U.S. Department of Health and Human Services
National Institutes of Health

National Heart Lung and Blood Institute

NCHS Data – Strengths and Weaknesses from the NHLBI Perspective

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NHLBI Strategic Plan

Why does NHLBI need NCHS data?

- Surveillance systems that allow for the rapid analysis and communication of health status are needed to provide data on the effectiveness of community-based and population-based interventions.

Surveillance Systems used by NHLBI

National Systems – NCHS

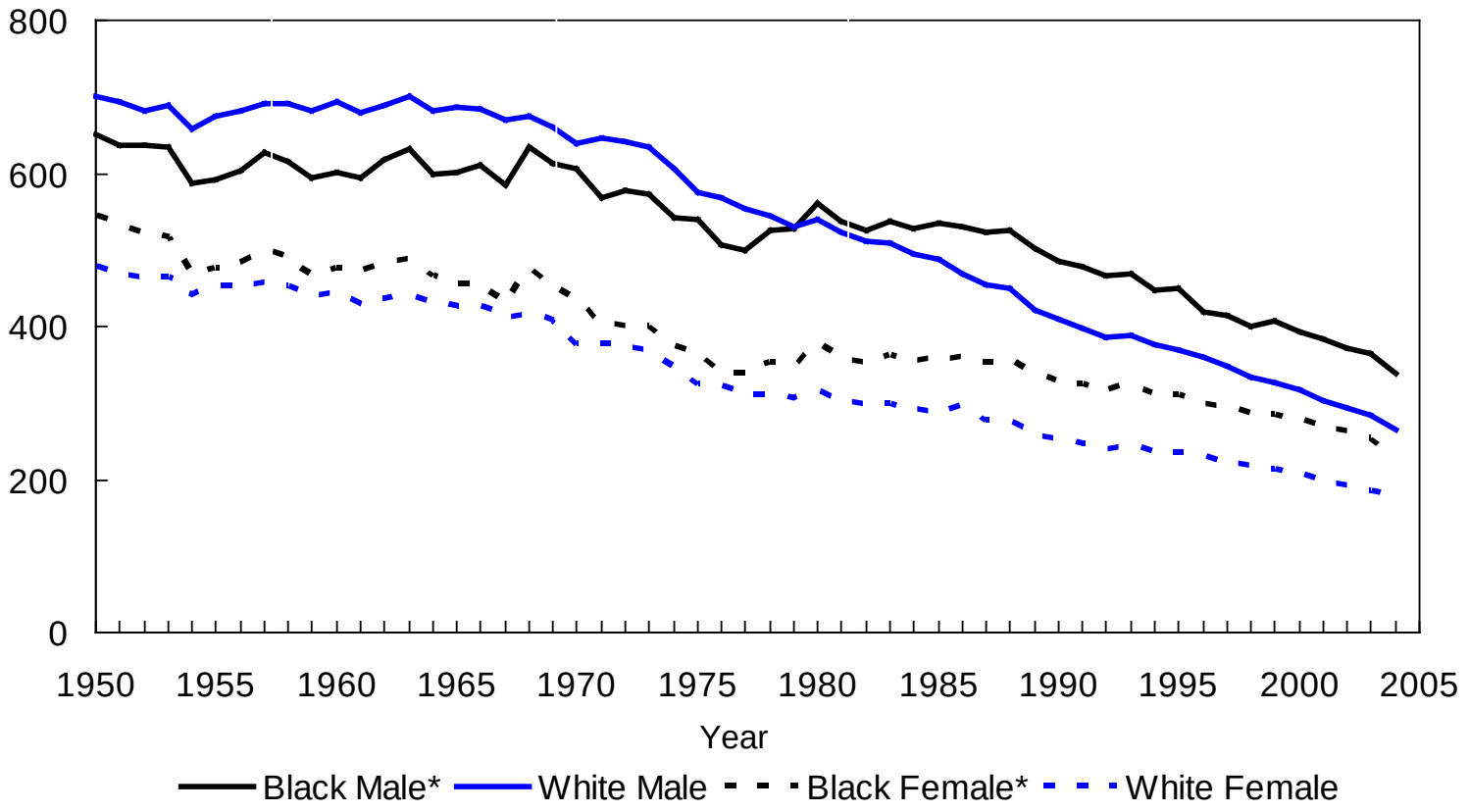
- National vital statistics system - NVSS
- Institution surveys – NHDS, NAMCS, NHAMCS,
- Population surveys – NHANES, NHIS

Community Systems - NHLBI

- ARIC – contract funded
- Minnesota Heart Survey, Worcester Heart Attack Study, Rochester Epidemiology Project – grant funded

Results from Vital Statistics

Age-adjusted death rates/100,000 for heart disease, US



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Results from Vital Statistics

Strengths:
Complete data, Causes of death,
Reasonably good age-sex-race data

Weaknesses:
Causes of death, Hispanic status, race identification, occupation classification.

