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# **Health Disparities among America's Health Care Providers: Evidence from the Integrated Health Interview Series, 1982-2004**

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# Introduction-

## Background

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- Social disparities in health are well documented
  - Racial disparities in various health indicators
  - Disparities in health across occupations
- Little is known about health disparities among healthcare workers
  - Assume they would be healthier than general population
  - Unknown if health disparities among healthcare workers mirror that of the general population

# Introduction-

## Research Question

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- Among health care workers:
  - Are there health disparities **across** workforce categories?
  - Are there racial disparities in health **within** workforce categories?

# Method- Data

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- Sample
  - Adults between the ages of 20 and 64 employed in health care professions in the United States between 1982 and 2004.
  
- Data Source
  - The Integrated Health Interview Series (IHIS), a cross-sectional time series of harmonized data created from the National Health Interview Survey (NHIS) source data.
  
- Variables
  - From IHIS: Demographics (race/ethnicity, age, gender, education, marital status), health status, BMI
  - From NHIS source data: Occupation

# Method-

# Data Source-IHIS

[Comments and Questions](#) | [Download IHIS Brochure](#)



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## Welcome

The Integrated Health Interview Series (IHIS) is a harmonized set of data and documentation based on material originally included in the public use files of the U.S. National Health Interview Survey (NHIS) and distributed for free over the internet.

**IHIS currently consists of approximately 300 integrated variables selected from more than 2000 variables included in the core survey household and person files for 1969-2005, the sample adult/sample child files for 1997-2005, and the Access to Care supplements for 1993-96.**

NHIS is the principal source of information on the health of the U.S. population, covering such topics as general health status, the distribution of acute and chronic illness, functional limitation, access to and use of medical services, and insurance coverage. The IHIS facilitates cross-time comparisons of these invaluable survey data by coding variables identically across time. With IHIS microdata (information about individual persons and households), researchers can use their desired set of variables to create tabulations and multivariate analyses tailored to their particular research questions. The IHIS provides detailed documentation covering comparability issues and on-line codes and frequencies for each harmonized variable. IHIS data are distributed via an interactive data extraction system to anyone who agrees to use the data responsibly.

[Home](#) | [Data](#) | [Documentation](#) | [Variables](#) | [Contact](#)

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[MPH, PhD](#)  
[Integrated Health Interview Series: Facilitating the use and analysis of NHIS data from 1969-2005](#)

IHIS website: [www.ihis.us](http://www.ihis.us)

# Method-

# Measures

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- Outcome variables:
  - Excellent health (self-reported excellent health)
  - Obesity (BMI is greater than 30)
  
- Health care workforce categories:
  - Health diagnosing professions
    - (e.g. physicians, dentists)
  - Health treating occupations
    - (e.g. registered nurses, therapists)
  - Health technicians
    - (e.g. lab technicians)
  - Health service workers
    - (e.g. health aides or orderlies)

# Method-

## Analytic methods

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- Logistic regression, accounting for the complex survey design
  - Adjusted for age, gender, marital status, and education
  - Added year dummy variables
  - Stratified by healthcare workforce categories
  
- Stata version 9.2

# Result -

## Characteristics of Healthcare Workforce

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- Among all US healthcare workers
  - Women (79%)
  - White (75%)
  - Married (65%)
  - College educated (72%)
  - Health assessing and treating occupations (38%)
  - Health services workers (29%)



