

Overview of NCHS Data Products and Services

A presentation to the National Committee on
Vital and Health Statistics (NCVHS)

Working Group on HHS Data Access and Use

James M. Craver
September 21, 2012



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

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Outline

- **Types of data sources**
- **Reasons for integrating multiple data sources**
- **Tools and examples**

Types of NCHS data sources

www.cdc.gov/nchs/data/factsheets/factsheet_summary.htm

- **National Vital Statistics System**
 - Births and deaths
- **Surveys of people**
 - National Health Interview Survey
 - National Health and Nutrition Examination Survey
 - National Survey of Family Growth
- **National Health Care Surveys**
 - Component surveys

Reasons for using multiple sources

- **Monitor health and health care broadly**
- **Assess a specific public health issue from multiple perspectives**
- **Conduct methodologic studies**
- **Enhance the usefulness of a survey through linkage with additional data**

Tools for finding statistics from multiple data sources

- **Health Indicators Warehouse**

www.healthindicators.gov

- **Health, United State**

www.cdc.gov/nchs/hdi.htm

- **Healthy People 2010 / 2020**

www.cdc.gov/nchs/healthy_people.htm

- **Health Data Interactive**

www.cdc.gov/nchs/hdi.htm

- **FastStats**

www.cdc.gov/nchs/fastats



National Center for Health Statistics...Monitoring the Nation's Health

National Youth Fitness Survey

The National Youth Fitness Survey (NYFS) is being conducted along with the National Health and Nutrition Examination Survey in response to the need for data on physical activity and fitness in children and teens.

[Learn More ▶](#)[1](#) [2](#) [3](#) [4](#) [5](#)

FEATURED TOPICS



Inside NCHS: Data Linkage

NCHS's record linkage program is designed to maximize the scientific value of the Center's population-based surveys. Linked data files enable researchers to take the "long view" and examine the factors that influence disability, chronic disease, health care utilization, morbidity, and mortality.

[NEXT TOPIC ▶](#)

New RELEASES



Generalist and Specialty Physicians: Supply and Access, 2009–2010

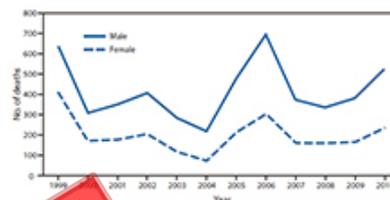
NCHS Data Brief No. 105, September 2012

[U.S. Decennial Life Tables for 1999–2001:](#)

FastStats: STATISTICS BY TOPIC

FastStats provides quick access to statistics on topics of public health importance, including: diseases and conditions, injuries, life stages and populations, and health care and insurance.

QuickStat of the WEEK



From 1999 to 2010, a total of 7,415 deaths in the United States, an average of 618 per year, were associated with exposure to excessive natural heat. The highest yearly total of heat-related deaths (1,050) was in 1999 and the lowest (295) in 2004. Approximately 68% of heat-related deaths were among males.

[VIEW FULL ARTICLE ▶](#)

**U.S. Decennial Life Tables for 1999–2001:
State Life Tables**

NVSR Volume 60 No. 9, September 2012

**Prevalence of Overweight, Obesity, and
Extreme Obesity Among Adults: United
States, Trends 1960–1962 Through 2009–
2010**

Health E-Stat, September 2012

**Prevalence of Obesity Among Children and
Adolescents: United States, Trends 1963–
1965 Through 2009–2010**

Health E-Stat, September 2012

**Prevalence of Underweight Among Adults
Aged 20 Years and Over: United States, 1960
–1962 Through 2007–2010**

Health E-Stat, September 2012

**Prevalence of Underweight Among Children
and Adolescents Aged 2–19 Years: United
States, 1963–1965 Through 2007–2010**

Health E-Stat, September 2012

**Wait Time for Treatment in Hospital
Emergency Departments: 2009**

NCHS Data Brief No. 102, August 2012

Births: Final Data for 2010

NVSR Volume 61 No. 1, August 2012

**Fetal and Perinatal Mortality, United States,
2006**

NVSR Volume 60 No. 8, August 2012

**Oral Health Disparities as Determined by
Selected Healthy People 2020 Oral Health
Objectives for the United States, 2009–2010**

NCHS Data Brief No. 104, August 2012

**SURVEYS AND DATA
COLLECTION SYSTEMS**

National Health and Nutrition Examination
Survey (NHANES)

National Health Care Surveys

National Health Interview Survey (NHIS)

National Immunization Survey (NIS)

National Survey of Family Growth (NSFG)

National Vital Statistics System (NVSS)

Longitudinal Studies of Aging (LSOA)

State and Local Area Integrated Telephone
Survey (SLAITS)

DATA ACCESS

Data Linkage

Health Data Interactive

Health Indicators Warehouse 

National Death Index

Public-use Data Files

Research Data Center

VitalStats

ADDITIONAL RESOURCES

Fact Sheets

Growth Charts

Health, United States

Healthy People 2010/2020

Injury Data and Resources

SAVE *the* DATE

Mark your calendars for the 2012
Research Conference on the
National Survey of Family
Growth (NSFG)

[LEARN MORE](#)



[VIEW ALL EVENTS](#) ▶



NCHS for You!

