day campaign at the SCASA , School Nurses, SCAHPERD, Early Childhood and Elementary Education conferences.*

2. *Provide a one-day training to potential school health leaders through the SC Healthy Schools Leadership Institute.*

3. *Provide a 5 A Day training as part of the SC Healthy Schools Summer Institute.*

4. *Educate teachers on the variety of 5 A Day resources for use in the classroom.*

Objective 9: By December 31, 2007, at least 25 school districts will receive training on policies and other strategies for increasing the availability and consumption of fruits and vegetables.

Strategies for School Meals

1. Disseminate "how to" strategies to increase fruit and vegetable options including menu suggestions to district school food service directors, managers and staff.
2. Provide training to Food Service Personnel on the importance of having more fruits and vegetable options available and provide strategies to increase these options using model meal programs and marketing these options to students, staff and parents.
3. Provide training and ideas to above groups on how schools can afford more fresh fruits and vegetables as part of the school meal (school gardens, farmers markets)
4. Provide training on implementing school community gardens to interested teachers/staff.

Strategies for Other Foods and Beverages*

*Other Foods and Beverages refer to any food sold or served on school grounds outside of the USDA Reimbursable meal program.

1. Develop and disseminate model policies that increase the availability of fruits and vegetables (and 100% fruit and vegetable products) through all other food and beverage sales outlets.

   A. **Vending Machines**
   - Distribute policy that assures that vending machines are stocked with fruits and vegetables and 100% fruit and vegetable products.

   B. **A-La-Carte**
   - Distribute policy that assures that all fruit and vegetable components of the school meal are available to purchase as a-la-carte.

   C. **Concessions**
   - Distribute policy that assures that fruits and vegetables and 100% fruit and vegetable products are sold at concession stands.

2. Disseminate model programs that increase the availability of fruit and vegetable options for students. (This includes 100% F& V juice products)

   A. **Vending Machines**
   - Provide information about model vending programs that increase fruit and vegetable options while maintaining profit margins.
   - Provide information to Principals and District personnel on negotiating vending contracts that provide healthy choices, including fruit and vegetable options.

   B. **A-La-Carte**
   - Disseminate model school food service programs that increase fruit and vegetable options on a-la-carte offerings.

   C. **Concessions**
   - Distribute model guideline and suggestions for having F/V available at concession stands, school stores and other school sponsored events

D**. Fundraisers**

- Distribute ideas for selling fruits and vegetables as fundraisers to Principals, PTA/PTO and booster club leaders

E**. Parties**

- Distribute model guidelines and suggestions for having F/V available during parties and class rewards

Goal 3: Increase the percentage of South Carolina mothers who breastfeed for at least six months.

Objective 1: By July 31, 2010, at least 10 worksites in SC will promote and support breastfeeding practices in the workplace.

Strategies

1. Employers will be provided with education on ROI (return on investment) and health benefits of breastfeeding.
2. Facilities will support breastfeeding by providing a private area for mothers, and equipment, such as hospital grade breast pumps and refrigerators for storage of expressed breast milk.
3. A policy will be implemented to ensure that nursing mothers will be allotted the necessary breaks from work to express milk.
4. Employers will educate all employees on the benefits of sustained breastfeeding.

Objective 2: By July 31, 2009, at least 10 health care facilities in South Carolina will have a breastfeeding policy in place.

Strategies

1. Through collaboration with organizations such as the SC Breastfeeding Coalition, SC Primary Health Care Association, and the La Leche League, complete an assessment of breastfeeding policies in health care organizations in the state to establish baseline measurements of policy and environmental supports for breastfeeding.
2. Provide sample policy statements and examples of environmental supports for breastfeeding to health care organizations in the state.
3. Work with hospitals, maternity centers, physician offices, and clinics to reinforce guidelines from WHO/UNICEF (International Code on the Marketing of Breast Milk Substitutes) and work toward eliminating practices that discourage breastfeeding (such as visible signs of formula promotion and infant formula discharge packs).
4. Work with hospitals and maternity centers to adopt the “Ten Steps to Successful Breastfeeding.”

Objective 3: By July 31, 2008, at least 50 health care providers in South Carolina will provide education and counseling in support of breastfeeding.

Strategies

1. Identify breastfeeding "champions" to assist in educating peers about the importance of promoting and supporting breastfeeding.
2. Conduct trainings for health care providers and disseminate current, evidence-based information on the importance of breastfeeding and its benefit in reducing obesity and other chronic diseases.
3. Promote breastfeeding education as a routine component in professional education/curricula, including medical, nursing, nutrition, health education, and social work programs.
4. Develop and disseminate materials to educate health care providers about the need to promote and support breastfeeding efforts.
5. Develop and disseminate a listing of breastfeeding resources (such as local lactation consultants, breastfeeding peer counselors, and lay support groups) to health care providers for use in the promo tion and support of breastfeeding.

Action Step:

- *Inform and educate health care providers about the importance of referring mothers with breastfeeding questions, concerns, or problems to a specialized professional.*

6. Provide positive public messages in support of breastfeeding.

Goal 4: Increase the percentage of South Carolina children and adults who achieve and maintain a healthy weight

Objective 1: By July 31, 2008, at least 50 worksites in SC will promote healthy nutrition in the workplace.

Strategies

1. SCCOPE will ensure that employers have current, science-based nutrition information and resources.
2. Increase the number of worksites providing nutrition-related educational materials to employees, such as the 5 A Day program.
3. Increase the number of worksites providing access to nutrition counseling by a registered dietitian.

Objective 2: By July 31, 2008, at least 25 worksites will adopt healthy nutrition policies.

Strategies

1. SCCOPE Workgroup on Business and Industry will develop and disseminate a *Nutrition in the Workplace Policy Guide*.
2. Employers and agencies will provide opportunities for employees to provide feedback on healthy food policy development.
3. Provide healthy choices of food and drink (water, juice, yogurt, fruits, vegetables, salads, low fat foods) in vending machines, snack rooms, and/or cafeteria.
4. Provide healthy refreshments at worksite events, meetings, and conferences.
5. Require vendors/food service providers to visibly post nutrition information for all foods served and sold.
6. Employers, when feasible, will provide space and encourage employees to eat at a separate area away from their workstation.

Objective 3: By July 31, 2009, at least 15 worksites in SC will participate in and promote healthy weight initiatives to include environmental and policy change.

Strategies

1. Form a collaborative group comprised of South Carolina business and industry professionals, employees, and health professionals to advise and consult with SC employers on productivity and health.
2. Identify champions in the business and industry setting to provide peer education on the ROI of programs addressing nutrition, physical activity, and breastfeeding.
3. Increase the number of SC employers with a wellness council or committee responsible for worksite wellness.
4. Provide training for such individuals or groups, for example, at the SCCPPA 2006 fall conference.

Objective 4: By July 31, 2010, at least 15 worksites in SC will provide and support on-site healthy weight-related activities and initiatives.

Strategies

1. Employers will request, from insurers, weight-related benefit/cost and utilization data for their employee population.
2. Employers will perform a healthy weight policy and environmental assessment of their worksite.
3. Employers will provide access to wellness counseling services to include nutrition, breastfeeding, weight loss, physical activity, and stress management.
4. Employers will offer health risk appraisals and provide targeted interventions to those with a BMI of 25 or greater.
5. Employers will provide incentives for those employees participating in a disease prevention program or disease management program containing a healthy weight component.
6. Employers will provide incentives for those employees who document the attainment of established and significant weight reduction goals or who are at a healthy BMI.
7. The business community will help develop and support the delivery of messages concerning overweight, obesity, and productivity on radio, TV, and elsewhere.
8. SCCOPE will create a Healthy Worksite Award Program to include recognition and incentives for businesses exhibiting leadership in healthy weight-related policies and programs.
9. Designate a week or month, sponsored by the State or by SCCOPE, which challenges employers to communicate healthy weight initiatives to their employees and community (Employee Health and Fitness Day).

Objective 5: By December 31, 2008, at least 3 communities in SC will have effective healthy dining programs.

Strategies

1. Through processes such as focus groups or key informant interviews with community partners/ coalitions, select communities to participate in a healthy dining program.
2. Identify model dining programs, such as *NC's Winner's Circle; Eat Smart! Ontario's Healthy Restaurant Program; and Maine's Diner's Choice*, that would be appropriate for use in SC.
3. Work with professional restaurant industry groups to identify incentive options for participating restaurants, such as a healthy dining certificate/award similar to inspection ratings, or recognition through local media, local restaurant reviews, etc.
4. Develop the healthy dining program. Criteria examples may include:

- Healthy menu options for children;
- Nutrient analysis of menu items (calories, carbohydrates, saturated fat, trans fat, protein);
- Trained wait staff on assisting customers with healthy selections;
- Half portion sizes available as menu options;
- Trained chefs on incorporating healthy foods;
- Increased fruit and vegetable options available.

5. Develop a plan for implementation and evaluation of the program.
6. Work with media, community leaders, DHEC, and restaurants in communities to advertise the program and encourage participation.
7. Implement the healthy dining program.
8. Evaluate the program.

Objective 6: By July 31, 2007, at least three 4-H youth programs or camps will pilot food, fitness and health programs.

Strategies

1. Through collaboration with Clemson Extension, identify three 4-H youth programs or camps for pilot programs.
2. Work with 4-H parents, leaders, and youth to identify ways to increase healthy eating and physical activity options available in programs.
3. Explore alternative low cost options so that youth sites can obtain healthy food alternatives.

Action Steps:

- *Develop cooperatives for buying products for programs.*
- *Explore Department of Defense fruit and vegetable program (possibly link with purchases for military bases).*
- *Determine if youth programs can participate in DSS summer food program and/or after school food program; work with DSS on ways to make application process easier.*

4. Ensure that foods served in the pilot youth programs follow 2005 Dietary Guidelines.
5. Demonstrate that children will eat the healthy foods and that costs can be contained.
6. Encourage older youth to do community projects (such as 4-H pinnacle projects), which encourage other youth and younger children to enjoy more fruits and vegetables and be more physically active (farm projects, garden projects, shopping and cooking projects).
7. Evaluate program efforts.

Objective 7: By July 31, 2010, at least 25 youth programs or camps across the state will offer healthy food choices.

Strategies

1. Investigate youth programs such as Boy and Girl Scouts, Boys and Girls Clubs, YMCA, and faith-based programs to identify foods served at youth programs and identify food-related activities.
2. Bring together partnership of parents, youth workers, school leaders, and youth group funders for update on results of pilot programs at 4-H camps and discussion on ways to expand program statewide.
3. Identify and advertise clear, consistent messages (more fruits and vegetables and healthy foods) in youth- and youth group-specific educational and promotion materials.
4. Develop and distribute a new *"Guide for Food to be Served at Youth Programs and Camps"* based on the 2005 Dietary Guidelines.

5. Work with youth organizations to add training modules related to healthy weight, foods served, physical activity, and reducing TV/screen time to existing trainings.
6. Encourage older youth to do community projects (Eagle service projects, badges, 4-H pinnacle projects, etc.) that encourage other youth and younger children to enjoy more fruits and vegetables (farm projects, garden projects, shopping and cooking projects).
7. Explore alternative low-cost options so that youth sites can obtain and sustain healthy food alternatives.

Action Steps:

- *Develop cooperatives for buying products for programs.*
- I*dentify and widely distribute lists of healthy foods and beverages that are inexpensive, easy to prepare, easy for children to eat, taste good, are easy to store, and have a long shelf-life.*
- *Encourage potential participation in DSS summer food program and/or after school food program.*

Objective 8: By July 31, 2006, increase by 20% the percentage of child care centers in the state implementing the *Color Me Healthy* curriculum.

Strategies

1. Increase the number of participants who complete the Color Me Healthy "train the trainer" workshop.
2. Increase the number of Color Me Healthy trainings provided to child care centers.
3. Inform and educate parents/caregivers about the importance of nutrition and physical activity programs for preschoolers.
4. Publicize to child care centers that the Color Me Healthy training has been approved for 4 hours of continuing education through the South Carolina Child Care Training System.
5. The Color Me Healthy State Trainer will present program updates at the annual meeting of the South Carolina Early Childhood Association and other statewide, regional, and local meetings.

Objective 9: By July 31, 2010, at least 25 child care centers in SC will implement the expanded Color Me Healthy curriculum.

