

Children's Environmental Health in the United States: Indicators from *America's Children and the Environment*

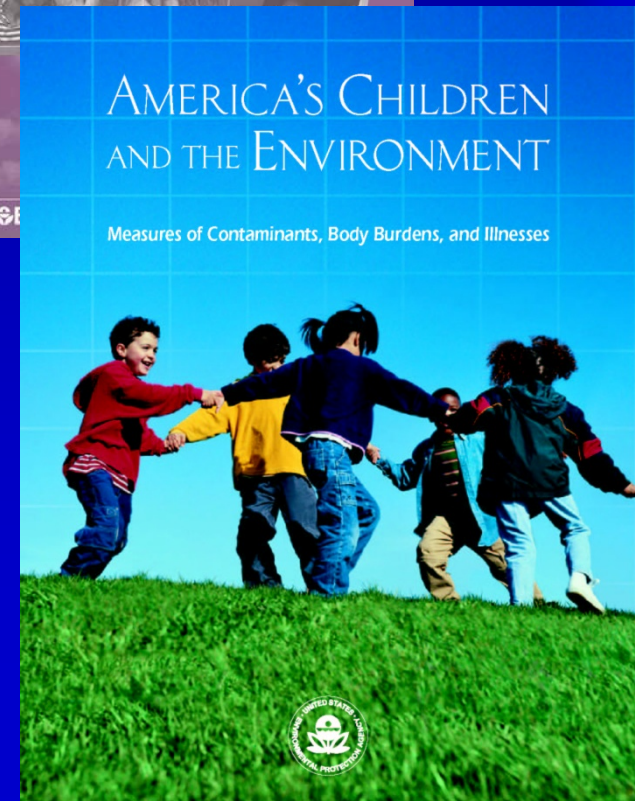
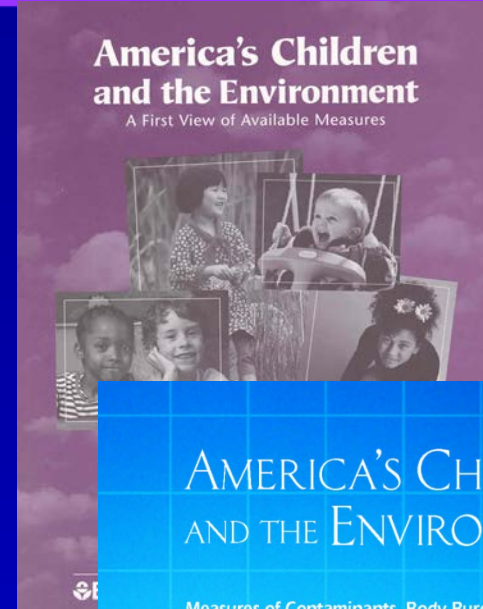
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Promoting Health Communities:
Developing and Exploring Linkages Between Public Health
Indicators, Exposure and Hazard Data
September 26, 2011

America's Children and the Environment

- U.S. EPA's series of reports on key indicators of children's health and the environment
 - 1st report: December 2000
 - 2nd report: February 2003
 - 3rd report (ACE3): in preparation
- Data updates regularly since 2006 at:

www.epa.gov/ace



Preparing *America's Children and the Environment - 3rd Edition (ACE3)*

- Indicators in three main categories:
 - Environments and Contaminants
 - Biomonitoring
 - Health
- Includes update of topics/indicators from 2003 report, and new topics/indicators
- 42 indicators for ACE3 (vs. 26 previously)

