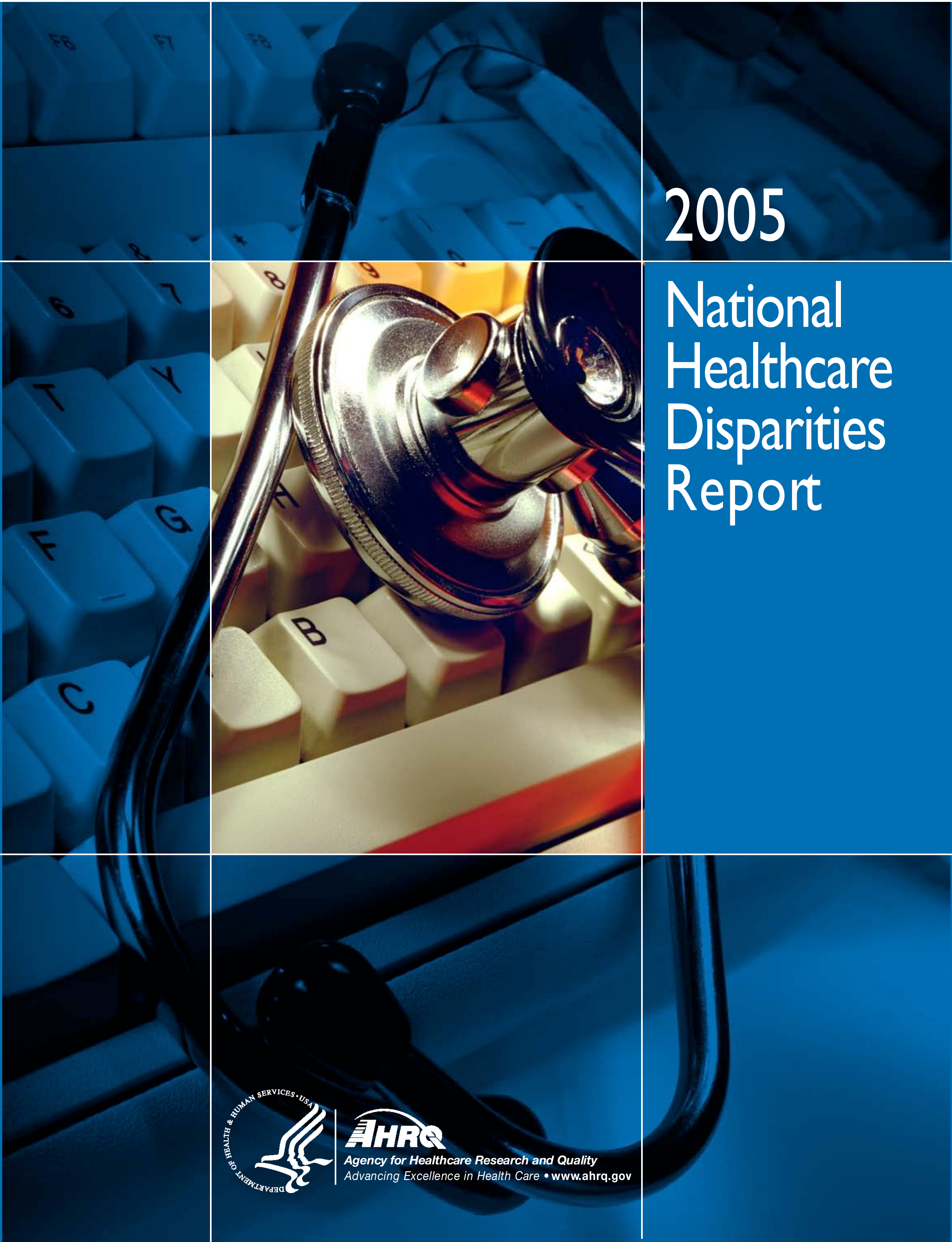

2005

National Healthcare Disparities Report

DEPARTMENT OF HEALTH & HUMAN SERVICES • USA

AHRQ

Agency for Healthcare Research and Quality

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2005
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Report

U.S. Department of
Health and Human Services

Agency for Healthcare Research and Quality
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Rockville, MD 20850

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Contents

Appendixes:

Key Themes and Highlights From the National Healthcare Disparities Report

Twenty years ago, the Department of Health and Human Services (HHS) released the Report of the Secretary's Task Force on Black and Minority Health. That report documented many disparities in health and led to interventions to improve the health and health care of minorities.

This year, the Agency for Healthcare Research and Quality (AHRQ) is pleased to release the third National Healthcare Disparities Report (NHDR). This annual report provides a comprehensive national overview of disparities in health care among racial, ethnic, and socioeconomic[i] groups in the general U.S. population and within priority populations and tracks the success of activities to reduce disparities. It is a companion report to the National Healthcare Quality Report (NHQR), a comprehensive overview of quality of health care in America.

A major advantage of an annual report series is its ability to track changes over time. This year, data are presented that begin tracking trends across a broad array of measures of health care quality and access for many racial, ethnic, and socioeconomic groups. In addition, the 2005 report begins to examine the issue of whether the Nation is making progress toward eliminating health care disparities.

The NHDR tracks disparities in both quality of health care and access to health care. Measures of health care quality mirror those in the NHQR and encompass four dimensions of quality—effectiveness, patient safety, timeliness, and patient centeredness. Measures of health care access are unique to this report and encompass two dimensions of access—facilitators and barriers to care and health care utilization.

This year's NHDR and NHQR focus on findings from a set of core report measures which represent the most important and scientifically credible measures in the full measure sets. Core report measures were selected from the full measure sets by the HHS Interagency Work Groups that support the reports based on their clinical importance, policy relevance, and data reliability.[ii] The 2005 reports also introduce a number of new composite measures as well as improved methods for summarizing quality and disparities.

In the 2005 NHDR, four key themes are highlighted for policymakers, clinicians, administrators, and community leaders who seek information to improve health care services for all Americans:

- Disparities still exist.
- Some disparities are diminishing.
- Opportunities for improvement remain.
- Information about disparities is improving.

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[i] Socioeconomic differences include differences in education and income levels.

[ii] See Tables 2.1-2.3 in Chapter 2, Quality of Health Care, for data on core report measures of quality and Tables 3.1-3.2 in Chapter 3, Access to Health Care, for data on core report measures of access. Detailed tables for all measures as well as information on methods and measure specifications are available at www.qualitytools.ahrq.gov.

Disparities Still Exist

Consistent with extensive research and findings in previous NHDRs, the 2005 report finds that disparities[iii] related to race, ethnicity, and socioeconomic status[iv] still pervade the American health care system. While varying in magnitude by condition and population, disparities are observed in almost all aspects of health care, including:

- Across all dimensions of quality of health care including effectiveness, patient safety, timeliness, and patient centeredness.
- Across all dimensions of access to care including facilitators and barriers to care and health care utilization.
- Across many levels and types of care including preventive care, treatment of acute conditions, and management of chronic disease.
- Across many clinical conditions including cancer, diabetes, end stage renal disease, heart disease, HIV disease, mental health and substance abuse, and respiratory diseases.
- Across many care settings including primary care, dental care, home health care, emergency departments, hospitals, and nursing homes.
- Within many subpopulations including women, children, elderly, residents of rural areas, and individuals with disabilities and other special health care needs.

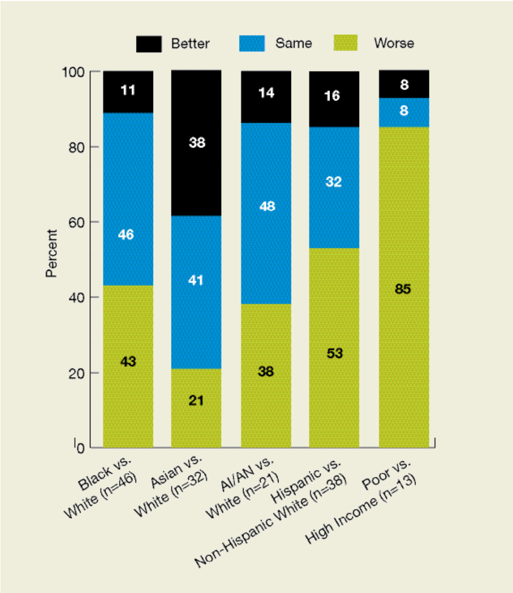
To quantify the prevalence of disparities across the core report measures tracked in the 2005 report, racial, ethnic, and socioeconomic groups are compared with an appropriate comparison group[v] for each core report measure. Each group could receive care that is poorer than, about the same as, or better than the comparison group.

[iii] Consistent with Healthy People 2010, the NHDR defines disparities as any differences among populations. In addition, all disparities discussed in the NHDR meet criteria based on statistical significance and size of difference described in Chapter 1, Introduction and Methods.

[iv] Income and education are the primary measures of socioeconomic status used in the report.

[v] For all measures, Blacks, Asians, and American Indians and Alaska Natives are compared with Whites; Hispanics are compared with non-Hispanic Whites; and poor individuals are compared with high income individuals.

Figure H.1. Measures of quality for which members of selected groups experienced better, same, or poorer quality of care compared with reference group



Better = Population received better quality of care than the comparison group.

Same = Population and comparison group received about the same quality of care.

Worse = Population received poorer quality of care than the comparison group.

Key: AI/AN=American Indian or Alaska Native.

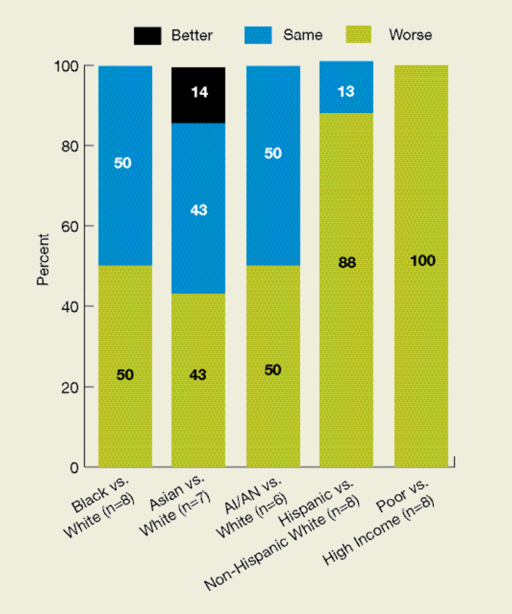
Note: “Asian” includes “Asian or Pacific Islander” when information is not collected separately for each group. Data on all measures are not available for all groups so totals differ among groups. Data presented are the most recent data available. Totals may not add to 100% due to rounding.

For sizable proportions of measures, minorities and the poor receive lower quality care. Of core report measures of quality, for example:

- Together, Blacks and American Indians and Alaska Natives (AI/ANs) received poorer quality care than Whites for about 40% (20/46 and 8/21, respectively) of core report measures (Figure H.1). Blacks received better quality care than Whites for 11% (5/46) of measures, and AI/ANs received better quality care for 14% (3/21) of measures.
- Asians received poorer quality care than Whites for 21% (7/32) of core report measures and better quality care for 38% (12/32) of measures.
- Hispanics received poorer quality of care than non-Hispanic Whites for over half of core report measures (20/38) and better quality care for 16% (6/38) of measures.
- Poor people[vi] received lower quality of care than high income people for 85% (11/13) of core report measures and better quality care for 8% (1/13) of measures.

[vi] “Poor” is defined as having family income less than 100% of the Federal poverty level and “high income” is defined as having family income 400% or more of the Federal poverty level.

Figure H.2. Measures of access for which members of selected groups experienced better, same, or worse access to care compared with reference group



Better = Population had better access to care than the comparison group.

Same = Population and comparison group had about the same access to care.

Worse = Population had worse access to care than the comparison group.

Key: AI/AN=American Indian or Alaska Native.

Note: "Asian" includes "Asian or Pacific Islander" when information is not collected separately for each group. Data on all measures are not available for all groups, so totals differ among groups. Data presented are the most recent data available. Totals may not add to 100% due to rounding.

For many measures, minorities and the poor have worse access to care. Of core report measures of access:

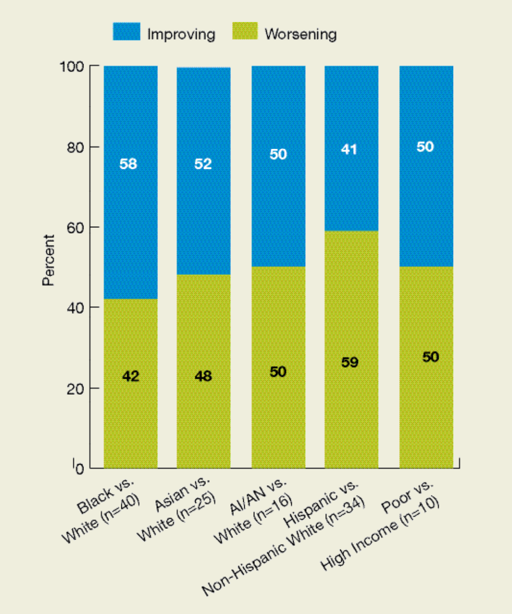
- Blacks and AI/ANs had worse access to care than Whites for half (4/8 and 3/6, respectively) of core report measures (Figure H.2) and better access to care for no measures.
- Asians had worse access to care than Whites for 43% (3/7) of core report measures and better access for 14% (1/7) of measures.
- Hispanics had worse access to care than non-Hispanic Whites for 88% (7/8) of core report measures.
- Poor people had worse access to care than high income people for all 8 core report measures.

Some Disparities Are Diminishing

The Department of Health and Human Services leads many initiatives aimed at reducing health care disparities and improving health care quality. These include the National Breast and Cervical Cancer Early Detection Program funded by the Centers for Disease Control and Prevention (CDC); the Hospital, Nursing Home, Home Health, and End Stage Renal Disease Quality Initiatives of the Centers for Medicare & Medicaid Services (CMS); and many activities coordinated by the HHS Disparities Council and Office of Minority Health. Many private organizations—such as the National Business Group on Health, America's Health Insurance Plans, and the Ambulatory Care Quality Alliance—also work to improve care and reduce disparities.

To begin to quantify the success of such efforts to reduce disparities, the 2005 NHDR begins to track changes in the core report measures over time. For each core report measure, racial, ethnic, and socioeconomic groups are compared with a designated comparison group at different points in time. Both absolute and relative differences[vii] are compared using the most recent and the oldest years of data available. Core report measures for which both the absolute differences and the relative differences are becoming smaller over time are identified as improving disparities. Core report measures for which both the absolute differences and the relative differences are becoming larger over time are identified as worsening disparities. Uncommonly, absolute and relative differences do not agree on direction of change. In these cases, direction of change is unclear and results for these measures are not presented.

Figure H.3. Change in disparities in core report measures of quality over time for members of selected groups compared with reference group



Improving = Population-comparison group difference becoming smaller.

Worsening = Population-comparison group difference becoming larger.

Key: AI/AN=American Indian or Alaska Native.

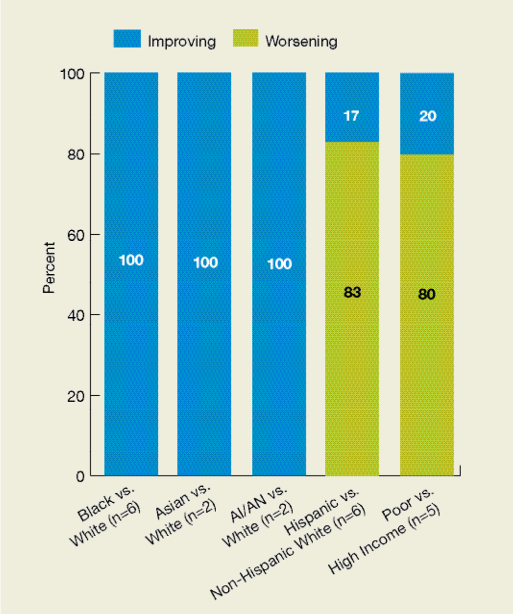
Note: “Asian” includes “Asian or Pacific Islander” when information is not collected separately for each group. Data on all measures are not available for all groups, so totals differ among groups. The most recent and oldest years of data available are compared.

For racial minorities, more disparities in quality of care are becoming smaller than are becoming larger; for Hispanics, the reverse is true. Of core report measures of quality that could be tracked over time:

- Of disparities experienced by Blacks, 58% (23/40) were becoming smaller (Figure H.3); 42% were becoming larger. About half of disparities experienced by Asians (13/25) and AI/ANs (8/16) were becoming smaller while half were becoming larger.
- Of disparities experienced by Hispanics, 41% (14/34) were becoming smaller while 59% were become larger.
- Half of disparities experienced by poor people (5/10) were becoming smaller while half were becoming larger.

[vii] Absolute differences are calculated by subtracting one rate from the comparison group rate. Relative differences are calculated by dividing one rate by the comparison group rate.

Figure H.4. Change in disparities in core report measures of access over time for members of selected groups compared with reference group



Improving = Population-comparison group difference becoming smaller.

Worsening = Population-comparison group difference becoming larger.

Key: AI/AN=American Indian or Alaska Native.

Note: "Asian" includes "Asian or Pacific Islander" when information is not collected separately for each group. Data on all measures are not available for all groups, so totals differ among groups. Only two measures for Asians and AI/ANs could be tracked over time due to changes in how Federal databases categorized race during the years studied. The most recent and oldest years of data available are compared.

For racial minorities, all disparities in access to care that could be tracked are becoming smaller; for Hispanics and the poor, most disparities are becoming larger. Of core report measures of access that could be tracked over time:

- All disparities experienced by Blacks (6/6), Asians (2/2), and AI/ANs (2/2) were becoming smaller (Figure H.4).
- About 20% of disparities experienced by Hispanics (1/6) and by poor people (1/5) were becoming smaller and about 80% were becoming larger.

Opportunities for Improvement Remain

Rate Relative to Reference Group

Although many disparities are diminishing, opportunities for improvement can still be found for many groups. To quantify the size of specific disparities, the rate relative to its reference group was calculated for each group for each core report measure. For each group, the largest relative rates are shown in Table H.1 and may help identify areas with greatest need for improvement.

- All groups studied faced some disparities in quality of care.
- Some disparities in quality were prominent for multiple groups:
    - New AIDS cases.
    - Problems with timeliness of care (left emergency room without being seen, not getting care for illness or injury as soon as wanted).
    - Problems with patient-provider communication.

Table H.1. Three largest disparities in quality of health care for selected groups: measure and rate relative to reference group

Group	Measure	Relative rate*
Black vs. White	New AIDS cases	10.4
	Children with hospital admission for asthma	3.7
	Left emergency department without being seen	1.9
Asian vs. White	Mental health treatment for serious mental illness	1.6
	Illness/injury care as soon as wanted	1.6
	Elderly with pneumococcal vaccine	1.5
American Indian/ Alaska Native vs. White	Prenatal care in first trimester	2.1
	Adults with patient-provider communication problems	1.8
	Children with advice about physical activity	1.3
Hispanic vs. non-Hispanic White	New AIDS cases	3.7
	Illness/injury care as soon as wanted	2.0
	Children with patient-provider communication problems	1.8
Poor vs. high income	Children with patient-provider communication problems	3.3
	Illness/injury care as soon as wanted	2.3
	Children with dental visit	2.0

* The relative rate is the rate for the stated group divided by the rate for the comparison group. It is one way to quantify the size of a disparity. For example, for the first measure listed, the rate of new AIDS cases for Blacks is 10.4 times the rate of new AIDS cases for Whites. To calculate relative rates, all measures were framed negatively as an adverse outcome. For example, for the first measure comparing Asians with Whites, Asians are 1.6 times more likely to lack mental health treatment for serious mental illness compared with Whites.

Note: "Asian" includes "Asian or Pacific Islander" when information is not collected separately for each group. Data presented are the most recent data available.

The 2005 NHDR also found that many groups faced similar disparities in access to care. The single largest access problem faced by all groups, except Asians, was lack of health insurance. The largest problem reported by Asians was lack of a primary care provider.

Increasing Disparities Relative to Reference Group

Measures for which a group received worse care than the reference group and for which this difference was getting worse rather than better are listed in Table H.2.

Table H.2. Disparities in quality of health care that are getting worse for selected groups

Group	Measure
Black vs. White	Children with admission for asthma Children with all recommended vaccines Elderly with pneumococcal vaccine Hospital treatment of pneumonia
Asian vs. White	Elderly with pneumococcal vaccine
American Indian/Alaska Native vs. White	Hospital treatment of heart attack High risk nursing home residents with pressure sores Home health care patients admitted to hospital Dialysis patients on waiting list for transplantation
Hispanic vs. non-Hispanic White	Needed and received substance abuse treatment Persons with diabetes with three recommended services Mental health treatment for serious mental illness Adults with patient-provider communication problems Illness/injury care as soon as wanted Tuberculosis patients who complete treatment within 12 months Children with patient-provider communication problems Hospitalized smokers with advice to quit Elderly with pneumococcal vaccine Children with dental visit Hospital treatment of heart attack New AIDS cases
Poor vs. high income	Hospitalized smokers with advice to quit Illness/injury care as soon as wanted Persons with diabetes with three recommended services Adults with patient-provider communication problems Children with all recommended vaccines

Note: "Asian" includes "Asian or Pacific Islander" when information is not collected separately for each group. The most recent and oldest years of data available are compared.

- All groups had at least one area in which they received worse care and for which the difference was getting worse. Hispanics had many more measures that fell in this category than other groups.

- Some disparities in quality of care were unique to specific groups. Other disparities in quality of care were prominent for multiple groups; these disparities include:
  - Vaccinations
  - Services for persons with diabetes
  - Smoking cessation
  - Hospital treatment of heart attack
  - Problems with timeliness
  - Problems with patient-provider communication

The 2005 NHDR also found that only Hispanics and the poor faced disparities in access to care that were getting worse:

- For the poor, disparities in 4 of the 6 core report measures of access were getting worse.
- For Hispanics, all disparities in access were getting worse except being uninsured all year.

Information About Disparities Is Improving

The 2005 NHDR provides more information about disparities than previous reports. In part, this is attributable to improving data available for assessing disparities:

- **Additional data sources**—The 2005 NHQR and NHDR introduce these new data sources:
  - Substance Abuse and Mental Health Services Administration (SAMHSA) Treatment Episode Data Set (TEDS). TEDS provides information on about 1.5 million substance abuse treatment admissions annually.
  - CDC's National Program of Cancer Registries (NPCR). This program (45 States and the District of Columbia) together with data from the Surveillance, Epidemiology and End Results Program (9 States and 6 metro areas) provides population-based cancer incidence data for the entire Nation.
  - CMS and the Hospital Quality Alliance's Hospital Compare. Hospital Compare provides audited, near real-time information from 4,200 hospitals on care for heart attack, heart failure, and pneumonia.
- **New measures**—The HHS Interagency Work Groups for the reports approved the addition of new measures of the quality of:
  - HIV care.
  - Mental health care.
  - Substance abuse treatment.
- **New cross-cutting variables**—New questions in AHRQ's 2002 Medical Expenditure Panel Survey (MEPS) allow examination of topics that are related to disparities including:
  - Language spoken at home: English vs. another language.
  - Country of birth: United States vs. other country.
- **Expanded capability of existing data sources**—More databases have completed transition to the 1997 Federal standards for racial and ethnic data and are able to provide:
  - Estimates for Asians, Native Hawaiians or Other Pacific Islanders, and people of more than one race.
  - Reliable estimates for smaller groups due to refinements in sampling and oversampling.

Multiple years of data for almost all core report measures now allow more stable trending and assessments of disparities. However, gaps in information remain. For example, of the core report measures, statistically reliable estimates were not possible for:

- Most measures for Native Hawaiians and Other Pacific Islanders.
- About half of quality measures for American Indians and Alaska Natives.
- About a third of quality measures for Asians.

Data collection that focuses on specific groups may be needed to yield reliable information about these populations.

Future reports will continue to benefit from continually improving data for examining and tracking disparities. Data from the National Center for Health Statistics (NCHS) 2004 National Nursing Home Survey are expected to be available for the 2006 reports; this should help to improve our understanding of disparities in the quality of nursing home care. NCHS' National Health Interview Survey data will begin to include oversamples of Asians in the near future. A working group convened by AHRQ that includes representation from the Departments of Commerce, Education, Health and Human Services, and Veterans Affairs is currently working to create a standard definition of disability that can be applied across multiple extant databases; this definition should allow expanded analyses related to persons with disabilities in future reports.

Other efforts will improve data quality for the reports in the long term. For example:

- The Health Research and Educational Trust continues to improve collection of racial and ethnic data by hospitals.
- America's Health Insurance Plans (AHIP) has developed a toolkit to help health plans collect data to address disparities and is conducting regional workshops in cities where data collection could be enhanced.
- The National Health Plan Learning Collaborative to Reduce Disparities and Improve Quality is spearheading the analysis and use of disparities data by health plans.
- The recently enacted Patient Safety and Quality Improvement Act of 2005 creates a network of patient safety databases that will supply information for the reports.

Finally, the revolution in health information technologies allows data needed to assess disparities to be collected and processed more quickly, efficiently, securely, and economically each year.

Looking Forward

The NHDR continues to be the broadest annual examination of disparities in health care ever undertaken in the United States. As support for reducing disparities continues to grow, the ability to monitor and track improvements in disparities is becoming critical. In this 2005 report, the information infrastructure built in previous reports to track the Nation's progress toward the elimination of disparities in health care is reaching maturity. For the first time, multiple years of data are available to assess the direction of change across a large number of measures of health care quality and access. The NHDR finds that many racial disparities are improving but that many disparities affecting Hispanics and the poor are getting larger. Potential opportunities for improvement exist, notably in timeliness and patient-provider communication, where many groups encounter problems and disparities are often getting worse.

The NHDR concentrates on the national view of health care disparities. It is descriptive and not prescriptive about how to eliminate disparities. Because causes of disparities and priorities for addressing them vary across the country, successfully addressing disparities often requires focused community-based projects that are supported by detailed local data. Prevention and elimination of health care disparities for the whole Nation will result from coordinated actions at Federal, State, and local levels to extend the benefits of regional and local successes nationwide. The methods and measures used in the reports are made available online in hopes that communities and providers will apply them to their own data. Communities that make this investment may use NHDR findings as annual national benchmarks against which to compare their progress. Working together, using the NHDR as a guide, America's patients, providers, purchasers, and policymakers can make full access to high quality health care a reality for all.

Chapter 1. Introduction and Methods

In 1999, Congress directed the Agency for Healthcare Research and Quality (AHRQ) to produce an annual report, starting in 2003, to track "prevailing disparities in health care delivery as it relates to racial factors and socioeconomic factors in priority populations." Although the emphasis is on disparities related to race, ethnicity, and socioeconomic status (SES), this directive includes a charge to examine disparities in "priority populations"—groups with unique health care needs or issues that require special focus.

The first National Healthcare Disparities Report (NHDR), released in 2003, was a comprehensive national overview of disparities in health care among racial, ethnic, and socioeconomic groups in the general U.S. population and within priority populations. The second NHDR initiated a second critical goal of the report series—tracking the Nation's progress towards the elimination of health care disparities.

This third NHDR meets these goals more completely and rigorously. New databases and measures have been added to provide a more comprehensive assessment of disparities in the Nation. Methods have been developed for tracking change in disparities in a standardized fashion that allows identification of specific disparities that are improving and disparities that are worsening.

While the 2005 report aims to include more data, efforts have also been made to make this growing body of information more understandable. To this end, the most important and scientifically supported measures—identified as core report measures—have been selected from the full NHDR measure set and are the focus of the report. This year's report begins annual tracking of these core report measures. Another approach to making large amounts of information easier to comprehend is to create composite or summary measures. This year's report introduces several new composite measures of quality.

As in previous years, the 2005 NHDR was planned and written by AHRQ staff with the support of AHRQ's National Advisory Council and the Interagency Work Group for the NHDR. The work group includes representatives from every operating division of the Department of Health and Human Services (HHS). In addition, to guide the development of new composite measures and new methods for summarizing report information, a Technical Expert Panel was convened. This panel included health statisticians and health policymakers from the Federal and private sectors.

How This Report Is Organized

The basic structure of the report is unchanged from last year and consists of the following:

- **Highlights** summarizes key themes from the 2005 report.
- **Chapter 1: Introduction and Methods** documents the organization, data sources, and methods used in the 2005 report and describes major changes from previous reports.
- **Chapter 2: Quality of Health Care** examines disparities in quality of health care in the general U.S. population. Measures of quality of health care used in this chapter are identical to measures used in the National Healthcare Quality Report (NHQR) except when data to examine disparities are unavailable. Sections cover four components of health care quality: effectiveness, patient safety, timeliness, and patient centeredness.

- **Chapter 3: Access to Health Care** examines disparities in access to health care in the general U.S. population. Sections cover two components of health care access: barriers and facilitators to health care and health care utilization.
- **Chapter 4: Priority Populations** examines disparities in quality of and access to health care among AHRQ's priority populations including:
    - Racial and ethnic minorities
    - Low income groups
    - Women
    - Children
    - Elderly
    - Residents of rural areas
    - Individuals with special health care needs

Appendixes are available online (www.qualitytools.ahrq.gov) and include:

- **Appendix A: Data Sources** provides information about each database analyzed for the NHDR including data type, sample design, and primary content.
- **Appendix B: Detailed Methods** provides detailed methods for select databases analyzed for the NHDR.
- **Appendix C: Measure Specifications** provides information about how to generate each measure analyzed for the NHDR. It includes both measures highlighted in the report text as well as other measures that were examined but not included in the text. It also includes information about the summary measures used in the report.
- **Appendix D: Data Tables** provides detailed tables for most measures analyzed for the NHDR, including both measures highlighted in the report text and measures examined but not included in the text. A few measures cannot support detailed tables and are not included in the appendix. When data are available:
    - Race tables and ethnicity tables are stratified by age, gender, residence location, and one or more socioeconomic variables (i.e., household income, education, insurance, and/or area income).
    - Socioeconomic tables are stratified by age, gender, residence location, race, and ethnicity.

Summary data tables organized by topic are presented first followed by detailed data tables for each measure.

New in This Report

Consistent with the goal of improving quality of and access to health care for all Americans, a number of improvements in the quality and accessibility of the NHDR are made each year. Improvements include changes to report format, changes to the measure set, addition of new data sources, expanded analyses, and summary of disparities.

Changes to Report Format

With broad support across HHS, the 2004 NHDR and its companion NHQR were restructured as chartbooks. For the 2005 reports, additional modifications have been made to make the information in the reports easier to understand. Although needed to assess health care in America comprehensively, the large number of measures tracked in the reports may sometimes be confusing and overwhelming for users. Hence, changes in report format have been implemented to help focus attention on the most significant issues and trends, including the selection of core report measures and the development of new composite measures.

Core report measures. For the 2005 reports, the Interagency Work Groups were convened to select a group of measures from the full measure sets on which the reports would present findings each year. Focus on tracking these core report measures allows more detailed discussion of this subset of measures, which, as noted above, represent the most important and scientifically sound measures in the full measure sets. In addition, readers will be able to more readily observe changes in the same measures each year.

Measures in the full measure sets must have met criteria for inclusion based on importance, scientific soundness, and feasibility. The Interagency Work Groups established additional criteria for selecting the core report measures. Many of these criteria were based on criteria used to select the Healthy People 2010 Leading Health Indicators as well as criteria used to select measures to highlight in the 2004 reports. Primary, secondary, and balancing criteria are listed in Table 1.1. Primary criteria were given greater weight than secondary criteria. Balancing criteria were included to ensure that core report measures covered all conditions and sites of care included in the full measure sets.

This process yielded 46 core report measures of quality of health care and 13 core report measures of access to health care.[i] These core report measures are generally representative of the full measure set when testing disparities and trends over time. The distributions of disparities are generally comparable in the two measure sets. In addition, the medians of the average annual percentage change for the full measure set and for the core measure set were consistent for the four components of care and overall.

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[i] For a list of these measures, see Tables 2.1- 2.3 in Chapter 2, Quality of Health Care, and Tables 3.1-3.2 in Chapter 3, Access to Health Care.

Table 1.1. Criteria for selecting core report measures

Primary criteria	Importance/clinical significance/prevalence Reliability of data Ability to track multiple disparities groups at multiple levels/number of comparisons possible Sensitivity to change (evidence-based process measures favored over outcomes) Ease of interpretation and understanding/methodological simplicity High utility for directing public policy
Secondary criteria	Applicability to the general U.S. population Availability of data regularly and recently Ability to link to established indicator sets (i.e., Healthy People 2010 objectives) Ability to support multivariate modeling
Balancing criteria across core report measures	Balance across health conditions Balance across sites of care Inclusion of at least some State data Inclusion of at least some multivariate models

Composite measures. Composite measures can be used to facilitate understanding of information from many individual measures. Composite measures used in previous reports include the percentage of persons with diabetes who receive a number of recommended services[ii] and the percentage of children who receive all recommended vaccines. Because these composite measures were reported to be useful by a variety of policymakers, an effort was made to identify new composite measures for the 2005 and future reports. A Technical Expert Panel consisting of health statisticians and health policymakers from the Federal and private sectors was convened to provide guidance. This panel made recommendations about the selection of appropriate models for different types of composite measures as well as for specific composite measures that could be crafted from the current report measure sets.

A number of these recommended composite measures were developed for the 2005 reports. Three new composite measures build upon an opportunities model developed by Qualidigm[1] and used in the Centers for Medicare & Medicaid Services (CMS) Premier Hospital Quality Incentive Demonstration[2] and for public reporting by the Rhode Island Department of Health.[3] The model assumes that each patient needs and has the opportunity to receive one or more processes of care but that not all patients need the same care. The denominator for an opportunities model composite is the sum of these opportunities to receive appropriate care across a panel of process measures. The numerator is the sum of the appropriate care that is actually delivered. The composite measure is typically presented as the proportion of appropriate care that is delivered.

In addition, a composite measure of patient-provider communication developed for the CAHPS® (formerly known as Consumer Assessment of Health Plans[4]) survey is included in this report. The composite measure averages four measures of patient centeredness used in previous NHDRs. The composite measure is typically presented as the proportion of respondents who reported that their doctors sometimes or never, usually, or always communicated well.

[ii] This composite measure was modified between the 2004 and 2005 reports. The current composite measure of diabetes care focuses on receipt of the three processes for which the best data are available: HbA1c testing, retinal eye examination, and foot examination in the past year.

New composite measures included in the 2005 reports and the individual measures they aggregate are shown in Table 1.2. Future reports will include even more composite measures.

Table 1.2. New composite measures in the 2005 NHQR and NHDR

Composite measure	Individual measures forming composite
Recommended hospital care for heart attack	Receipt of aspirin within 24 hours of hospitalization Receipt of aspirin upon discharge Receipt of beta-blocker within 24 hours of hospitalization Receipt of beta-blocker upon discharge Receipt of ACE inhibitor for left ventricular systolic dysfunction Receipt of counseling about smoking cessation among smokers
Recommended hospital care for heart failure	Receipt of evaluation of left ventricular ejection fraction Receipt of ACE inhibitor for left ventricular systolic dysfunction
Recommended hospital care for pneumonia	Receipt of initial antibiotics within 4 hours Receipt of appropriate antibiotics Receipt of culture before antibiotics Receipt of influenza screening or vaccination Receipt of pneumococcal screening or vaccination
Patient-provider communication	Provider sometimes or never listened carefully to them Provider sometimes or never explained things clearly Provider sometimes or never showed respect for what they had to say Provider sometimes or never spent enough time with them

Presentation. Each section in the 2005 report begins with a description of the importance of the section's topic. Where possible, this introduction is now provided in a more standardized format. Then, chart figures and accompanying findings highlight a small number of measures relevant to this topic. When data are available, these charts typically show contrasts by:

- Race—Blacks, Asians,[iii] Native Hawaiians or Other Pacific Islanders (NHOPIs), American Indians or Alaska Natives (AI/ANs), and people of more than one race compared with Whites.
- Ethnicity—Hispanics compared with non-Hispanic Whites.
- Income—Poor, near poor, and middle income people compared with high income people.[iv]
- Education—People with less than a high school education and high school graduates compared with people with any college education.

Almost all core report measures and composite measures have multiple years of data, so figures typically illustrate trends over time. When data support stratified analyses, a figure showing racial and ethnic differences stratified by SES is included. When data support multivariate analyses, regressions were run and used to help interpret bivariate and stratified results. Multivariate analyses were performed for 10 of the core report measures for quality of care and 9 of the core report measures of access to care, though they are not presented within the report. As in last year's report, findings presented in the text meet report criteria for

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[iii] "Asian" includes "Asian or Pacific Islander" (API) when information is not collected separately for each group.

[iv] Throughout this report, "poor" is defined as having family incomes less than 100% of the Federal poverty level; "near poor," between 100% and 199%; "middle income," between 200% and 399%; and "high income," 400% or more of the Federal poverty level.

importance[v]; comparisons not discussed in text do not meet these criteria. However, absence of differences that meet criteria for importance should not be interpreted as absence of disparities. Often, large differences between groups did not meet criteria for statistical significance because of small sample sizes and limited power. In addition, significance testing used in this report does not take into account multiple comparisons.

Changes to the Measure Set

The measure sets used in the 2005 NHDR and NHQR have been improved in several ways. First, a handful of measures were modified to reflect more current standards of care. Second, age adjustment[vi] for a number of measures was updated. Finally, a number of new measures were added to fill identified gaps, including:

- Two measures of quality of HIV care from the HIV Research Network:
  - HIV patients with CD4 cell count <200 who received *Pneumocystis* pneumonia (PCP) prophylaxis.
  - HIV patients with CD4 cell count <50 who received disseminated *Mycobacterium avium* complex (MAC) prophylaxis.
- One measure of quality of mental health care from the Substance Abuse and Mental Health Services Administration's (SAMHSA's) National Survey on Drug Use and Health:
  - Adults with serious psychological distress receiving treatment who get better.
- One measure of quality of substance abuse treatment from SAMHSA's Treatment Episode Data Set (TEDS):
  - Patients receiving substance abuse treatment who complete treatment.

Measure revisions were proposed and reviewed in meetings of the Interagency Work Group for the NHDR, which includes representation from across HHS.

Addition of New Data Sources

As in previous years, new sources of data were identified and added to help fill these gaps (Table 1.3). Standardized suppression criteria were applied to all databases to support reliable estimates.[vii] New data added this year come from:

- SAMHSA's Treatment Episode Data Set. This database provides information on about 1.5 million substance abuse treatment admissions annually.
- Centers for Disease Control and Prevention (CDC) National Program of Cancer Registries (NPCR). This program (45 States and the District of Columbia) together with data from the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) program (9 States and 6 metro areas) provides population-based cancer incidence data for the entire Nation.
- Centers for Medicare & Medicaid Services and Hospital Quality Alliance's Hospital Compare. This database provides audited, near real-time information from 4,200 hospitals on care for heart attack, heart failure, and pneumonia.

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[v] Criteria for importance are that the difference is statistically significant at the alpha=0.05 level, two-tailed test and that the relative difference is at least 10% different from the reference group when framed positively as a favorable outcome or negatively as an adverse outcome.

[vi] Age-adjusted measures are labeled as such. All other measures are not age adjusted.

[vii] Estimates based on sample size fewer than 30 or with relative standard error greater than 30% were considered unreliable and suppressed. Databases with more conservative suppression criteria were allowed to retain them.

Expanded Analyses

Trends in health care quality and access. In previous NHDRs and NHQRs, many measures were reported for only 2 years, greatly limiting the ability to detect trends. In the 2005 reports, 3 or more years of data are now reported for most measures in the measure sets. In addition, methods for assessing temporal change have been improved and standardized.

In the 2005 reports, the oldest and most recent estimates for each measure are used to calculate average annual rate of change for the general U.S. population and for each racial, ethnic, and socioeconomic group. Consistent with *Health, United States,* the geometric rate of change, which assumes the same rate each year between the two time periods, has been calculated for the 2005 NHDR and NHQR.

Two criteria are applied to determine whether a significant trend exists:

- First, the difference between the oldest and most recent estimates must be statistically significant with $p<0.05$.
- Second, the magnitude of average annual rate of change must be at least 1% per year, when the measures are framed as a favorable outcome or as an adverse outcome.

Only changes over time that meet these two criteria are discussed in the 2005 reports.

One additional constraint relates to trends among specific racial and ethnic groups. Some Federal databases completed transition to the 1997 Federal standards for racial and ethnic data during years covered by the NHDR. These new standards created two separate racial categories: "Asian" and "Native Hawaiian or Other Pacific Islander."

In addition, individuals could report more than one race, which significantly affected estimates for the "American Indian or Alaska Native" category. In contrast, effects on estimates for Whites, Blacks, and Hispanics were proportionately much smaller. The 2005 NHDR does not show trends for groups directly or significantly affected by the new standards. However, trends for Whites, Blacks, and Hispanics that span this transition are shown because effects are small.

Language spoken at home and country of birth. Language and country of birth are important determinants of health care, especially for racial and ethnic minorities. In the 2003 NHDR, data from the Commonwealth Fund Health Care Quality Survey were used to examine these effects on disparities, but no new data covering these issues were available for the 2004 NHDR. For the 2005 NHDR, AHRQ's Medical Expenditure Panel Survey (MEPS) added questions about language spoken at home and country of birth. Findings that compare people who speak English at home with people who speak another language at home and people born in the United States with people born in a foreign country are shown in Chapter 4, Priority Populations. In addition, MEPS tables in the NHDR appendixes now include these comparisons.

Summary of Disparities

In the 2005 NHDR, efforts to summarize disparities have been further refined. In the Highlights and in Chapter 4, Priority Populations, the extent of disparities across the core report measures are summarized for Blacks, Hispanics, Asians, NHOPIs, AI/ANs, and the poor. Racial, ethnic, and socioeconomic groups are compared with a designated comparison group for each core report measure; each group could receive care that is worse than, about the same as, or better than the comparison group. For each group, the percentages of measures for which the group received worse care, similar care, or better care were calculated. All core report measures of quality of care were used when summarizing disparities in quality. Health care utilization measures are difficult to interpret and were excluded when summarizing disparities in access to care.

New methods of summarizing disparities and identifying areas for improvement are also included in this report:

Rate relative to reference group. To begin to quantify the magnitude of disparities and to identify the largest disparities faced by specific groups, rates relative to designated comparison groups were examined. For each group, the group rate was divided by the comparison group rate to calculate the relative rate for each core report measure. For each group, the relative rates were then sorted. The median relative rate across core report measures is presented in Chapter 4 as another way of summarizing the magnitude of disparities in quality and access. The relative rates are also used to identify potential areas for improvement in the Highlights and Chapter 4, Priority Populations.

Trends in disparities. A new method for summarizing trends in disparities is introduced in this report. For each core report measure, racial, ethnic, and socioeconomic groups are compared with a designated comparison group at different points in time. Both absolute and relative differences[viii] are compared using the most recent and oldest years of data available. Core report measures for which both the absolute differences and the relative differences are becoming smaller over time are identified as improving disparities. Core report measures for which both the absolute differences and the relative differences are becoming larger over time are identified as worsening disparities. Uncommonly, absolute and relative differences do not agree on direction of change. In these cases, direction of change is unclear and results for these measures are not presented. For each group, the percentage of core report measures with trend data that were improving or worsening was calculated; these percentages are presented in the Highlights and in Chapter 4, Priority Populations.

Note that data on all core report measures were not available for all groups. Hence, summary measures should only be used to quantify differences between a specific group and its comparison group.

[viii] Absolute differences are calculated by subtracting one rate from the comparison group rate. Relative differences are calculated by dividing one rate by the comparison group rate

Table 1.3. Databases used in the 2005 reports (new databases in italics)

Surveys collected from samples of civilian populations:

- AHRQ, Medical Expenditure Panel Survey (MEPS), 1999-2002
- CDC-NCHS, National Health Interview Survey (NHIS), 1998-2003
- CDC-NCHS/National Immunization Program, National Immunization Survey (NIS), 1998-2003
- CMS, Medicare Current Beneficiary Survey (MCBS), 1998-2002
- HRSA, Community Health Center User Survey, 2002
- SAMHSA, National Survey on Drug Use and Health (NSDUH), 2002-2003

Data collected from samples of health care facilities and providers:

- CDC-NCHS, National Ambulatory Medical Care Survey (NAMCS), 1997-2002
- CDC-NCHS, National Hospital Ambulatory Medical Care Survey-Outpatient Department (NHAMCS-OPD), 1997-2002
- CDC-NCHS, National Hospital Ambulatory Medical Care Survey-Emergency Department (NHAMCS-ED), 1997-2002
- CDC-NCHS, National Hospital Discharge Survey (NHDS), 1998-2003
- CMS, End Stage Renal Disease Clinical Performance Measures Project (ESRD CPMP), 2001-2003

Data extracted from data systems of health care organizations:

- AHRQ, Healthcare Cost and Utilization Project State Inpatient Databases disparities analysis file[i] (HCUP SID), 2001-2002
- *CMS, Hospital Compare, 2004*
- CMS, Medicare Patient Safety Monitoring System, 2002-2003
- CMS, Nursing Home Minimum Data Set, 2002-2003
- CMS, Quality Improvement Organization (QIO) program, 2000-2003
- HIV Research Network data (HIVRN), 2001-2002
- IHS, National Patient Information Reporting System (NPIRS), 2002-2003
- NCQA, Health Plan Employer Data and Information Set (HEDIS), 2001-2004
- NIH, United States Renal Data System (USRDS), 1998-2002
- *SAMHSA, Treatment Episode Data Set (TEDS), 2002*

Data from surveillance and vital statistics systems:

- CDC, National Nosocomial Infections Surveillance, 1998-2003
- *CDC, National Program of Cancer Registries (NPCR), 2002*
- CDC-National Center for HIV, STD, and TB Prevention, HIV/AIDS Surveillance System, 2000-2003
- CDC-National Center for HIV, STD, and TB Prevention, TB Surveillance System, 1999-2001
- CDC-NCHS, National Vital Statistics System (NVSS), 1999-2002
- NIH, Surveillance, Epidemiology, and End Results (SEER) program, 1992-2002

[i] This file is designed to provide national estimates of disparities in the AHRQ Quality Indicators using weighted records from a sample of hospitals from the following 22 States: AZ, CA, CO, CT, FL, GA, HI, KS, MD, MA, MI, MO, NJ, NY, PA, RI, SC, TN, TX, VA, VT, and WI. For details, see Appendix A, Data Sources, and Appendix C, Measure Specifications.

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Chapter 2. Quality of Health Care

As better understanding of health and sickness has led to superior ways of preventing, diagnosing, and treating diseases, the health of most Americans has improved dramatically. However, ample evidence indicates that some Americans do not receive the full benefits of high quality care. Specifically, extensive disparities in health care related to race, ethnicity, and socioeconomic status have been demonstrated by much research and confirmed by previous releases of the National Healthcare Disparities Report.

Components of Health Care Quality

Quality health care means doing the right thing, at the right time, in the right way, for the right people—and having the best possible results.[1] Quality health care is care that is:

- Effective—Providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit.
- Safe—Avoiding injuries to patients from the care that is intended to help them.
- Timely—Reducing waits and sometimes harmful delays for both those who receive and those who give care.
- Patient centered—Providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.
- Equitable—Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.
- Efficient—Avoiding waste, including waste of equipment, supplies, ideas, and energy.[2]

Health care quality is measured in several ways including:

- Clinical performance measures of how well providers deliver specific services needed by specific patients, such as whether children get the immunizations that they need.
- Assessments by patients of how well providers meet health care needs from the patient's perspective, such as whether providers communicate clearly.
- Outcome measures—such as death rates from cancers preventable by screening—that may be affected by the quality of health care received.

How This Chapter Is Organized

This chapter presents new information about disparities in quality of health care in America. The measures used here are the same as those used in the National Healthcare Quality Report, and this chapter is constructed to mirror sections in the NHQR—effectiveness, patient safety, timeliness, and patient centeredness. Effectiveness of care is presented under eight clinical condition or care setting areas: cancer, diabetes, end stage renal disease (ESRD), heart disease, HIV and AIDS, mental health and substance abuse, respiratory diseases, and nursing home and home health care. Maternal and child health is discussed in Chapter 4, Priority Populations.

As in previous NHDRs, this chapter's discussion on quality of care focuses on disparities in quality related to race, ethnicity, and socioeconomic status in the general U.S. population. Disparities in quality of care within specific priority populations are presented in Chapter 4. This chapter also presents analyses of changes over time, as well as some stratified analyses.

Additionally, this year the NHDR focuses on a narrower set of measures than the full set of measures tracked in previous reports. With guidance from the Interagency Work Groups advising the NHDR and NHQR, this narrower set of core report measures was established. The core report measures aim to be representative of the overall NHDR measure set; but, because they are fewer in number, they are more manageable for policymakers and others to understand and apply when utilizing the NHDR. For details on the process used to establish core report measures, see Chapter 1, Introduction and Methods.

It is primarily core report measures that are presented in the 2005 NHDR and that will be tracked in future iterations of the NHDR. However, the entire NHDR measure set will continue to appear in the appendixes; and from year to year, supplemental measures (those from the overall NHDR measure set that are not core report measures) will be presented in the text of the NHDR as well. This year's report includes a small amount of supplemental measures.

Finally, new composite measures are introduced in this year's NHDR, including composites for appropriate hospital care for heart attack and pneumonia. They are presented in this chapter in the sections on heart disease and respiratory diseases, respectively. For composite details, see Chapter 1, Introduction and Methods.

Categorization of Effectiveness Measures by Health Care Need

To facilitate identifying the measures discussed in this section as related to the patient's need for preventive care, treatment of acute illness, and chronic disease managment, the effectiveness section of this chapter categorizes measures as follows:

Prevention

The majority of health care resources are invested in caring for the unhealthy. However, caring for healthy people is another important component of health care. Educating people about healthy behaviors can help to postpone and avoid illness and disease. Additionally, detecting health problems at an early stage increases the chances of effectively treating them, often reducing suffering and expenditures.

Treatment

Even when preventive care is ideally implemented, it cannot entirely avert the need for acute care. Delivering optimal treatments for acute illness can help reduce the consequences of illness and promote the best recovery possible.

Management

Some diseases, such as diabetes and end stage renal disease, are chronic, which means they cannot simply be treated once; they must be managed across a lifetime. Management of chronic disease often involves lifestyle changes and regular contact with a provider to monitor the status of the disease. For patients, effective management of chronic disease can mean the difference between normal, healthy living and frequent medical problems.

Note that findings for women and children, which parallel those presented in the NHQR for maternal and child health, are presented in the sections on women and children in Chapter 4, Priority Populations, but applicable measures are included in the list below.

Measures presented in effectiveness fall within the three components of health care need as listed below. (For findings related to all core report measures of effectiveness, see Tables 2.1a and 2.1b.)

Section	Measure
Prevention:	
Cancer (breast)	Mammography
Cancer (breast)	Advanced stage breast cancer
Heart disease	Cholesterol screening*
Respiratory diseases	Pneumococcal vaccination
Maternal and child health (women)	Osteoporosis screening*
Maternal and child health (women)	Prenatal care
Maternal and child health (women)	Dental care
Maternal and child health (children)	Dental care[i]*
Maternal and child health (children)	Counseling about physical activity
Treatment:	
Heart disease	Recommended hospital care for heart attack
Respiratory diseases	Recommended hospital care for pneumonia
Nursing home and home health care	Improved walking or moving
Nursing home and home health care	Hospital admission for home care patients
Maternal and child health (women)	Recommended hospital care for heart attack
Maternal and child health (children)	Hospital admissions for gastroenteritis
Mental health and substance abuse	Reported help from mental disorder treatment
Mental health and substance abuse	Completion of substance abuse treatment
Mental health and substance abuse	Receipt of needed substance abuse treatment
Management:	
Diabetes	Hemoglobin, cholesterol, blood pressure
Diabetes	Receipt of recommended services for diabetes
End stage renal disease (ESRD)	Adequacy of hemodialysis
End stage renal disease (ESRD)	Registration for transplantation
Heart disease	Blood pressure under control*
HIV and AIDS	HIV patients with PCP and MAC prophylaxis*
HIV and AIDS	New AIDS cases
Nursing home and home health care	Use of physical restraints
Nursing home and home health care	Prevalence of pressure sores
Maternal and child health (women)	Receipt of recommended services for diabetes
Maternal and child health (children)	Pediatric asthma admissions

*Supplemental measure.

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[i] Includes 1 core measure—dental visits—and 1 supplemental measure—untreated dental carries.