Strategies

1. Expand the *Color Me Healthy* curriculum to include impact and process evaluation measures.

   Action Steps

- *Investigate examples of pertinent surveys to identify variables to measure.*
- *DOPC will take the lead on the development of evaluation measures, monitoring the impact of the curriculum on children, parents/caregivers, and child care providers.*

2. Expand the *Color Me Healthy* curriculum to include additional components, such as reducing TV/screen time, enhancing family/parental involvement, and enhancing policy and environmental supports.

   Action steps

- *Identify models and resources for child care centers to assist in development of expanded curriculum.*
- *Collaborate with Clemson Extension and the "Cooking with a Chef" program to provide food/cooking demonstrations and nutrition education as part of the enhanced curriculum components.*

3. Increase the number of participants who complete the Color Me Healthy "train the trainer" workshop.
4. Increase the number of trainings provided to child care centers throughout the state.
5. Inform and educate parents/caregivers about the importance of nutrition and physical activity programs for preschoolers.
6. Establish a "Healthy Child Care Center Award" program for centers effectively implementing the curriculum.

Objective 10: By July 31, 2008, 50 SC faith-based settings will have policies in place and offer formal or informal programs that support healthy eating and physical activity.

Strategies

1. Identify churches that have already established "healthy foods at church" policies.
2. Identify existing on-going educational programs and workshops available at faith-based settings that help adults and children improve eating habits and increase physical activity.
3. Develop and conduct 6 training workshops for health and faith leaders (congregational nurses, health ministers, other interested congregants) on how to introduce and sustain healthy eating and physical activity policies and programs at their churches.
4. Identify, obtain permissions, and duplicate program resources for use at the workshops, including examples of policies, practices, and program curricula already in use in other faith-based settings.
5. Establish and maintain a health and faith resources website with links to *Search Your Heart, Body and Soul, Health-e-AME Physical-e-Fit* program and other programs and materials, and links to other websites for information on obesity and health, such as CDC sites, 5-A-Day, WIN, and NHLBI sites.
6. Pilot the development of policies and programs to help members improve eating habits and increase physical activity at 10 additional SC churches.

Action Steps

- *Survey SC churches to find out if churches have healthy food and activity policies and programs, the details about the policies and programs, and whether they have any information on program outcomes.*

- *Develop working groups of church members and pastors at 10 interested churches to develop recommendations that encourage healthy meal and food choices at church events and more physical activity. Examples of activities these groups might consider:*

  - Establish a church vegetable garden
  - Support bringing farmer's market to churches on regular schedule
  - Have recipe contests / develop a collection of winning recipes for reduced fat salads, vegetables, soups, fruit desserts, one-dish meals for church suppers.
  - Establish recommendations for foods to serve at church events. Duplicate recipes from contest.
  - Encourage church members to form walking groups. Post group mileage in prominent place in church.

Objective 11: By July 31, 2007, at least 100 congregational pastors, ministers, and other leaders in the faith based setting will receive information and assistance regarding promoting and supporting faith and health messages, policies and programs.

Strategies

1. Convene group of spiritual leaders interested in bringing a model faith and health curriculum to one seminary in SC.
2. Determine if there are any faith and health programs or curricula in use in SC seminaries.
3. Select a faith and health curricula for use / dissemination. (from other states if not already in SC)
4. Identify speakers/ champions/ leaders; incorporate segments on faith and health into conference agendas to build support and interest.
5. Help spiritual leaders identify and support appropriate groups in their churches who can lead faith and health programs, such as: congregational / parish nurses, health educators, lay health coordinators, lay health promoters, youth health 'promoters'.

Objective 12: By December 31, 2010, at least 75 health care providers will follow national guidelines and standard protocols for weight management and the treatment of obesity.

Strategies

1. Collaborate with leadership of SC medical schools and other health care professional programs to include the prevention and treatment of obesity as a module in the curriculum.
2. Educate health care providers about the importance of healthy weight maintenance and prevention of overweight and obesity across the lifespan.

Action Steps:

- *Distribute NHLBI Clinical Guidelines.*
- *Conduct trainings on assessment of overweight and obesity using BMI and BMI-for-age.*

3. Promote self-study modules on healthy weight/weight management, which will include appropriate counseling and behavior change theory.

Action Step:

- *Educate health care professionals on patient self-management models using examples such as the Chronic Care Model.*

4. Provide resources to health care providers to assist with referrals for healthy weight maintenance.

Action Steps:

- *Develop and maintain a website accessible to health care providers that includes information about weight management programs and patient education materials.*
- *Maintain a resource listing of health care professionals trained to provide weight management services, including physical activity and nutrition specialists.*
- *Initiate a statewide referral phone line accessible to health care providers for weight loss/ prevention programs.*

Objective 13: By July 31, 2007, at least 3 health care champions will assist with advocacy efforts in support of healthy weight management services.

Strategies

1. Identify health care providers interested in being advocates for healthy weight management efforts throughout the state.
2. Advocate for the state legislature to establish policies for insurance coverage of weight management services by registered dietitians, social workers, psychologists, health educators, and other health professionals.
3. Collaborate with insurance regulators and insurance companies to enhance advocacy for initiatives and policies that support breastfeeding, healthful eating habits, physical activity, and healthy weight maintenance.
4. Champions to encourage peers to offer weight management programs at physician offices, managed-care settings, and health departments.

Objective 14: By December 31, 2008, at least 100 schools will implement proven, effective nutrition and physical activity curricula.

Strategies

1. Provide training to schools on proven, effective nutrition and physical activity curricula (*Planet Health*, *Eat Well, Keep Moving* and *Color Me Healthy*).

Action Items

- *Provide Train the Trainer programs in school districts and regions*
- *Trainers provide training on curricula to teachers*
- *Teachers implement curricula in schools.*
- *Evaluate and follow up to determine implementation and technical assistance needs.*

Objective 15: By December 31, 2008, at least 25 % of students will consume three or more servings of calcium rich low fat dairy daily.

Strategies

1. Partner with AFHK.
2. Partner with milk bottlers to improve the packaging of 1% or less milk making it more appealing to students.

Objective 16: By December 31, 2008, at least 70% of students will report eating breakfast.

Strategies

1. Provide parent and student education regarding the importance of breakfast.
2. Provide information and technical assistance to school food service personnel and principals on alternative breakfast delivery strategies such as breakfast in the classroom, grab and go stations and the Universal Breakfast Program.
3. Provide marketing strategies to schools to promote eating breakfast.

Objective 17: By December 31, 2009, at least 300 schools will adopt the SDE Task Force Recommendations for Improving Student Nutrition and Physical Activity.

Strategies

1. Provide all school principals with a copy of the SDE Task Force Recommendations.
2. Develop a rating system to award schools that have implemented the recommendations.
3. Adopt state level policy that establishes nutrition and physical activity standards for k-12. Refer to the *SDE Task Force on Improving Student Nutrition and Physical Activity* and work with the Legislature or the State Board of Education.

Objective 18: By December 31, 2008, at least 150 schools will provide education and awareness to students and parents on the importance of achieving and maintaining a healthy weight.

Strategies

1. Include BMI fields in the SASSI reporting system.
2. Educate school nurses and PE teachers on how to measure BMI and record in SASSI.
3. Develop a local resource and referral list to give to families of students who are overweight.
4. SDE, in conjunction with partners will develop suggested procedures for schools regarding communication of BMI and suggestions for reaching and maintaining a healthy weight to students and parents.

Goal 5: Decrease the burden of obesity and obesity-related chronic diseases.

Objective 1: By July 31, 2007, at least 200 health care providers will be trained on the health and economic implications of obesity and obesity-related chronic diseases.

Strategies

1. In collaboration with DHEC chronic disease program areas, state and community coalitions/alliances, educate health care providers on the health implications of obesity and obesity-related chronic diseases.

   Action Steps:
   - *DOPC will collaborate with DHEC chronic disease program areas and state and community coalitions/alliances to incorporate education on the burden of obesity during health care provider trainings.*
   - *Collaborate with ORS and health economists to obtain data on the economic costs of obesity for trainings for health care providers.*

Objective 2: By December 31, 2008, at least 50 policy and decision makers will be provided training on the burden of obesity and obesity-related chronic diseases.

Strategies

1. Educate health care plan policy makers and purchasers of health care plans regarding the cost of overweight and obesity to the health care system.
2. Educate policy makers on the economic benefit of initiatives and policies that support healthful eating habits, physical activity, and healthy weight maintenance for treatment of obesity-related chronic diseases.

Goal 6: Increase the number of research projects in South Carolina related to obesity prevention and control.

Objective 1: By December 31, 2010, collaborate with the South Carolina Nutrition Research Consortium (SCNRC) on at least 3 research efforts dealing with obesity in the state.

Strategies

1. At least one member of the South Carolina Nutrition Research Consortium will serve as an Advisory Council member for SCCOPE.
2. DOPC will correspond at least monthly with the Nutrition Research Consortium contact to maintain communication on potential research opportunities.
3. SCCOPE will use research results to implement proven effective state-wide obesity related activities.

Objective 2: By December 31, 2009, DOPC will have provided ongoing updates to partners on potential obesity related research opportunities for the state.

Strategies

1. Establish and maintain a clearinghouse for obesity research opportunities.
2. Provide technical assistance on grant writing and community based participatory research to community partners and grass roots organizations.

Objective 3. By July 31, 2010, SCCOPE through its partners, will have obtained at least 5 obesity related research grants for the state.

Strategies

1. Within SCCOPE, form a research and grant writing subcommittee to lead the SCCOPE research efforts.
2. DOPC will identify individuals within DHEC who are interested and skilled in research activities.

References:

Action for Healthy Kids, *The Learning Connection, The Value of Improving Nutrition and Physical Activity in Our Schools.* Accessed at http://www.actionforhealthykids.org/pdf/LC_BW_120204_final.pdf

American Federation for Aging Research, 2005. *Boom, Boom, Boom, Obesity Among Baby Boomers and Older Adults.* Accessed at http://www.afar.org/pdfs/050303_AFARobesity.pdf

American Association of Health Plans, 2001. *Advancing Women's Health: Health Plan's Innovative Programs in Breastfeeding Promotion*. American Association of Health Plans. 90pp. Available on-line: (). Retrieved March 1, 2005.

American Heart Association, 2003. Journal Report: Eating Breakfast May Reduce Risk of Obesity, Diabetes, and Heart Disease. Retrieved April 10, 2005. Available on-line: ()

Bowman et al. The Healthy Eating Index: 1994-96. USDA. 1998

Brownson RC, Smith CA, Pratt M, et al., 1996. Preventing cardiovascular disease through community-based risk reduction: the Bootheel Heart Health Project. *American Journal of Public Health* 86: 206–13.

Campbell MK, Demark-Wahnefried W, Symons M, et al., 1999. Fruit and vegetable consumption and prevention of cancer: the Black Churches United for Better Health project. *American Journal of Public Health*, 89: 1390–1396.

Caprio S and Genel, M, 2005. Confronting the Epidemic of Childhood Obesity. *Pediatrics*, 2004-2165.

Centers for Disease Control and Prevention, 1999a. *Engaging Faith Communities as Partners in Improving Community Health*, Public Health Practice Program Office, Atlanta, GA. 21pp.

Centers for Disease Control and Prevention, 1999b, *Neighborhood safety and prevalence of physical inactivity-selected states.* MMWR 48 (7): 143-146.

Centers for Disease Control and Prevention, 2001. *Increasing Physical Activity: A Report on Recommendations of the Task Force on Community Preventive Services.* MMWR 50 (RR-18): 1-16.

Centers for Disease Control and Prevention, 2002a. *Barriers to children walking and bicycling to school—United States*. MMWR 51 (32): 701-704.

Centers for Disease Control and Prevention, 2002b. *School transportation modes — Georgia.* MMWR 51 (32): 704-705.

Centers for Disease Control and Prevention, 2003. *Resource Guide for Nutrition and Physical Activity Interventions to Prevent Obesity and Other Chronic Diseases*. Centers for Disease Control and Prevention, Nutrition, Physical Activity, and Obesity Prevention Program, 48pp.

Centers for Disease Control and Prevention, 2004. *Faith And Public Health Collaboration*, Program in Brief. Available on-line: (http://www.cdc.gov/programs/partnr03.htm). Retrieved March 1, 2005.

Consortium to Lower Obesity in Chicago Children CLOCC, *The Stigma of Childhood Obesity.* Accessed at http://www.clocc.net/The%20Stigma%20of%20Childhood%20Obesity.pdf

DHHS, 2000a. Healthy People 2010: Understanding and Improving Health. 2nd edition. Washington, DC: U.S. Government Printing Office. Available on-line: (http:// www.healthypeople.gov/document/tableofcontents.htm). Retrieved March 1, 2005.