Selected criteria – ACE3 indicators

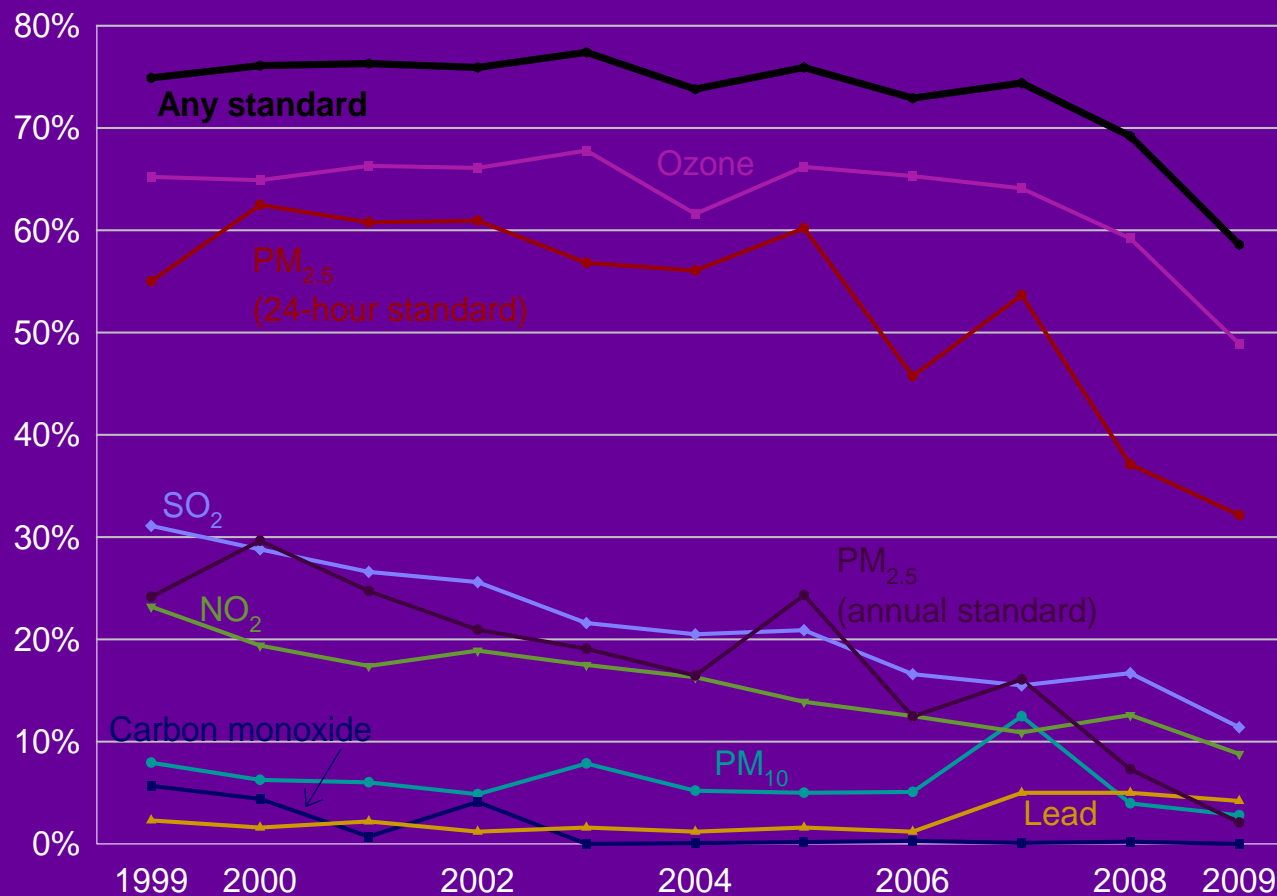
For ACE3, an indicator is defined as a quantitative depiction of an important aspect of children's environmental health that summarizes the underlying data in a relevant, understandable, and technically appropriate manner.

- National in scope
- Population-based data
- Continuing data collection – trends
- Stratify by demographic characteristics

Topics for ACE3: Environments and Contaminants

- Criteria Air Pollutants
- Hazardous Air Pollutants
- Indoor Environments
- Drinking Water Contaminants
- Food Contaminants
- Contaminated Lands - NEW
- Climate Change - NEW

Percentage of children ages 0 to 17 years living in counties in which air quality standards were exceeded, 1999-2009