Effectiveness

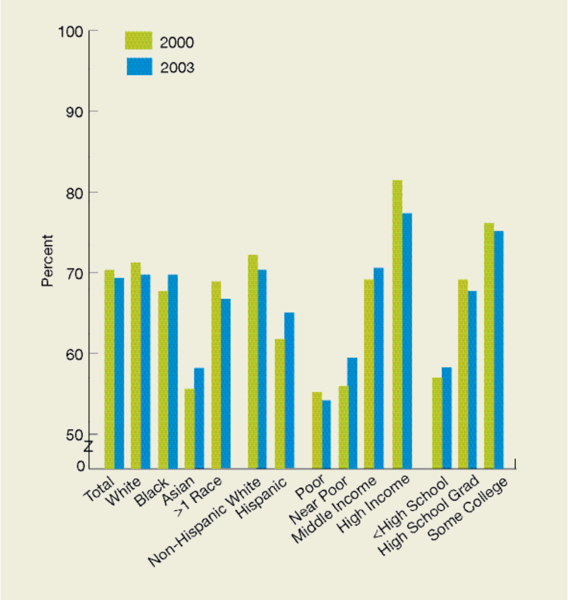
Cancer

Number of deaths (2003)	554,643[4]
Estimated deaths for 2005	570,280[3]
Cause of death rank (2003)	2nd[4]
Number of Americans that have been diagnosed with cancer	9,800,000[3]
New cases (2005 est.)	1,372,910[3]
Total cost	$209.9 billion[5]
Direct medical costs	$74 billion[5]
Incidence, mortality, screening, and treatment vary by	race[6,7] ethnicity[6,7] SES[8,9]

Prevention: Mammography

Ensuring that all populations have access to appropriate cancer screening services is a core element of reducing cancer health disparities.[10] This year the NHDR focuses on breast cancer; findings for colorectal cancer are found in the 2004 NHDR. Screening mammography is an effective way to discover breast cancer before a patient has symptoms and to reduce new cases of late stage disease and mortality caused by this cancer.[11]

Figure 2.1. Women age 40 and over who report they had a mammogram within the past 2 years, by race, ethnicity, income, and education, 2000 and 2003



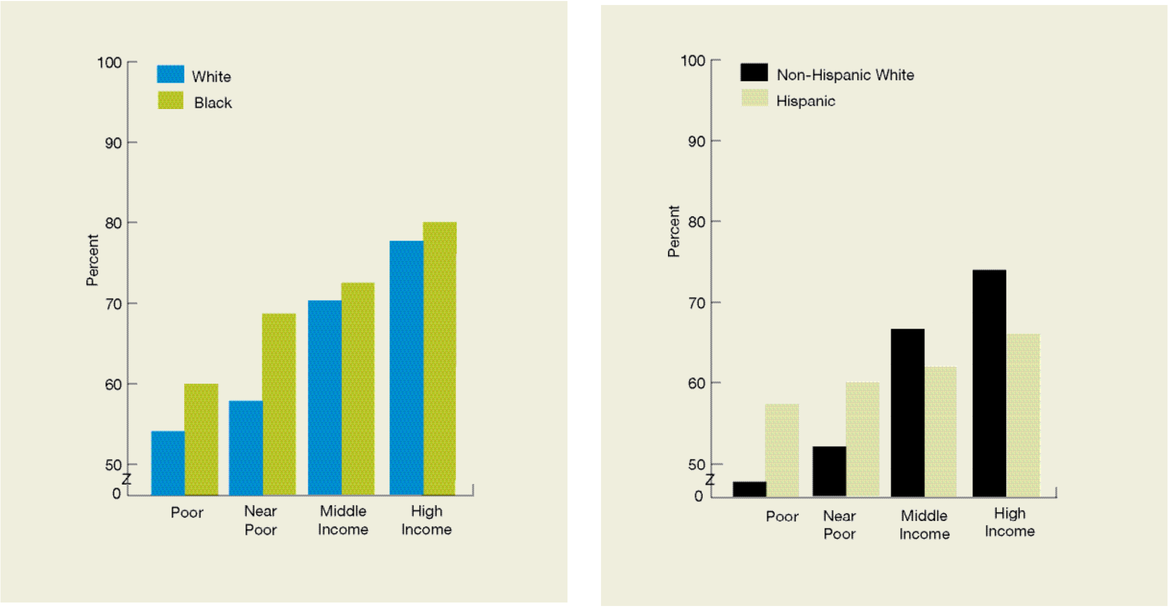
Source: National Health Interview Survey, 2000, 2003.

Reference population: Women age 40 and over in the civilian noninstitutionalized population.

- In both 2000 and 2003, the proportion of women age 40 and over who had a mammogram in the past 2 years was lower among Asian compared with White women; among Hispanic compared with non-Hispanic White women; and among poor, near poor, and middle income women compared with high income women (Figure 2.1).
- In 2000, the proportion of women age 40 and over who had a mammogram in the past 2 years was lower among Black women compared with White women, but this disparity was not evident in 2003.
- From 2000 to 2003, the proportion of women age 40 and over who had a mammogram within the past 2 years fell significantly among high income women by 4.1%.
- In 2003, the only groups to achieve the Healthy People 2010 target of 70% of women age 40 and over receiving a mammogram within the past 2 years were non-Hispanic White women, women with middle or high incomes, and women with at least some college education.

Racial and ethnic minorities are disproportionately of lower socioeconomic status. To distinguish the effects of race, ethnicity, income, and education on cancer screening, this measure is stratified by income and education level.

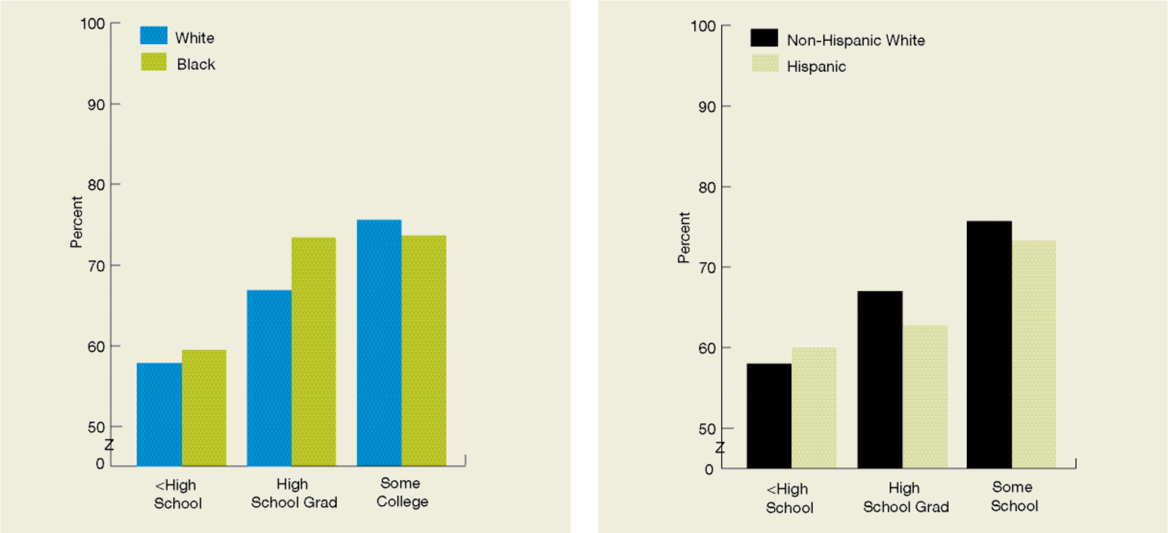
Figure 2.2. Women age 40 and over who report they had a mammogram within the past 2 years by race (left) and ethnicity (right) stratified by income, 2003



Source: National Health Interview Survey, 2003.

Reference population: Women age 40 and over in the civilian noninstitutionalized population.

Figure 2.3. Women age 40 and over who report they had a mammogram within the past 2 years by race (left) and ethnicity (right) stratified by education, 2003



Source: National Health Interview Survey, 2003.

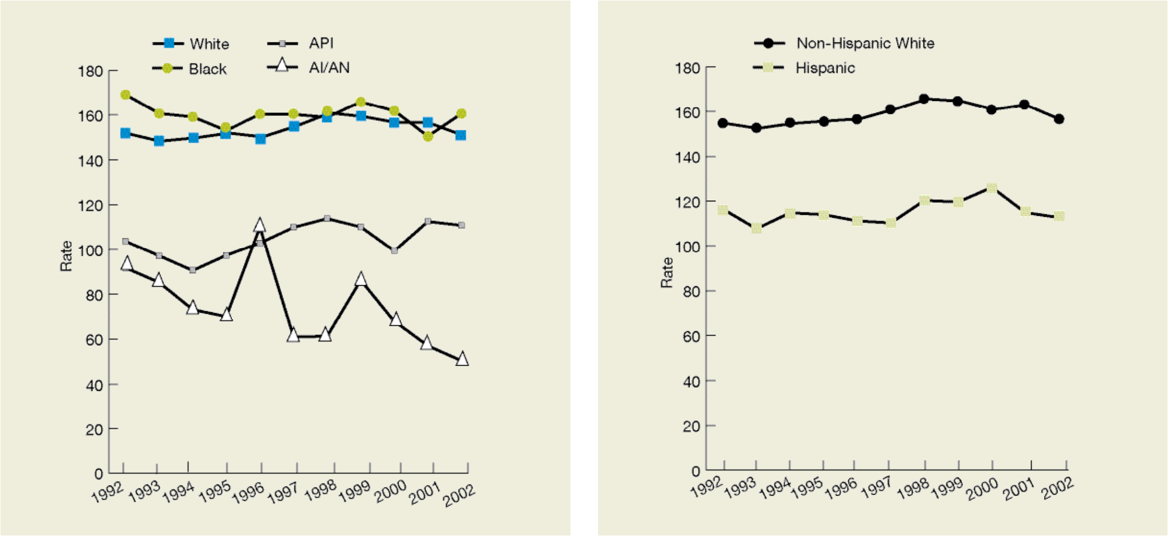
Reference population: Women age 40 and over in the civilian noninstitutionalized population.

- Racial and ethnic differences in recent mammography use differ with income and education level.
- After controlling for income, near poor Blacks are more likely to receive mammography than near poor Whites. Poor and near poor Hispanics are more likely to receive mammography than respective non-Hispanic Whites (Figure 2.2).
- After controlling for education, Black high school graduates are more likely to receive mammography than White high school graduates (Figure 2.3).

Prevention: Advanced Stage Breast Cancer

Cancers can be diagnosed at different stages. Monitoring the rate of cancers that are diagnosed at advanced stages is a measure of the effectiveness of cancer screening efforts.

Figure 2.4. Age-adjusted rate of advanced stage (stage II or higher) breast cancer per 100,000 women age 40 and older by race (left) and ethnicity (right), 1992-2002



Key: AI/AN=American Indian or Alaska Native; API=Asian or Pacific Islander.

Source: Surveillance, Epidemiology, and End Results program, 1992-2002.

Reference population: Women age 40 and older.

- In all years, rates of advanced stage breast cancer were lower among API and AI/AN women compared with White women and among Hispanic women compared with non-Hispanic White women. Black women had higher rates than White women in 1992, 1993, and 2002 (Figure 2.4).
- Between 1992 and 2002, rates of advanced stage breast cancer decreased among AI/AN women.

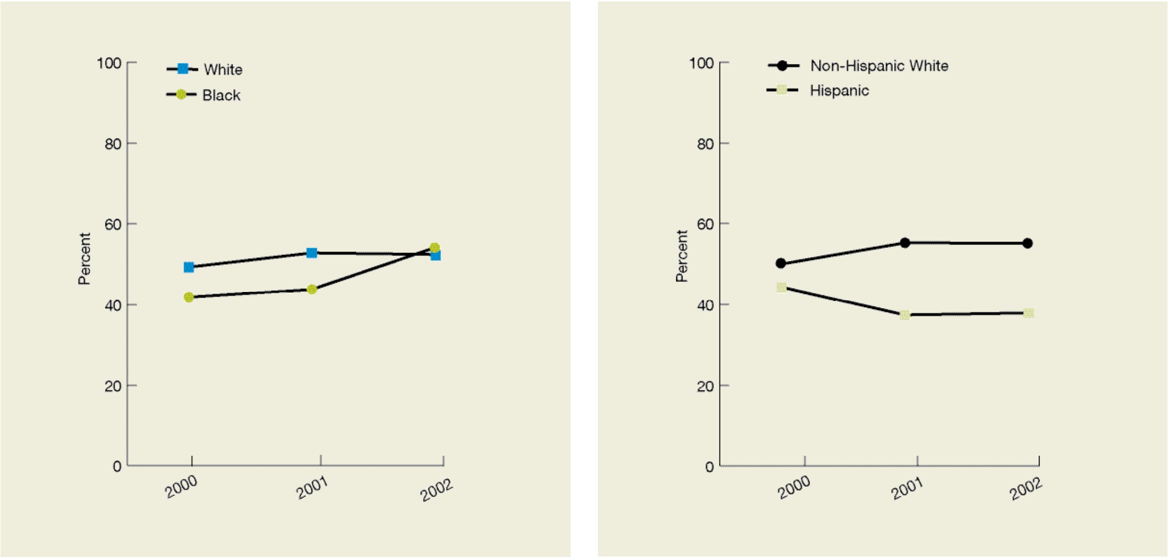
Diabetes

Number of deaths (2003)	73,965[4]
Cause of death rank (2003)	6th[4]
Total number of Americans with diabetes (2002)	18,200,000[12]
New cases (age 20 and over, 2002)	1,300,000[12]
Total cost	$132 billion[12]
Direct medical costs	$92 billion[12]
Groups more likely to have or die from diabetes[13] [14] [15]	Blacks Hispanics AI/ANs

Management: Receipt of Recommended Services for Diabetes

Effective management of diabetes includes HbA1c testing, eye examination, and foot examination in the past year, as well as appropriate influenza immunization and lipid management.[16] [17]

Figure 2.5. Adults with diagnosed diabetes who had three recommended services for diabetes in the past year, by race (this page, left), ethnicity (this page, right), and family income (next page) 2000-2002



Source: Medical Expenditure Panel Survey, 2000-2002.

Reference population: Civilian, noninstitutionalized population with diabetes age 18 and older.

Note: Recommended services for diabetes are 1) HBA1c testing, 2) retinal eye examination, and 3) foot examination in past year.

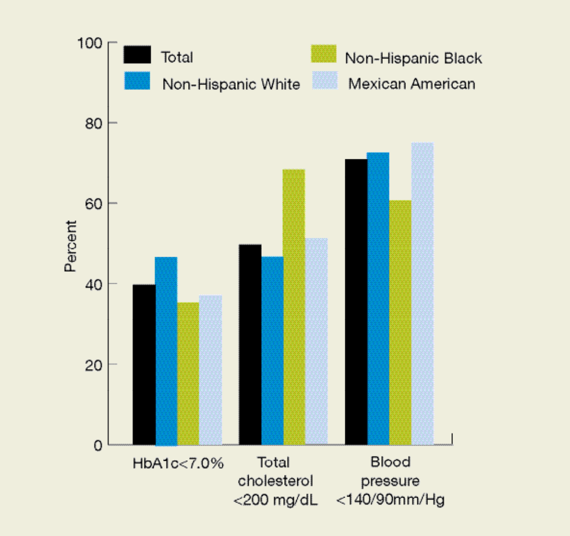
- In 2001 and 2002, the proportion of adults with diagnosed diabetes who had three recommended services for diabetes was lower among Hispanics compared with non-Hispanic Whites (Figure 2.5).[ii]
- In all 3 years, the proportion of adults with diagnosed diabetes who had these services was lower among poor compared with high income adults. In 2002, near poor and middle income adults were also less likely to receive these services than high income adults.
- From 2000 to 2002, the proportion of adults with diagnosed diabetes who had these services did not change significantly for any racial, ethnic, or income group.

[ii] For diabetes care findings for AI/ANs, see text on the focus on Indian Health Service facilities in Chapter 4, Priority Populations.

Management: Hemoglobin, Cholesterol, and Blood Pressure Under Control

Persons with diagnosed diabetes often have other cardiovascular risk factors such as high blood pressure and high cholesterol. The combination of these conditions with diabetes increases the likelihood of complications from diabetes, such as heart disease and stroke. Therefore, in addition to controlling blood sugar levels, diabetes management often includes treating high blood pressure and high cholesterol. HbA1c testing determines the average blood sugar level over 2-3 months and provides information about control of blood sugar levels. Checking blood pressure and cholesterol levels is also needed to assess control of these risk factors.

Figure 2.6. Adults with diagnosed diabetes with HbA1c, total cholesterol, and blood pressure under control, by race/ethnicity, 1999-2002



Source: National Health and Nutrition Examination Survey, 1999-2002.

Reference population: Civilian noninstitutionalized population with diabetes age 18 and over.

- Opportunities for improving the outcomes of diabetes management exist. Only 40% of those diagnosed with diabetes have their HbA1c under optimal control (<7.0%). Significant racial/ethnic disparities are not observed (Figure 2.6).
- Only half of those diagnosed with diabetes have their total cholesterol under control (<200 mg/dL). Blacks with diabetes are more likely than Whites to have their total cholesterol under control.
- Only 70% of those diagnosed with diabetes have their blood pressure under control (<140/90). Significant racial/ethnic disparities are not observed.

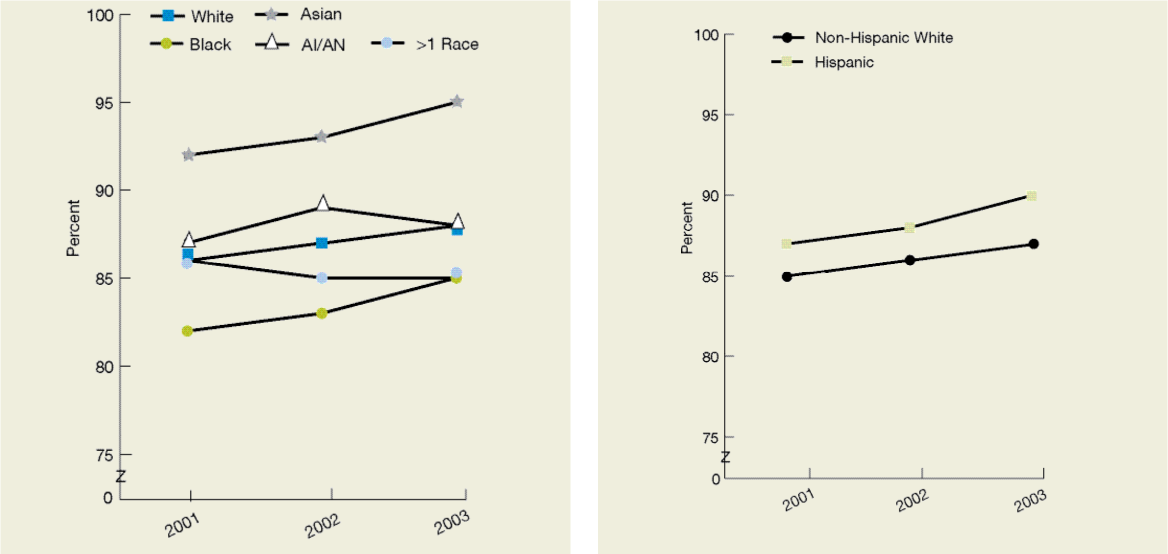
End Stage Renal Disease (ESRD)

Total ESRD deaths (2003)	82,588[18]
Cause of death rank (2003)	>15th[4]
Total cases (2003)	452,957[18]
New cases (2003)	102,567[18]
Total ESRD program expenditures (2003)	$27.3 billion[18]
Total patients returning to dialysis or re-transplantation due to graft failure	>4,700[18]
Since 1995, rates of transplantation for patients under 50 have	declined[18]
Since 1995, rates of transplantation for patients over 50 have	increased[18]
Groups more likely to develop ESRD and less likely to be treated	minorities[19 20]

Management: Adequacy of Hemodialysis

Adequacy of dialysis is important to the 70% of ESRD patients on dialysis, as it reflects sufficient removal of waste from the body. Racial differences in adequacy of dialysis (urea reduction ratio 65% or higher) have previously been reported.[21]

Figure 2.7. Hemodialysis patients with adequate dialysis (urea reduction ratio 65% or higher), by race (left) and ethnicity (right), 2001-2003



Key: AI/AN=American Indian or Alaska Native.

Source: ESRD Clinical Performance Measures Project, 2001-2003.

Reference population: ESRD hemodialysis patients and peritoneal dialysis patients.

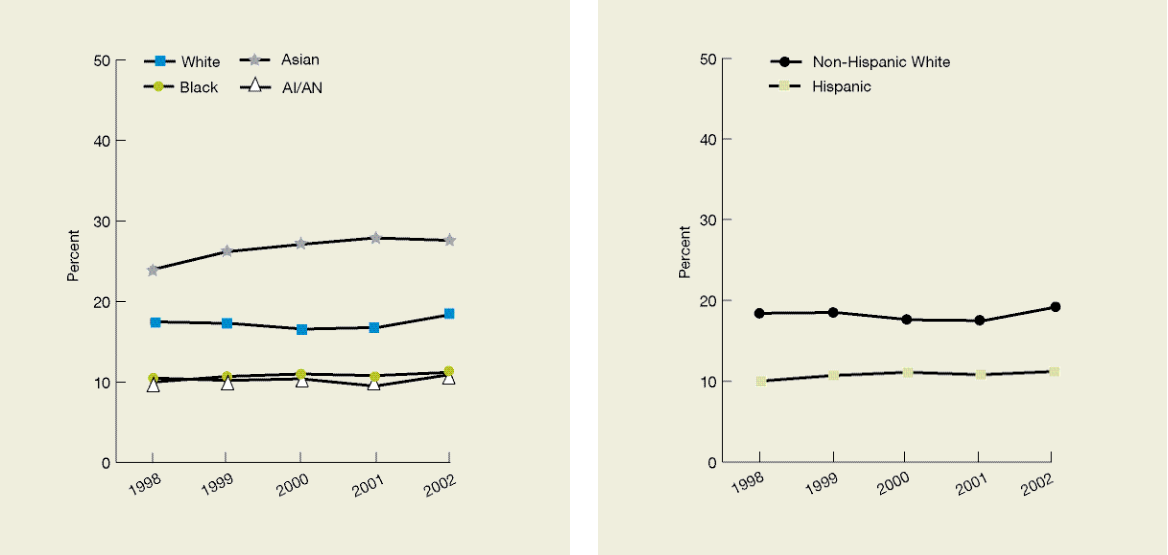
- In all 3 years, the proportion of hemodialysis patients who received adequate dialysis was lower among Blacks and higher among Asians compared with Whites. (Figure 2.7).

- In 2003, the proportion of adult hemodialysis patients who received adequate dialysis was higher among Hispanics compared with non-Hispanic Whites.
- The proportion of adult hemodialysis patients who received adequate dialysis improved significantly from 2001 to 2003 for Whites, Blacks, non-Hispanic Whites, and Hispanics.

Management: Registration for Transplantation

It is important that persons with ESRD are registered on the waiting list for kidney transplantation to ensure earliest possible transplantation. Racial and ethnic differences in registration on the waiting list for kidney transplantations have been observed.[22]

Figure 2.8. Dialysis patients under age 70 registered on the waiting list for transplantation by race (left) and ethnicity (right), 1998-2002



Key: AI/AN=American Indian or Alaska Native.

Source: ESRD Clinical Performance Measures Project, 1998-2002.

Reference population: ESRD hemodialysis patients under age 70 and peritoneal dialysis patients.

- In all 5 years, the proportion of dialysis patients registered for transplantation was lower among Blacks and AI/ANs and higher among Asians compared with Whites (Figure 2.8).
- In all 5 years, the proportion of dialysis patients registered for transplantation was lower among Hispanics compared with non-Hispanic Whites.
- From 1998 to 2002, the proportion of dialysis patients registered for transplantation improved among Whites, Blacks, Asians, non-Hispanic Whites, and Hispanics, but no group achieved the Healthy People 2010 target of 66%.

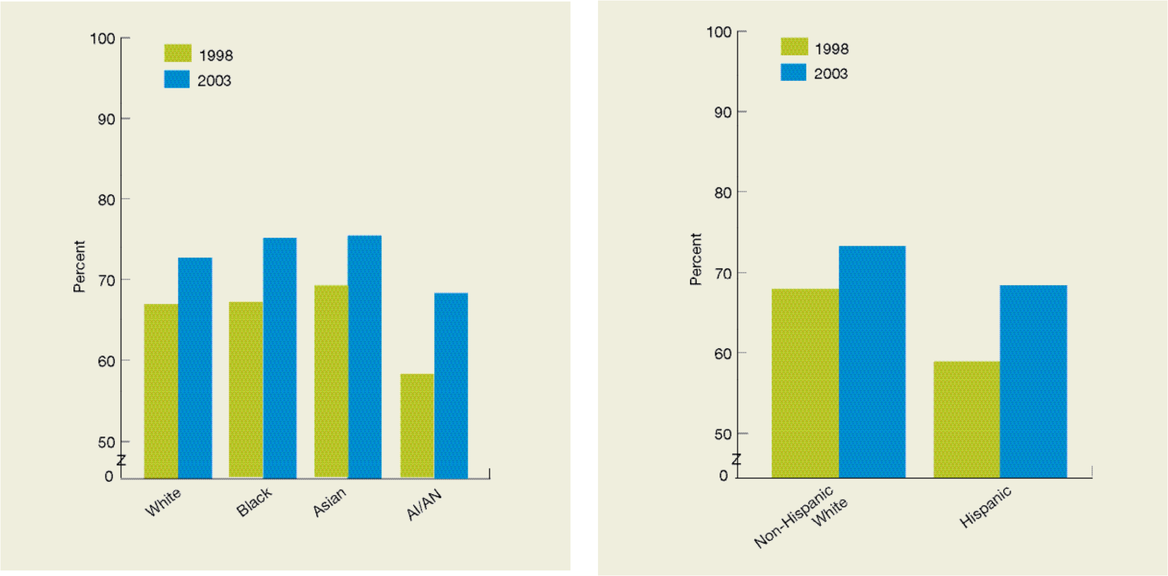
Heart Disease

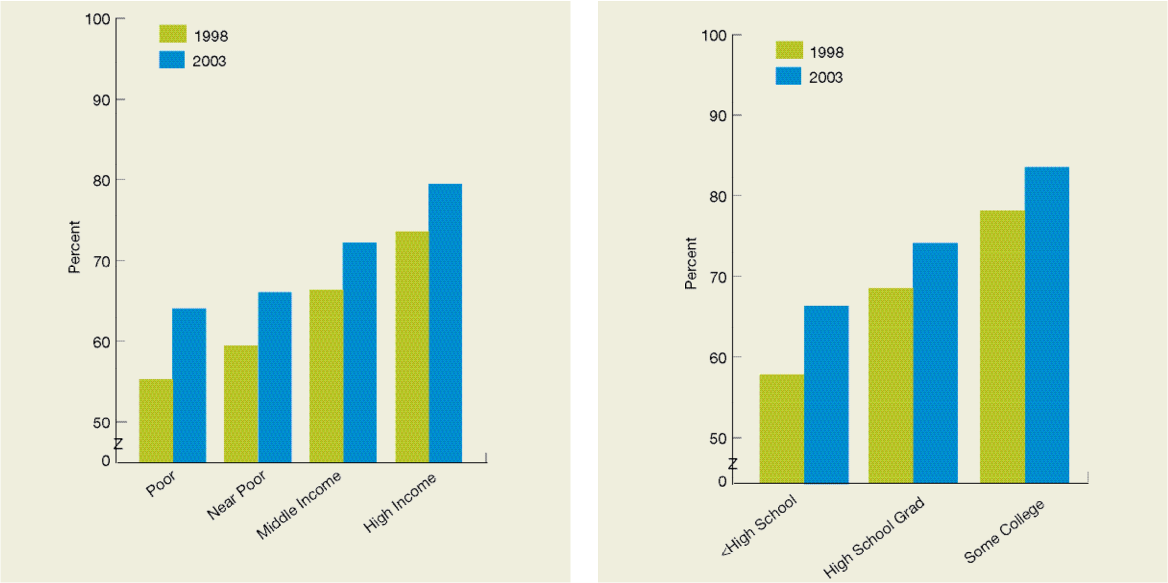
Number of deaths (2003)	684,462[4]
Cause of death rank (2003)	1st[4]
Number of cases of coronary heart disease (2004)	13,000,000[23]
Number of cases of congestive heart failure	4,900,000[23]
Number of Americans with high blood pressure	65,000,000[23]
Number of heart attacks each year	7,100,000[23]
Number of new cases of heart failure each year	550,000[23]
Total cost (cardiovascular disease)	$393.4 billion[4]
Direct medical costs (cardiovascular disease)	$241.8 billion[4]
Prevalence and death rate of hypertension and heart disease higher among	Blacks
Cardiac care differs by	race ethnicity SES

Prevention: Cholesterol Screening

High cholesterol is a major risk factor for heart disease. Awareness and control of blood cholesterol can help reduce the risk of heart attack.

Figure 2.9. Adults with blood cholesterol screening in past 5 years by race (this page, left), ethnicity (this page, right), income (next page, left), and education (next page, right), 1998 and 2003





Key: AI/AN=American Indian or Alaska Native.

Source: National Health Interview Survey, 1998, 2003.

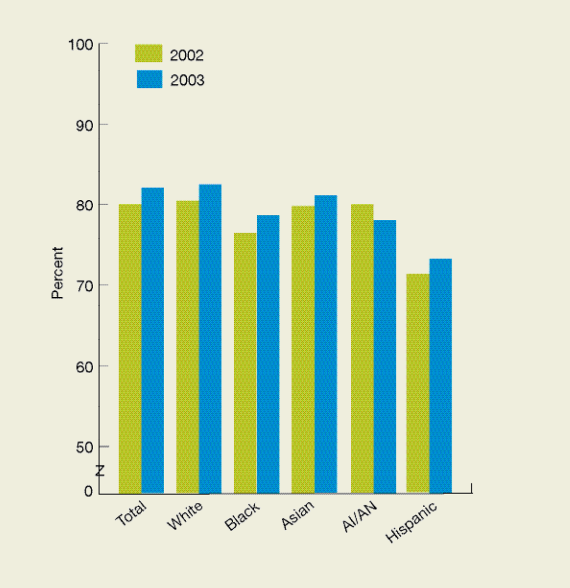
Reference population: Civilian noninstitutionalized population age 18 and over.

- In both 1998 and 2003, the proportion of adults who had their blood cholesterol checked was lower among Hispanics compared with non-Hispanic Whites; among poor, near poor, and middle income adults compared with high income adults; and among adults with a high school education or less compared with adults with any college education (Figure 2.9).
- In 1998, AI/ANs were less likely to receive cholesterol screening compared with Whites. In 2003, Blacks were more likely to receive cholesterol screening compared with Whites.
- From 1998 to 2003, rates of blood cholesterol screening improved from 67% to 73% for all adults.
- Significant improvements in screening were observed within all racial, ethnic, income, and education groups except AI/ANs, for which the change did not reach statistical significance.

Treatment: Recommended Hospital Care for Heart Attack

For heart attack patients who reach the hospital in time, effective acute treatment is essential for saving lives and preventing further cardiac damage.[24] This year, the NHDR introduces a new composite measure for acute care for heart attack, which incorporates the following six measures from previous NHDRs: 1) receipt of aspirin within 24 hours of hospitalization, 2) receipt of aspirin upon discharge, 3) receipt of beta-blocker within 24 hours of hospitalization, 4) receipt of beta-blocker prescription upon discharge, 5) receipt of ACE inhibitor for left ventricular systolic dysfunction, and 6) counseling about smoking cessation among smokers.

Figure 2.10. Recommended hospital care (incorporates six measures as described above) received by Medicare patients with heart attack, by race/ethnicity, 2002-2003



Key: AI/AN=American Indian or Alaska Native.

Source: Medicare Quality Improvement Organization Program, 2002-2003.

Reference population: Medicare beneficiaries hospitalized for heart attack.

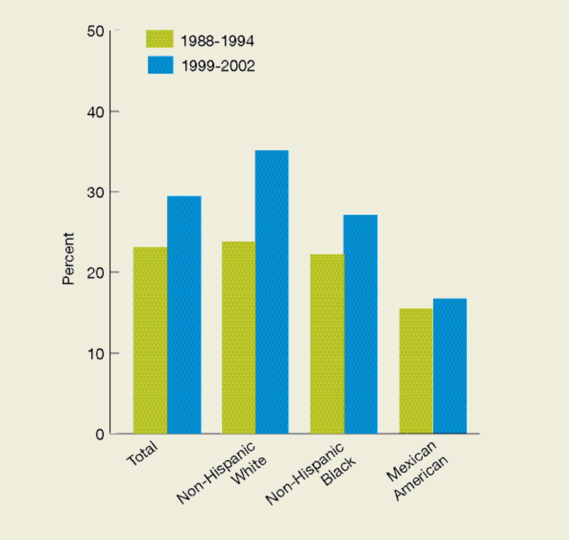
Notes: Whites, Blacks, AI/ANs, and Asians are non-Hispanic groups. Composite is calculated by averaging the percent of the population that received each of the six incorporated components of care. For further details on composite measures, see Chapter 1, Introduction and Methods.

- In 2002, Medicare patients with heart attack received recommended hospital care 80% of the time; in 2003 this population received recommended care 82% of the time (Figure 2.10).
- In both years, these percentages were lower among Blacks and Hispanics compared with Whites.
- From 2002 to 2003, the percentages increased for Whites and Blacks but did not change significantly for other groups.

Management: Blood Pressure Under Control (Among Adults With Hypertension)

An important advance in the management of chronic cardiovascular disease has been the development of better medications to help control high blood pressure and to prevent damage to the heart, kidney, and eyes.

Figure 2.11. Adults with hypertension whose blood pressure is under control, 1988-1994 and 1999-2002



Source: National Health and Nutrition Examination Survey, 1988-1994 and 1999-2002.

Reference population: Civilian noninstitutionalized population with hypertension, age 18 and over.

Note: *Hypertension* is defined as either having elevated blood pressure (average systolic pressure > 140 mm Hg or average diastolic pressure >90 mm Hg) or taking antihypertensive medication. *Blood pressure under control* is defined as average systolic blood pressure < 140 mm Hg and average diastolic blood pressure <90 mm Hg. Percentages are age adjusted to the 2000 standard population These data were estimated for Mexican Americans rather than all Hispanics.

- During both time periods, the proportion of adults with hypertension whose blood pressure is under control was lower among Mexican Americans compared with non-Hispanic Whites (Figure 2.11).
- Compared with 1988-1994, the proportion of adults with blood pressure under control in 1999-2002 increased from 23% to 29%. Improvements were observed among non-Hispanic Whites and non-Hispanic Blacks.

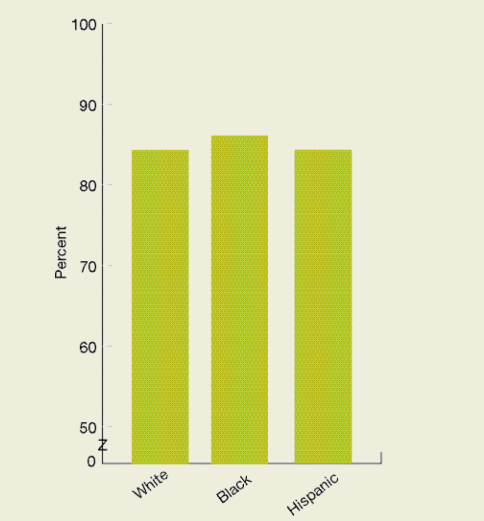
HIV and AIDS

Number of AIDS deaths (2003)	18,017[25]
Cause of death rank (2003)	>15th[4]
Rank for persons ages 15-24; 25-44; 45-64, respectively	10th; 6th; 9th
Number of Americans living with HIV (2003 est.)	1,039,000-1,185,000[26]
Number of persons living with AIDS (2003 est.)	405,926[27]
New cases of HIV annually (2003 est.)	approximately 40,000[26]
New AIDS cases (2003 est.)	43,171[27]
Combined Federal and State Medicaid expenditures for AIDS (2003)	$8.5 billion[28]
HIV prevalence and treatment rates vary by	race ethnicity gender SES

Management: PCP and MAC Prophylaxis

Management of chronic HIV disease includes outpatient and inpatient services. Because national data on HIV care are not routinely collected, HIV measures tracked in the NHDR come from the HIV Research Network, which consists of 18 medical practices across the United States that treat large numbers of HIV patients. Although program data are collected from all Ryan White CARE Act grantees, the aggregate nature of the data make it difficult to assess the quality of care provided by Ryan White CARE Act providers. As HIV disease progresses, CD4 cell counts fall and patients become increasingly susceptible to opportunistic infections. When CD4 cell counts fall below 200, medicine to prevent development of *Pneumocystis* pneumonia (PCP) is routinely recommended; when CD4 cell counts fall below 50, medicine to prevent development of disseminated *Mycobacterium avium* complex (MAC) infection is routinely recommended.[29]

Figure 2.12. HIV patients with CD4 cell count <200 who received PCP prophylaxis in the past year, by race/ethnicity, 2002



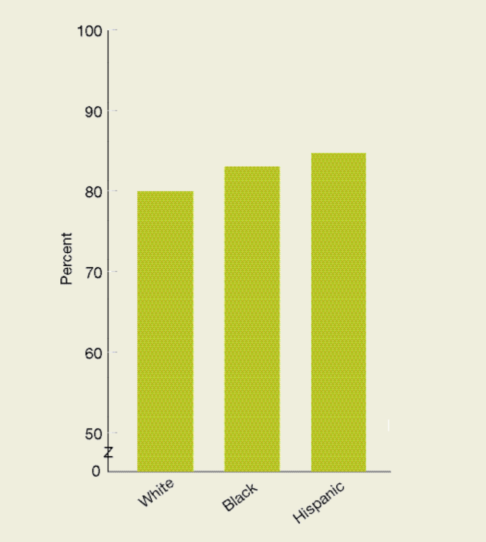
Source: HIV Research Network, 2002.

Reference population: HIV patients age 18 and older receiving care from HIV Research Network providers.

Note: Whites and Blacks are non-Hispanic populations.

- The proportion of HIV patients with CD4 cell count <200 who received PCP prophylaxis did not differ significantly by race/ethnicity (Figure 2.12).

Figure 2.13. HIV patients with CD4 cell count <50 who received MAC prophylaxis in the past year, by race/ethnicity, 2002



Source: HIV Research Network, 2002.

Reference population: HIV patients age 18 and older receiving care from HIV Research Network providers.

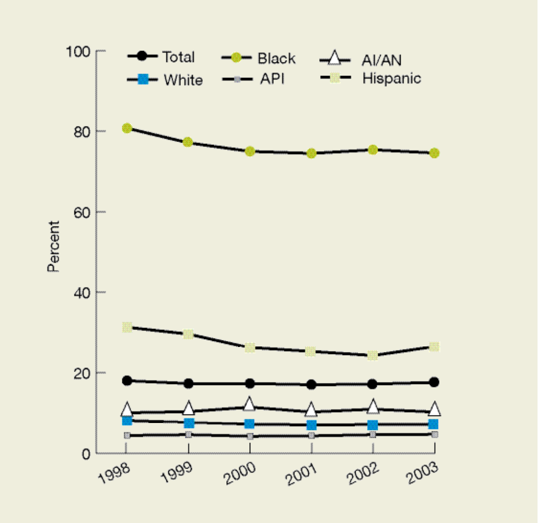
Note: Whites and Blacks are non-Hispanic populations.

- The proportion of HIV patients with CD4 cell count <50 who received MAC prophylaxis did not differ significantly by race/ethnicity (Figure 2.13).

Management: New AIDS Cases

Although differences in developing AIDS does not necessarily translate into differences in quality of care, early, appropriate treatment of HIV disease can delay progression to AIDS. Improved management of chronic HIV disease has likely contributed to declines in new AIDS cases. For example, as the use of highly active antiretroviral therapy (HAART) to treat HIV infection became widespread in the mid-1990s, rates of new AIDS cases declined.,

Figure 2.14. New AIDS cases per 100,000 population age 13 and over, by race/ethnicity, 1998-2003



Key: API=Asian or Pacific Islander; AI/AN=American Indian or Alaska Native.

Source: HIV/AIDS Reporting System, 1998-2003.

Reference population: U.S. population age 13 years and over.

Note: This source categorizes race/ethnicity as a single item; i.e., White=non-Hispanic White; Black=non-Hispanic Black

- After declining from 18.0 to17.0 cases per 100,000 persons between 1998 and 2001, the overall rate of new AIDS cases then rose to 17.7 cases per 100,000 persons by 2003.
- In 2003, the rate of new AIDS cases among non-Hispanic Blacks was more than 10 times higher (75.3 per 100,000) than the rate among non-Hispanic Whites (7.2 per 100,000). The rate among Hispanics (26.8 per 100,000) was over 3 times as high as the rate among non-Hispanic Whites (Figure 2.14).
- From 1998 to 2003, the rate of new AIDS cases fell from 80.7 to 75.3 per 100,000 among non-Hispanic Blacks, from 31.3 to 26.8 per 100,000 among Hispanics, and from 8.2 to 7.2 per 100,000 among non-Hispanic Whites.
- No race, ethnic group, or gender has yet reached the Healthy People 2010 goal of 1.0 new AIDS case per 100,000 population.

Mental Health and Substance Abuse

Americans with mental disorders including substance abuse in past year (2001-2003)	26.4%[32]
Persons age 18-64 receiving care in year of onset for: major depressive episode (2001-2003)	37%[33]
bipolar disorder	39%[33]
dysthymia	42%[33]
Median delay among those who eventually get mental health treatment (2001-2003)	8 years[33]
Persons age 12 and over with alcohol and/or illicit drug dependence/abuse (2003)	22 million[34]
Persons with alcohol dependence with treatment in the onset year (2001-2003)	21%[33]
Persons with drug dependence with treatment in the onset year (2001-2003)	26%[33]
Median delay among substance abusers who eventually get treatment (2001-2003)	6 years[33]
Costs for health care services related to the diagnosis and treatment of substance abuse and mental disorders (2001)	$104 billion[35]
Mental health care[iii] and substance abuse treatment differ by	race[34, 36, 37, 38, 39, 40]
	ethnicity[34, 36, 37]
	SES[34]

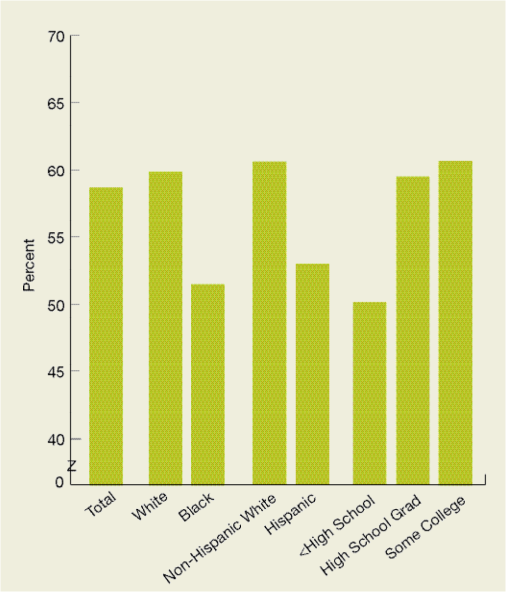
In a cross-national survey among adults in 14 countries conducted from 2001-2003, the United States had the highest rate with any mental disorders including substance abuse (26%), severity of mental disorders (8%), anxiety disorders (18%), mood disorders (10%), and impulse-control disorders (7%) in the past year.[32] In response to the need for mental health and substance abuse treatment in the United States, guidelines have been developed to improve the quality of mental health and substance abuse treatment, [41, 42, 43, 44, 45, 46] and quality improvement programs have been shown to improve outcomes and reduce costs.[47, 48]

[iii] Differences in care are observed, though prevalence of mental disorders for racial/ethnic minorities in the United States is similar to that for Whites. Differences in care may in part reflect variation in preferences/cultural attitudes towards mental health.

Treatment: Reported Help From Mental Disorder Treatment

Self-reporting of help from treatment for mental disorders is a good measure of the effectiveness of treatment.

Figure 2.15. Adults reporting great help from treatment for their mental disorder, by race, ethnicity, and education, 2002



Source: SAMHSA, National Survey on Drug Use and Health, 2002.

Reference population: U.S. population age 18 and older who received mental health treatment.

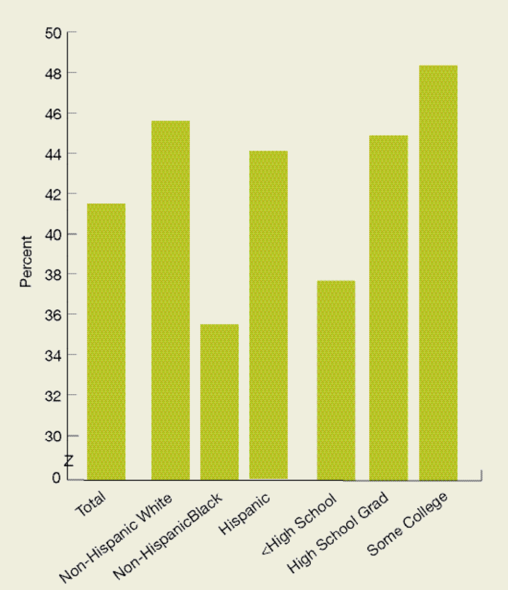
Notes: Mental health treatment is defined as having counseling, inpatient care, outpatient care, or prescription medications for problems with emotions, nerves, or mental health and does not include alcohol or drug treatment. Great help from mental health treatment is defined as respondents answering "a lot" and/or "a great deal" to the following question asked of those who received mental health treatment: "How much did the counseling or medicine improve your ability to manage daily activities like those asked about in the previous questions?" Daily activities included controlling emotions around people, thinking clearly, being able to concentrate on something important, going out of the house and getting around on your own, and taking care of your daily responsibilities at work, school, or at home as well as washing, dressing and feeding yourself on your own.

- Of the 27 million people in 2002 who received treatment for mental disorders, 59% reported that their treatment provided great help (Figure 2.15).
- Adults who did not complete their high school education are less likely to report receiving great help from their mental disorder treatment than adults with any college education. Racial and ethnic differences were not significant.

Treatment: Completion of Substance Abuse Treatment

Completing all parts of a substance abuse treatment plan has been shown to increase the likelihood of health improvement.

Figure 2.16. Discharges from substance abuse treatment facilities in which the patient completed substance abuse treatment by demographics, 2002



Source: SAMHSA, Treatment Episode Data Set (TEDS) discharge data, 2002.

Reference population: Discharges age 12 and older from publicly funded substance abuse treatment facilities.

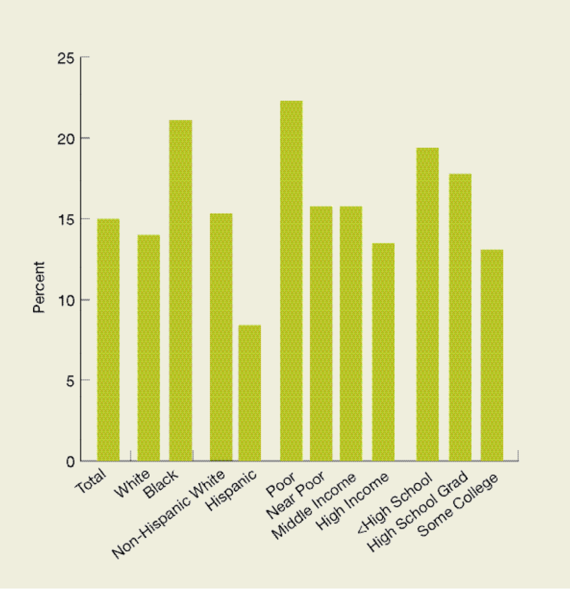
Notes: *Completed treatment* is defined as admissions that completed all parts of their treatment plan or program and does not include those transferred for further treatment. In 2002, 23 States submitted complete data on about 800,000 discharges to SAMHSA's recently established discharge component of the Treatment Episode Data Set. Analyses of the demographic characteristics, service types, and primary substance of abuse found that the admissions in these States did not differ significantly from States not reporting discharge data. The following States provided complete discharge data: California, Colorado, Georgia, Hawaii, Illinois, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Jersey, Ohio, Oklahoma, Rhode Island, South Carolina, Texas, Utah, and Wyoming.

- Of the 748,000 discharges from specialty substance abuse treatment in 2002 reported to SAMHSA's Treatment Episode Data Set (TEDS) discharge system, nearly 42% completed treatment (Figure 2.16).
- Blacks were less likely to complete treatment compared with non-Hispanic Whites. Individuals with less than a high school education were less likely to complete treatment compared with individuals with any college education.

Treatment: Receipt of Needed Substance Abuse Treatment

Need for treatment was defined as meeting at least one of three criteria in the past year: (1) dependent on any illicit drug; (2) abuse of any illicit drug; or (3) received treatment for an illicit drug problem as an inpatient at a hospital or as an inpatient or outpatient at a mental health center or substance abuse rehabilitation or treatment facility. Receiving needed substance abuse treatment is important for a variety of reasons. Untreated substance abuse can have a direct toxic effect on a number of body organs as well as exacerbate numerous health and mental health conditions. Untreated substance abuse results in incapacity to engage in healthy societal roles such as work and school. Additionally, active substance abuse is often associated with physical and domestic violence as well as increased risk-taking behavior such as unsafe driving.

Figure 2.17. Persons age 12 and over who needed substance abuse treatment and received such treatment, by race, ethnicity, income, and education, 2003



Source: SAMHSA, National Survey on Drug Use and Health, 2003.

Reference population: U.S. population age 12 and older who needed substance abuse treatment.

- Overall, only 15% of those who met criteria for needing substance abuse treatment actually received it (Figure 2.17).
- Hispanics were less likely than non-Hispanic Whites to receive needed substance abuse treatment.
- Poor persons were more likely than high income persons to receive needed substance abuse treatment.
- Differences related to race and education were not significant due to small sample sizes.