# Result -

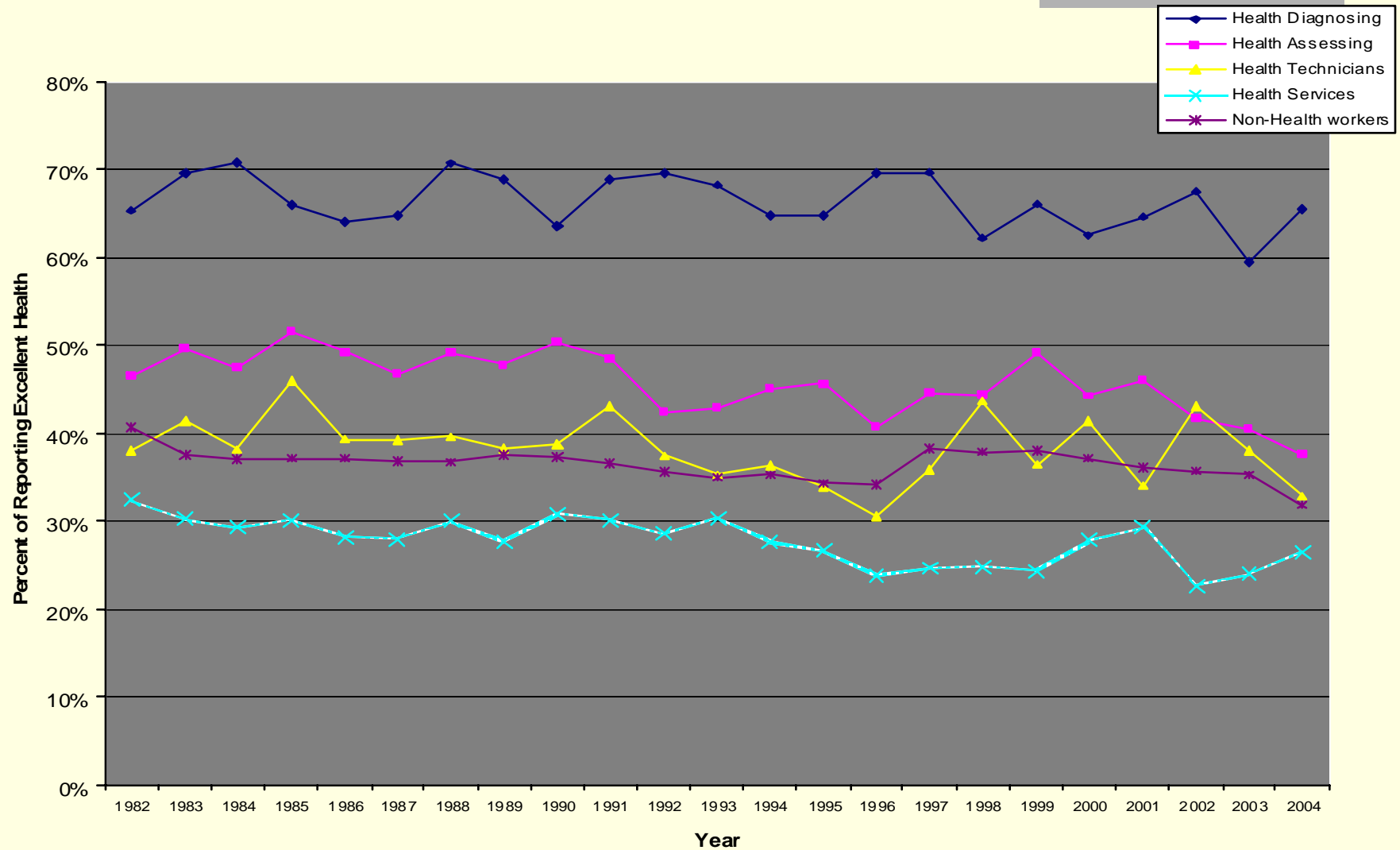
## Characteristics of Healthcare Workforce (cont.)

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- Across all US healthcare workers
  - Health diagnosing professions
    - Older, male, married and college educated
  - Evident racial differences
    - Blacks make up 15% of health care workforce
      - Health diagnosing professions (4 %)
      - Health service work (28 %)

