

# Overview of the National Health Interview Survey

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Centers for Disease Control and Prevention  
National Center for Health Statistics**

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# Questionnaire Contents

- **Roster of families and members**
- **Demographics**
- **Socioeconomic status**
- **Limitation of activity**
- **Injuries and poisonings**
- **Respondent assessment of health status**

# Questionnaire Contents

- Utilization of health care services
- Health insurance status
- Chronic conditions
- Health behavior
- Height and weight
- Supplements

# NHIS Sample Design

- **Household interview survey**
- **Nationally and regionally representative of the non-institutionalized civilian population of the United States**
- **Complex design**
- **Over-sample black and Hispanic populations**

# NHIS Sample Design

- **Fielded continuously throughout year**
- **Each week – representative sample**
- **1995-2006 design**
  - ~40,000 households; ~105,000 persons
  - ~37,000 sample adults
  - ~15,000 sample children

# 1997 NHIS Redesign

- **Implemented Computer Assisted Personal Interviewing (CAPI)**
- **Major changes in questionnaire content and format**

# NHIS Field Procedures

- **Trained interviewers from the US Census Bureau**
- **In-home personal interview**
- **Use of telephone permitted after initial contact**
- **Advance letter**
- **Informed consent**

# Geographic Detail from NHIS

- **National**
- **4 Census Regions: Northeast, Midwest, South, West**
- **Metropolitan Statistical Areas (MSA)**
  - Know if household is in MSA, etc.
  - MSAs identified if >1 million population
- **State: plan to identify largest in future**



# Questionnaire Coverage

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<i>Component</i>	<i>Includes</i>
<b>Household</b>	<b>All HH members</b>
<b>Family</b>	<b>All family members</b>
<b>Sample Child</b>	<b>One child/family</b>
<b>Immunization</b>	<b>Sample child</b>
<b>Sample Adult</b>	<b>One adult/family</b>
<b>Supplements</b>	<b>Any of the above</b>

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# Component Response Rates: Unconditional

<i>Component</i>	<i>1999</i>	<i>2000</i>	<i>2001</i>	<i>2002</i>
	<i>Percent</i>			
Family	86	87	88	88
Sample child	78	79	81	81
Sample adult	70	72	74	74

# Component Response Rates: Conditional

<i>Component</i>	<i>1999</i>	<i>2000</i>	<i>2001</i>	<i>2002</i>
	<i>Percent</i>			
Family	98	98	99	98
Sample child	91	91	92	92
Sample adult	81	83	84	84

# **Integration of NHIS with Other Surveys**

- **NHIS is linked to the National Death Index**
- **NHIS respondents serve as the sampling frame for the Medical Expenditure Panel Survey (MEPS)**
- **NHIS and MEPS are periodically linked**

