



City of Austin: Helping our Children Lead Healthier, Happier Lives

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A member of the  **Seton** Family of Hospitals

Obesity (a disclaimer)

- Medical diagnosis
- Scientific term
- Use with sensitivity
- Not meant to assign blame



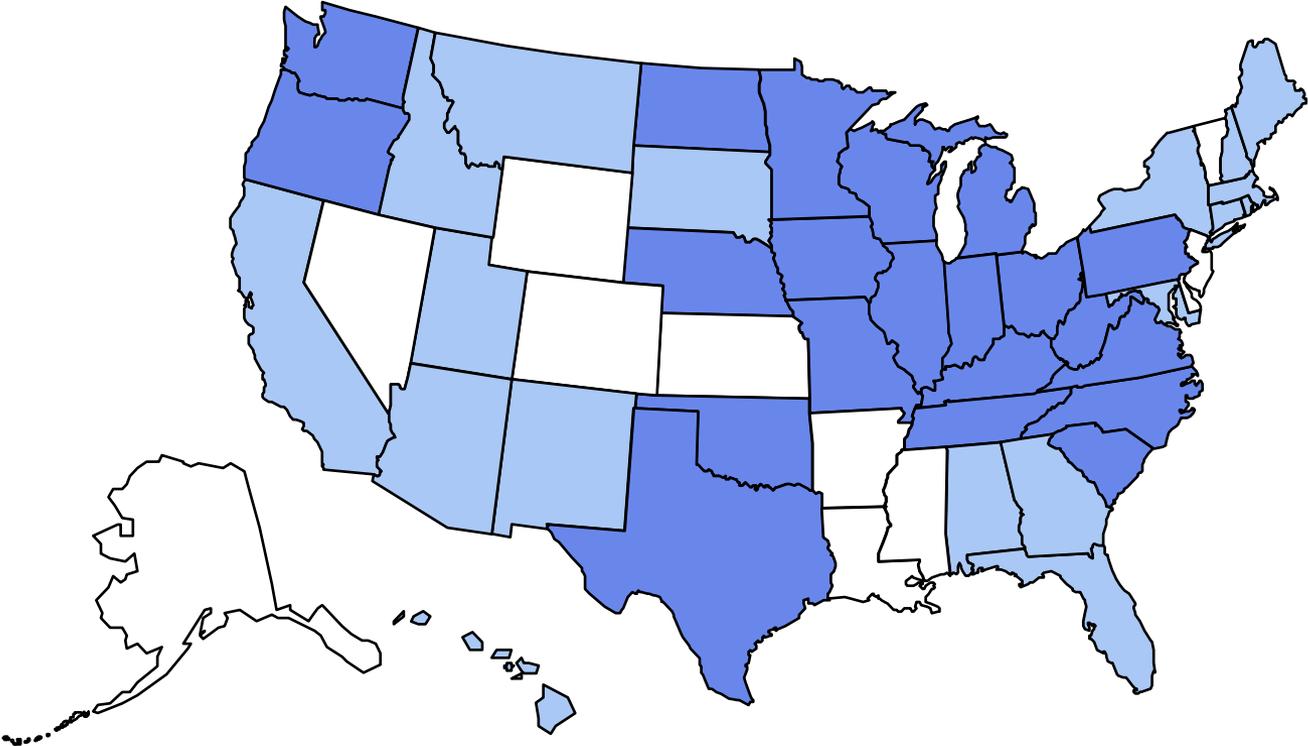
Obesity:

Is there a problem ?