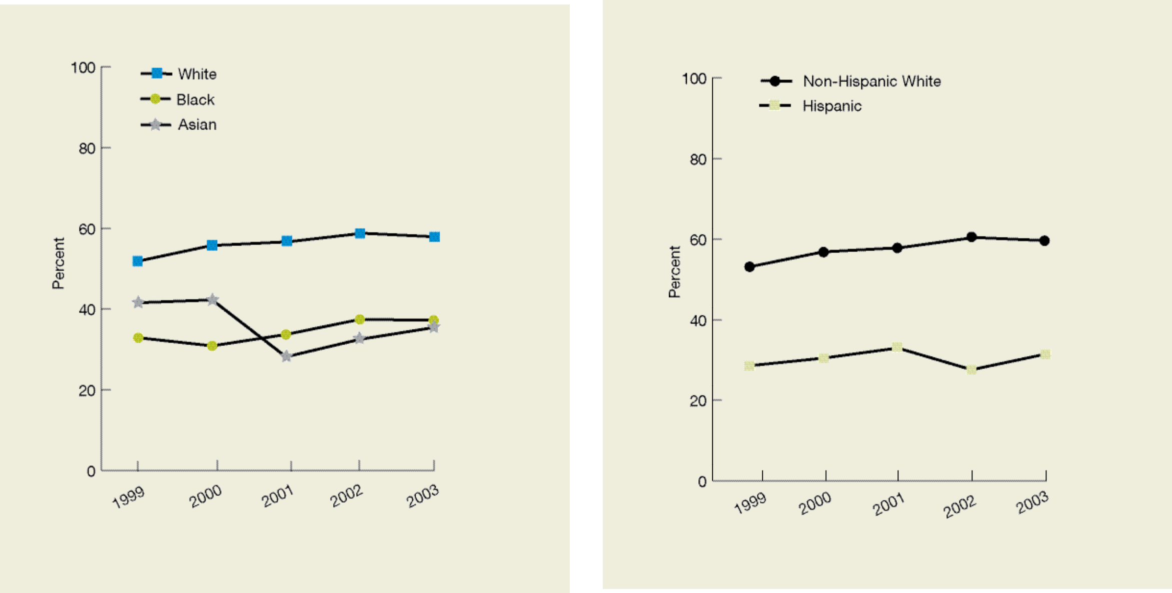
Respiratory Diseases

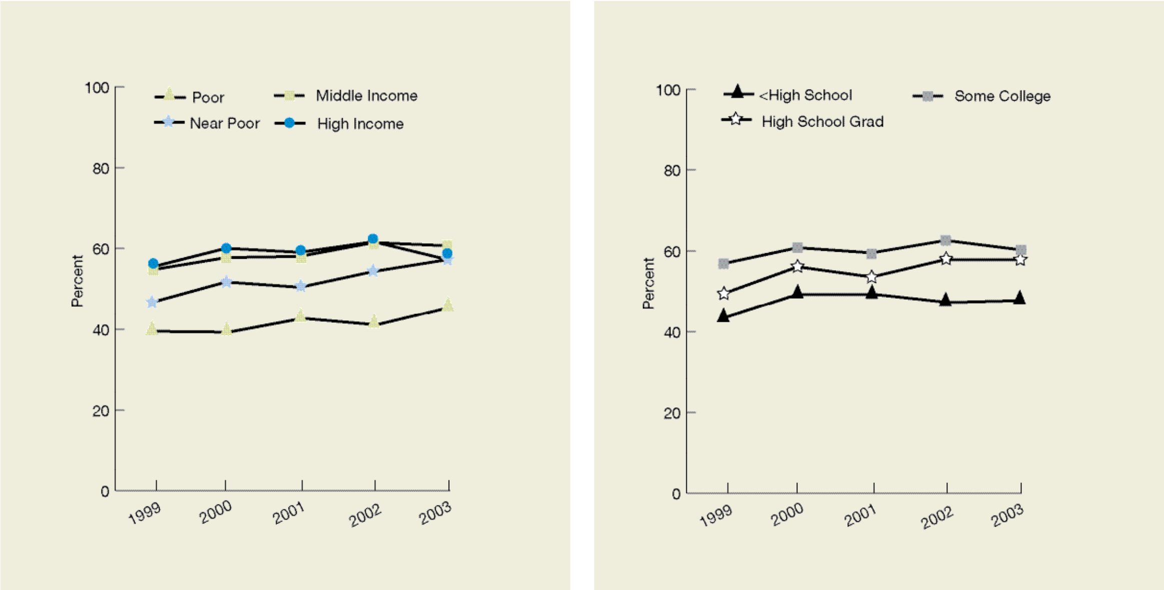
Number of deaths, influenza and pneumonia combined (2003)	64,847[4]
Cause of death rank, influenza and pneumonia combined (2003)	7th[4]
Americans 18 and over with an asthma attack in past 12 months (2003)	13,623,000[49]
Americans under 18 with an asthma attack in past 12 months (2003)	3,975,000[50]
Annual number of pneumonia cases (1996)	4,800,000[51]
Total cost of lung diseases	$139.6 billion[5]
Total direct medical costs of lung diseases	$80.7 billion[5]
Total cost of upper respiratory infections	$40 billion[51]
Total cost of asthma	$11.3 billion-$14 billion[52]
Respiratory care differs by	race[53 54 55]

Prevention: Pneumococcal Vaccination

Vaccination is an effective strategy for reducing illness, death, and disparities associated with pneumococcal disease and influenza.[56 57]

Figure 2.18. Adults age 65 and over who ever had pneumococcal vaccination, by race (this page, left), ethnicity (this page, right), income (next page, left), and education (next page, right), 1999-2003





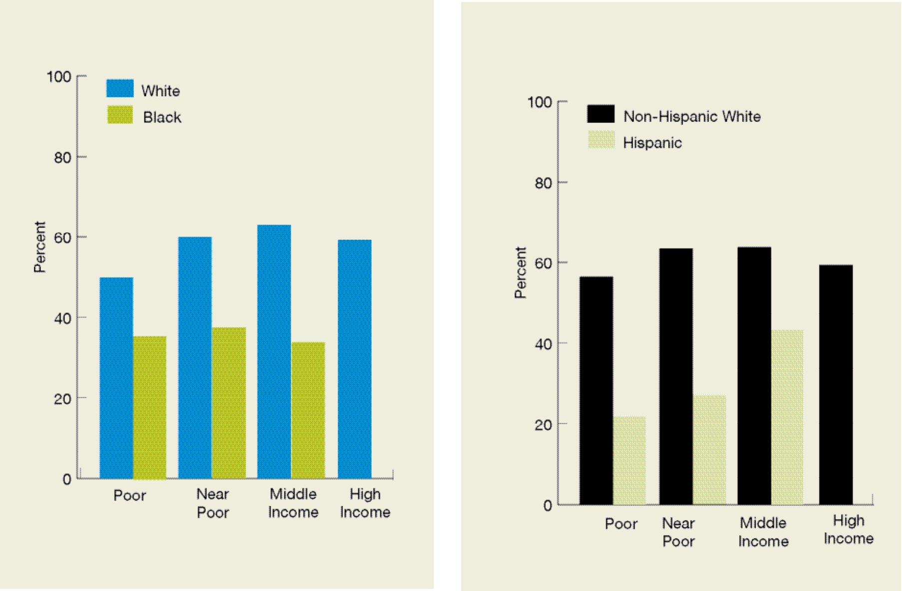
Source: National Health Interview Survey, 1999-2003.

Reference population: Civilian noninstitutionalized population age 65 and over.

- In all 5 years, the proportion of adults age 65 and over who ever had pneumococcal vaccine was lower among Blacks compared with Whites; Hispanics compared with non-Hispanic Whites; poor compared with high income elderly; and elderly with less than a high school education compared with elderly with any college education (Figure 2.18).
- In 4 of the 5 years, rates were also lower among Asians compared with Whites; near poor compared with high income elderly; and high school graduates compared with elderly who had any college education.
- From 1999 to 2003, the overall proportion of adults age 65 and over with pneumococcal vaccine improved from 49.9% to 55.7%. Improvements were observed among Whites, non-Hispanic Whites, lower income groups, and lower education groups.

Racial and ethnic minorities are disproportionately of lower socioeconomic status. To distinguish the effects of race, ethnicity, income, and education on pneumococcal vaccination, this measure is stratified by income and education level.

Figure 2.19. Adults age 65 and over who ever had pneumococcal vaccination, by race (left) and ethnicity (right) stratified by income, 2003

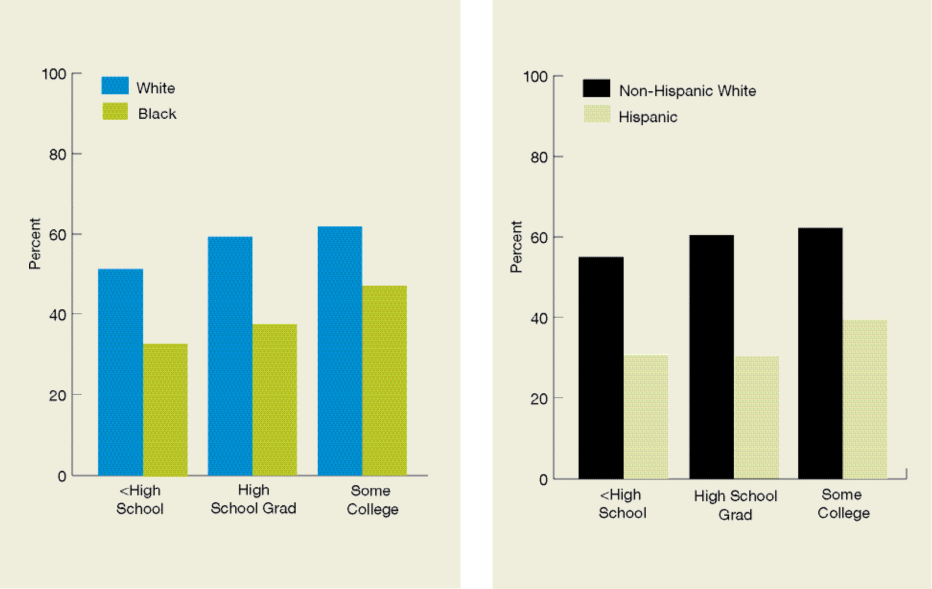


Source: National Health Interview Survey, 2003.

Reference population: Civilian noninstitutionalized population age 65 and older.

Note: Estimates not available for high income Blacks and Hispanics.

Figure 2.20. Adults age 65 and over who ever had pneumococcal vaccination, by race (left) and ethnicity (right) stratified by education, 2003



Source: National Health Interview Survey, 2003.

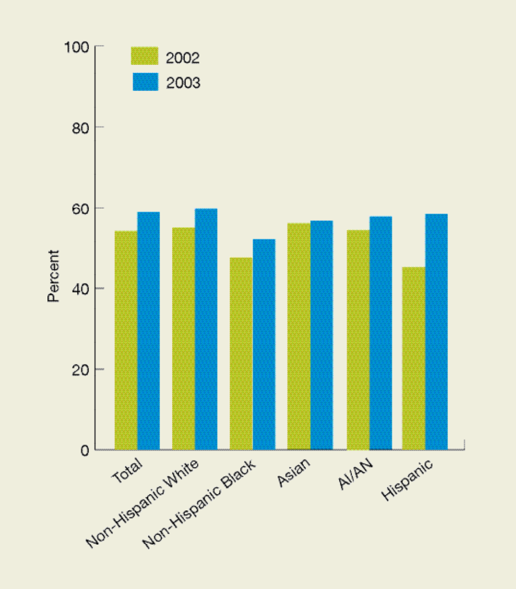
Reference population: Civilian noninstitutionalized population age 65 and older.

- Blacks of every income and education level were less likely than Whites to report pneumococcal vaccination (Figures 2.19 and 2.20).
- Hispanics of every income and education level were less likely than respective non-Hispanic Whites to report pneumococcal vaccination.

Treatment: Recommended Hospital Care for Pneumonia

Approximately 5 million cases of pneumonia occur annually and result in nearly 55 million days of restricted activity, 31.5 million bed days, and 1.3 million hospitalizations each year.[58] The Centers for Medicare & Medicaid Services tracks a set of measures for quality of pneumonia care for hospitalized adults age 65 and older through the CMS Quality Improvement Organization (QIO) program. This year, the NHDR introduces a new composite measure for hospital care for pneumonia, which incorporates the following five measures from previous NHDRs: 1) receipt of antibiotics within 4 hours, 2) receipt of appropriate antibiotics, 3) receipt of blood culture before antibiotics, 4) receipt of influenza screening[iv] or vaccination, and 5) receipt of pneumococcal screening[v] or vaccination.

Figure 2.21. Recommended hospital care (incorporates five measures as described above) received by Medicare patients with pneumonia, by race/ethnicity, 2002-2003



Key: AI/AN=American Indian or Alaska Native.

Source: Quality Improvement Organization Program, 2002-2003.

Reference population: Medicare beneficiaries with pneumonia who are hospitalized.

Note: Whites, Blacks, Asians, and AI/ANs are non-Hispanic populations. Composite is calculated by averaging the percent of the population that received each of the five incorporated components of care. For further details on composite measures, see Chapter 1, Introduction and Methods.

- From 2002 to 2003, the overall percentage of Medicare patients with pneumonia who received recommended hospital care improved from 54% to 59% (Figure 2.21).
- In both years, this percentage was lower among non-Hispanic Blacks compared with non-Hispanic Whites. In 2002, the percentage was also lower among Hispanics.
- From 2002 to 2003, the percentage of Medicare patients with pneumonia who received recommended hospital care increased for non-Hispanic Whites, non-Hispanic Blacks, and Hispanics but did not change significantly for other groups.

[iv] Person is assessed as to whether he or she would be a good candidate for vaccination.

[v] Ibid.

Nursing Home and Home Health Care

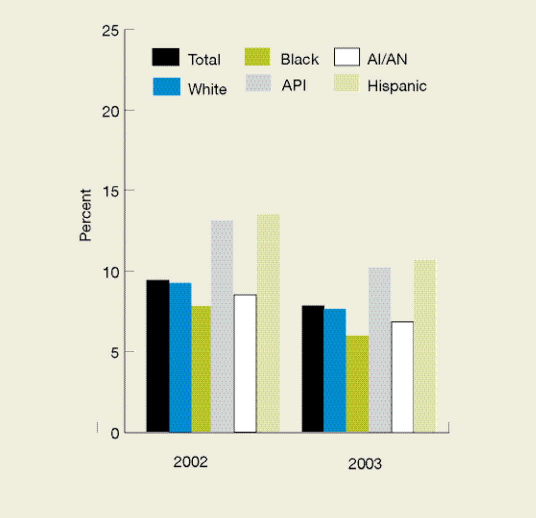
Number of nursing home residents (1999)	1,600,000[59]
Number of home health patients (2000)	1,460,000[60]
Discharges from nursing homes (1998-1999)	2,500,000[59]
Discharges from home health agencies (2000)	7,800,000[60]
Causes of nursing home discharges	recovery and stabilization (33%) admission to hospital (29%) death (24%)
Total cost of nursing home services	$110.8 billion[61]
Total cost of home health services	$40 billion[61]
Portion of nursing home expenditures paid by Medicaid and Medicare	60%
Portion of nursing home residents supported by Medicaid	70%[62]
Nursing home care differs by	race[63] ethnicity[63] SES[63]
Groups more likely to live in nursing homes with limited resources	Blacks[64]

This section highlights two core measures of nursing home quality of care—use of physical restraints and presence of pressure sores—and two measures of home health care quality—improvement in walking or moving around and episodes with acute care hospitalization.

Management: Use of Physical Restraints Among Nursing Home Residents

Nursing home residents who are restrained daily can become weak, lose their ability to go to the bathroom by themselves, and develop pressure sores or other medical complications. Restraints should only be used when they are necessary as part of the medical treatment. They should never be used to punish a resident or to make things easier for the staff. Only a doctor can order a restraint. Nursing homes are not allowed to use restraints based solely on a family's request, unless there is a documented medical need and a doctor's order.

Figure 2.22. Long-stay nursing home residents who were physically restrained, 2002-2003



Key: API=Asian or Pacific Islander; AI/AN=American Indian or Alaska Native.

Source: CMS Minimum Data Set, 2002-2003. Data are from the third quarter of each calendar year.

Reference population: Long-stay nursing home residents.

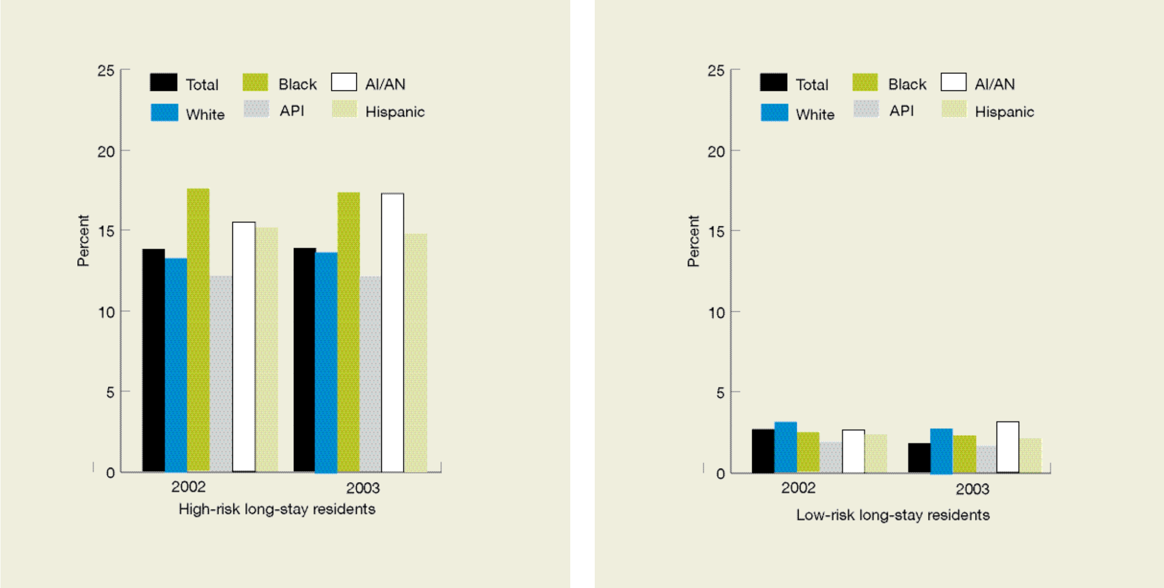
Note: Long-stay residents are persons in an extended/permanent nursing home stay. Short-stay residents are persons needing skilled nursing care or rehabilitation services following a hospital stay but who are expected to return home.

- In both 2002 and 2003, the proportion of long-stay residents who were physically restrained was higher among APIs and Hispanics compared with non-Hispanic Whites (Figure 2.22).
- From 2002 to 2003, the proportion of long-stay residents who were physically restrained fell from 9.3% to 7.8%. Improvements were observed among all racial/ethnic groups.

Management: Prevalence of Pressure Sores Among Nursing Home Residents

Both long-stay and short-stay nursing home residents should be assessed by nursing home staff for presence or risk of developing pressure sores. Nursing homes can help to prevent or heal pressure sores by keeping residents clean and dry and by changing their position frequently or helping them move around, making sure residents get proper nutrition, and using soft padding to reduce pressure on the skin. However, some residents may get pressure sores even when the nursing home provides good preventive care. Patients who are bedridden or who cannot control their bladder or bowels are considered to be at high risk because of moisture against the skin.

Figure 2.23. Pressure sores among high-risk (left) and low-risk (right) long-stay nursing home residents by race/ethnicity, 2002-2003



Key: API=Asian or Pacific Islander; AI/AN=American Indian or Alaska Native.

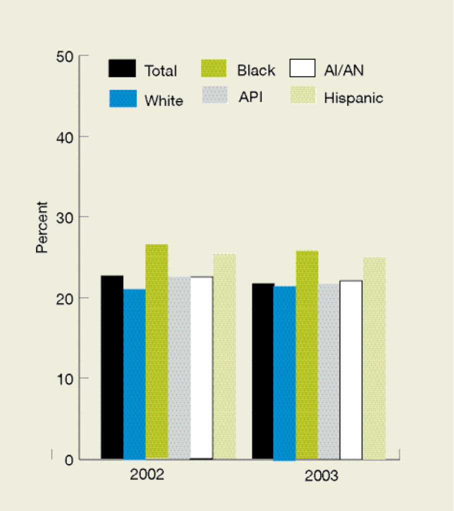
Source: CMS Minimum Data Set, 2002-2003. Data are from the third quarter of each calendar year.

Reference population: Long-stay nursing home residents.

Note: White, Black, API, and AI/AN are non-Hispanic groups. Long-stay is defined by CMS as residents who were not recently admitted to a nursing home following a hospital stay.

- In 2002 and 2003, the proportion of high-risk long-stay residents who had pressure sores was higher among Blacks, AI/ANs, and Hispanics compared with non-Hispanic Whites (Figure 2.23).
- In both years, the proportion of low-risk long-stay residents who had pressure sores was lower among Blacks, APIs, and Hispanics compared with non-Hispanic Whites.

Figure 2.24. Pressure sores among short-stay nursing home residents by race/ethnicity, 2002-2003



Key: API=Asian or Pacific Islander; AI/AN=American Indian or Alaska Native.

Source: CMS Minimum Data Set, 2002-2003. Data are full calendar year estimates.

Reference population: Short-stay nursing home residents.

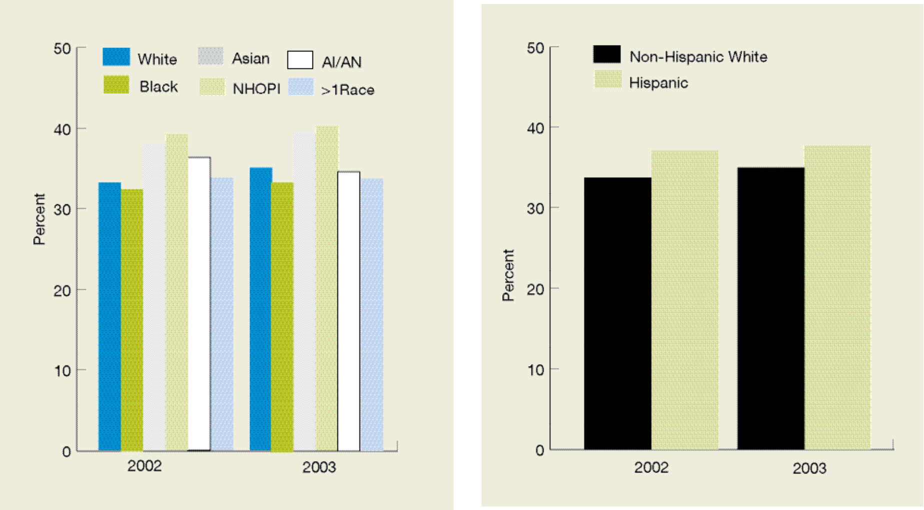
Note: White, Black, API, and AI/AN are non-Hispanic groups. *Short-stay* residents are persons needing skilled nursing care or rehabilitation services following a hospital stay but who are expected to return home.

- In 2002 and 2003, the proportion of short-stay residents who had pressure sores was higher among Blacks and Hispanics compared with non-Hispanic Whites (Figure 2.24).

Treatment: Improvement by Home Health Patients in Walking or Moving Around

How well a patient improves in ability level while getting home health care is a reflection of the agency's quality of service, the patient's level of cooperation, and the patient's available support system. Improved ambulation, i.e., getting better at walking or using a wheel chair, is a measure of improved outcomes.[vi] A higher percentage of patients who can improve their walking and their mobility is a good sign of progress and improved outcomes. The patients can achieve independence and self confidence in performing their activities. The home health agency staff should evaluate the patients for any special assistance or equipment they might require and assist and train the patients in the use of the device or equipment.

Figure 2.25. Home health care episodes with patients who get better at walking or moving around, by race (left) and ethnicity (right), 2002-2003



Key: NHOPI=Native Hawaiian or Other Pacific Islander; AI/AN=American Indian or Alaska Native.

Source: CMS Outcome and Assessment Information Set, 2002-2003.

Reference population: Patients with home health care episodes.

Note: An "episode" is the time during which a patient is under the direct care of a home health agency. It starts with the beginning/resumption of care and finishes when the patient is discharged or transferred to an inpatient facility. Some patients have multiple episodes in a year.

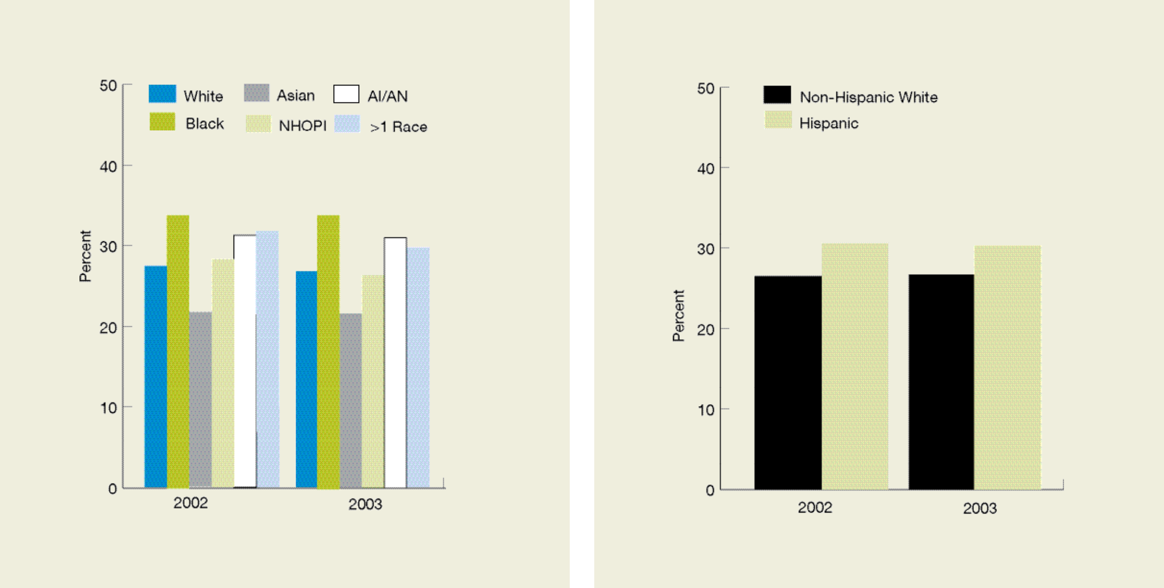
[vi] In cases of patients with some neurological conditions, such as progressive multiple sclerosis or Parkinson's disease, ambulation may not improve even when the nursing home or home health service provides good care.

- In both years, the proportion of home health care patients who got better at walking and moving around was higher among Asians and Native Hawaiians or Other Pacific Islanders compared with Whites (Figure 2.25).

Treatment: Acute Care Hospitalization of Home Health Patients

Improvement in the acute care hospitalization outcome is demonstrated by a decrease in the percentage of patients who had to be admitted to the hospital. Thus lower percentages are the desirable outcome. However, patients may need to go into the hospital while they are getting care; and, in some instances, this may not be avoidable even with good home health care. Acute care hospitalization may be avoided if the home health staff adequately checks the patient's health condition at each visit to detect problems early. Staff must also assess the patient's ability to eat, drink, and take medication, as well as obstacles to a safe home environment. They should also coordinate the patient's care by regularly communicating with patients, informal caregivers, doctors, and other care providers.

Figure 2.26. Home health care episodes with patients who were admitted to the hospital, by race (left) and ethnicity (right), 2002-2003



Key: NHOPI=Native Hawaiian or Other Pacific Islander; AI/AN=American Indian or Alaska Native.

Source: CMS Outcome and Assessment Information Set, 2003.

Reference population: Patients with home health care episodes.

Note: An "episode" is the time during which a patient is under the direct care of a home health agency. It starts with the beginning/resumption of care and finishes when the patient is discharged or transferred to an inpatient facility. Some patients have multiple episodes in a year.

- In both years, the proportion of home health care patients who were admitted to the hospital was higher among Blacks and AI/ANs and lower among Asians compared with Whites (Figure 2.26).
- In 2002, multiple race home health care patients were more likely than Whites to be hospitalized.
- In both years, the proportion of home health care patients who were admitted to the hospital was higher among Hispanics compared with non-Hispanic Whites.

Patient Safety

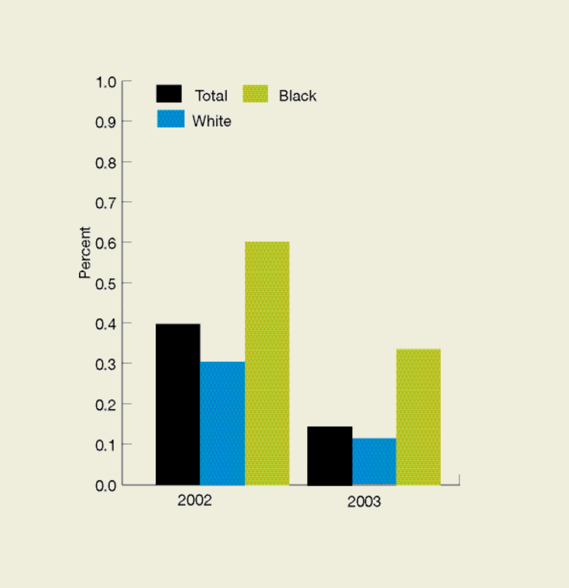
Number of Americans that die each year from medical errors (1999 est.)	44,000-98,000[65]
Number of Americans that die in the hospital each year due to 18 types of medical injuries (2000 est.)	at least 32,000[66]
Rate of adverse drug reactions in hospital admissions	2.0%-6.7%[67 68 69 70]
Rate of adverse drug events among Medicare beneficiaries in ambulatory settings	50 per 1,000 person-years
Percentage of serious, life-threatening, or fatal events deemed preventable	40%
Cost (in lost income, disability, and health care costs) attributable to medical errors (1999 est.)	$29 billion[65]
Groups with higher rates of some safety events	racial minorities[71 72]

This section highlights six measures of patient safety in three areas: nosocomial infections, postoperative complications and other adverse events, and inappropriate medication use by the elderly. (For findings related to all core report measures of patient safety, see Table 2.2a.)

Nosocomial Infections

Infections acquired during hospital care, or nosocomial infections, are one of the most serious patient safety concerns.

Figure 2.27. Hospital-acquired bloodstream infections in Medicare patients, by race, 2002-2003



Source: Medicare Patient Safety Monitoring System, 2002-2003.

Reference population: Random sample of Medicare medical records.

- No significant differences in the proportion of discharged Medicare patients who had a hospital-acquired bloodstream infection were observed, although this could be due to small sample sizes (Figure 2.27).
- From 2002 to 2003, the overall rate of hospital-acquired bloodstream infections fell from 0.40% to 0.15%. Significant improvements were observed among Whites.

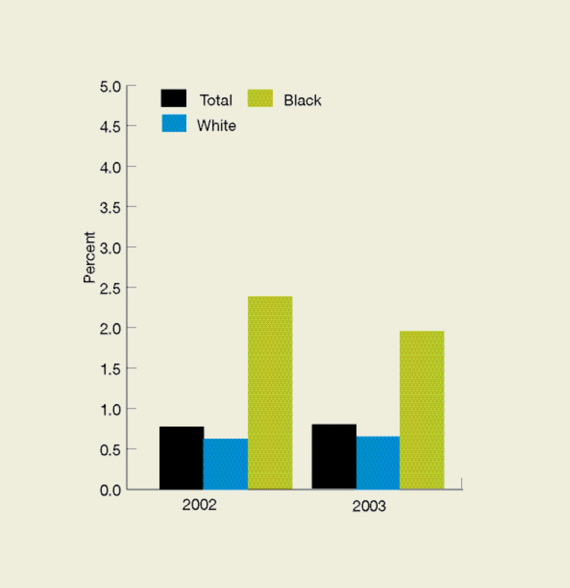
Adverse Events and Postoperative Complications of Care

In addition to nosocomial infections, various adverse events and complications can occur after surgical procedures. Although some of the events may be related to a patient's underlying condition, many of them can be avoided if adequate care is provided.

Postoperative Blood Clots

After surgery, patients are at higher risk for developing blood clots in their legs. This risk can be reduced by getting patients to walk as soon as possible after surgery and by giving patients medications and treatments that prevent blood clots.

Figure 2.28. Medicare surgical patients with postoperative venous thromboembolic event, by race, 2002-2003



Source: Medicare Patient Safety Monitoring System, 2002-2003.

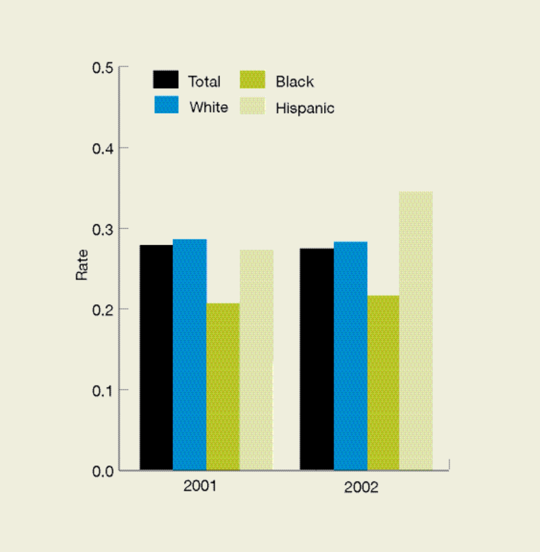
Reference population: Random sample of Medicare medical records.

- No significant differences were observed in the proportion of Medicare surgical patients with postoperative thromboembolic events, although this could be due to small sample sizes (Figure 2.28).
- From 2002 to 2003, the proportion of Medicare patients with postoperative blood clots did not change significantly overall or within any racial/ethnic group.

Postoperative Hip Fracture

Patients may be especially vulnerable to some adverse events, such as falling and breaking bones, right after surgery. This risk of falling can be reduced by putting bed rails up, monitoring ambulation, and removing items from the room that could cause patients to trip or slip while walking.

Figure 2.29. Postoperative hip fracture per 1,000 adult surgical patients, by race/ethnicity, 2001-2002



Source: HCUP State Inpatient Databases disparities analysis file, 2001-2002.

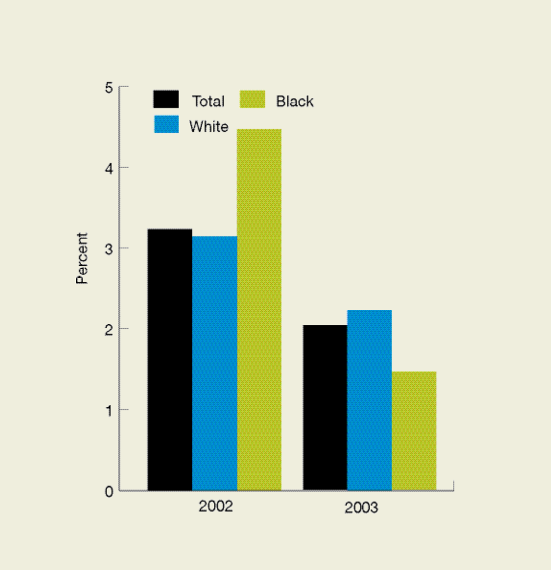
Reference population: Surgical patients age 18 and over in community hospitals.

- No significant racial/ethnic disparities in rates of postoperative hip fractures were observed in 2001 or 2002 (Figure 2.29).
- From 2001 to 2002, the rate of postoperative hip fracture among adult surgical patients did not change significantly overall or in any racial/ethnic group.

Adverse Events Associated With Central Venous Catheters

Part of the risk for complications during insertion of a central venous catheter (CVC) may be related to the underlying severity of illness of patients who require this procedure. Thus, inserting a CVC into the great vessels can result in a number of non-infection adverse events.

Figure 2.30. Central venous catheter placements with associated mechanical adverse events in Medicare patients, by race, 2002-2003



Source: Medicare Patient Safety Monitoring System, 2002-2003.

Reference population: Random sample of Medicare medical records.

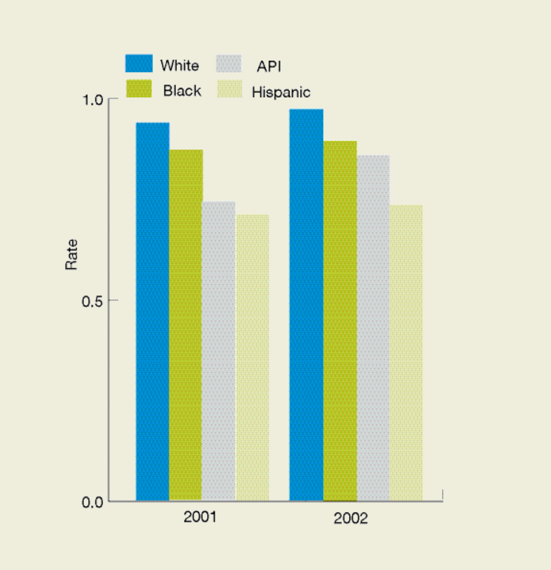
Note: Some apparent differences between populations in the figure are not significant due to small sample sizes.

- No significant racial disparities in rates of CVC mechanical adverse events among Medicare patients were observed (Figure 2.30).
- From 2002 to 2003, the overall proportion of CVC placements with associated mechanical adverse events among Medicare patients fell from 3.2% to 2.0%.

Iatrogenic Pneumothorax

A number of medical procedures can involve the risk of accidentally puncturing a lung. These include vascular catheterization; thoracentasis; intubations; mechanical ventilation; placing and adjusting cardiac pacemakers; and operations on the larynx and bronchus, in the abdominal cavity, on respiratory systems, or on skin or breast.

Figure 2.31. Iatrogenic pneumothorax per 1,000 adult discharges, by race/ethnicity, 2001-2002



Key: API=Asian or Pacific Islander.

Source: HCUP State Inpatient Databases disparities analysis file, 2001-2002.

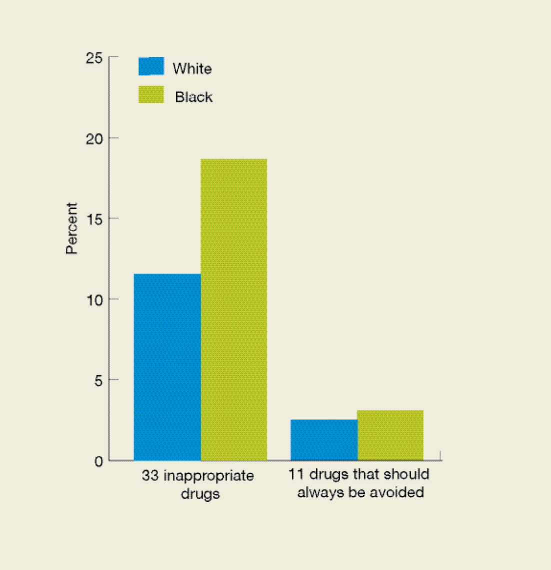
Reference population: Patients discharged from community hospitals, age 18 and over.

- In both years, the rate of iatrogenic pneumothorax was lower among Hispanics compared with Whites (Figure 2.31).
- From 2001 to 2002, the rate of iatrogenic pneumothorax did not change significantly overall or in any racial/ethnic group.

Inappropriate Medication Use by the Elderly

Adverse drug events can result from errors in prescribing or administering medication or lack of adherence by patients. Standard, national measures on adverse drug events and medication errors are still lacking. However, as comorbidities increase and metabolism and other health-related factors change in the elderly, some drugs should often or always be avoided by this age group. Examining the extent to which medicines that are inappropriate and potentially harmful to patients are prescribed is an alternative way to assess safe use of medication.[73]

Figure 2.32. Inappropriate use of medications by community dwelling adults age 65 and older, by race, 2002



Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population age 65 and over.

- There were no statistically significant differences in rates of inappropriate medication use among elderly Blacks and Whites due to small sample size (Figure 2.32).

Timeliness

Timeliness is the health care system's capacity to provide care quickly after a need is recognized. Timeliness[74] is one of the six dimensions of quality established by the Institute of Medicine as a priority for improvement in the health care system.[2] For patients, lack of timeliness can result in emotional distress, physical harm, and financial consequences.[75] For example, stroke patients' mortality and long-term disability are largely influenced by the timeliness of therapy[76] [77] Timely delivery of appropriate care can also help reduce mortality and morbidity for chronic conditions such as chronic kidney disease.[78] Early care for comorbid conditions has been shown to reduce hospitalization rates and costs for Medicare beneficiaries.[79] Some research suggests that, over the course of 30 years, the costs of treating complications from diabetes can approach $50,000 per patient,[80] and early care for complications in patients with diabetes can help to reduce these costs.[81] Timely outpatient care can reduce admissions for pediatric asthma, which account for $835 million in total hospitalization charges annually.[82] [83]

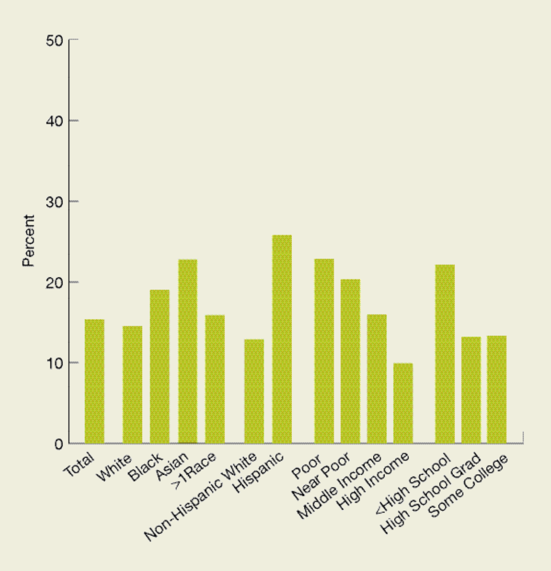
Measures of timeliness highlighed in this section include getting care for illness or injury as soon as wanted and emergency department visits where the patient left without being seen. (For findings related to all core report measures of timeliness, see Tables 2.3a and 2.3b.)

Getting Care for Illness or Injury As Soon As Wanted

Timeliness of Primary Care: Adults

A patient's primary care provider should be the point of first contact for most illnesses and injuries. The ability of patients to receive illness and injury care in a timely fashion is a key element in a patient-focused health care system.

Figure 2.33. Adults age 18 and over who reported sometimes or never getting care for illness or injury as soon as wanted in the past year, by race, ethnicity, income, and education, 2002



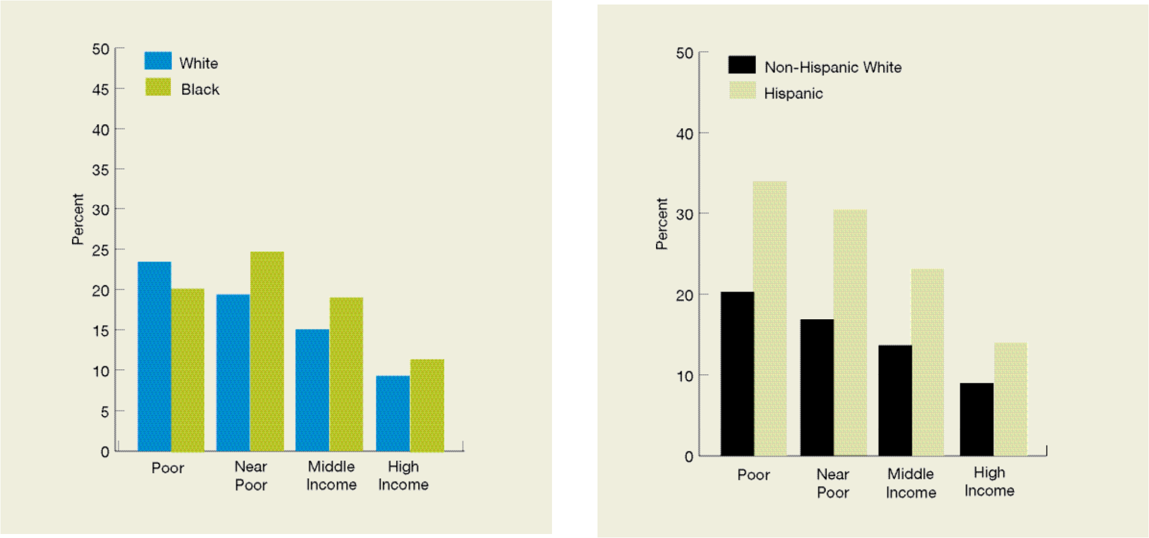
Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population age 18 and older.

- The proportion of adults who reported sometimes or never getting care for illness or injury as soon as wanted was higher among Blacks and Asians compared with Whites; among Hispanics compared with non-Hispanic Whites; among poor, near poor, and middle income individuals compared with high income individuals; and among persons with less than a high school education compared with persons with some college (Figure 2.33).

Racial and ethnic minorities are disproportionately of lower socioeconomic status. To distinguish the effects of race, ethnicity, income, and education on timeliness of primary care, this measure is stratified by income and education level.

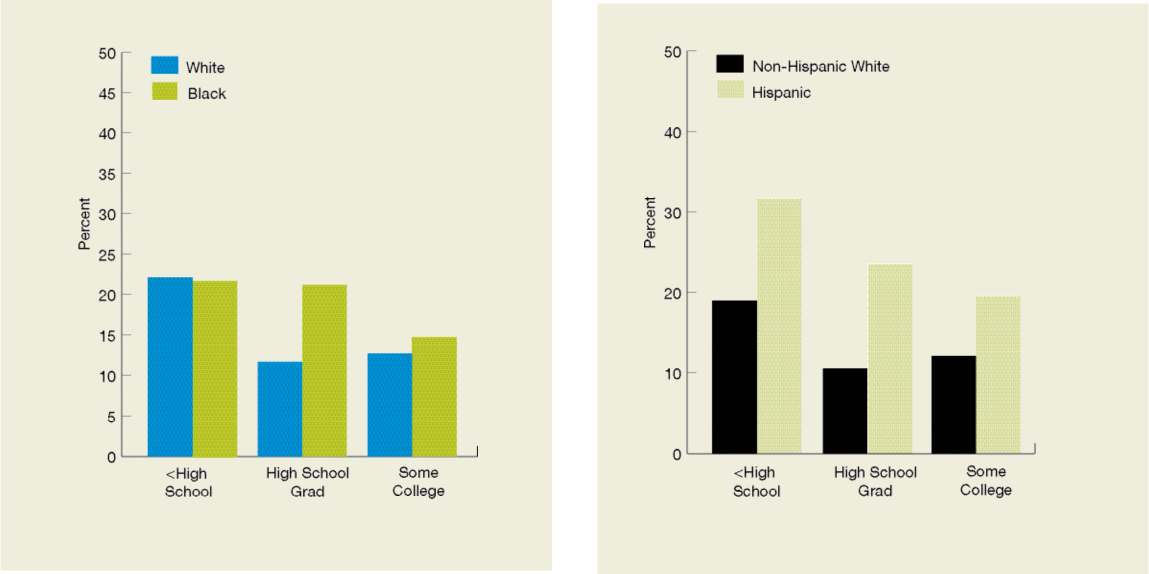
Figure 2.34. Adults who reported sometimes or never getting care for illness or injury as soon as wanted in the past year, by race (left) and ethnicity (right) stratified by income, 2002



Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population age 18 and older.

Figure 2.35. Adults who reported sometimes or never getting care for illness or injury as soon as wanted in the past year, by race (left) and ethnicity (right) stratified by education, 2002



Source: Medical Expenditure Panel Survey, 2002.

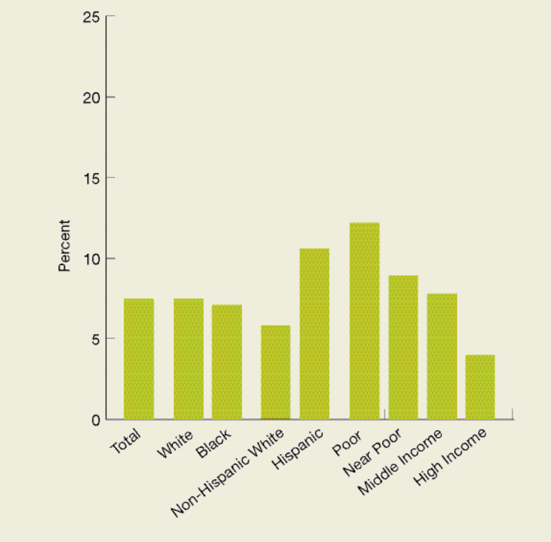
Reference population: Civilian noninstitutionalized population age 18 and older.

- Socioeconomic status explains some but not all of the ethnic differences in timeliness of primary care.
- Hispanics of every income and education level, with the exception of the high income group, were more likely than respective non-Hispanic Whites to report problems getting care for illness or injury as soon as they wanted (Figures 2.34 and 2.35).
- In contrast, most Black-White differences were not significant after stratification by income and education. Only among high school graduates were Blacks more likely than Whites to report problems with timeliness.

Timeliness of Primary Care: Children

Children often need care for illness or injury. Timely receipt of pediatric care can prevent disease complications, alleviate discomfort, and reduce parental anxiety.

Figure 2.36. Children whose parents or guardians reported that their child sometimes or never got care for illness or injury as soon as wanted in the past year, by race, ethnicity, and income, 2002



Source: Medical Expenditure Panel Survey, 2002.

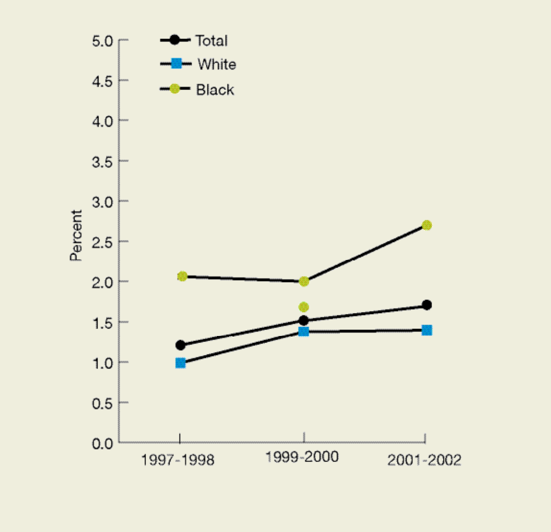
Reference population: Civilian noninstitutionalized population ages 0-17.

- The proportion of children who sometimes or never got care for illness or injury as soon as wanted was higher among Hispanics compared with non-Hispanic Whites and among poor, near poor, and middle income children compared with high income children (Figure 2.36).

Emergency Department Vists Where Patient Left Without Being Seen

In 2001, patients who had an emergency department (ED) visit in the United States spent an average of 3.2 hours waiting to be seen. This may reflect the 20% increase in ED visit volumes over the past 10 years, as the number of ED facilities has decreased by 15%.[84] While there are many reasons that a patient seeking care in an emergency department may leave without being seen, long waits tend to exacerbate this problem.

Figure 2.37. Emergency department visits in which patient left without being seen, by race, 1997-2002



Source: National Hospital Ambulatory Medical Care Survey, 1997-2002.

Reference population: Patients visiting EDs of non-Federal, short-stay, and general hospitals, exclusive of Federal, military, and Department of Veterans Affairs hospitals.

- From 1997-1998 to 2001-2002, the overall proportion of emergency department visits in which the patient left before being seen increased from 1.2% to 1.7%. Significant increases were seen among Whites (Figure 2.37).
- In all time periods, Blacks were more likely to leave before being seen compared with Whites.

Patient Centeredness

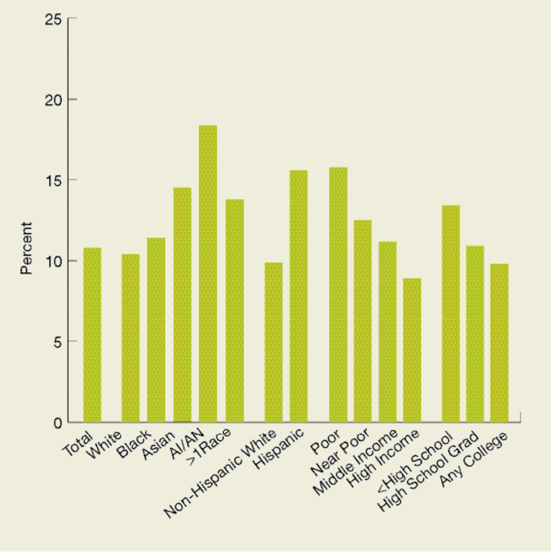
Patient centered care requires good patient-provider communication so that patients' needs and wants are understood and addressed, and patients understand and participate in their own care.[85 86 87 88] This style of care has been shown to improve patients' health.[86 87 88 89] Unfortunately, there are barriers to good communication: about a third of Americans are suboptimaly "health literate," [90 91] which means they lack the "capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions." [92] They receive less preventive care, [93] have poorer understanding of their conditions and care, [90 94 95] higher use of emergency and inpatient services, higher rates of rehospitalization, [96 97] lower adherence to medications,[96] and lower participation in medical decisionmaking.[98] Low health literacy costs an estimated $29 billion to $69 billion per year. [99] Providers also differ in communication proficiency, including varied listening skills and views of symptoms and treatment effectiveness, compared with their patients' views. [100] Additional factors influencing patient centeredness and patient-provider communication include language barriers and effects of disabilities on patients' health care experiences.

Racial and ethnic differences in patient centered care have been observed, though findings are somewhat complex. Some research reveals that minorities report worse health care experiences and poorer communication than Whites. [101 102 103] Other studies find minorities are equally or more satisfied with their care. [104 105 106 107] Additional research shows race and ethnicity as weak, inconsistent predictors of health care experiences. [104 108 109]

Patient Experience of Care: Adults

This year, using methods developed for the CAHPS® (formerly known as Consumer Assessment of Health Plans [110]) survey, the NHDR presents a composite measure which combines four of the measures used in previous NHDRs into a single core report measure. (For findings related to all core report measures of patient centeredness, see Tables 2.3a and 2.3b.)

Figure 2.38. Adults whose health providers sometimes or never listened carefully, explained things clearly, respected what they had to say, and spent enough time with them, by race, ethnicity, income, and education, 2002



Key: AI/AN=American Indian or Alaska Native.

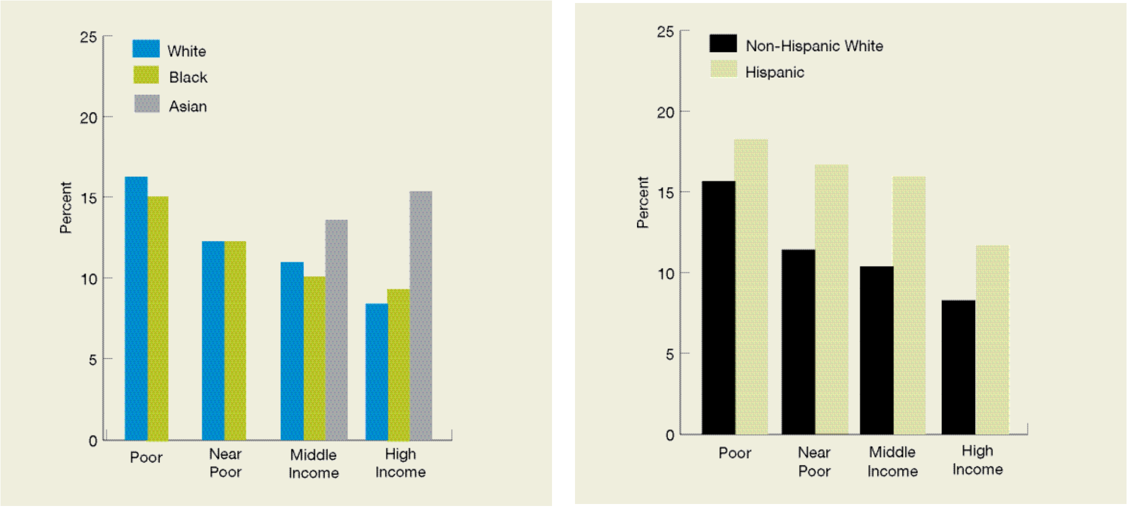
Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population age 18 and older.