DHHS, 2000b. HHS Blueprint for Action on Breastfeeding, U.S. Department of Health and Human Services, Office on Women's Health, Washington, DC. 33pp.

DHHS, 2001. *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity*. Rockville, MD: Public Health Service, Office of the Surgeon General. 39pp.

DHHS, 2003. *Prevention Makes Common Cents*. US Department of Health and Human Services, Washington DC, 37pp. Retrieved April 10, 2005. Available on-line: ().

Dunn, AL, Blair, SN, 2002. Translating Evidenced-Based Physical Activity Interventions into Practice: The 2010 Challenge, *American Journal of Prevention Medicine*, 22 (4S): 8-9.

Evidence for the Ten Steps to Successful Breastfeeding. World Health Organization, Division of Child Health and Development, 1998.

Exercise: A report from the National Institute on Aging, NIH, 2001.

Finkelstein, EA, Fiebelkorn, IC, and Wang, G., 2004. State-Level Estimates of Annual Medical Expenditures Attributable to Obesity, *Obesity Research*, 12 (1): 18-24.

Food Resource and Action Center, 2003. www.frac.org/html/news/foodsec_profile_2003.pdf

Freedman, DS, Khan, LK, Serdula, MK, Galuska, DA, Dietz, WH, 2002. Trends and Correlates of Class 3 Obesity in the United States from 1990 through 2000. *Journal of the American Medical Association*, 288 (14): 1758-1761.

Hedley, AA, Ogden, CL, Johnson, CL, Carroll, MD, Curtin, LR, Flegal, KM, 2004. Prevalence of Overweight and Obesity Among US Children, Adolescents, and Adults, 1999-2002. *Journal of the American Medical Association*, 291 (23): 2847-2850.

Interfaith Health Program, Emory University Available on-line: (). Retrieved March 15, 2005.

Institute of Medicine, 2005, *Preventing Childhood Obesity: Health In The Balance.* Institute of Medicine Committee on Prevention of Obesity in Children and Youth. Institute of Medicine, Washington DC, 436pp.

Kahn, EB, Ramsey, LT, Brownson, RC, Heath, GW, Howze, EH, Powell, KE, Stone, EJ, Rajab, MW, Corso, P, and the Task Force on Community Preventive Services, 2002. The Effectiveness of Interventions to Increase Physical Activity A Systematic Review, *American Journal of Prevention Medicine,* 22 (4S): 73-107.

Kaiser-Permanente, 2003. *Background Paper on the Prevention and Treatment of Overweight and Obesity*, Prepared for the Roundtable: *Prevention and Treatment of Overweight and Obesity: Toward a Roadmap for Advocacy and Action.* 54pp.

Kaiser-Permanente, 2004. *Kaiser Permanente's Framework for Community Health Initiatives*. 25 pp. Online: . Retrieved March 1, 2005.

Lanningham-Foster et al., 2003, Obesity Research, 11:1178-1181

Lu MC, Lange L, Slusser W, Hamilton J, and Halfon N, 2001. Provider encouragement of breast-feeding: evidence from a national survey. *Obstetrics and Gynecology,* 97(2); 290-5.

McElroy KR, Bibeau D. Steckler A Glanz K. An Ecological Perspective on Health Promotion Programs. Health Education Quarterly 15:351-377, 1988.

Mokdad AH, Bowman BA, Ford ES, Vinicor F, Marks JS, Koplan JP, 2001. The continuing epidemics of obesity and diabetes in the United States. *Journal of the American Medical Association*, 286 (10): 1195–200.

Mei Z, Scanlon KS, Grummer-Strawn LM, Freedman DS, Yip R, Trowbridge FL, 1998. Increasing prevalence of overweight among US low-income preschool children: the Centers for Disease Control and Prevention pediatric nutrition surveillance, 1983 to 1995. *Pediatrics*,101 (1): E12.

Narayan, Venkat, et al. Lifetime Risk for Diabetes Mellitus in the United States *JAMA* 2003;290:1884-1890

National Governor's Association, 2002*. Issues Brief: The Obesity Epidemic – How States Can Trim the "Fat",* NGA Center for Best Practices. June 2002. Available on-line: Retrieved February 15, 2005.

National Governor's Association, 2003. *Issues Brief: Preventing Obesity in Youth through School-Based Efforts. NGA Center for Best Practices*. 8pp. Available on-line: (). Retrieved March 1, 2005.

National Immunization Survey, 2003. Accessed at http://www.cdc.gov/breastfeeding/NIS_data/

National Institute on Aging, 2001. *Exercise: A Guide from the National Institute on Aging.* NIH Publication No. 01-4258

National Institute for Health Care Management, 2005. *Health Plans Emerging as Pragmatic Partners in Fight Against Obesity.* Accessed at http://www.nihcm.org/ObesityReport.pdf

NHLBI Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults

Nielsen Media 2003. Accessed at http://www.nielsenmedia.com/

Ogden CL, Flegal KM, Carroll MD, and Johnson CL, 2002. Prevalence and trends in overweight among US children and adolescents, 1999-2000. 2004 *Journal of the American Medical Association*, 288 (14): 1728-1732.

Ogden CL, Troiano RP, Briefel RR, Kuczmarski RJ, Flegal KM, Johnson CL, 1997. Prevalence of overweight among preschool children in the United States, 1971 through 1994. *Pediatrics*, 99 (4): E1.

Partnership for Prevention, 2001. *Healthy Workforce 2010: An Essential Health Promotion Sourcebook for Employers, Large and Small*. Partnership for Prevention, Washington DC. Available online: () Retrieved February 10, 2005.

Pate RR, Trost SG, Mullis R, Sallis JF, Wechsler H, Brown DR, 2000. Community interventions to promote proper nutrition and physical activity among youth. *Preventive Medicine,* 31: S138-S148.

Roadmaps for Clinical Practice: Case Studies in Disease Prevention and Health Promotion, American Medical Association, 2003.

Resnicow K, Jackson A, Wang T, De AK, McCarty F, Dudley WN, Baranowski T, 2001. A motivational interviewing intervention to increase fruit and vegetable intake through lack churches: results of the Eat for Life trial. *American Journal of Public Health*, 91: 1686– 1693.

SC DHEC, 2003. *South Carolina Cardiovascular Health State Plan 2000–2007,* South Carolina Department of Health and Environmental Control, Division of Cardiovascular Health, Columbia SC. 70 pp.

SC DHEC, *Worksite Wellness in South Carolina,* South Carolina Department of Health and Environmental Control and USC Arnold School of Public Health, Columbia, SC. 26 pp.

SC SDE, 2004. *South Carolina Department of Education Recommendations for Improving Student Nutrition and Physical Activity,* SDE Task Force on Student Nutrition and Physical Activity. South Carolina Department of Education, Columbia SC. 33 pp.

SCORP, 2002. *South Carolina State Comprehensive Outdoor Recreation Plan*, South Carolina Department of Parks, Recreation and Tourism; Recreation, Planning and Engineering Office, Columbia, SC.

SCSDE, 2004. *South Carolina Department of Education Recommendations for Improving Student Nutrition and Physical Activity,* SDE Task Force on Student Nutrition and Physical Activity. South Carolina Department of Education, Columbia SC. 33 pp.

Strauss RS and Pollack HA, 2001. Epidemic increase in childhood overweight, 1986–1998. *Journal of the American Medical Association*, 286: 2845–2848.

Task Force on Community Preventive Services, 2002. Recommendations to Increase Physical Activity in Communities: *American Journal of Prevention Medicine,* 22 (4S), 67-72.

Troiano, RP and Flegal, KM, 1998. Overweight Children and Adolescents: Description, Epidemiology, and Demographics, *Pediatrics*; 101: 497-504.

Trust For America's Health, 2004. *F as in Fat: How Obesity Policies Are Failing In America*. Trust for America's Health, Washington DC. 92pp.

USDA Economic Research Report 4, 2005 Nutrition Labeling in the Away-From-Home Sectors.

USDA Economic Research Report U.S. Per Capita Food Supply Trends: More Calories, Refined Carbohydrates, and Fats; FoodReview, Vol 25, Issue 3

Wang G, Dietz WH, 2002. Economic burden of obesity in youths aged 6 to 17 years: 1979–1999. *Pediatrics*, 109 (5): E81–1.

Glossary:

Body Mass Index (BMI) BMI is an indicator of body size based on height and weight. It is calculated as weight in kilograms divided by height in meters squared. The standard adult categories are underweight (BMI less than 18.5 kg/m2), normal (18.5 – 24.9 kg/m2), overweight (25 – 29.9 kg/m2), and obese (30 or more). For children (ages 2-20), a BMI below the 5th percentile for age and gender is underweight; between the 85th and 95th percentile is at risk for overweight; at or above the 95th percentile is overweight.

$$\text{Formula: BMI} = \frac{\text{Weight (kg)}}{\text{Height (m)2}} \left\{ \frac{\text{Weight in Pounds}}{(\text{Height in inches}) \times (\text{Height in inches})} \times 703 \right\}$$

Behavioral Risk Factor Surveillance System (BRFSS) is a major source of data, is a telephone survey conducted by all state health departments, the District of Columbia, Puerto Rico, the Virgin Islands, and Guam with assistance from CDC. BRFSS is the largest continuously conducted telephone health survey in the world, monitoring preventable chronic diseases, injuries, and infectious diseases. States use BRFSS data to track health problems and to develop and evaluate public health programs. Data are collected by using standard procedures through monthly telephone interviews with adults aged >18 years.

Capacity Building is a process to enhance the ability of a group or institution to manage change, resolve conflict, enhance coordination, foster communication, and ensure that data and information are shared.

Community Based Participatory Research is a collaborative process of research involving researchers and community representatives. It engages community members, employs local knowledge in the understanding of health problems and the design of interventions, and invests community members in the processes and products of research.

Guide to Community Preventive Services (Community Guide):
In developing the Guide to Community Preventive Services (Community Guide), the Task Force on Community Preventive Services uses a variety of both qualitative and quantitative factors to assess the strength of evidence for population-based interventions to promote health and prevent disease.

www.thecommunityguide.org

Strength of Evidence of Effectiveness	Task Force Recommendation
Strong	Strongly recommended
Sufficient	Recommended
Insufficient empirical information but supplemented by expert opinion	Recommended based on expert opinion
Available studies do not provide sufficient evidence	Insufficient evidence to determine effectiveness
Sufficient or strong evidence of ineffectiveness or harm	Discouraged

Evidence Based Practices are critical to expanding the knowledge base of what is or is not effective in addressing obesity and obesity-related chronic diseases.

Impact Evaluation is a systematic way of identifying if a program was responsible, in whole or in part, for causing the results, or if there are other factors that influenced the results.

Outcome Evaluation is a systematic way of evaluating if the actual outcomes or results of a program are consistent with the desired outcomes. Tools are used to assess if the program worked.

National Immunization Survey is sponsored by the Centers for Disease Control and Prevention for children between the ages of 19 and 35 months living in the United States at the time of the interview.

Pediatric Nutrition Surveillance System (PedNSS) is a program-based surveillance system that monitors the nutritional status of low-income infants, children, and women in federally funded maternal and child health programs.

Process Evaluation methods are used to document program implementation in order to monitor program fidelity and quality.

Promising Practices is a commitment to use the best evidence currently available to guide initial recommendations, and at the same time, develop a structure that is sufficiently flexible to incorporate new information.

Social Ecological Model (SEM) is a model that depicts how multiple factors influence (either positively or negatively) the health behavior of an individual**.** At the center of the model is the **i**ndividual. At this level, we consider the internal determinants of behavior, such as knowledge, attitudes, beliefs, and skills. This is the foundational level, but the model recognizes that many external forces (interpersonal, organizational, community, and society) influence these individual determinants. In order to facilitate behavior change it is important to address these external forces.

Social Marketing is the application of advertising and marketing principles and techniques to health or social issues with the intent of bringing about behavior change. The social marketing approaches used to reduce the barriers to and increase the benefits associated with the adoption of a new idea or practice within a selected population.

South Carolina Coalition for Obesity Prevention Efforts (SCCOPE) is a diverse group of partners, consisting of representatives from state government agencies, businesses, academia, faith-based organizations, health care organizations, and community-based groups, working together to promote healthy lifestyles and healthy communities.