Results from Vital Statistics

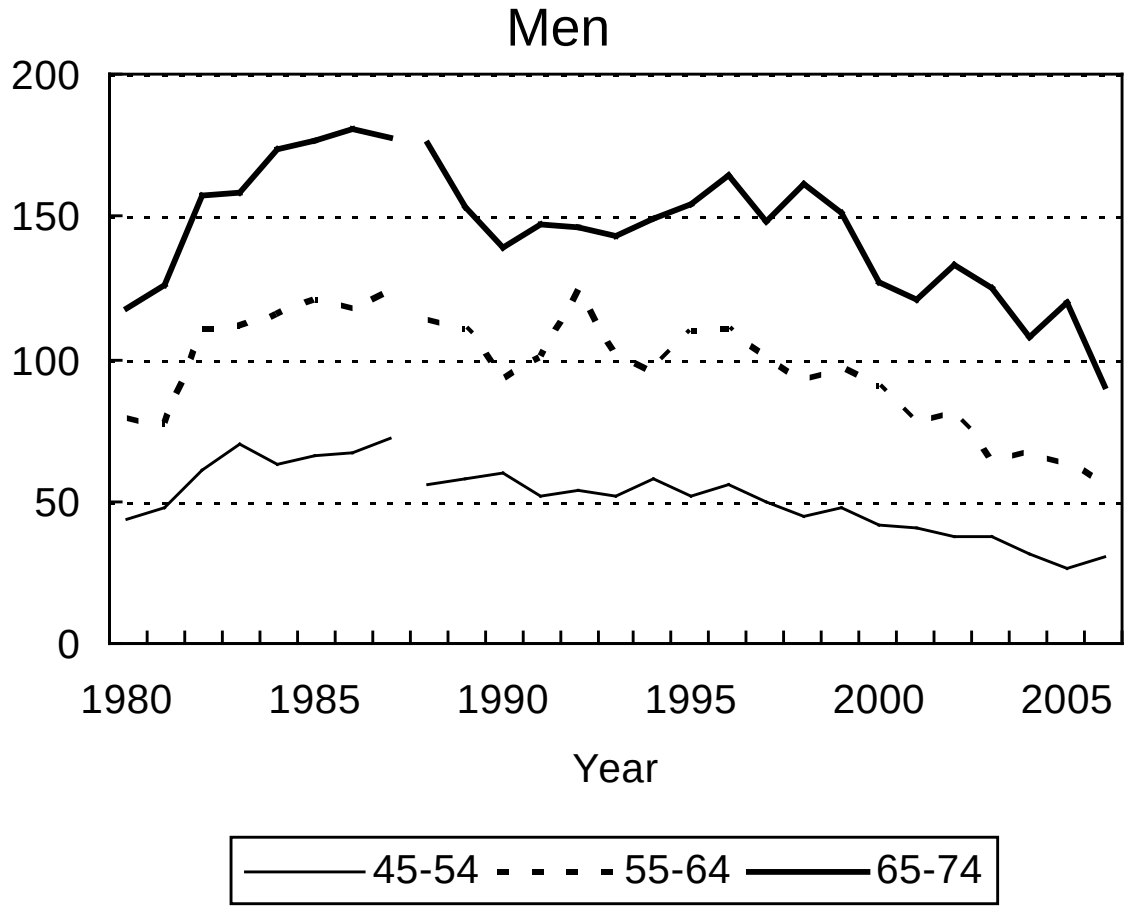
Ratio of Race/Ethnicity
Death Certificate to Prior Self Identification

White	1.00
Black	0.99
AIAN	0.77
API	0.93
Hispanic	0.95

Source: National Longitudinal Mortality Study
Vital and Health Statistics, Series 2, Number 148

Results from Hospital Discharge Survey

Hospitalization Rates/10,000 for Myocardial Infarction



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National Hospital Discharge Survey

Strengths:
National sample of hospitals, discharge codes give reasonable disease classifications

