DEVELOPING A HEALTH PLAN REPORT CARD ON QUALITY OF CARE FOR MINORITY POPULATIONS

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FIELD REPORT

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EXECUTIVE SUMMARY

In the last decade, the medical literature has documented the widespread phenomenon of poorer health status among minority racial and ethnic groups in the United States.[1] Similarly, a large and growing literature also documents disparities in access to and quality of health care among racial and ethnic groups, with minorities generally faring worse than majority groups.[2] Many studies identify lack of insurance coverage as a major barrier to getting good care,[3] but racial and ethnic disparities persist among insured individuals with the same health care coverage.

In 1998, the Minority Health Report Card Project, a collaborative effort of Michigan State University, Henry Ford Health System, Lovelace Clinic Foundation, the University of Texas School of Public Health, and eight health plans, was created with the support of The Commonwealth Fund to assess racial and ethnic disparities in care among health plans. Understanding that legal and practical concerns lead few, if any, health plans to collect data on their members' race and ethnicity, the project sought to determine:

- whether health plans could collect information on the race and ethnicity of their members from existing standardized measures of health care quality, along with a few specially developed tools; and
- whether these data could be used to create a report card on the quality of care delivered to different racial and ethnic groups.

A careful review of federal policies and regulations on collection of data on race and ethnicity by health care insurers or providers concluded that no regulatory or policy barriers exist at the federal level.[4] A similar review of state policies concluded that only four states (California, Maryland, New Hampshire, and New Jersey) have laws or regulations barring health plans from collecting this information.[5]

Phase I (1998–2000): Development of Report Card and Pilot Testing for Data Collection

Phase I of the project consisted of soliciting opinions from leaders of African American, Hispanic, and Native Hawaiian, Asian, and Pacific Islander communities, along with a panel of technical experts, on the kinds of data that should be collected, how it should be analyzed, and how a report card could best be formatted. The advisory groups identified four basic components of a quality of care report card for health plans:

- Health Plan Employer Data and Information Set (HEDIS) Effectiveness of Care measures

- Consumer Assessment of Health Plans Survey (CAHPS) of health plan members' experiences with care
- surveys of patients with asthma, diabetes, or newly diagnosed prostate cancer (to develop measures of adequacy of information, patient involvement in decision-making, respect for patients' preferences and values, and other aspects of provider–patient communication)
- health plan survey of cultural and linguistic competence

Phase II (2000–2002): Demonstration Project

When the demonstration project began, none of the eight health plans was routinely collecting data on the race and ethnicity of their members. Thus, each plan identified one or more methods of obtaining data from various sources, including:

- purchasers (such as state Medicaid program enrollment files)
- self-report items in surveys (for example, CAHPS)
- medical records or automated encounter records in contracting provider organizations
- surname-recognition software for Hispanic plan members
- geo-coding, or inferring characteristics of individuals based on where they live (no plans actually used this option)

Results

All eight health plans obtained data on the race and ethnicity of their members, although two experienced problems linking the data to quality measurement processes and producing reports. One plan obtained data on race and ethnicity from its state Medicaid program but could not incorporate it into the vendor-supplied software used to calculate HEDIS rates. Another plan obtained detailed data on race and ethnicity from a member survey but could not link it to the data sets used to generate HEDIS rates. Otherwise, data collection and analysis went smoothly.

Plans that conducted HEDIS analyses for racial and ethnic groups frequently found evidence of disparities in quality. In 52 percent of the possible comparisons within individual plans (77 of 148), there were disparities across groups of five percentage points or more on specific HEDIS measures, or statistically significant differences of smaller absolute magnitude. Following are some notable findings from individual health plans:

- African Americans enrollees in one plan had lower rates than Caucasian enrollees of hemoglobin A1c testing for monitoring their diabetes for the years 1998, 1999, and 2000.

- One Hawaii-based health plan found that Filipinos and Native Hawaiians had significantly lower rates of breast cancer screening than Caucasians (72% and 75% vs. 81%, respectively). The rates for cervical cancer screening were 83 percent for both Filipinos and Hawaiians and 87 percent for Caucasians.
- In one health plan in 2000, only 20 percent of African American children with asthma received appropriate follow-up care after an acute episode, compared with 40 percent for Caucasian children.

Some disparities in HEDIS measures reflected higher quality of care for members of minority groups. This unexpected finding may reflect the fact that the health plans in the project were a special set of volunteer plans serving relatively large minority populations that had an ongoing interest in improving quality of care for those populations.

