

Family Impact Seminar

Childhood and Adolescent Obesity: Community and School Policy Options

Richard D. Lewis, Ph.D., R.D., L.D. FACSM

The University of Georgia
Department of Foods and Nutrition



Photography AcclaimImages.com Photography

The Health Status of Georgia's Children

OUR BIG FAT PROBLEM

What could
be causing it?

NEXT



JAY BOOKMAN
Bookman@ajc.com

A quiet — if quite visible — epidemic is afflicting millions of Americans each year, contributing to hundreds of thousands of premature deaths. And prospects of a cure seem dim.

The numbers are staggering. In 1991, 13 percent of Americans qualified as obese. By 1999 — the eight years later — that number had risen to 18.9 percent, an increase of more than 50 percent. Here in Georgia the increase has been even more dramatic, more than doubling since 1991. Ten years ago 9.2 percent of Georgians were obese, but eight years later the number had risen to 20.7 percent.

If you add those considered overweight, almost 60 percent of the U.S. population has a weight problem.

Because of its rapid spread and the growing number of people afflicted, it's legitimate to call obesity an epidemic, says Dr. William Dietz, director of the division of nutrition and physical activity at the U.S. Centers for Disease Control and Prevention.

And it's expensive — in lives and dollars. Each year more than 300,000 people die from

causes associated with obesity, such as diabetes. By comparison, an estimated 40,000 Americans are infected with HIV each year. According to a study published last week by the Rand Institute, obesity is a more serious health problem than smoking, heavy drinking or poverty.

Although nobody knows for sure what's causing the outbreak of obesity, there's no shortage of theories, from the way we build our communities to viruses or genetics.

Even ago, our ancestors scratched out a living as hunter-gatherers, evolutionary biologists point out. Calories were hard to come by, so humans developed a craving for animal fat and sweet, ripe fruit, which are rich in scarce vitamins, minerals and calories.

"The result is that we tend to overeat sweet foods, as well as other high-calorie (especially high-fat) foods, because now they are easy and cheap," writes A.W. Logue, a psychology professor at Baruch College in New York City.

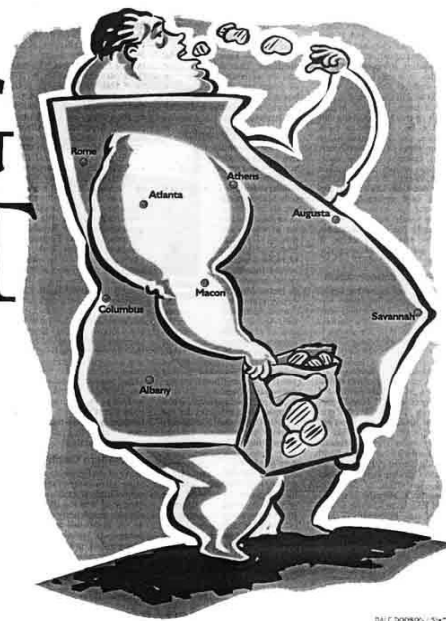
In other words, we've changed the human environment so dramatically that our natural instincts have become dangerous to our health.

And it's not just eating. Every living entity, from an amoeba to a whale, is programmed to conserve its energy. On its human beings created the two objects, which lets us ride instead of walk. Our human design have reinforced the natural tendency to "veg out" by inventing television and the Internet, technologies that turn us into couch potatoes.

Larry Frank, an assistant professor of city and regional planning at Georgia Tech, believes that there's a link between the outbreak of obesity and the way we design our communities and transportation systems.

"We're researching the effects of urban design, the way the physical environment impacts our behavior," Frank says. "We want

▶ PLEASE SEE O-44, p. 3



DAVE DOORNOY/ASA

What Is The Health Status of Georgia's Children?

OUR BIG FAT PROBLEM

What could be causing it?

NEXT

JAY BOOKMAN
jbookman@ajc.com

A quiet — if quite visible — epidemic is afflicting millions of Americans each year, contributing to hundreds of thousands of premature deaths. And prospects of a cure seem dim.