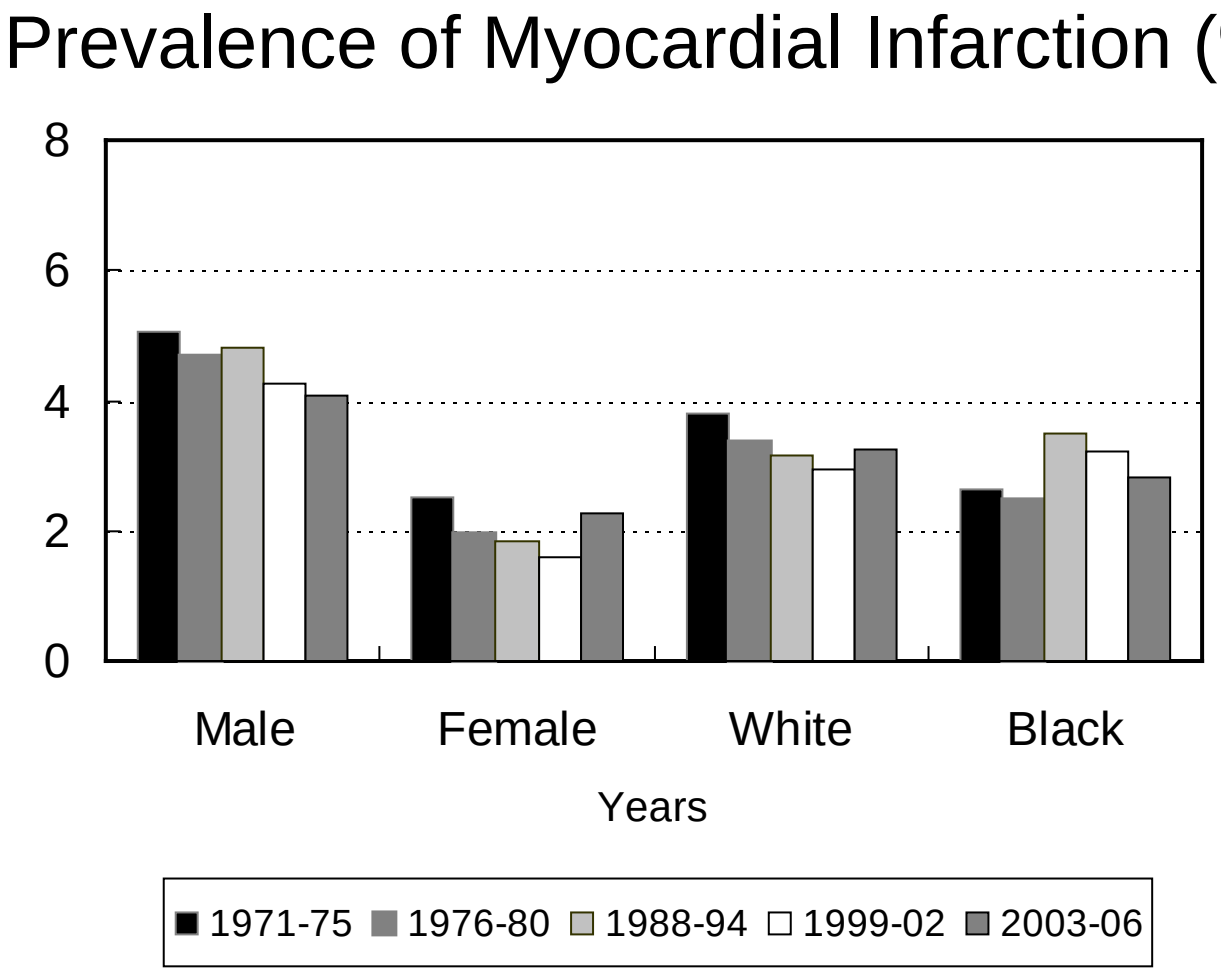
Weaknesses:
Diagnoses are not validated, race incomplete, counts episodes of hospitalization so person could count more than once, quality of care indicators, redesign in 1988