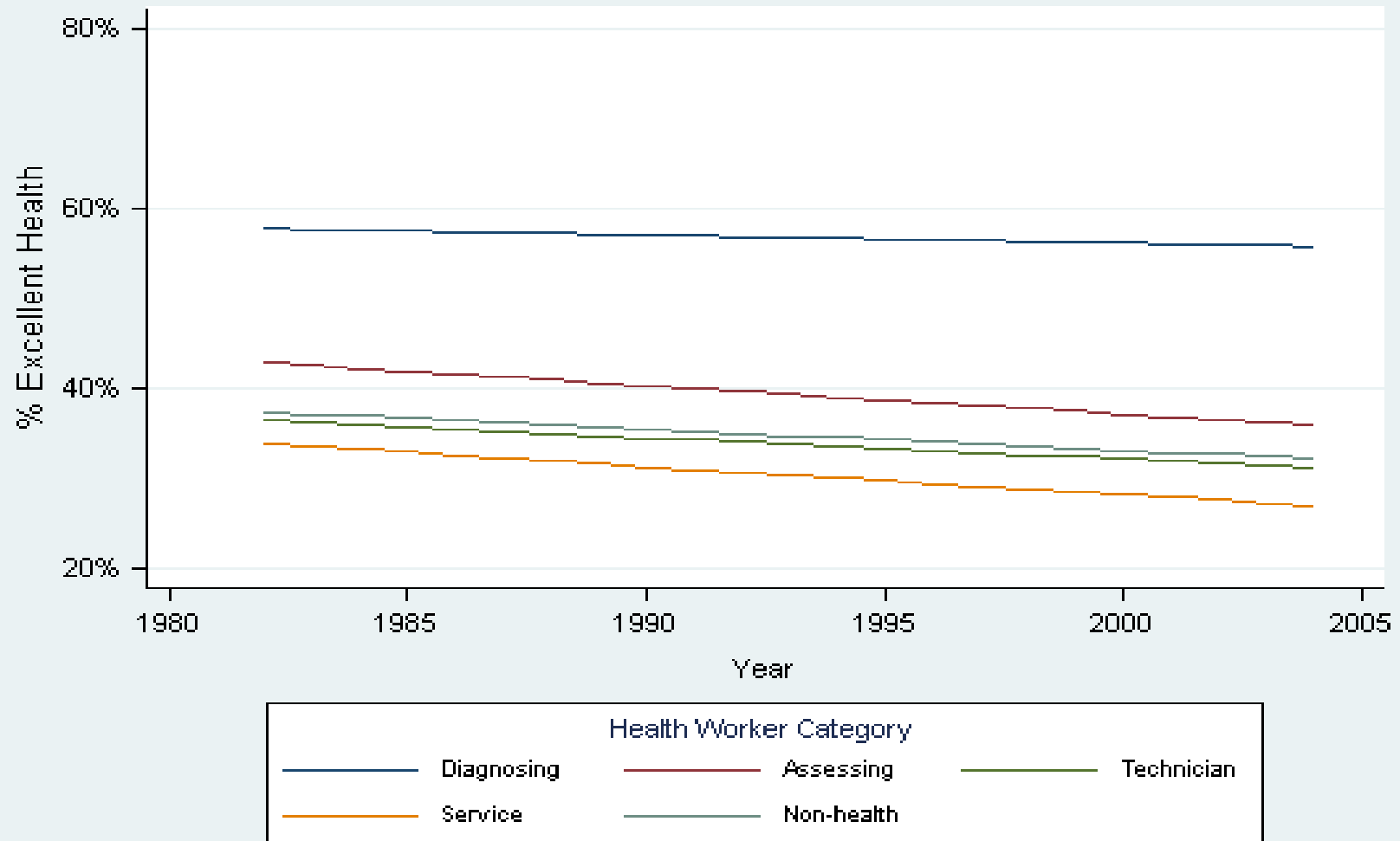
# Result-Excellent Health

## Unadjusted Health Status Over Time



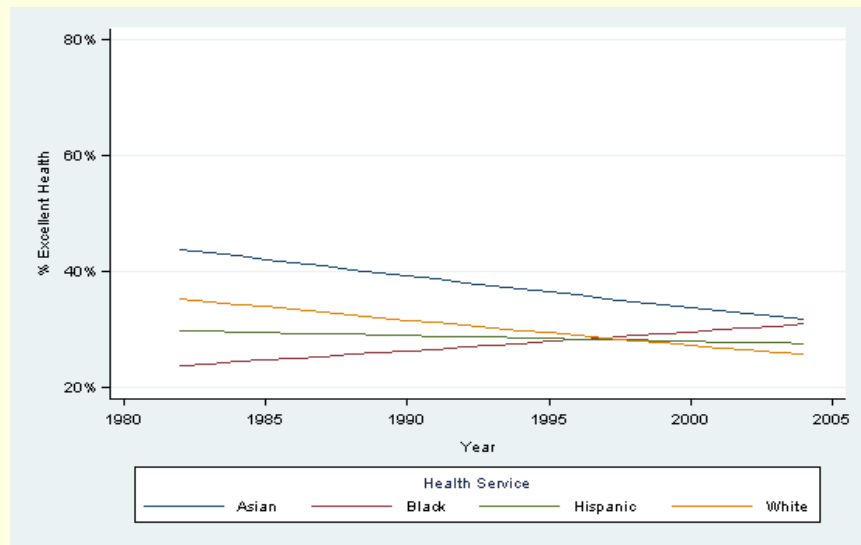