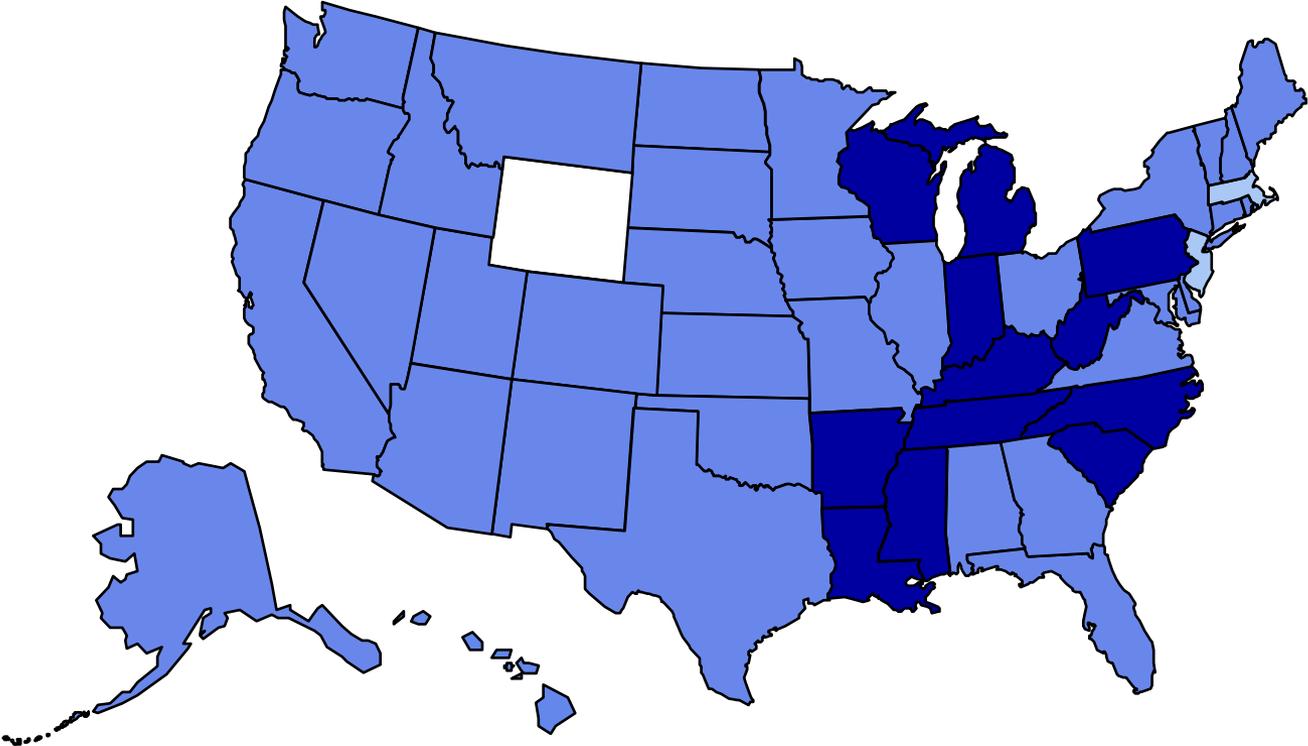
Adult Obesity Rates

BRFSS, 1989

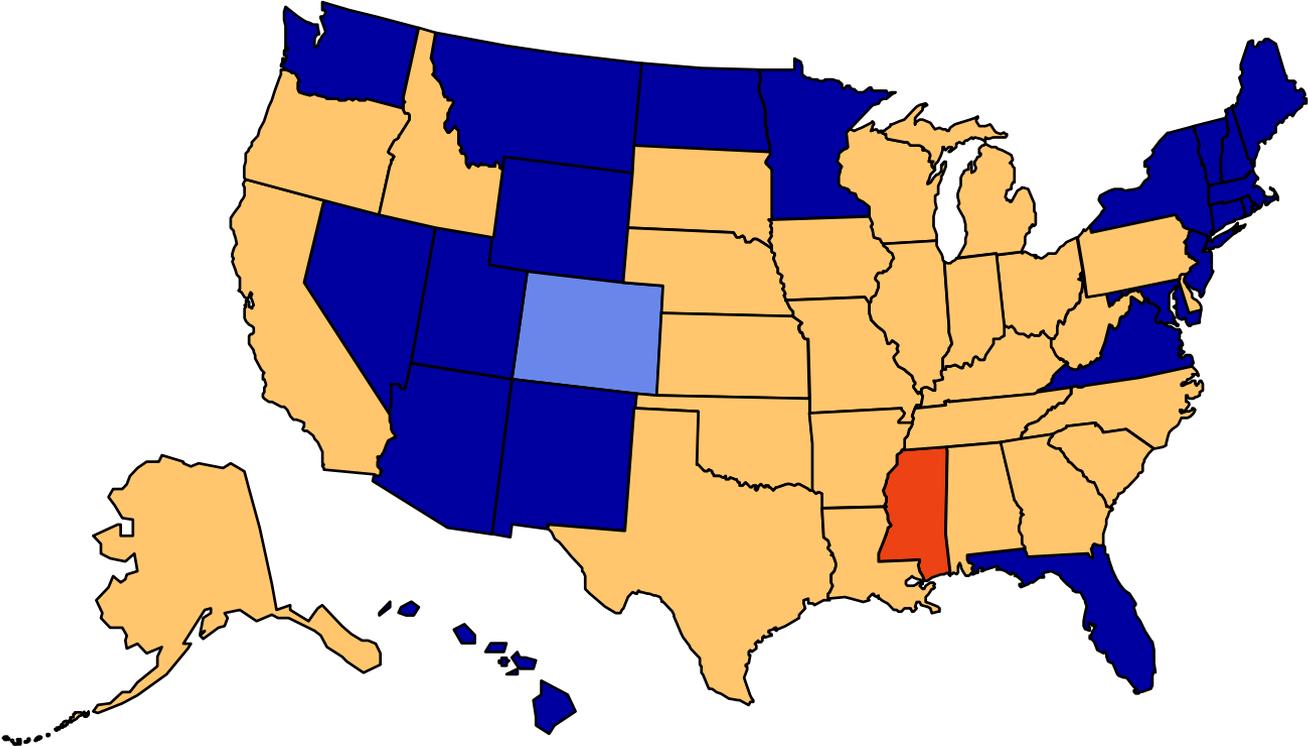


Adult Obesity Rates

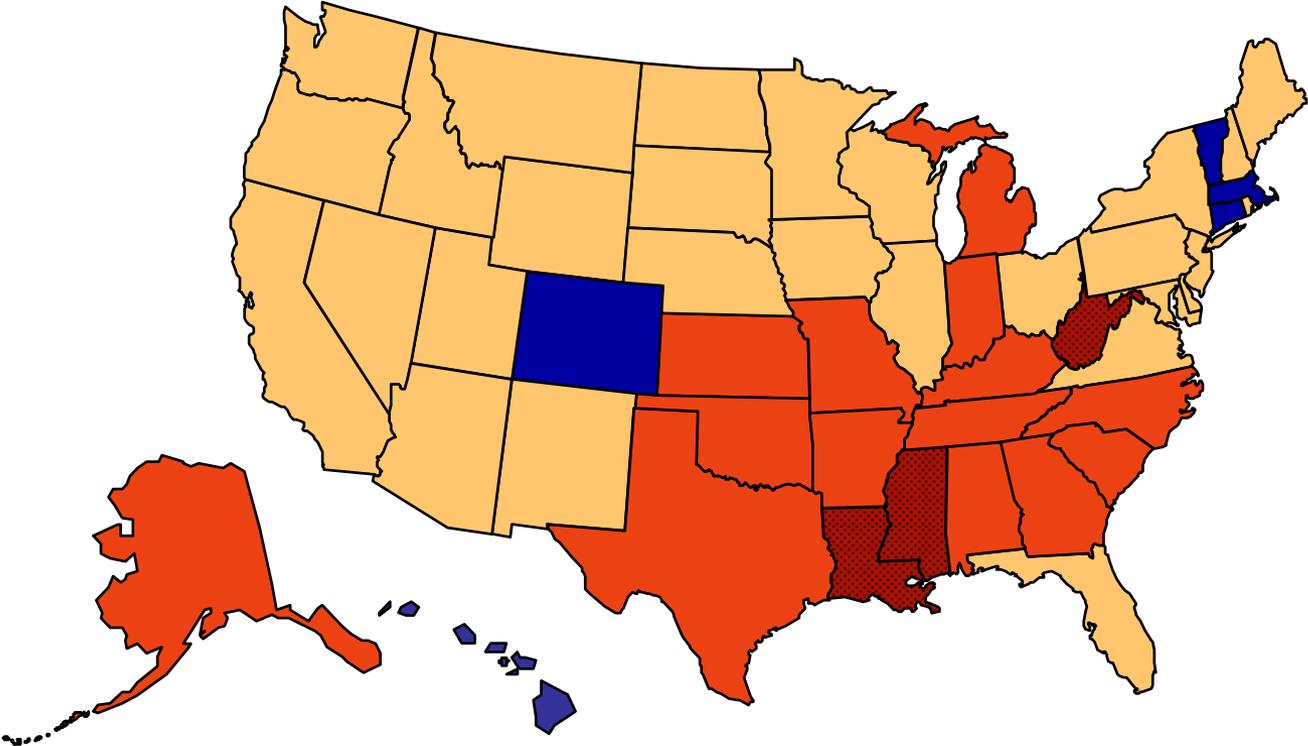
BRFSS, 1993



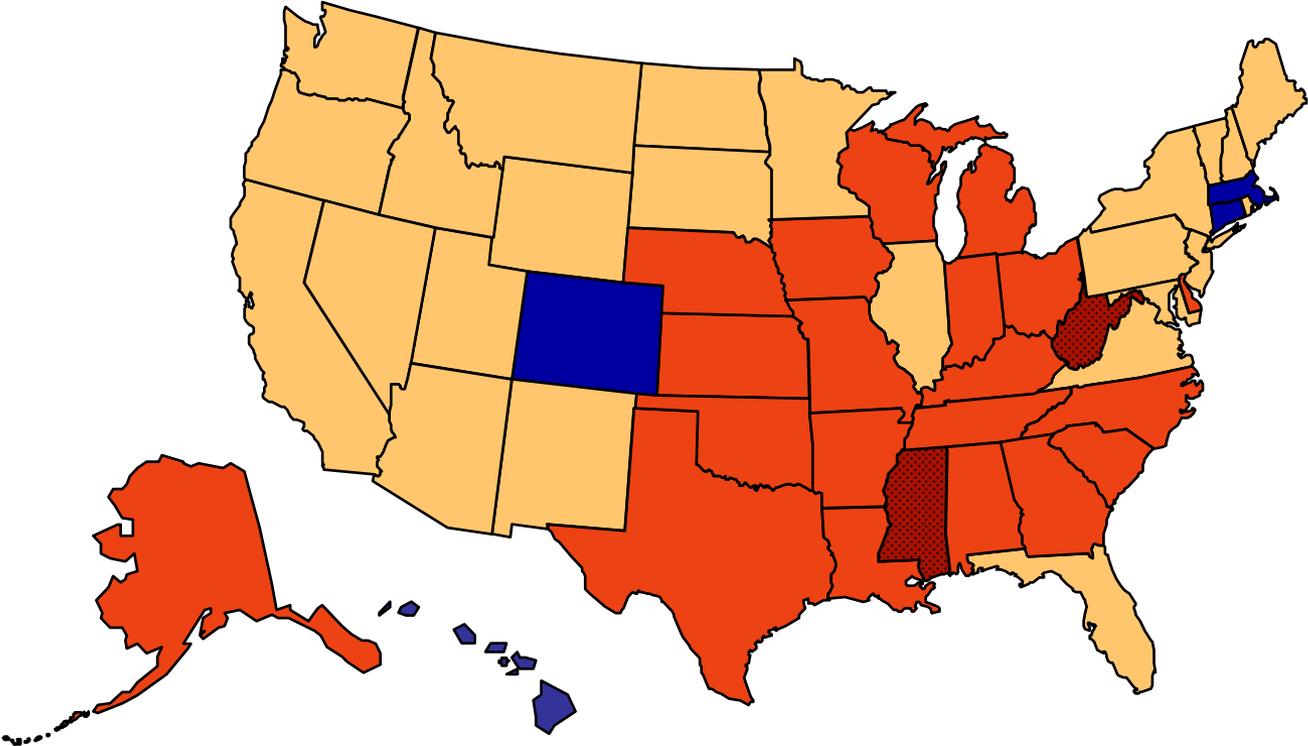
Adult Obesity Rates BRFSS, 2001