- Children and Adolescents
- Librarians
- Older Americans
- Researchers
- Survey Participants

NCHS Press Room

2012 Release Schedule

TV/Video Gallery



1. Health Indicators Warehouse (HIW)

www.healthindicators.com

- **National, state, and local level indicators**
- **Graph and map indicators (if data permit)**
- **Link from indicators to evidence-based interventions**
- **Includes most indicators from**
 - **Healthy People 2020**
 - **County Health Rankings**
 - **Community Health Status Indicators**
 - **New community level Medicare utilization and quality indicators**

HIW: Current Version

- **Approximately 1,100 unique indicators**
- **More than 160 data sources**
 - **Federal: Census data, HHS, ED, Agriculture and other federal Surveys, Surveillance Data, Medicare Administrative Data, EPA modeled data**
 - **State: BRFSS, Surveillance System Data**
 - **Trade Associations: AMA, AHA, other health professions data**
 - **NGOs: ASTHO, NACCHO, other member surveys**

Welcome to the Health Indicators Warehouse (HIW)

Indicators in the HIW are categorized by topic, geography, and initiative.

Select your starting point for exploring indicators in the HIW.

by Topic

Each indicator in the HIW is associated with one or more topic areas, such as disease, condition, age group or sociodemographic characteristics.

Select a topic

by Geography

Most of the indicators in the HIW have national level data. Many indicators also have data available by state, county, and hospital referral regions.

Select a state

by Initiative

The HIW contains indicators derived from and in support of several state and federal health indicator initiatives.

Select an initiative

What's New

4 Release of Version 1.4.5.1

OCT

We are pleased to announce that on October 4th, 2011 the latest version of the Health Indicators Warehouse was released. This release includes new indicator definitions and associated data for 2009 County-Level Bridged Race data by sociodemographic characteristics, 2009 SAIGE Income and Poverty data, and several additional years of data and stratifications by age, sex and race/ethnicity for mortality data from the National Vital Statistics System (NVSS-M). Also, data from CMS was refreshed and updates were made to selected Healthy People 2020 indicators. For the HIW system itself, various minor system and interface bugs were addressed. (more)

For Developers

The HIW provides access to the underlying data through the use of an Application Programming Interface (API) which is designed to present information to systems with disparate architectures and underlying technologies.

[More information for developers >](#)

HIW: Methods for stroke death rates

Stroke deaths (per 100,000 population)

Stroke death rate

Overview

Data

Data Source and Additional Information

Numerator

Number of stroke deaths (ICD-10 codes I60-I69)

Population

Number of persons

Methodology

Death due to cerebrovascular diseases, ICD-9 codes: 430-438. ICD-10 codes: I60-I69.

Single-year rates are calculated based on the resident population of the data year involved. For census years, April 1 census counts are used (e.g. 2000). For postcensal years, July 1 estimates from the postcensal Vintage that matches the data year are used (e.g. July 1, 2004 resident population estimates from Vintage 2004 are used to calculate rates for 2004). For intercensal years, intercensal population estimates are used in rate calculations (e.g. 1991-1999). Population estimates for 1991 and later have bridged-race categories.

Multiple-year rates are calculated based on the sum of the resident populations for each of the data years involved (e.g. the denominator of a rate for 2004-2006 combined involves population estimates for 2004, 2005, and 2006). For census years, April 1 census counts are used (e.g. 2000). For postcensal years, July 1 estimates from the postcensal Vintage that matches the data year are used (e.g. July 1, 2004 resident population estimates from Vintage 2004). For intercensal years, intercensal population estimates are used in rate calculations (e.g. 1991-1999). Population estimates for 1991 and later have bridged-race categories.

Related Keywords

death

mortality

84

National Vital Statistics System-Morta...

NVSS-M

TIA

cardiovascular

Indicator Information

Data Source

NVSS-M (CDC, NCHS)

Initiative

CHSI2008

HP2020

Geographic Levels

State and County

Data Years

2001, 2002, 2003, 2004, 2005, 2006, 2007

Dimensions

HIW: Stroke death rates map

This indicator contains **State and County** data.