- The proportion of adults whose health providers sometimes or never listened carefully, explained things clearly, respected what they had to say, and spent enough time with them was higher among Asians and AI/ANs than Whites and among Hispanics than non-Hispanic Whites (Figure 2.38).
- The proportion of adults whose health providers sometimes or never listened carefully, explained things clearly, respected what they had to say, and spent enough time with them was higher among poor, near poor, and middle income compared with high income persons and among persons with a high school degree or less compared with those with some college.

Racial and ethnic minorities are disproportionately of lower socioeconomic status. To distinguish the effects of race, ethnicity, income, and education on patient-provider communication, this measure is stratified by income and education level.

Figure 2.39. Adults whose health providers sometimes or never listened carefully, explained things clearly, respected what they had to say, and spent enough time with them by race (left) and ethnicity (right) stratified by income, 2002

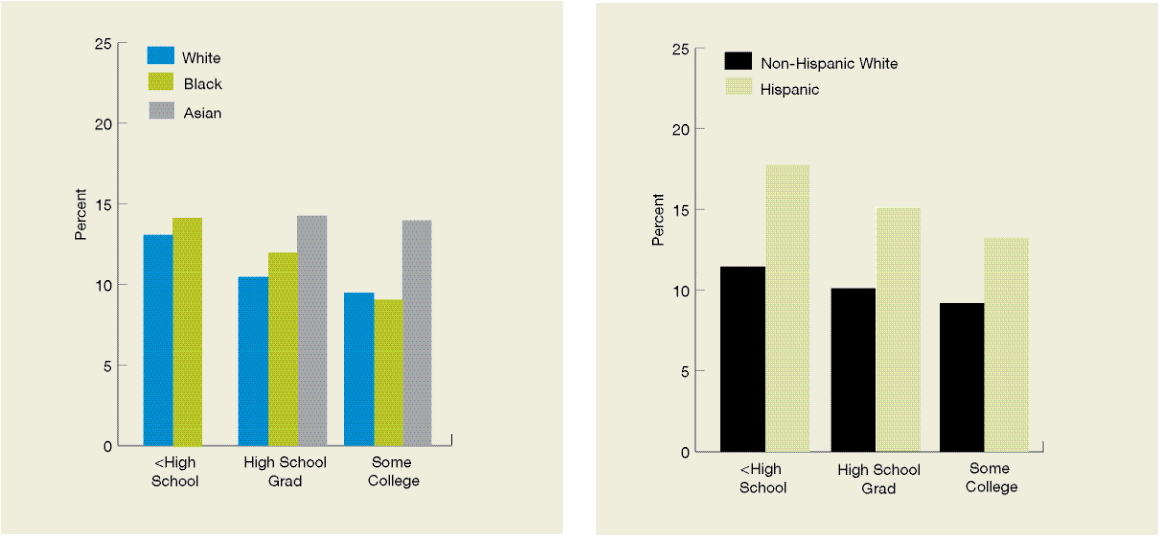


Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population age 18 and older.

Note: Sample sizes were too small to provide estimates for poor and near poor Asians.

Figure 2.40. Adults whose health providers sometimes or never listened carefully, explained things clearly, respected what they had to say, and spent enough time with them by race (left) and ethnicity (right) stratified by education, 2002



Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population age 18 and older.

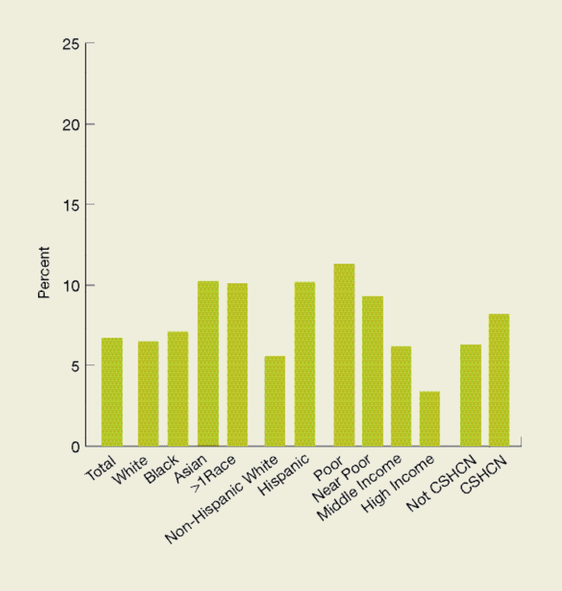
Note: Sample sizes were too small to provide estimates for Asians with less than a high school education.

- Socioeconomic status explains some but not all of the racial and ethnic differences in patient-provider communication.
- Hispanics of every income and education level, with the exception of the poor, are more likely than respective non-Hispanic Whites to report poor communication (Figures 2.39 and 2.40).
- Within income and education levels, Asians are often more likely than Whites to report poor patient-provider communication.

Patient Experience of Care: Children

Childhood presents a unique opportunity to promote health through preventive and routine care, identify health problems early, and establish healthy lifestyle behaviors. Communication in children's health care can pose a particular challenge as children are often less able to express their health care needs and preferences, and a third party (i.e., a parent or guardian) is involved in communication and decisionmaking. Optimal communication in children's health care can therefore have a significant impact on receipt of high quality care and subsequent health status. This is especially true for children with special health care needs (CSHCN).

Figure 2.41. Children less than 18 years whose parents or guardians reported that their child's health providers sometimes or never listened carefully, explained things clearly, respected what they had to say, and spent enough time with them, by race, ethnicity, income, and special health care needs, 2002



Key: CSHCN = children with special health care needs.

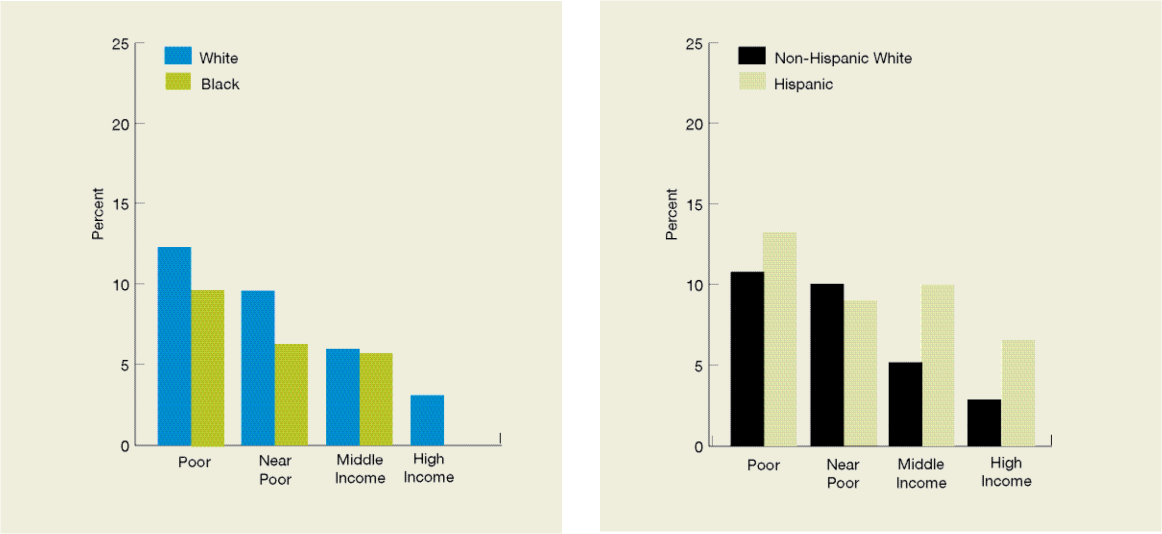
Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population less than 18 years old.

- The proportion of children whose parents or guardians reported that their child's health providers sometimes or never listened carefully, explained things clearly, respected what they had to say, and spent enough time with them was higher among Hispanics compared with non-Hispanic Whites and among poor, near poor, and middle income persons compared with high income persons (Figure 2.41).
- The proportion of children whose parents or guardians reported that their child's health providers sometimes or never listened carefully, explained things clearly, respected what they had to say, and spent enough time with them was higher among children with special health care needs compared with children without special health care needs.
- Racial differences were not statistically significant.

Racial and ethnic minorities are disproportionately of lower socioeconomic status. To distinguish the effects of race, ethnicity, and income on patient-provider communication in children's care, this measure is stratified by income.

Figure 2.42. Children less than 18 years whose parents or guardians reported that their child's health providers sometimes or never listened carefully, explained things clearly, respected what they had to say, and spent enough time with them by race (left) and ethnicity (right) stratified by income, 2002



Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population less than 18 years old.

Note: Sample sizes were too small to provide estimates for Blacks with high incomes.

- Income explains some but not all of the differences in patient-provider communication among different ethnicities.
- Middle and high income Hispanic children's parents and guardians are more likely than respective non-Hispanic White children's parents to report poor patient-provider communication (Figure 2.42).
- Although there was not a significant percentage difference by race among the total population, parents of near poor Black children are less likely than respective White children's parents to report poor patient-provider communication.

Table 2.1a. Racial and Ethnic Differences in Effectiveness of Care

Core Report Measure	Racial Difference[i]					Ethnic Difference[ii]
	Black	Asian[iii]	NHOPI[iii]	AI/AN	>1 Race	Hispanic
Cancer						
Women age 40 and over who had a mammogram within the past 2 years [iv]	=	↓			=	↓
Rate of breast cancers diagnosed at late stage[v]	=	↑		↑		↑
Cancer deaths per 100,000 female population per year for breast cancer[vi]	↓	↑		↑		↑
Diabetes						
Adults with diabetes who had hemoglobin A1c measurement, retinal eye exam, and foot exam in the past year[vii]	=					↓
Hospital admissions for lower extremity amputations in patients with diabetes per 1,000 population[viii]	↓					
End Stage Renal Disease						
Hemodialysis patients with urea reduction ratio 65% or higher[ix]	↓	↑		=	=	↑
Dialysis patients registered on the waiting list for transplantation[x]	↓	↑		↓		↓
Heart Disease						
Current smokers age 18 and over receiving advice to quit smoking[vii]	=					↓
Hospital care for heart attack patients[xi]	↓	=		↓		↓
Deaths per 1,000 adult admissions with acute myocardial infarction (heart attack)[xii]	↑	=				=
Hospital care for heart failure patients[xi]	=	=		=		=

[i] Compared with Whites.

[ii] Compared with non-Hispanic Whites.

[iii] Findings are presented separately for Asians and NHOPIs whenever possible. However, some data sources collected data for Asians and Pacific Islanders (APIs) as a single population; in these cases, the Asian and NHOPI cells are merged into a single cell representing APIs.

[iv] Source: National Health Interview Survey, 2003.

[v] Source: Surveillance, Epidemiology, and End Results program, 2002. This source does not provide rate estimates for Asians and NHOPIs separately but in aggregate as Asian and Pacific Islander. This source did not collect information for >1 race.

[vi] Source: National Vital Statistics System-Mortality, 2002. This source did not collect information on Asians and NHOPIs separately but in aggregate as Asian and Pacific Islander. This source did not collect information for >1 race.

[vii] Source: Medical Expenditure Panel Survey, 2002.

[viii] Source: National Hospital Discharge Survey, 2001-2003. This source did not collect information for >1 race. Missing rates preclude analysis by ethnicity.

[ix] Source: CMS End Stage Renal Disease Clinical Performance Measures Project, 2003.

[x] U.S. Renal Data System, 2002. This source did not collect information on Asians and NHOPIs separately but in aggregate as Asian and Pacific Islander. This source did not collect information for >1 race.

[xi] Source: CMS Quality Improvement Organization program, 2003. This source categorizes race/ethnicity information as a single item: non-Hispanic White, non-Hispanic Black, Hispanic, Asian and Pacific Islander, American Indian and Alaska Native. These contrasts compare each group with non-Hispanic Whites.

[xii] Source: HCUP State Inpatient Databases disparities analysis file, 2002. This source categorizes race/ethnicity information as a single item: non-Hispanic White, non-Hispanic Black, Hispanic, Asian and Pacific Islander. These contrasts compare each group with non-Hispanic Whites.

Key: NHOPI=Native Hawaiian or Other Pacific Islander; AI/AN=American Indian or Alaska Native.

Table 2.1a. Racial and Ethnic Differences in Effectiveness of Care (continued)

Core Report Measure	Racial Difference[i]					Ethnic Difference[ii]
	Black	Asian[iii]	NHOPI[iii]	AI/AN	>1 Race	Hispanic
HIV and AIDS						
HIV patients with CD4 <200 who receive PCP prophylaxis [iv]	=					=
New AIDS cases per 100,000 population 13 and over[v]	↓	↑		=		↓
Maternal and Child Health						
Pregnant women receiving prenatal care in first trimester[vi]	↓	↑	↓	↓		↓
Infant mortality per 1,000 live births, birthweight <1,500 grams[vi]	↓	↑	=	=		=
Children 19-35 months who received all recommended vaccines[vii]	↓	=	=	=	=	↓
Adolescents (13-15) who received 3 or more doses of hepatitis B vaccine[viii]	=					=
Hospital admissions for pediatric gastroenteritis per 100,000 population[ix]	=	↑				=
Children 2-17 with advice about physical activity[x]	=	=		↓	=	=
Children 2-17 with a dental visit[x]	↓	↓		↓	=	↓

[i] Compared with Whites.

[ii] Compared with non-Hispanic Whites.

[iii] Findings are presented separately for Asians and NHOPIs whenever possible. However, some data sources collected data for Asians and Pacific Islanders (APIs) as a single population; in these cases, the Asian and NHOPI cells are merged into a single cell representing APIs.

[iv] Source: HIV Research Network, 2002. This source categorizes race/ethnicity information as a single item: non-Hispanic White, non-Hispanic Black, Hispanic, Asian and Pacific Islander, American Indian and Alaska Native. These contrasts compare each group with non-Hispanic Whites.

[v] Source: Centers for Disease Control and Prevention, 2003. This source categorizes race/ethnicity information as a single item: non-Hispanic White, non-Hispanic Black, Hispanic, Asian and Pacific Islander. These contrasts compare each group with non-Hispanic Whites.

[vi] Source: National Vital Statistics System-Natality, 2002. This source did not collect information for >1 race.

[vii] Source: National Immunization Survey, 2003.

[viii] Source: National Health Interview Survey, 2003.

[ix] Source: HCUP State Inpatient Databases disparities analysis file, 2002. This source categorizes race/ethnicity information as a single item: non-Hispanic White, non-Hispanic Black, Hispanic, Asian and Pacific Islander. These contrasts compare each group with non-Hispanic Whites.

[x] Source: Medical Expenditure Panel Survey, 2002.

Key: NHOPI=Native Hawaiian or Other Pacific Islander; AI/AN=American Indian or Alaska Native.

Key to Symbols Used in Quality of Health Care Tables:

= Group and comparison group receive about same quality of health care or have similar outcomes.
↑ Group receives better quality of health care than the comparison group or has better outcomes.
↓ Group receives poorer quality of health care than the comparison group or has worse outcomes.
Blank cell: Reliable estimate for group could not be made.

Table 2.1a. Racial and Ethnic Differences in Effectiveness of Care (continued)

<table>
<tr><th>Core Report Measure</th><th colspan="5">Racial Difference[i]</th><th>Ethnic Difference[ii]</th></tr>
<tr><th></th><th>Black</th><th>Asian[iii]</th><th>NHOPI[iii]</th><th>AI/AN</th><th>>1 Race</th><th>Hispanic</th></tr>
<tr><td colspan="7">Mental Health and Substance Abuse</td></tr>
<tr><td>Adults with serious psychological distress who receive mental health treatment or counseling[iv]</td><td>↓</td><td>↓</td><td></td><td></td><td></td><td>↓</td></tr>
<tr><td>Suicide deaths per 100,000 population[v]</td><td>↑</td><td colspan="2">↑</td><td>↑</td><td></td><td>↑</td></tr>
<tr><td>Persons age 12 and over who needed treatment for substance abuse who received such treatment[iv]</td><td>=</td><td></td><td></td><td></td><td></td><td>↓</td></tr>
<tr><td>Patients receiving substance abuse treatment who completed treatment[vi]</td><td>↓</td><td></td><td></td><td></td><td></td><td>=</td></tr>
<tr><td colspan="7">Respiratory Diseases</td></tr>
<tr><td>Persons 65 and over who ever received pneumococcal vaccination[vii]</td><td>↓</td><td>↓</td><td></td><td></td><td></td><td>↓</td></tr>
<tr><td>Hospital care for pneumonia patients[viii]</td><td>↓</td><td colspan="2">=</td><td>=</td><td></td><td>=</td></tr>
<tr><td>Rate antibiotics prescribed at visits with a diagnosis of common cold per 10,000 population[ix]</td><td>↑</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Tuberculosis patients who complete course of treatment within 12 months of treatment initiation[x]</td><td>=</td><td colspan="2">=</td><td>=</td><td></td><td>↓</td></tr>
<tr><td>Hospital admissions for asthma per 100,000 population under 18[xi]</td><td>↓</td><td colspan="2">↑</td><td></td><td></td><td>=</td></tr>
</table>

[i] Compared with Whites.

[ii] Compared with non-Hispanic Whites.

[iii] Findings are presented separately for Asians and NHOPIs whenever possible. However, some data sources collected data for Asians and Pacific Islanders (APIs) as a single population; in these cases, the Asian and NHOPI cells are merged into a single cell representing APIs.

[iv] Source: Substance Abuse and Mental Health Services Administration, National Survey on Drug Use and Health, 2003.

[v] Source: National Vital Statistics System-Mortality, 2002. This source did not collect information on Asians and NHOPIs separately but in aggregate as Asian and Pacific Islander. This source did not collect information for >1 race.

[vi] Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set, 2002. This source categorizes race/ethnicity information as a single item: non-Hispanic White, non-Hispanic Black, Hispanic. These contrasts compare each group with non-Hispanic Whites.

[vii] Source: National Health Interview Survey, 2003.

[viii] Source: CMS Quality Improvement Organization program, 2003. This source categorizes race/ethnicity information as a single item: non-Hispanic White, non-Hispanic Black, Hispanic, Asian and Pacific Islander, American Indian and Alaska Native. These contrasts compare each group with non-Hispanic Whites.

[ix] Source: National Ambulatory Medical Care Survey/National Hospital Ambulatory Medical Care Survey, 2001-2002. This source did not collect information for >1 race. Missing rates preclude analysis by ethnicity.

[x] Source: CDC National TB Surveillance System, 2001. This source did not collect information on Asians and NHOPIs separately but in aggregate as Asian and Pacific Islander. This source did not collect information for >1 race.

[xi] Source: HCUP State Inpatient Databases disparities analysis file, 2002. This source categorizes race/ethnicity information as a single item: non-Hispanic White, non-Hispanic Black, Hispanic, Asian and Pacific Islander. These contrasts compare each group with non-Hispanic Whites.

Key: NHOPI=Native Hawaiian or Other Pacific Islander; AI/AN=American Indian or Alaska Native.

Table 2.1a. Racial and Ethnic Differences in Effectiveness of Care (continued)

<table>
<tr><th rowspan="2">Core Report Measure</th><th colspan="5">Racial Difference[i]</th><th>Ethnic Difference[ii]</th></tr>
<tr><th>Black</th><th>Asian[iii]</th><th>NHOPI[iii]</th><th>AI/AN</th><th>>1 Race</th><th>Hispanic</th></tr>
<tr><td colspan="7">Nursing Home and Home Health Care</td></tr>
<tr><td>Long-stay nursing home residents who were physically restrained[iv]</td><td>↑</td><td colspan="2">↓</td><td>=</td><td></td><td>↓</td></tr>
<tr><td>High risk long-stay nursing home residents with pressure sores[iv]</td><td>↓</td><td colspan="2">=</td><td>↓</td><td></td><td>↓</td></tr>
<tr><td>Short-stay nursing home residents who have pressure sores[iv]</td><td>↓</td><td colspan="2">=</td><td>=</td><td></td><td>↓</td></tr>
<tr><td>Home health care patients who get better at walking or moving around[v]</td><td>=</td><td>↑</td><td>↑</td><td>=</td><td>=</td><td>=</td></tr>
<tr><td>Home health care patients who had to be admitted to the hospital[v]</td><td>↓</td><td>↑</td><td>=</td><td>↓</td><td>=</td><td>↓</td></tr>
</table>

[i] Compared with Whites.

[ii] Compared with non-Hispanic Whites.

[iii] Findings are presented separately for Asians and NHOPIs whenever possible. However, some data sources collected data for Asians and Pacific Islanders (APIs) as a single population; in these cases, the Asian and NHOPI cells are merged into a single cell representing APIs.

[iv] Source: CMS Minimum Data Set, 2003. This source categorizes race/ethnicity information as a single item: non-Hispanic White, non-Hispanic Black, Hispanic, Asian and Pacific Islander. Contrasts compare each group with non-Hispanic Whites.

[v] Source: CMS Outcome and Assessment Information Set, 2003.
Key: NHOPI=Native Hawaiian or Other Pacific Islander; AI/AN=American Indian or Alaska Native.

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Table 2.1b. Socioeconomic Differences in Effectiveness of Care

Core Report Measure	Income Difference[i]			Educational Difference[ii]		Insurance Difference[iii]
	<100%	100-199%	200-399%	<HS	HS Grad	Uninsured
Cancer						
Women age 40 and over who had a mammogram within the past 2 years[iv]	↓	↓	↓	↓	↓	↓
Cancer deaths per 100,000 female population per year for breast cancer[v]				=	↓	
Diabetes						
Adults with diabetes who had hemoglobin A1c measurement, retinal eye exam, and foot exam in the past year[vi]	↓	↓	↓	↓	=	↓
Heart Disease						
Current smokers age 18 and over receiving advice to quit smoking[vi]	↓	=	=	=	=	↓
Maternal and Child Health						
Pregnant women receiving prenatal care in first trimester[vii]				↓	↓	
Infant mortality per 1,000 live births, birthweight <1,500 grams[vii]				↓	↓	
Children 19-35 months who received all recommended vaccines[viii]	↓	↓	↓			
Adolescents (13-15) who received 3 or more doses of hepatitis B vaccine[iv]	=	=	=			↓
Children 2-17 with advice about physical activity[vi]	↓	↓	↓			↓
Children 2-17 with a dental visit[vi]	↓	↓	↓			↓

[i] Compared with persons with family incomes 400% of Federal poverty thresholds or above.

[ii] Compared with persons with any college education.

[iii] Compared with persons under 65 with any private health insurance.

[iv] Source: National Health Interview Survey, 2003.

[v] Source: National Vital Statistics System-Mortality, 2002. This source did not collect information on Asians and NHOPIs separately but in aggregate as Asian and Pacific Islander. This source did not collect information for >1 race.

[vi] Source: Medical Expenditure Panel Survey, 2002.

[vii] Source: National Vital Statistics System-Natality, 2002. This source did not collect information for >1 race.

[viii] Source: National Immunization Survey, 2003.

Key: HS=high school.

Table 2.1b. Socioeconomic Differences in Effectiveness of Care (continued)

Core Report Measure	Income Difference[i]			Educational Difference[ii]		Insurance Difference[iii]
	<100%	100-199%	200-399%	<HS	HS Grad	Uninsured
Mental Health and Substance Abuse						
Adults with serious psychological distress who receive mental health treatment or counseling[iv]	↓	↓	↓	↓	↓	
Suicide deaths per 100,000 population[v]						
Persons age 12 and over who needed treatment for substance abuse who received such treatment[iv]	↑	=	=	=	=	
Patients receiving substance abuse treatment who completed treatment[vi]				↓	=	
Respiratory Diseases						
Persons 65 and over who ever received pneumococcal vaccination[vii]	↓	=	=	↓	=	

[i] Compared with persons with family incomes 400% of Federal poverty thresholds or above.

[ii] Compared with persons with any college education.

[iii] Compared with persons under 65 with any private health insurance.

[iv] Source: Substance Abuse and Mental Health Services Administration, National Survey on Drug Use and Health, 2003.

[v] Source: National Vital Statistics System-Mortality, 2002. This source did not collect information on Asians and NHOPIs separately but in aggregate as Asian and Pacific Islander. This source did not collect information for >1 race.

[vi] Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set, 2003.

[vii] Source: National Health Interview Survey, 2003.

Key: HS=high school.

Key to Symbols Used in Quality of Health Care Tables:

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Blank cell: Reliable estimate for group could not be made.

Table 2.2a. Racial and Ethnic Differences in Patient Safety

<table>
<tr><th rowspan="2">Core Report Measure</th><th colspan="5">Racial Difference[i]</th><th>Ethnic Difference[ii]</th></tr>
<tr><th>Black</th><th>Asian[iii]</th><th>NHOPI[iii]</th><th>AI/AN</th><th>>1 Race</th><th>Hispanic</th></tr>
<tr><td colspan="7">Nosocomial Infections</td></tr>
<tr><td>Medicare beneficiaries with hospital-acquired bloodstream infection[iv]</td><td>=</td><td colspan="2"></td><td></td><td></td><td></td></tr>
<tr><td>Medicare beneficiaries with ventilator-associated pneumonia[iv]</td><td>=</td><td colspan="2"></td><td></td><td></td><td></td></tr>
<tr><td colspan="7">Complications of Care</td></tr>
<tr><td>Postoperative hip fractures per 1,000 surgical discharges age 18 and over[v]</td><td>=</td><td colspan="2"></td><td></td><td></td><td>=</td></tr>
<tr><td>Medicare beneficiaries with postoperative pulmonary embolus or deep vein thrombosis[iv]</td><td>=</td><td colspan="2"></td><td></td><td></td><td></td></tr>
<tr><td>Iatrogenic pneumothorax per 1,000 relevant discharges[v]</td><td>=</td><td colspan="2">=</td><td></td><td></td><td>↑</td></tr>
<tr><td>Medicare beneficiaries with central venous catheter-associated mechanical complication[iv]</td><td>=</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="7">Obstetric Trauma</td></tr>
<tr><td>Obstetric trauma per 1,000 vaginal deliveries without instrument assistance[v]</td><td>↑</td><td colspan="2">=</td><td></td><td></td><td>↑</td></tr>
<tr><td colspan="7">Medication Safety</td></tr>
<tr><td>Elderly with inappropriate medications[vi]</td><td>=</td><td colspan="2"></td><td></td><td></td><td></td></tr>
</table>

[i] Compared with Whites.

[ii] Compared with non-Hispanic Whites.

[iii] Findings are presented separately for Asians and NHOPIs whenever possible. However, some data sources collected data for Asians and Pacific Islanders (APIs) as a single population; in these cases, the Asian and NHOPI cells are merged into a single cell representing APIs.

[iv] Source: Medicare Patient Safety Monitoring System, 2002.

[v] Source: HCUP State Inpatient Databases disparities analysis file, 2002. This source categorizes race/ethnicity information as a single item: non-Hispanic White, non-Hispanic Black, Hispanic, Asian and Pacific Islander. These contrasts compare each group with non-Hispanic Whites.

[vi] Source: Medical Expenditure Panel Survey, 2001. This source did not collect information on Asians and NHOPIs separately but in aggregate as Asian and Pacific Islander. This source did not collect information for >1 race.
Key: NHOPI=Native Hawaiian or Other Pacific Islander; AI/AN=American Indian or Alaska Native.

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Blank cell: Reliable estimate for group could not be made

Table 2.3a. Racial and Ethnic Differences in Timeliness and Patient Centeredness

Core Report Measure	**Racial Difference[i]**					**Ethnic Difference[ii]**
	Black	**Asian[iii]**	**NHOPI[iii]**	**AI/AN**	**>1 Race**	**Hispanic**
Timeliness						
Adults who sometimes or never can get care for illness or injury as soon as wanted[iv]	↓	↓			=	↓
Emergency department visits in which the patient left without being seen[v]	↓					
Patient Centeredness						
Adults whose health providers sometimes or never listened carefully, explained things, showed respect, and spent enough time with them[iv]	=	↓		↓	=	↓
Children whose health providers sometimes or never listened carefully, explained things, showed respect, and spent enough time with them[iv]	=	=			=	↓

[i] Compared with Whites.

[ii] Compared with non-Hispanic Whites.

[iii] Findings are presented separately for Asians and NHOPIs whenever possible. However, some data sources collected data for Asians and Pacific Islanders (APIs) as a single population; in these cases, the Asian and NHOPI cells are merged into a single cell representing APIs.

[iv] Source: Medical Expenditure Panel Survey, 2002. This source did not collect information for >1 race.

[v] Source: National Hospital Ambulatory Medical Care Survey – Emergency Department, 2001-2002. Missing rates preclude analysis by ethnicity.

Key: NHOPI=Native Hawaiian or Other Pacific Islander; AI/AN=American Indian or Alaska Native.

Key to Symbols Used in Quality of Health Care Tables:

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Table 2.3b. Socioeconomic Differences in Timeliness and Patient Centeredness

Core Report Measure	Income Difference[i]			Educational Difference[ii]		Insurance Difference[iii]
	<100%	100-199%	200-399%	<HS	HS Grad	Uninsured
Timeliness						
Adults who sometimes or never can get care for illness or injury as soon as wanted[iv]	↓	↓	↓	↓	=	↓
Emergency department visits in which the patient left without being seen[v]						↓
Patient Centeredness						
Adults whose health providers sometimes or never listened carefully, explained things, showed respect, and spent enough time with them[iv]	↓	↓	↓	↓	↓	↓
Children whose health providers sometimes or never listened carefully, explained things, showed respect, and spent enough time with them[iv]	↓	↓	↓			↓

[i] Compared with persons with family incomes 400% of Federal poverty thresholds or above.

[ii] Compared with persons with any college education.

[iii] Compared with persons under 65 with any private health insurance.

[iv] Source: Medical Expenditure Panel Survey, 2002. This source did not collect information for >1 race.

[v] Source: National Hospital Ambulatory Medical Care Survey – Emergency Department, 2001-2002. Missing rates preclude analysis by ethnicity.

Key: HS=high school.

Key to Symbols Used in Quality of Health Care Tables:

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↑ Group receives better quality of health care than the comparison group or has better outcomes.

↓ Group receives poorer quality of health care than the comparison group or has worse outcomes.

Blank cell: Reliable estimate for group could not be made.

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Chapter 3. Access to Health Care

Many Americans have good access to health care that enables them to benefit fully from the Nation's health care system. However, others face barriers that make the acquisition of basic health services difficult. As demonstrated by extensive research and confirmed in the 2003 and 2004 National Healthcare Disparities Reports, racial and ethnic minorities and persons of low SES are disproportionately represented among those with access problems. Poor access to health care comes at both a personal and societal cost: for example, if persons do not receive vaccinations they may become ill and spread disease to others, increasing the burden of disease for society overall, in addition to the burden borne individually.

Components of Health Care Access

Access to health care means having "the timely use of personal health services to achieve the best health outcomes."[1] Attaining good access to care requires three discrete steps:

- Gaining entry into the health care system.
- Getting access to sites of care where patients can receive needed services.
- Finding providers who meet the needs of individual patients and with whom patients can develop a relationship based on mutual communication and trust.[2]

Health care access is measured in several ways including:

- Structural measures of the presence or absence of specific resources that facilitate health care, such as having health insurance or a usual source of care.
- Assessments by patients of how easily they are able to gain access to health care.
- Utilization measures of the ultimate outcome of good access to care—i.e., the successful receipt of needed services.

How This Chapter Is Organized

This chapter presents new information about disparities in access to health care in America. It is divided into two sections:

- **Facilitators and barriers to health care**—including measures of health insurance coverage, having a usual source of care and primary care provider, and patient perceptions of need.
- **Health care utilization**—including measures of receipt of dental care, emergency care, potentially avoidable admissions, mental health care, and substance abuse treatment.

Information about patient-provider communication is found in the section on patient centeredness in Chapter 2, Quality of Health Care. As in previous NHDRs, this chapter focuses on disparities in access to care related to race, ethnicity, and SES in the general U.S. population. Disparities in access to care within specific priority populations are discussed in Chapter 4, Priority Populations. Analyses of changes over time and stratified analyses are also presented within this chapter.

Additionally, this year the NHDR focuses on a narrower set of measures than the full set of measures tracked in previous reports. With guidance from the Interagency Work Groups advising the NHDR and NHQR, this narrower set of core report measures was established. The core report measures aim to be representative of the overall NHDR measure set; but, because they are fewer in number, they are more manageable for policymakers and others to understand and apply when utilizing the NHDR. For details on the process used to establish core report measures, see Chapter 1, Introduction and Methods.

It is primarily core report measures that are presented in the 2005 NHDR and that will be tracked in future iterations of the NHDR. However, the entire NHDR measure set will continue to appear in the appendixes; and, from year to year, supplemental measures (those from the overall NHDR measure set that are not core report measures) will be presented in the text of the NHDR as well. This year's report includes a small number of supplemental measures, though none appear in this chapter.

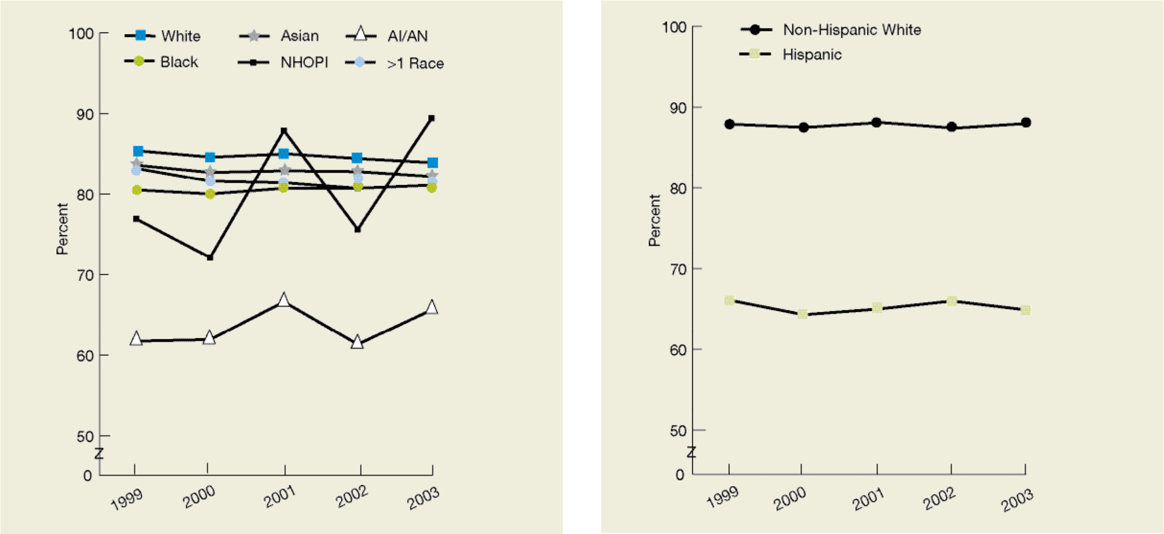
Facilitators and Barriers to Health Care

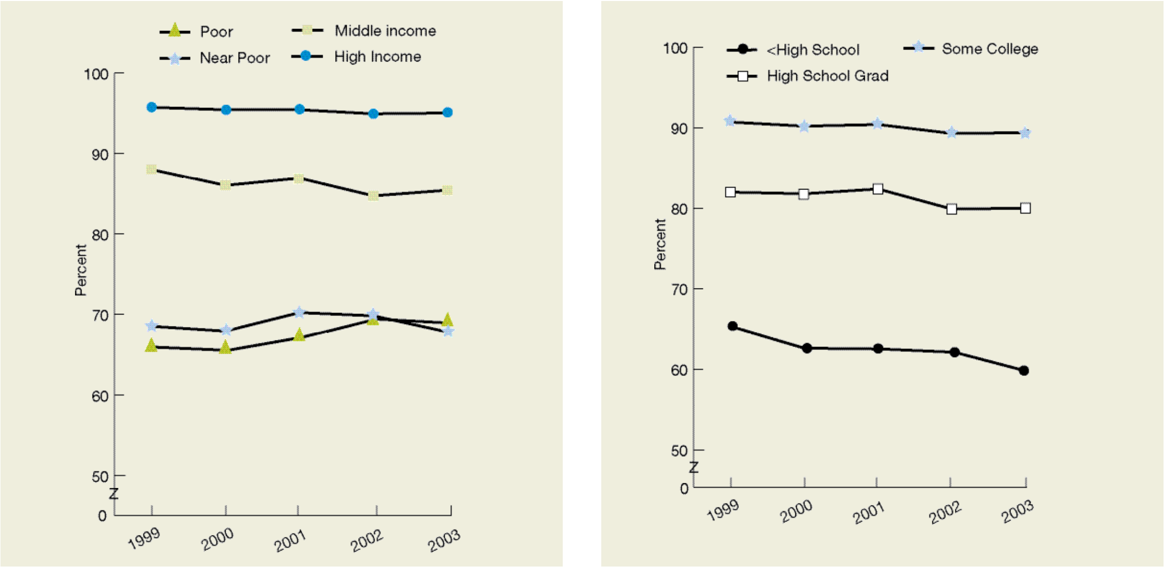
Facilitators and barriers to health care discussed in this section include health insurance, having a usual source of care (including having a usual source of ongoing care and a usual primary care provider), and patient perceptions of need. (See Tables 3.1a and 3.1b for a summary of findings related to all core report measures on facilitators and barriers to health care.)

Health Insurance

Health insurance facilitates entry into the health care system. The uninsured are more likely to die early[3-5] and have poor health status[6 7]; the costs of early death and poor health among the uninsured total $65 billion to $130 billion.[3 8] The financial burden of uninsurance is also great for uninsured individuals; almost 50% of personal bankruptcy filings are due to medical expenses.[9] The uninsured report more problems getting care,[9 10] are diagnosed at later disease stages, and get less therapeutic care.[9 11] They are sicker when hospitalized and more likely to die during their stay.[11]

Figure 3.1. Persons under age 65 with health insurance, by race (this page, left), ethnicity (this page, right), income (next page, left), and education (next page, right), 1999-2003





Key: AI/AN=American Indian or Alaska Native; NHOPI=Native Hawaiian or Other Pacific Islander.

Source: National Health Interview Survey, 1999-2003.

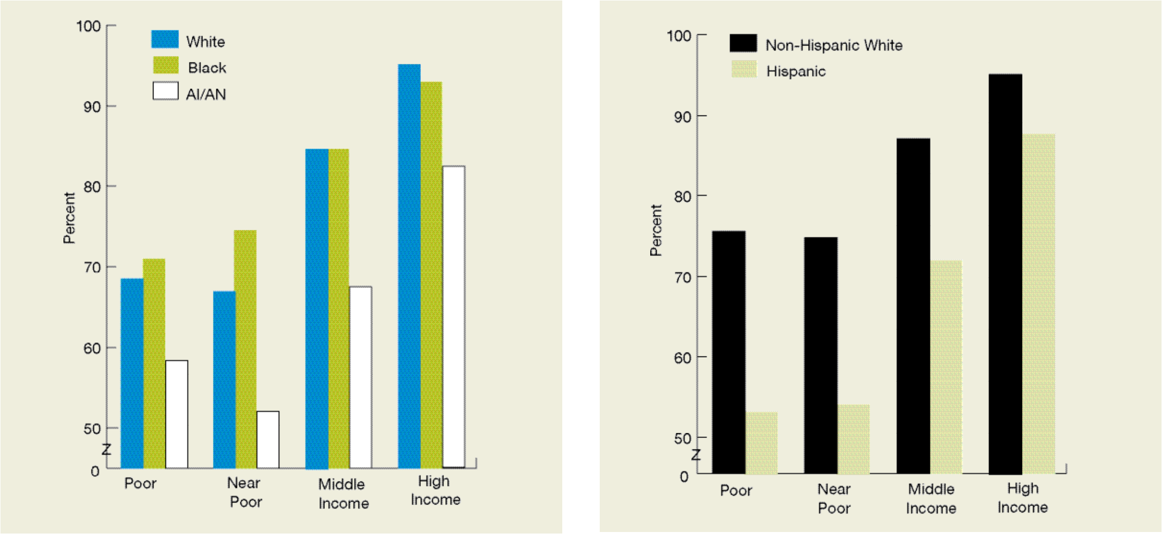
Reference population: Civilian noninstitutionalized persons under age 65.

Note: Measure is age adjusted. NHIS respondents are asked about health insurance coverage at the time of interview; respondents are considered uninsured if they lack private health insurance, public assistance, Medicare, Medicaid, a State-sponsored health plan, other government sponsored programs, a military health plan, or if their only coverage is through the Indian Health Service.

- In all 5 years, the proportion of persons with insurance was lower among Blacks and AI/ANs compared with Whites; among Hispanics compared with non-Hispanic Whites; among poor, near poor, and middle income persons compared with high income persons; and among persons with a high school education or less compared with persons with some college (Figure 3.1).
- From 2000 to 2002 the proportion of persons with insurance was also lower among persons of multiple races compared with Whites; in 2000 the proportion was lower among NHOPIs compared with Whites. In 2003, both disparities had been eliminated.
- From 1999 to 2003, rates of insurance decreased for Whites, middle and high income persons, and persons of every education level, while rates increased for the poor.

Racial and ethnic minorities are disproportionately of lower socioeconomic status. To distinguish the effects of race, ethnicity, income, and education on health insurance coverage, this measure is stratified by income and education level.

Figure 3.2. Persons under age 65 with health insurance by race (left) and ethnicity (right) stratified by income, 2003



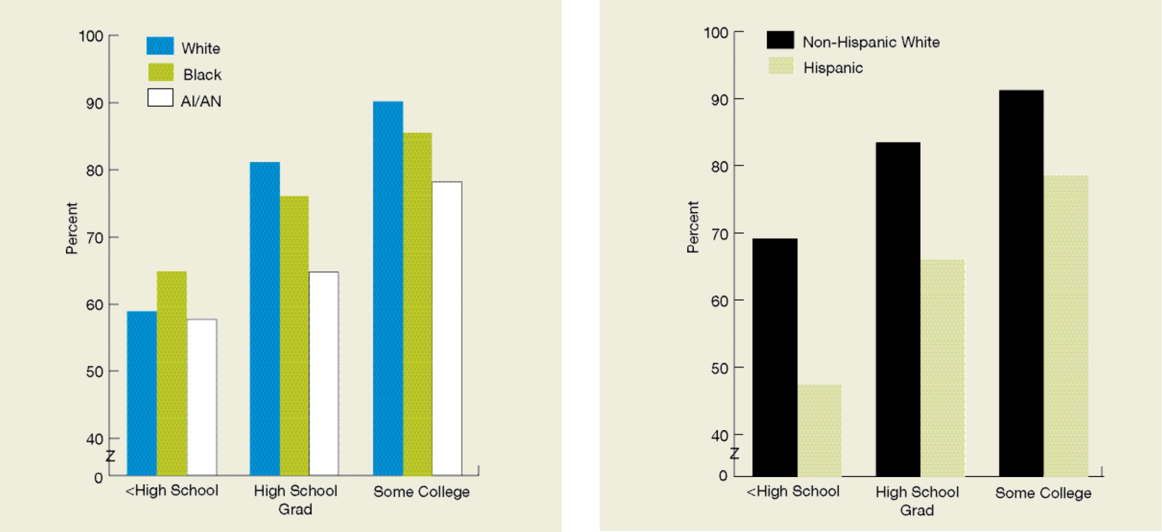
Key: AI/AN=American Indian or Alaska Native.

Source: National Health Interview Survey, 2003.

Reference population: Civilian noninstitutionalized persons under age 65.

Note: Measure is age adjusted. NHIS respondents are asked about health insurance coverage at the time of interview; respondents are considered uninsured if they lack private health insurance, public assistance, Medicare, Medicaid, a State-sponsored health plan, other government sponsored programs, a military health plan, or if their only coverage is through the Indian Health Service.

Figure 3.3. Persons under age 65 with health insurance by race (left) and ethnicity (right) stratified by education, 2003



Key: AI/AN=American Indian or Alaska Native.

Source: National Health Interview Survey, 2003.

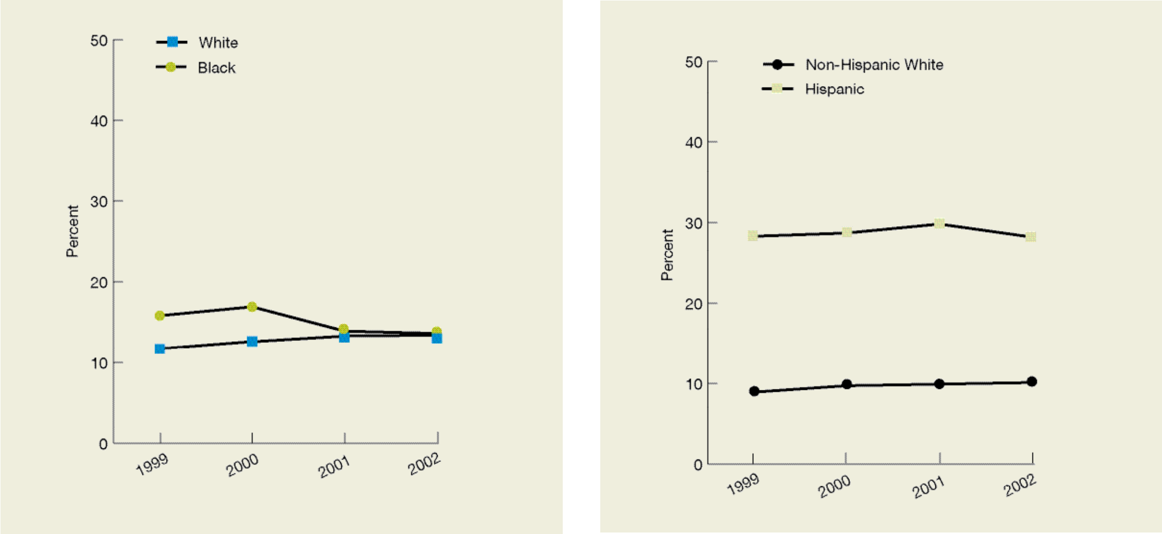
Reference population: Civilian noninstitutionalized persons under age 65.

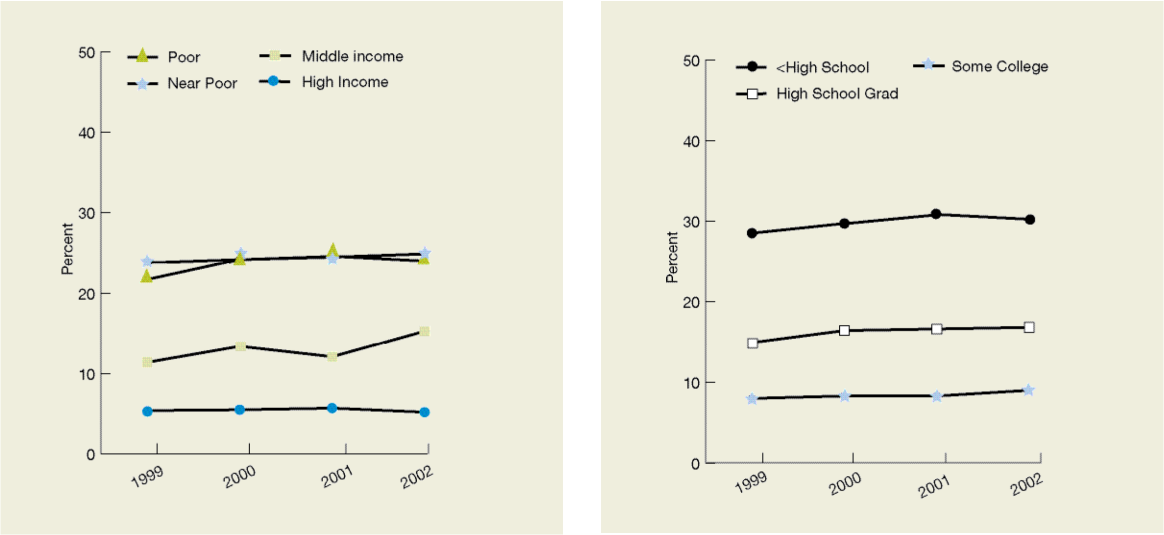
Note: Measure is age adjusted. NHIS respondents are asked about health insurance coverage at the time of interview; respondents are considered uninsured if they lack private health insurance, public assistance, Medicare, Medicaid, a State-sponsored health plan, other government sponsored programs, a military health plan, or if their only coverage is through the Indian Health Service.

- Socioeconomic status explains some but not all of the differences in rates of insurance among persons under age 65 by race and ethnicity (Figures 3.2 and 3.3).
- Hispanics of every income and education level were less likely than respective non-Hispanic Whites to have health insurance.
- AI/AN-White differences were significant among all income groups other than the poor and among all education groups other than persons with less than a high school education. High income Blacks and Blacks with a high school education or any college education were less likely than respective Whites to have health insurance; near poor Blacks and Blacks with less than a high school education were more likely than respective Whites to have insurance.
- No group achieved the Healthy People 2010 goal of 100% of Americans with health insurance.

Because uninsured persons often postpone seeking care, have difficulty obtaining care when they ultimately seek it, and must bear the full brunt of health care costs, prolonged periods of uninsurance can have a particularly serious impact on a person's health and stability. Over time, the cumulative consequences of being uninsured compound, resulting in a population at particular risk for suboptimal health care and health status.

Figure 3.4. Persons under age 65 uninsured all year by race (this page left), ethnicity (this page, right), income (next page, left), and education (next page, right), 1999-2002





Source: Medical Expenditure Panel Survey, 1999-2002.

Reference population: Civilian noninstitutionalized persons under age 65.

Note: In 2002, survey respondents could report more than one race. Racial categories shown here for 2002 exclude multiple race individuals and hence are not directly comparable to earlier years. Estimates for racial groups other than Whites and Blacks are significantly affected by this change and are not shown here.

- In all 4 years, the proportion of persons uninsured all year was higher among Hispanics compared with non-Hispanic Whites; among poor, near poor, and middle income persons compared with high income persons; and among persons with a high school education or less compared with persons with some college (Figure 3.4).
- The proportion of persons uninsured all year was higher among Blacks compared with Whites in 1999 and 2000. In 2001 and 2002, this disparity was eliminated.
- From 1999 to 2002, rates of uninsurance rose among Whites, non-Hispanic Whites, middle income persons, and high school graduates.

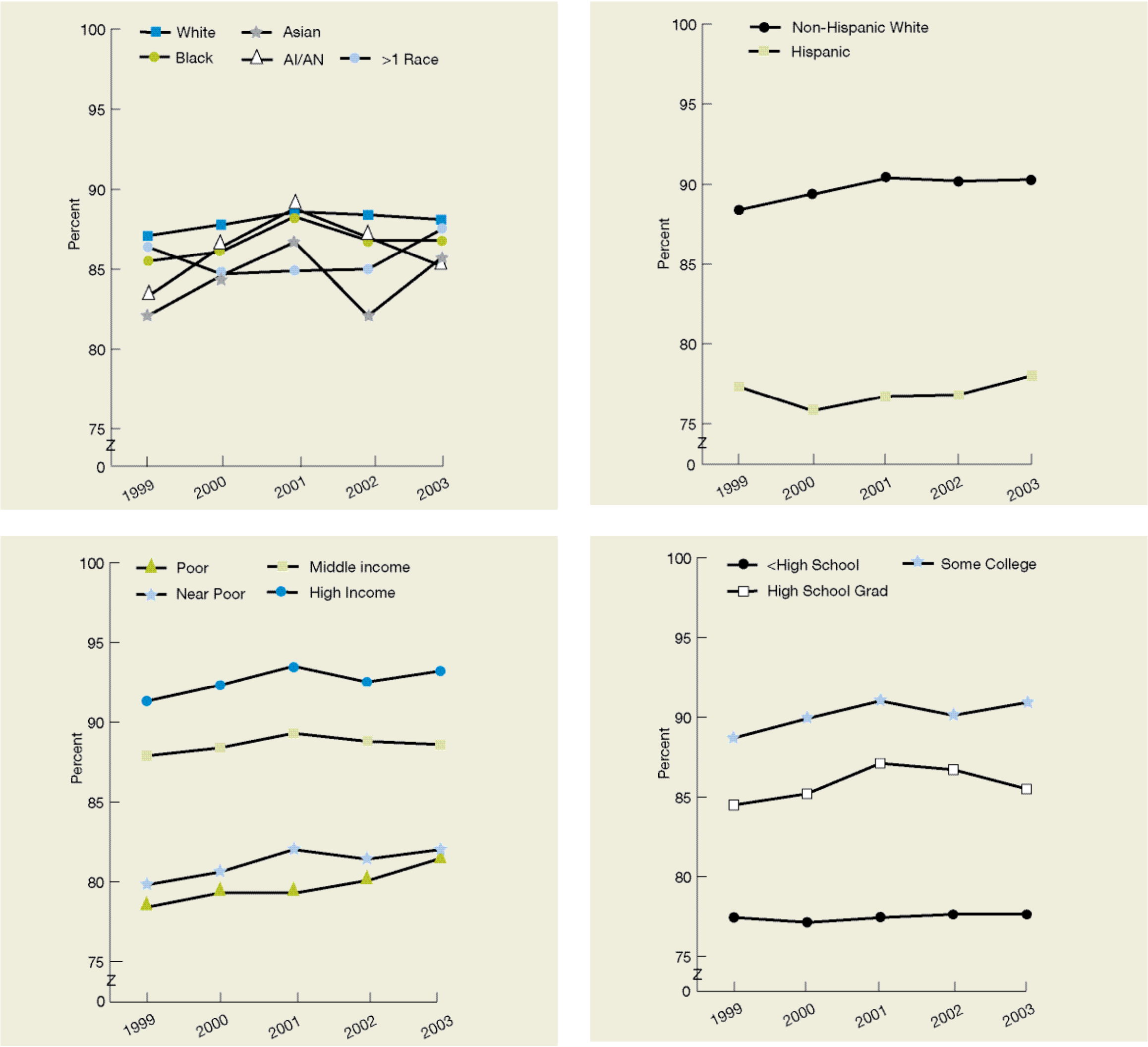
Usual Source of Care

Having a usual source of care (a facility where one regularly receives care) helps persons get into the health care system, yet over 40 million Americans do not have a specific source of ongoing care.[12] Persons without a usual source of care report more difficulties obtaining needed services[13] and fewer preventive services, including blood pressure monitoring, flu shots, prostate exams, Pap tests, and mammograms.[14]

Specific Source of Ongoing Care

Higher costs, poorer outcomes, and greater disparities are observed among individuals without a usual source of care.[15]

Figure 3.5. Persons with a specific source of ongoing care by race (top left), ethnicity (top right), income (bottom left), and education (bottom right), 1999-2003



Key: AI/AN=American Indian or Alaska Native.