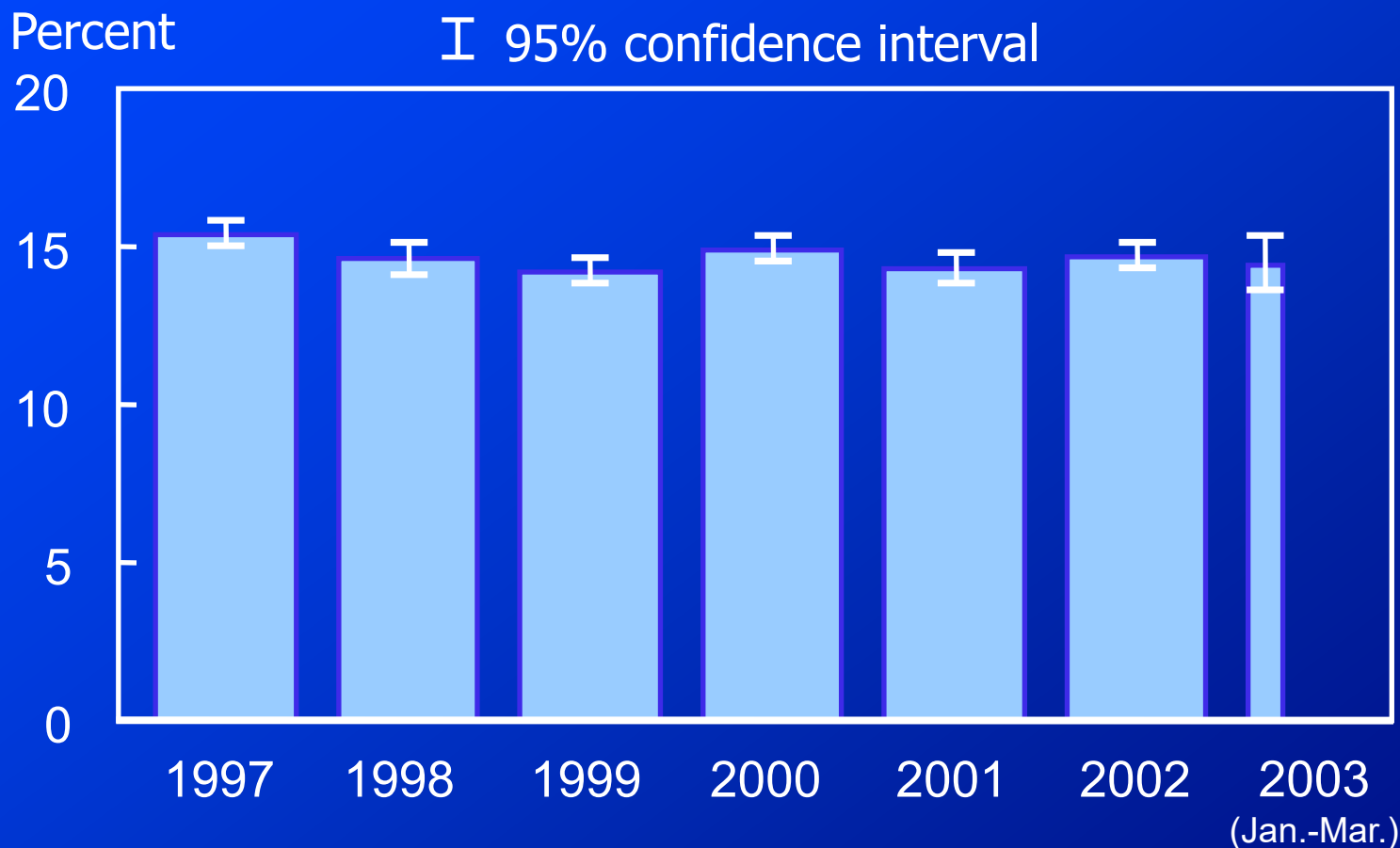
# Selected NHIS Supplements

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<i>Topic</i>	<i>Co-sponsor(s)</i>	<i>Year</i>
<b>Healthy People 2000/2010</b>	<b>Multiple</b>	<b>All</b>
<b>Mental health</b>	<b>NIMH</b>	<b>1999</b>
<b>Cancer control</b>	<b>NCI/CDC</b>	<b>2000, 2005</b>
<b>Children's mental health</b>	<b>NIMH</b>	<b>2001-</b>
<b>Complementary and alternative medicine</b>	<b>NCCAM</b>	<b>2002</b>
<b>Cell phone usage</b>	<b>(NCHS only)</b>	<b>2003, 2004</b>

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# Sample Graph from Early Release Program Released September 30, 2003



Percent of persons of all ages without health insurance coverage:  
United States, 1997-2003

# **NHIS Re-engineering Project**

# **Main Components of Re-engineering Project**

## **Update data collection system**

- **Replace current CAPI software with Blaise instrument**
- **CAPI instrument adopted in 1997 is now antiquated**
- **Migrate from a DOS to a Windows platform**



# **Main Components of Re-engineering Project**

## **Re-engineer the data processing system**

- **Use database technology**
- **Move routine processing to earlier stages**
- **Minimize the tendency to “over edit”**
- **Develop automated systems for editing and analysis**
- **Train staff to maintain and develop databases**

# Expected Benefits

- **Improved data quality**
- **Even better timeliness – release of microdata six months after data collection ends**
- **Easier production of Early Release estimates**
- **Strengthened analytical capabilities**
  - **Less time editing and more time analyzing**
  - **New analytic tools**