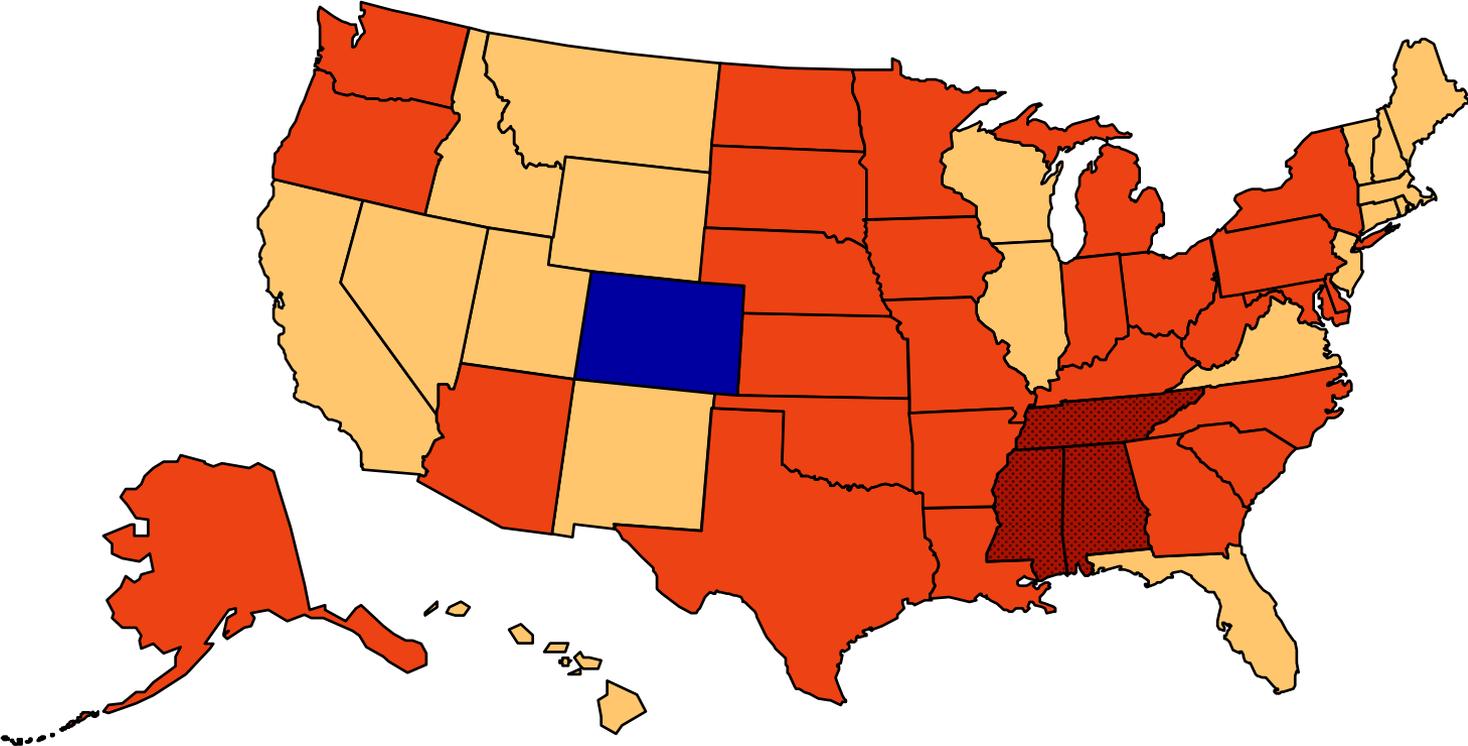
Adult Obesity Rates BRFSS, 2005



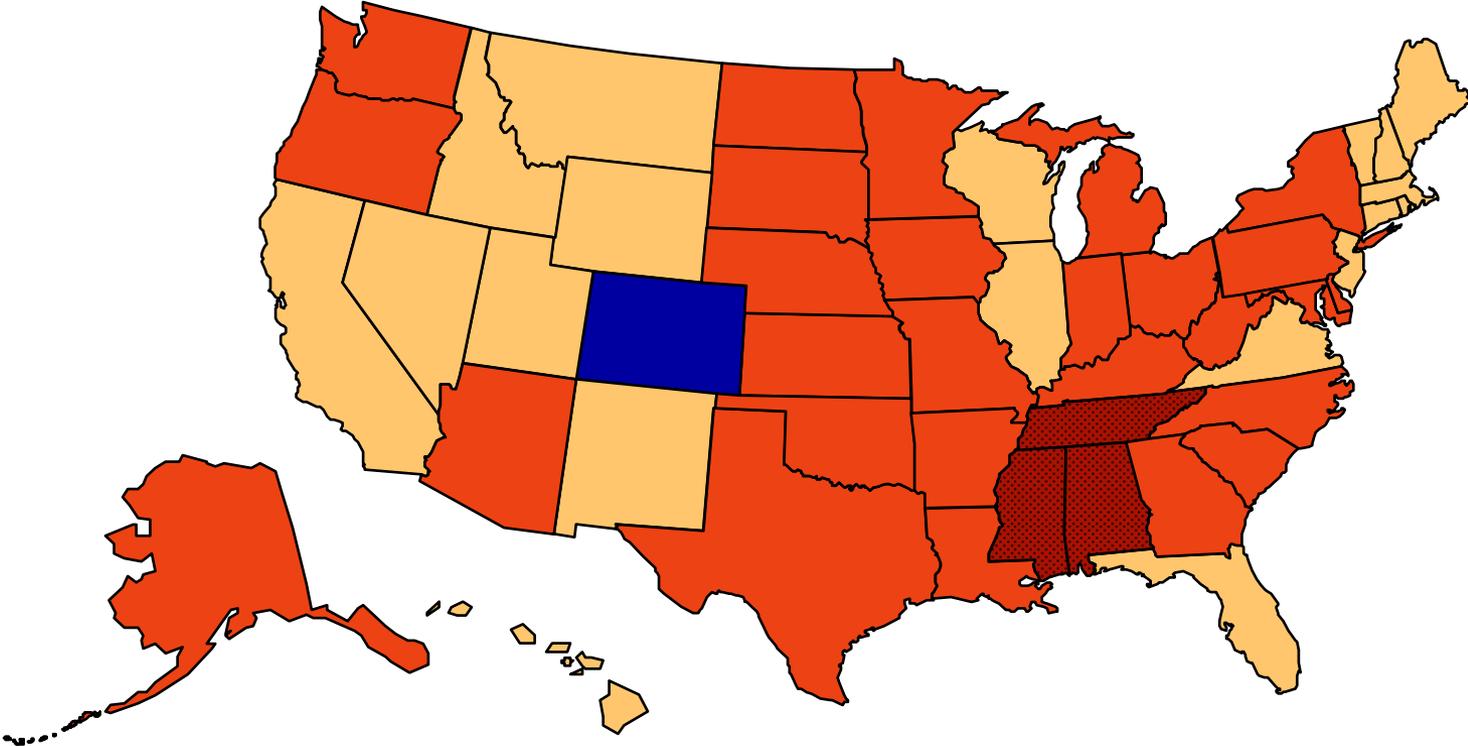
Adult Obesity Rates BRFSS, 2006



Adult Obesity Rates BRFSS, 2007

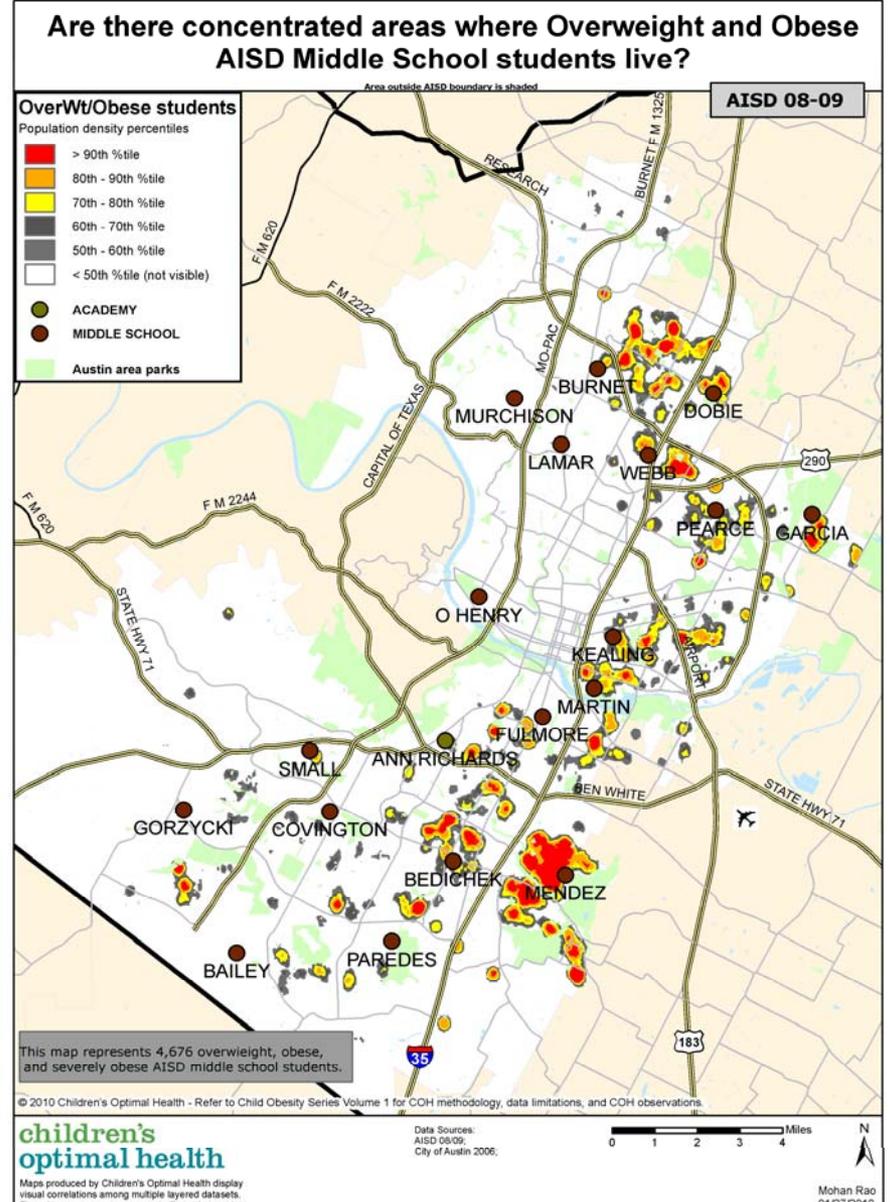
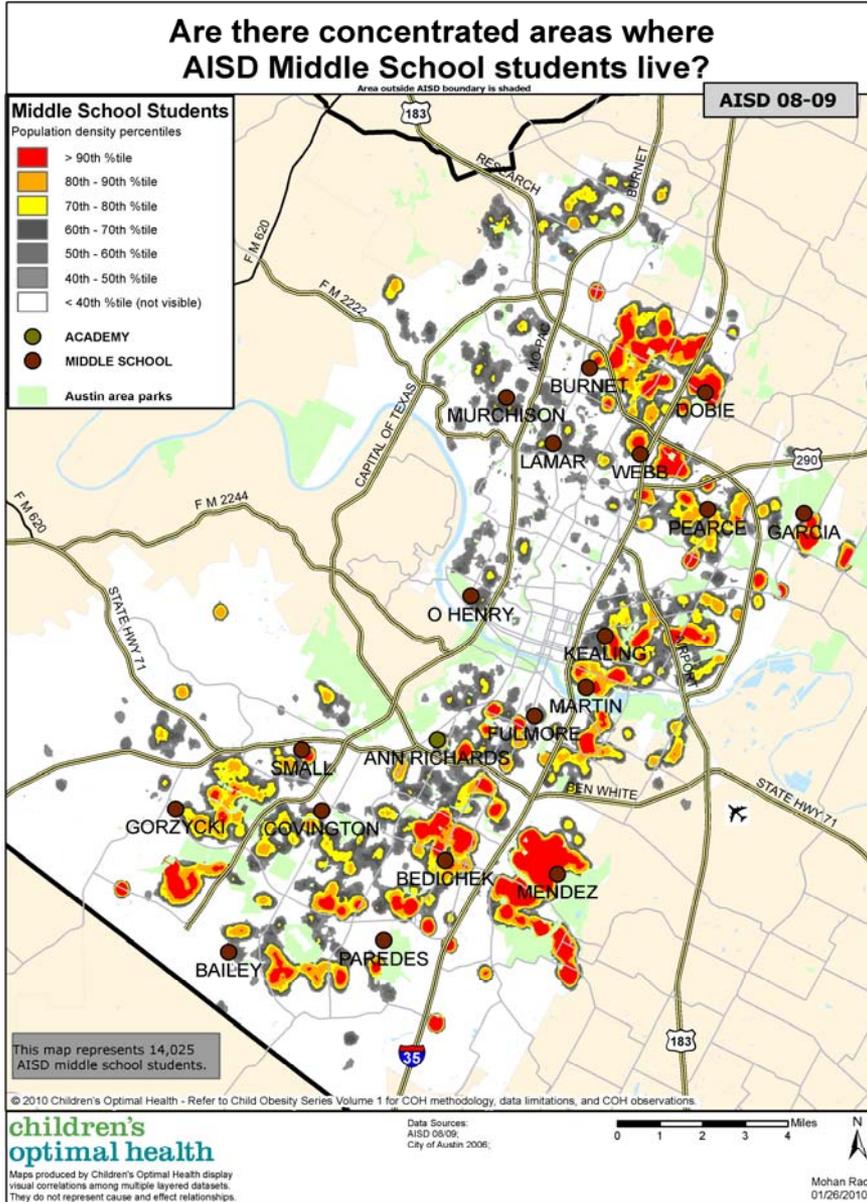