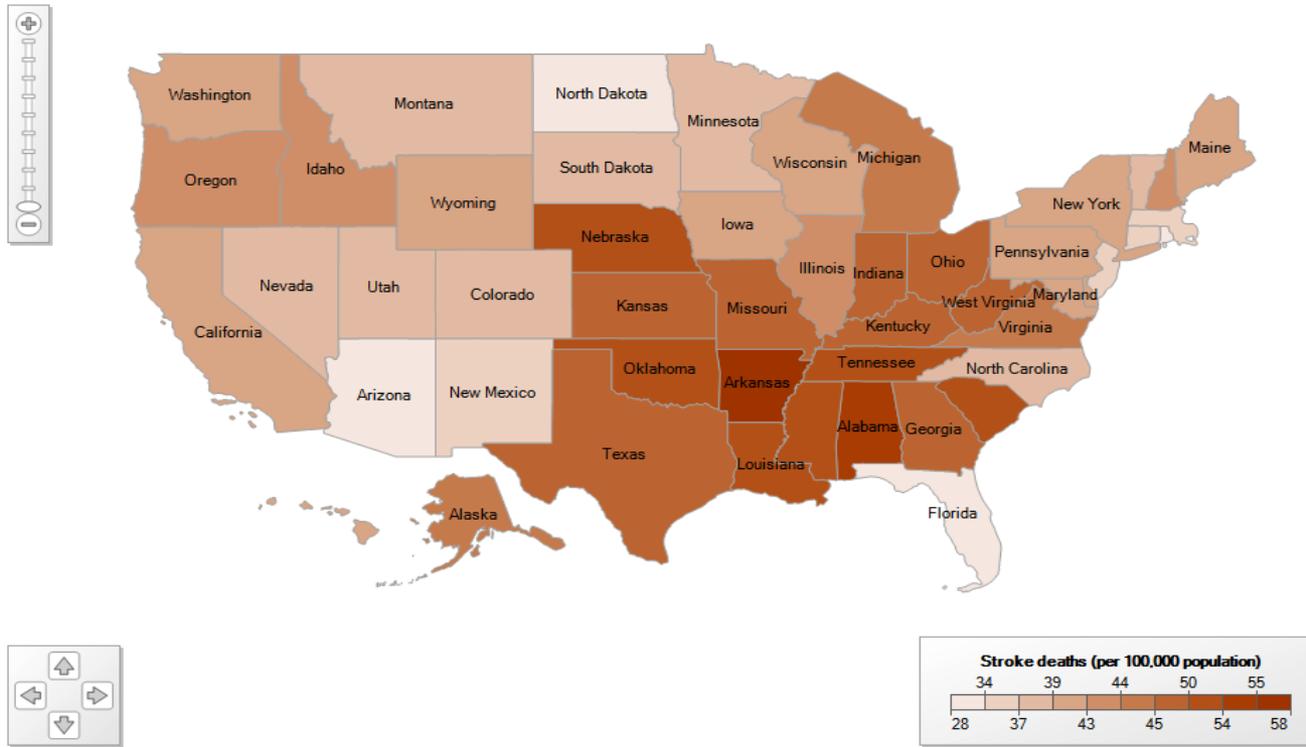
You are here: National

View Data As: [Table](#) [Chart](#) [Map](#)

Geography: [National](#)

Year: [2007](#)

Show: [\(Age-adjusted\); Total](#)



2. Health United States

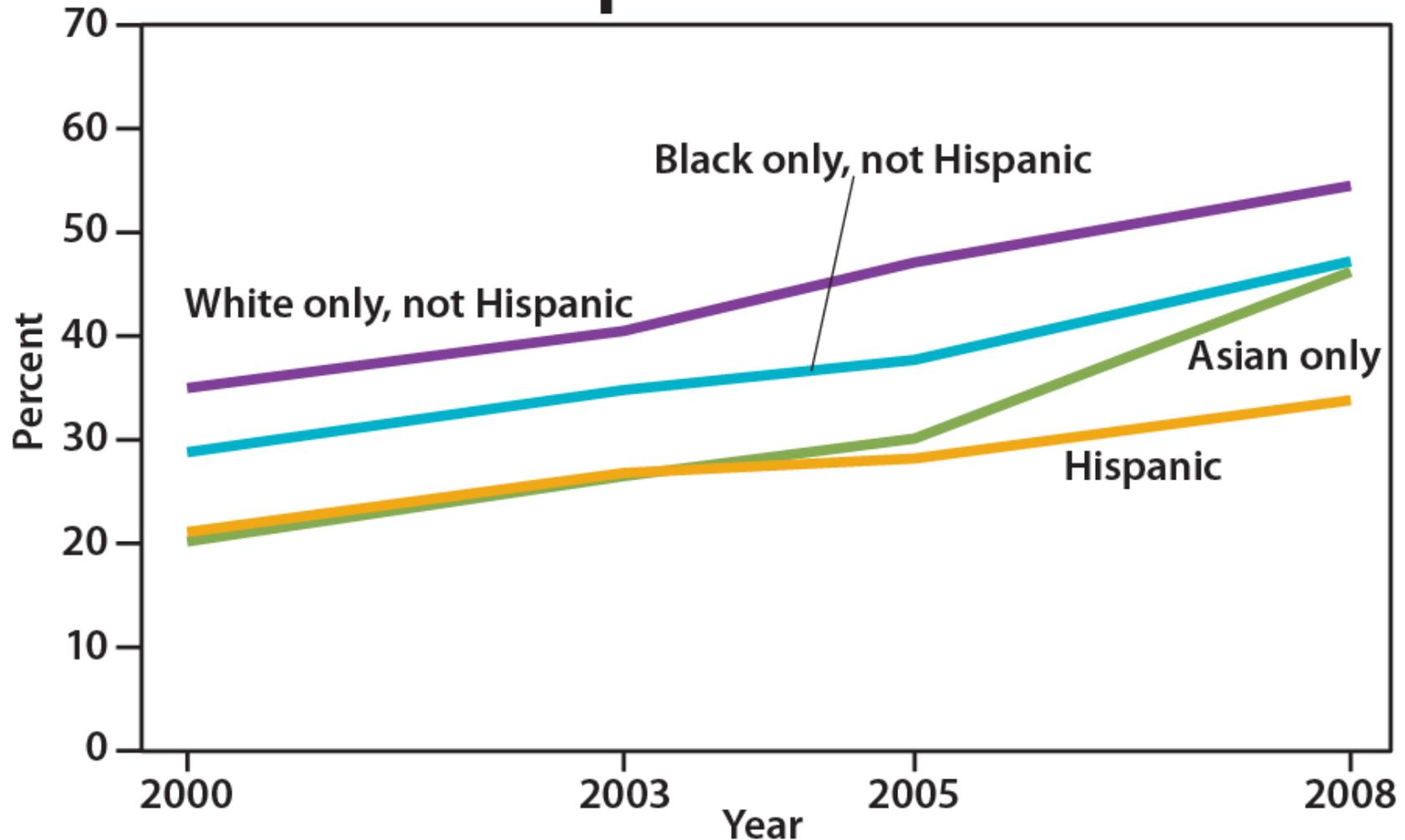
www.cdc.gov/nchs/hus.htm

- **Annual report (since 1975) on national trends in statistics**
 - Health status and determinants
 - Use of health care
 - Health resources
 - Health care costs and financing
- **Includes data from 55 sources**

Ex.: How might you start to describe selected trends in health care use?