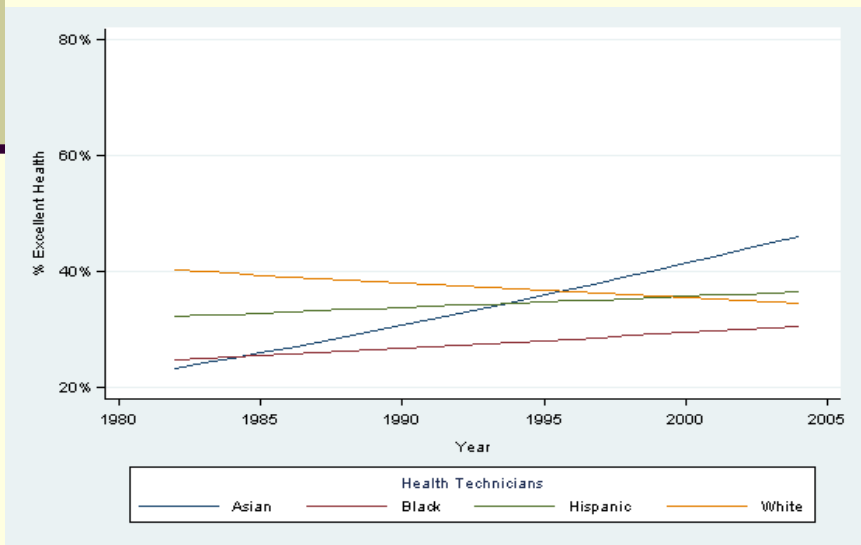
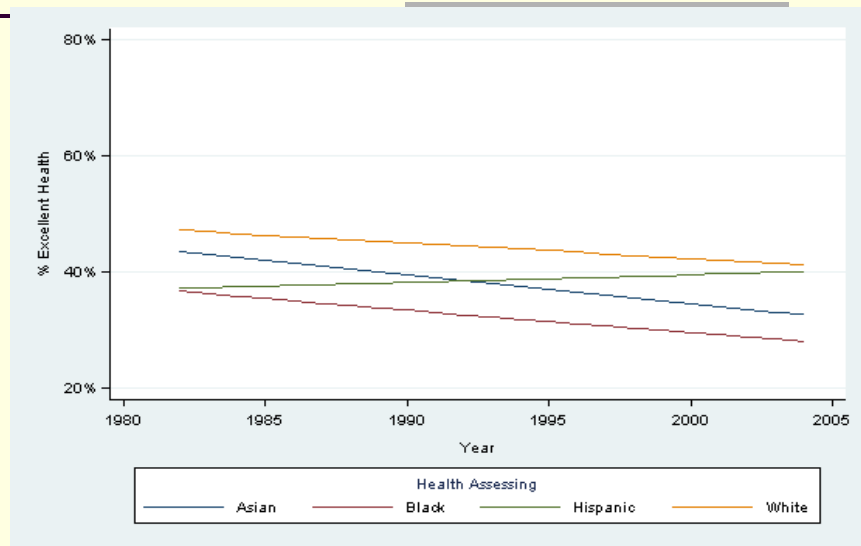
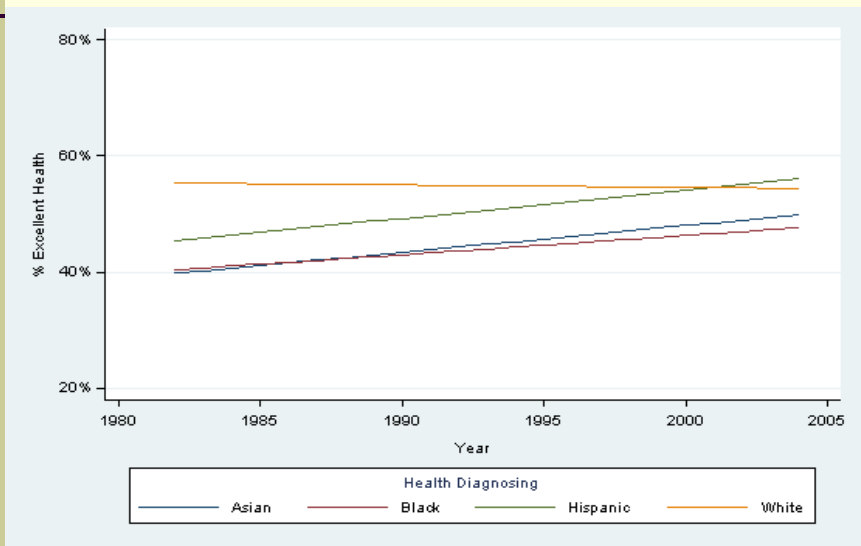
# Result-Excellent Health