Adult Obesity Rates BRFSS, 2007



AISD Middle School Enrollment

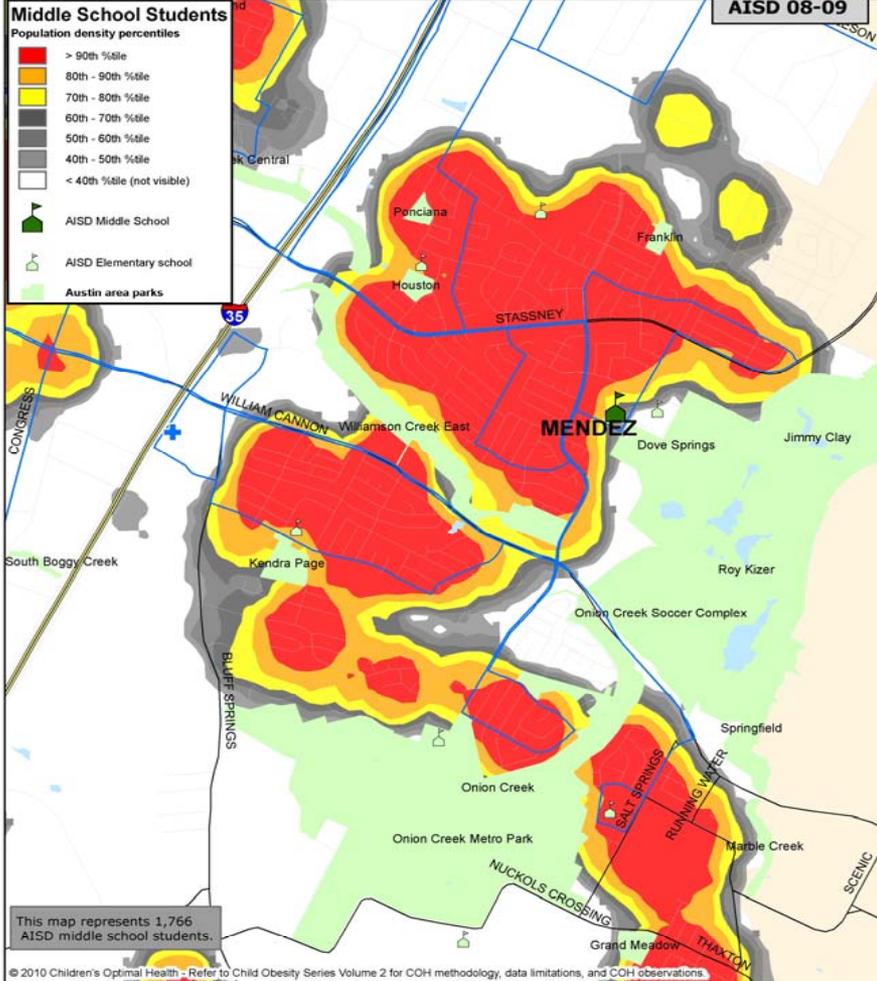
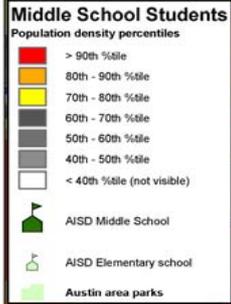
School Year 2008 - 2009



**Are there concentrated areas where
AISD Middle School students live?
Dove Springs**

Area outside AISD boundary is shaded

AISD 08-09



This map represents 1,766 AISD middle school students.

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children's optimal health

Maps produced by Children's Optimal Health display visual correlations among multiple layered datasets. They do not represent cause and effect relationships.

Data Sources:
AISD 08/09;
Travis County Healthcare District 2009;
CapMetro 2009;
City of Austin 2009;



N

Mohan Rao
03/19/2010

Student Density ("concentrated areas") Map Key

Bus route (Jan 2009)

Park

Hospital

Medical facility

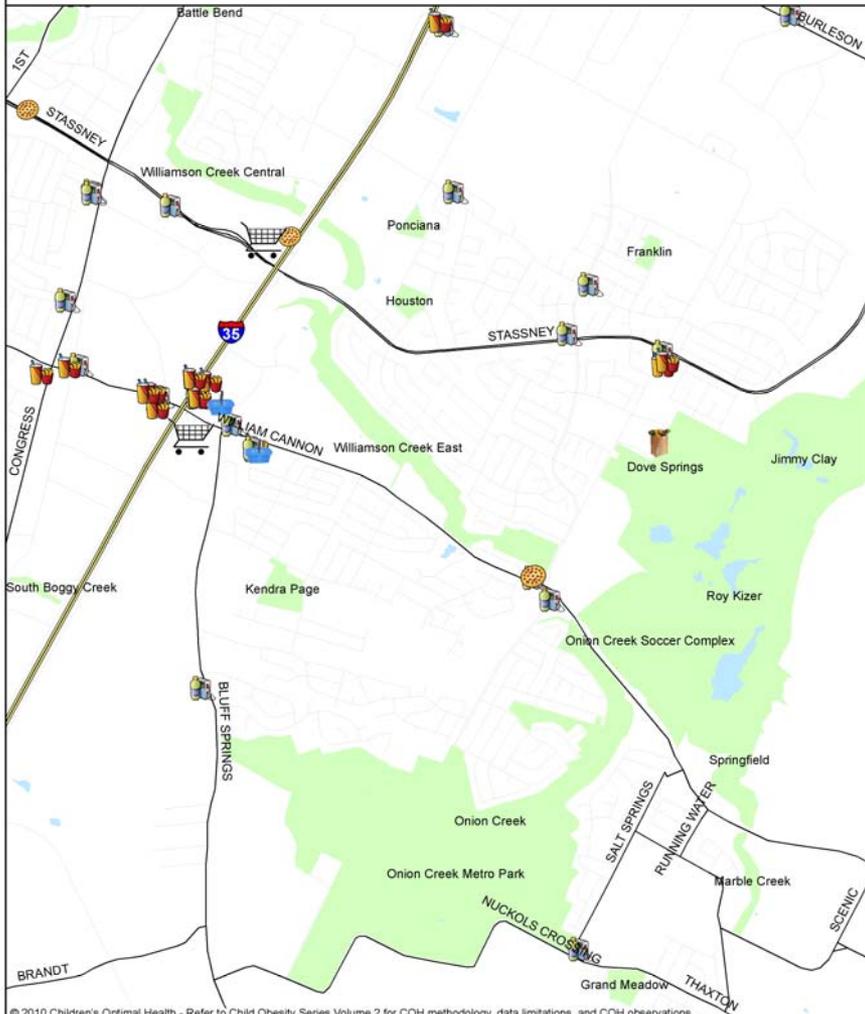
Pharmacy

AISD High School

AISD Middle School

AISD Elementary school

Food environment Dove Springs



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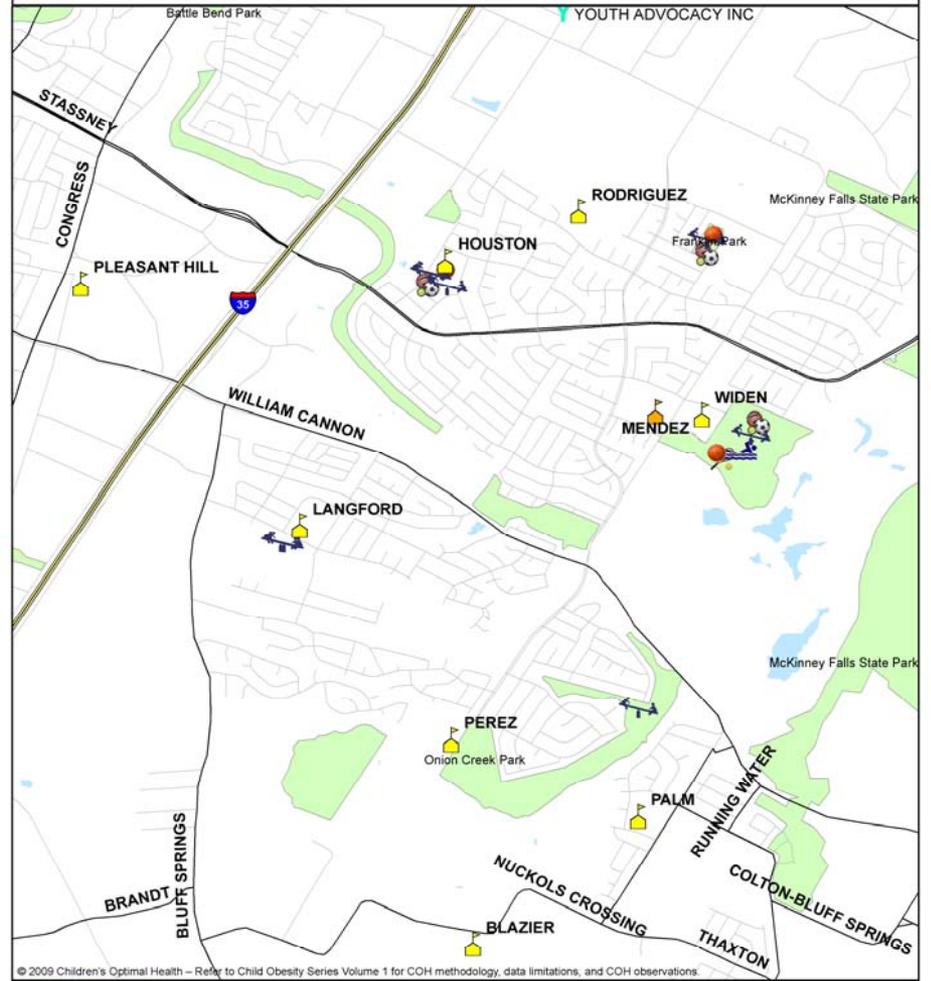
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Data Sources:
Capital Area Food Bank 2009;
InfoUSA 2009;
City of Austin 2009;