- **Preventive services – NHIS**
- **Prescription drugs – NHANES**
- **Inpatient surgery – NHDS**

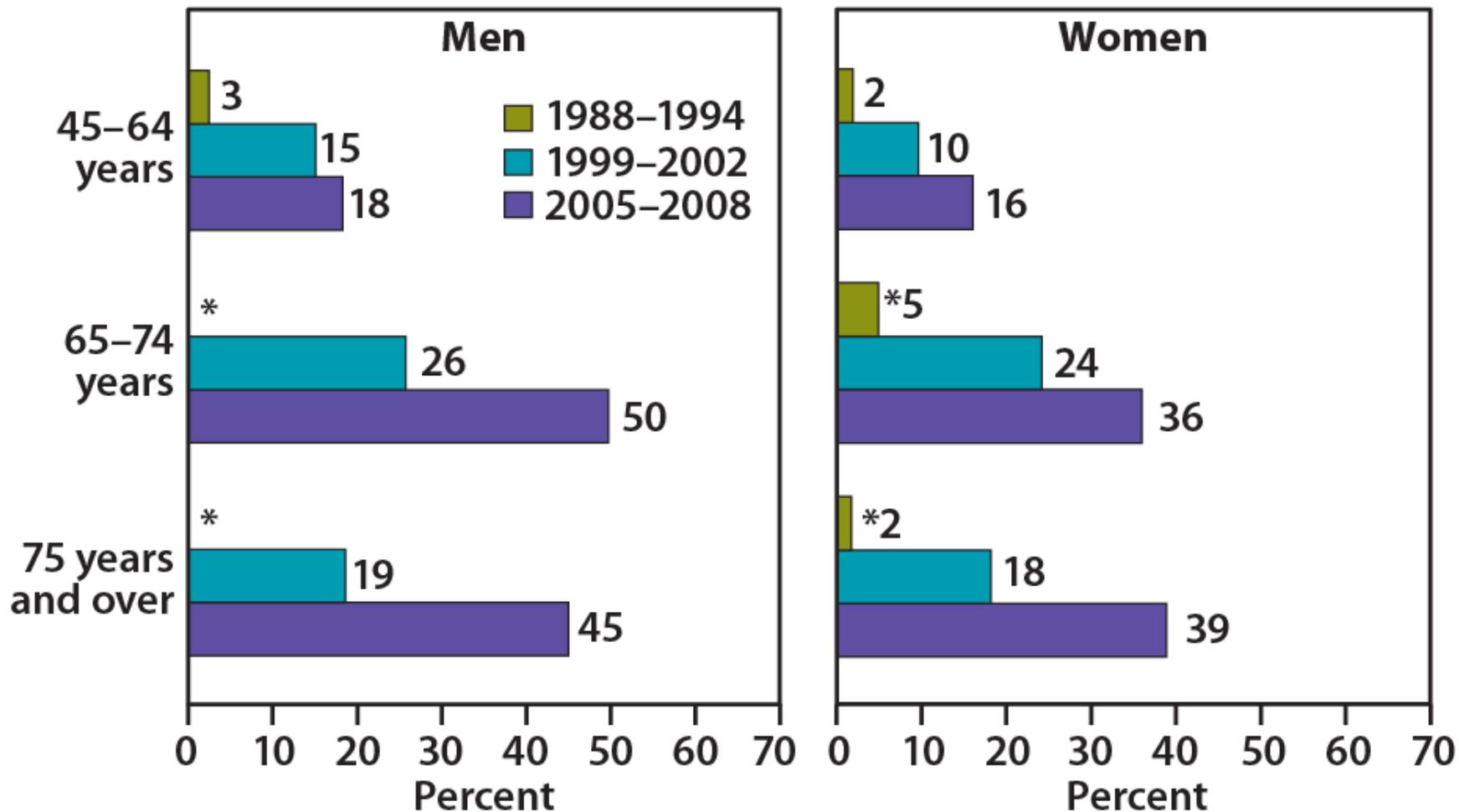
Respondent-reported colorectal tests and procedures



NOTE: Colorectal tests and procedures include reports of home fecal occult blood test (FOBT) in the past year, sigmoidoscopy procedure in the past 5 years with FOBT in the past 3 years, or colonoscopy in the past 10 years.

SOURCE: CDC/NCHS, *Health, United States, 2010*, Figure 9. Data from the National Health Interview Survey.