The numbers are staggering. In 1991, 13 percent of Americans qualified as obese. By 1999 — the eight years later — that number had risen to 18.9 percent, an increase of more than 50 percent. Here in Georgia the increase has been even more dramatic, more than doubling since 1991. Ten years ago 9.2 percent of Georgians were obese, but eight years later the number had risen to 20.7 percent.

If you add those considered overweight, almost 60 percent of the U.S. population has a weight problem.

Because of its rapid spread and the growing number of people afflicted, it's legitimate to call obesity an epidemic, says Dr. William Dietz, director of the division of nutrition and physical activity at the U.S. Centers for Disease Control and Prevention.

And it's expensive — in lives and dollars. Each year more than 300,000 people die from



DAVE DOORNOY/ASA

causes associated with obesity, such as diabetes. By comparison, an estimated 40,000 Americans are infected with HIV each year. According to a study published last week by the Rand Institute, obesity is a more serious health problem than smoking, heavy drinking or poverty.

Although nobody knows for sure what's causing the outbreak of obesity, there's no shortage of theories, from the way we build our communities to viruses or genetics.

Even ago, our ancestors scratched out a living as hunter-gatherers, evolutionary biologists point out. Calories were hard to come by, so humans developed a craving for animal fat and sweet, ripe fruit, which are rich in scarce vitamins, minerals and calories.

"The result is that we tend to overeat sweet foods, as well as other high-calorie (especially high-fat) foods, because now they are easy and cheap," writes A.W. Logue, a psychology professor at Baruch College in New York City.

In other words, we've changed the human environment so dramatically that our natural instincts have become dangerous to our health.

And it's not just eating. Every living entity, from an ant to a whale, is programmed to conserve its energy. On its human beings created the two objects which lets us ride instead of walk. Our human design have reinforced the natural tendency to "veg out" by inventing television and the Internet, technologies that turn us into couch potatoes.

Larry Frank, an assistant professor of city and regional planning at Georgia Tech, believes that there's a link between the outbreak of obesity and the way we design our communities and transportation systems.

"We're researching the effects of urban design, the way the physical environment impacts our behavior," Frank says. "We want

▶ PLEASE SEE O-64, P. 3

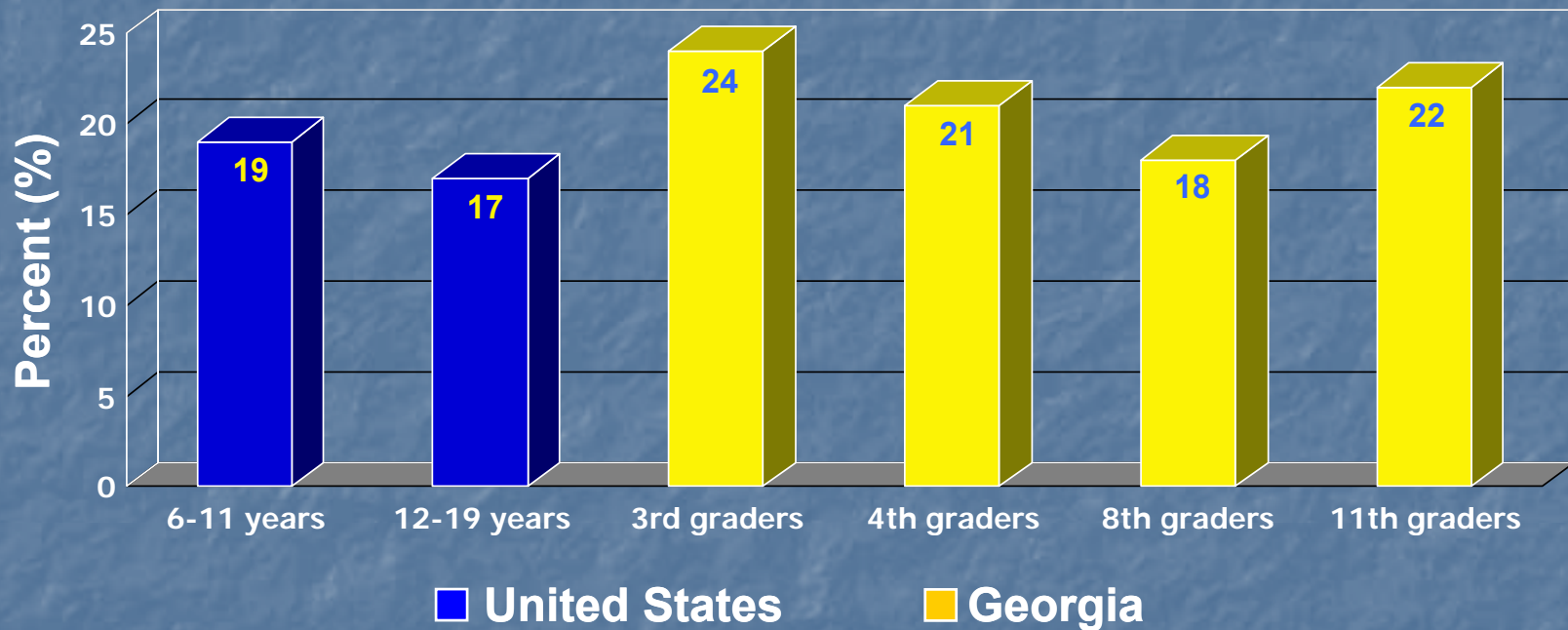
Recent Surveys of Children's Health in Georgia