Source: National Health Interview Survey, 1999-2003.

Reference population: Civilian noninstitutionalized population.

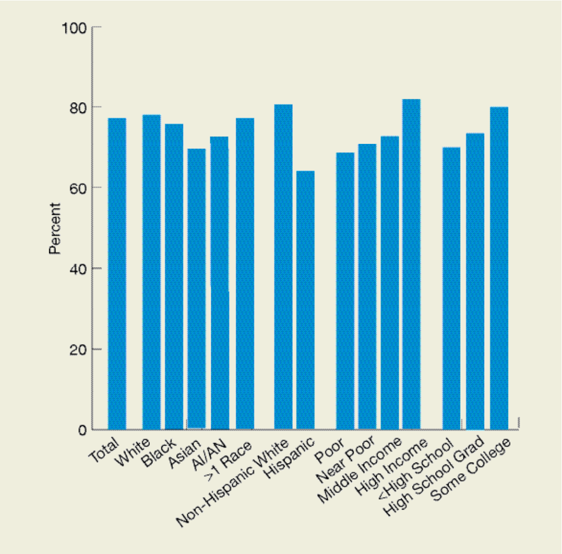
Note: Measure is age adjusted.

- In all 5 years, the proportion of persons with a specific source of ongoing care was lower among Hispanics compared with non-Hispanic Whites; among poor, near poor, and middle income persons compared with high income persons; and among persons with a high school education or less compared with persons with at least some college (Figure 3.5).
- In all years except 2001, the proportion of persons with a specific source of ongoing care was lower among Asians and Blacks compared with Whites; and in 2001 and 2002, the proportion was lower among persons of multiple races compared with Whites.
- From 1999 to 2003, the proportion of persons with a source of ongoing care improved for the overall U.S. population. Improvements were observed among Whites; non-Hispanic Whites; poor, near poor, and high income persons; and persons with at least some college.
- No group achieved the Healthy People 2010 goal of 96% of Americans with a specific source of ongoing care.

Usual Primary Care Provider

Having a usual primary care provider (a doctor or nurse from whom one regularly receives care) is associated with patients' greater trust in their provider[16] and with good patient-provider communication which, in turn, increases the likelihood that patients receive appropriate care.[17] By learning about patients' diverse health care needs over time, a usual primary care provider can coordinate care (e.g., visits to specialists) that best meets patient needs.[18] Indeed, having a usual primary care provider correlates with receipt of higher quality care.[19-21]

Figure 3.6. Persons who have a usual primary care provider by race, ethnicity, income, and education, 2002



Key: AI/AN=American Indian or Alaska Native.

Source: Medical Expenditure Panel Survey, 2002.

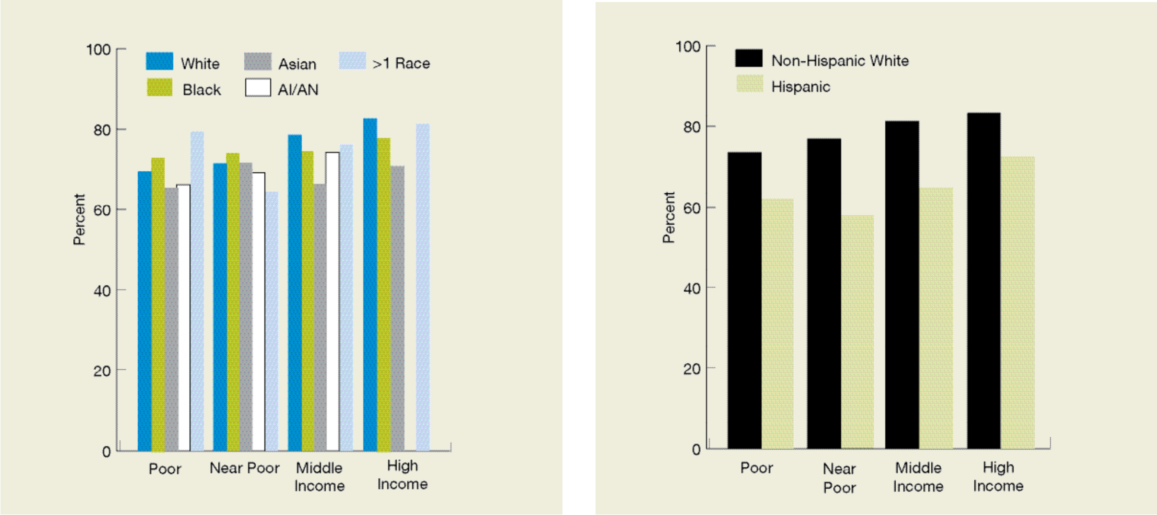
Reference population: Civilian noninstitutionalized population.

Note: A usual primary care provider is defined as the source of care that a person usually goes to for new health problems, preventive health care, and referrals to other health professionals.

- The proportion of persons with a usual primary care provider was lower among Asians compared with Whites; among Hispanics compared with non-Hispanic Whites; and among poor, near poor, and middle income persons compared with high income persons (Figure 3.6).
- No group achieved the Healthy People 2010 goal of 85% of Americans with a usual primary care provider.

To distinguish the effects of race, ethnicity, income, and education on having a usual primary care provider, this measure is stratified by income and education level.

Figure 3.7. Persons who have a usual primary care provider by race (left) and ethnicity (right) stratified by income, 2002



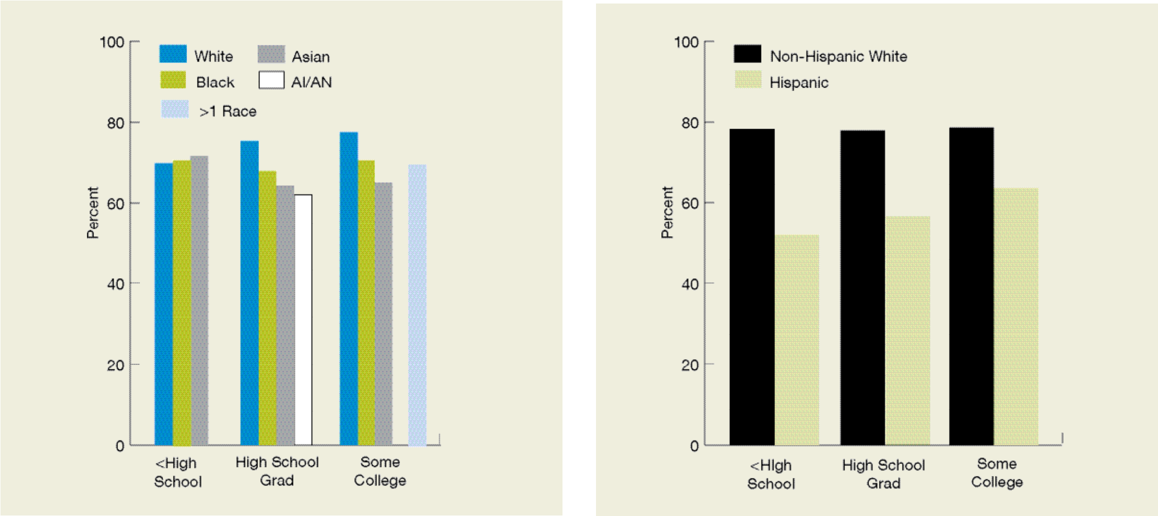
Key: AI/AN=American Indian or Alaska Native.

Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population.

Note: Sample sizes were too small to provide estimates for AI/ANs with high incomes.

Figure 3.8. Persons who have a usual primary care provider by race (left) and ethnicity (right) stratified by education, 2002



Key: AI/AN=American Indian or Alaska Native.

Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population.

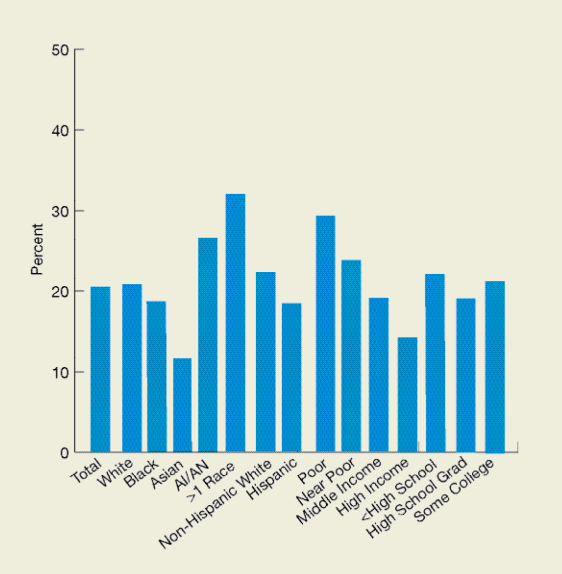
Note: Sample sizes were too small to provide estimates for AI/ANs with less than a high school education or some college education, and multiple race persons with a high school education or less.

- Socioeconomic status explains some but not all of the racial and ethnic differences in having a usual primary care provider (Figures 3.7 and 3.8).
- Hispanics of every income and education level are less likely than respective non-Hispanic Whites to have a usual primary care provider.
- Within income and education levels, racial minorities are often less likely than Whites to have a usual primary care provider.

Patient Perceptions of Need

Patient perceptions of need include perceived difficulties or delays in obtaining care and problems getting care as soon as it is wanted. Although patients may not always be able to assess their need for care, problems getting care when patients perceive that they are ill or injured likely reflect significant barriers to care.

Figure 3.9. Families in which a member was unable or delayed in receiving needed medical care, dental care, or prescription medicines, by race, ethnicity, and income, 2002



Key: AI/AN=American Indian or Alaska Native.

Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population.

- The proportion of families in which a member was unable or delayed in receiving needed medical care, dental care, or prescription medicines was higher among families headed by multiple race individuals compared with White individuals; among poor, near poor, and middle income families compared with high income families; and among families headed by individuals with less than a high school education compared with individuals with some college education (Figure 3.9).
- Families headed by Asians were less likely to report this problem than families headed by Whites.
- Over 60% of families who reported this problem reported a financial or insurance reason for it. Families headed by minorities and families of lower SES were more likely to report a financial or insurance reason than families headed by Whites or of higher SES, respectively.

Health Care Utilization

Measures of health care utilization complement patient reports of barriers to care and permit a fuller understanding of access to care. Barriers to care that are associated with differences in health care utilization may be more significant than barriers that do not affect utilization. Many landmark reports on disparities have relied on measures of heath care utilization,[22-24] and these data demonstrate some of the largest differences in care among diverse groups. More recent efforts to inform health care delivery continue to include measures of health care utilization.[25] [26]

Interpreting health care utilization data is more complex than analyzing data on patient perceptions of access to care. Besides access to care, health care utilization is strongly affected by health care need and patient preferences and values. In addition, greater use of services does not necessarily indicate better care. In fact, high use of some inpatient services may reflect impaired access to outpatient services. Therefore, the key to symbols used in Tables 3.2a and 3.2b, which summarize findings on all core report measures related to health care utilization, is different from that used for Tables 3.1a and 3.1b. Rather than indicating better or worse access compared with the comparison group, symbols on the utilization tables simply identify the amount of care received by racial, ethnic, and socioeconomic groups relative to their comparison groups.

Each year, the Nation's 12 million health services workers provide about 820 million office visits and 590 million hospital outpatient visits and treat 35 million hospitalized patients, 2.5 million nursing home residents, 1.4 million home health care patients, and 100,000 persons in hospice settings.[27] Each year, about 70% of the civilian noninstitutionalized population visit a medical provider's office or outpatient department, about 60% receive a prescription medicine, and about 40% visit a dental provider.[28]

National health expenditures totaled over $1.5 trillion in fiscal year 2002, about 14.9% of the gross domestic product.[29] Governments account for 46% of the U.S. total—over 32% from the Federal Government in the form of Medicare and Medicaid payments and grants to States and over 13% from State and local governments. Health care spending per capita rose 9.3% from 2001 to 2002[30]; premiums for private health insurance increased 12.7% in 2002.[31]

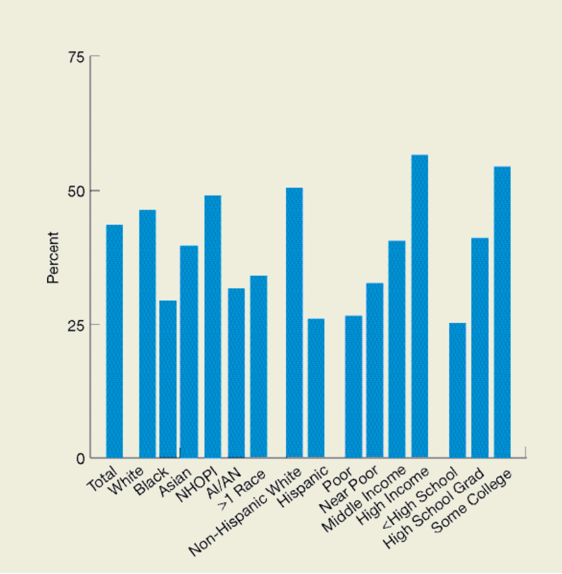
Health expenditures among the civilian noninstitutionalized population in America are extremely concentrated, with 5% of the population accounting for 55% of outlays.[32] In addition, it has been estimated that as much as $390 billion a year—almost a third of all health care expenditures—are the result of poor quality care, including overuse, misuse, and waste.[33]

The 2003 NHDR and the 2004 NHDR reported that different racial, ethnic, and SES groups had different patterns of health care utilization. Asians and Hispanics tended to have lower use of most health care services including routine care, emergency department visits, avoidable admissions, and mental health care. Blacks tended to have lower use of routine care, outpatient mental health care, and outpatient HIV care but higher use of emergency departments and hospitals, including higher rates of avoidable admissions, inpatient mental health care, and inpatient HIV care. Lower SES individuals tended to have lower use of routine care and outpatient mental health care and higher use of emergency departments, hospitals, and home heath care. This year, findings related to dental care, emergency department visits, potenially avoidable admissions, and mental health care and substance abuse treatment are highlighted.

Dental Visits

Regular dental visits promote prevention, early diagnosis, and optimal treatment of oral diseases and conditions. Failure to visit the dentist can result in delayed diagnosis, overall compromised health, and, occasionally, even death.[13] Racial and socioeconomic differences in oral health are well documented, with minorities and poorer populations bearing a disproportionate burden of oral diseases.[34]

Figure 3.10. Persons with a dental visit in the past year by race, ethnicity, income, and education, 2002



Key: NHOPI=Native Hawaiian or Other Pacific Islander; AI/AN=American Indian or Alaska Native

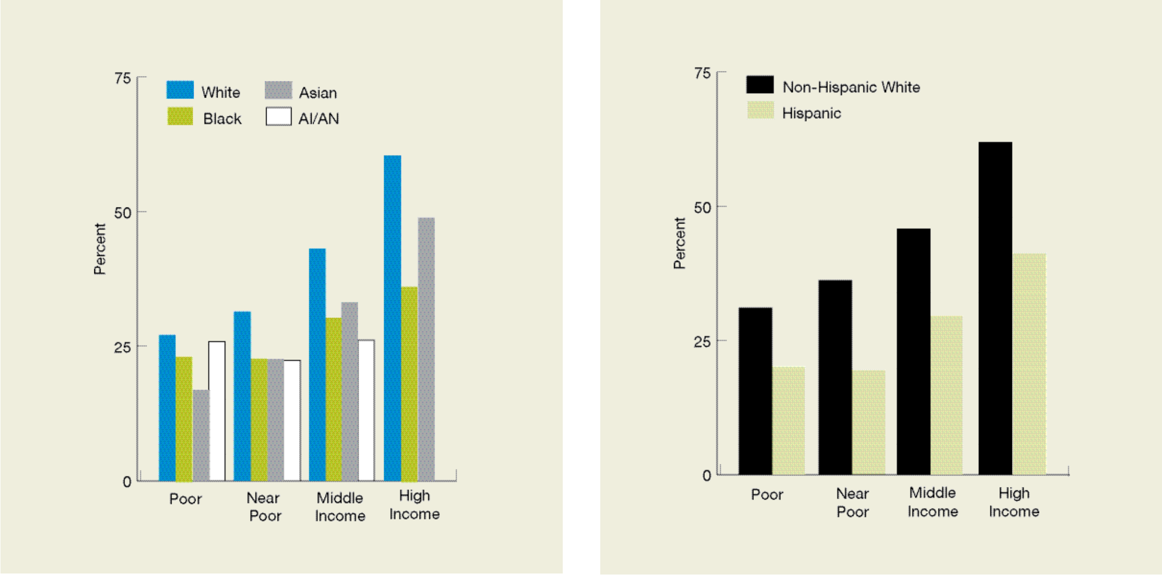
Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population.

- The proportion of persons with a dental visit in the past year was lower among Blacks, Asians, AI/ANs, and persons of multiple races compared with Whites; among Hispanics compared with non-Hispanic Whites; among poor, near poor, and middle income persons compared with high income persons; and among persons with a high school education or less compared with persons with at least some college (Figure 3.10).
- At 43.5%, the proportion of the total U.S. population with a dental visit in the past year fell short of the Healthy People 2010 goal of 56%.

To distinguish the effects of race, ethnicity, and socioeconomic status on health care utilization and to identify populations at greatest risk for barriers to health care utilization, this measure is stratified by income and education level.

Figure 3.11. Persons with a dental visit in the past year by race (left) and ethnicity (right) stratified by income, 2002



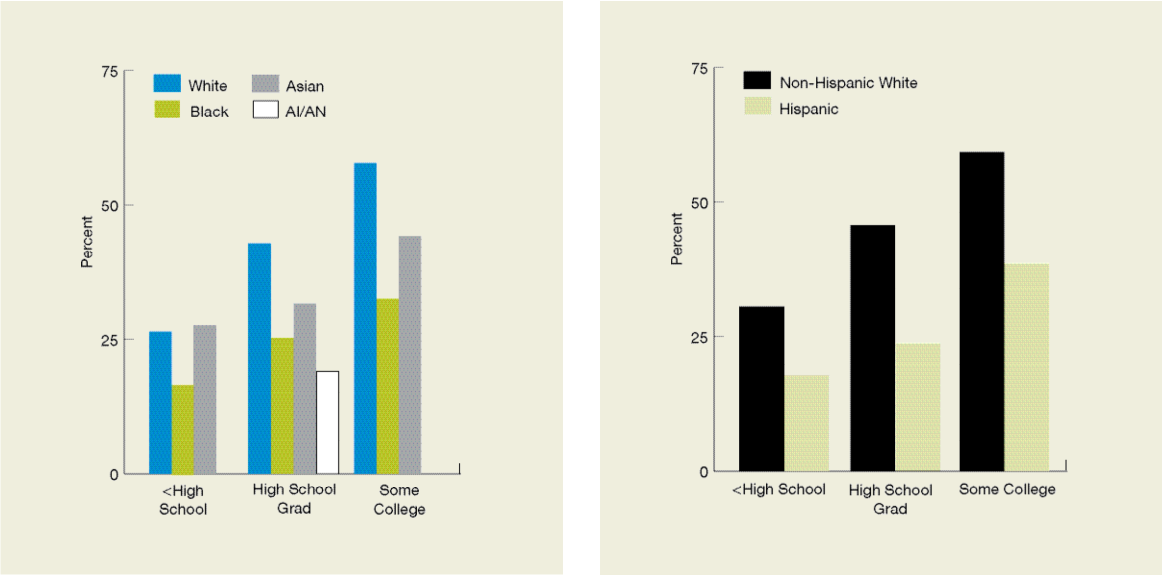
Key: AI/AN=American Indian or Alaska Native; NHW=non-Hispanic White.

Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population.

Note: Sample sizes were too small to provide estimates for high income AI/ANs.

Figure 3.12. Persons with a dental visit in the past year by race (left) and ethnicity (right) stratified by education, 2002



Key: AI/AN=American Indian or Alaska Native.

Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population.

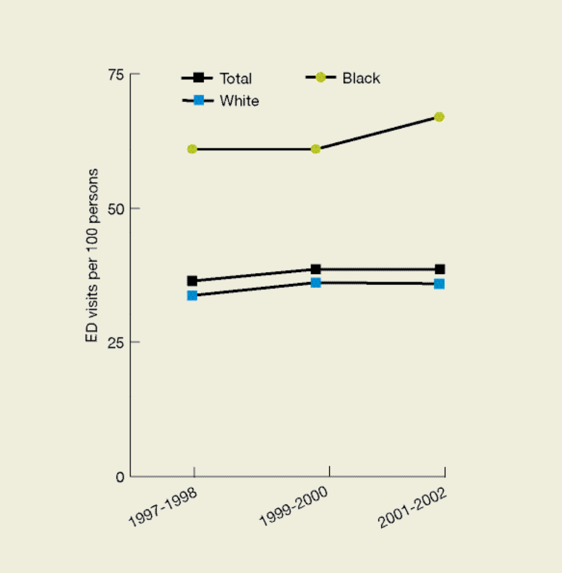
Note: Sample sizes were too small to provide estimates for AI/ANs with less than high school education or some college education.

- Socioeconomic status explains some but not all of the racial and ethnic differences in rates of dental visits (Figures 3.11 and 3.12).
- Hispanics of every income and education level are less likely than respective non-Hispanic Whites to have had a dental visit.
- Within each income and education group, racial minorities are typically less likely to have had a dental visit.

Emergency Department Visits

Without good access to health care, persons sometimes resort to using the emergency department when care is needed. A high rate of emergency department visits may suggest that a population lacks access to preventive and routine care and other avenues of treatment. Delaying care until care is urgent often results in poorer health outcomes and increased health care costs.

Figure 3.13. Emergency department visits per 100 population by race, 1997-2002



Source: National Hospital Ambulatory Medical Care Survey, 1997-2002.

- In 2001-2002, rates of emergency department visits were significantly higher among Blacks compared with Whites (Figure 3.13).
- Over the 1997-1998 to 2001-2002 time periods, the rate of emergency department visits did not change significantly overall or for Blacks or Whites; in all years, Blacks had a significantly higher rate of emergency department visits than Whites.

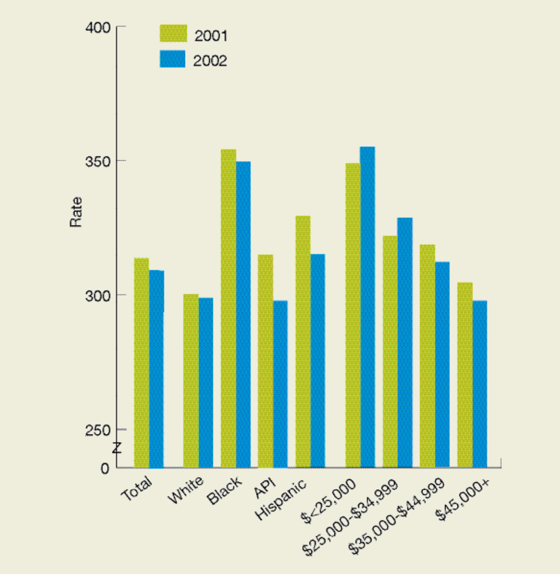
Potentially Avoidable Admissions

Potentially avoidable admissions are hospitalizations that might have been averted by good quality outpatient care. They relate to conditions for which good outpatient care can prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease. Though not all admissions for these conditions can be avoided, rates in populations tend to vary with access to outpatient services.[35] For example, better access to care should facilitate the diagnosis of appendicitis before rupture occurs.

Racial, ethnic, and socioeconomic differences in avoidable admissions are well documented; rates are higher among Blacks compared with Whites and among low income compared with high income individuals.[36-38] As the numbers of avoidable hospitalizations for some conditions increased between 1980 and 1998, the gaps between these demographic groups widened.[39]

Data for perforated appendix presented here come from AHRQ's Healthcare Cost and Utilization Project State Inpatient Databases disparities analysis file. This file is designed to provide national estimates using weighted records from a sample of hospitals from 22 States that have 63% of U.S. hospital discharges. These 22 States participate in HCUP and have relatively complete race and ethnicity data.

Figure 3.14. Perforated appendix per 1,000 admissions with appendicitis by race/ethnicity and area income (median income of ZIP Code of residence), 2001 and 2002



Key: API=Asian or Pacific Islander.

Source: HCUP State Inpatient Databases disparities analysis file, 2001-2002.

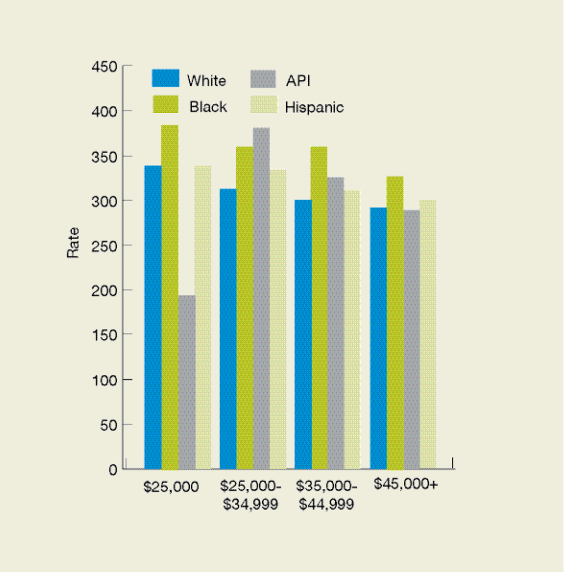
Reference population: Patients hospitalized with appendicitis.

Note: White, Black, and API are non-Hispanic groups.

- In both years, the rate of perforated appendix was higher among non-Hispanic Blacks and Hispanics compared with non-Hispanic Whites; the rate was also higher among residents of ZIP Codes with median income <$25,000, $25,000-$34,999, and $35,000-$44,999 compared with residents of ZIP Codes with income $45,000 and over (Figure 3.14).
- From 2001 to 2002, a significant change in the rate of perforated appendix was not evident for any group.

To distinguish the effects of race/ethnicity and income on health care utilization, this measure is stratified by income level.

Figure 3.15. Perforated appendix per 1,000 admissions with appendicitis by race/ethnicity stratified by area income (median income of ZIP Code of residence), 2002



Key: API=Asian or Pacific Islander.

Source: HCUP State Inpatient Databases disparities analysis file, 2002.

Reference population: Patients hospitalized with appendicitis.

Note: White, Black, and API are non-Hispanic groups.

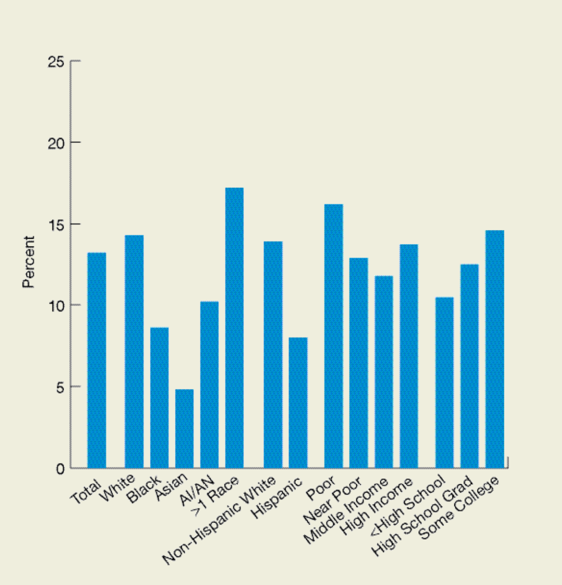
- Area income explains some but not all of the racial/ethnic differences in rates of perforated appendix (Figure 3.15).
- In general, Blacks have a higher rate of perforated appendix than Whites across area income levels.
- Racial/ethnic differences in perforated appendix are generally small for Hispanics and APIs compared with Whites within each area income group.

Mental Health Care and Substance Abuse Treatment

Mental Health Care

Over 40 million persons ages 18 to 64 had a mental disorder in 2004.[40] Although the prevalence of mental disorders for racial and ethnic minorities in the United States is similar to that for Whites,[41] differences in care can be observed. Mental health care is defined as having counseling, inpatient care, outpatient care, or prescription medications for problems with emotions, nerves, or mental health and does not include alcohol or drug treatment. Compared with Whites, minorities have less access to mental health care and are less likely to receive needed services.[42] Racial, ethnic, and socioeconomic differences in the use of psychiatric medications[43] and of psychiatric outpatient,[44] emergency,[45] and inpatient services[46] have also been documented. These differences may reflect, in part, variation in preferences and cultural attitudes toward mental health.

Figure 3.16. Adults who received mental health treatment/counseling in the past year by race, ethnicity, income, and education, 2003



Key: AI/AN=American Indian or Alaska Native.

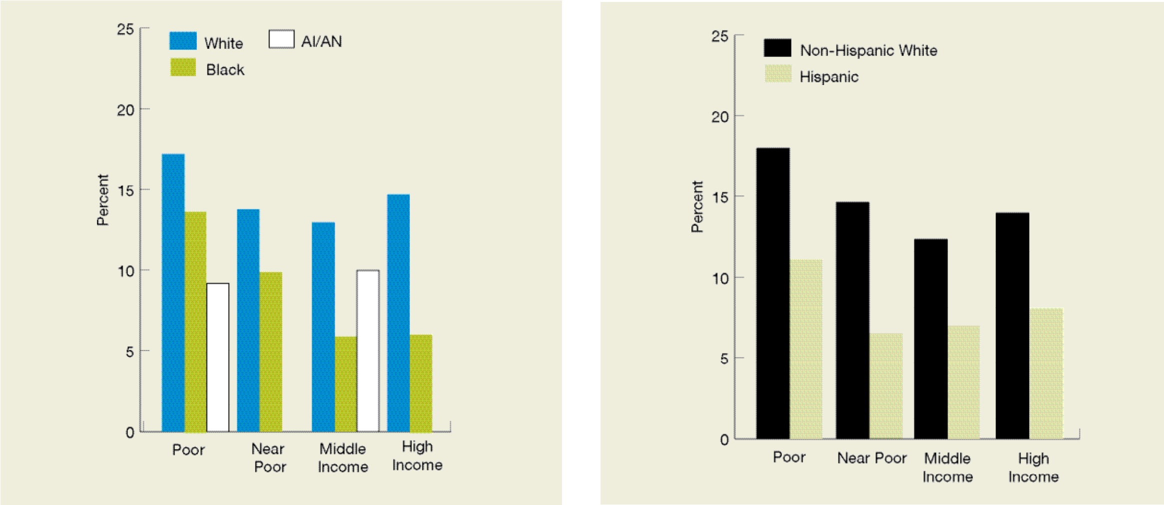
Source: SAMHSA National Survey on Drug Use and Health, 2003.

Reference population: U.S. population age 18 and older.

- The proportion of persons who received mental health treatment/counseling was lower among Blacks, Asians, and AI/ANs compared with Whites; among Hispanics compared with non-Hispanic Whites; among middle income persons compared with high income persons; and among persons with a high school education or less compared with persons with at least some college (Figure 3.16).
- The proportion of persons who received mental health treatment was higher among poor persons compared with high income persons.

To distinguish the effects of race, ethnicity, and socioeconomic status on mental health treatment/counseling, this measure is stratified by income and education level.

Figure 3.17. Persons who received mental health treatment/counseling in the past year by race (left) and ethnicity (right) stratified by income, 2003



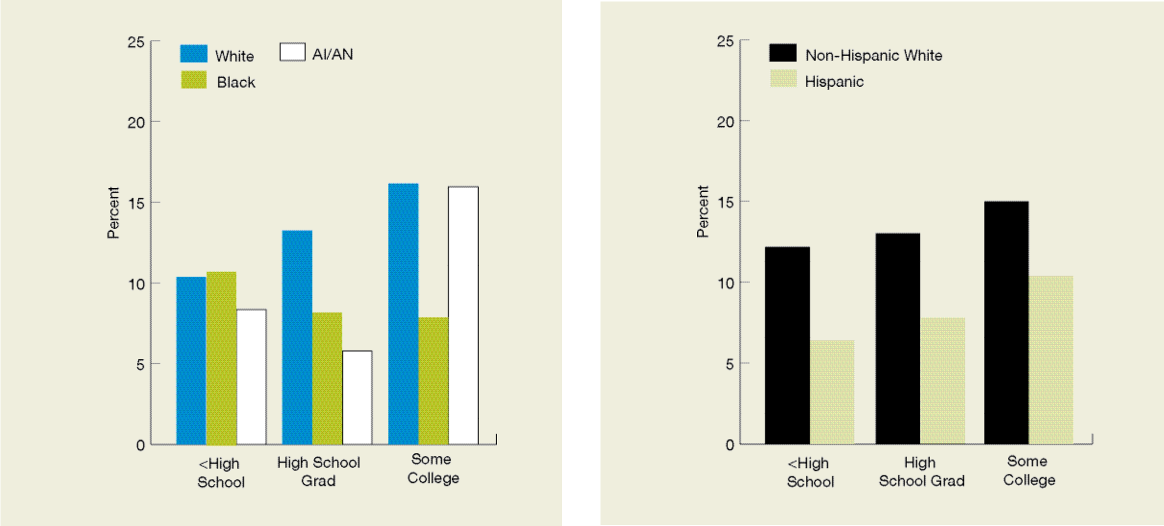
Key: AI/AN=American Indian or Alaska Native.

Source: SAMHSA National Survey on Drug Use and Health, 2003.

Reference population: U.S. population age 18 and older.

Note: Sample sizes were too small to provide estimates for near poor and high income AI/ANs.

Figure 3.18. Persons who received mental health treatment/counseling in the past year by race (left) and ethnicity (right) stratified by education, 2003



Key: AI/AN=American Indian or Alaska Native.

Source: SAMHSA National Survey on Drug Use and Health, 2003.

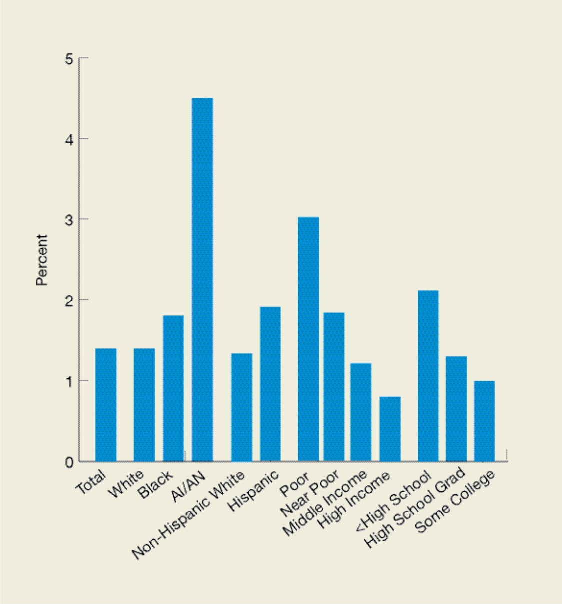
Reference population: U.S. population age 18 and older.

- Socioeconomic status explains some but not all of the racial and ethnic differences in mental health treatment. At every income and education level, Hispanics are less likely than non-Hispanic Whites to have received mental health treatment (Figures 3.17 and 3.18).
- At higher income and education levels, Blacks are less likely than Whites to have received mental health treatment/counseling; among the poor and among individuals with less than a high school education, Black-White differences are not significant.
- Among the poor and among high school graduates, AI/ANs are less likely than Whites to have received mental health treatment/counseling, but AI/AN-White differences are not significant in other income and education groups.

Substance Abuse Treatment

In 2003, about 16 million Americans age 12 and older were heavy alcohol drinkers and about 54 million had a recent binge drinking episode.[47] About 20 million persons age 12 and older were illicit drug users and about 71 million reported recent use of a tobacco product.[47] The direct costs of mental disorders and substance abuse amounted to $99 billion in 1996; lost productivity and premature death accounted for an additional $75 billion.[41] Racial, ethnic, and socioeconomic differences in substance abuse treatment[47] are observed which may, in part, reflect variation in preferences and cultural attitudes toward mental health and substance abuse. Nonetheless there is a significant treatment gap: 15% of Blacks who needed treatment received it, 10% of Whites who needed treatment received it, 7% of Hispanics who needed treatment received it, and only 2% of Asians who needed treatment received treatment.[47]

Figure 3.19. Persons age 12 or older who received any illicit drug or alcohol treatment in the past year, by race, ethnicity, income, and education, 2003



Key: AI/AN=American Indian or Alaska Native.

Source: SAMHSA National Survey on Drug Use and Health, 2003.

Reference population: U.S. population age 12 and older.

Note: The figure reflects both prevalence and treatment; prevalence likely has an effect on racial/ethnic differences in treatment.

- The proportion of persons age 12 or older who received any illicit drug or alcohol treatment was greater among AI/ANs compared with Whites; among poor, near poor, and middle income persons compared with high income persons; and among persons with a high school education or less compared with persons with any college education.
- A significant difference between the proportion of Hispanics and non-Hispanic Whites who received any illicit drug or alcohol treatment was not observed.

Table 3.1a. Racial and Ethnic Differences in Facilitators and Barriers to Health Care

Core Report Measure	Racial Difference[i]					Ethnic Difference[ii]
	Black	**Asian[iii]**	**NHOPI[iii]**	**AI/AN**	**>1 Race**	**Hispanic**
Health Insurance Coverage						
Persons under 65 with health insurance[iv]	↓	=	=	↓	=	↓
Persons uninsured all year[v]	=	=		↓	=	↓
Usual Source of Care						
Persons who have a specific source of ongoing care[iv]	↓	↓		=	=	↓
Persons who have a usual primary care provider[v]	↓	↓	=	=	=	↓
Patient Perceptions of Need						
Families that experience difficulties or delays in obtaining health care or do not receive needed care[v]	=	↑		=	↓	=
Families that experience difficulties or delays in obtaining health care due to financial or insurance reasons[v]	↓					↓
Patient-Provider Communication						
Adults whose health providers sometimes or never listened carefully, explained things, showed respect, and spent enough time with them[v]	=	↓		↓	=	↓
Children whose health providers sometimes or never listened carefully, explained things, showed respect, and spent enough time with them[v]	=	=			=	↓

[i] Compared with Whites.

[ii] Compared with non-Hispanic Whites.

[iii] Findings are presented separately for Asians and NHOPI whenever possible. However, some data sources collected data for Asians and Pacific Islanders (APIs) as a single population; in these cases, the Asian and NHOPI cells are merged into a single cell representing APIs.

[iv] Source: National Health Interview Survey, 2003.

[v] Source: Medical Expenditure Panel Survey, 2002.

Key: NHOPI=Native Hawaiian or Other Pacific Islander; AI/AN=American Indian or Alaska Native.

Key to Symbols Used in Access to Health Care Tables:

= Group and comparison group have about same access to health care.
↑ Group has better access to health care than the comparison group.
↓ Group has worse access to health care than the comparison group.
Blank cell: Reliable estimate for group could not be made.

Table 3.1b. Socioeconomic Differences in Facilitators and Barriers to Health Care

Core Report Measure	Income Difference[i]			Educational Difference[ii]		Insurance Difference[iii]
	<100%	100-199%	200-399%	<HS	HS Grad	Uninsured
Health Insurance Coverage						
Persons under 65 with health insurance[iv]	↓	↓	↓	↓	↓	
Persons uninsured all year[v]	↓	↓	↓	↓	↓	
Usual Source of Care						
Persons who have a specific source of ongoing care[iv]	↓	↓	↓	↓	↓	↓
Persons who have a usual primary care provider[v]	↓	↓	↓	↓	=	↓
Patient Perceptions of Need						
Families that experience difficulties or delays in obtaining health care or do not receive needed care [v]	↓	↓	↓	↓	=	↓
Families that experience difficulties or delays due to financial or insurance reasons[v]	↓	↓	↓	↓	↓	↓
Patient-Provider Communication						
Adults whose health providers sometimes or never listened carefully, explained things, showed respect, and spent enough time with them[v]	↓	↓	↓	↓	↓	↓
Children whose health providers sometimes or never listened carefully, explained things, showed respect, and spent enough time with them[v]	↓	↓	↓			↓

[i] Compared with persons with family incomes 400% of Federal poverty thresholds or above.

[ii] Compared with persons with any college education.

[iii] Compared with persons under 65 with any private health insurance.

[vi] Source: National Health Interview Survey, 2003.

[v] Source: Medical Expenditure Panel Survey, 2002.

Key: HS=High school.

Key to Symbols Used in Access to Health Care Tables:

= Group and comparison group have about same access to health care.
↑ Group has better access to health care than the comparison group.
↓ Group has worse access to health care than the comparison group.
Blank cell: Reliable estimate for group could not be made.

Table 3.2a. Racial and Ethnic Differences in Health Care Utilization

Core Report Measure	Racial Difference[i]					Ethnic Difference[ii]
	Black	**Asian[iii]**	**NHOPI[iii]**	**AI/AN**	**>1 Race**	**Hispanic**
Dental Care						
Persons with a dental visit in the past year[iv]	↓	↓	=	↓	↓	↓
Emergency Care						
Emergency department visits per 100 population[v]	↑	↓			↑	
Avoidable Admissions						
Admissions for perforated appendix per 1,000 admissions with appendicitis[vi]	↑	=				↑
Mental Health Care and Substance Abuse Treatment						
Adults who received mental health treatment or counseling in the past year[vii]	↓	↓		↓	=	↓
Persons age 12 and older who received illicit drug or alcohol abuse treatment in the past year[vii]	=			↑		=

[i] Compared with Whites.

[ii] Compared with non-Hispanic Whites.

[iii] Findings are presented separately for Asians and NHOPIs whenever possible. However, some data sources collected data for Asians and Pacific Islanders (APIs) as a single population; in these cases, the Asian and NHOPI cells are merged into a single cell representing APIs.

[iv] Source: Medical Expenditure Panel Survey, 2002.

[v] Source: National Hospital Ambulatory Medical Care Survey – Emergency Department, 2001-2002. Missing rates preclude analysis by ethnicity.

[vi] Source: HCUP SID disparities analysis file, 2002. This source categorizes race/ethnicity very differently from other sources. Race/ethnicity information is categorized as a single item: Non-Hispanic White, Non-Hispanic Black, Hispanic, Asian or Pacific Islander. These contrasts compare each group with non-Hispanic Whites.

[vii] Source: Substance Abuse and Mental Health Services Administration, National Survey on Drug Use and Health, 2003.

Key: NHOPI=Native Hawaiian or Other Pacific Islander; AI/AN=American Indian or Alaska Native.

Key to Symbols Used in Health Care Utilization Tables:

= Group and comparison group receive about same amount of health care.
↑ Group receives more health care than the comparison group.
↓ Group receives less health care than the comparison group.
Blank cell: Reliable estimate for group could not be made.

Table 3.2b. Socioeconomic Differences in Health Care Utilization

Core Report Measure	Income Difference[i]			Educational Difference[ii]		Insurance Difference[iii]
	<100%	100-199%	200-399%	<HS	HS Grad	Uninsured
Dental Care						
Persons with a dental visit in the past year[iv]	↓	↓	↓	↓	↓	↓
Mental Health Care and Substance Abuse Treatment						
Adults who received mental health treatment or counseling in the past year[v]	↑	=	↓	↓	↓	
Persons age 12 and older who received illicit drug or alcohol abuse treatment in the past year[v]	↑	↑	↑	↑	↑	

[i] Compared with persons with family incomes 400% of Federal poverty threshold or above.

[ii] Compared with persons with any college education.

[iii] Compared with persons under 65 with any private health insurance.

[iv] Source: Medical Expenditure Panel Survey, 2002.

[v] Source: Substance Abuse and Mental Health Services Administration, National Survey on Drug Use and Health, 2003. Insurance disparities were not analyzed.

Key: HS=high school.

Key to Symbols Used in Health Care Utilization Tables:

= Group and comparison group receive about same amount of health care.
↑ Group receives more health care than the comparison group.
↓ Group receives less health care than the comparison group.
Blank cell: Reliable estimate for group could not be made.

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Chapter 4. Priority Populations

Many Americans enjoy easy access to one of world's finest health care delivery systems. However, as demonstrated in previous NHDRs, some Americans do not have full access to the best quality health care.

To examine the issue of disparities in health care, Congress directed AHRQ to produce an annual report to track "prevailing disparities in health care delivery as it relates to racial factors and socioeconomic factors in priority populations." While the emphasis is on disparities related to race, ethnicity, and SES, this directive includes a charge to examine disparities in "priority populations"—groups with unique health care needs or issues that require special attention.

This chapter addresses the congressional directive on priority populations. Chapters 2 and 3 of this report examine racial, ethnic, and socioeconomic differences in quality of health care and access to health care in the general U.S. population; this chapter focuses on differences within and across priority populations. For example, comparisons are made between Black and White women and between children from low and high income families. This approach may help policymakers to understand the impact of racial, ethnic, and socioeconomic differences on specific populations and target quality improvement programs toward groups in greatest need. Appendix D includes detailed tables that allow examination of racial, ethnic, and socioeconomic disparities both in the general population and across priority populations for most measures.

Priority Populations

AHRQ's priority populations, specified by Congress in the Healthcare Research and Quality Act of 1999 (Public Law 106-129), are:

- Minority groups
- Low income groups
- Women
- Children
- Elderly
- Individuals with special health care needs, including individuals with disabilities and individuals who need chronic care or end-of-life health care.

In addition, this legislation directs AHRQ to examine health care delivery in rural areas. Hence, this chapter addresses each of these priority populations as well as residents of rural areas.

How This Chapter Is Organized

This chapter presents new information about disparities in quality of and access to health care in priority populations. It is presented in the following order:

- Racial and ethnic minorities
- Low income groups
- Women
- Children
- Elderly
- Residents of rural areas
- Individuals with special health care needs

To avoid repetition of findings from previous chapters on race, ethnicity, and SES, the first two sections summarize quality of and access to health care for racial and ethnic minorities and low income groups.

Subsequent sections focus on the remaining priority populations and examine disparities in care within each population group and changes in disparities over time. To present this greater detail, these sections highlight a small number of measures. Results for all measures are found in the detailed appendix tables.

It should be noted that this chapter does not provide a comprehensive assessment of health care differences in each priority population. Most of the measures tracked in the NHDR were selected to be applicable across many population groups; only a few, such as immunizations among children and screening for breast cancer among women, were specific to particular groups. For some groups, these general measures overlook important health care problems specific to particular populations. In addition, national data may not address key health issues for specific population groups and are often unable to generate reliable estimates for many smaller groups. Instead, this chapter should be seen as a starting point, identifying some problem areas and indicating gaps in current data and understanding.

Racial and Ethnic Minorities

In 2000, about 30% of the U.S. population identified themselves as members of racial or ethnic minority groups. By 2050, it is projected that these groups will account for almost half of the U.S. population. Census 2000 counted over 36 million Blacks or African Americans (12.9% of the U.S. population); over 35 million Hispanics or Latinos who live in the United States (12.5%) and another 3.8 million who live in the Commonwealth of Puerto Rico[1]; almost 12 million Asians (4.2%)[2]; 874,000 Native Hawaiians and Other Pacific Islanders (0.3%)[3] ; and over 2 million American Indians and Alaska Natives (0.7%), of whom 38% reside on Federal trust lands.[4] Racial and ethnic minorities are more likely than non-Hispanic Whites to be poor or near poor.[5] In addition, Hispanics, Blacks, and some Asian subgroups are less likely than non-Hispanic Whites to have a high school education.[6] In general, racial and ethnic minorities often experience poorer access to care and lower quality of preventive, primary, and specialty care.[5] [6]

In previous chapters of this report, health care differences by racial[i] and ethnic[ii] categories as defined by the Office of Management and Budget[7] and used by the U.S. Census Bureau are described.[8] In this section, quality of and access to health care for each minority group is summarized. Criteria for importance are that the difference is statistically significant at the alpha=0.05 level, two-tailed test and that the relative difference is at least 10% different from the reference group when framed positively as a favorable outcome or negatively as an adverse outcome. Access measures focus on facilitators and barriers to health care and exclude health care utilization measures.

In addition, changes in differences related to race and ethnicity over time are examined in this section. Both absolute and relative differences are compared in current data and historical data. Core report measures for which both the absolute differences and the relative differences are becoming smaller over time are identified as improving disparities. Core report measures for which both the absolute differences and the relative differences are becoming larger over time are identified as worsening disparities. Uncommonly, absolute and relative differences do not agree on direction of change. In these cases, direction of change is unclear and results for these measures are not presented.

As in previous NHDRs, this section includes information on programs and issues that may affect racial and ethnic disparities. The assessment of disparities faced by American Indians and Alaska Natives includes information on the approximately 60% of American Indians and Alaska Natives who obtain care from Indian Health Service (IHS) facilities.

New in this year's report is a special focus on the effects of language barriers and country of birth on quality of and access to care. Data from the Medical Expenditure Panel Survey are used to present findings on speaking a language other than English and being born in a foreign country.

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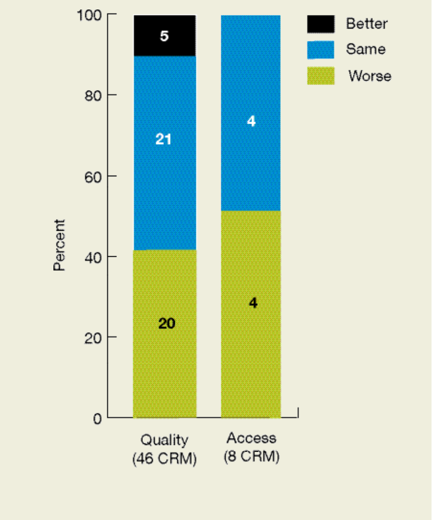
[i] Races include: Black or African American, Asian, Native Hawaiian or Other Pacific Islander, American Indian and Alaska Native, White, and persons of multiple races.

[ii] Ethnicity differentiates Hispanics and non-Hispanics. This report also distinguishes non-Hispanic Whites and non-Hispanic Blacks.

Blacks or African Americans

Previous NHDRs showed that Blacks had poorer quality of care and worse access to care than Whites for many measures tracked in the reports. Findings based on 46 core report measures of quality and 8 core report measures of facilitators and barriers to health care are shown below.

Figure 4.1. Blacks compared with Whites on measures of quality and access



Better = Blacks receive better quality of care or have better access to care than Whites.

Same = Blacks and Whites receive about the same quality of care or access to care.

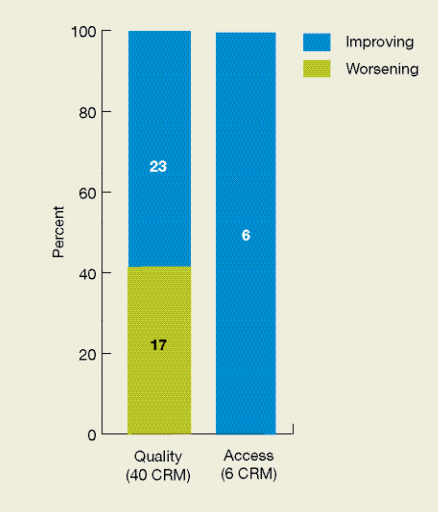
Worse = Blacks receive poorer quality of care or have worse access to care than Whites.