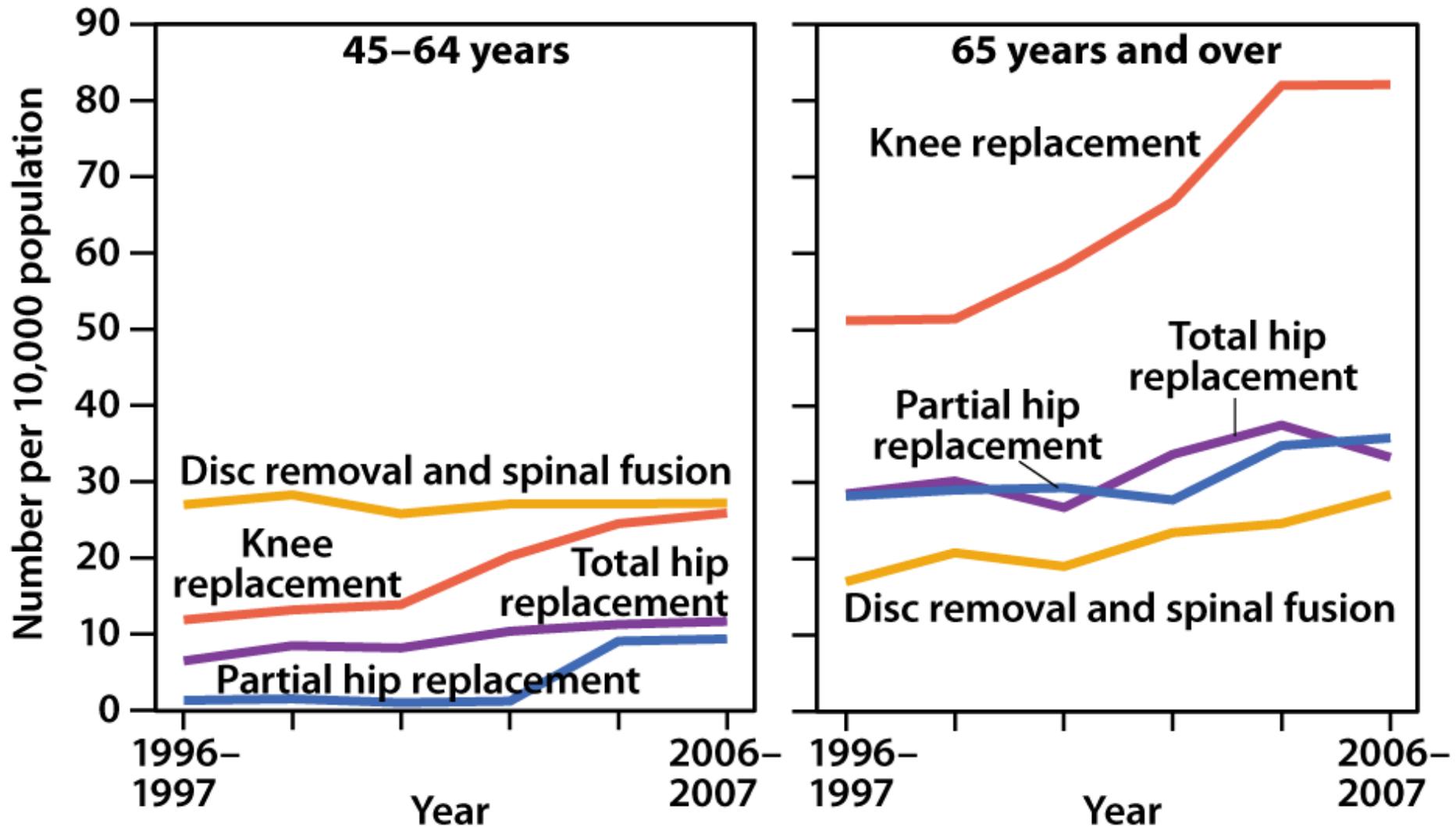
Statin drug use in the past 30 days



*Estimates are considered unreliable. Data preceded by an asterisk have a relative standard error (RSE) of 20%–30%. Data not shown have an RSE of greater than 30%.

SOURCE: CDC/NCHS, *Health, United States, 2010*, Figure 17. Data from the National Health and Nutrition Examination Survey.

Back and joint procedures



SOURCE: CDC/NCHS, *Health, United States, 2010*, Figure 8. Data from the National Hospital Discharge Survey.

3. Healthy People (HP) 2010 / 2020

www.cdc.gov/nchs/healthy_people.htm

- **A nationwide health promotion & disease prevention agenda**
- **Tracks progress towards targets for health objectives**
- **HP 2010: >900 objectives in 28 focus areas, using 150 data sources**
- **HP 2020: 1200 objectives on 42 topics**

HP tracking data

- **HP 2010**

- **Final Review: summarizes progress over the decade**
- **Data2010: online database with tracking data**

- **HP 2020**

- **Baseline data available through HP webpage & Health Indicators Warehouse**

Healthy People (HP)

Ex.: Heart disease and stroke

- **HP 2010**

- 17 objectives tracked
- Using 5 data sources including NVSS, NHIS, NHDS, NHANES