## Disparities Across Healthcare Workforce Categories



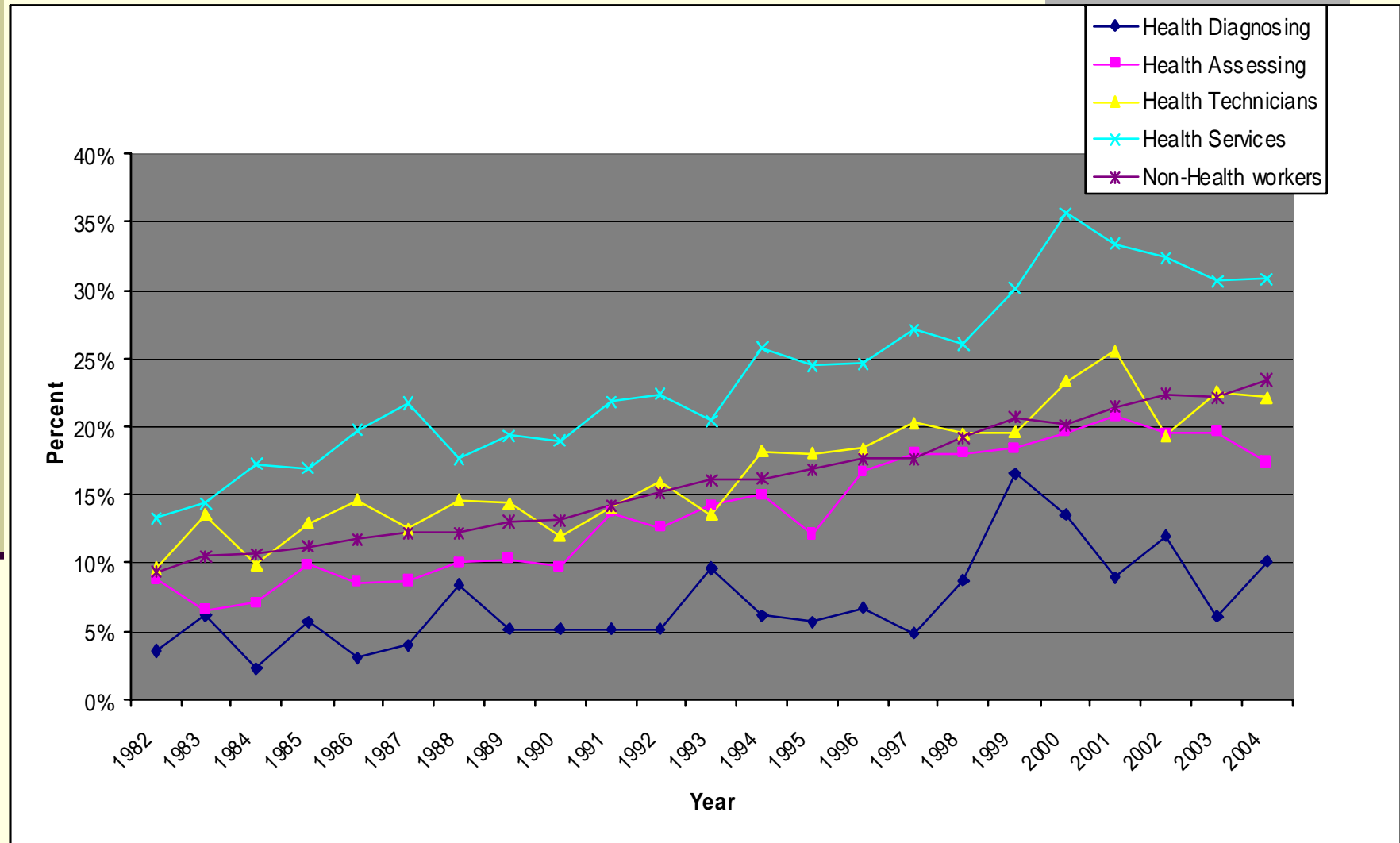
# Result-Excellent Health

## Disparities by Race Within the