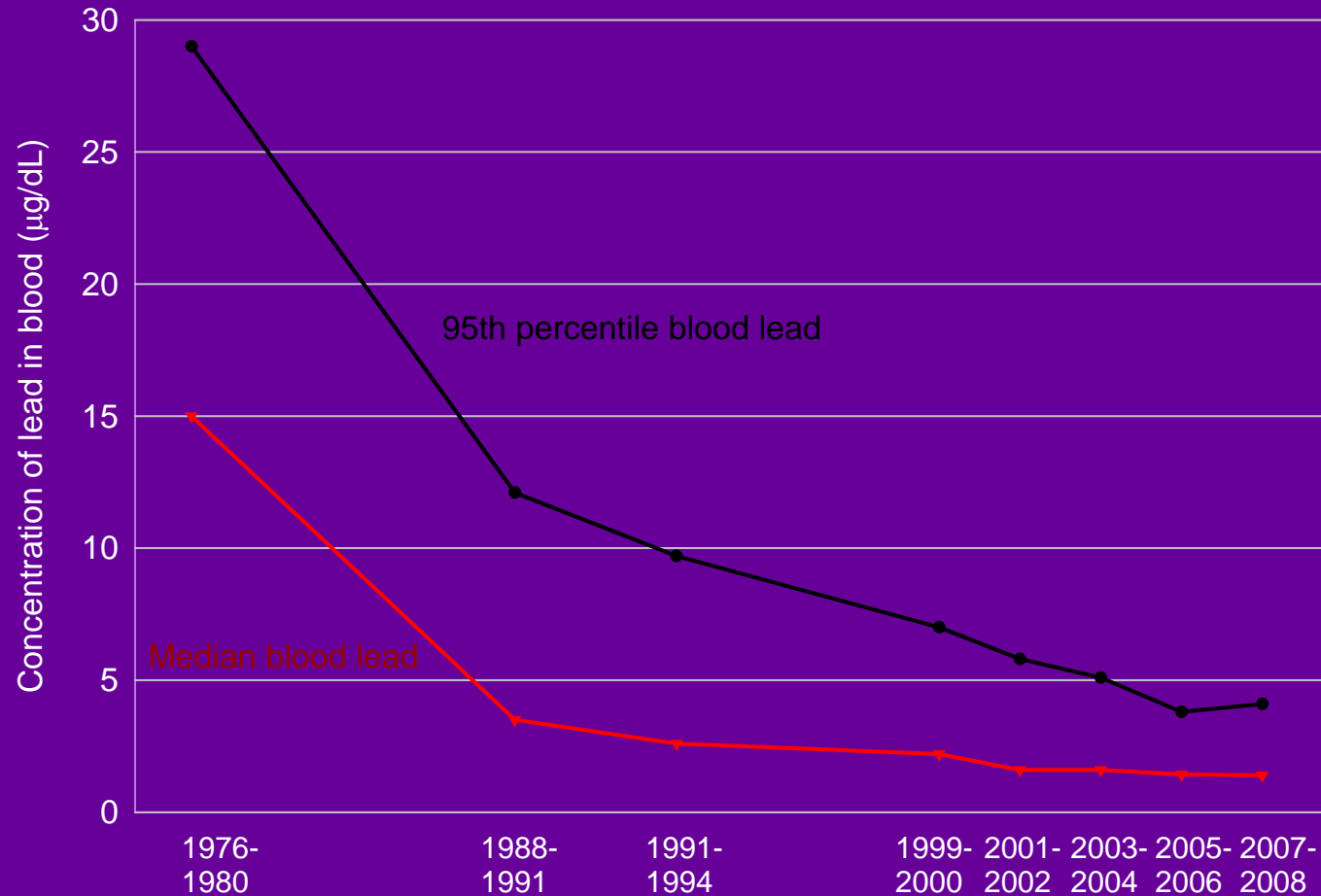
DRAFT Indicator for Third Edition of America's Children and the Environment

DATA: U.S. Environmental Protection Agency, Office of Air and Radiation, Air Quality System

Topics/Indicators for ACE3: Biomonitoring

- Lead
- Mercury
- Cotinine (ETS marker)
- Perfluorochemicals – NEW
- PCBs – NEW
- PBDEs –NEW
- Phthalates – NEW
- Bisphenol A – NEW
- Perchlorate – NEW
- Note: many indicators present data for women of child-bearing age (16-49 years), based on concern for children's health from the mother's exposure during pregnancy.