Waist Circumference measurement is a tool to assess abdominal obesity, which is an independent risk factor for diseases.

Women, Infants, and Children (WIC) program serves to safeguard the health of low-income women, infants, & children up to age 5 who are at nutritional risk by providing nutritious foods to supplement diets, information on healthy eating, and referrals to health care.

Youth Risk Behavior Surveillance System (YRBS) monitors 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. These behaviors, often established during childhood and early adolescence, include tobacco use, unhealthy dietary behaviors, inadequate physical activity, alcohol and other drug use, risky sexual behaviors that contribute to unintentional injuries and violence. Conducted as school-based survey every 2 years, YRBSS includes national, state, and local representative samples of students in grades 9 – 12. For states that do not participate in YRBSS, the Youth Tobacco Survey (YTS) can provide data on the prevalence of tobacco use among high school students.

Goals Data

1. Increase the percentage of South Carolina children and adults who meet the current age specific recommendations for regular physical activity.

* Adults should engage in moderate-intensity physical activities for at least 30 minutes on 5 or more days of the week.
* Adults should engage in vigorous-intensity physical activity 3 or more days per week for 20 or more minutes per occasion.

Adults (2003 BRFSS)

- **Meets recommendations for regular physical activity**
  - ⇒ Total
    - 46.2% of South Carolinians meet recommendations for regular physical activity.
  - ⇒ By race
    - 48.9% of Caucasians in SC meet recommendations for regular physical activity
    - 37.1% of African-Americans in SC meet recommendations for regular physical activity
    - 42.9% of Hispanics in SC meet recommendations for regular physical activity
  - ⇒ By gender
    - 50.1% of males in SC meet recommendations for regular physical activity
    - 42.6% of females in SC meet recommendation for regular physical activity

- **Classified as Physically Inactive**
  - ⇒ Total
    - 14.8% of South Carolinians are classified as physically inactive
  - ⇒ By race
    - 11.8% of Caucasians in SC are classified as physically inactive
    - 22.5% of African-Americans in SC are classified as physically inactive
    - 19.9% of Hispanics in SC are classified as physically inactive
  - ⇒ By gender
    - 13.4% of males in SC are classified as physically inactive
    - 16.2% of females in SC are classified as physically inactive

High Schoolers (1999 YRBS)

- **Meets recommendations for regular physical activity**
  - ⇒ Total
    - 60.0% of SC high schoolers meet recommendations for regular physical activity.
  - ⇒ By race
    - 66.4% of high school age Caucasians in SC meet recommendations for regular physical activity
    - 52.9% of high school age African-Americans in SC meet recommendations for regular physical activity
    - 60.9% of high school age Hispanics in SC meet recommendations for regular physical activity
  - ⇒ By gender
    - 66.1% of high school age males in SC meet recommendations for regular physical activity
    - 54.0% of high school age females in SC meet recommendation for regular physical activity

2. Increase the percentage of South Carolina children and adults who consume at least five servings of fruits and vegetables a day.

Adults (2003 BRFSS)

- **Consume at least 5 servings of fruits and vegetables a day**
  - ⇒ Total
    - 22.3% of South Carolinians consume at least 5 servings of fruits and vegetables a day
  - ⇒ By race
    - 22.7% of Caucasians in SC consume at least 5 servings of fruits and vegetables a day
    - 19.5% of African-Americans in SC consume at least 5 servings of fruits and vegetables a day
    - 27.8% of Hispanics in SC consume at least 5 servings of fruits and vegetables a day
  - ⇒ By gender
    - 18% of males in SC consume at least 5 servings of fruits and vegetables a day
    - 26.2% of females in SC consume at least 5 servings of fruits and vegetables a day

High Schoolers (1999 YRBS)

- **Consume at least 5 servings of fruits and vegetables a day**
  - ⇒ Total
    - 17.6% of SC high schoolers consume at least 5 servings of fruits and vegetables a day
  - ⇒ By race
    - 13.9% of high school age Caucasians in SC consume at least 5 servings of fruits and vegetables a day
    - 20.6% of high school age African-Americans in SC consume at least 5 servings of fruits and vegetables a day
    - 20% of high school age Hispanics in SC consume at least 5 servings of fruits and vegetables a day
  - ⇒ By gender
    - 18.3% of high school age males in SC consume at least 5 servings of fruits and vegetables a day
    - 17% of high school age females in SC consume at least 5 servings of fruits and vegetables a day

3. Increase the percentage of South Carolina mothers who breastfeed for at least six months.

Mothers (2003 National Immunization Survey)

- **Breastfeed for at least 6 months**

  ⇒ Total
  - 27.3% of SC mothers breastfeed for at least 6 months
  - 3.6% of SC mothers exclusively breastfeed for at least 6 months

4. Increase the percentage of South Carolina children and adults who achieve and maintain a healthy weight.

Adults (2003 BRFSS)

- **Achieve and maintain a healthy weight (RECOMMENDED RANGE)**

  ⇒ Total
  - 37.5% of South Carolinians are within the recommended range for healthy weight based on BMI

  ⇒ By race
  - 41.9% of Caucasians in SC are within the recommended range for healthy weight based on BMI
  - 26.6% of African-Americans in SC are within the recommended range for healthy weight based on BMI
  - 26.6% of Hispanics in SC are within the recommended range for healthy weight based on BMI

  ⇒ By gender
  - 31.9% of males in SC are within the recommended range for healthy weight based on BMI
  - 42.9% of females in SC are within the recommended range for healthy weight based on BMI

- **Achieve and maintain a healthy weight (OVERWEIGHT)**

  ⇒ Total
  - 35.8% of South Carolinians are overweight based on BMI

  ⇒ By race
  - 35.4% of Caucasians in SC are overweight based on BMI
  - 34.5% of African-Americans in SC are overweight based on BMI
  - 37.9% of Hispanics in SC are overweight based on BMI

  ⇒ By gender
  - 43.6% of males in SC are overweight based on BMI
  - 28.3% of females in SC are overweight based on BMI

- **Achieve and maintain a healthy weight (OBESE)**
  - ⇒ Total
    - 24.5% of South Carolinians are obese based on BMI
  - ⇒ By race
    - 20.4% of Caucasians in SC are obese based on BMI
    - 37.8% of African-Americans in SC are obese based on BMI
    - i24.9% of Hispanics in SC are obese based on BMI
  - ⇒ By gender
    - 23.2% of males in SC are obese based on BMI
    - 25.6 of females in SC are obese based on BMI

- **Achieve and maintain a healthy weight (Intent)**
  - ⇒ Total
    - 39.3% of South Carolinians have tried to lose weight in the last year
  - ⇒ By race
    - 8.1% of Caucasians in SC have tried to lose weight in the last year
    - 44% of African-Americans in SC have tried to lose weight in the last year
    - 43.4% of Hispanics in SC have tried to lose weight in the last year
  - ⇒ By gender
    - 31.5% of males in SC have tried to lose weight in the last year
    - 46.5% of females in SC have tried to lose weight in the last year

High Schoolers (1999 YRBS)

- **Achieve and maintain a healthy weight (OVERWEIGHT)**
  - ⇒ Total
    - 11.7% of SC high schoolers are overweight based on BMI
  - ⇒ By race
    - 9.1% of high school age Caucasians in SC are overweight based on BMI
    - 15.1% of high school age African-Americans in SC are overweight based on BMI
    - 0.4% of high school age Hispanics in SC are overweight based on BMI
  - ⇒ By gender
    - 14.6% of high school age males in SC are overweight based on BMI
    - 8.9% of high school age females in SC are overweight based on BMI

- **Achieve and maintain a healthy weight (AT RISK FOR OVERWEIGHT)**
  - ⇒ Total
    - 12.9% of SC high schoolers are at risk for becoming overweight based on BMI
  - ⇒ By race
    - 10.3% of high school age Caucasians in SC are at risk for becoming overweight based on BMI
    - 15.4% of high school age African-Americans in SC are at risk for becoming overweight based on BMI
    - 17.3% of high school age Hispanics in SC are at risk for becoming overweight based on BMI
  - ⇒ By gender
    - 13.3% of high school age males in SC are at risk for becoming overweight based on BMI
    - 12.4% of high school age females in SC are at risk for becoming overweight based on BMI

- **Achieve and maintain a healthy weight (Intent)**
  - ⇒ Total
    - 39.8% of SC high schoolers have tried to lose weight in the last year
  - ⇒ By race
    - 41.9% of high school age Caucasians in SC have tried to lose weight in the last year
    - 37.3% of high school age African-Americans in SC have tried to lose weight in the last year
    - 46% of high school age Hispanics in SC have tried to lose weight in the last year
  - ⇒ By gender
    - 25.7% of high school age males in SC have tried to lose weight in the last year
    - 53.7% of high school age females in SC have tried to lose weight in the last year

High Schoolers (1999 YRBS)

- **Watch two or fewer hours of television per day.**
  - ⇒ Total
    - 52.5% of SC high schoolers watch two or fewer hours of television per day
  - ⇒ By race
    - 66.6% of high school age Caucasians in SC watch two or fewer hours of television per day
    - 35.4% of high school age African-Americans in SC watch two or fewer hours of television per day
    - 53.8% of high school age Hispanics in SC watch two or fewer hours of television per day
  - ⇒ By gender
    - 53% of high school age males in SC watch two or fewer hours of television per day
    - 51.9% of high school age females in SC watch two or fewer hours of television per day

5. Decrease the burden of obesity-related chronic disease.

Quality of Life Impact:
A significant percentage of obese individuals do not rate their general health as excellent or very good as compared to those with lower BMI. Obese individuals in the state also report a significantly higher average of physical or mental health days that were “Not Good” as compared to those with a lower BMI.

Economic Impact:
In 2003, obesity-attributable medical expenditures in SC totaled $1.06 billion.

Obesity-Related Chronic Diseases:
DHEC Office of Chronic Disease Epidemiology is developing attributable risk calculations for obesity on the following diseases: CHD, Stroke, Diabetes, Cancer, and Arthritis. When calculated, health expenditures related to obesity can also be analyzed in greater detail.

6. Increase the number of research projects in South Carolina related to obesity prevention and control.

No baseline currently exists that captures this information on a statewide level.

Resources

www.nhlbi.nih.gov/guidelines/obesity/practgde.htm
Practical Guide to the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults

http://www.ama-assn.org/ama/pub/category/10931.html
American Medical Association: Assessment and Management of Adult Obesity

http://www.cdc.gov/nccdphp/dnpa/growthcharts/training.htm
BMI for age Growth Chart Modules

http://www.acsm-msse.org/pt/pt-core/template-journal/msse/media/1201.pdf
American College of Sports Medicine's Position Stand on Appropriate Interventions for Weight loss and Prevention of Weight Regain for Adults

Patient Centered Assessment and Counseling for Exercise and Nutrition

http://aappolicy.aappublications.org/cgi/content/full/pediatrics;112/2/424
American Academy of Pediatrics
Policy Statement on the Prevention of Pediatric Overweight and Obesity

http://aappolicy.aappublications.org/cgi/reprint/pediatrics;113/1/152.pdf
American Academy of Pediatrics
Policy Statement on Soft Drinks in Schools

http://pediatrics.aappublications.org/cgi/content/full/115/2/496
American Academy of Pediatrics
Updated Statement on Breastfeeding

http://www.obesity.org
American Obesity Association

http://www.cfah.org/pdfs/health_monograph.pdf
Health Behavior Change in Managed Care: A Status Report

www.surgeongeneral.gov/sgoffice.htm
Office of the Surgeon General

http://www.healthinschools.org/sh/obesityfs.pdf
Childhood Obesity Fact Sheet

www.nlm.nih.gov/medlineplus/obesity.html
National Library of Medicine Obesity Resources

www.cdc.gov/nccdphp/
CDC's Division of Chronic Disease Prevention and Health Promotion

http://www.mayoclinic.com/invoke.cfm?id=FL00058
Childhood obesity: Parenting advice

http://www.mayoclinic.com/invoke.cfm?id=FL00057
Sensible approaches to children's weight problems

www.healthysc.gov
Healthy South Carolina Challenge

www.eatright.org
American Dietetic Association

http://www.thecommunityguide.org/
Guide to Community Preventive Services

http://www.cspinet.org/nutritionpolicy/nana.html
National Alliance for Nutrition and Activity (Center for Science in the Public Interest)

odphp.osophs.dhhs.gov/
Office of Disease Prevention & Health Promotion

http://www.cdc.gov/nccdphp/promising_practices/
CDC's Promising Practices in Chronic Disease Prevention and Control: A Public Health Framework For Action

http://www.cdc.gov/phppo/pce/index.htm
A CDC document on principles for engaging the community.