Healthcare Workforce Category



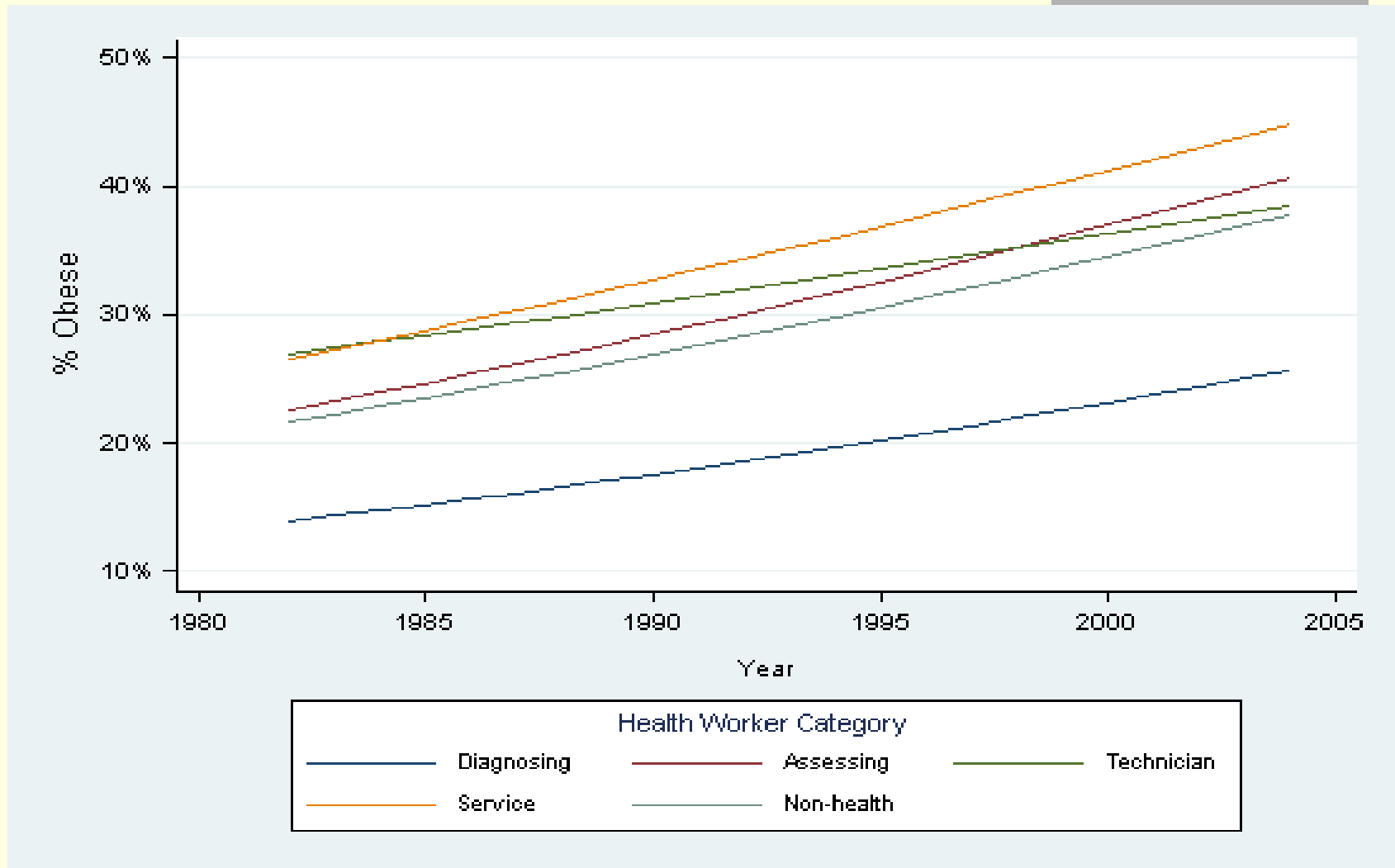
# Result-Obesity

Unadjusted prevalence of obesity over time



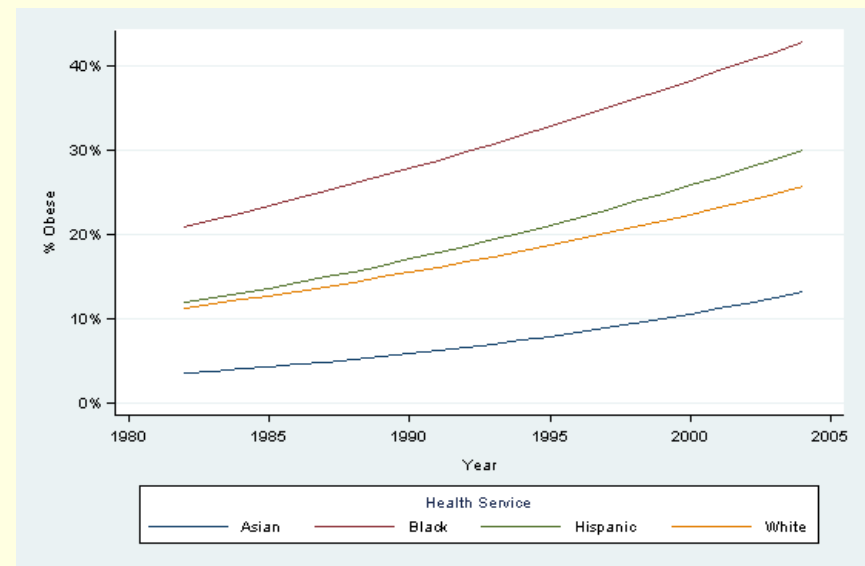