CRM = core report measures.

Note: Data presented are the most recent available.

- For 20 of the 46 core report measures of quality, Blacks had poorer quality of care than Whites (Figure 4.1). Black-White differences ranged from Blacks being over 10 times more likely than Whites to be diagnosed with AIDS to Blacks being 59% less likely than Whites to be given antibiotics for the common cold. The median difference over all of the core report measures was 9% (Blacks 9% more likely than Whites to receive poorer quality care).
- For 4 of the 8 core report measures of access, Blacks had significantly worse access to care than Whites. Black-White differences ranged from Blacks under age 65 being 17% more likely than Whites to lack health insurance to Blacks being 7% less likely than Whites to report difficulties or delays getting care. The median difference over all of the core report measures was 10% (Blacks 10% more likely than Whites to have worse access to care).

Figure 4.2. Change in Black-White disparities over time



Improving = Black-White difference becoming smaller.

Worsening = Black-White difference becoming larger.

CRM = core report measures.

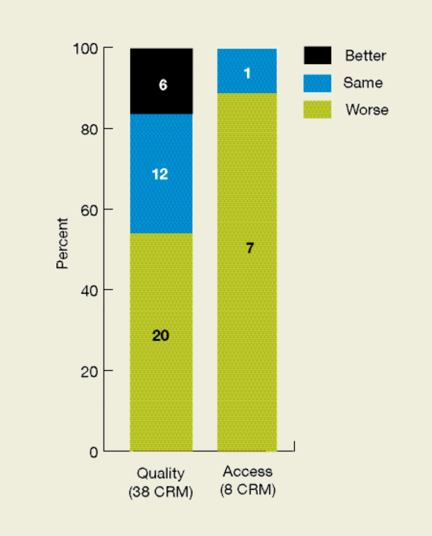
Note: The most recent and oldest years of data available are compared.

- Of core report measures of quality that could be tracked over time for Blacks and Whites, Black-White differences became smaller for 23 measures but larger for 17 measures (Figure 4.2). For 2 measures—late stage breast cancer and postoperative venous thromboembolic event—Black-White differences were no longer statistically significant.
- Of core report measures of access that could be tracked over time for Blacks and Whites, Black-White differences became smaller for all measures. For 1 measure—being uninsured all year—the Black-White difference was no longer statistically significant.

Hispanics or Latinos

Previous NHDRs showed that Hispanics had poorer quality of care and worse access to care than non-Hispanic Whites for many measures tracked in the reports. Findings based on 38 core report measures of quality and 8 core report measures of access to health care that support estimates for Hispanics are shown below.

Figure 4.3. Hispanics compared with non-Hispanic Whites on measures of quality and access



Better = Hispanics receive better quality of care or have better access to care than non-Hispanic Whites.

Same = Hispanics and non-Hispanic Whites receive about the same quality of care or access to care.

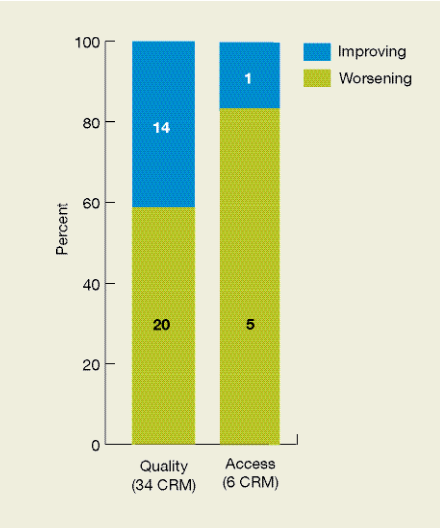
Worse = Hispanics receive poorer quality of care or have worse access to care than non-Hispanic Whites.

CRM = core report measures.

Note: Data presented are the most recent available.

- For 20 of the 38 core report measures of quality, Hispanics had poorer quality of care than non-Hispanic Whites. Differences ranged from Hispanics being over 3.7 times more likely to be diagnosed with AIDS to Hispanics being 40% less likely to die of breast cancer. The median difference over all of the core report measures was 16% (Hispanics 16% more likely than non-Hispanic Whites to receive poorer quality care).
- For 7 of the 8 core report measures of access, Hispanics had worse access to care than non-Hispanic Whites (Figure 4.3). Differences ranged from Hispanics under age 65 being 2.9 times more likely to lack health insurance to Hispanics being 18% less likely to report difficulties or delays getting care. The median difference over all of the core report measures was 87% (Hispanics 87% more likely than non-Hispanic Whites to have worse access).

Figure 4.4. Change in Hispanic–non-Hispanic White disparities over time



Improving = Hispanic—non-Hispanic White difference becoming smaller.

Worsening = Hispanic—non-Hispanic White difference becoming larger.

CRM = core report measures.

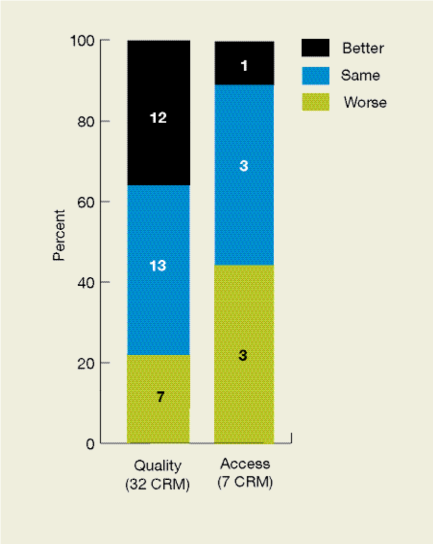
Note: The most recent and oldest years of data available are compared.

- Of core report measures of quality that could be tracked over time for Hispanics and non-Hispanic Whites, Hispanic–non-Hispanic White differences became smaller for 14 measures but larger for 20 measures (Figure 4.4). For 2 measures—persons with diabetes with three recommended services and persons in need of substance abuse treatment who received it—new significant differences were seen.
- Of core report measures of access that could be tracked over time for Hispanics and non-Hispanic Whites, Hispanic–non-Hispanic White differences became smaller for 1 measure but larger for 5 measures. The 2 patient communication measures showed the biggest increases in Hispanic–non-Hispanic White differences.

Asians

Previous NHDRs showed that Asians had similar or better quality of care than Whites but worse access to care than Whites for many measures tracked in the reports. Findings based on 32 core report measures of quality and 7 core report measures of facilitators and barriers to health care that support estimates for either Asians or Asians and Pacific Islanders in aggregate are shown below.

Figure 4.5. Asians compared with Whites on measures of quality and access



Better = Asians receive better quality of care or have better access to care than Whites.

Same = Asians and Whites receive about the same quality of care or access to care.

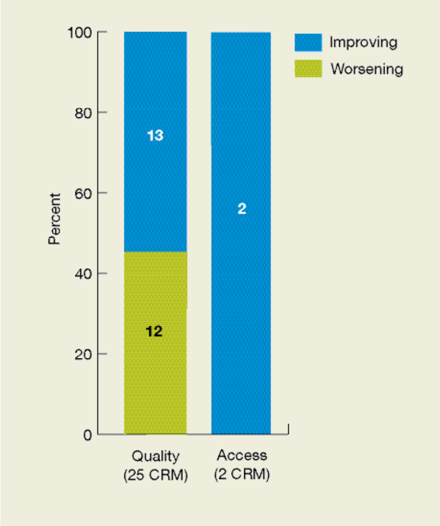
Worse = Asians receive poorer quality of care or have worse access to care than Whites.

CRM = core report measures.

Note: Data presented are the most recent available.

- For 7 of the 32 core report measures of quality, Asians had significantly poorer quality of care than Whites, while for 12 measures, Asians had significantly better quality of care than Whites (Figure 4.5). The median difference over all of the core report measures was -4% (Asians 4% less likely than Whites to receive poorer quality care).
- For 3 of the 7 core report measures of access, Asians had significantly worse access to care than Whites. Asian-White differences ranged from Asian parents being 57% more likely to report communication problems with their child's providers to Asians being 40% less likely to report difficulties or delays getting care. The median difference over all of the core report measures was 20% (Asians 20% more likely than Whites to have worse access to care).

Figure 4.6. Change in Asian-White disparities over time



Improving = Asian-White difference becoming smaller.

Worsening = Asian-White difference becoming larger.

CRM = core report measures.

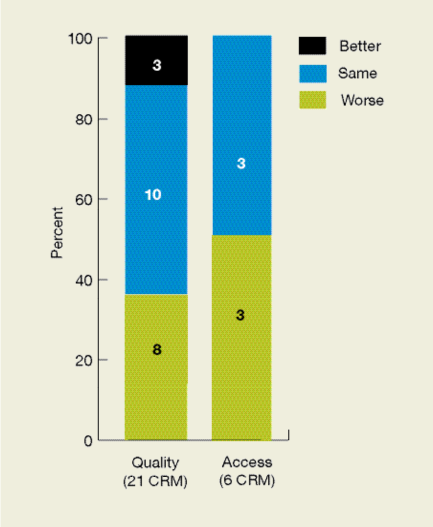
Note: The most recent and oldest years of data available are compared.

- Of core report measures of quality that could be tracked over time for Asians and Whites, Asian-White differences became smaller for 13 measures but larger for 12 measures (Figure 4.6). For 2 measures—elderly with pneumococcal vaccine and adults with provider communication problems—new significant differences were seen.
- Only 2 core report measures of access could be tracked over time for Asians and Whites. Asian-White differences became smaller for both measures.

American Indians and Alaska Natives

Previous NHDRs showed that American Indians and Alaska Natives (AI/ANs) had poorer quality of care and worse access to care than Whites for many measures tracked in the reports. Findings based on 21 core report measures of quality and 6 core report measures of access are shown below.

Figure 4.7. AI/ANs compared with Whites on measures of quality and access



Better = AI/ANs receive better quality of care or have better access to care than Whites.

Same = AI/ANs and Whites receive about the same quality of care or access to care.

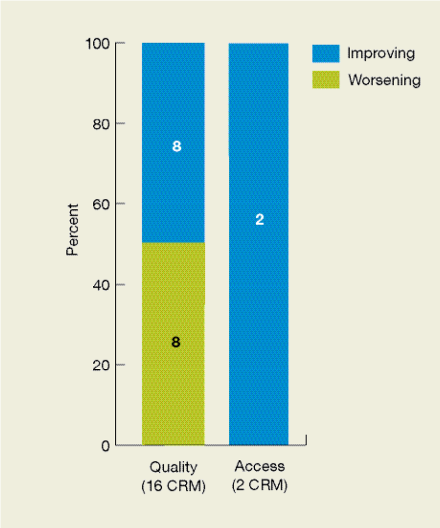
Worse = AI/ANs receive poorer quality of care or have worse access to care than Whites.

CRM = core report measures.

Note: Data presented are the most recent available.

- Less than half of the core report measures supported estimates for quality for AI/ANs.
- For 8 of the 21 core report measures of quality, AI/ANs had significantly poorer quality of care than Whites (Figure 4.7). AI/AN-White differences ranged from AI/ANs being twice as likely as Whites to lack early prenatal care to AI/ANs being 67% less likely to develop late stage breast cancer. The median difference over all of the core report measures was 8% (AI/ANs 8% more likely than Whites to receive poorer quality care).
- For 3 of the 6 core report measures of access, AI/ANs had significantly worse access to care than Whites. AI/AN-White differences ranged from AI/ANs under age 65 being over twice as likely as Whites to lack health insurance to AI/ANs being 23% more likely than Whites to lack a primary care provider. The median difference over all of the core report measures was 41% (AI/ANs 41% more likely than Whites to have worse access).

Figure 4.8. Change in AI/AN-White disparities over time



Improving = AI/AN-White difference becoming smaller.

Worsening = AI/AN-White difference becoming larger.

CRM = core report measures.

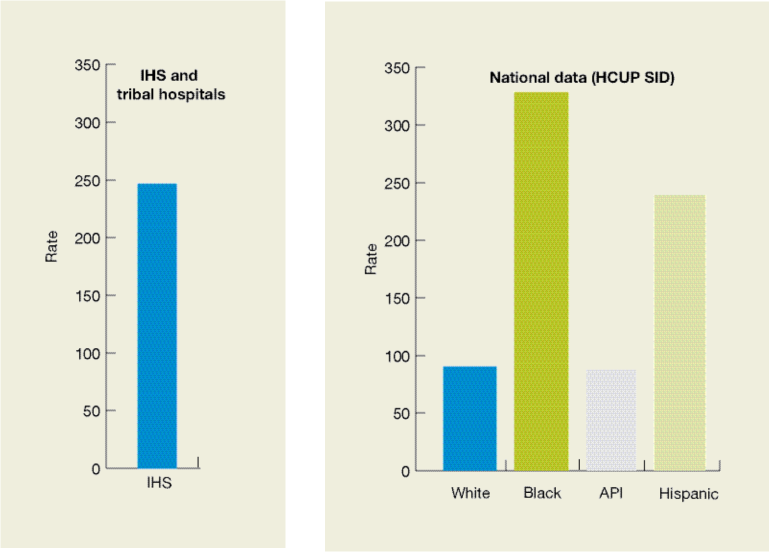
Note: The most recent and oldest years of data available are compared.

- Less than half of the core report measures supported estimates for changing disparities for AI/ANs.
- Of core report measures of quality that could be tracked over time for AI/ANs and Whites, AI/AN-White differences became smaller for 8 measures but larger for 8 measures (Figure 4.8). For 1 measure—recommended care for heart attack—AI/ANs received significantly poorer care in 2003, though a significant difference was not observed in 2002.
- Only 2 core report measures of access could be tracked over time for AI/ANs and Whites. AI/AN-White differences became smaller for both measures.

Focus on Indian Health Service Facilities

About 60% of AI/ANs nationwide rely on the Indian Health Service to provide access to health care.[9] In the 2005 NHDR, among persons with diabetes served by IHS facilities, rate of flu vaccine was relatively comparable to rates in the overall U.S. population of persons with diabetes, while rates of annual retinal eye exam and foot examination were lower.[10] Due to low numbers and lack of data, information about AI/AN hospitalizations is difficult to obtain in most Federal and State hospital utilization data sources. The 2005 NHDR addresses this gap by examining hospitalizations in IHS and tribal hospitals for diabetes and for perforated appendix. Diabetes is one of the leading causes of morbidity and mortality among AI/AN populations, and its prevention and control are a major focus of the IHS Director's Chronic Disease Initiative as well as the IHS Health Promotion/Disease Prevention Initiative. The hospitalization rate for long-term complications due to diabetes has decreased almost 10% since 1997. Addressing barriers of access to health care is a large part of the overall IHS goal which strives to assure that comprehensive, culturally acceptable personal and public health services are available and accessible to American Indian and Alaska Native persons.[9] For the more than 538,000 Native Americans living on reservations or other trust lands where the climate is inhospitable, the roads are often impassable, and transportation is scarce, health care facilities are far from accessible.[11]

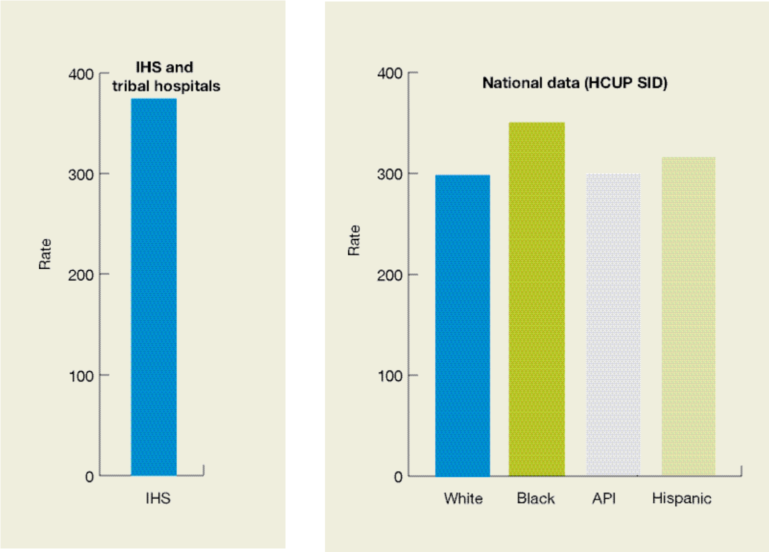
Figure 4.9. Hospitalizations for long-term complications among persons with diabetes per 100,000 population 18 years and older in IHS and tribal hospitals (left) and nationally (right) by race/ethnicity



Source: IHS, National Patient Information Reporting System, 2003 and HCUP State Inpatient Databases disparities analysis file, 2002.

- Hospitalizations for long-term complications of diabetes among AI/ANs 18 years and older in IHS hospitals were 247 per 100,000 population in IHS service areas in 2003 (Figure 4.9, left). In comparison, national rates were higher among Blacks (328) and Hispanics (239) than non-Hispanic Whites (91) in 2002 (Figure 4.9, right).

Figure 4.10. Hospitalizations for perforated appendix per 1,000 admissions with appendicitis in IHS and tribal hospitals (left) and nationally (right) by race/ethnicity



Source: IHS, National Patient Information Reporting System, 2003 and HCUP State Inpatient Databases disparities analysis file, 2002.

- Hospitalizations for perforated appendix among AI/ANs in IHS hospitals were 375 per 1,000 admissions with appendicitis in IHS service areas in 2003 (Figure 4.10, left). In comparison, national rates were higher among Blacks (350) and Hispanics (315) than non-Hispanic Whites (299) in 2002 (Figure 4.10, right).

Native Hawaiians and Other Pacific Islanders

The ability to assess disparities among Native Hawaiians and Other Pacific Islanders (NHOPIs) for the NHDR has been hampered by two main issues. First, the NHOPI racial category is relatively new to Federal data collection. Prior to 1997, NHOPIs were classified as part of the Asian and Pacific Islander racial category and could not be identified separately in most Federal data. In 1997, the Office of Management and Budget promulgated new standards for Federal data on race and ethnicity and mandated that information about NHOPIs be collected separately from information about Asians.[8] Federal agencies had until 2003 to be fully compliant with these standards. Because both the 2003 and 2004 NHDRs report predominantly on data collected between 1999 and 2001, many of the databases used had not fully transitioned to the new standards. Hence, few databases could provide any estimates for the NHOPI population. Second, when information about this population was collected, databases often included insufficient numbers of NHOPIs to allow reliable estimates.

Consequently, in previous NHDRs, estimates for the NHOPI population could be generated for only a handful of NHDR measures. Similarly, in this NHDR, of the 45 core report measures of quality, estimates for NHOPIs could be made for only 5—2 measures from the National Vital Statistics System-Natality, 1 measure from the National Immunization Survey, and 2 measures from the CMS Home Health Care Outcome and Assessment Information Set. Of the 8 core report measures of access, estimates for NHOPIs could be made for only 1—persons under age 65 with health insurance from the National Health Interview Survey. A lack of quality data on this population prohibits the NHDR from detailing disparities for this group. However, as data become available, this information will be included in future reports.

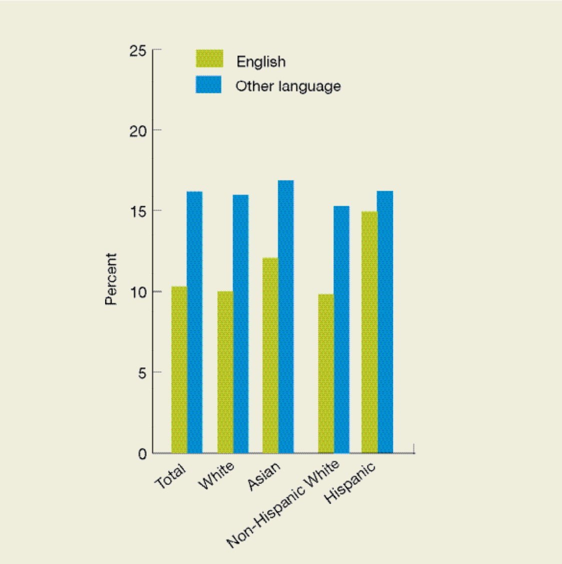
Focus on Language Barriers and Immigrants

Language Spoken at Home

Quality health care requires that patients and providers communicate effectively. Language is a barrier to quality health care for many racial and ethnic minorities. About 47 million Americans, or 18% of the population, spoke a language other than English at home in 2000, up from 32 million in 1990. Of these individuals, 28 million (about 11% of the population) spoke Spanish, 10 million (about 4% of the population) spoke another Indo-European language, and 7 million (about 3% of the population) spoke an Asian or Pacific Islander language at home. Almost half of persons who spoke a foreign language at home reported not speaking English very well.[12] Findings are presented below on differences in one quality measure focusing on patient centeredness—the patient experience of care—and one access measure—usual source of care—between persons who speak English at home and those who speak some other language at home.

Patient centeredness: patient experience of care. Communication problems between the patient and provider can lead to lower patient adherence to medications and decreased participation in medical decisionmaking. This year, using methods developed for the CAHPS® Health Plan Survey,(fomerly known as Consumer Assessment of Health Plans),[13] the NHDR presents a composite measure which combines four of the measures used in previous NHDRs into a single core report measure for patient experience of care and communication.

Figure 4.11. Adults whose health providers sometimes or never listened carefully, explained things, showed respect, and spent enough time with them, by race and ethnicity, and language spoken at home, 2002



Source: Medical Expenditure Panel Survey, 2002.

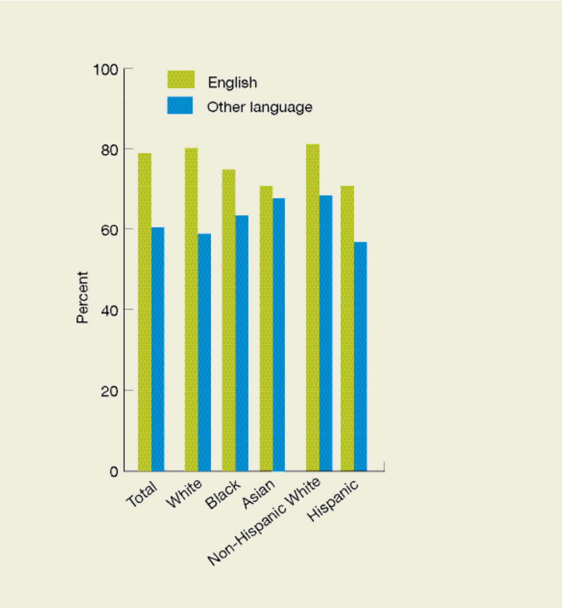
Reference population: Civilian noninstitutionalized population.

- The overall proportion of adults whose health providers sometimes or never listened carefully, explained things, showed respect, and spent enough time with them was higher among individuals who speak a foreign language at home compared with individuals who speak English at home (Figure 4.11).

- Compared with Whites who speak English at home, the proportion of adults with communication problems was higher among Whites and Asians who speak some other language at home.
- Compared with non-Hispanic Whites who speak English at home, the proportion of adults with communication problems was higher among non-Hispanic Whites and Hispanics who speak some other language at home as well as Hispanics who speak English at home.

Access to care: usual source of care. The patient-primary care provider relationship is built upon mutual respect, trust, and understanding. Language barriers may impair the development of such relationships.

Figure 4.12. Persons who have a usual primary care provider, by race and ethnicity, and language spoken at home, 2002



Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population.

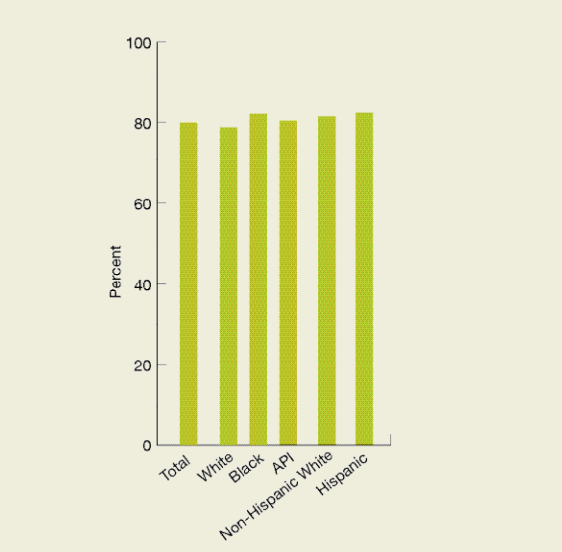
- The overall proportion of persons who have a usual primary care provider was lower among individuals who speak a foreign language at home compared with individuals who speak English at home (Figure 4.12).
- Compared with Whites who speak English at home, the proportion of persons who have a usual primary care provider was lower among Whites, Blacks, and Asians who speak some other language at home as well as Blacks and Asians who speak English at home.
- Compared with non-Hispanic Whites who speak English at home, the proportion of persons with a usual primary care provider was lower among non-Hispanic Whites and Hispanics who speak some other language at home as well as Hispanics who speak English at home.

Country of Birth

Immigrants often encounter barriers to high quality health care. About 30 million persons living in the United States in 2000 were born outside the United States, up from 20 million in 1990. Asians and Hispanics are much more likely to be foreign born. About 70% of Asians and 40% of Hispanics in the United States are foreign born compared with 6% of Whites and Blacks.[14] This section identifies differences in one quality measure focusing on treatment—completion of tuberculosis therapy—and one measure of access to care—uninsurance—for Americans born outside of the United States.

Treatment: completion of tuberculosis therapy. Certain diseases are concentrated among Americans born in other countries. For example, more than half of tuberculosis cases in the Nation are among foreign-born individuals, and the case rate among foreign-born individuals is more than eight times higher than among individuals born in the United States. The percentage of cases of tuberculosis among U.S.-born individuals is decreasing while the percentage of cases among foreign-born individuals is increasing.[15] Adherence to recommended treatments is important for reducing drug resistant tuberculosis and leads to completion of therapy within 12 months of diagnosis.

Figure 4.13. Completion of therapy for tuberculosis within 12 months of being diagnosed among persons born outside the United States, by race and ethnicity, 2001



Key: API=Asian or Pacific Islander.

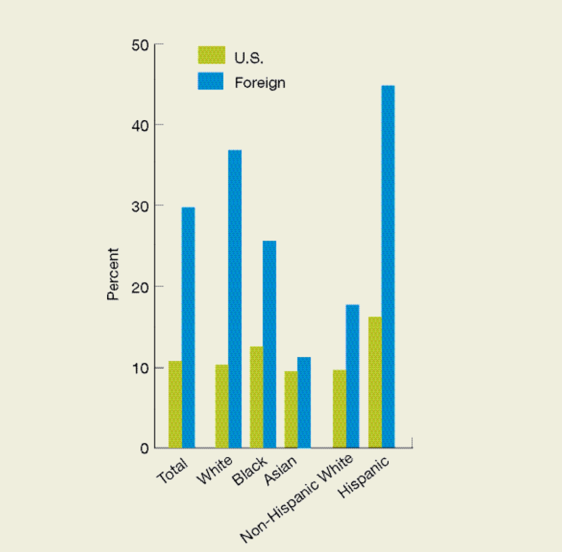
Source: Centers for Disease Control and Prevention, National Tuberculosis Surveillance System, 2001.

Reference population: Civilian noninstitutionalized population.

- Among persons born outside the United States, Blacks are more likely than Whites to complete therapy for tuberculosis within 12 months (Figure 4.13).

Access to care: uninsurance. Persons born outside the United States may have less access to resources, such as health insurance, that facilitate getting needed health care.

Figure 4.14. Persons under age 65 uninsured all year, by race and ethnicity, stratified by place of birth, 2002



Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population.

- The overall proportion of persons younger than 65 uninsured all year was higher among foreign-born persons compared with individuals born in the United States (Figure 4.14).
- Compared with U.S.-born Whites, the proportion of persons under age 65 uninsured all year was higher among Whites and Blacks born outside the United States as well as Blacks born in the United States.
- Compared with U.S.-born non-Hispanic Whites, the proportion of persons uninsured all year was higher among non-Hispanic Whites and Hispanics born outside the United States as well as Hispanics born in the United States.

Low Income Groups

The poor are defined as persons living in families whose household income falls below specific poverty thresholds. These thresholds vary by family size and composition and are updated annually by the U.S. Bureau of the Census. After falling for nearly a decade, the numbers of poor persons in America rose from 31.6 million in 2000 to 34.6 million in 2002, and the poverty rate increased from 11.3% to 12.1% over the same period.

Poverty varies by race and ethnicity. In 2002, 24% of Blacks, 22% of Hispanics, 10% of Asians, and 10% of Whites were poor.[16] Persons with low incomes often experience worse health and are more likely to die prematurely.[17] [18] [19] [20] In general, the poor have reduced access to high quality care. Income-related differences in quality of care that are independent of health insurance coverage have also been demonstrated.[21]

In previous chapters of this report, health care differences by income were described. In this section, disparities in quality of and access to health care for poor[iii] compared with high income[iv] individuals are summarized. For each core report measure, poorer persons can have health care that is worse than, about the same as, or better than health care received by high income persons. Only relative differences of at least 10% that are statistically significant with p<0.05 are discussed in this report. Access measures focus on facilitators and barriers to health care and exclude health care utilization measures.

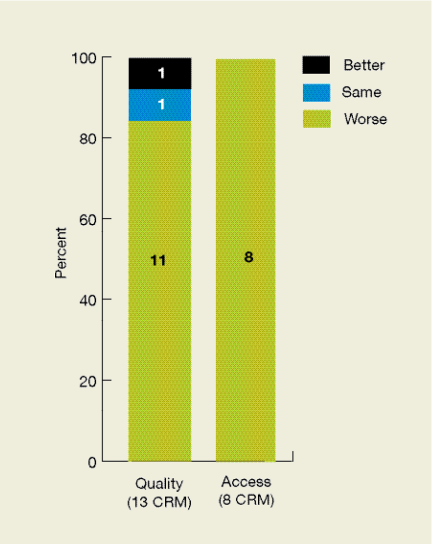
In addition, changes in differences related to income over time are examined in this section. Both absolute and relative differences are compared in current data and historical data. Core report measures for which both the absolute differences and the relative differences are becoming smaller over time are identified as improving disparities. Core report measures for which both the absolute differences and the relative differences are becoming larger over time are identified as worsening disparities. Uncommonly, absolute and relative differences do not agree on direction of change. In these cases, direction of change is unclear and results for these measures are not presented.

As in previous NHDRs, this section includes information on programs that may affect low income groups. Community health centers (CHCs) are vital sources of health care for many low income individuals. The care delivered in CHCs is also effective in reducing disparities: Black-White disparities in overall mortality and prenatal care and Hispanic-White disparities in tuberculosis case rates and prenatal care are smaller in States with better coverage of low income individuals by CHCs.[22] Information on quality of and access to care provided by CHCs as well as on racial, ethnic, and socioeconomic differences in CHC care is also presented in this section.

[iii] Household income less than Federal poverty thresholds.

[iv] Household income 400% of Federal poverty thresholds and higher.

Figure 4.15. Poor compared with high income individuals on measures of quality and access



Better = Poor receive better quality of care or have better access to care than high income individuals.

Same = Poor and high income individuals receive about the same quality of care or access to care.

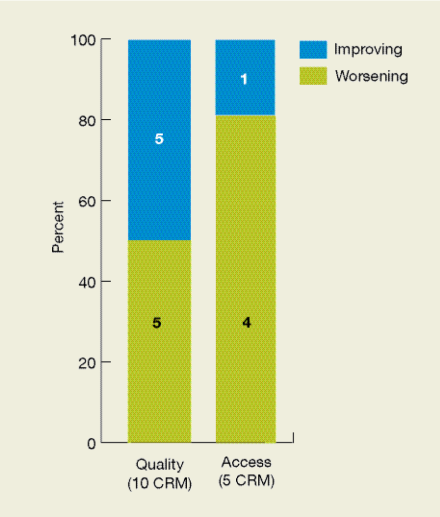
Worse = Poor receive poorer quality of care or have worse access to care than high income individuals.

CRM = core report measures.

Note: Data presented are the most recent available.

- Less than half of the core report measures supported estimates of quality for the poor.
- For 11 of the 13 core report measures of quality with income data, the poor had significantly poorer quality of care than high income individuals (Figure 4.15). Poor-high income differences ranged from poor parents being over three times more likely than high income parents to report communication problems with their child's providers to poor individuals being 10% less likely to lack needed substance abuse treatment. The median difference was 40% (the poor 40% more likely than high income individuals to receive poorer quality care).
- For all 8 core report measures of access, the poor had significantly worse access to care than high income individuals. Poor-high income differences ranged from the poor under age 65 being over six times as likely as high income individuals to lack health insurance to the poor being 67% more likely to lack a primary care provider. The median relative rate was 2.5 (the poor are 2.5 times more likely than high income individuals to have worse access).

Figure 4.16. Change in poor-high income disparities over time



Improving = Poor-high income difference becoming smaller.

Worsening = Poor-high income difference becoming larger.

CRM = core report measures.

Note: The most recent and oldest years of data available are compared.

- Less than half of the core report measures supported estimates of changing disparities in quality for the poor.
- Of core report measures of quality that could be tracked over time for poor and high income individuals, poor-high income differences became smaller for 5 measures but larger for 5 measures (Figure 4.16). For 1 measure—smokers with advice to quit—a new significant difference was seen.
- Of core report measures of facilitators and barriers to health care that could be tracked over time for poor and high income individuals, poor-high income differences became smaller for 1 measure but larger for 4 measures. While more access measures showed decline than showed improvement in income-related disparities, the largest magnitude change observed was a narrowing of the poor-high income gap in health insurance.

Focus on Chronic Care in Federally Supported Health Centers

Health centers were first developed to provide accessible, affordable, personal health care services to low income families, and they continue to do so under Section 330 of the Health Centers Consolidation Act of 1996, which is administered by the Health Resources and Services Administration (HRSA). In 2003, 890 health centers provided health care to 12.3 million patients living in rural and urban medically underserved areas.

For the past 40 years, health centers operating at the community level have provided regular access to high quality, family-oriented, comprehensive primary and preventive health care, regardless of ability to pay. Health centers serve clients that are primarily low income and minorities including migrant/seasonal farm workers; homeless individuals and families; individuals living with HIV/AIDS infection; and a large number of unemployed and impoverished people with chronic diseases. Among the 12.3 million patients who sought care in health centers in 2003, 39% were uninsured, 64% were ethnic minorities, 69% had incomes less than 100% of the poverty level, and 30% were best served in a language other than English, indicating that health centers are the safety net provider for vulnerable populations.[23]

The network of health centers across the Nation continues to grow as new health centers are added each year from grants distributed through the President's Health Centers Initiative. The 5-year President's Health Centers Initiative plans to add 1,200 new and expanded health centers to cover an additional 6 million people served by 2006. Increasing access to care will be important especially for those who require well-coordinated, continuous care, such as those with chronic conditions.

Among all health problems, chronic disease is the most pervasive, costly, and preventable, as 7 out of 10 Americans die each year of chronic diseases and 1 out of 10 faces major limitations in activity.[24] Of all health center patients that were seen in 2003, 6% were seen for diabetes, and 2% were seen for asthma.[23]

Data on the quality of care received by patients receiving care from community health centers were obtained from the 2002 HRSA Community Health Center User Survey. This survey was funded by HRSA and consists of 2,129 interviews from 70 selected grantees that nationally represent 6 million CHC users. Quality measures highlighted in this section were selected because they are clinically meaningful. One treatment measure and two management measures are highlighted in this section:

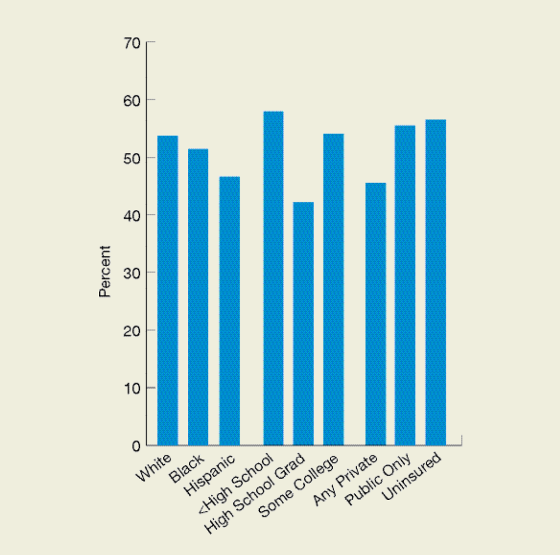
Component of health care need:	**Measure:**
Treatment	Advice to obese patients on diet/eating habits
Management	Annual visit to eye doctor by patients with diabetes
Management	Counseling on asthma self-managment

Efforts to further improve the quality of care provided to patients with chronic conditions are being addressed through HRSA's Health Disparities Collaborative, a national effort to achieve strategic system change in the delivery of primary health care. This health initiative seeks to generate and document improved health outcomes for underserved populations and transform clinical practice through evidence-based models of care. The Health Disparities Collaborative has focused on diabetes, cardiovascular disease, depression, asthma, cancer, diabetes prevention, overall prevention, access and patient flow redesign, and perinatal and patient safety.

Quality of Health Care

Treatment: advice to obese patients on diet/eating habits. Obesity can contribute to other medical problems such as cardiovascular disease and stroke. Counseling on diet is an important preventive care measure.

Figure 4.17. Obese persons in community health centers who were asked about their diet and eating habits in the past 12 months, by race/ethnicity, education level, and insurance status, 2002



Source: HRSA Community Health Center User Survey, 2002.

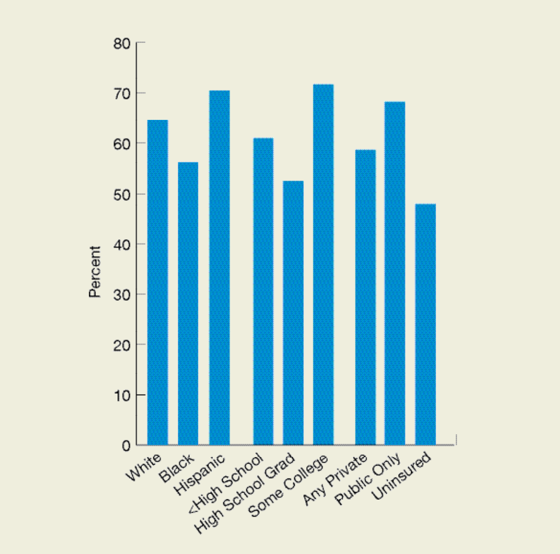
Reference population: Obese persons who received care in community health centers.

Note: Whites and Blacks are non-Hispanic populations. Obese persons are those who had a body mass index greater than 30.

- In 2002, 53% of obese persons were asked about their diet and eating habits in the past 12 months.
- Significant differences between racial/ethnic, education, and insurance groups were not observed (Figure 4.17).

Management: annual visit to eye doctor by patients with diabetes. Receipt of an annual eye exam by patients with diabetes is a well-established process of care measure.

Figure 4.18. Persons with diabetes in community health centers who saw an eye doctor in the last 12 months by race/ethnicity, education level, and insurance status, 2002



Source: HRSA Community Health Center User Survey, 2002.

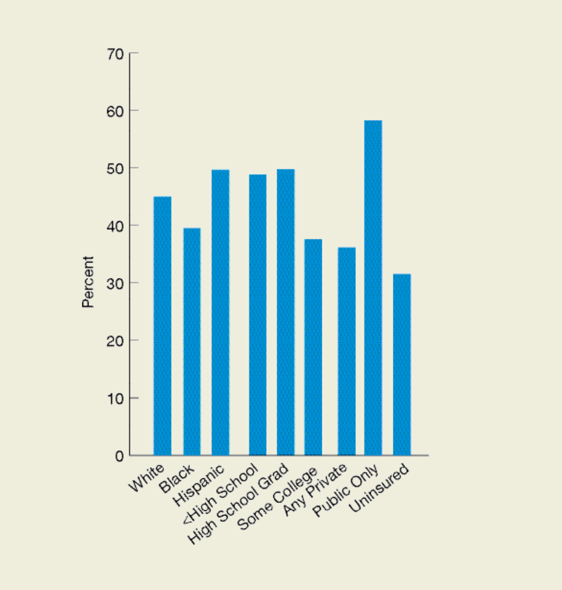
Reference population: Persons with diabetes who sought care in community health centers.

Note: Whites and Blacks are non-Hispanic populations.

- In 2002, 63% of persons with diabetes who sought care in community health centers saw an eye doctor in the last 12 months.
- The percentage of persons with diabetes who saw an eye doctor in the last 12 months was significantly higher among people with public insurance compared with people with private or no insurance (Figure 4.18). No other significant differences were observed.
- For all groups, health centers exceeded the Healthy People 2010 baseline of 47% but did not reach the Healthy People 2010 target (75%).

Management: counseling on asthma self-management. Appropriate asthma self-management may reduce the likelihood of asthma attacks and, in turn, the potential need for hospitalization.

Figure 4.19. Persons with asthma in community health centers who were ever counseled about ways to manage their asthma by race/ethnicity, education level, and insurance status, 2002



Source: HRSA Community Health Center User Survey, 2002.

Reference population: Persons with asthma who received care in community health centers.

Note: Whites and Blacks are non-Hispanic populations.

- In 2002, 45.5% of persons with asthma who sought care in a community health center were counseled on ways to manage their asthma.
- The percentage of persons counseled on ways to manage their asthma was significantly higher among people with public insurance compared with people with private or no insurance (Figure 4.19). No other significant differences were observed.
- For all groups, health centers exceeded the Healthy People 2010 baseline (8.4%) and target (30%) for persons counseled on ways to manage their asthma.

Women

Census 2000 counted 140 million females, 51% of the U.S. population, of whom 40 million are members of racial or ethnic minority groups.[25] By 2050, it is projected that just under half of females in the United States will be members of racial or ethnic minority groups.[26] The ratio of males to females is highest at birth, when male infants outnumber female infants, and gradually declines with age due to higher male mortality rates. Among Americans 85 and older, women outnumber men by more than 2 to 1.[27] Poverty disproportionately affects women; almost 13 million women lived in households with incomes below the Federal poverty level in 2001.[28]

Women in the United States have a life expectancy 5 years longer than men[29] and lower age-adjusted death rates than men for 13 of the 15 leading causes of death.[30] However, women are more likely than men to report having arthritis, asthma, autoimmune diseases, and depression.[31] Overall, many women's health needs are inadequately addressed.[32] Among women, racial and ethnic differences in mortality and health status are observed. Black women have higher death rates than White women due to heart disease, cancer, and stroke while Hispanic, API, and AI/AN women have lower death rates due to these conditions.[31] Black and Hispanic women are also more likely to report fair or poor overall health and having diabetes. Poor or near poor women are more likely to report fair or poor overall health; limitations of activity; and having anxiety or depression, arthritis, asthma, diabetes, hypertension, obesity, and osteoporosis.[33]

In general, gender differences in quality of care are small. However, significant gender differences in cardiovascular care have been demonstrated. Among women, racial, ethnic, and socioeconomic differences in quality of care exist. Racial and ethnic differences are noted in receipt of cardiovascular procedures, cancer screening, and management of fibroids.[34] Socioeconomic differences are noted in receipt of Pap tests and mammograms.[35] Women are more likely to obtain preventive services than men.[31]

Among women, racial, ethnic, and socioeconomic differences in access to care are observed. Black women are more likely than White women to report forgoing needed physician care; and Hispanic women are more likely than non-Hispanic White women to report lack of health insurance and coverage for dental and vision care, not having a regular health care provider, not seeing a specialist when needed, and problems communicating with physicians.[36] Poor and near poor women are more likely than high income women to report lack of health insurance, dissatisfaction with their health plan when insured, and not having a usual source of care.[35]

Many measures of relevance to women are tracked in the NHDR. Findings presented here highlight six quality measures and one access measure of particular importance to women:

Component of health care need:	**Measure:**
Prevention	Osteoporosis screening, dental care
Treatment	Hospital care for heart attack
Management	Recommended services for diabetes
Maternal health	Prenatal care
Patient safety	Obstetric trauma
Access to care	Uninsurance

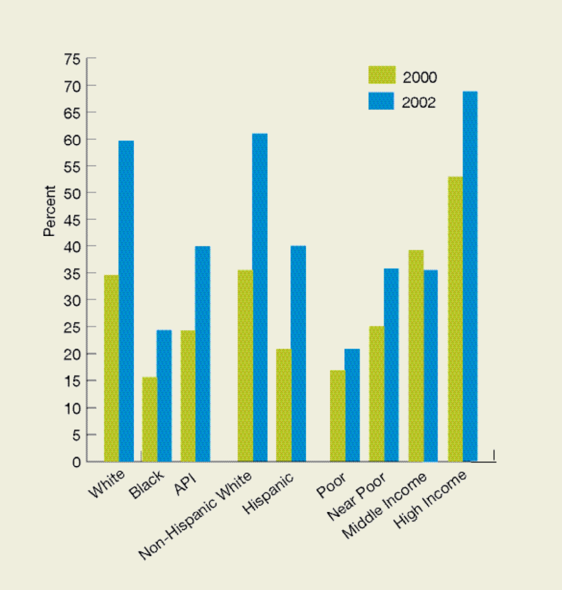
Additionally this year, the section on cancer in Chapter 2 focuses on breast cancer prevention.

Quality of Health Care

Prevention: Osteoporosis Screening

Osteoporosis is a disease characterized by loss of bone tissue that increases the risk of fractures of the hip, spine, and wrist. About 10 million persons in the United States have osteoporosis and another 34 million with low bone mass are at risk for developing the disease. Women represent more than two-thirds of Americans at risk for or diagnosed with osteoporosis. White and Asian women are at greater risk for osteoporosis than Black and Hispanic women.[37] Because older women are at highest risk for osteoporosis, the U.S. Preventive Services Task Force recommends routine osteoporosis screening of women 65 and older.

Figure 4.20. Elderly female Medicare beneficiaries who reported ever being screened for osteoporosis with a bone mass or bone density measurement by race, ethnicity, and income, 2000 and 2002



Key: API=Asian or Pacific Islander.

Source: Medicare Current Beneficiary Survey, 2000 and 2002.

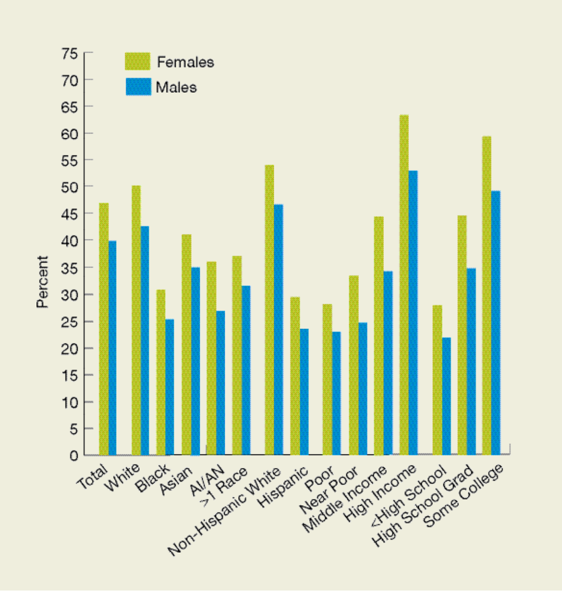
Reference population: Female Medicare beneficiaries age 65 and older living in the community.

- In both years, the proportion of elderly female Medicare beneficiaries who reported ever being screened for osteoporosis with a bone mass or bone density measurement was lower among Blacks and APIs compared with Whites; among Hispanics compared with non-Hispanic Whites; and among poor, near poor, and middle income women compared with high income women (Figure 4.20).
- From 2000 to 2002, the proportion of elderly female Medicare beneficiaries who reported ever being screened for osteoporosis increased among every racial and ethnic population and among near poor women, but the proportion did not change significantly for poor, middle income, and high income women.

Prevention: Dental Care

Regular dental visits promote prevention, early diagnosis, and optimal treatment of craniofacial diseases and conditions. Failure to visit the dentist can result in delayed diagnosis, overall compromised health, and, occasionally, even death.[38] Racial, socioeconomic, and gender differences in oral health are well documented, with minorities, poorer populations, and men[v] bearing a disproportionate burden of oral diseases.[39]

Figure 4.21. Persons with a dental visit in the past year by race, ethnicity, income, and education, 2002



Key: AI/AN=American Indian or Alaska Native.

Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population.

- For both males and females, the proportion of persons with a dental visit was lower among Blacks, Asians, AI/ANs, and persons of multiple races compared with Whites; among Hispanics compared with non-Hispanic Whites; among poor, near poor, and middle income compared with high income persons; and among persons with a high school education or less compared with persons with at least some college (Figure 4.21).
- The proportion of females with a dental visit was significantly higher than the proportion of males for all groups except Asians, AI/ANs, and persons of multiple races.

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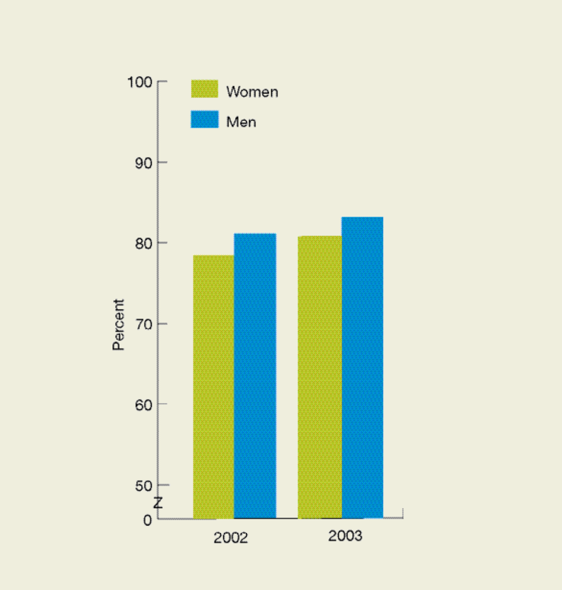
[v] For example, men have a higher rate of severe periodontal disease and oral and pharyngeal cancers compared with women. However, women are more likely than men to experience pain from oral sores, jaw joints, and burning mouth syndrome.

Treatment: Hospital Care for Heart Attack

Each year, about half a million women die of cardiovascular disease. Among these, 250,000 die of heart attacks.[40] Although heart disease is the leading cause of death among both women and men, sex differences in cardiovascular care have been demonstrated and may relate to sex differences in disease presentation. Moreover, although major risk factors for cardiovascular disease can often be prevented or controlled through lifestyle changes, physicians are less likely to counsel women than men about diet, exercise, weight reduction, and substance abuse.[41, 42] After a first heart attack, women are less likely than men to receive diagnostic and therapeutic procedures[43] and cardiac rehabilitation,[44, 45] and they are more likely to die or have a second heart attack.[46]

This year, the NHDR introduces a new composite measure for acute care for heart attack, which incorporates the following six measures from previous NHDRs: receipt of aspirin within 24 hours of hospitalization, receipt of aspirin upon discharge, receipt of beta-blocker within 24 hours of hospitalization, receipt of beta-blocker upon discharge, receipt of ACE inhibitor for left ventricular systolic dysfunction, and counseling about smoking cessation among smokers.

Figure 4.22. Recommended hospital care received by Medicare patients with heart attack by gender, 2002-2003



Source: Centers for Medicare & Medicaid Services, Medicare Quality Improvement Organization Program, 2002-2003.

Reference population: Medicare beneficiaries hospitalized for heart attack.

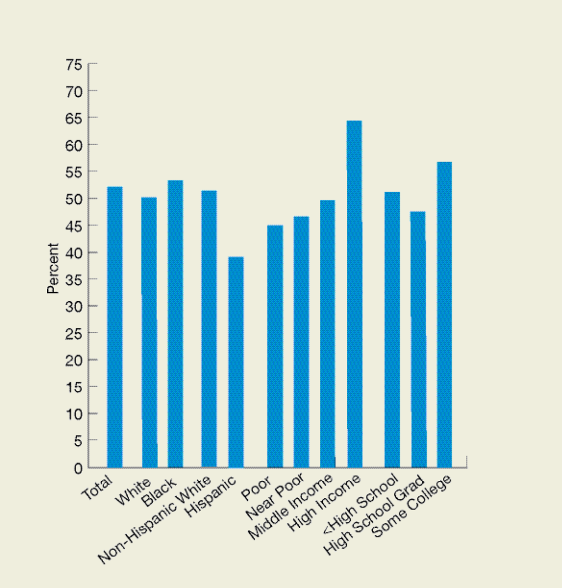
Note: Composite is calculated by averaging the percent of the population that received each of the six incorporated components of care. See Chapter 1, Introduction and Methods for composite details.

- In both years, the percentage of Medicare patients with heart attack receiving recommended hospital care was lower among females compared with males (Figure 4.22).
- From 2002 to 2003, the percentage of Medicare patients with heart attack receiving recommended hospital care increased significantly for both females and males.