ctb.lsi.ukans.edu/
Community Tool Box

http://www.healthpolicycoach.org
Health Policy Guide

http://www.prevent.org/publications/Physical_Activity_Roundtable_FINAL.pdf
Promoting Physical Activities in Communities: Forward Looking Options From An Executive Roundtable

www.usda.gov/cnpp
USDA's Center for Nutrition Policy and Promotion
Includes the Interactive Healthy Eating Index

www.cdc.gov/nccdphp/
CDC's Division of Chronic Disease Prevention and Health Promotion

www.usda.gov/fnic
Food and Nutrition Information Center

www.dole5aday.com
Dole Food Company

www.5aday.com
Produce for a Better Health Foundation

www.pma.com
Produce Marketing Association

http://www.4woman.gov/Breastfeeding/bluprntbk2.pdf
HHS Blueprint for Action on Breastfeeding

http://www.usbreastfeeding.org/
United States Breastfeeding Committee

http://www.unicef.org/newsline/tenstps.htm
WHO/UNICEF Ten Steps to Successful Breastfeeding

http://www.cdc.gov/breastfeeding/compend-babyfriendlywho.htm
Breastfeeding Friendly Hospital Program

http://www.ers.usda.gov/publications/fanrr13/
The Economic Benefits of Breastfeeding

http://www.who.int/nut/documents/code_english.PDF
International Code of Marketing Breast Milk Substitutes

http://www.preventioninstitute.org/pdf/CHI_breastfeeding.pdf
Promising Practices in Breastfeeding Promotion

http://www.dshs.state.tx.us/wichd/lactate/mother.shtm
Breastfeeding friendly worksite

http://www.usbreastfeeding.org/Issue-Papers/Checklist-WP-BF-Support.pdf
Worksite Breastfeeding Checklist

http://www.phppo.cdc.gov/documents/faithhealth.pdf
A CDC document on how to collaborate and engage faith-based communities around public health issues

http://www.health-e-ame.com/
AME Church Health/Wellness

http://www.prevent.org/publications/Healthy_Workforce_2010.pdf
Healthy Workforce 2010

http://www.welcoa.org/freeresources/
Free worksite resources and presentations from Welcoa

http://www.wbgh.com/
Washington Business Group on Health

http://www.phi.org/pdf-library/dhs-worksite.pdf
Fruits and Vegetables and Physical Activity at The Worksite: Business Leaders and Working Women Speak Out on Access and Environment

http://www.shapingamericasyouth.com/Default.aspx
Shaping America's Youth

www.cdc.gov/nccdphp/dash/SHI/index.htm
School Health Index

http://www.schoolwellnesspolicies.org/WellnessPolicies.html
Model School Wellness Policies

http://www.schoolnutrition.org/Index.aspx?id=1173
Model School Wellness Policies

www.cdc.gov/nccdphp/dash/nutguide.htm
CDC's Guidelines for School Health Programs to Promote Lifelong Healthy Eating

http://www.cdc.gov/nccdphp/dnpa/kidswalk/
Walk to School Day

http://www.bikewalk.org/ncbw_forum/livable1_8.pdf
Safe Routes to School

www.usda.gov/news/usdakids/index.html
USDA for Kids

www.sph.uth.tmc.edu/catch
Coordinated Approach to Child Health (CATCH)

http://www.rwjf.org/publications/publicationsPdfs/healthySchools.pdf
Healthy Schools for Healthy Kids

www.nasbe.org/HealthySchools/fithealthy.mgi
Fit, Healthy and Ready to Learn: A School Health Policy Guide

www.aahperd.org
American Association for Health, Physical Education, Recreation, and Dance

http://www.aahperd.org/naspe/template.cfm?template=pr_032504.html
National Physical Education Standards

http://www.aahperd.org/naspe/template.cfm?template=kids_brochure.html
Kids in Action: Activity Guide for Children Birth to Five Years of Age

http://www.aahperd.org/naspe/template.cfm?template=stats.html
Physical Education Statistics

http://www.aahperd.org/naspe/template.cfm?template=pr_123103.html
Summary of Physical Activity for Children: A Statement of Guidelines for Children Ages 5-12

www.cdc.gov/nccdphp/dash/nutguide.htm
CDC Guidelines for School Health Programs to Promote Lifelong Healthy Eating

www.fns.usda.gov/tn/Healthy/changing.html
Changing the Scene (School Nutrition)

http://kidshealth.org/research/health_report.html
Health Report Cards increase Parents' Awareness of Obesity/Overweight

http://www.eatsmartmovemorenc.com/tools.htm
Standards, fact sheets, tools and modules for school nutrition
Also contains a SyberShop module for ages 13-19

http://www.actionforhealthykids.org/
Action for Healthy Kids

http://www.eatsmartmovemorenc.com/colormehealthy/
Color Me Healthy Curriculum

http://www.hsph.harvard.edu/prc/proj_eat.html
Eat Well and Keep Moving – integrated elementary nutrition/pa curriculum

http://www.hsph.harvard.edu/prc/proj_planet.html
Planet Health – integrated upper elementary nutrition/pa curriculum

www.sph.uth.tmc.edu/catch
Coordinated Approach to Child Health (CATCH) – curriculum

http://www.sparkpe.org/index.jsp
PE (k-8) and afterschool curriculum

http://www.take10.net/whatistake10.asp?page=new
Take 10! physical activity program

http://www.creativewalking.com/school.html
Resources for school–based walking programs

http://www.cdc.gov/youthcampaign/
CDC's VERB campaign for physical activity

http://www.squaremeals.org/fn/home/page/0,1248,2348_0_0_0,00.html
Variety of tools for school nutrition from the TX Department of Agriculture

http://www.farmtoschool.org/
Farm to School Nutrition Program

http://cspinet.org/nutritionpolicy/policy_options.html#school_foods
PA & NU resources, vending options, fundraisers, F & V program in schools, classroom rewards, policies, revenue impact when improving school foods, strengthening NU ed, etc

http://nutrition.hhdev.psu.edu/projectpa/frames_html/frames_homepage.html
tools and resources for improving school nutrition

http://www.walkableamerica.org/
Partnership for a Walkable America

www.americaonthemove.org
America On the Move

http://www.activelivingbydesign.org/
Active Living By Design

www.sccppa.org
South Carolina Coalition for Promoting Physical Activity

http://www.bikewalk.org/
Pedestrian and Biking Information

http://www.cdc.gov/nccdphp/dnpa/physical/handbook/index.htm
The Physical Activity Evaluation Handbook

www.cdc.gov/nccdphp/dash/physact.htm
CDC's Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People

www.ncsl.org
National Council of State Legislatures

OVERWEIGHT IN SOUTH CAROLINA *Children*

The Problem

- Approximately **1 out 8** high school students in South Carolina is overweight.[1]*
- Over **25%** of low-income children ages 2-5 in South Carolina are overweight or at risk of overweight.[2]
- Nationally, overweight rates in children ages 6-11 have **tripled** since the late 1970s, while rates for adolescents ages 12-19 have **more than doubled** in the same time period.[3]
- Overweight adolescents have a **70%** chance of becoming overweight or obese adults.[4]
- Overweight children are at increased risk for high blood pressure, asthma, sleep apnea, diabetes, and decreased well-being.[4]
- If current trends continue, **1 out of every 3 children** born in 2000 will be diagnosed with type 2 diabetes, primarily due to a poor diet and lack of physical activity.[5]

*[illegible]

Risk Factors

- **Less than 20%** of adolescents in South Carolina eat the recommended 5-9 servings of fruits and vegetables per day.[1]
- Nearly **50%** of adolescents in South Carolina do not meet the minimum recommendations for adequate physical activity.[1]
- In the US, children watch TV an average of 1,023 hours per year (compared to 900 hours per year spent in school).[9]
- Nationally, sweetened beverage consumption has **doubled** among youth in the last 30 years.[6]
- By the time children are 14 years or older, 32% of young women and 52% of young men are consuming **3 or more sugared soft drinks daily**.[7]
- South Carolina mothers rank **43rd out of all states** in breastfeeding rates (breastfeeding has been shown to reduce the risk of overweight in children).[8]

> *"We must…intensify efforts for early identification and prevention of overweight, or we are going to have the first generation of children who are not going to live as long as their parents."*
>
> *Dr. George Blackburn*
> *Harvard Medical School*

Keys to Healthy Kids at a Healthy Weight

- Get at least 60 minutes of moderate to vigorous exercise every day.
- Eat at least 5 servings of fruits and vegetables every day.
- Drink 1% or less milk.
- New moms should breastfeed for at least 6 months.
- Limit foods and beverages with added sugars (soft drinks, soda, candy).
- Support school and local efforts to adopt policies supportive of good nutrition and active living.

Please see other side for information about healthy weight.

OVERWEIGHT IN SOUTH CAROLINA *Children*

Weight in Children

The term obesity is not used when describing children and youth. Instead, children and youth are said to be "at risk of overweight" or "overweight." This terminology is used because children and youth are growing and their weight may significantly change during the growth period. Because ideal weight for children and youth is dependent on age and gender (as well as height), adult BMI charts are not appropriate for children. BMI-for-age growth charts are used to determine a child's BMI percentile as compared to other children of the same age and gender. Categories of BMI for children and youth under 20 years of age are divided into the following percentiles:

Category	Percentile
Underweight	Less than 5th
Normal	5th to 84th
At risk of overweight	85th to 94th
Overweight	95th and higher

For example, a 10-year old boy with a BMI-for-age at the 90th percentile means that 90% of males of the same age and height have a lower BMI. This child would be considered overweight.

More information on the 2002 CDC Growth Charts can be found at ***http://www.cdc.gov/growthcharts***

1. *Youth Risk Behavior Surveillance Survey (YRBSS), 1999*
2. *Pediatric Nutrition Surveillance System (PedNSS), 2003*
3. *Centers for Disease Control, National Center for Health Statistics. (2000) NHANES III/shortreport*
4. *U.S. Department of Health and Human Services. The Surgeon General's call to action to prevent and decrease overweight and obesity. (Rockville, MD): U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General; (2001).*
5. *Vekhat Bhavan, K. The Journal of the American Medical Association, Oct. 8, 2003; vol 290 : pp 1884-1890.*
6. *Gleason P and Suitor C. Children's diets in the mid-1990s: dietary intake and its relationship with school meal participation. USDA Report No.: CN-01-CD, (2001).*
7. *Bichon S and Popkin B. Changes in beverage intake between 1977 and 2001. American Journal of Preventive Medicine 2004;27(3):205-210.*
8. *National Immunization Survey, National Center for Health Statistics (NCHS), 2003. (Measure taken at 6 months after delivery). Obesity Research 12(1): 18-24 (January 2004).*
9. *Bichon Media Research, 2000*

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www.scdhec.gov

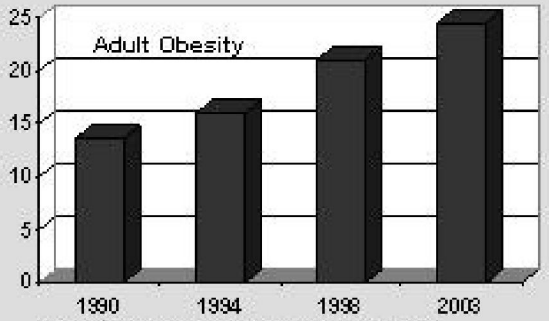
Promoting and protecting the health of the public and the environment

OVERWEIGHT
IN SOUTH CAROLINA

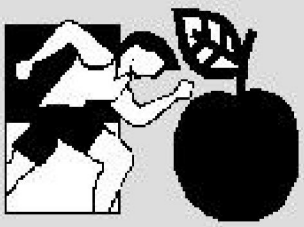
Obesity in SC

The Problem

- Obesity rates in South Carolina have nearly **doubled** since 1990. [1]
- In 2003, South Carolina had the **13th worst** obesity rate in the nation.
- **61%** of adults in South Carolina are either overweight or obese. (1)
- **25%** of adults in South Carolina are obese. [1]
- Obesity-related medical costs in South Carolina topped **$1 billion in 2003**. This translates to a cost of **$256 per South Carolinian.** [2]
- Of the $1 billion dollars spent on obesity-related medical costs in SC, **over half of these costs were through Medicaid/Medicare.** [2]
- Although obesity affects all populations, rates of obesity are higher among minorities and the underserved.
- South Carolina has one of the **highest rates** of obesity-related chronic disease such as heart disease, stroke, and diabetes in the nation.