0 0.25 0.5 0.75 1 Miles

Mohan Rao
03/22/2010

Physical activity Dove Springs



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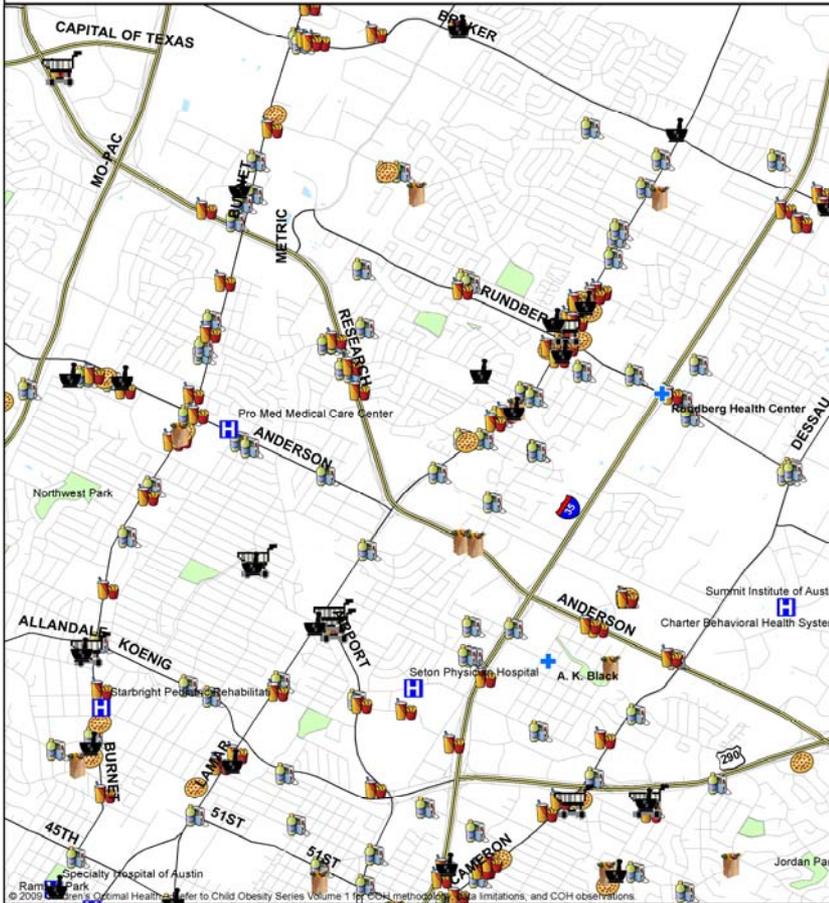
ACCESS
Austin Community Collaboration
to Enhance Student Success

Data Sources:
AISD 2007 - 2008;
InfoUSA 2009;
City of Austin 2006;

0 0.25 0.5 0.75 1 Miles

Mohan Rao
11/09/2009

Health and food landscape Quail Creek and St. Johns



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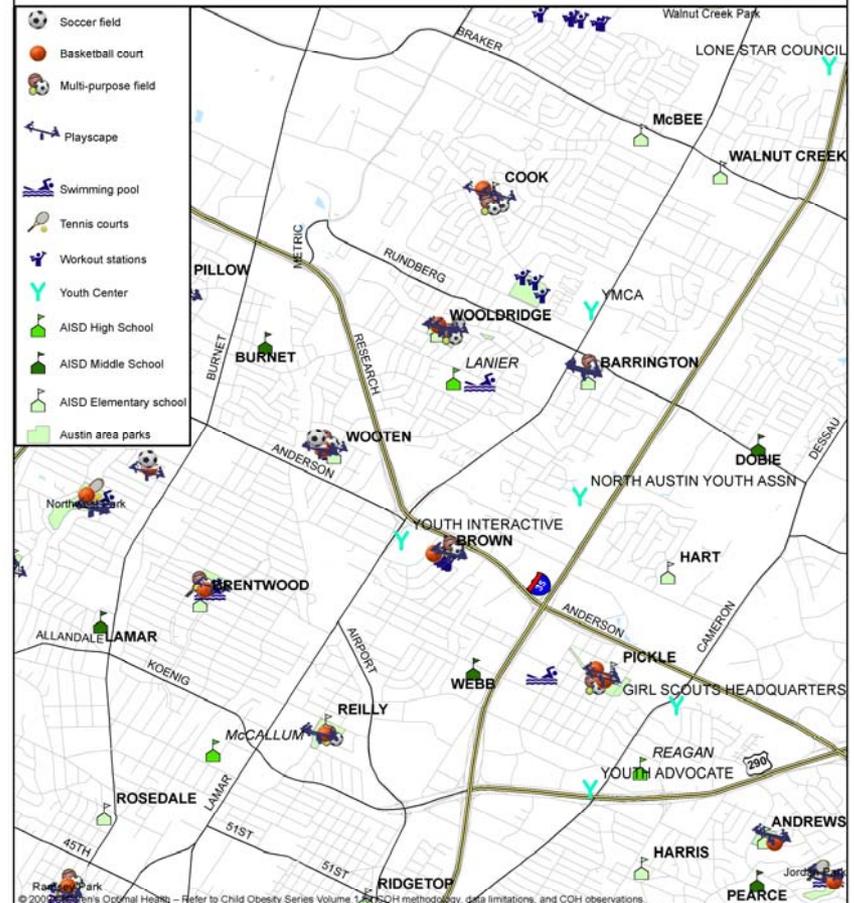
children's optimal health ACCESS
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Mohan Rao
10/19/2009

Physical activity Quail Creek and St. Johns



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Mohan Rao
10/19/2009

Three boys with BMI values from normal weight to obese



PEDIATRICS Volume 124, Supplement 1, Sept. 2009

Three boys with BMI values from normal weight to obese



55thile

75thile

PEDIATRICS Volume 124, Supplement 1, Sept. 2009

Three boys with BMI values from normal weight to obese



55th%ile

75th%ile

95th%ile

PEDIATRICS Volume 124, Supplement 1, Sept. 2009

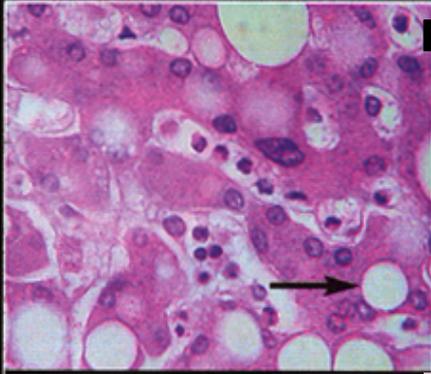
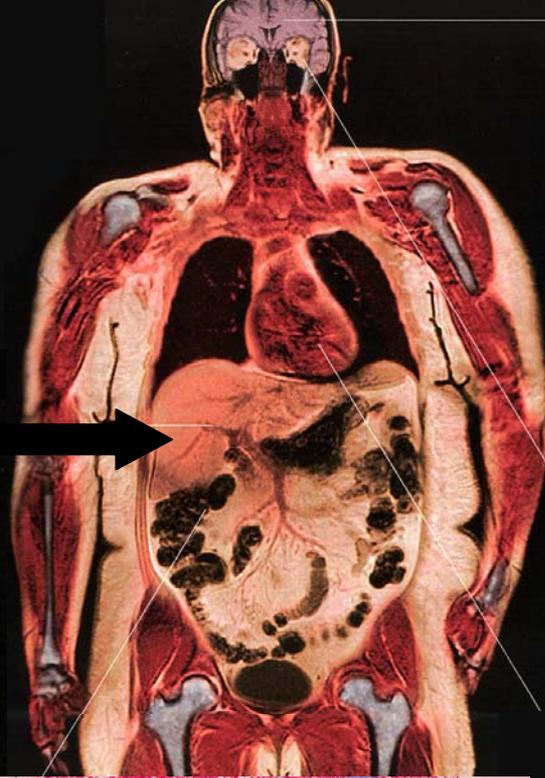
Charlie

- 19 years old
- Straight A college student
- Bright future
- Walks into emergency department with trouble breathing
- Morbidly obese
- **Dead a week later**

Sleep apnea:
Neurocognitive
Cardiovascular



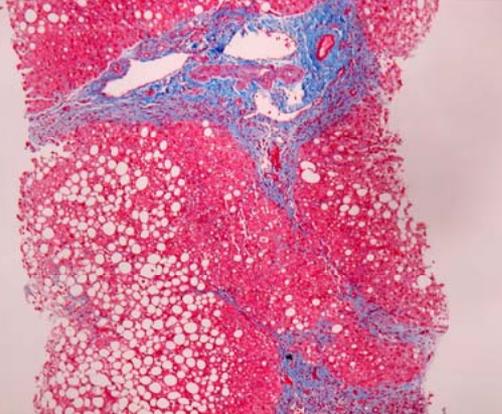
Age: 40
Weight: 250 lbs
Height: 5' 6"
Body Mass Index: 40.3



MICROGRAPH: FAT GLOBULES IN LIVER TISSUE

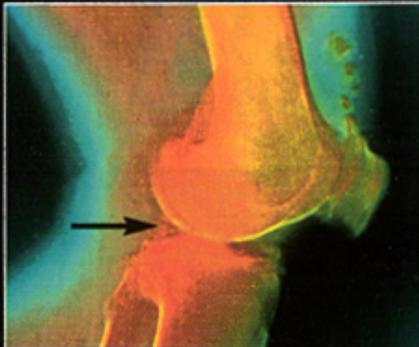
LIVER DISEASE

Many obese people develop deposits of fat inside the liver, a condition that can progress to cirrhosis in about 10 percent of cases, and occasionally to liver failure.