There were small disparities within individual plans for several comparisons for CAHPS composite scores. While some comparisons showed consistent differences between African American and Caucasian respondents, most disparities were mixed, with minority and majority groups alternately reporting higher ratings. For comparisons involving Hispanics and non-Hispanics, the differences were consistently in the direction of higher ratings by Hispanic respondents. For example, Hispanics gave higher ratings than non-Hispanics for the following measures of quality: ability to get needed care, doctor's communication skills, helpfulness and courteousness of staff, and customer service.

Three new survey instruments were created and administered to assess quality of clinical care for patients with diabetes or prostate cancer and children with asthma. In general, plans that administered the asthma, diabetes, or prostate cancer surveys were able to:

- identify appropriate target populations and draw samples
- obtain physician consent and administer surveys
- analyze data to identify possible areas of disparity by race/ethnicity

Relatively small sample sizes made definitive statistical tests impossible, but trends were observed that can be pursued in future studies. Following are some examples of the findings:

- More Hispanics than non-Hispanics with diabetes in one health plan said that their doctors discussed the complications of diabetes with them during all visits (58% vs. 35%).
- In one health plan, fewer African Americans than Caucasians who had recently been diagnosed with prostate cancer felt that their doctors and nurses treated them with respect and dignity and that they received enough information about possible changes in their emotions.

Four health plans completed the cultural and linguistic competence survey. While they were able to obtain data on many of the key elements of cultural and linguistic competence, the small sample size of plans surveyed precluded analysis of patterns of responses across plans.

Conclusions

This demonstration project found that health plans *can* obtain data on the race and ethnicity of their members using standard measures of health care quality, along with specially designed questionnaires that could be employed by many other health plans. The project further found that these data could be used to identify quality of care for and disparities among racial and ethnic groups.

At the individual plan level, there were statistically significant differences among racial and ethnic groups on many individual measures and virtually all classes of measures. The patterns did not always point to lower quality of care for minority groups, however. On some measures, particularly in Medicaid plans, members of minority groups had higher quality of care scores than did non-minority members.

Recommendations

- Regardless of differences in quality across groups, no standard exists to indicate what degree of difference should warrant concern. More work needs to be done to determine how great a difference there should be before focused attention and action is warranted.
- This project was not designed to identify or test methods of reducing disparities and improving quality of care in general. Such an effort will require the concerted efforts of researchers and institutions throughout the health care system.
- This project recommends that all health plans, whether managed care or indemnity, be required to collect data on the race and ethnicity of their members as part of accreditation by the National Committee for Quality Assurance (NCQA) or the Joint Commission on Accreditation of Healthcare Organizations, or as a condition of receiving federal funds. This data should be obtained from plan members directly. Data should be used for external reporting and internal quality improvement purposes; it should never be used in a way that would adversely affect access to care or quality of care for any individual.
- Public and private purchasers, acting individually or collectively, should encourage health plans to routinely conduct these analyses and use the results to improve quality and reduce disparities among racial and ethnic groups.

DEVELOPING A HEALTH PLAN REPORT CARD ON QUALITY OF CARE FOR MINORITY POPULATIONS

INTRODUCTION

In the last decade, the medical literature has documented the widespread phenomenon of poorer health status among minority racial and ethnic groups in the United States.[6] Similarly, a large and growing literature also documents disparities in access to and quality of health care among racial and ethnic groups, with minorities generally faring worse than majority groups.[7]

Many studies identify lack of insurance coverage as a major barrier to getting good care,[8] but racial and ethnic disparities persist among insured individuals with the same health care coverage. For example, recently published studies indicate that:

- African American patients with diabetes covered by Medicare had fewer physician office visits and more emergency room visits than their white counterparts. They were less likely to have blood sugar level tests, eye exams, and flu shots than their white counterparts.[9]
- Racial and ethnic minorities in Los Angeles received fewer coronary artery bypass grafts, percutaneous transluminal coronary angioplasties (PTCAs), and cardiac catheterizations than whites, and these disparities persisted among individuals with all types of insurance except private insurance.[10]
- African American, Hispanic, and Asian American Medicare beneficiaries were all less likely than their white counterparts to receive influenza vaccinations in 1996.[11]
- Among Medicare beneficiaries, African Americans with diabetes reported fewer visits to cardiologists or eye specialists than their white counterparts.[12]
- Among members of Health Alliance Plan (a large Michigan HMO), African American women were more likely to have late-stage breast cancer at first diagnosis. Surgical treatment, though, did not vary by race once disease stage was taken into account.[13]
- Among enrollees in Medicare managed care plans, African Americans were less likely than whites to have mammograms, eye exams for diabetes, and other recommended services.[14]

Health Plans, Quality Improvement, and Disparities

Health plans serve as important agents for quality improvement. Managed care plans measure quality using standard measures such as those in the Health Plan Employer Data and Information Set (HEDIS) and work to improve their scores on those measures. They disseminate practice guidelines to providers and generate provider profiles that describe performance based on these guidelines. They conduct focused quality improvement projects as part of their requirements for accreditation through the National Committee for Quality Assurance (NCQA).