*Obesity in SC has nearly doubled since 1990.



Factors Leading to Obesity

- Over **half** of South Carolinians are either totally inactive or do not get the recommended amount of physical activity. [1]
- Over **75%** of South Carolinians do not consume the recommended number of fruits and vegetables per day. [1]
- South Carolina mothers rank **48rd** out of all states in breastfeeding rates (breastfeeding has been shown to reduce the risk of obesity in children). [4]

Diseases Related to Obesity

Heart Disease	**Diabetes**
High Blood Pressure	**Sleep Apnea**
High Cholesterol	**Depression**
Some Cancers	**Osteoarthritis**
Gall Bladder Disease	**Asthma**

What Can You Do?

- Become an advocate for policies supportive of active living, such as Safe Routes to School and Smart Growth initiatives.
- Be active for at least 30 minutes on most days of the week.
- Support policies and programs designed to increase access to healthy foods such as Farmer's Markets and adopting standards for all foods served in schools.
- Eat at least 5 servings of fruits and vegetables a day.
- Reduce portion sizes.
- Limit TV time to less than 2 hours a day.
- New mothers should breastfeed for at least six months.

Please see other side for information about healthy weight.

OVERWEIGHT
IN SOUTH CAROLINA

Obesity in SC

What's the difference between overweight and obesity?

A BMI between 18.5 and 24.9 is considered normal weight for adults. A BMI from 25 and 29.9 is considered overweight, and a BMI of 30 or higher is considered obese. Obesity is further classified based on severity: BMI of 30 - 34.9 is Class 1, BMI of 35 – 39.9 is Class II Obesity, and Class III Obesity is a BMI over 40. Research has shown that as BMI rises into the more severe ranges (Class II and Class III), the risk for morbidity and mortality also increase.

BMI

The commonly accepted measure of being overweight and obesity in adults is the Body Mass Index, or BMI. In adults, the BMI measurement is determined by body weight relative to height. BMI is best used as a screening tool and not a diagnostic tool. Additionally, BMI is only one piece of a person's health profile, and other measures and risk factors (e.g., waist circumference, smoking, physical activity level, diet) should also be addressed.

Body **M**ass **I**ndex or BMI is a tool for indicating weight status in adults. It is a measure of weight for height. For adults *over 20 years old*, BMI falls into one of these categories:

BMI	Weight Status
Below 18.5	Underweight
18.5 – 24.9	Normal
25.0 – 29.9	Overweight
30.0 & above	Obese

Body Mass Index can be calculated using pounds and inches with this equation

$$\textbf{BMI} = \left(\frac{\text{Weight in Pounds}}{(\text{Height in inches}) \times (\text{Height in inches})}\right) \textbf{X 703}$$

For example, a person who weighs 220 pounds and is 6 feet 3 inches tall has a BMI of 27.5.

$$\left(\frac{220 \text{ lbs.}}{(75 \text{ inches}) \times (75 \text{ inches})}\right) \textbf{x 703} = \textbf{27.5}$$

1. *Behavioral Risk Factor Surveillance Survey (BRFSS), 2003.*
2. *Eric A. Finkelstein, Ian C. Feibelhorn, and Guijing Wang. State level estimates of annual medical expenditures attributable to obesity, Obesity Research 12(7):18-24 (January 2004).*
3. *National Vital Statistics Report (NVSR), 2001.*
4. *National Immunization Survey, National Center for Health Statistics (NCHS), 2003. (Measure taken at 6 months after delivery). Obesity Research 12(7): 18-24 (January 2004).*

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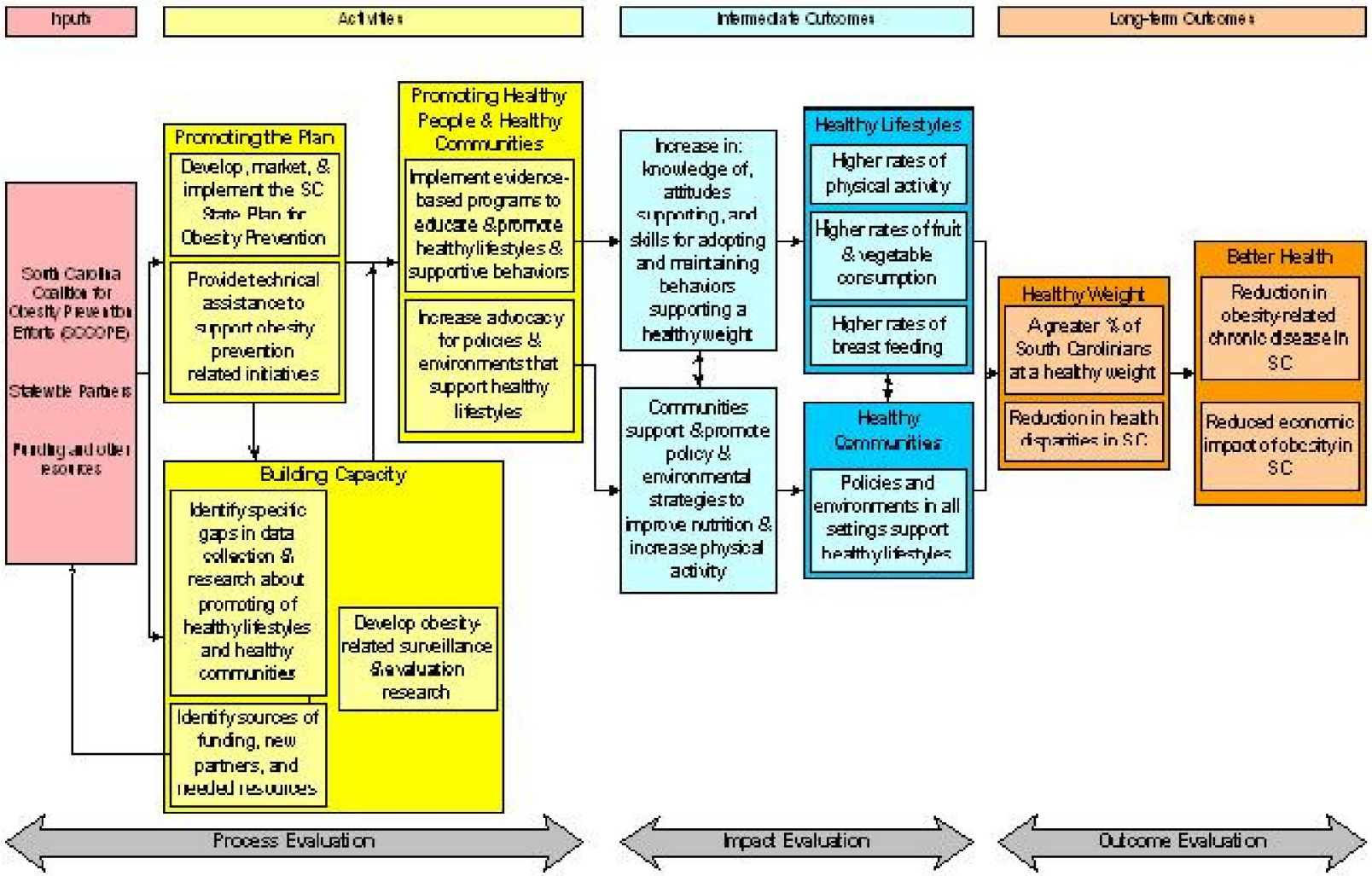
Moving South Carolina Toward a Healthy Weight

Promoting Healthy Lifestyles and Healthy Communities



The *Moving South Carolina Toward a Healthy Weight* Logic model was developed to illustrate the relationships between inputs, activities and outcomes associated with South Carolina's statewide plan to address obesity. This tool is intended to aid in describing the causal relationships between inputs and activities and how they are expected to lead to intermediate changes necessary in facilitating the attainment of specific goals outlined in *The State Plan* for obesity prevention.

Inputs

The first column of the logic model, Inputs, lists the work groups, partners and resources that provide infrastructure for obesity prevention and control efforts in South Carolina. SCCOPE Work Groups were charged with identifying and defining specific goals and objectives related to business and industry, community and faith-based organizations, school, and health care systems. These Work Groups will continue to provide guidance during implementation of the state plan. Of course, none of the efforts outlined in this document could be possible without CDC funding, in-kind support and other external funding/resources.

Activities

The second and third columns highlight the activities necessary for implementation of the state plan. These activities are sub-divided into promoting the plan, building capacity, and promoting healthy people and healthy communities,

Promoting the Plan. Marketing will involve distribution of the plan, a "kick off" at the state capital with speakers/partners promoting the plan, as well as plans to highlight specific obesity prevention and control efforts going on around the state. Another aspect of promoting the plan will involve providing ongoing technical support to statewide partners in obesity related efforts.

Milestone 1: The first few pages of this document describe three desired outcomes indicative of success in obesity prevention and control in SC. Inputs and plan promotion activities described above represent the first of those desired outcomes: *A comprehensive, coordinated statewide effort to promote healthy weight.*

Building Capacity. The Obesity Prevention and Control Program of DHEC and SCCOPE are committed to the identification of gaps in surveillance data related to obesity and identifying evidence based approaches for obesity prevention and control. In order to facilitate surveillance, research and evidence-based capacity, planning is underway to provide available funds and seek additional funding to aid the efforts of our current and new partners in obesity-related surveillance, research and program evaluation.

Promoting Healthy People and Healthy Communities. Promoting the Plan and building surveillance, research and program evaluation capacity is necessary in promoting the health of communities through data driven programs. Such evidence can bolster policy advocacy and environmental changes supportive of obesity prevention and control.

Note: Intermediate outcomes are also expected to interact with one another in a way that changes in one outcome may directly affect changes in another outcome.

Intermediate Outcomes

The fourth and fifth columns show expected intermediate outcomes resulting from proposed activities. Evidence-based obesity programs should result in increases in knowledge, attitudes, support, and skills (antecedents) necessary in adopting and maintaining behaviors associated with healthy weight. It is expected that increased policy advocacy and environmental changes (predisposing, enabling, and reinforcing factors) will support strategies to improve nutrition and increase physical activity.

Milestone 2: *Communities support and promote the adoption of policy and environmental strategies to improve nutrition and increase physical activity.*

Healthy Lifestyles. By addressing the antecedents of behavior change among individuals, groups and communities across SC, higher rates of physical activity, increased fruit and vegetable consumption, and a greater number of mothers breast feeding are expected.

Healthy Communities. Another intermediate outcome includes environmental and policy changes in all settings (i.e., business and industry, community and faith-based organizations, schools, and health care systems) that support healthy lifestyles.

Long-term Outcomes

The sixth and seventh columns represent the ultimate goals to be attained by moving SC toward a healthy weight.

Healthy Weight. All of the activities and intermediate outcomes described are intended to increase the percentage of South Carolinians at a healthy weight. Secondarily, moving the population toward a healthy weight may aid in the reduction of health disparities in SC.

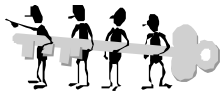
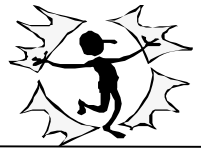
Better Health. Ultimately, reducing overweight and obesity can tremendously impact the prevalence and incidence of certain chronic diseases/conditions and will reduce the burden and economic impact of these diseases/conditions in SC.