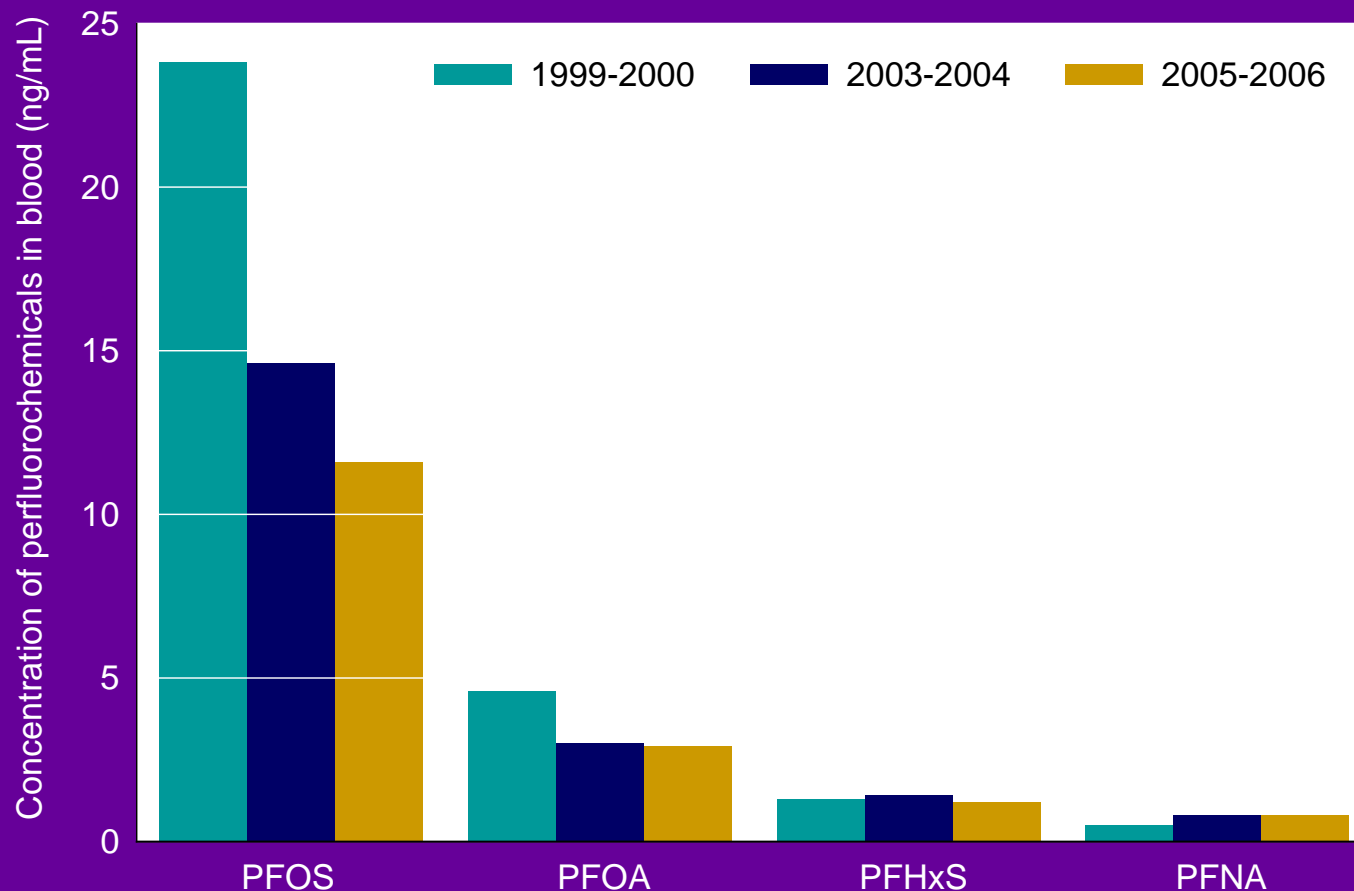
Lead in children ages 1 to 5 years: Median and 95th percentile concentrations in blood, 1976-2008



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DATA: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey

Perfluorochemicals in women ages 16 to 49 years: Median concentrations in blood serum, 1999-2006