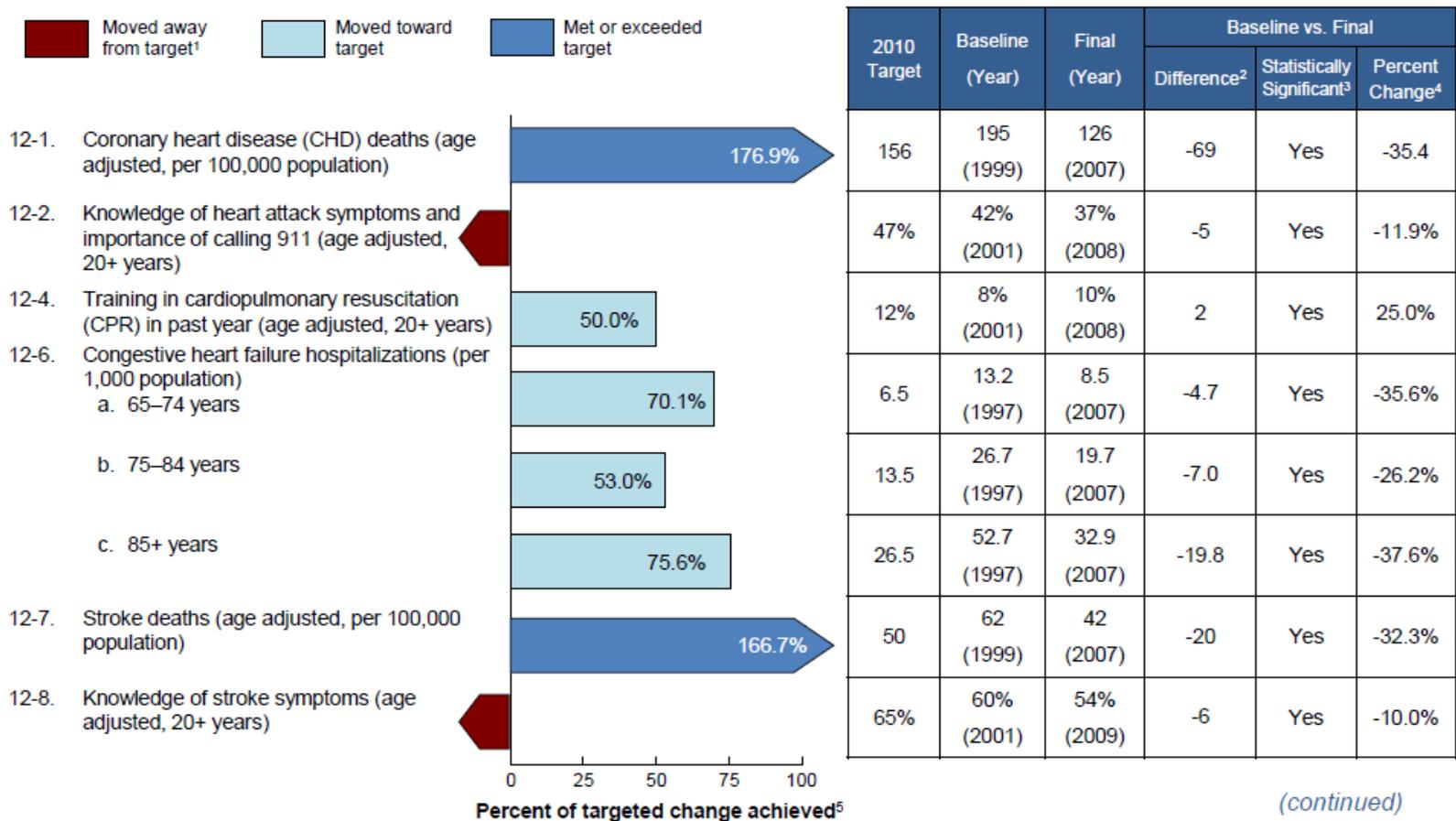
- **HP 2020**

- 18 objectives
- Baseline data from 5 data sources including NVSS, NHIS, NHANES
- 31 additional developmental objectives

HP 2010 Final Review

www.cdc.gov/nchs/data/hpdata2010/hp2010_final_review.pdf

Figure 12-1. Progress Toward Target Attainment for Focus Area 12: Heart Disease and Stroke



4. Health Data Interactive

www.cdc.gov/nchs/hdi.htm

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Data Access

Data Access

Tools

► **Health Data Interactive**

- Getting Started
- Data Sources
- Related Resources
- Frequently Asked Questions

ICPSR

SETS

VitalStats

Data Linkage

National Death Index

Public-Use Data Files

Research Data Center

[NCHS Home](#) > [Data Access](#) > [Tools](#)

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Health Data Interactive

Welcome! Health Data Interactive presents tables with national health statistics for infants, children, adolescents, adults, and older adults. Tables can be customized by age, gender, race/ethnicity, and geographic location to explore different trends and patterns.

Table Topics

Health and functional status	Mortality and life expectancy
Health care use and expenditures	Pregnancy and birth
Health conditions	Risk factors and disease prevention
Health insurance and access	

Search Tables **GO**

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Contact Us:

 National Center for Health Statistics
3311 Toledo Rd
Hyattsville, MD 20782

 1 (800) 232-4636

 cdcinfo@cdc.gov

Suggested Citation

Centers for Disease Control and Prevention. National Center for Health Statistics. Health Data Interactive. www.cdc.gov/nchs/hdi.htm. [Date of access].