- Georgia Student Health Survey; based on the Youth Risk Behavior Survey, 2003, 2005*
- Georgia Childhood Overweight Prevalence Survey, 2002-03
- Georgia Oral Health Screening Survey, 2005
- Georgia Youth Fitness Assessment, 2006**

* Supported by the Healthcare Georgia Foundation

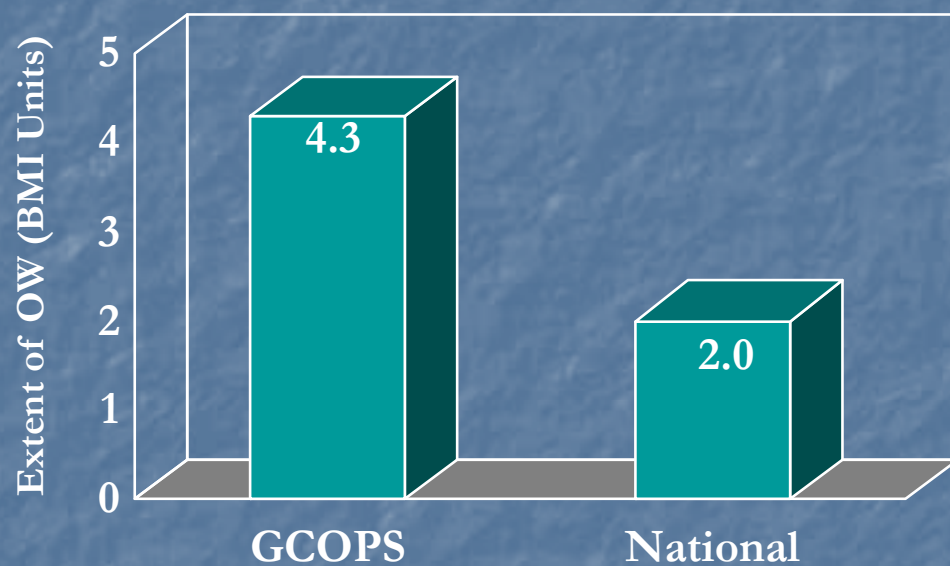
** Supported by the Philanthropic Collaborative for a Healthy Georgia

Childhood and Adolescent Obesity Prevalence in the US and Georgia*



*Obesity is defined as BMI-for-age percentile ≥ 95 th; 2003-2004 NHANES; 2005 Georgia Oral Health Screening (3rd grade) and 2002-2003 GCOPS

Overweight Severity



*Lewis RD, J. School Health 2006
Jolliffe, D. Int. J. Obes. Rel. Dis. 2004*

Adults 41 to 54 Years of Age: 2006

- 36% had cardiovascular diseases
- 34% had high blood pressure
- Approximately 10% had diabetes
- Approximately 22% had high blood cholesterol