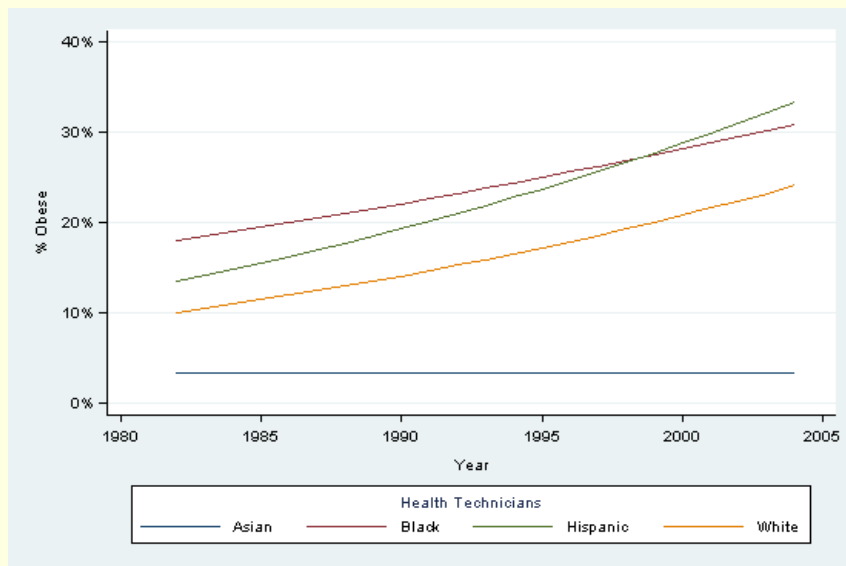
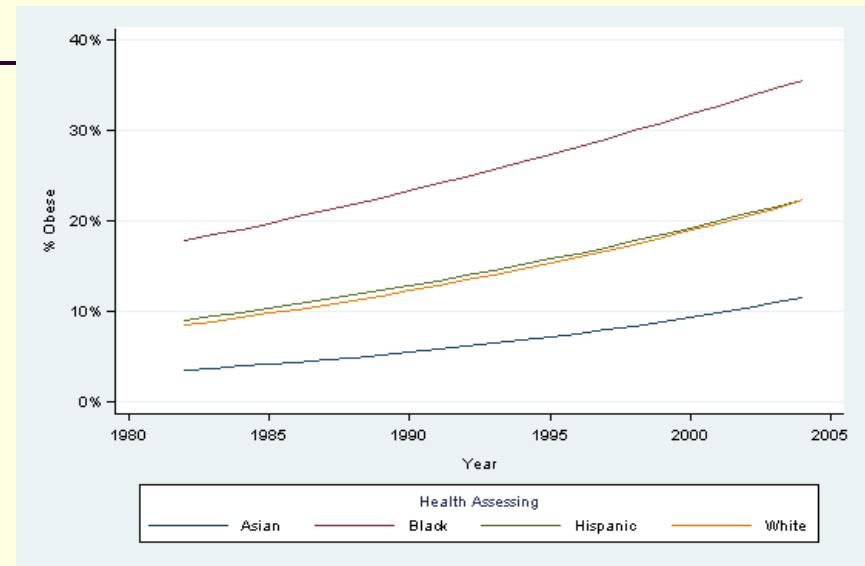
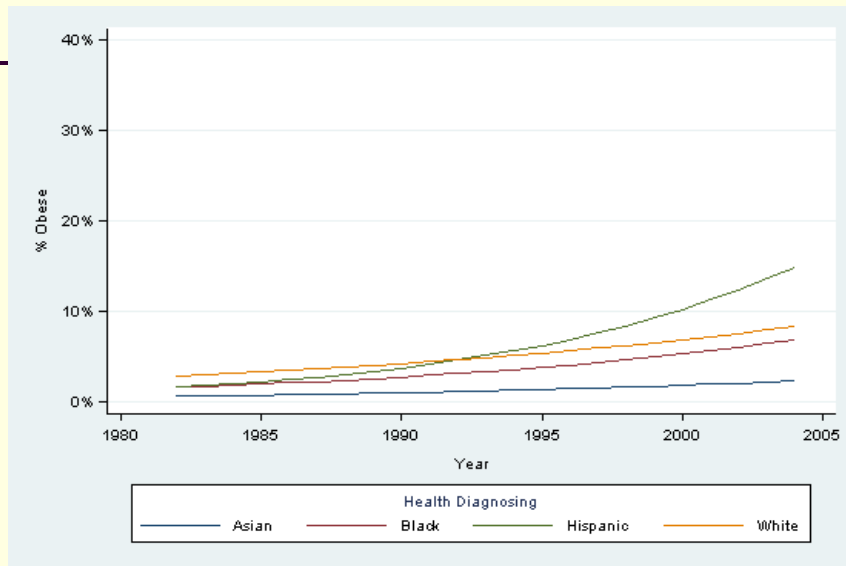
# Result-Obesity