Milestone 3: *Improved health of all populations who are affected by the burden of obesity and chronic diseases.*

INTEGRATION OF STATE OBESITY PLAN

Obesity State Plan Goals	Other Relevant Plans
1. Increase the percentage of South Carolinians and adults who meet the current age specific recommendations for regular physical activity.	**Coach:** School based programs, community activities, locating walking/biking areas **Palmetto Project:** Heart & Soul Project **Prevention Partners:** Employee insurance program **USC Prevention Research Center** **WIC State Nutrition:** Education/Breastfeeding Plan **USC Sumter:** Sumter County Active Lifestyles Impact Objectives **USC School of Medicine:** Community Nutrition Network (USC/Duke partnerships) **SCCPPA:** Working to bring about improved health & quality of life for all people in SC by encouraging & facilitating increased participation in regular physical exercise
2. Increase the percentage of South Carolina children and adults who consume at least five servings of fruits and vegetables a day.	**Coach:** Expanding breakfast program; vending machines; parent education **Palmetto Project:** Heart & Soul Project **Prevention Partners:** Employee insurance program **WIC State Nutrition:** State Farmer's Market Plan **DHEC/Cancer:** DHEC/SCCA Cancer plan will address 5-A-Day (not available until 7/05)
3. Increase the percentage of South Carolina mothers who breast-feed for at least six months.	**Coach:** Parent education task force goal **Prevention Partners:** Employee insurance program **WIC State Nutrition:** Education/Breastfeeding Plan
4. Increase the percentage of South Carolina children and adults who achieve and maintain a healthy weight. Increase the percentage of South Carolina children who watch two or fewer hours of screen time per day.	**Coach:** TV Turn off Week 4/25-5/1/05 **Palmetto Project:** Heart & Soul Project **Prevention Partners:** Employee insurance program **WIC State Nutrition:** Education/Breastfeeding Plan

	DHEC/Minority Health: AMEC Strategic Health Plan; OMH Initiatives – "It's Your Health Take Charge" Calendar 2005 **DHHS:** Launched a small pilot in Anderson, Oconee, & Pickens counties to have BMI assessed on children age 8 & up during physical office visits **United Way of Midlands:** Funds two initiatives that address childhood obesity with Palmetto Health Richland & Fairfield Behavioral Health Services
5. Decrease the burden of obesity and obesity-related chronic diseases.	**Coach:** Improving the nutrition & physical environments **Palmetto Project:** Heart & Soul Project **Prevention Partners:** Employee insurance program **USC Prevention Research Center** **WIC State Nutrition:** Education/Breastfeeding Plan **SC Primary Health Care Assoc:** South East Disparities Collaborative of SC
6. Increase the number of research projects in South Carolina related to obesity prevention and control.	**Coach:** School based intervention surveys/projects that will relate to obesity prevention and control **Prevention Partners:** Employee insurance program **Companion Healthcare:** SC Coalition for Obesity Prevention & Education which dispenses educational DVDs on obesity prevention to all elementary schools in SC. **USC Prevention Research Center** **Clemson:** The EXPORT Center – a Clemson & Voorhees College Partnership

	LEVEL	APPLICATION
Policy & Environmental Strategies (Systems - Level Change)	**Society**	Developing and enforcing state policies and laws that can increase beneficial health behaviors. Developing media campaigns that promote public awareness of the health need and advocacy for change. **Examples:** Partnering with the Department of Agriculture to increase facilities (Farmer's Market programs) for increasing the availability of fruits and vegetables; improving the quality of all foods and beverages sold in schools; increasing incentives for the planning and development of healthier menus in communities; developing statewide media campaigns promoting the need for environments t
	Community	Coordinating the efforts of all members of a community (organizations, community leaders, and citizens) to bring about change. Developing and enforcing local policies that support beneficial health behaviors. **Examples:** Collaboration among community leaders to influence social norms and policies about nutrition; forming a community coalition to assess availability of high quality, nutritious foods in neighborhoods and local food establishments; local physical activity and nutrition coalitions develop educational presentations for other groups; developing a media advocacy strategy promoting the need for environments that support healthy eating; working with local community groups to establish
	Organizational	Changing the policies, practices, and physical environment of an organization (e.g., a workplace, health care setting, a school/child care, a faith organization, or another type of community organization) to support behavior change. **Examples:** Setting policy about healthy foods to be included in all menus planned for events; sponsoring school, faith organization, and worksite nutrition events, including healthy eating messages in newsletters and websites; adoption of worksite policies that provide time off or flex time during work hours for physical activity; establishing a policy allowing community members access to indoor and outdoor school facilities before and after regular school hours.
Individual Interpersonal Strategies	**Interpersonal** 	Recognizing that groups provide social identity and support, interpersonal interventions target groups, such as family members or peers. **Examples:** Written information given to parents; training lay health advisors; developing buddy systems and support groups like weight management clubs.
	Individual 	Motivating change in individual behavior by increasing knowledge, or influencing attitudes or challenging beliefs. **Examples:** Offering cooking classes; developing booths and displays for county fairs and community events; offering one-on-one counseling; targeting behavior change through media campaigns (posters, billboards, newspaper stories, and radio/television/newspaper advertisements.)

The Development of Healthy People 2010 Goals and Objectives

Healthy People 2010 represents the ideas and expertise of a diverse range of individuals and organizations concerned about the Nation's health. The Healthy People Consortium—an alliance of more than 350 national organizations and 250 State public health, mental health, substance abuse, and environmental agencies—conducted three national meetings on the development of Healthy People 2010. In addition, many individuals and organizations gave testimony about health priorities at five Healthy People 2010 regional meetings held in late 1998.

On two occasions—in 1997 and in 1998—the American public was given the opportunity to share its thoughts and ideas. More than 11,000 comments on draft materials were received by mail or via the Internet from individuals in every State, the District of Columbia, and Puerto Rico.

The final Healthy People 2010 objectives were developed by teams of experts from a variety of Federal agencies under the direction of Health and Human Services Secretary Donna Shalala, Assistant Secretary for Health and Surgeon General David Satcher, and former Assistant Secretaries for Health. The process was coordinated by the Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services.

Healthy People 2010 Goals

Goal 1: Increase Quality and Years of Healthy Life

The first goal of Healthy People 2010 is to help individuals of all ages increase life expectancy and improve their quality of life.

Goal 2: Eliminate Health Disparities

The second goal of Healthy People 2010 is to eliminate health disparities among segments of the population, including differences that occur by gender, race or ethnicity, education or income, disability, geographic location, or sexual orientation. This section highlights ways in which health disparities can occur among various demographic groups in the United States.

The Nation's progress in achieving the two goals of Healthy People 2010 will be monitored through 467 objectives in 28 focus areas. Many objectives focus on interventions designed to reduce or eliminate illness, disability, and premature death among individuals and communities. Others focus on broader issues, such as improving access to quality health care, strengthening public health services, and improving the availability and dissemination of health-related information. Each objective has a target for specific improvements to be achieved by the year 2010.

How Healthy People 2010 Will Improve the Nation's Health

One of the most compelling and encouraging lessons learned from the Healthy People 2000 initiative is that we, as a Nation, can make dramatic progress in improving the Nation's

health in a relatively short period of time. For example, during the past decade, we achieved significant reductions in infant mortality. Childhood vaccinations are at the highest levels ever recorded in the United States. Fewer teenagers are becoming parents. Overall, alcohol, tobacco, and illicit drug use is leveling off. Death rates for coronary heart disease and stroke have declined. Significant advances have been made in the diagnosis and treatment of cancer and in reducing unintentional injuries.

But we still have a long way to go. Diabetes and other chronic conditions continue to present a serious obstacle to public health. Violence and abusive behavior continue to ravage homes and communities across the country. Mental disorders continue to go undiagnosed and untreated. Obesity in adults has increased 50 percent over the past two decades. Nearly 40 percent of adults engage in no leisure time physical activity. Smoking among adolescents has increased in the past decade. And HIV/AIDS remains a serious health problem, now disproportionately affecting women and communities of color.

Healthy People 2010 will be the guiding instrument for addressing these and emerging health issues, reversing unfavorable trends, and expanding past achievements in health.

Community partnerships, particularly when they reach out to nontraditional partners, can be among the most effective tools for improving health in communities.

For the past two decades, Healthy People has been used as a strategic management tool for the Federal Government, States, communities, and many other public- and private sector partners. Virtually all States, the District of Columbia, and Guam have developed their own Healthy People plans modeled after the national plan. Most States have tailored the national objectives to their specific needs.

Businesses; local governments; and civic, professional, and religious organizations also have been inspired by Healthy People to print immunization reminders, set up hotlines, change cafeteria menus, begin community recycling, establish worksite fitness programs, assess school health education curriculums, sponsor health fairs, and engage in myriad other activities.

Everyone Can Help Achieve the Healthy People 2010 Objectives

Addressing the challenge of health improvement is a shared responsibility that requires the active participation and leadership of the Federal Government, States, local governments, policymakers, health care providers, professionals, business executives, educators, community leaders, and the American public itself. Although administrative responsibility for the Healthy People 2010 initiative rests in the U.S. Department of Health and Human Services, representatives of all these diverse groups shared their experience, expertise, and ideas in developing the Healthy People 2010 goals and objectives.

Healthy People 2010, however, is just the beginning. The biggest challenges still stand before us, and we all have a role in building a healthier Nation.

Regardless of your age, gender, education level, income, race, ethnicity, cultural customs, language, religious beliefs, disability, sexual orientation, geographic location, or occupation, Healthy People 2010 is designed to be a valuable resource in determining how you can participate most effectively in improving the Nation’s health. Perhaps you will recognize the

need to be a more active participant in decisions affecting your own health or the health of your children or loved ones. Perhaps you will assume a leadership role in promoting healthier behaviors in your neighborhood or community. Or perhaps you will use your influence and social stature to advocate for and implement policies and programs that can improve dramatically the health of dozens, hundreds, thousands, or even millions of people.

A Systematic Approach to Health Improvement

Healthy People 2010 is about improving health—the health of each individual, the health of communities, and the health of the Nation. However, the Healthy People 2010 goals and objectives cannot by themselves improve the health status of the Nation. Instead, they need to be recognized as part of a larger, systematic approach to health improvement.

This systematic approach to health improvement is composed of four key elements:

- Goals
- Objectives
- Determinants of health
- Health status

Leading Health Indicators

The Leading Health Indicators reflect the major public health concerns in the United States and were chosen based on their ability to motivate action, the availability of data to measure their progress, and their relevance as broad public health issues.

The Leading Health Indicators illuminate individual behaviors, physical and social environmental factors, and important health system issues that greatly affect the health of individuals and communities. Underlying each of these indicators is the significant influence of income and education.

The process of selecting the Leading Health Indicators mirrored the collaborative and extensive efforts undertaken to develop Healthy People 2010. The process was led by an interagency work group within the U.S. Department of Health and Human Services. Individuals and organizations provided comments at national and regional meetings or via mail and the Internet. A report by the Institute of Medicine, National Academy of Sciences, provided several scientific models on which to support a set of indicators. Focus groups were used to ensure that the indicators are meaningful and motivating to the public.

For each of the Leading Health Indicators, specific objectives derived from Healthy People 2010 will be used to track progress. This small set of measures will provide a snapshot of the health of the Nation. Tracking and communicating progress on the Leading Health Indicators through national- and State-level report cards will spotlight achievements and challenges in the next decade. The Leading Health Indicators serve as a link to the 467 objectives in *Healthy People 2010* and can become the basic building blocks for community health initiatives.

The Leading Health Indicators are intended to help everyone more easily understand the importance of health promotion and disease prevention and to encourage wide participation in improving health in the next decade. Developing strategies and action plans to address one or more of these indicators can have a profound effect on increasing the quality of life and the years of healthy life and on eliminating health disparities—creating *healthy people in healthy communities.*

Health Impact of Overweight and Obesity

Overweight and obesity substantially raise the risk of illness from high blood pressure, high cholesterol, type 2 diabetes, heart disease and stroke, gallbladder disease, arthritis, sleep disturbances and problems breathing, and certain types of cancers. Obese individuals also may suffer from social stigmatization, discrimination, and lowered self-esteem.

Populations With High Rates of Overweight and Obesity

More than half of adults in the United States are estimated to be overweight or obese. The proportion of adolescents from poor households who are overweight or obese is twice that of adolescents from middle- and high-income households. Obesity is especially prevalent among women with lower incomes and is more common among African American and Mexican American women than among white women. Among African Americans, the proportion of women who are obese is 80 percent higher than the proportion of men who are obese. This gender difference also is seen among Mexican American women and men, but the percentage of white, non-Hispanic women and men who are obese is about the same.

Reducing Overweight and Obesity

Obesity is a result of a complex variety of social, behavioral, cultural, environmental, physiological, and genetic factors. Efforts to maintain a healthy weight should start early in childhood and continue throughout adulthood, as this is likely to be more successful than efforts to lose substantial amounts of weight and maintain weight loss once obesity is established.

A healthy diet and regular physical activity are both important for maintaining a healthy weight. Over time, even a small decrease in calories eaten and a small increase in physical activity can help prevent weight gain or facilitate weight loss. It is recommended that obese individuals who are trying to lose substantial amounts of weight seek the guidance of a health care provider.