Age: 40
Weight: 250 lbs
Height: 5' 6"
Body Mass Index: 40.3





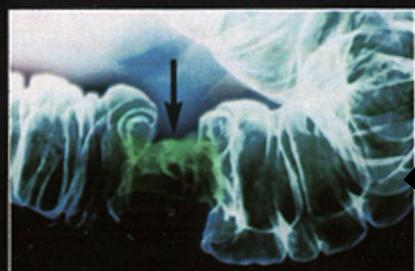
X-RAY: ARTHRITIC KNEE JOINT

OSTEOARTHRITIS

Being overweight places additional strain on the spine, hip, and knee joints, causing a loss of cartilage. As the cartilage deteriorates, joint space narrows and bones grind together.

Age: 40
Weight: 250 lbs
Height: 5' 6"
Body Mass Index: 40.3



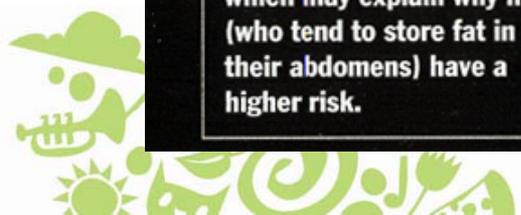


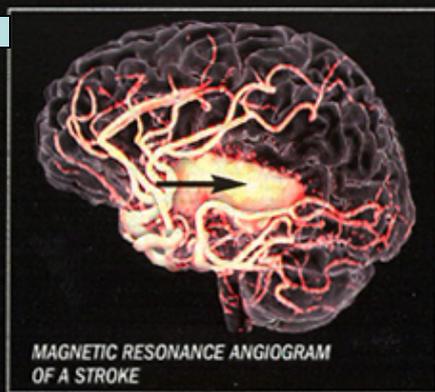
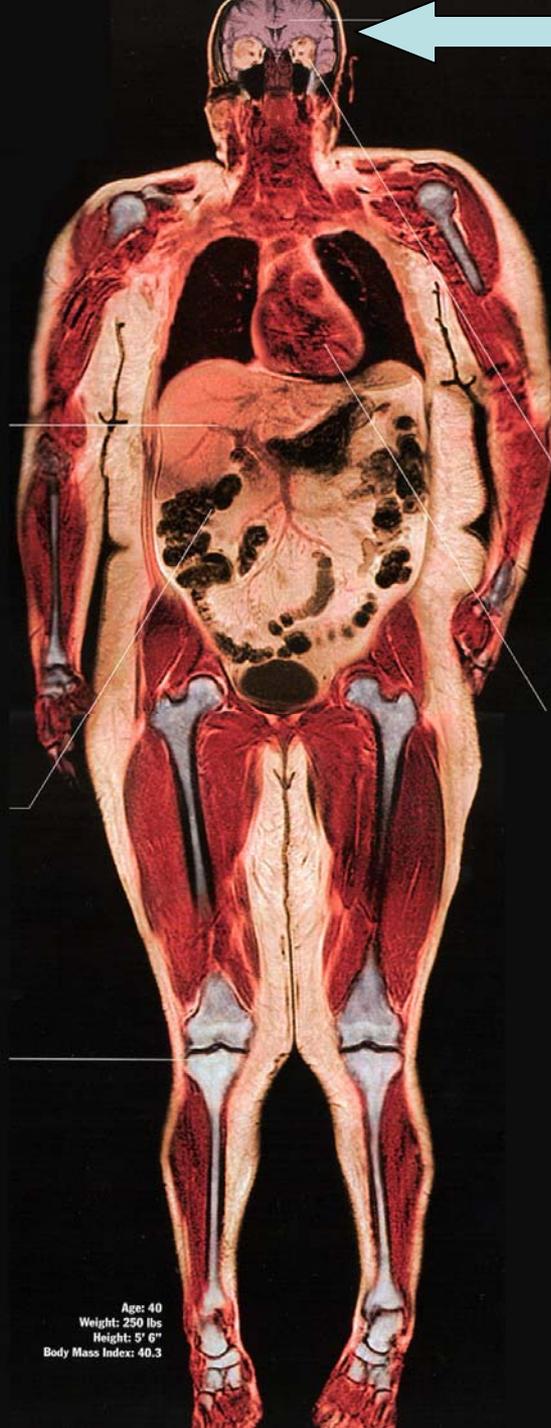
X-RAY: COLON CONSTRICTED FROM CANCER

COLON CANCER

Obese people are at greater risk of colon cancer. Abdominal fat appears to increase risk more than fat elsewhere, which may explain why men (who tend to store fat in their abdomens) have a higher risk.

Age: 40
Weight: 250 lbs
Height: 5' 6"
Body Mass Index: 40.3





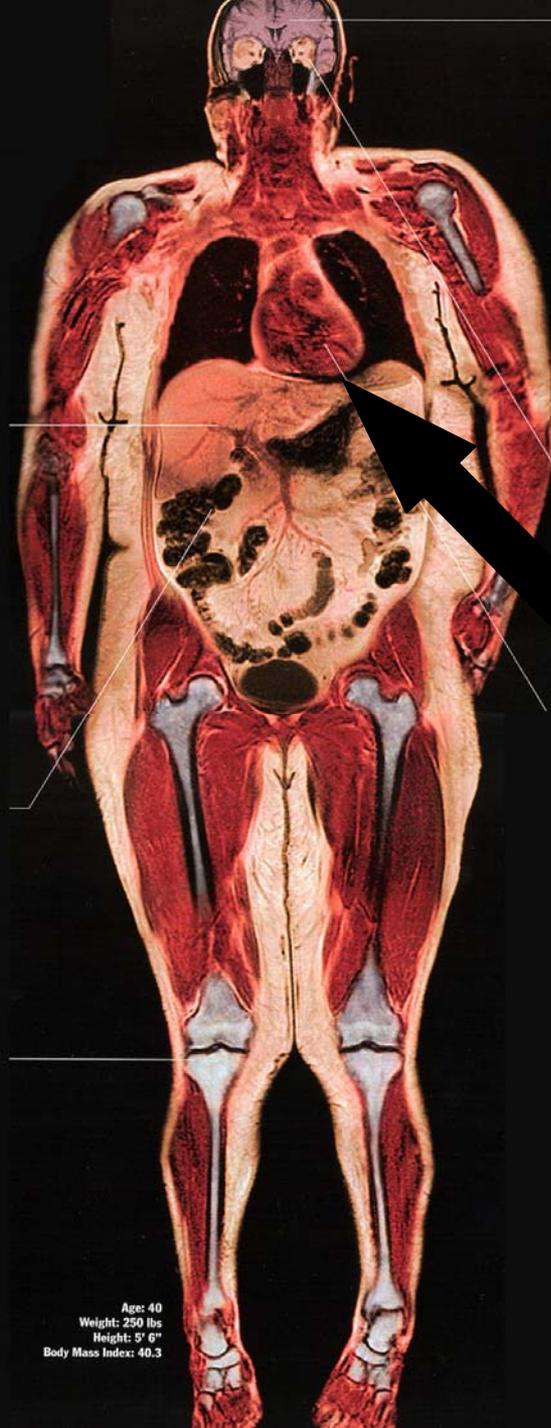
MAGNETIC RESONANCE ANGIOGRAM OF A STROKE

13x ↑ lifetime risk of stroke if obese as teen

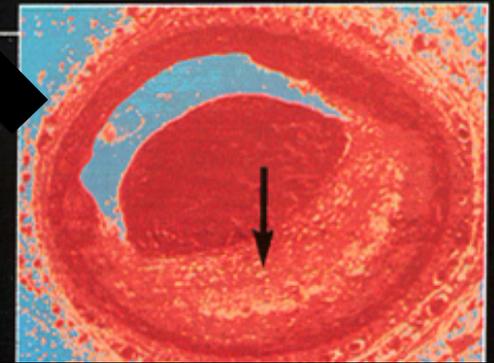
when a blood vessel ruptures or a blood clot blocks an artery to the brain, causing damage to nerve cells.