Validation of Hospital Discharge Codes

Results from the ARIC Study

ICD 9 CM Code	%Def or Probable MI
410	65
411	14
412-414	5
Other	4

Prevalence Results from NHANES



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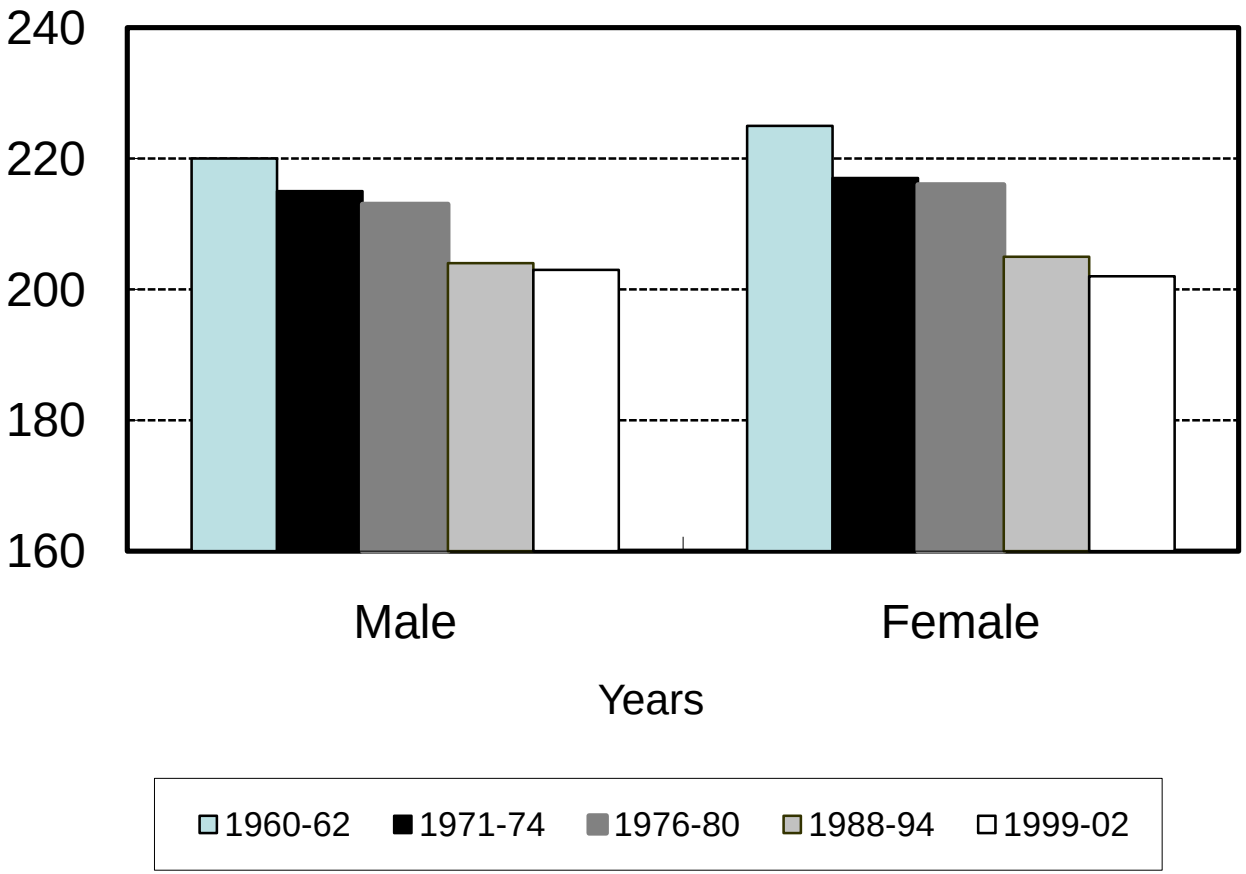
Prevalence Results from NHANES

Strengths:
National sample, person based, standardized questionnaires, consistent content over time

Weaknesses:
Prevalence data from reported history, diagnosis not validated, influenced by recall etc, some race-ethnicity groups too small

Measured Results from NHANES

Mean Value of Serum Total Cholesterol (mg/dL)