## Disparities Across Healthcare Workforce Categories



# Result-Obesity

## Disparities by Race Within Healthcare Workforce Category



# Conclusion

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- The health of healthcare workers has declined from 1982 to 2004.
- Health disparities do exist across healthcare workforce categories.
  - Health status:
    - Health diagnosing professions reported better health than other healthcare workers.
  - Obesity:
    - Health technician and health service occupations are significantly more likely to be obese.



# Conclusion (cont.)

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- Health disparities by race/ethnicity do exist within healthcare workforce categories.
  - Health status:
    - Black, Hispanic, and Asian health care workers are less likely to report excellent health than White.
  - Obesity:
    - Black and Hispanic healthcare workers are more likely to be obese than their White counterparts in the categories of health technician and health services.
    - Asian healthcare workers are less likely to be obese than White workers across the healthcare categories.

# Limitations

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- Self-report measurement:
  - Excellent health status.
  - Height and weight (for calculating BMI).
- Broadly defined workforce categories.
- Small sample sizes for some race groups.
- Compositional differences in the population over time.

# Summary

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- Health disparities do exist among healthcare workers, both across and within workforce categories.
- Providing quality healthcare requires a healthy healthcare workforce.
- It is important to identify health differentials within the healthcare workforce in order to develop appropriate public health and/or occupational health interventions.
- A diverse, well-trained, and healthy healthcare workforce is key to improving the health status of the population.



Thank You