Adults 41 to 54 Years of Age: 2006

- 36% had cardiovascular diseases
- 34% had high blood pressure
- Approximately 10% had diabetes
- Approximately 22% had high blood cholesterol
- **When these adults were 6 to 19 years of age (1971), overweight prevalence was 4 to 5%, nationally**

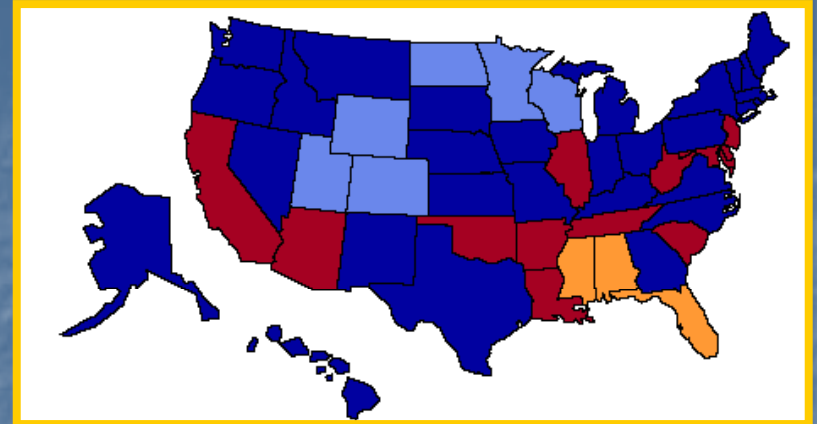
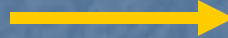
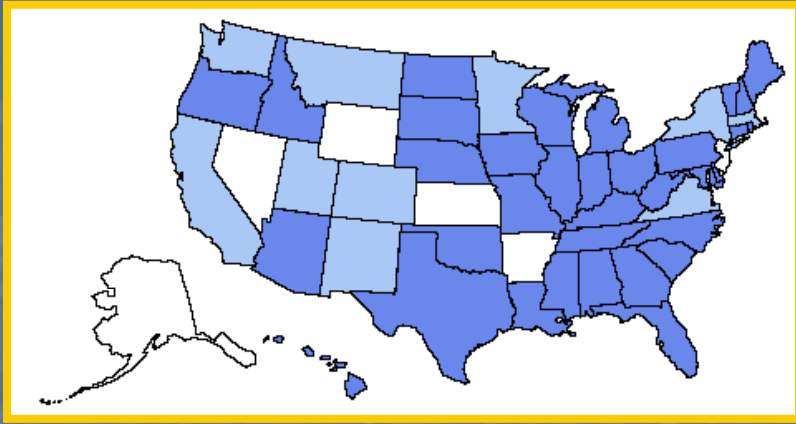


Norman Koren

Obesity Trends

1990

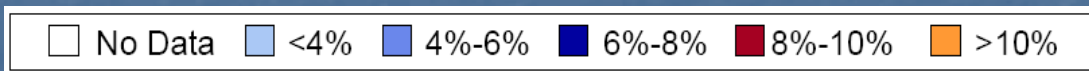
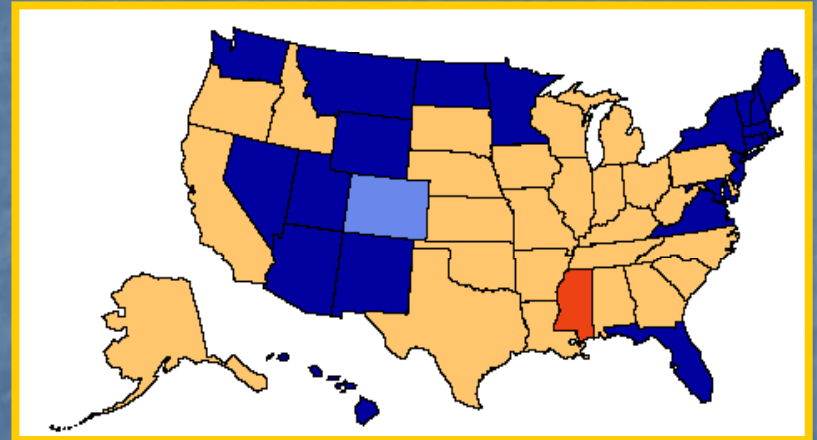
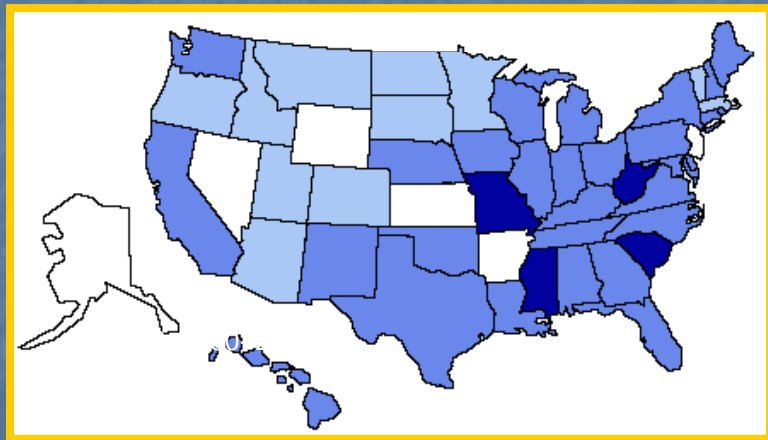
2001