Health Data Interactive online tables

Ex.: Asthma prevalence, health care use, and mortality by age, race, and sex

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Health Data Interactive

Reports

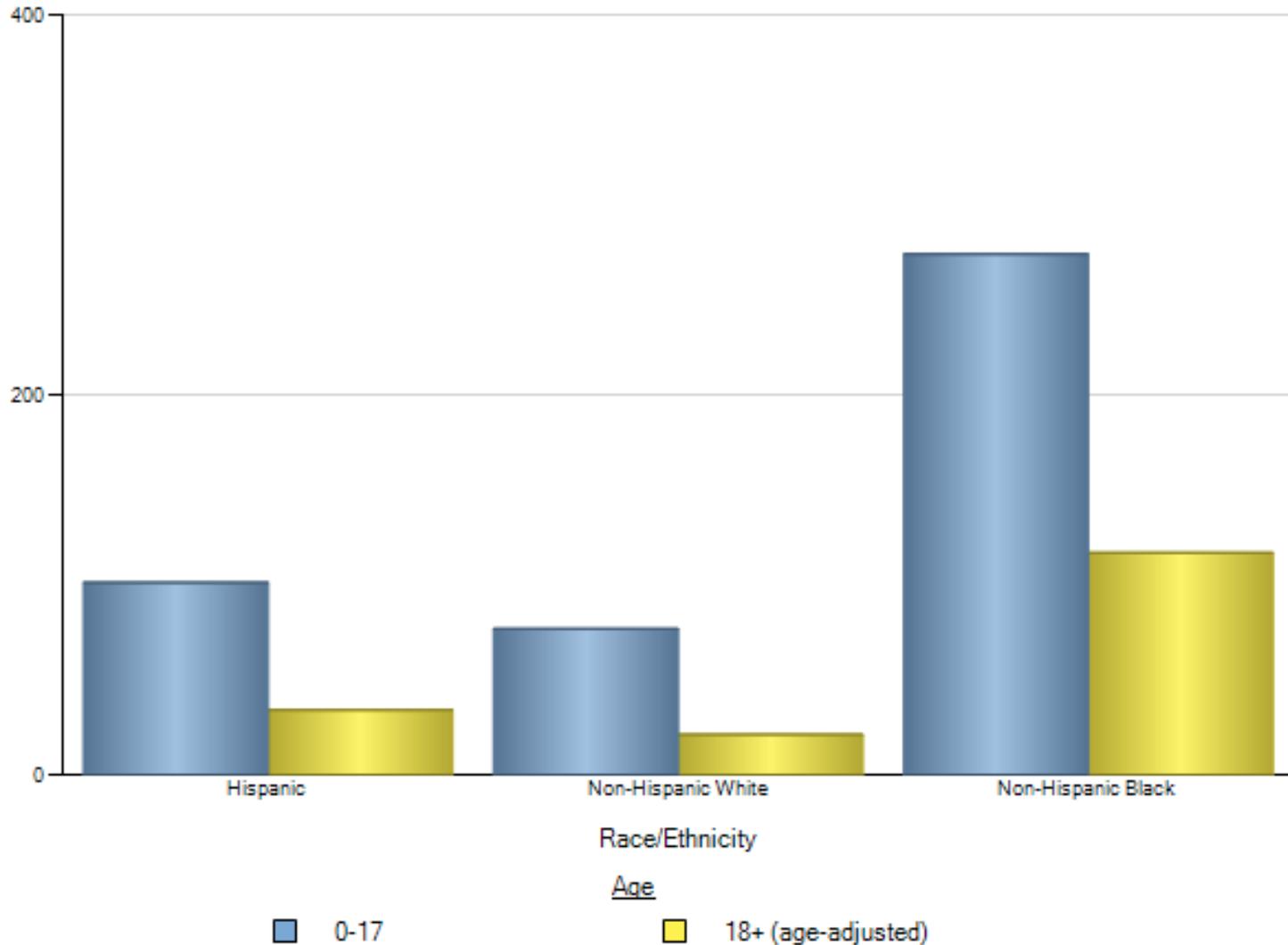
Search results for 'asthma' in 'Public reports'

Name

-  Mortality by underlying cause, ages 18+: US/State, 1999-2007 (Source: NVSS)
-  Hospital discharges by first-listed diagnosis among children: US, 1990-2007 (Source: NHDS)
-  Hospital discharges by first- and any-listed diagnosis: US, 1990-2007 (Source: NHDS)
-  Asthma and chronic obstructive pulmonary disease: US, 1998-2009 (Source: NHIS)
-  Emergency department visits: US, 1997-2008 (Source: NHAMCS)
-  Mortality by underlying cause among children: US/State, 1990-2007 (Source: NVSS)
-  Mortality by underlying and multiple cause, ages 18+: US, 1981-2007 (Source: NVSS)