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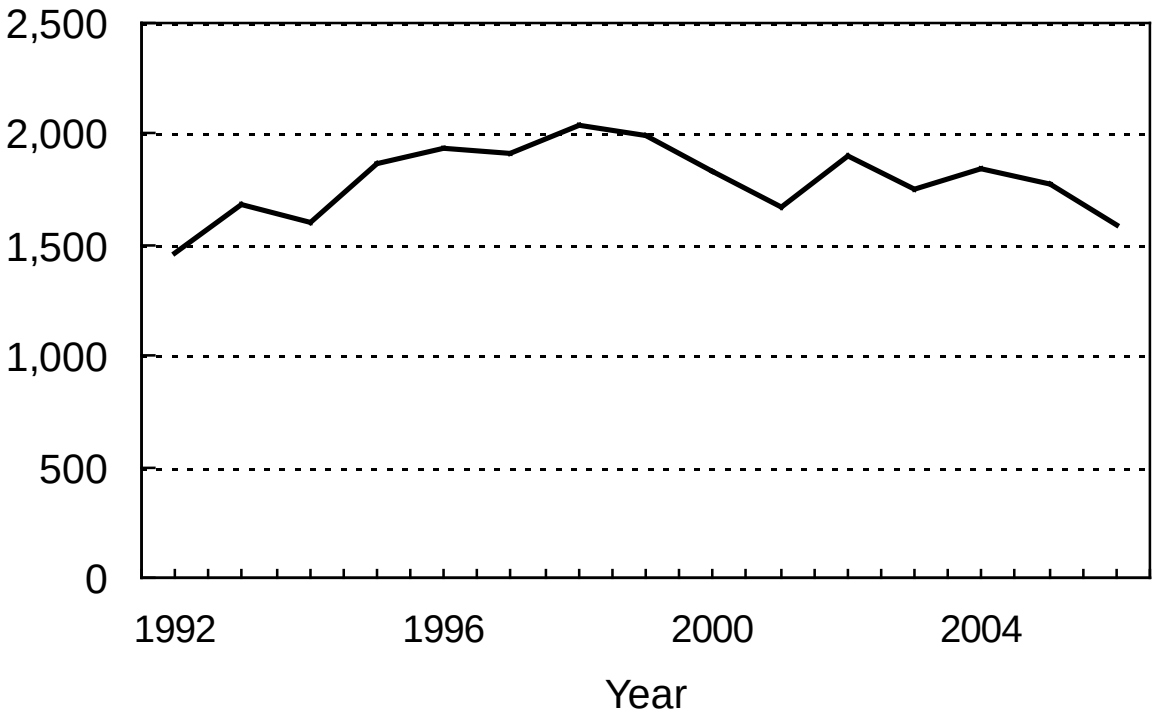
Measured Results from NHANES

Strengths:
National sample, person based, standardized laboratories, good QC

Weaknesses:
Small sample size for some race/ethnic subgroups, morning fasting samples only

Results from NHAMCS

Emergency Department Visits (thousands) for Asthma
National Hospital Ambulatory Medical Care Survey



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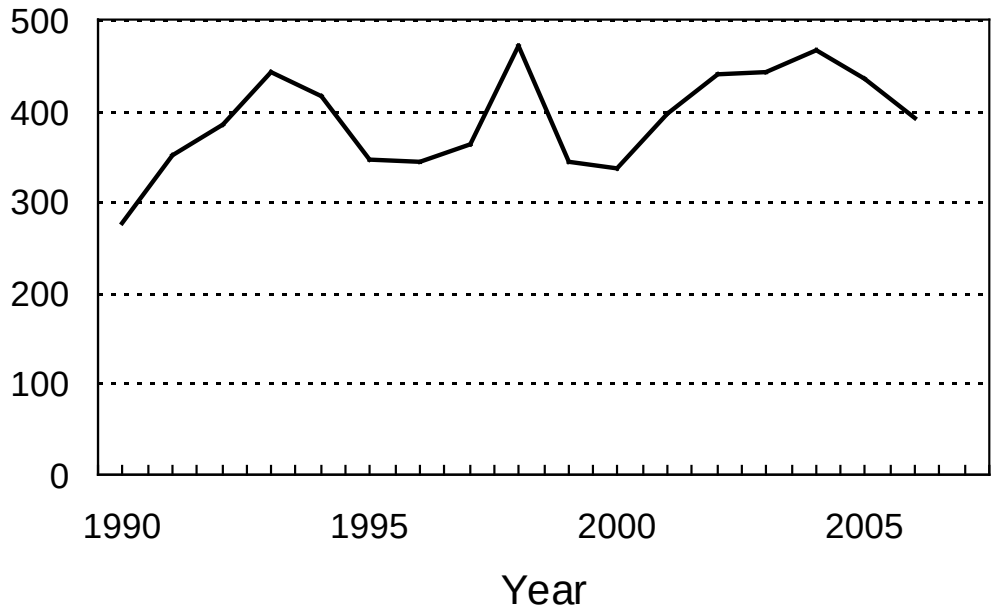
Results from NAMCS