Age: 40
Weight: 250 lbs
Height: 5' 6"
Body Mass Index: 40.3



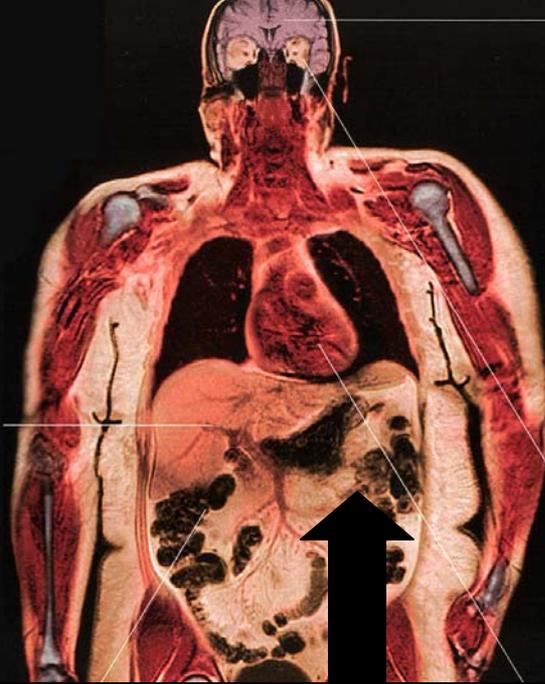


Age: 40
Weight: 250 lbs
Height: 5' 6"
Body Mass Index: 40.3



Heart disease
If obese as a teen
2x ↑ death risk by
Age 30





Type 2 Diabetes

- 10x increase incidence in Cincinnati, from 0.7/100,000 per year (1982) to 7.2/100,000 per year (1994)
- 33-39% of healthy 2 1/2- to 3-year-olds are likely to develop diabetes
- African-Americans: 45%
- Latinos: 50%





Health-related quality of life of severely obese children and adolescents

Schwimmer JB, Burwinkle TM, Varni JW.
JAMA. 2003

Obese children and adolescents were **5.5x more likely** to have **impaired health-related QOL** than healthy kids and QOL for obese children and adolescents was **similar to** those diagnosed as **having CANCER.**

Age: 40
Weight: 250 lbs
Height: 5' 6"
Body Mass Index: 40.3



Costs of Obesity

- \$75 billion: Annual U.S. medical expenditures attributed to obesity in 2003
 - In Texas due to overweight and obesity 2001: \$10.5 billion
- Obese people spent 37% more on health care costs
- For Youth (6-17 years) between 1979 and 1999:
 - Hospital discharges for diabetes were nearly 2x
 - Sleep apnea increased 5x
- Projected costs for 2040 in Texas:
\$39 billion in Texas



**Sources: Surgeon General's Report on Obesity, 2001;
Finkelstein et al., 2004; Thorpe et al., 2004; Wang & Dietz, 1999-2002**

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Sources: Surgeon General's Report on Obesity, 2001;
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**Children born today have a
lower life expectancy than
their parents**



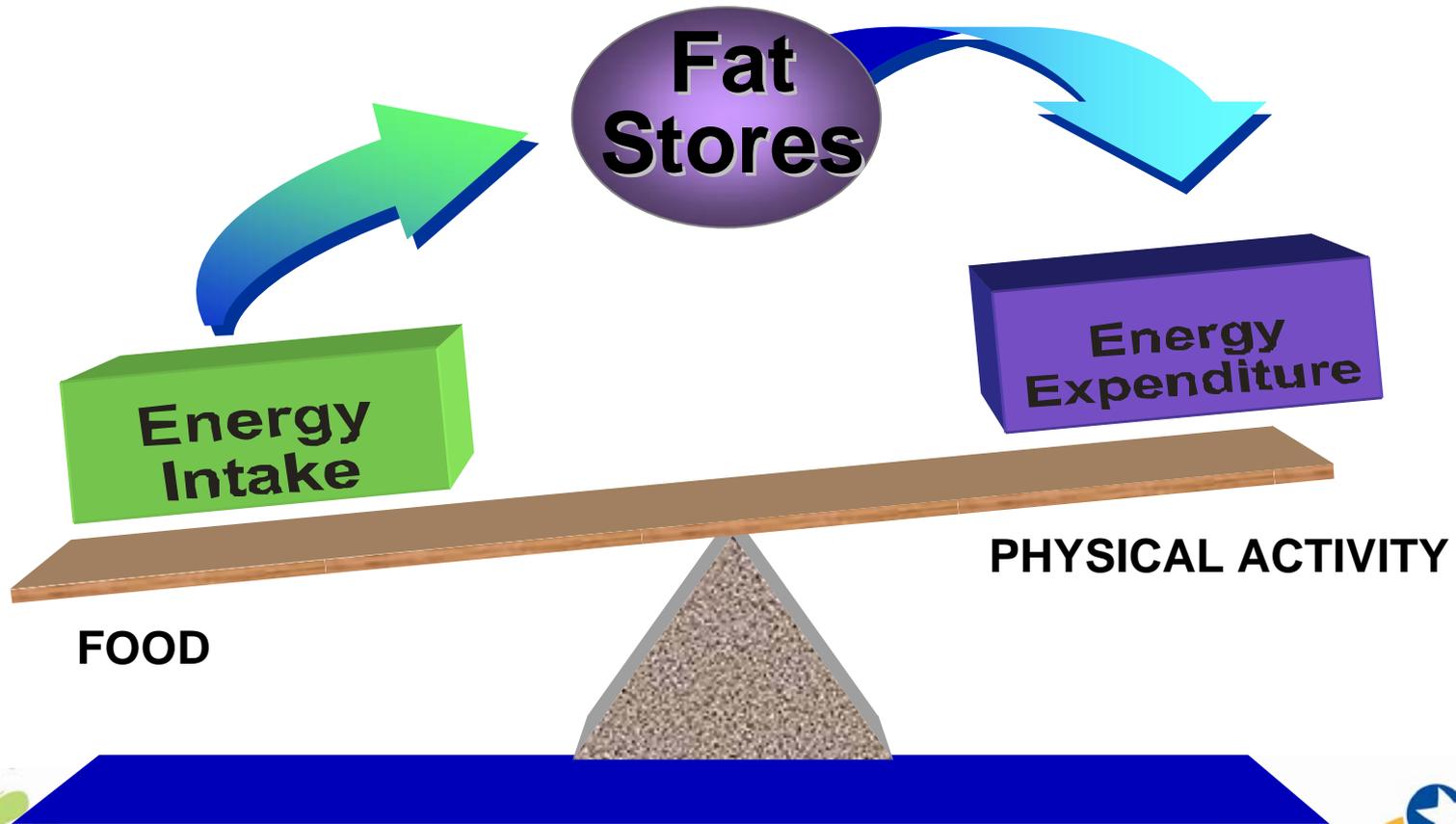


***Children born today have a
lower life expectancy than
their parents***

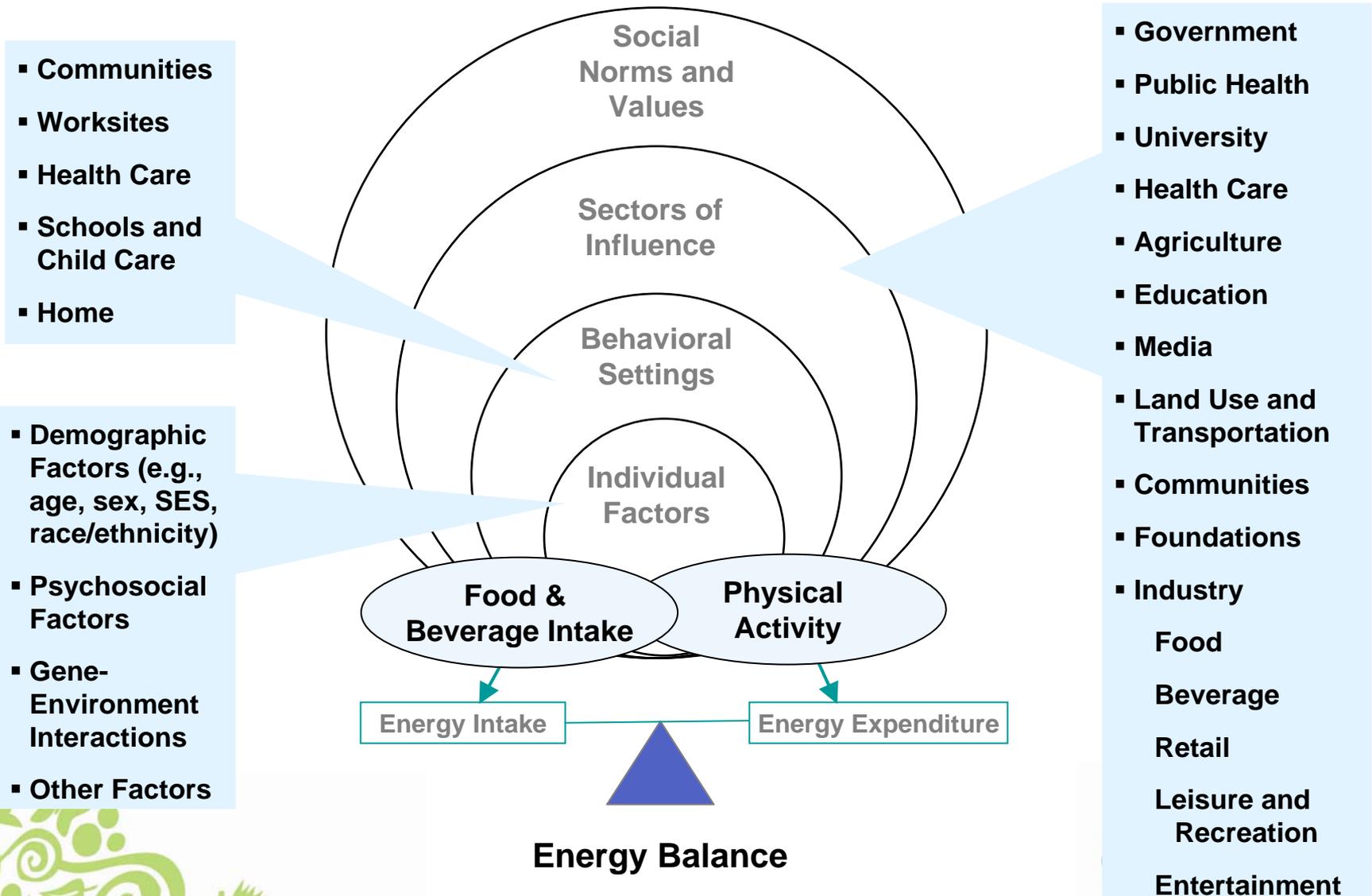


Why is this happening to us?

- Long-term positive energy balance



IOM Comprehensive approach for preventing and addressing childhood obesity



What are we to do?