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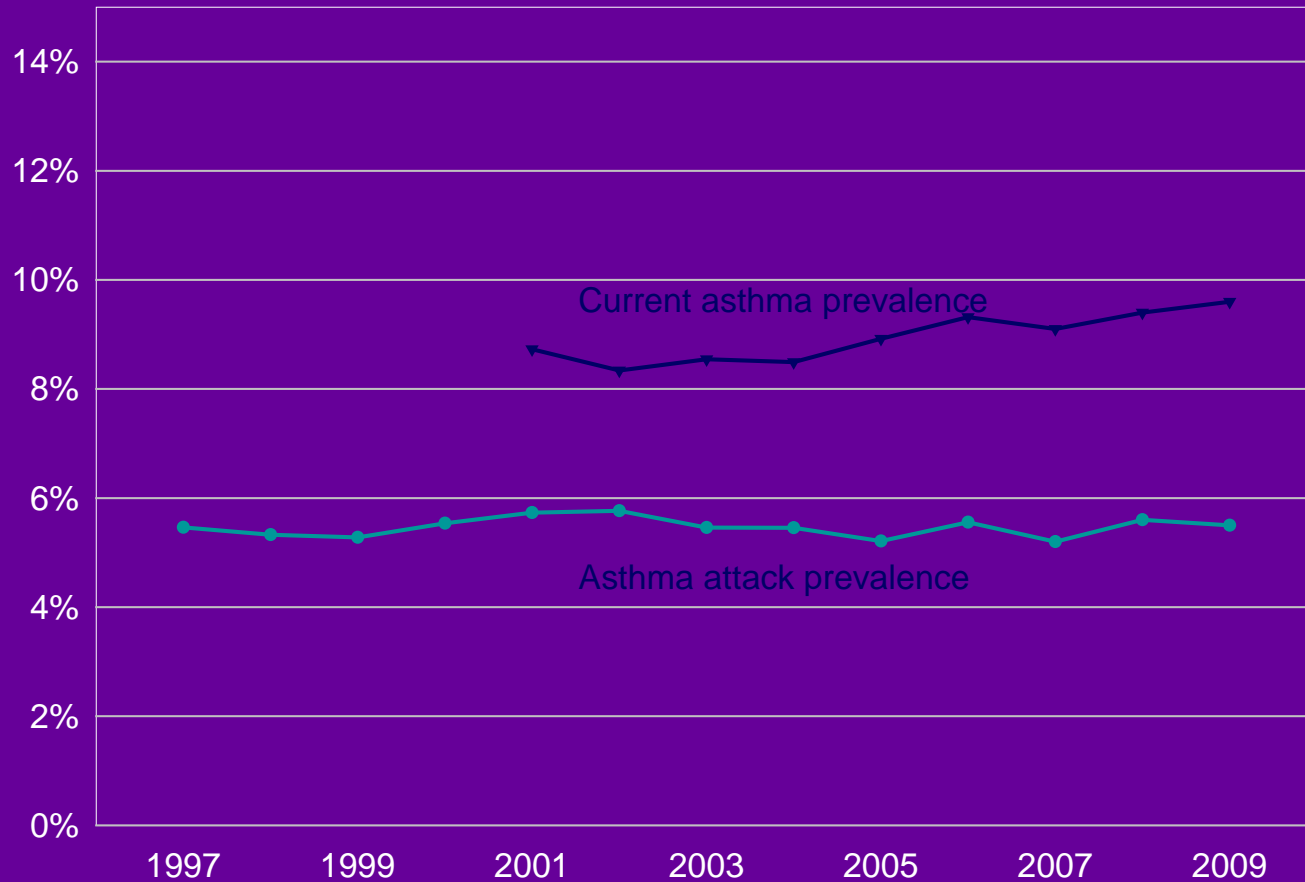
DATA: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey

Note: To reflect exposures to women who are pregnant or may become pregnant, the data are adjusted to reflect the annual likelihood (by age and race/ethnicity) that a woman gives birth.