Diabetes Trends

1990

2001

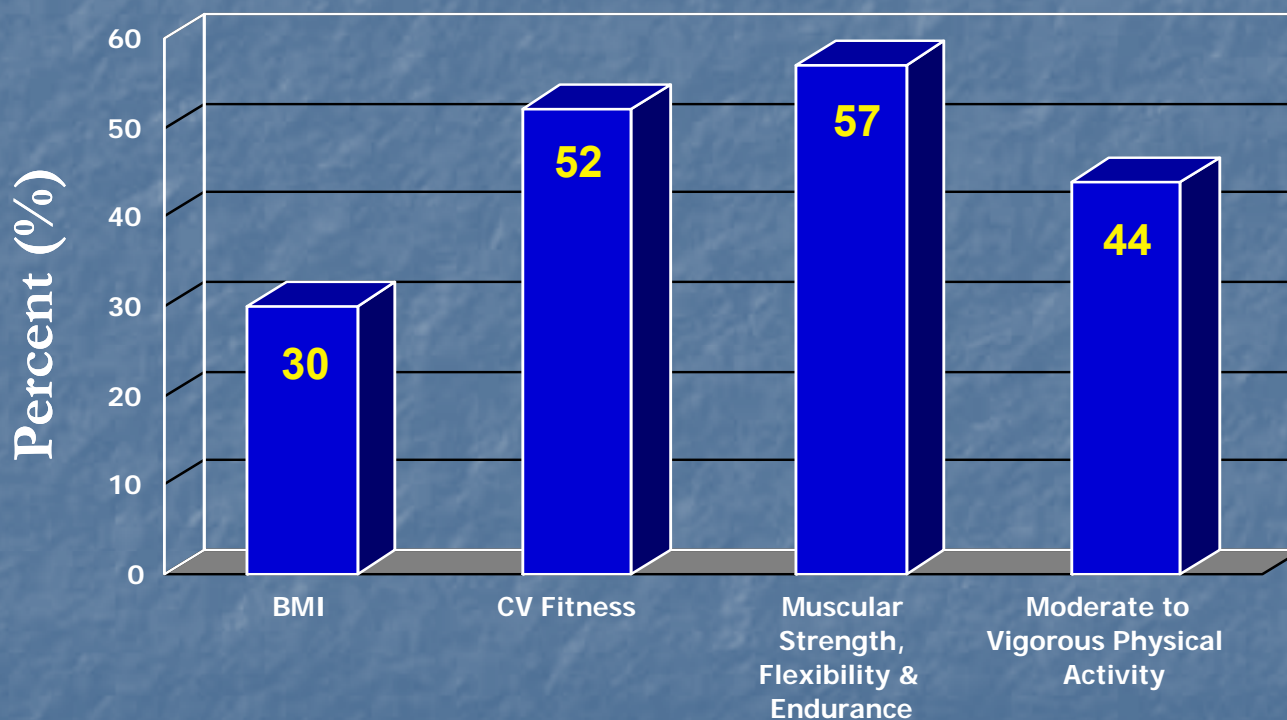


Medical Costs to Georgia

- Cost of obesity in GA- \$2.1 billion annually and for diabetes, over \$4 billion
- Medical costs for an obese child is approximately 3 times higher than the average insured child
- Medical costs is \approx \$10,000 per year for a diabetic person, vs. \$2,700 for a person without diabetes