Five-Two-One-Almost None

Nemours Health and Prevention Services is committed to helping people understand the causes and implications of being at an unhealthy weight. 5-2-1-Almost None is our way to promote a healthier lifestyle for children and families. It's as simple as following these suggestions and tips for healthier eating and physical activity:



FRUITS AND VEGETABLES

Five stands for five or more servings of fruits and vegetables per day. Fruits and vegetables are packed with disease-fighting nutrients and give you energy, naturally.

- Serve at least one fruit or vegetable at every meal and snack. Try all the different colors.
- Dip veggies in low fat dressing. Tuck them in whole wheat pitas. Toss some on your pizza.
- Try and try again. It may take children several tastings (10 or more) before they begin to enjoy certain foods.



HOURS OF SCREEN TIME

Two stands for no more than two hours per day in front of a screen (TV, video games, and recreational computer time). A number of studies show a correlation between watching television and obesity.

- Be a role model — limit your own screen time. Play, take a walk, or cook with your kids instead.
- Keep the TV in a central location and out of your child's bedroom.
- Turn off the TV during dinner and take time to talk about your day.



HOUR OF PHYSICAL ACTIVITY

One means at least one hour of physical activity per day. Physical activity, especially when it gets the heart pumping faster, is vital to maintaining a healthy weight and overall good health. Kids who are raised in active families tend to stay active as adults.

- Plan one physical activity for the family each weekend. Let each child take turns choosing the activity.
- There are lots of ways to be active — walking, dancing, gardening, and raking leaves can all get your heart pumping.
- 10 minutes here, 10 minutes there — and before you know it, you've been moving your body for an hour.



SUGARY DRINKS

Almost none refers to almost no sugary beverages — no more than two servings per week of soft drinks, sports drinks, and fruit drinks that are not 100% fruit juice. Over the last few decades, soda consumption has doubled for girls, tripled for boys.

- Choose water. Add a lemon or lime wedge or a splash of juice for flavor.
- Drink water, milk, and juice yourself. Your children learn by watching you.
- Avoid bringing sodas and sports drinks home. If it's there, the kids will drink it.

About NHPS

Nemours Health and Prevention Services (NHPS), a non-profit organization based in Newark, Delaware, works with families and community partners to help children grow up healthy. Our goal is to drive long-term changes in policies and practices that promote child health and to leverage community strengths and resources to have the greatest impact on the most children. One of our initial areas of emphasis is childhood obesity prevention through promotion of healthy lifestyles, the centerpiece of which is the 5-2-1-Almost None campaign.

NHPS is the newest division of Nemours, one of the nation's largest pediatric health systems, operating the Alfred I. duPont Hospital for Children and outpatient facilities throughout the Delaware Valley and northern and central Florida. NHPS expands Nemours' reach beyond clinical care to consider the health of the whole child within his or her family and community.



www.GrowUpHealthy.org

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www.dellchildrens.net/healthyliving

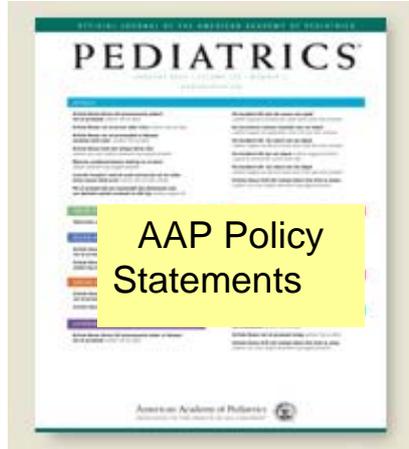


A member of the  Seton Family of Hospitals

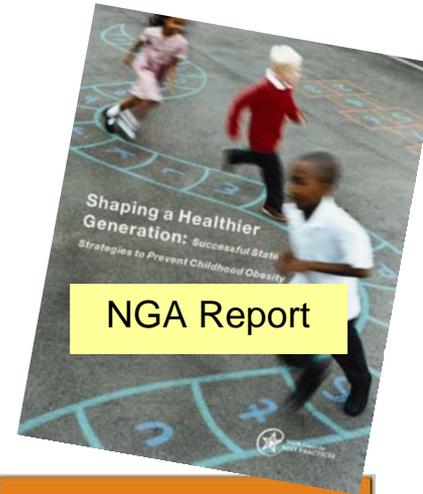
Consolidating Policy Recommendations



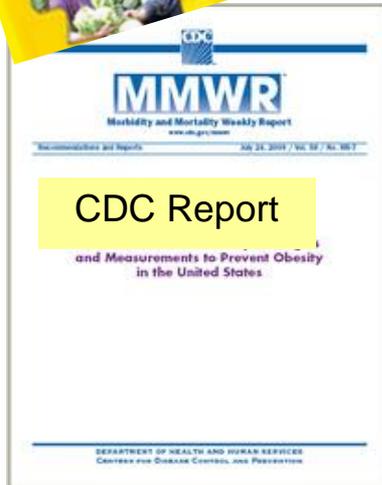
IOM Report



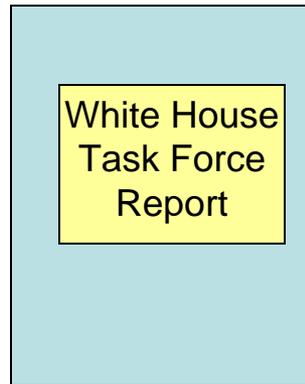
AAP Policy Statements



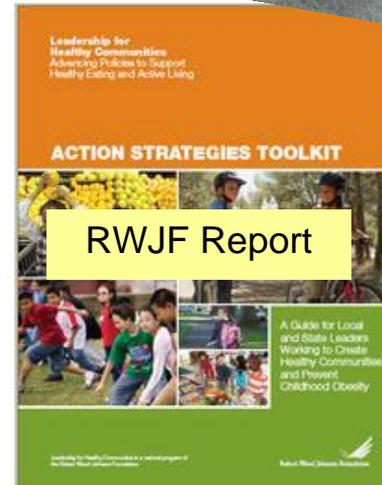
NGA Report



CDC Report



White House Task Force Report



RWJF Report

Prevention of Pediatric Obesity Policy Tool (POPOT)



	Practice	Community	Schools	State	Federal
5	<ul style="list-style-type: none"> Increased Access to Healthy Food Limited Access to Unhealthy Foods Point of Purchase Media 	<ul style="list-style-type: none"> Increased Access to Healthy Food Limited Access to Unhealthy Foods Point of Purchase Media Campaigns Change Relative Pricing 	<ul style="list-style-type: none"> Increased Access to Healthy Food Limited Access to Unhealthy Foods Point of Purchase Media Campaigns Change Relative Pricing 	<ul style="list-style-type: none"> Increased Access to Healthy Food Limited Access to Unhealthy Foods Point of Purchase Media Campaigns Change Relative Pricing 	<ul style="list-style-type: none"> Increased Access to Healthy Food Limited Access to Unhealthy Foods Point of Purchase Media Campaigns Change Relative Pricing
2	<ul style="list-style-type: none"> Restrict Screen Time 	<ul style="list-style-type: none"> Restrict Screen Time 	<ul style="list-style-type: none"> Restrict Screen Time 	<ul style="list-style-type: none"> Restrict Screen Time 	<ul style="list-style-type: none"> Restrict Screen Time
1	<ul style="list-style-type: none"> Increased access for safe and attractive places for Physical Activity Increase Physical Activity 	<ul style="list-style-type: none"> Increased access for safe and attractive places for Physical Activity Increase Physical Activity 	<ul style="list-style-type: none"> Increased access for safe and attractive places for Physical Activity Increase Physical Activity 	<ul style="list-style-type: none"> Increased access for safe and attractive places for Physical Activity Increase Physical Activity 	<ul style="list-style-type: none"> Increased access for safe and attractive places for Physical Activity Increase Physical Activity
0	<ul style="list-style-type: none"> Access to Healthy Beverages Limit Access to Unhealthy Beverages 	<ul style="list-style-type: none"> Access to Healthy Beverages Limit Access to Unhealthy Beverages Point of Purchase Change Relative Price Media Campaigns 	<ul style="list-style-type: none"> Access to Healthy Beverages Limit Access to Unhealthy Beverages Point of Purchase Change Relative Price Media Campaigns 	<ul style="list-style-type: none"> Access to Healthy Beverages Limit Access to Unhealthy Beverages Point of Purchase Change Relative Price Media Campaigns 	<ul style="list-style-type: none"> Access to Healthy Beverages Limit Access to Unhealthy Beverages Point of Purchase Change Relative Price Media Campaigns Taxes
BF	<ul style="list-style-type: none"> Breastfeeding Friendly Environments 	<ul style="list-style-type: none"> Breastfeeding Friendly Environments 	<ul style="list-style-type: none"> Breastfeeding Friendly Environments 	<ul style="list-style-type: none"> Breastfeeding Friendly Environments 	<ul style="list-style-type: none"> Breastfeeding Friendly Environments
BMI	<ul style="list-style-type: none"> Payment 	<ul style="list-style-type: none"> BMI Screening 	<ul style="list-style-type: none"> Payment 	<ul style="list-style-type: none"> Payment BMI Screening 	<ul style="list-style-type: none"> Payment

- Dynamic internet tool that delineates the various policy recommendations and opportunities into a matrix of 30 cells
- After clicking on a cell one can see
 - Policy opportunities & possible action steps at various levels (community, school, etc)
 - Organizations recommending the policy strategies (IOM, CDC, etc)
 - Provides links to additional resources
 - Links to relevant data sources



Texas Center for the Prevention and Treatment of Childhood Obesity



Empowering Families to Live Healthy Happy Lives

C L • E • A • R

Clinical • Education • Advocacy • Research

www.dellchildrens.net/healthyliving

sjpont@seton.org

