

Prevalence of Overweight Among School Children Using a Statewide Physical Fitness Testing Program – Los Angeles County, 2001

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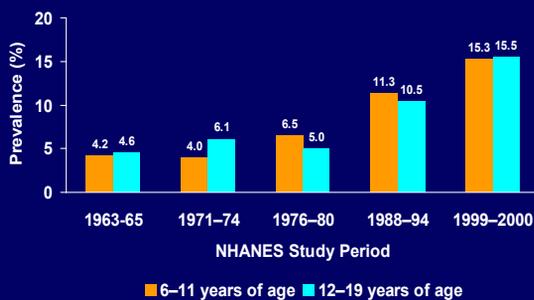
Assigned to the Los Angeles County Department of Health Services
State Branch, Epidemiology Program Office,
Centers for Disease Control and Prevention



Public Health Importance of Childhood Overweight

- Surgeon General “Call to Action” and “Healthier U.S. Initiative”
- In adults, obesity associated with heart disease, stroke, diabetes, arthritis, and cancer
- Overweight children → overweight as adults
- Among overweight children, 58% have 1+ risk factor for heart disease
- Costs of childhood overweight \$127 million/yr

NHANES Prevalence of Overweight



Local Data Lacking

- 3-fold increase in overweight nationally
- Los Angeles County lacked population-based data at the community level
- Local surveillance important for control and prevention efforts

California Physical Fitness Testing Program

- 1995, California Assembly Bill 265
 - Physical fitness testing of all public school children in grades 5, 7, and 9
- Tests include body mass index (BMI)
 - Height and weight measured by teachers
- 2001, annually reported
 - Governor, State legislature
 - School Accountability Report Card

Objective

- To determine the prevalence of overweight among Los Angeles County public school children
 - Race/ethnicity
 - Sex
 - Grade level
 - Local geographic area

Study Population

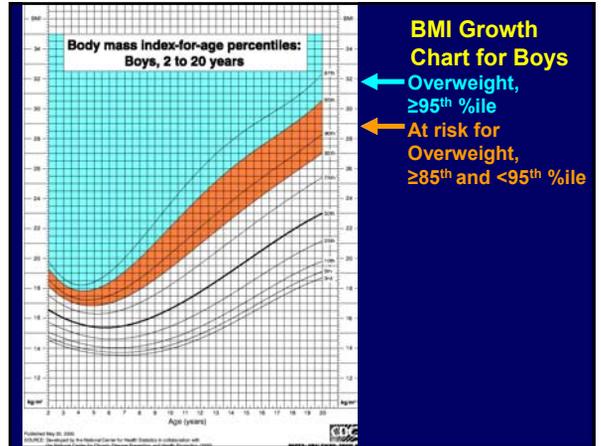
School enrollment
397,898

Physical fitness test results reported
354,370 (89.1%)

Sex, age, BMI not reported
(20.2%)

Outliers ≥ 6 s.d.
($<1\%$)

Study group
281,630 (70.8% eligible population)



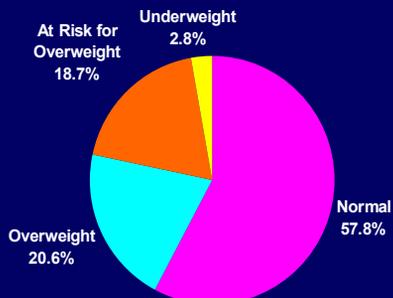
Demographics

| Characteristics | Study Group (%) n=281,630 | Enrollment (%) n=397,898 |
|--------------------|------------------------------|-----------------------------|
| Sex | | |
| Male | 50.8 | 49.0 |
| Grade Level | | |
| 5 | 40.0 | 34.5 |
| 7 | 32.4 | 31.1 |
| 9 | 27.6 | 34.3 |