# Coping with a Flat Budget

## Sample cuts

- **1 week in April 2002**
- **2 weeks in July 2002**
- **2 weeks in October 2002**
- **3 weeks in April 2003**
- **2 weeks in December 2003**
- **? weeks in 2004**

# **Coping with a Flat Budget**

- **Cancellation of interviewer retraining in January 2003**
- **Postponement of implementation of sample redesign from 2005 to 2007**

# **In-house Analysis in the Division of Health Interview Statistics**

# Editing

- **Most analysts also edit data**
- **Re-engineering will simplify editing, free up some analyst time, and facilitate analysis**

# Topics of Some Current Projects

## Subject Matter Studies

- **Marital status and health**
- **Utilization of mental health services by U.S. children**
- **Physical activity among adults**
- **Asthma prevalence in U.S. children and adults**
- **National trends and correlates of skin cancer screening**
- **Prevalence of selected health behaviors among U.S. adults**
- **The emotional and behavioral health of children**

# Topics of Some Current Projects

- **Access to health care among Hispanic children**
- **Psychometric properties of the parent-reported Strengths and Difficulties Questionnaire for American children**
- **Epidemiology of COPD and smoking**
- **Prevalence of self-reported diabetes, use of glucose regulating medications, and usual source of care among adults in the United States by race and Hispanic origin**
- **Functional limitations among adults**
- **Health insurance coverage among Hispanic persons**



# Topics of Some Current Projects

- The relationship between health insurance, managed care, and access to healthcare
- Analysis of SLAITS' National Asthma Survey
- The role of socioeconomic status in receipt of a yearly influenza immunization among employed target group adults 18-64 years of age
- Cigarette smoking and cessation among Asian-Americans
- Selected estimates from NHIS: Before/after the 9/11 attacks
- Race reporting by Hispanic respondents
- Analysis of SLAITS' National Survey of Early Childhood Health

# Topics of Some Current Projects

## Methodological Studies

- **Analysis of the determinants of family income nonresponse**
- **Multiple imputation of missing income data at the individual and family levels using sequential regression imputation**
- **Reasons for partials and break offs in the NHIS**
- **Using Blaise audit trails with the NHIS**
- **Plan and operation of the 2002 Joint Canada/United States Survey of Health**
- **Innovations in Spanish translation**

**Special Topic:  
Estimating the Prevalence  
of Uninsured Children  
Using Data from SLAITS**

# **SLAITS: The State and Local Area Integrated Telephone Survey**

- **Developed by CDC/NCHS**
- **Addresses need for subnational data**
- **Uses sampling frame from the National Immunization Survey**

# **Sampling Frame: National Immunization Survey**

- **Designed to produce immunization coverage estimates for 50 states and 28 metropolitan areas**
- **Random-digit-dial telephone survey**
- **Screens about 1 million households annually**
- **Target population: 19-35 months old**

# Key Features of SLAITS

- **Expands on the National Immunization Survey**
  - **Random-digit-dial telephone survey**
  - **Computer assisted telephone interviewing (CATI)**
- **Customized content and sample**

# **National Survey of Children with Special Health Care Needs, 2001**

- **Produced national and state-based estimates on the prevalence and impact of children with special health care needs (CSHCN)**
- **Will be repeated in 2005**

# **National Survey of CSHCN Interview Process in 2001**

- Screened 2.6 million telephone lines to identify households with children <18**
- Screened all children to identify CSHCN**
- Detailed questionnaire for 38,866 CSHCN (~750 per state)**
- Asked about health insurance coverage for an additional 176,296 children without special health care needs**



# Results and Discussion

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	<i>National Survey of CSHCN</i>	<i>National Health Interview Survey</i>	<i>National Survey of America's Families</i>	<i>Current Population Survey</i>	<i>Medical Expenditure Panel Survey</i>
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## **Insurance coverage rate**

Insured	91.7	89.0	87.4	88.3	85.5
Uninsured	8.3	11.0	12.6	11.7	14.6

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