Dietary and Physical Activity Recommendations

The *Dietary Guidelines for Americans* recommend that to build a healthy base, persons aged 2 years and older choose a healthful assortment of foods that includes vegetables; fruits; grains (especially whole grains); fat-free or low-fat milk products; and fish, lean meat, poultry, or beans. The guidelines further emphasize the importance of choosing foods that are low in saturated fat and added sugars most of the time and, whatever the

food, eating a sensible portion size. It is recognized, however, that this guidance may be particularly challenging when eating out because the consumer may be offered large portion sizes with unknown amounts of saturated fat and added sugars.

The *Dietary Guidelines for Americans* recommend that all adults be more active throughout the day and get at least 30 minutes of moderate physical activity most, or preferably all, days of the week. Adults who are trying to maintain healthy weight after weight loss are advised to get even more physical activity. The guidelines also recommend that children get at least 60 minutes of physical activity daily and limit inactive forms of play such as television watching and computer games.

Regular physical activity is associated with lower death rates for adults of any age; even when only moderate levels of physical activity are performed. Regular physical activity decreases the risk of death from heart disease, lowers the risk of developing diabetes, and is associated with a decreased risk of colon cancer. Regular physical activity helps prevent high blood pressure and helps reduce blood pressure in persons with elevated levels.

HP 2010 Objectives used for the foundation for the Moving South Carolina Towards a Healthy Weight: Promoting Healthy Lifestyles and Healthy Communities

For planning purposes, the following objectives regarding the prevalence of overweight and obesity and related risk factors were used to build the six goals of the Moving South Carolina Towards a Healthy Weight Plan:

- **Objective 16.19.** Increase the proportion of mothers who breastfeed their babies.
- **Objective 19-1.** Increase the proportion of adults who are at a healthy weight.
- **Objective 19.2.** Reduce the proportion of adults who are obese.
- **Objective 19.3.** Reduce the proportion of children and adolescents who are overweight or obese
- **Objective 19.5.** Increase the proportion of persons aged 2 years and older who consume at least two daily servings of fruit.
- **Objective 19.6.** Increase the proportion of persons aged 2 years and older who consume at least three daily servings of vegetables, with at least one-third being dark green or orange vegetables.
- **Objective 22-1.** Reduce the proportion of adults who engage in no leisure-time physical activity.
- **Objective 22.2.** Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at lease 30 minutes per day.
- **Objective 22-6.** Increase the proportion of adolescents who engage in moderate physical activity for at least 30 minutes on 5 or more of the previous 7 days.

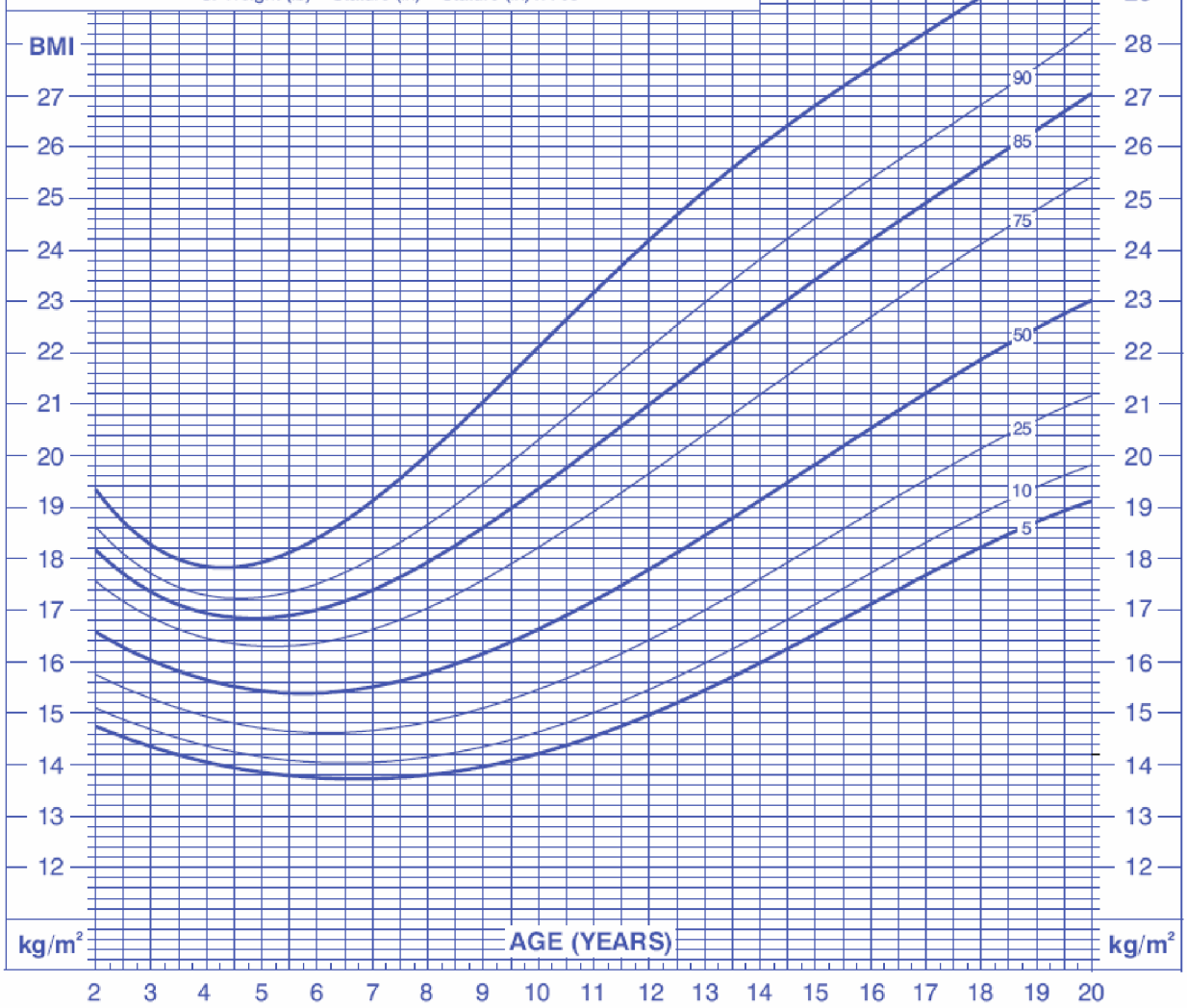
2 to 20 years: Boys
Body mass index-for-age percentiles

NAME _____

RECORD # _____

Date	Age	Weight	Stature	BMI*	Comments

***To Calculate BMI**: Weight (kg) ÷ Stature (cm) ÷ Stature (cm) x 10,000
or Weight (lb) ÷ Stature (in) ÷ Stature (in) x 703



Published May 30, 2000 (modified 10/16/00).

SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts

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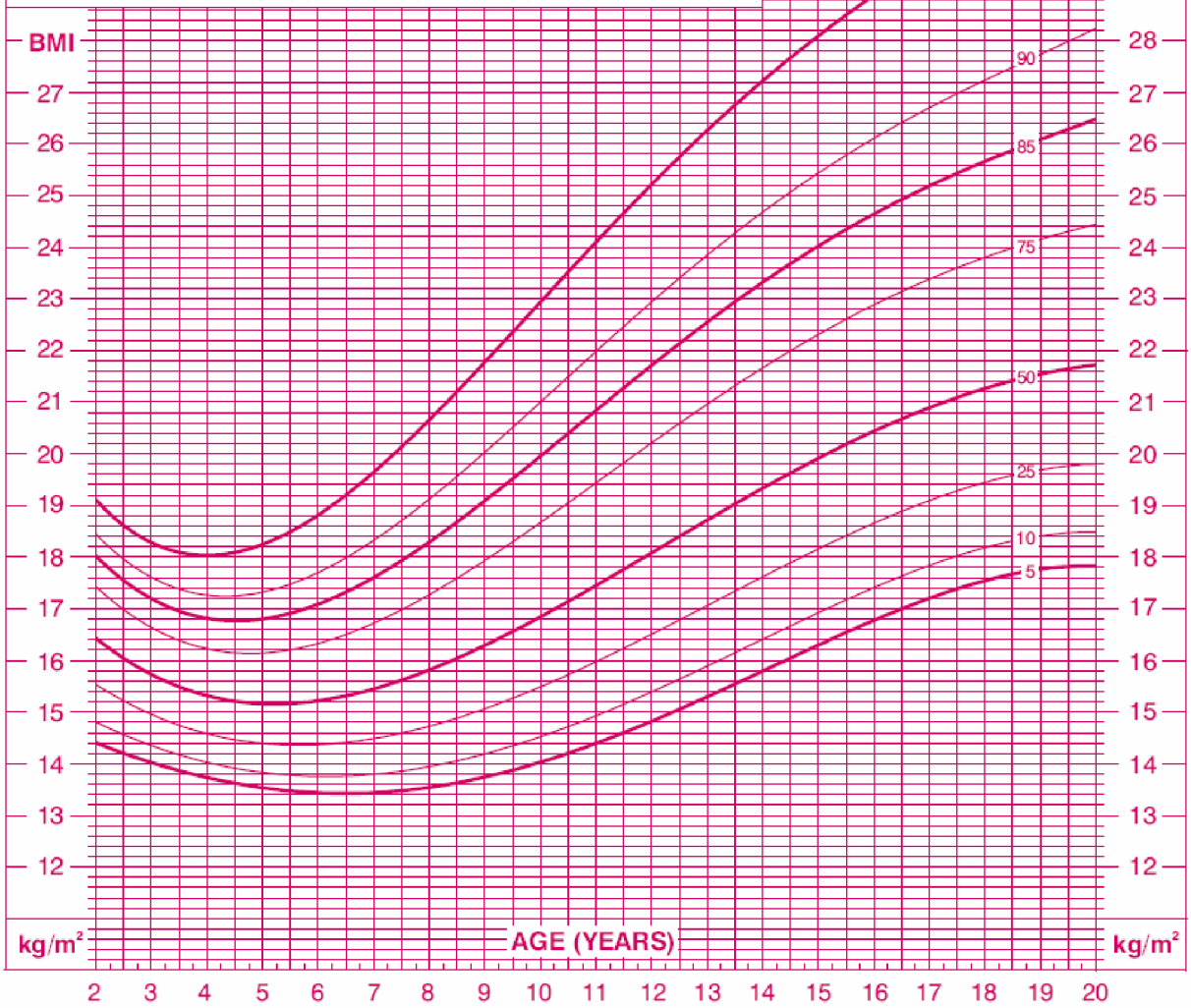

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Body Mass Index Table

	Normal						Overweight					Obese										Extreme Obesity															
BMI	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
Height (inches)	Body Weight (pounds)																																			
58	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239	244	248	253	258
59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247	252	257	262	267
60	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179	184	189	194	199	204	209	215	220	225	230	235	240	245	250	255	261	266	271	276
61	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185	190	195	201	206	211	217	222	227	232	238	243	248	254	259	264	269	275	280	285
62	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191	196	202	207	213	218	224	229	235	240	246	251	256	262	267	273	278	284	289	295
63	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197	203	208	214	220	225	231	237	242	248	254	259	265	270	278	282	287	293	299	304
64	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204	209	215	221	227	232	238	244	250	256	262	267	273	279	285	291	296	302	308	314
65	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324
66	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216	223	229	235	241	247	253	260	266	272	278	284	291	297	303	309	315	322	328	334
67	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223	230	236	242	249	255	261	268	274	280	287	293	299	306	312	319	325	331	338	344
68	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230	236	243	249	256	262	269	276	282	289	295	302	308	315	322	328	335	341	348	354
69	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236	243	250	257	263	270	277	284	291	297	304	311	318	324	331	338	345	351	358	365
70	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243	250	257	264	271	278	285	292	299	306	313	320	327	334	341	348	355	362	369	376
71	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250	257	265	272	279	286	293	301	308	315	322	329	338	343	351	358	365	372	379	386
72	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258	265	272	279	287	294	302	309	316	324	331	338	346	353	361	368	375	383	390	397
73	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265	272	280	288	295	302	310	318	325	333	340	348	355	363	371	378	386	393	401	408
74	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272	280	287	295	303	311	319	326	334	342	350	358	365	373	381	389	396	404	412	420
75	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279	287	295	303	311	319	327	335	343	351	359	367	375	383	391	399	407	415	423	431
76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443

Source: Adapted from *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report*.

Obesity
Report Card

(To be added at a later date)

Inventory of Partner Activities

(To be added at a later date)