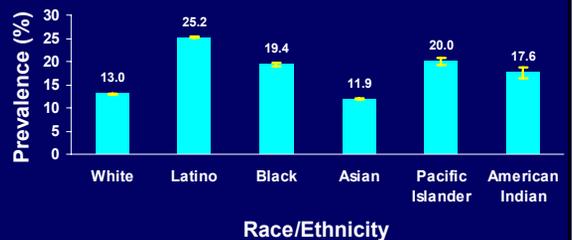
Demographics (cont.)

| Race/Ethnicity | Study Group (%) n=281,630 | Enrollment (%) n=397,898 |
|------------------|------------------------------|-----------------------------|
| White | 17.2 | 19.1 |
| Hispanic/Latino | 57.1 | 58.4 |
| Black | 11.0 | 11.6 |
| Asian | 11.6 | 9.9 |
| Pacific Islander | 1.5 | 0.5 |
| American Indian | 0.5 | 0.3 |

Overall Prevalence Los Angeles County, 2001 n=281,630

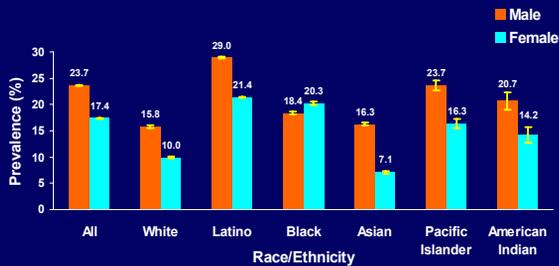


Overweight Prevalence by Race/Ethnicity



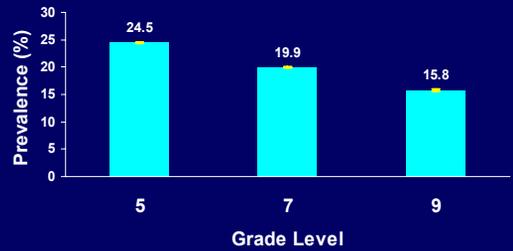
Error bars represent 95% confidence intervals

Overweight Prevalence by Sex and Race/Ethnicity



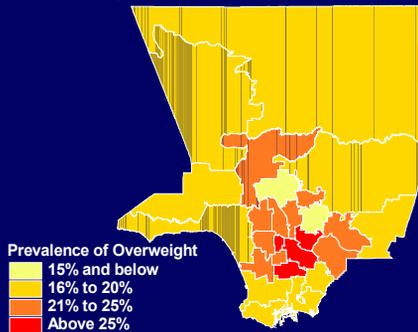
Error bars represent 95% confidence intervals

Overweight Prevalence by Grade Level



Error bars represent 95% confidence intervals

Overweight Prevalence by Health District



Discussion

- Overweight in Los Angeles County 20.6% greater than national estimates of 15%
- Highest among Latino, Pacific Islander, black, American Indian children
- Exceeded *Healthy People 2010* goal of 5%

Sex and Race/Ethnicity

- Prevalence greater among boys than girls, except among blacks
- High prevalence among black girls
 - Dietary behaviors associated with weight gain
 - Low physical activity
 - Social acceptance of overweight

Grade Level

- Inverse relationship
- Possible cohort effect
- National Longitudinal Survey of Youth
 - Prospective cohort, 1986–1998
 - Overweight increased 2%–6% per year

Health District

- High prevalences clustered in south-central Los Angeles
- Area with low-income, Latino, and black families
- Consistent with greater risk for overweight among these populations

Limitations

- Selection bias
 - Completeness of reporting high (70.8%)
 - Completeness decreased by grade
- Reporting bias
 - Results linked to school accountability report cards and funding
- Generalizability
 - Only public school students, selected grades

Prevention and Control of Overweight Epidemic

- Require broad changes in behavior, culture, environment
- Test results used in Los Angeles County
 - Ban on soft drinks in school vending machines in Los Angeles Unified School District
- Annually assess trends and the impact of interventions
- Inform public health actions at the community level

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