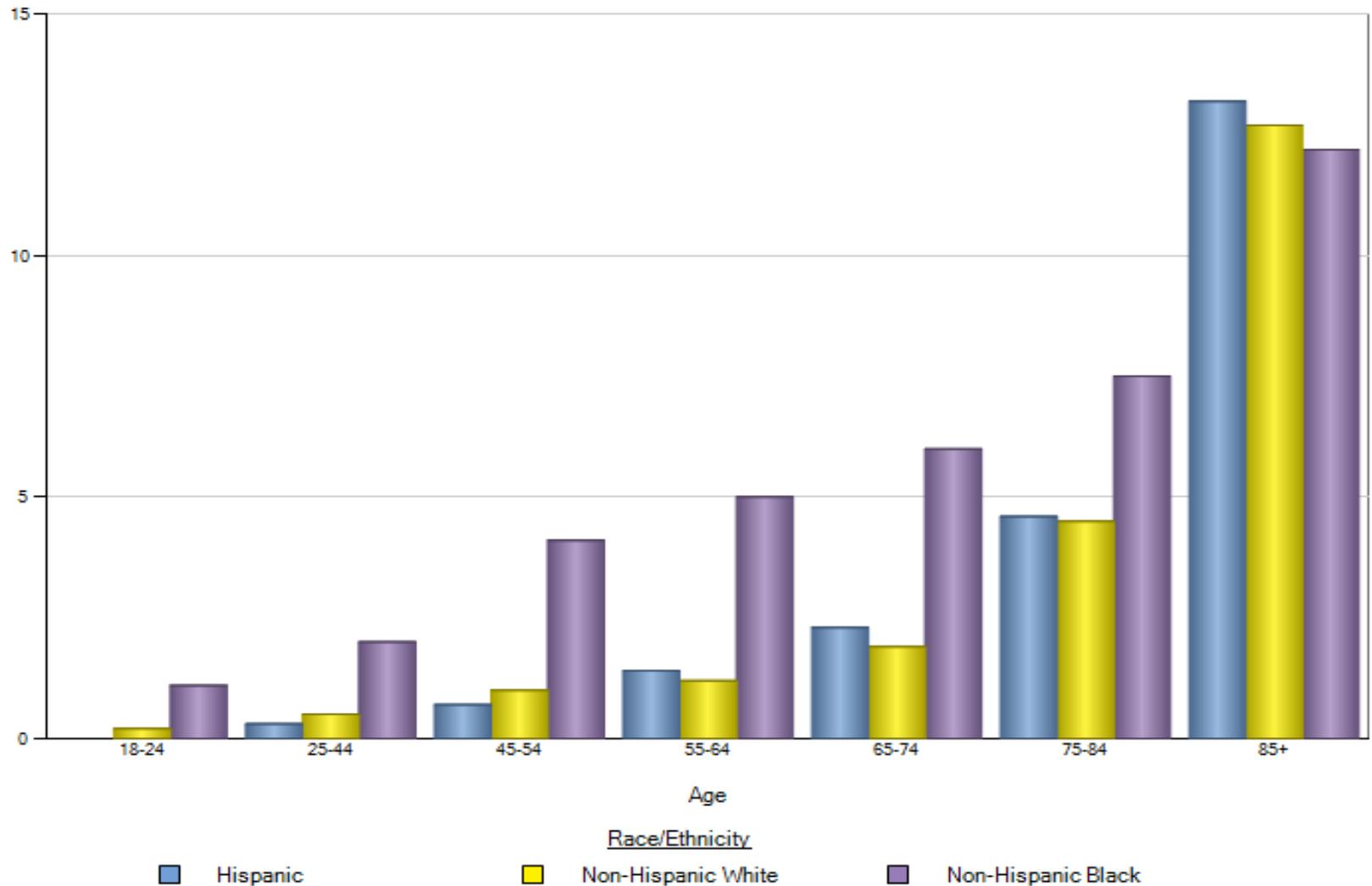
7 Results

Asthma emergency department visits (per 10,000), by age, race/ ethnicity: annual average 2006-2008



Source: National Hospital Ambulatory Medical Care Survey

Asthma deaths among adults (per 100,000), by age and race: annual average 2005-2007



Source: National Vital Statistics System

5. FastStats: Statistics by topic

www.cdc.gov/nchs/faststats/default.htm

- **Provides quick web access to statistics on topics of public health importance using multiple data sources and publications**
- **Organized alphabetically**
- **Links to:**
 - **Source publications**
 - **Publications with more data**
 - **Related web pages**

FastStats topics

FastStats

FastStats Homepage

State and Territorial Data

Related Links

[Accessibility](#)

[NCHS Home](#)

 Recommend 13  Tweet 5  Share

FastStats A to Z

The FastStats site provides quick access to statistics on topics of public health importance and is organized alphabetically. Links are provided to publications that include the statistics presented, to sources of more data, and to related web pages.

[State and Territorial Data](#)

A

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FastStats

FastStats Homepage

State and Territorial Data

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Diabetes

(Data are for the U.S.)

Morbidity

- Percent of noninstitutionalized adults 20 years and older with diabetes (physician-diagnosed or undiagnosed): 10.7% (2003-2006)
- Percent of noninstitutionalized adults 20 years and older with physician-diagnosed diabetes: 7.7% (2003-2006)
- Percent of noninstitutionalized adults 20 years and older with undiagnosed diabetes: 3.0% (2003-2006)

Source: [Health, United States, 2011, table 50](#)  [PDF - 9.8 MB]

Health care use

Ambulatory care

- Number of ambulatory care visits (to physician offices, hospital outpatient and emergency departments) with diabetes as primary diagnosis: 27.7 million

Source: [Ambulatory Medical Care Utilization Estimates for 2007: table 6](#)  [PDF - 797 KB]

Hospital inpatient care

- Number of discharges with diabetes as first-listed diagnosis: 691,000
- Average length of stay: 5.0 days

Source: [National Hospital Discharge Survey: 2009 table, Average length of stay and days of care –](#)

Contact for more information

Jim Craver

Co-Acting Associate Director, Office of Analysis and Epidemiology

National Center for Health Statistics

Centers for Disease Control and Prevention

Department of Health and Human Services

jcraver@cdc.gov