Management: Recommended Services for Diabetes

In 2002, over 9.3 million women in the United States had diabetes.[47] Women are at greater risk than men for some complications related to diabetes, including diabetic ketoacidosis and cardiovascular disease due to diabetes.[48] In addition, poorly controlled diabetes during early pregnancy increases the risk for spontaneous abortion and major birth defects.[47] Effective management of diabetes includes hemoglobin A1c testing, eye examination, and foot examination in the past year, as well as appropriate influenza immunization and lipid management.[49, 50]

Figure 4.23. Women with diabetes who had three recommended services (hemoglobin A1c testing and eye and foot examination) by race, ethnicity, income, and education level, 2002



Source: Medical Expenditure Panel Survey, 2002.

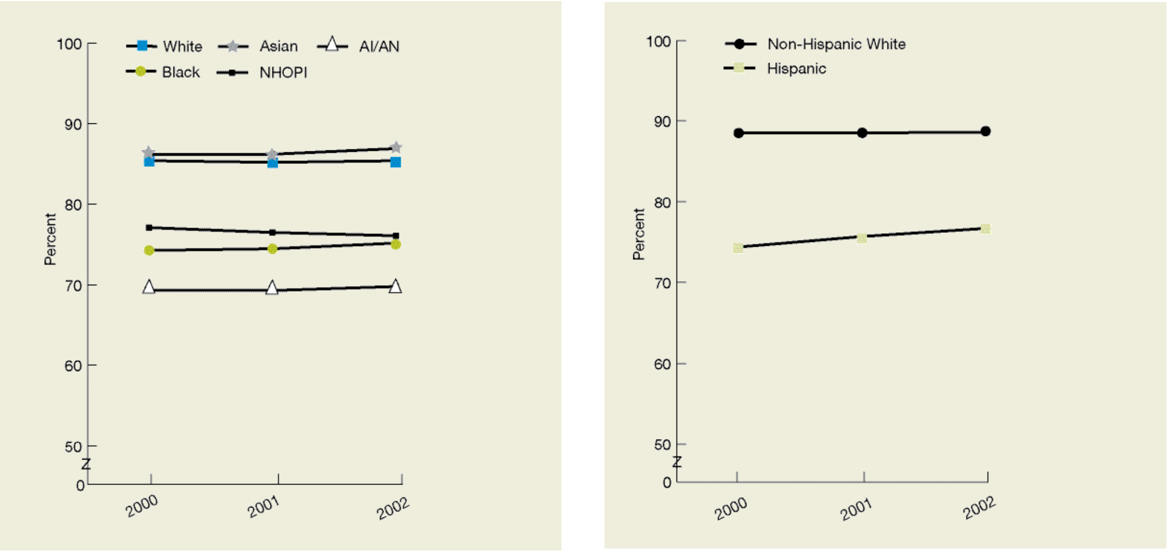
Reference population: Civilian noninstitutionalized women with diabetes age 18 and older.

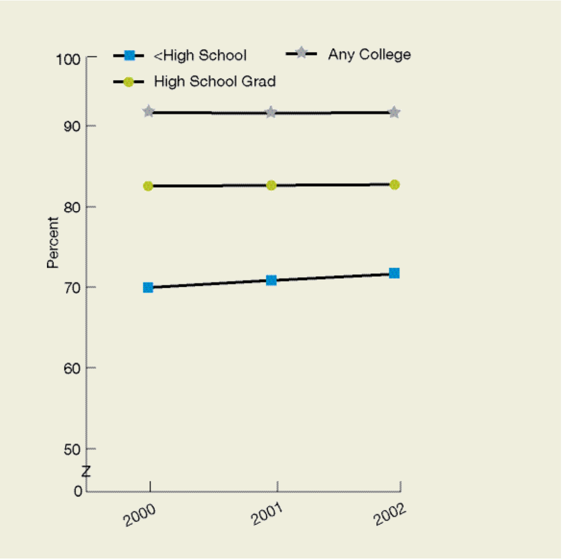
- The proportion of women with diabetes who had three recommended services was lower among Hispanics compared with non-Hispanic Whites; and among poor, near poor, and middle income women compared with high income women (Figure 4.23). Other significant differences were not observed.

Maternal Health: Prenatal Care

Childbirth and reproductive care are the most common reasons for women of childbearing age to use health care; and with more than 11,000 births each day in the United States, childbirth is the most common reason for hospital admission.[51] Given that birth outcomes may have lifetime effects, good maternity care has the potential to affect the future health and health care needs of the Nation.[52 53]

Figure 4.24. Mothers with prenatal care in the first trimester by race (top left), ethnicity (top right), and education (bottom left), 2000-2002





Key: NHOPI=Native Hawaiian or Other Pacific Islander; AI/AN= American Indian or Alaska Native.

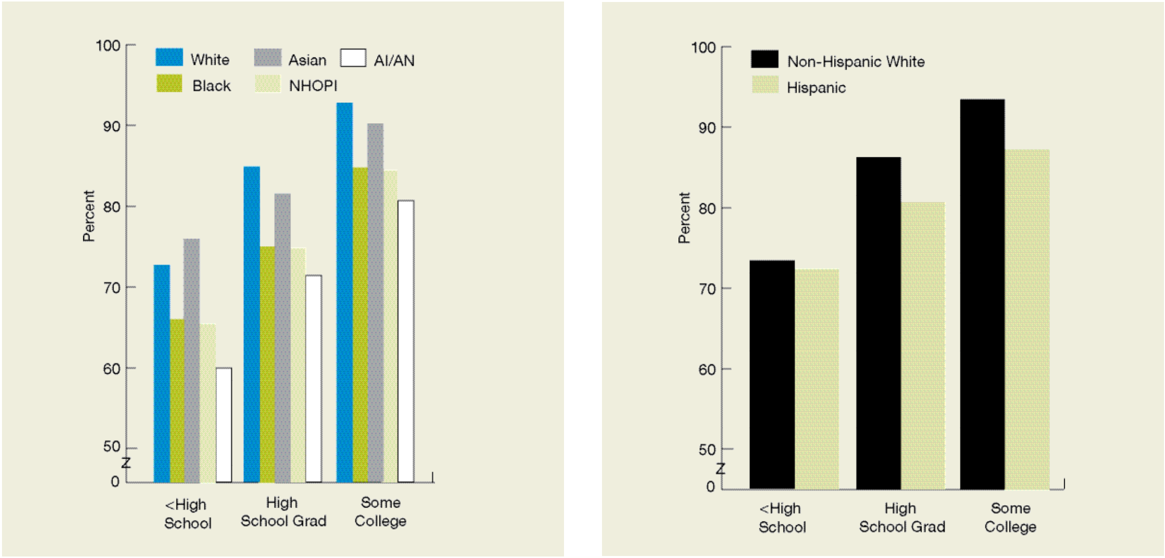
Source: National Vital Statistics System - Natality, 2000-2002.

Reference population: Women with live births.

- In all 3 years, the proportion of women who initiated prenatal care in the first trimester was lower among Black, NHOPI, and AI/AN women compared with White women; among Hispanic compared with non-Hispanic White women; and among women with less than a high school education or high school graduates compared with women with any college education (Figure 4.24).
- Between 2000 and 2002, rates of mothers initiating prenatal care in the first trimester improved significantly among all groups except NHOPIs, AI/ANs, and those with any college education.

Information about income is not typically collected on birth certificates, so education is commonly used as a proxy for SES. Racial and ethnic minorities have disproportionately less education than Whites. To distinguish the effects of race, ethnicity, and education on quality of health care, this measure is stratified by level of education.

Figure 4.25. Mothers with prenatal care in the first trimester by race (left) and ethnicity (right) stratified by education, 2001



Key: NHOPI=Native Hawaiian or Other Pacific Islander; AI/AN=American Indian or Alaska Native.

Source: National Vital Statistics System - Natality, 2001.

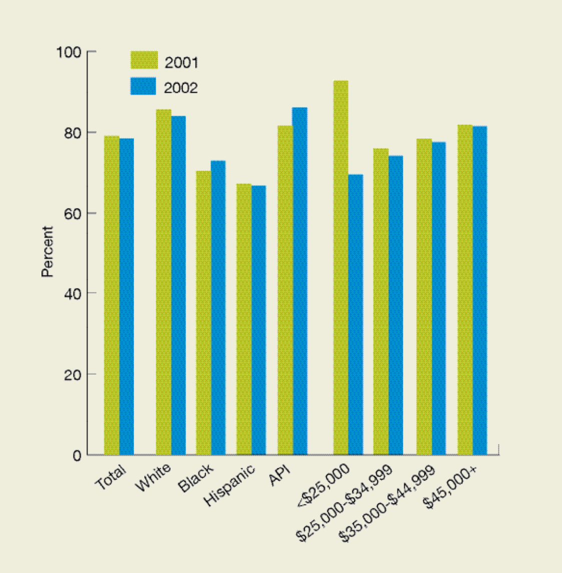
Reference population: Women with live births.

- Education explains some but not all of the differences in health care among women by race and ethnicity. Racial and ethnic differences in mothers who initiate prenatal care in the first trimester tended to persist among women with similar education (Figure 4.25).
- Only college educated Whites, Asians, and non-Hispanic Whites achieved the Healthy People 2010 goal of 90% of mothers receiving prenatal care in the first trimester.

Patient Safety: Obstetric Trauma

Trauma during delivery is a possible complication of adverse events related to maternity care.

Figure 4.26. Obstetric trauma with 4th degree lacerations or other obstetric lacerations per 1,000 vaginal deliveries without instrument assistance by race/ethnicity and area income (median income of ZIP Code of residence), 2001 and 2002



Key: API=Asian or Pacific Islander.

Source: HCUP State Inpatient Databases disparities analysis file, 2001 and 2002.

Reference population: All hospital admissions with vaginal deliveries without instrument assistance.

Note: White, Black, and API are non-Hispanic groups.

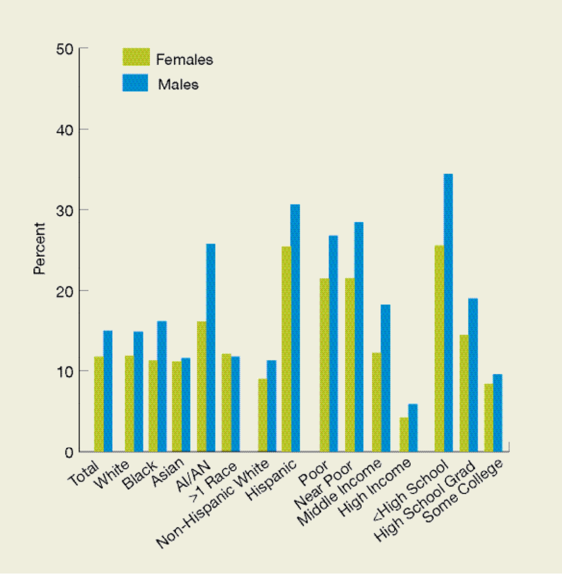
- In both years, the rate of obstetric trauma was lower among non-Hispanic Blacks and Hispanics compared with non-Hispanic Whites and among persons with incomes of less than $25,000 compared with persons who earn $45,000 or more (Figure 4.26).
- In 2001 the rate of obstetric trauma was lower among non-Hispanic APIs compared with non-Hispanic Whites.
- From 2001 to 2002, the rate of obstetric trauma decreased significantly for non-Hispanic Whites but did not change significantly for any other group.

Access to Health Care

Health Insurance

Health insurance facilitates access to health care, which can have serious repercussions on health: the uninsured are more likely to have poor health status[54] [55] and to die early.[56-58] They report more problems getting care,[59] [60] are diagnosed at later disease stages, and get less therapeutic care.[59] [61] Data for prolonged periods of uninsurance are presented.

Figure 4.27. Persons under age 65 uninsured all year by race, ethnicity, income, and education, 2002



Key: AI/AN=American Indian or Alaska Native.

Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population.

- For both genders, the proportion of persons uninsured all year was higher among Hispanics compared with non-Hispanic Whites; among poor, near poor, and middle income compared with high income persons; and among persons with a high school education or less compared with persons with at least some college (Figure 4.27).
- There were no racial differences in uninsurance among women, but the proportion of uninsured AI/AN men was higher compared with White men.
- The proportion of uninsured females was significantly higher than the proportion of uninsured males for all groups except Asians, AI/ANs, persons of multiple races, and persons with at least some college.

Children

Children comprise 26% of the U.S. population, or 72.3 million people.[62] Racial and ethnic minorities account for almost 40% of all children.[63] In 2003, 19% of the child population was Hispanic[64] and 17% of children lived in families with incomes below the Federal poverty level.[1]

In 2003, Black children and American Indian or Alaska Native children had death rates about 1.5 to 2 times higher than White children. Black infants were more than twice as likely as White infants to die during their first year. Life expectancy at birth was 78 years for White children and 72.8 years for Black children, a difference of 6%.[65]

Quality of health care among children varies by race, ethnicity, and SES.[66] Differences have been observed in childhood immunization,[67] management of asthma,[68] and evaluation and treatment for attention-deficit/hyperactivity disorder.[69] Access to health care among children also varies by race, ethnicity, and SES. Differences among children by race, ethnicity, and SES have been observed in rates of uninsurance and public coverage[70]; getting a routine appointment as soon as wanted, receiving needed care, and patient experiences during care[71]; rating of health care[72]; and health care utilization and expenditures.[73]

Many measures of relevance to children are tracked in the NHDR. Findings presented here highlight four quality measures and two access measures of particular importance to children:

Component of health care need:	**Measure:**
Prevention	Dental care,[vi] counseling about physical activity
Treatment	Hospital admissions for pediatric gastroenteritis
Management	Hospital admissions for pediatric asthma
Access to care	Health insurance, usual source of care

In addition, the final section of this chapter, which discusses individuals with special health care needs, includes findings related to children with special health care needs.

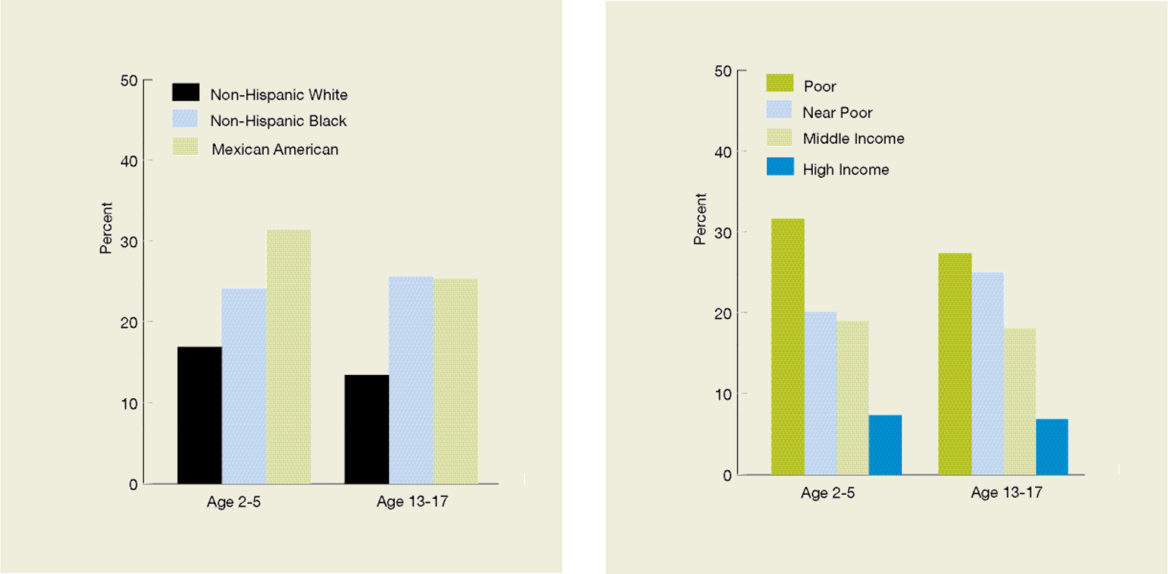
[vi] Includes 1 core measure—dental visits—and 1 supplemental measure—untreated dental caries.

Quality of Health Care

Prevention: Dental Care

Regular dental visits promote prevention, early diagnosis, and optimal treatment of craniofacial diseases and conditions,[38] including prevention of dental caries. Healthy People 2010's goals for reductions in childhood dental caries include a decrease from 18% to 11% for children age 2-4 and from 61% to 51% for 15-year-olds.

Figure 4.28. Children ages 2-5 and 13-17 with untreated dental caries, by race/ethnicity (left) and income (right), 1999-2002



Source: National Health and Nutrition Examination Survey, 1999-2002.

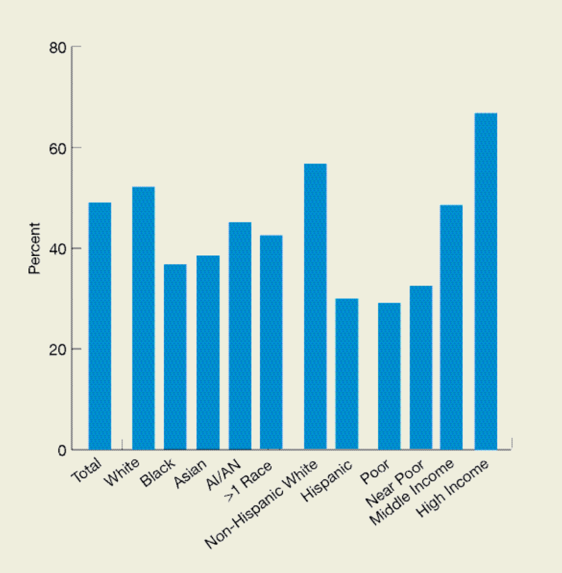
Reference population: Civilian noninstitutionalized population age 2-5 and 13-17.

Note: Children age 2-5 are examined for untreated dental caries in their primary teeth; children age 13-17 are examined for dental caries in their permanent teeth. These data were collected for Mexican Americans rather than all Hispanics.

- In 1999-2002, the proportion of children age 2-5 with untreated dental caries in primary teeth was higher among non-Hispanic Black and Mexican American children compared with non-Hispanic White children and among poor, near poor, and middle income children compared with high income children (Figure 4.28).
- The same disparities were observed in the proportion of children age 13-17 with untreated dental caries in permanent teeth.

To improve overall oral health, Healthy People 2010 also sets a goal of increasing the percentage of persons age 2 and older using the oral health system annually from 44% to 56%.

Figure 4.29. Children age 2-17 with a dental visit in the past year by race, ethnicity, and income, 2002



Key: AI/AN=American Indian or Alaska Native.

Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population age 2-17.

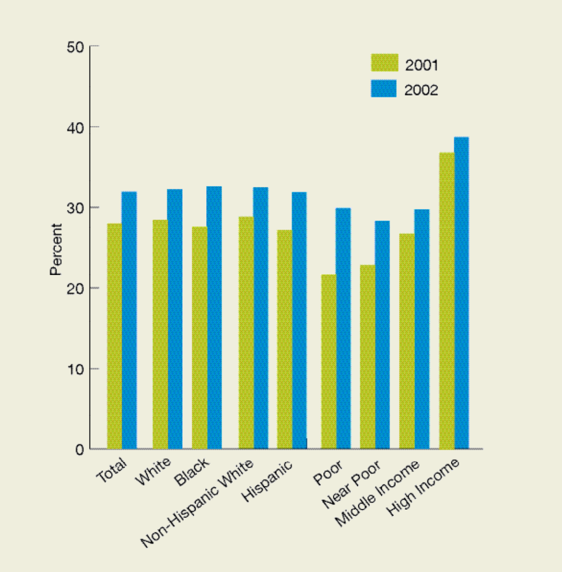
Note: AI/ANs sampled in MEPS tend to be largely non-reservation, urban AI/ANs, which may not be representative of dental care for all AI/ANs in the United States.

- The proportion of children with a dental visit in the past year was lower among Blacks and Asians compared with Whites; among Hispanics compared with non-Hispanic Whites; and among poor, near poor, and middle income children compared with high income children (Figure 4.29).

Prevention: Counseling About Physical Activity

Lack of physical activity is a major contributor to childhood obesity. The President's Council on Physical Fitness and Sports recommends that children age 5-12 are physically active for 60 minutes on most or all days. The recommendation for adolescents is 30 minutes a day. Routine promotion of physical activity among young persons is widely recommended.[74]

Figure 4.30. Children age 2-17 whose parents/guardians reported advice from a doctor or other health provider about amount and kind of physical activity by race, ethnicity, and income, 2001 and 2002



Source: Medical Expenditure Panel Survey, 2001 and 2002.

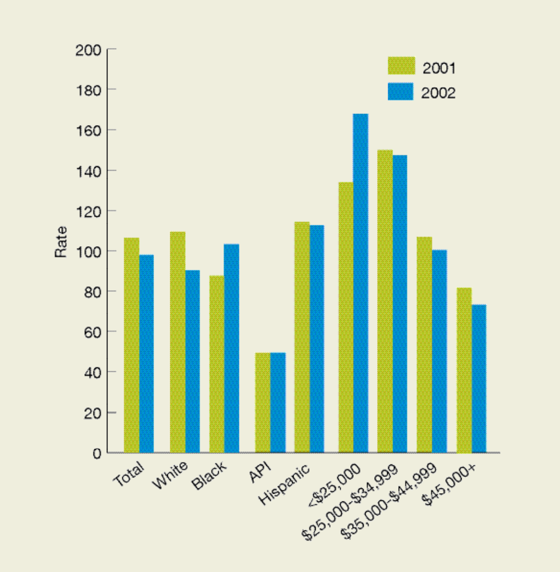
Reference population: Civilian noninstitutionalized population age 2-17.

- In both 2001 and 2002, the proportion of children whose parents/guardians reported advice from a health provider about physical activity was lower among children from poor, near poor, and middle income families compared with children from high income families (Figure 4.30).
- From 2001 to 2002, the proportion of children getting advice about physical activity increased from 28.0% to 31.9%. Improvements were observed among White, Black, non-Hispanic White, Hispanic, poor, and near poor children.

Treatment: Hospital Admissions for Pediatric Gastroenteritis

Pediatric gastroenteritis can develop into a life-threatening condition due to dehydration, especially among infants. Proper outpatient treatment of gastroenteritis may prevent hospitalization, and lower hospitalization rates may reflect access to better quality care.

Figure 4.31. Hospital admissions for gastroenteritis per 100,000 population age 0-17 by race/ethnicity and area income (median income of ZIP Code of residence), 2001 and 2002



Key: API=Asian or Pacific Islander.

Source: HCUP State Inpatient Databases disparities analysis file, 2001and 2002.

Reference population: Children age 0-17.

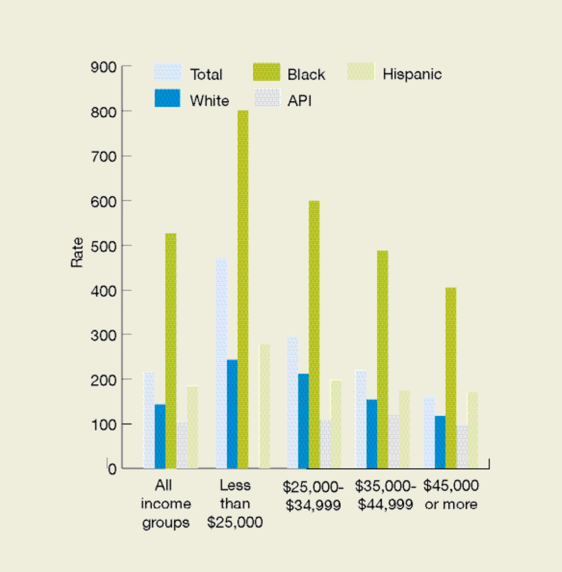
Note: White, Black, and API are non-Hispanic groups.

- In both 2001 and 2002, admissions for pediatric gastroenteritis were lower among API compared with White children and higher among children from ZIP Codes with median incomes of <$25,000, $25,000-$34,999, and $35,000-$44,999 compared with children from ZIP Codes with median incomes of $45,000 or more (Figure 4.31).
- From 2001 to 2002, admissions for pediatric gastroenteritis declined among Whites and did not change significantly for any other group.

Management: Hospital Admissions for Pediatric Asthma

A disproportionate number of children have asthma. The prevalence rate for children age 0-17 is 83 per 1,000 while the prevalence rate for adults age 18 and older is 68 per 1,000.[75] [76] Emergency room visit rates for asthma are highest among children age 0-4 (62 per 10,000 population), and the emergency room visit rate for Blacks is 380% higher than that for Whites.[77] Racial differences in asthma outcomes have also been observed.[78]

Figure 4.32. Pediatric asthma admission rate per 100,000 population, by race/ethnicity stratified by area income (median income of ZIP Code of residence), 2002



Key: API=Asian or Pacific Islander.

Source: HCUP State Inpatient Databases disparities analysis file, 2002.

Reference population: Children age 0-17.

Note: White, Black, and API are non-Hispanic groups. Income level is based on median income of patient's ZIP Code. Sample sizes were too small to provide estimates for APIs with incomes less than $25,000.

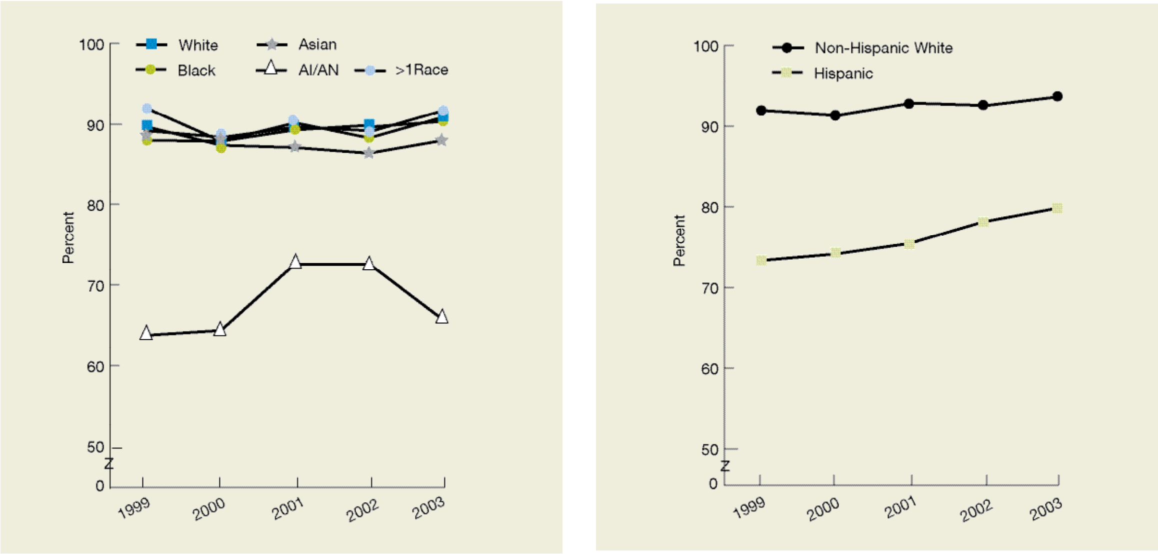
- Overall, the rate of asthma admissions is higher among Black and lower among API children compared with White children (Figure 4.32).
- The rate is higher among children from ZIP Codes with median incomes of <$25,000, $25,000-$34,999, and $35,000-$44,999 compared with children from ZIP Codes with median incomes of $45,000 or more.
- Income explains some but not all of the differences in children's hospitalization rates for asthma by race/ethnicity.
- The rate of asthma admissions is higher among Blacks compared with Whites from every income level and among Hispanics compared with non-Hispanic Whites from ZIP Codes with median incomes of $45,000 or more. The rate is lower among APIs from ZIP Codes with median income of $25,000-$34,999 compared with respective Whites.

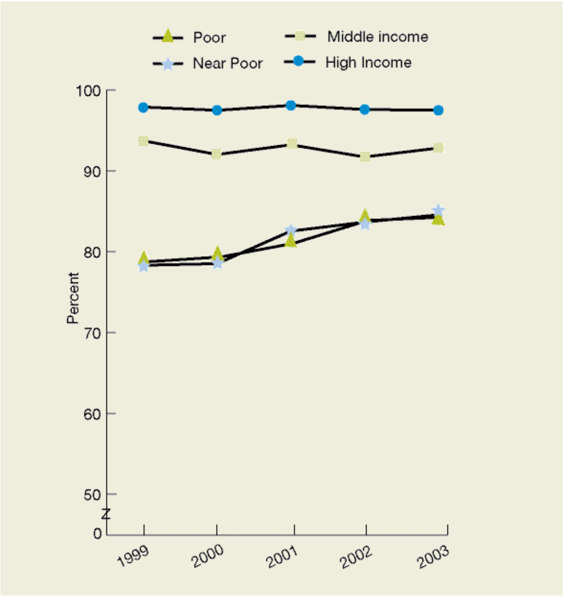
Access to Health Care

Health Insurance

Insurance coverage is among the most important factors in access to health care. Special efforts have been made to provide insurance coverage to children.[79]

Figure 4.33. Children age 0-17 with health insurance, by race (top left), ethnicity (top right), and income (bottom left), 1999-2003





Key: AI/AN=American Indian or Alaska Native.

Source: National Health Interview Survey, 1999-2003.

Reference population: Civilian noninstitutionalized population.

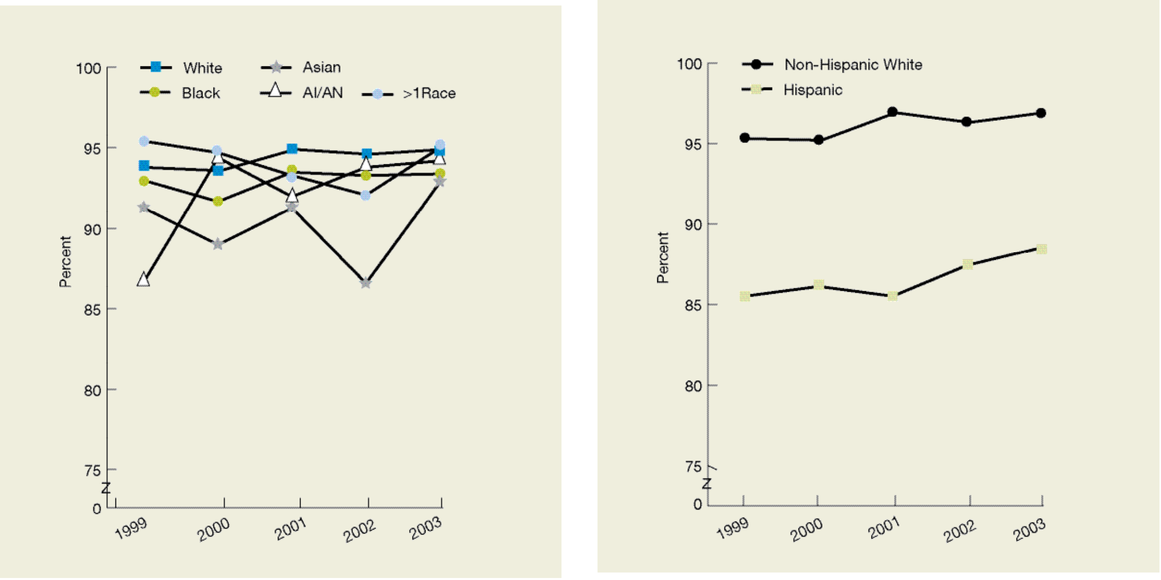
Note: Insurance status is determined at the time of interview. Children are considered uninsured if they lack private health insurance, public assistance, Medicare, Medicaid, a State-sponsored health plan, other government sponsored programs, a military health plan, or if their only coverage is through the Indian Health Service.

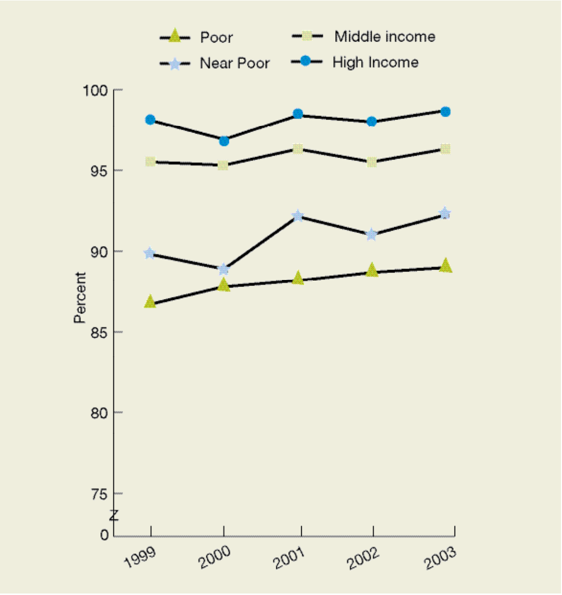
- In all 5 years, the proportion of children with health insurance was lower among AI/AN children compared with White children; among Hispanic children compared with non-Hispanic White children; and among poor, near poor, and middle income children compared with high income children (Figure 4.33).
- From 1999 to 2003, the overall rate of health insurance among children improved from 88.1% to 90.2%. Improvements were observed among White, Black, non-Hispanic White, Hispanic, poor, and near poor children. This coincided with the implementation of the State Children's Health Insurance Program (SCHIP) in 1998.

Usual Source of Care

Having a usual source of care is associated with a greater likelihood of obtaining needed preventive services.[80 81]

Figure 4.34. Children age 0-17 with a source of ongoing care, by race (top left), ethnicity (top right), and income (bottom left), 1999-2003





Key: AI/AN=American Indian or Alaska Native.

Source: National Health Interview Survey, 1999-2003.

Reference population: Civilian noninstitutionalized population.

- From 1999 to 2003, the proportion of children with a source of ongoing care was lower among Hispanic compared with non-Hispanic White children and among poor, near poor, and middle income compared with high income children (Figure 4.34).
- In 3 of the 5 years, Black and Asian children were less likely than White children to have a source of ongoing care.
- From 1999 to 2003, the overall proportion of children with a source of ongoing care improved from 93.3% to 94.6%. Improvements were observed among White, non-Hispanic White, Hispanic, and near poor children. In 2003, non-Hispanic White, middle income, and high income children had achieved the Healthy People 2010 target of 96% of persons with a source of ongoing care.

Elderly

Persons age 65 and over numbered more than 35 million in 2002, an increase of more than 10% over the previous decade. About 1 in every 8 Americans is in this age group; and by the year 2030, the elderly population is projected to more than double to 71.5 million.

Older women outnumber older men by nearly a third. Members of minority groups are projected to represent over one-quarter of the elderly in 2030, up from about 16% in 2000. About 3.6 million elderly lived below the poverty level in 2002, corresponding to a poverty rate of over 10%. Another 2.2 million, or more than 6% of the elderly, were classified as near poor, with incomes between the poverty level and 125% of this level.[82]

On average, 65-year-olds can expect to live an additional 18.1 years. In 2003, 38.6% of noninstitutionalized older persons assessed their health as excellent or very good compared with two-thirds of persons ages18-64. Older Blacks and Hispanics were less likely to rate their health as excellent or good than older Whites. Most older persons have at least one chronic condition. In 1997, more than half of the elderly reported a disability and over a third reported a severe disability.[82]

The Medicare program provides core health insurance to nearly all elderly Americans and reduces many financial barriers to acute and postacute care services. The Medicare Prescription Drug Improvement and Modernization Act of 2003 adds new prescription drug and preventive benefits to Medicare and provides extra financial help to persons with low incomes. Consequently, differences in access to and quality of health care tend to be smaller among Medicare beneficiaries than among younger populations. However, racial, ethnic, and socioeconomic differences are still observed.

Surveys of the general population often do not include enough elderly to examine racial, ethnic, or socioeconomic differences in health care. Consequently, the NHDR relies upon data from the Medicare Current Beneficiary Survey to examine disparities in access to and quality of care. Findings presented here highlight three quality measures and two access measures of particular importance to the elderly:

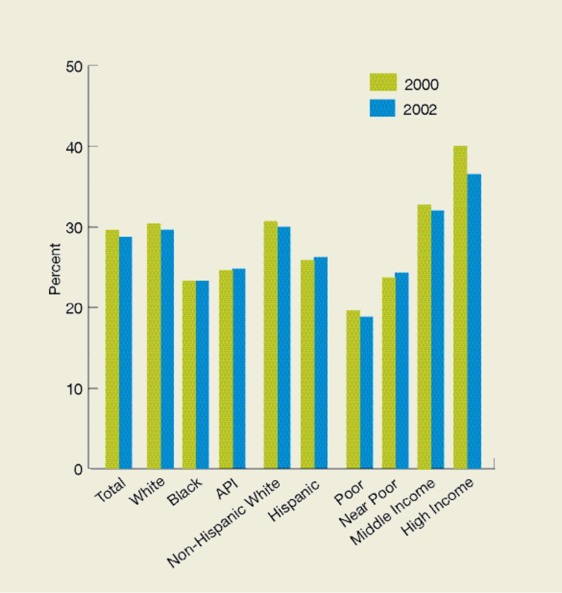
Component of health care need:	**Measure:**
Prevention	Fecal occult blood test, dental care
Timeliness	Waiting 30 minutes or more to see a doctor
Access to care	Usual source of care, problems getting to the doctor

Quality of Health Care

Prevention: Fecal Occult Blood Test

Fecal occult blood tests are an effective way to detect colorectal cancer, improving the likelihood of early diagnosis, optimal treatment, and recovery. In the 2003 NHDR, racial disparities in diagnosis of late-stage colorectal cancer were observed.

Figure 4.35. Elderly Medicare beneficiaries with a home fecal occult blood test within the last 2 years by race, ethnicity, and income, 2000 and 2002



Key: API=Asian or Pacific Islander.

Source: Medicare Current Beneficiary Survey, 2000, 2002.

Reference population: Medicare beneficiaries age 65 or older living in the community.

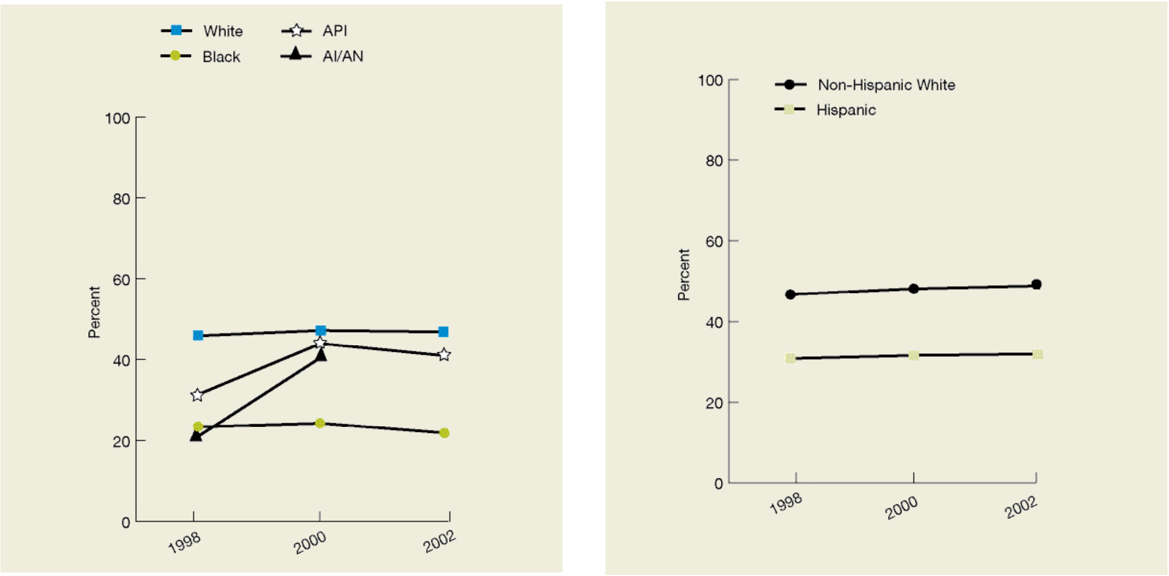
Note: See Figure 4.25 of the 2004 NHDR and accompanying text for information on elderly Medicare beneficiaries with sigmoidoscopy or colonoscopy in 2000.

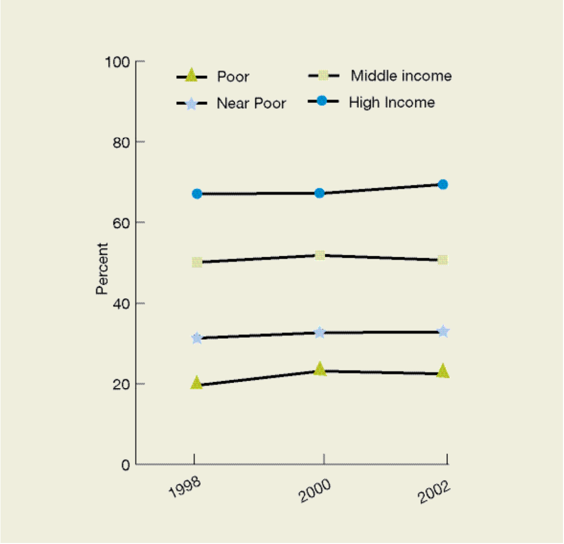
- In both 2000 and 2002, the percentage of elderly Medicare beneficiaries with a home fecal occult blood test within the last 2 years was lower among Blacks compared with Whites and among poor and near poor beneficiaries compared with high income beneficiaries (Figure 4.35).
- In 2002 the percentage was also lower among middle income beneficiaries compared with high income beneficiaries. Significant differences were not observed for any other population group.
- From 2000 to 2002 the percentage did not change significantly for any population group.
- In 2002, the Healthy People 2010 goal of 50% of Americans with a fecal occult blood test within the last 2 years was not achieved by any population group.

Prevention: Dental Care

Regular dental visits improve prevention, early diagnosis, and optimal treatment of craniofacial diseases and conditions. Missed dental care can result in delayed diagnosis, overall compromised health, and, occasionally, even death.[38] Because dental conditions often develop across a lifetime, it is especially important for the elderly to receive regular dental care to ensure early diagnosis and optimal treatment.

Figure 4.36. Elderly Medicare beneficiaries receiving dental care by race (top left), ethnicity (top right), and income (bottom left), 1998, 2000, 2002





Key: AI/AN=American Indian or Alaska Native; API=Asian or Pacific Islander.

Source: Medicare Current Beneficiary Survey, 1998, 2000, 2002.

Reference population: Medicare beneficiaries age 65 or older living in the community.

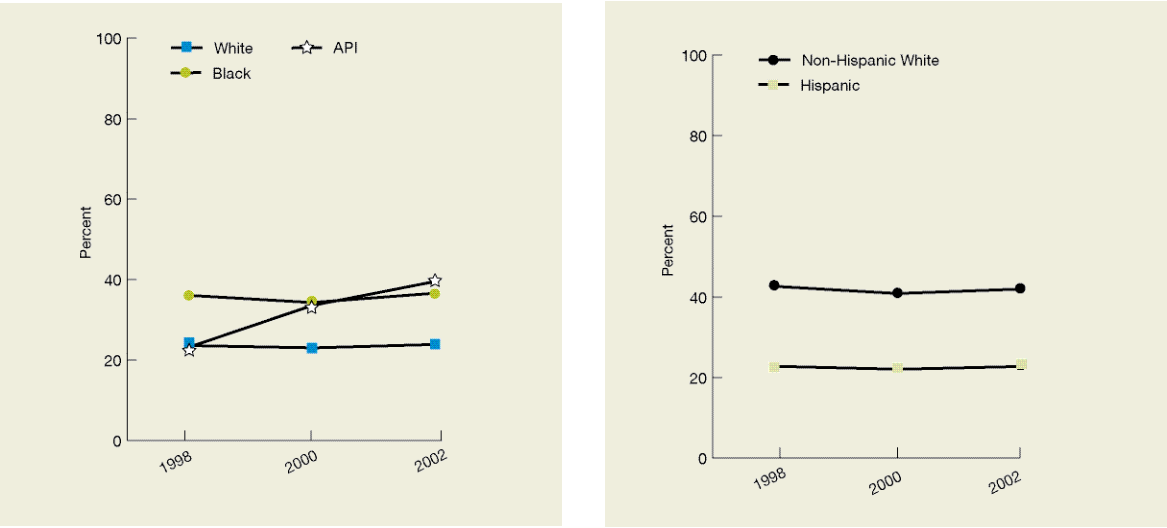
Note: Though these data were collected via the Medicare Current Beneficiary Survey, much of the dental care reported here is likely not connected to the Medicare program as Medicare generally does not cover dental services.

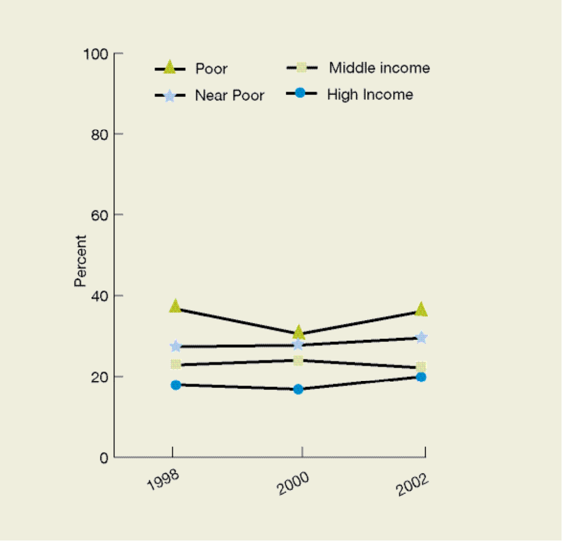
- In all 3 data years, the percentage of elderly Medicare beneficiaries receiving dental care was lower among Blacks compared with Whites; among Hispanics compared with non-Hispanic Whites; and among poor, near poor, and middle income beneficiaries compared with high income beneficiaries (Figure 4.36).
- In 1998, the percentage receiving dental care was also lower among elderly AI/AN and API Medicare beneficiaries compared with Whites, but the difference was not significant in other years.
- From 1998 to 2002, the percentage did not change significantly for any population group.
- In 2002, the Healthy People 2010 goal of 83% of Americans receiving dental care was not achieved by any population group.

Timeliness: Waiting 30 Minutes or More To See a Doctor

Timely delivery of appropriate care has been shown to improve health care outcomes and reduce health care costs. Timely receipt of care is an especially important component of high quality care for the elderly due to the often increased medical needs of this population.

Figure 4.37. Elderly Medicare beneficiaries who waited at least 30 minutes to see a doctor at their last visit by race (top left), ethnicity (top right), and income (bottom left), 1998, 2000, and 2002





Key: API=Asian or Pacific Islander.

Source: Medicare Current Beneficiary Survey, 1998, 2000, 2002.

Reference population: Medicare beneficiaries age 65 or older living in the community.

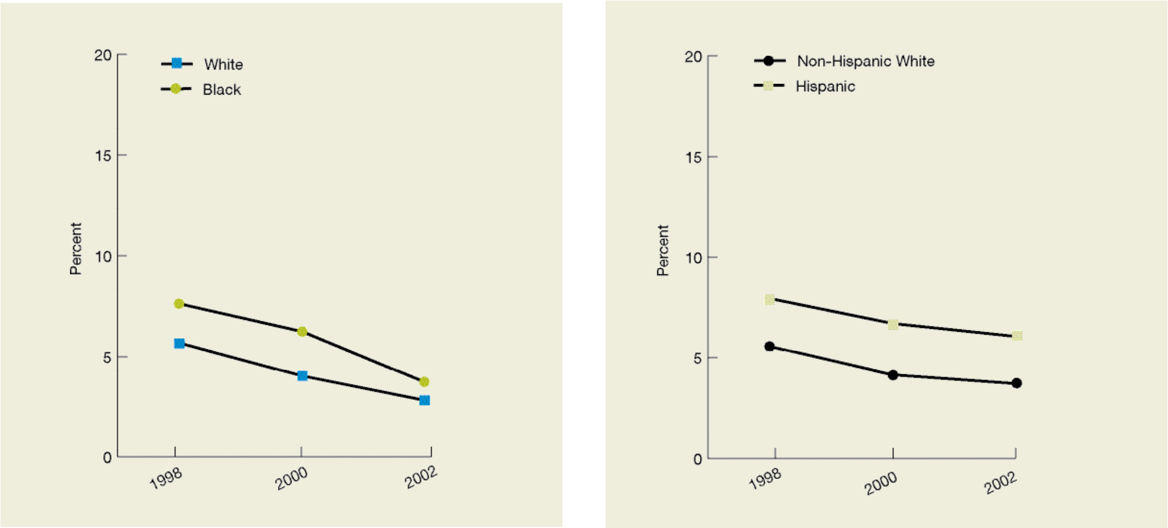
- In all 3 years, the percentage of elderly Medicare beneficiaries who waited at least 30 minutes to see a doctor at their last visit was higher among Blacks compared with Whites; among Hispanics compared with non-Hispanic Whites; and among poor and near poor beneficiaries compared with high income beneficiaries (Figure 4.37).
- In 1998 and 2000, the percentage was also higher among middle income beneficiaries compared with high income beneficiaries; in 2000 and 2002, the percentage was higher among APIs compared with Whites.
- From 1998 to 2002, the percentage of elderly Medicare beneficiaries who waited at least 30 minutes to see a doctor at their last visit rose significantly for APIs but did not change significantly for any other population.

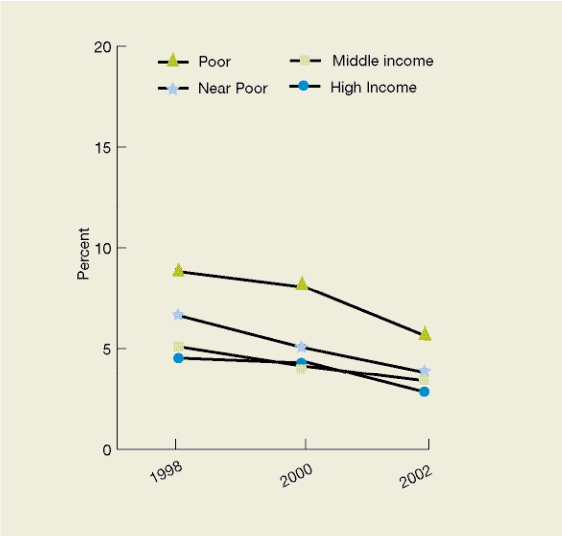
Access to Health Care

Usual Source of Care

Having a usual source of care promotes receipt of needed services. Previous NHDRs reported that the elderly are more likely than younger age groups to have a specific source of ongoing care, but racial, ethnic, and socioeconomic differences exist.

Figure 4.38. Elderly Medicare beneficiaries with no usual source of care by race (top left), ethnicity (top right), and income (bottom left), 1998, 2000, and 2002





Source: Medicare Current Beneficiary Survey, 1998, 2000, 2002.

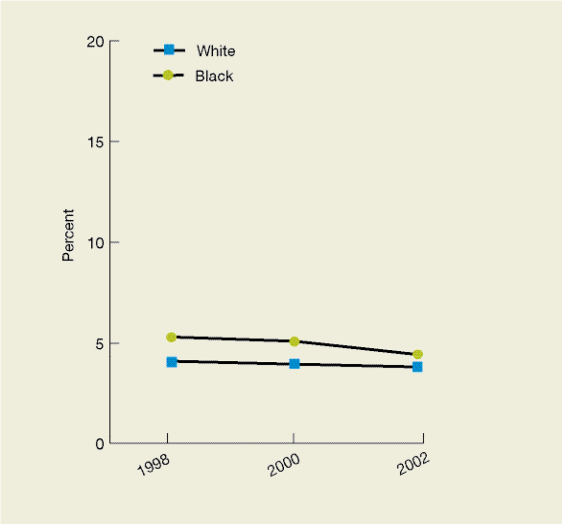
Reference population: Medicare beneficiaries age 65 or older living in the community.

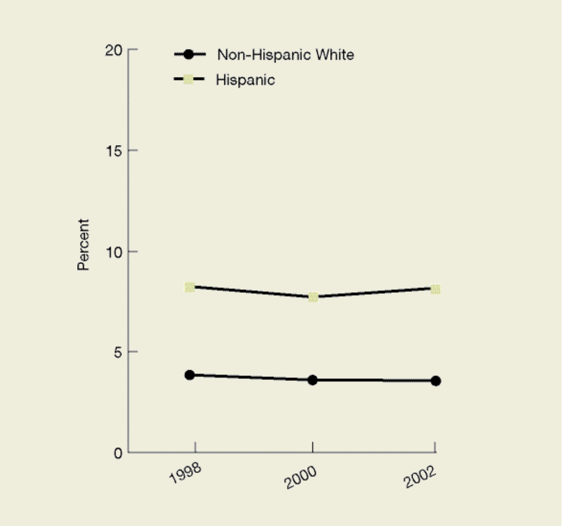
- In all 3 years, the percentage of elderly Medicare beneficiaries who did not have a usual source of care was higher among poor and near poor beneficiaries compared with high income beneficiaries (Figure 4.38).
- Between 1998 and 2002, report of a usual source of care improved among all racial, ethnic, and income groups except Hispanic beneficiaries.
- In 2002, the Healthy People 2010 goal of 96% of Americans with a source of care was achieved by White, non-Hispanic White, middle income, and high income elderly.