Physicians Office Visits (thousands) for Asthma
National Ambulatory Medical Care Survey



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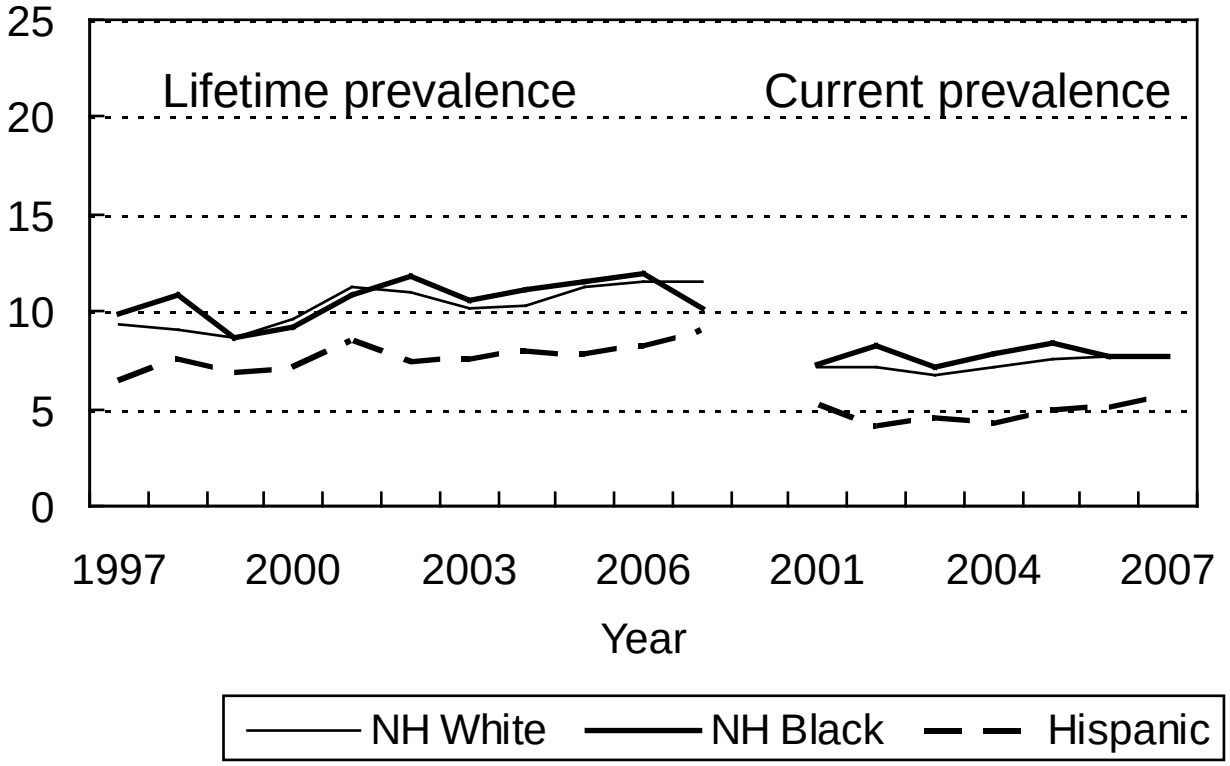
Results from Ambulatory Care Surveys

Strengths:
National sample, provides data on diseases/conditions frequently seen in outpatient settings

Weaknesses:
Counts occurrences not persons, diagnoses not validated

Results from NHIS

Prevalence of Asthma (%), age 18 or greater



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Results from Health Interview Survey

Strengths:
National sample, larger size, mostly consistent questions

Weaknesses:
Change in questions make trends difficult to interpret, data only based on questionnaires

Questions...

- Is there a need for a new surveillance and research infrastructure?
  - Could existing data collection efforts be expanded and/or integrated?
- How should surveillance data be collected and used to enhance research to address health disparities?
- How might relevant stakeholders collaborate in surveillance, determination of research priorities, and development of public policy?

IOM Charge

An Institute of Medicine committee is meeting to develop a framework for building a national chronic disease surveillance system focused primarily on cardiovascular disease that is capable of providing data for analysis of race, ethnic, socioeconomic, and geographic region disparities in incidence and prevalence, functional health outcomes, measured risk factors, and clinical care delivery.

Thank you,

Any questions?