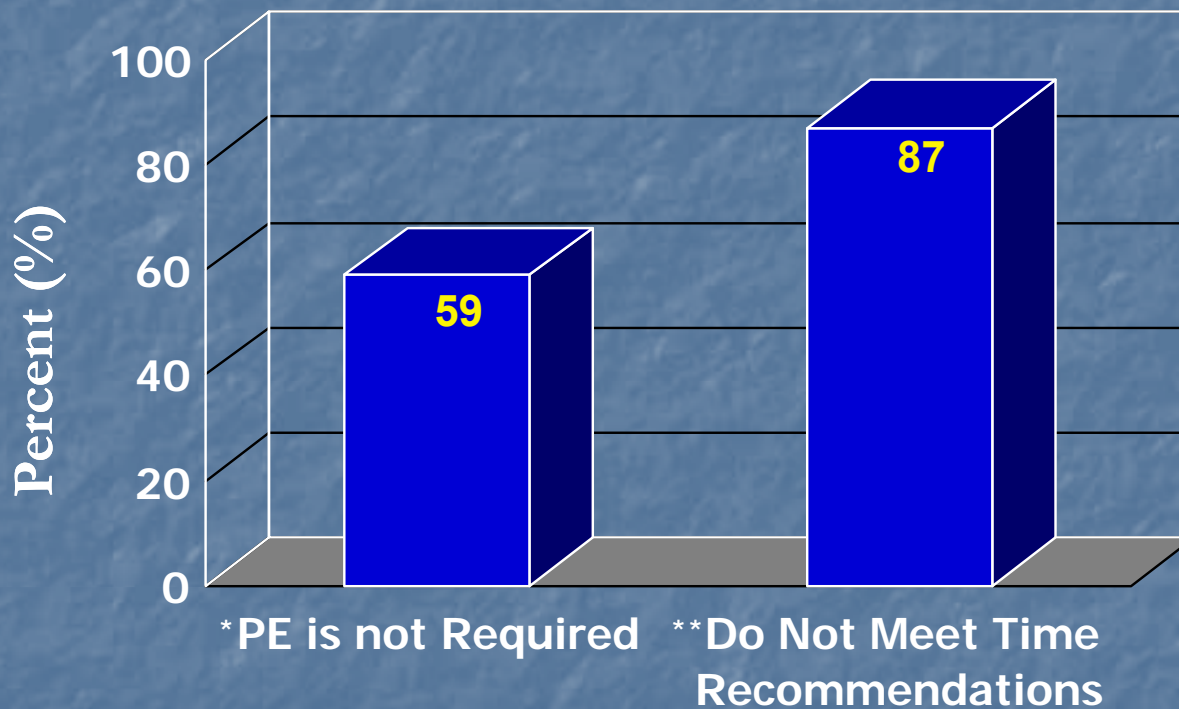
GA Youth Fitness Assessment

Percentage of Students Not Attaining *Healthy Fitness Zone*



N = 4,876 - 5,045 5th and 7th grade students; 93 schools

GA Youth Fitness Assessment: Physical Education Classes



*Elementary schools only

**National recommendations for PE classes are 150 min/wk for 5th graders and 225 min for 7th graders

Summary

- Georgia's children are fatter and less fit than children nationally
- The high degree of overweight severity will lead to health problems and high medical costs
- There are limited efforts to evaluate and monitor the health status of Georgia's children
- Continuous monitoring (surveillance) is needed to ascertain the efficacy of public health interventions

Conclusions

- Effective policies and interventions aimed at preventing the obesity epidemic are needed
- State governments need to commit sufficient resources and adopt policies that foster healthy lifestyles throughout communities and schools (IOM: progress in Preventing Childhood Obesity, 2007)
- Public-private partnerships are essential