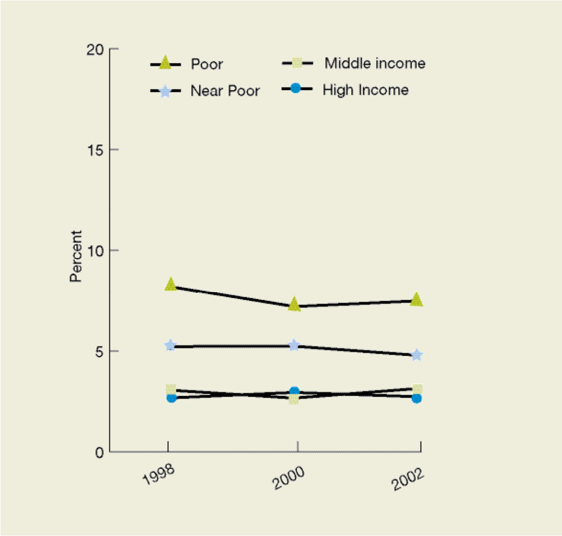
Problems Getting to the Doctor

The elderly more frequently than younger adults face difficulty using automobiles and public transportation and finding new locations. Therefore, getting to the doctor or other provider can pose a significant barrier to health care for the elderly.

Figure 4.39. Elderly Medicare beneficiaries with problems getting to the doctor from home by race (top left), ethnicity (top right), and income (bottom left), 1998, 2000, and 2002







Source: Medicare Current Beneficiary Survey, 1998, 2000, 2002.

Reference population: Medicare beneficiaries age 65 or older living in the community.

- In 1998 and 2002, Hispanics were more likely to have problems getting to the doctor compared with non-Hispanic Whites (Figure 4.39).
- In all 3 years, the proportion of elderly Medicare beneficiaries who reported problems getting to their doctor from home was higher among poor and near poor compared with high income beneficiaries.
- Between 1998 and 2002, problems getting to the doctor from home did not change significantly for any racial, ethnic, or income group.

Residents of Rural Areas

One in 5 Americans lives in a nonmetropolitan area. Compared with their urban counterparts, rural residents are more likely to be elderly, poor,[83] in fair or poor health, to have chronic conditions, and to die from heart disease.[83 84] Rural residents are less likely to receive recommended preventive services and report, on average, fewer visits to health care providers.[85] Rural minorities appear to be particularly disadvantaged, and differences are observed in cancer screening and management of cardiovascular disease and diabetes.[86 87]

Although 20% of Americans live in rural areas,[vii] only 9% of physicians in America practice in those settings.[88] Multiple programs help to deliver needed services in rural areas, such as the National Health Service Corps Scholarship Program, Indian Health Service, and community health centers. Non-physician providers also help to deliver care. However, many facilities upon which rural residents rely, such as small rural hospitals, have closed or are in financial distress.[89]

Transportation needs are also pronounced among rural residents, who face longer distances to reach health care delivery sites. Of the 940 "frontier counties,"[viii] most have limited health care services and 78 do not have any.[90 91]

Many measures of relevance to residents of rural areas are tracked in the NHDR. Findings presented here highlight five quality measures and one access measure of particular importance to residents of rural areas:

Component of health care need:	**Measure:**
Prevention	Counseling about physical activity
Treatment	Inpatient deaths from heart attack
Management	Hospital admissions for pediatric asthma
Maternity care	Obstetric trauma
Timeliness	Care for illness or injury as soon as wanted
Access to care	Health insurance

[vii] Many terms are used to refer to the continuum of geographic areas. For Census 2000, the Census Bureau's classification of "rural" consists of all territory, population, and housing units located outside of urban areas and urban clusters. The Census Bureau classified as "urban" all territory, population, and housing units located within a) core census block groups or blocks that have a population density of at least 1,000 people per square mile, and b) surrounding census blocks that have an overall density of at least 500 people per square mile.

[viii] "Frontier counties" have a population density of less than 7 persons per square mile; residents travel long distances for care.

As in the 2004 NHDR, detailed geographic typologies have been applied to two AHRQ databases to understand variations in health care quality and access for a range of rural and urban locations (see Table 4.1).

HCUP State Inpatient Databases. Data from the HCUP State Inpatient Databases use Federal definitions of micropolitan and noncore based statistical areas (not metropolitan or micropolitan areas) published in June 2003.[92] In addition, Urban Influence Codes are used to subdivide metropolian areas into large and small metropolitan areas. Urban-rural contrasts compare residents of small metropolitan, micropolitan, and noncore based statistical areas with residents of large metropolitan statistical areas.

Medical Expenditure Panel Survey. Data from MEPS also use Federal definitions. In addition, Urban Influence Codes are used to subdivide noncore based statistical areas. Urban-rural contrasts compare residents of small metropolitan, micropolitan, and noncore based statistical areas with residents of large metropolitan statistical areas.

Table 4.1. Urban-rural categories used in HCUP State Inpatient Databases and MEPS analyses

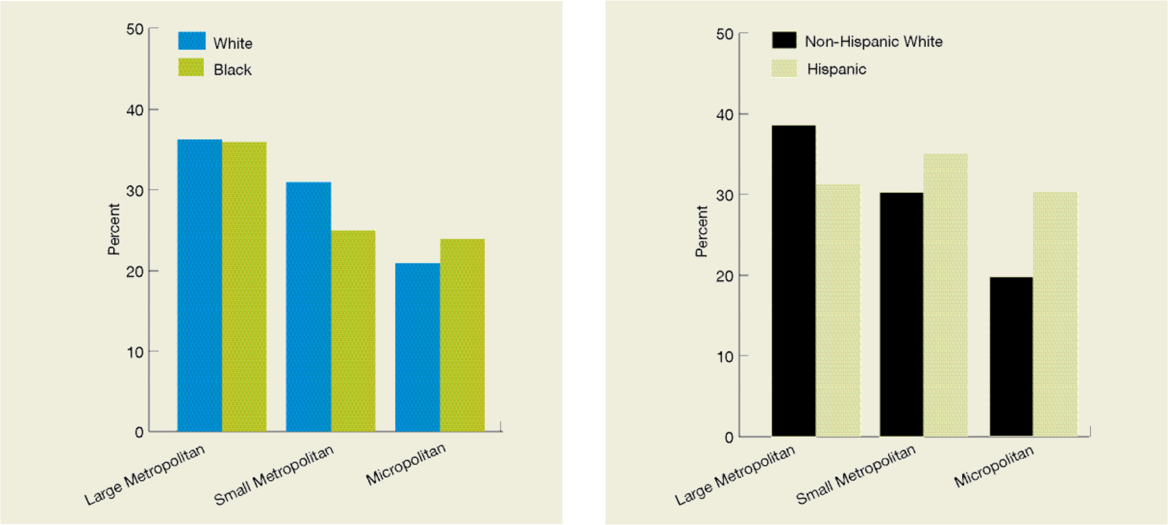
HCUP SID disparities analysis file, 2002: New Federal categories	Large metropolitan: Metropolitan (metro) area of 1 million or more inhabitants	Small metropolitan: Metropolitan (metro) area of less than 1 million inhabitants	Micropolitan statistical area (micro): Urban area of at least 10,000 but less than 50,000 inhabitants	Noncore based statistical area (noncore): Not metropolitan or micropolitan	
MEPS, 2002: Divides metro and noncore using Urban Influence Codes	Large metropolitan	Small metropolitan	Micropolitan	Noncore adjacent: Noncore adjacent to metro or micro	Noncore not adjacent: Noncore not adjacent to metro or micro

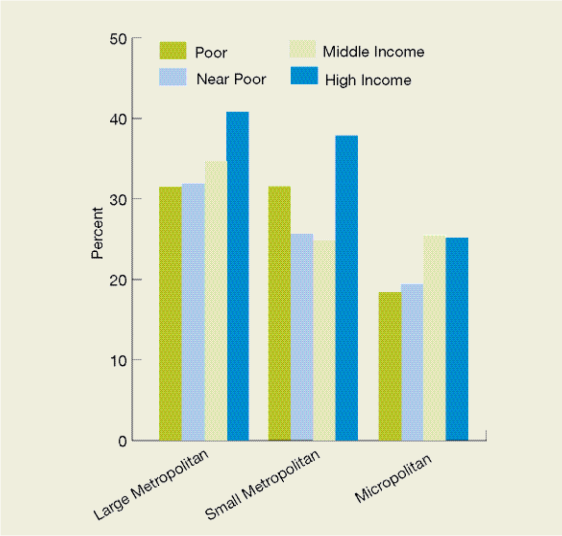
Quality of Health Care

Prevention: Counseling About Physical Activity

Counseling children about the amount and type of physical activity that is healthy is an effective way to reduce childhood obesity.

Figure 4.40. Children age 2-17 with advice about physical activity by race (top left), ethnicity (top right), and income (bottom left), 2002





Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population age 2-17.

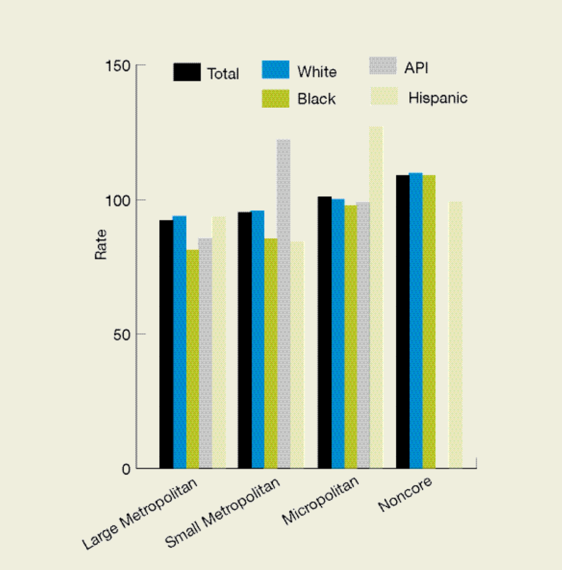
Note: Sample sizes were too small to provide estimates for residents of noncore areas. Large metropolitan=metropolitan areas >1 million inhabitants; small metropolitan=metropolitan areas <1 million inhabitants; micropolitan=urban area >10,000 and < 50,000 inhabitants.

- Across all geographic areas the proportion of children who received advice about physical activity was lower among persons from micropolitan (22.4%) and small metropolitan (29.4%) areas compared with persons from large metropolitan (35.6%) areas.
- The proportion of children who received advice about physical activity was lower among Blacks from small metropolitan areas compared with respective Whites; among Hispanics from large metropolitan areas compared with respective non-Hispanic Whites; and among poor, near poor, and middle income persons from large metropolitan areas and near poor and middle income persons from small metropolitan areas compared with respective high income persons (Figure 4.40).

Treatment: Inpatient Deaths From Heart Attack

Heart disease is the leading cause of death for both men and women in the United States, responsible for almost 700,000 deaths in 2002. About 1.2 million heart attacks occur each year. Data on inpatient hospital deaths for patients whose reason for admission is heart attack (acute myocardial infarction, or AMI) are presented. To distinguish the effects of race/ethnicity on the AMI inhospital mortality rate within urban and rural areas, racial/ethnic data are stratified by urban and rural location of patient residence.

Figure 4.41. Deaths per 1,000 adult admissions with heart attack as principal diagnosis by race/ethnicity, 2002



Key: API=Asian or Pacific Islander.

Source: HCUP State Inpatient Databases disparities analysis file, 2002.

Reference population: Adults age 18 and older hospitalized for heart attack in community hospitals.

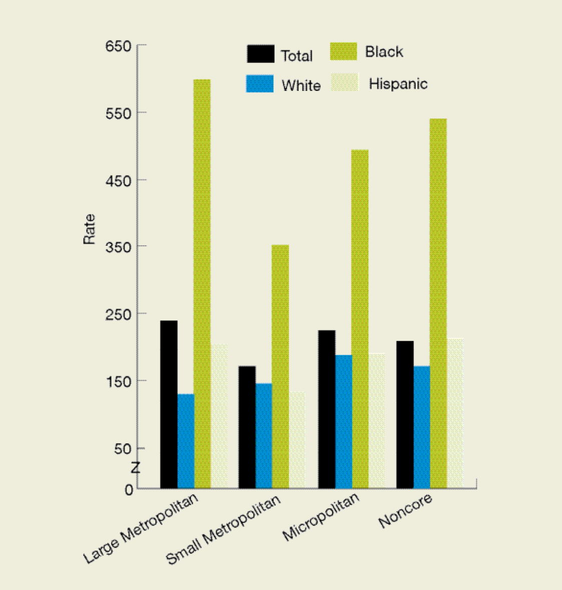
Note: White, Black, and API are non-Hispanic groups. Sample sizes were too small to provide estimates for API residents of noncore areas. Large metropolitan=metropolitan areas >1 million inhabitants; small metropolitan=metropolitan areas <1 million inhabitants; micropolitan=urban area >10,000 and < 50,000 inhabitants; noncore=not metropolitan or micropolitan.

- The overall AMI mortality rate was higher among persons from noncore and micropolitan areas compared with persons from large metropolitan areas (Figure 4.41).
- Within type of urban and rural areas, the rate of AMI mortality is lower among Blacks from large metropolitan areas and higher among APIs from from small metropolitan areas compared with respective Whites.

Management: Hospital Admissions for Pediatric Asthma

Asthma affects about 15 million persons nationally; in 2002, asthma and chronic obstructive pulmonary disease, or COPD (another lower respiratory disease), were the fourth leading cause of death[93] in the Nation. A disproportionate number of children have asthma.[75 76] To distinguish the effects of race/ethnicity on pediatric asthma admissions within urban and rural areas, racial/ethnic data are stratified by urban and rural location.

Figure 4.42. Pediatric asthma admissions per 100,000 population by race/ethnicity, 2002



Source: HCUP State Inpatient Databases disparities analysis file, 2002.

Reference population: Children age 0 to 17.

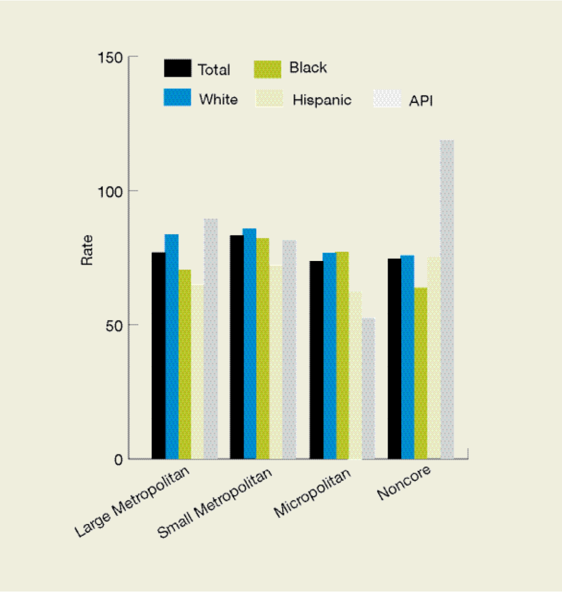
Note: Large metropolitan=metropolitan areas >1 million inhabitants; small metropolitan=metropolitan areas <1 million inhabitants; micropolitan=urban area >10,000 and < 50,000 inhabitants; noncore=not metropolitan or micropolitan.

- The overall rate of pediatric asthma admissions was lower among persons from small metropolitan areas compared with persons from large metropolitan areas (Figure 4.42).
- The rate of pediatric asthma admissions was higher among Blacks in all areas compared with respective Whites and among Hispanics from large metropolitan areas compared with respective Whites.

Maternity Care: Obstetric Trauma

Childbirth and reproductive care are the most common reasons for women of childbearing age to use health care; and with more than 11,000 births each day in the United States, childbirth is the most common reason for hospital admission.[51] Given that birth outcomes may have lifetime effects, good maternity care and avoidance of complications such as obstetric trauma has the potential to affect the future health and health care needs of the Nation.[52 53] To distinguish the effects of race/ethnicity on the rate of obstetric trauma within urban and rural areas, racial/ethnic data are stratified by urban and rural location.

Figure 4.43. Obstetric trauma with 4th degree lacerations or other obstetric lacerations per 1,000 vaginal deliveries without instrument assistance by race/ethnicity, 2002



Key: API=Asian or Pacific Islander.

Source: HCUP State Inpatient Databases disparities analysis file, 2002.

Reference population: Community hospital admissions with vaginal deliveries without instrument assistance.

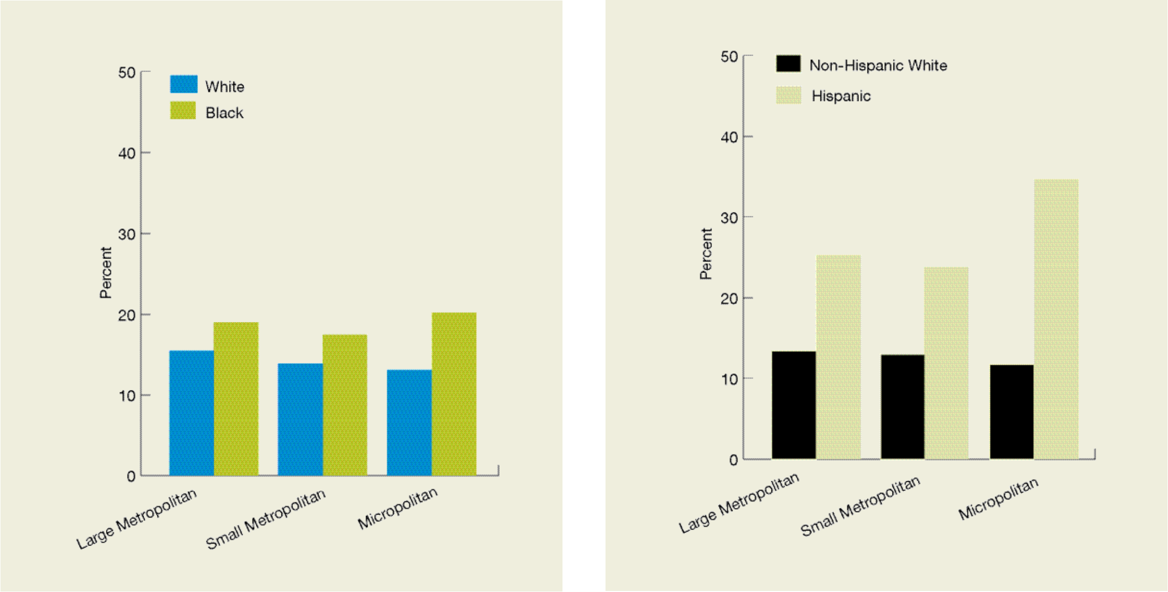
Note: White, Black, and API are non-Hispanic groups. Large metropolitan=metropolitan areas >1 million inhabitants; small metropolitan=metropolitan areas <1 million inhabitants; micropolitan=urban area >10,000 and < 50,000 inhabitants; noncore=not metropolitan or micropolitan.

- The overall rate of obstetric trauma did not differ significantly among patients from small metropolitan, micropolitan, or noncore statistical areas compared with patients from large metropolitan areas (Figure 4.43).
- Within urban and rural areas, the rate of obstetric trauma was lower among Blacks and Hispanics from large metropolitan areas, Hispanics and APIs from micropolitan areas, and Hispanics from small metropolitan areas compared with respective Whites.

Timeliness: Care for Illness or Injury as Soon as Wanted

Timely delivery of appropriate care has been shown to improve health care outcomes and reduce health care costs. Furthermore, when patients need or want care, having access to that care improves their health care experience, which may further promote health.

Figure 4.44. Adults who sometimes or never get care for illness or injury as soon as wanted by race (top) and ethnicity (bottom), 2002



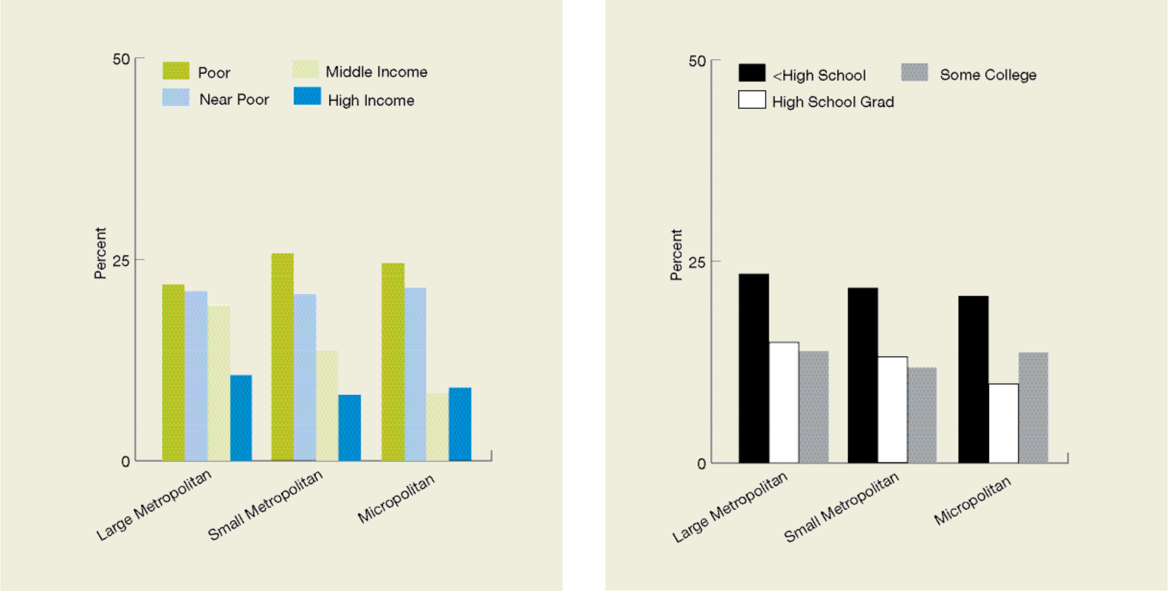
Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population.

Note: Sample sizes were too small to provide estimates for residents of noncore areas. Large metropolitan=metropolitan areas >1 million inhabitants; small metropolitan=metropolitan areas <1 million inhabitants; micropolitan=urban area >10,000 and < 50,000 inhabitants.

- Across all geographic areas the proportion of persons who sometimes or never get care for illness or injury as soon as wanted did not differ significantly among patients from small metropolitan (14.6%) or micropolitan (14.2%) areas compared with patients from large metropolitan (16.2%) areas.
- Across the total U.S. population, Blacks more often than Whites and Hispanics more often than non-Hispanic Whites reported that they sometimes or never got care for illness or injury as soon as they wanted. However, within urban and rural areas, the disparity between Blacks and Whites was not significant, while the disparity between Hispanics and non-Hispanic Whites persisted for all urban and rural areas (Figure 4.44).

Figure 4.45. Adults who sometimes or never get care for illness or injury as soon as wanted by income (left) and education (right), 2002



Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population.

Note: Sample sizes were too small to provide estimates for residents of noncore areas. Large metropolitan=metropolitan areas >1 million inhabitants; small metropolitan=metropolitan areas <1 million inhabitants; micropolitan=urban area >10,000 and < 50,000 inhabitants.

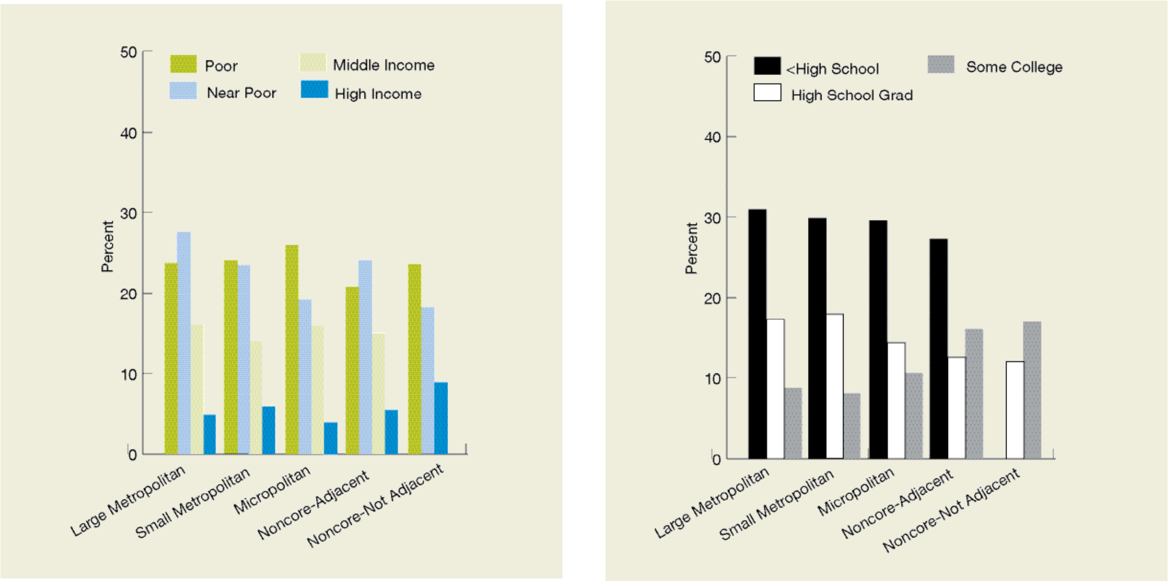
- Across all geographic areas the proportion of persons who sometimes or never get care for illness or injury as soon as wanted did not differ significantly among patients from small metropolitan (14.6%) or micropolitan (14.2%) areas compared with patients from large metropolitan (16.2%) areas.
- Across the total U.S. population, poor, near poor, and middle income persons more often than high income persons and persons with less than a high school education more often than persons with at least some college reported that they sometimes or never got care for illness or injury as soon as they wanted (Figure 4.45).
- Within urban and rural areas, disparities persisted for poor and near poor persons and persons with less than a high school education from every urban and rural area.
- Middle income persons from large and small metropolitan areas also reported that they sometimes or never got care as soon as wanted more often than respective high income persons, but a significant difference was not observed for middle income persons from micropolitan areas.

Access to Health Care

Health Insurance

Access to health care is a prerequisite to receipt of care, yet many Americans still face barriers to care. Health insurance facilitates access to health care, lack of which can have serious repercussions on health: the uninsured are more likely to have poor health status[54 55] and to die early.[56-58] They report more problems getting care,[59-58] are diagnosed at later disease stages, and get less therapeutic care.[59 61] Data for prolonged periods of uninsurance are presented. To distinguish the effects of socioeconomic status on uninsurance within urban and rural areas, income and education level data are stratified by urban and rural loacation.

Figure 4.46. Persons under age 65 uninsured all year by income (left) and education level (right), 2002



Source: Medical Expenditure Panel Survey, 2002.

Reference population: Civilian noninstitutionalized population.

Note: Sample sizes were too small to provide estimates for residents of noncore not adjacent areas with high incomes or less than a high school education. Large metropolitan=metropolitan areas >1 million inhabitants; small metropolitan=metropolitan areas <1 million inhabitants; micropolitan=urban area >10,000 and < 50,000 inhabitants; noncore adjacent=not metropolitan or micropolitan, and adjacent to metropolitan or micropolitan; noncore not adjacent=not metropolitan or micropolitan, and not adjacent to metropolitan or micropolitan.

- Across all geographic areas the proportion of persons under age 65 uninsured all year did not differ significantly among patients from small metropolitan (13.3%), micropolitan (13.5%), noncore adjacent (15.4%), or noncore not adjacent (13.6%) areas compared with patients from large metropolitan (13.3%) areas.
- Across the total U.S. population the percentage of uninsured was higher among poor, near poor, and middle income persons compared with high income persons and among persons with a high school education or less compared with persons with at least some college.
- Within urban and rural areas, poor, near poor, and middle income persons were more likely than high income persons to be uninsured. Similarly, the percentage of uninsured was higher for persons with less than a high school education from every urban and rural area, and for persons with a high school education from large and small metropolitan areas compared with respective groups with at least some college (Figure 4.46).

Individuals With Special Health Care Needs

Individuals with special health care needs include individuals with disabilities, individuals who utilize nursing home and home health care or end-of-life health care, and children with special heath care needs (CSHCN).

Many measures of relevance to individuals with special health care needs are tracked in the NHDR. In the 2003 NHDR, a small amount of information about each population with special health care needs was presented. In the 2004 NHDR, disparities in health care for CSHCN were highlighted. This year, data on quality and access are presented for younger and elderly Medicare beneficiaries with disabilities and for CSHCN, as follows:

Elderly Medicare Beneficiaries With Disabilities

Component of health care need:	**Measure:**
Prevention	Receipt of influenza vaccination
Access to care	Problems getting to the doctor

Younger Medicare Beneficiaries With Disabilities

Component of health care need:	**Measure:**
Prevention	Receipt of pneumonia vaccination
Access to care	Delays in care due to cost

Children With Special Health Care Needs

Component of health care need:	**Measure:**
Timeliness	Care for illness or injury as soon as wanted
Patient centeredness	Patient experience of care

Additionally, findings for persons who utilize nursing home care are presented in the section on nursing home and home health care in Chapter 2, Quality of Health Care. Previous NHDR data sources for home health and end-of-life care were not available this year, but it is anticipated that data from the redesigned National Nursing Home Survey will be available for the 2006 NHDR.

Elderly Medicare Beneficiaries With Disabilities

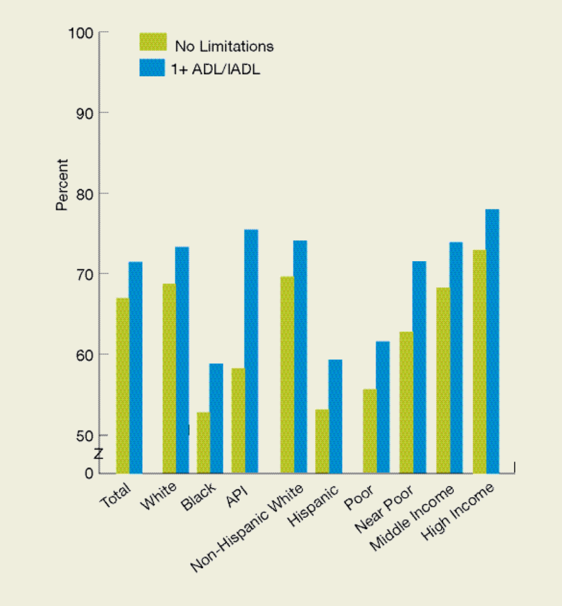
Several ways of defining and measuring disability exist. Two of the more common approaches are to identify functional activity limitations or to identify those meeting the eligibility criteria for a program that addresses disability, such as Social Security Disability Insurance (SSDI). A particular challenge in reporting on racial, ethnic, and socioeconomic differences related to disability is that many data collections do not capture disability and, when collected, do not have adequate sample sizes to examine racial, ethnic, and socioeconomic differences. This section uses data from the Medicare Current Beneficiary Survey to examine disparities in quality and access faced by Medicare beneficiaries age 65 and over who report problems with activities of daily living (ADLs) or instrumental activities of daily living (IADLs). About 42% of elderly Medicare beneficiaries, or 14 million people, have one or more limitations.

Analyses of trends in disability and functioning among older adults indicate improvements in the last decade, with the prevalence of disability declining during the 1990s. However, there are considerable gaps in availability of measures and understanding of trends in differences across major racial and ethnic groups with respect to functional limitations in the elderly population.[94]

Prevention: Receipt of Influenza Vaccination

The 2003 NHDR reported that among elderly with disabilities, the percentage reporting problems with quality of care was higher among APIs compared with Whites and among persons living in poor households compared with those living in high income households. This year the NHDR reports on the annual receipt of a flu shot (influenza vaccination). This is an important component of high quality care for elderly people with disabilities, as this boosts the immune system and reduces the likelihood of flu-related health complications.

Figure 4.47. Elderly Medicare beneficiaries with influenza vaccination in the last year by functional status, 2002



Key: API=Asian or Pacific Islander; ADL=activity of daily living; IADL= instrumental activity of daily living.

Source: Medicare Current Beneficiary Survey, 2002.

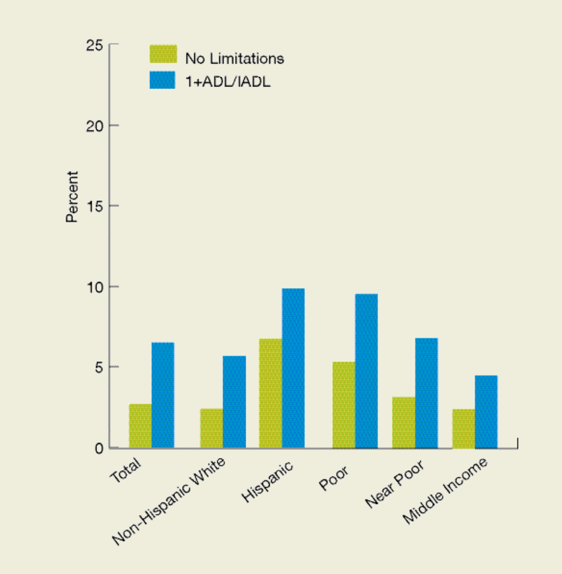
Reference population: Medicare beneficiaries age 65 or older living in the community.

- The percentage of elderly Medicare beneficiaries with a flu shot in the last year was higher among APIs with functional limitations compared with those without limitations and among near poor beneficiaries with functional limitations compared with those without limitations (Figurer 4.47).
- Among beneficiaries with functional limitations, the percentage with a flu shot was lower among Blacks compared with Whites; among Hispanics compared with non-Hispanic Whites; and among poor beneficiaries compared with high income beneficiaries.
- Among beneficiaries without limitations, the percentage with a flu shot was lower among APIs compared with Whites. No other significant differences were observed.
- In 2002, the Healthy People 2010 goal of 90% of Americans age 65 and over with a flu shot in the last year was not achieved by any population.

Access to Care: Problems Getting to the Doctor

The 2003 NHDR reported that the elderly were less likely than younger age groups to report difficulties or delays in obtaining health care, and to report not receiving routine care or care for illness or injury as soon as they wanted. Racial, ethnic, and socioeconomic differences in barriers to care were also observed. Difficulty with transportation is one such barrier to health care.

Figure 4.48. Elderly Medicare beneficiaries with problems getting to the doctor from home by ethnicity and income, stratified by functional status, 2002



Key: ADL=activity of daily living; IADL=instrumental activity of daily living.

Source: Medicare Current Beneficiary Survey, 2002.

Reference population: Medicare beneficiaries age 65 or older living in the community.

- Overall, elderly Medicare beneficiaries with one or more limitations were more likely to report problems getting to the doctor from home compared with those who had no limitations (Figure 4.48).
- Among beneficiaries with one or more limitations, problems were more likely to be reported by Hispanics compared with non-Hispanic Whites and by the poor compared with middle income beneficiaries.
- The same ethnic and income-related differences were observed among beneficiaries with no limitations.

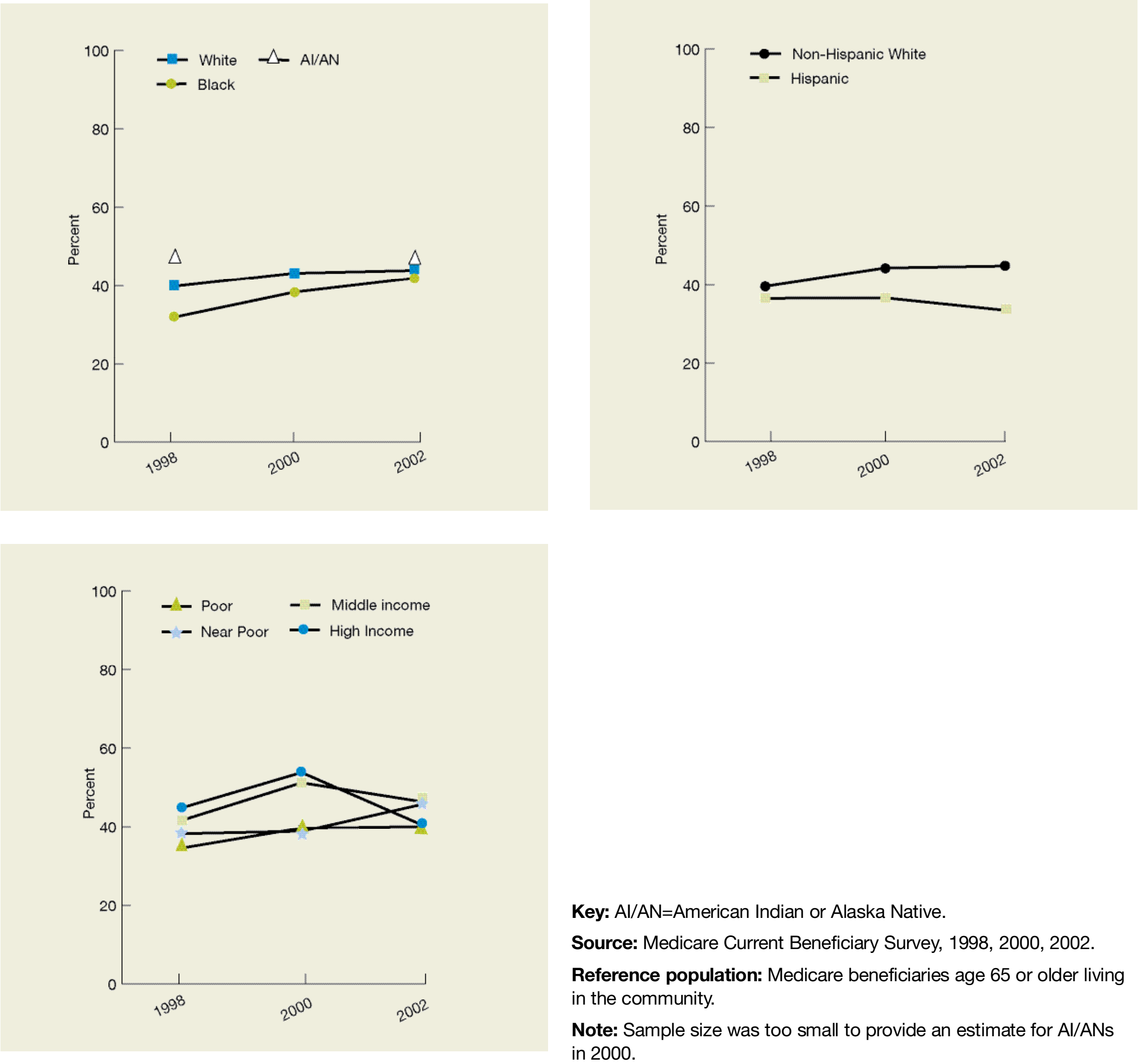
Younger Medicare Beneficiaries With Disabilities

About 5.6 million beneficiaries under age 65 qualified for Medicare in 2001, and that number is expected to grow to more than 9 million by 2020.[95] This section uses data from the Medicare Current Beneficiary Survey to examine disparities faced by Medicare beneficiaries under age 65, most of whom qualify for Medicare on the basis of SSDI disability.

Prevention: Receipt of Pneumonia Vaccination

For younger individuals with disabilities, receipt of a pneumonia vaccination can bring lifelong benefits by preventing pneumonia-related health complications.

Figure 4.49. Medicare beneficiaries with disabilities under age 65 vaccinated for pneumonia by race (top left), ethnicity (top right), and income (bottom left), 1998, 2000, and 2002



Key: AI/AN=American Indian or Alaska Native.

Source: Medicare Current Beneficiary Survey, 1998, 2000, 2002.

Reference population: Medicare beneficiaries age 65 or older living in the community.

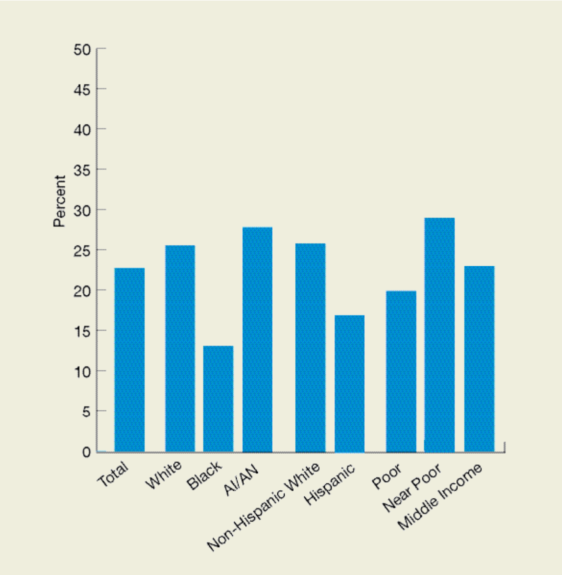
Note: Sample size was too small to provide an estimate for AI/ANs in 2000.

- Disparities among younger Medicare beneficiaries with disabilities vaccinated for pneumonia are somewhat complex. In 2002, the percentage of younger Medicare beneficiaries with disabilities vaccinated for pneumonia was lower among Hispanics compared with non-Hispanic Whites (Figure 4.49).
- In 1998 and 2000, the percentage was lower among poor beneficiaries compared with high income beneficiaries, and in 2000 the percentage was also lower among near poor beneficiaries compared with high income beneficiaries.
- Significant differences were not observed for any other population.
- From 1998 to 2002, the percentage of younger Medicare beneficiaries with disabilities vaccinated for pneumonia increased for Blacks, non-Hispanic Whites, and poor and near poor beneficiaries. The percentage did not change significantly for any other group.

Access to Care: Delays in Care Due to Cost

Delaying health care can lead to diagnosis at more advanced disease stage and reduce opportunities for optimal treatment.

Figure 4.50. Medicare beneficiaries under age 65 who delayed care due to cost, by race, ethnicity and income, 2002



Key: AI/AN= American Indian or Alaska Native.

Source: Medicare Current Beneficiary Survey, 2002.

Reference population: Medicare beneficiaries under age 65 living in the community.

- In 2002, almost a quarter of Medicare beneficiaries under age 65 reported delaying care due to cost (Figure 4.50).
- The proportion of Medicare beneficiaries under age 65 who delayed care due to cost was lower among Blacks compared with Whites and among Hispanics compared with non-Hispanic Whites. Income-related differences were not significant.

Children With Special Health Care Needs

Studying access to and quality of care for children with chronic conditions is difficult due to the low prevalence of most conditions in children.[96-98] From 12% to 23% of children have been identified as having a special health care need[99-102]—a chronic condition with a functional limitation or other consequence.[97] Among the most highly prevalent chronic conditions of childhood in 2002 were asthma (12% of children age 0-17), respiratory allergies (12%), learning disabilities (8% of children age 3-17), and attention-deficit hyperactivity disorder (7% of children age 3-17).[103]

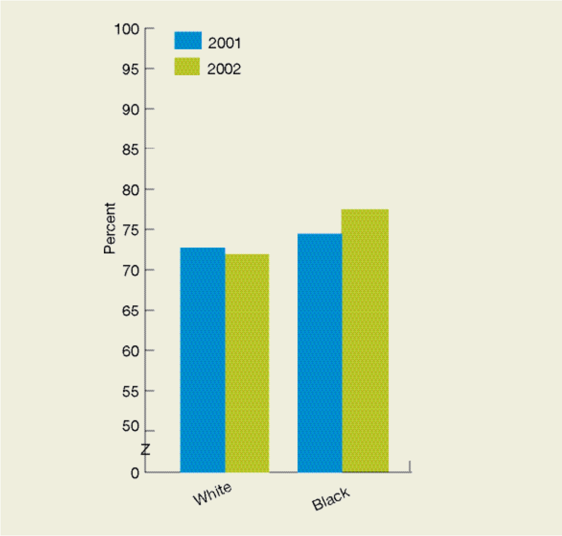
By definition, children with special health care needs are children who require more medical care because they are less healthy. As a result of requiring more medical care, CSHCN have higher medical expenses, on average, than other children.[97 99 104 105] For more than 1 in 5 CSHCN, costs of care caused financial problems for their families.[102 106] In addition to financial burdens, families of CSHCN spend considerable time caring for them. An estimated 13.5% of CSHCN had families who spent 11 or more hours per week providing or coordinating care.[102 106]

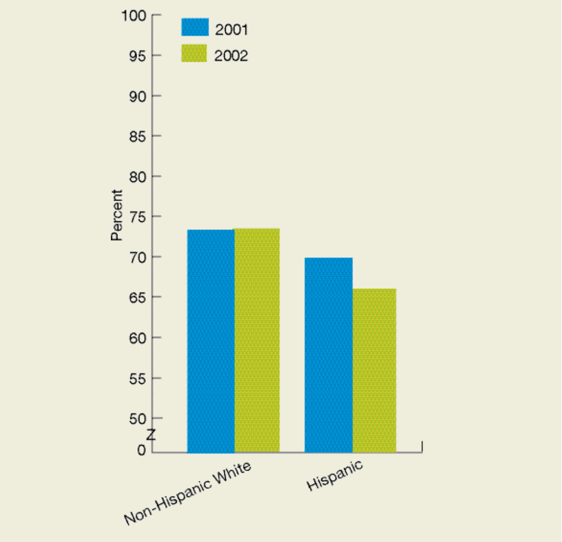
Having higher health care needs makes CSHCN susceptible to access, cost, quality, and coverage weaknesses in the health care system. Studies have documented that poor and racial and ethnic minority children with chronic conditions may experience lower quality care.[107-109] Children with chronic conditions are reported by their parents to be less likely than other children to receive the full range of needed health services.[110] Among CSHCN, minorities are more likely than White children to be without health insurance coverage or a usual source of care.[111]

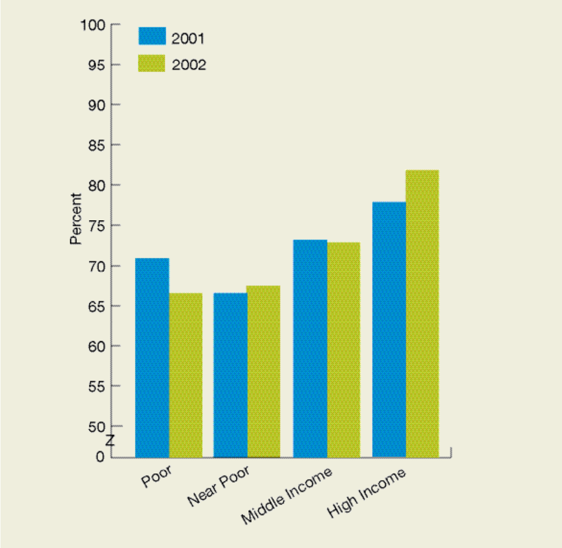
Timeliness: Care for Illness or Injury as Soon as Wanted

Timely delivery of appropriate care has been shown to improve health care outcomes and reduce health care costs, which may be particularly important for CSHCN.

Figure 4.51. Among children with special health care needs who need care right away, those who can always get care for illness or injury as soon as wanted, by race (top left), ethnicity (top right), and family income (bottom left), 2001-2002







Source: Medical Expenditure Panel Survey, 2001-2002.

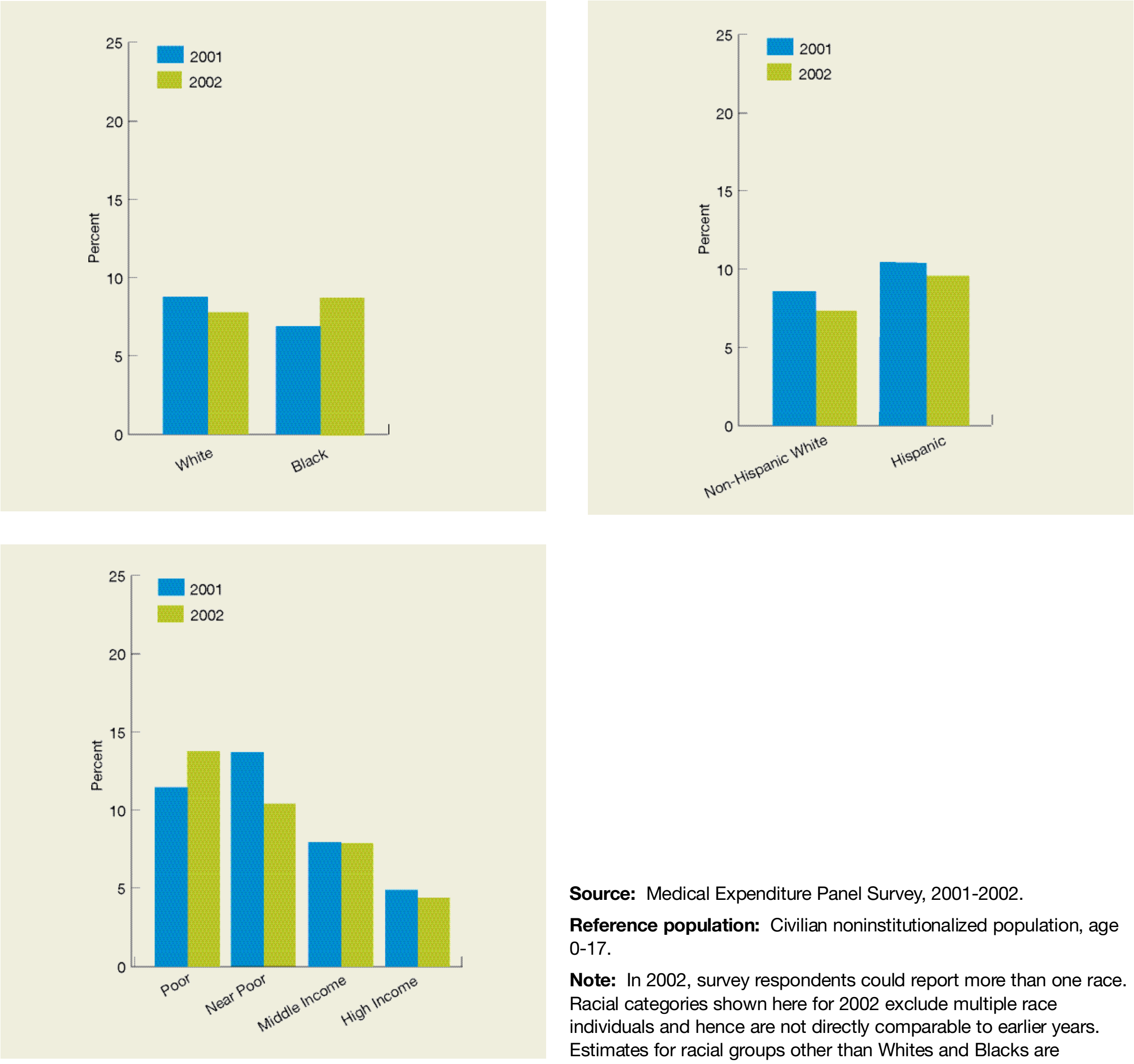
Reference population: Civilian noninstitutionalized population, age 0-17.

- In both years, the proportion of children who could always get care for illness or injury as soon as wanted was lower among children with special health care needs (72.9% in 2001 and 72.7% in 2002) compared with children without special needs (78.7% in 2001 and 79.5% in 2002).
- In 2002, the proportion of children with special health care needs who could always get care for illness or injury as soon as wanted was lower among poor and near poor children compared with high income children (Figure 4.51). Racial and ethnic differences were not significant.
- From 2001 to 2002, the proportion of children with special health care needs who could always get care for illness or injury as soon as wanted did not change significantly for any racial, ethnic, or income group.

Patient Centeredness: Patient Experience of Care

Patient centered health care requires good communication to ensure that a patient's needs and preferences are best met. For CSHCN, good communication with the child's parent/guardian is especially important to ensure their more complex and greater health care needs are optimally addressed.

Figure 4.52. Children with special health care needs whose parents/guardians reported that their child's health providers sometimes or never listened carefully, explained things clearly, respected what they had to say, and spent enough time with them, by race (top left), ethnicity (top right), and family income (bottom left), 2001-2002



Source: Medical Expenditure Panel Survey, 2001-2002.

Reference population: Civilian noninstitutionalized population, age 0-17.

Note: In 2002, survey respondents could report more than one race. Racial categories shown here for 2002 exclude multiple race individuals and hence are not directly comparable to earlier years. Estimates for racial groups other than Whites and Blacks are significantly affected by this change and are not shown here.

- In both years, parents/guardians of children with special health care needs were more likely to report that their child's health providers sometimes or never listened carefully, explained things clearly, respected what they had to say, and spent enough time with them (8.5% in 2001 and 8.2% in 2002) compared with parents of children without special health care needs (6.4% in 2001 and 6.3% in 2002).
- Among children with special health care needs those in poor and near poor families were more likely to report communication problems compared with those in high income families in both years (Figure 4.52).
- From 2001 to 2002, the proportion of children with special health care needs whose parents/guardians reported that their child's health providers sometimes or never listened carefully, explained things clearly, respected what they had to say, and spent enough time with them did not change significantly or for any racial, ethnic, or income group.

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