Topics/Indicators for ACE3: Health

- Respiratory Diseases
- Childhood Cancer
- Neurodevelopmental Effects
- Adverse Birth Outcomes – NEW
- Obesity – NEW

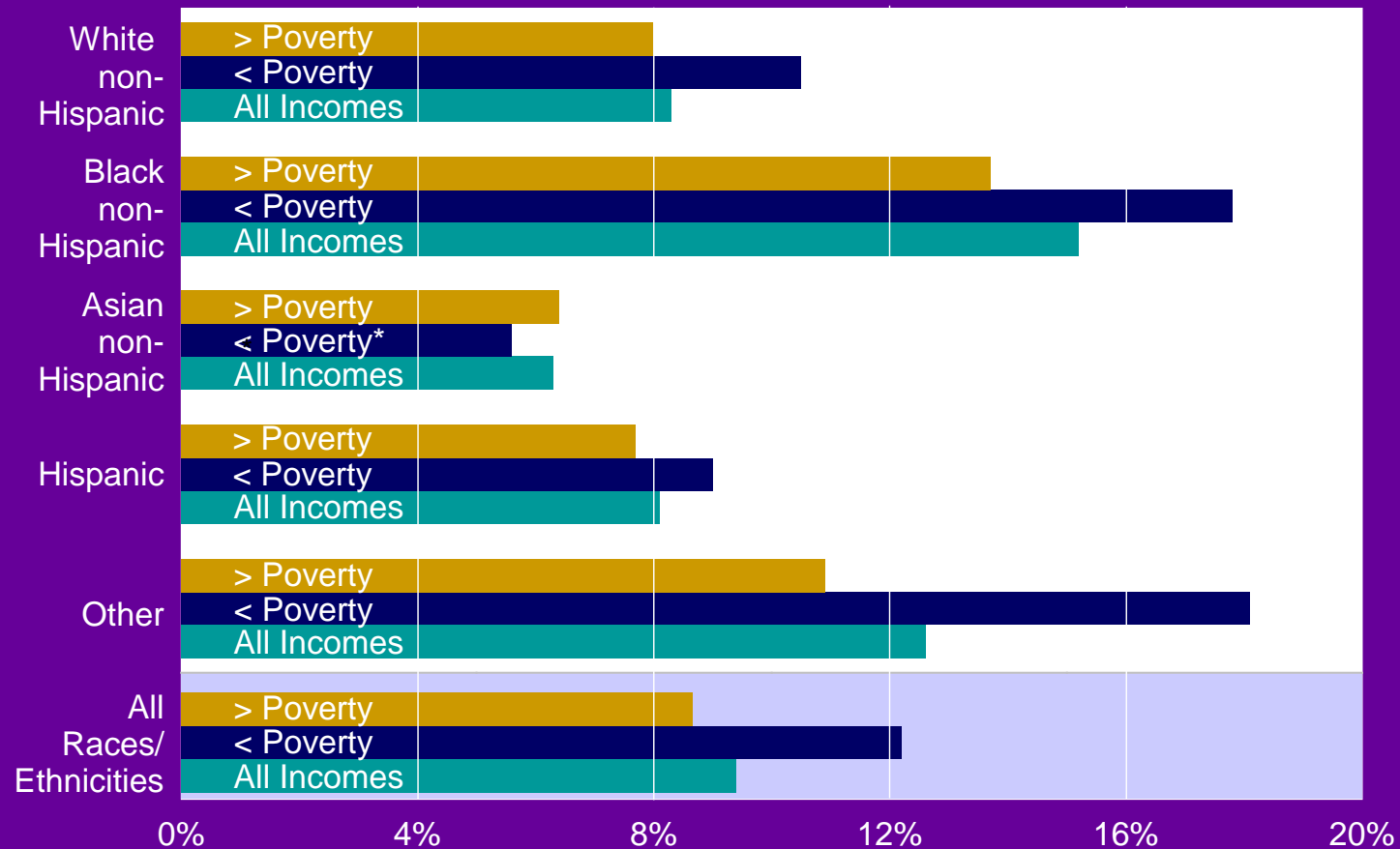
Percentage of children ages 0 to 17 years with asthma, 1997-2009



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DATA: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey

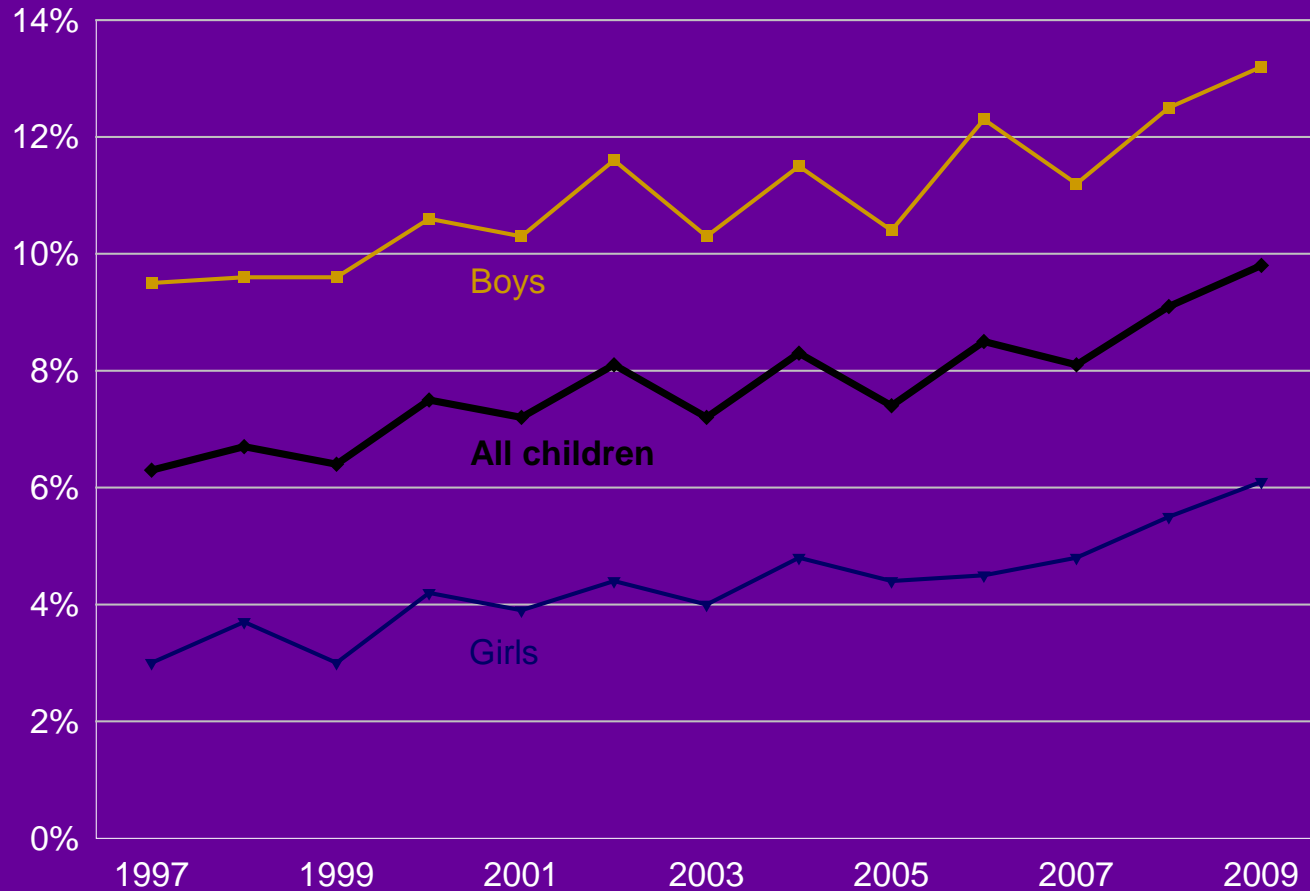
Percentage of children ages 0 to 17 years reported to have current asthma, by race/ethnicity and family income, 2006-2009



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DATA: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey

Percentage of children ages 5 to 17 years reported to have attention-deficit/hyperactivity disorder, by sex, 1997-2009



DRAFT Indicator for Third Edition of America's Children and the Environment

DATA: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey

Status and Next Steps

- In 2011, draft text and indicators for all 23 children's environmental health topics in ACE3 have been peer reviewed
 - Drafts released for public comment simultaneously with the peer review
- We are continuing our review of comments and are preparing a draft report

Thank you!

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AMERICA'S CHILDREN AND THE ENVIRONMENT

Measures of Contaminants, Body Burdens, and Illnesses



<http://www.epa.gov/ace>