As health plans improve their overall quality of care, the care of minority patients *may* improve. A set of performance measures applied to all patients, however, may mask or miss key disparities in quality of care for minorities. A measure of mammography screening for all patients, for example, may mask low mammography rates for Hispanic women if rates for non-Hispanic women are high. These considerations have led to calls for analysis and reporting of quality of care information stratified by race and ethnicity.[15]

NCQA does not require reporting on race and ethnicity, but it will recommend a change in its standards that will encourage HMOs to incorporate information on race and ethnicity to allow for analysis of disparities in health care.[16] For the moment, though, the vast majority of health plans do not analyze quality of care for members of specific racial and ethnic groups.

Conducting retrospective analyses of the racial and ethnic makeup of health plan members can help determine whether disparities in care exist, but a more efficient approach would involve collecting this data when members enroll, during an initial patient assessment, or as part of ongoing interactions with patients. Unfortunately, neither health plan databases nor the claims and encounter databases maintained by providers in plans' delivery networks captures such data.

Why Don't Health Plans Collect Data on the Race and Ethnicity of Their Members?

Health plans generally do not capture data on the race and ethnicity of their members for several reasons:

- No affordable, accurate process exists for collecting this information.
- Management, major customers, and communities are concerned that such information might be misused, such as to deny enrollment or services or otherwise discriminate against members of minority groups.

- Health plans are concerned that collecting this information might violate Title VI of the Civil Rights Act of 1964 or other laws or regulations regarding discrimination.
- There is concern about confidentiality and privacy of the information.
- Gathering and analyzing such information creates additional costs.
- There are no regulatory or strong purchaser requirements for collecting and using such data.

In 1999, the Department of Health and Human Services (HHS) issued an *Operational Policy Letter* for the Medicare+Choice program, clarifying its position on health plans' collection of data on race and ethnicity of members.[17] An earlier policy letter had stated that such data collection was permissible, but only after plan enrollment.[18] The 1999 letter eliminated the "only after enrollment" qualification and explicitly permits plans to collect data on race and ethnicity before, during, or after enrollment. The policy letter identifies potential benefits to minority plan members as a result of plans having such data, and clearly states that the information *cannot* be used by plans to select enrollees or make eligibility determinations. Additionally, in 1997, Secretary of Health and Human Services Donna Shalala issued a policy statement supporting the collection of data on race and ethnicity for all HHS-funded programs.[19]

A careful review of federal policies and regulations on collection of data on race and ethnicity by health care insurers or providers concluded that there are no regulatory or policy barriers at the federal level.[20] A similar review of state policies concluded that only four states (California, Maryland, New Jersey, and New Hampshire) have laws or regulations barring health plans from collecting this information; two states (South Carolina and Texas) have laws recommending or requiring collection of data on race and ethnicity; and the remaining states have no laws or regulations in place that would bar health plans from collecting such information.[21]

Minority Health Report Card Project

In 1998, the Minority Health Report Card Project, a collaborative effort of Michigan State University, Henry Ford Health System, Lovelace Clinic Foundation, the University of Texas School of Public Health, and eight health plans (Figure 1) was created with the support of The Commonwealth Fund to assess quality of care at the health plan level for members of racial and ethnic minority groups. Understanding that few, if any, health plans collect data on their members' race and ethnicity, the project first sought to determine whether health plans could use standard measures of health care quality, along with a few

specially developed tools, to identify the race and ethnicity of their members. Second, it sought to determine whether these data could identify disparities in health care among different racial and ethnic groups.

Ultimately, the project aims to encourage health plans to adopt these data collection and analysis methods to identify racial and ethnic disparities in care; reduce those disparities; improve quality of care for members of minority groups; and promote informed consumer choice among competing health plans.

PHASE I (1998–2000): DEVELOPMENT OF REPORT CARD AND PILOT TESTING FOR DATA COLLECTION

Phase I of the project consisted of gathering input from community groups and experts on the kinds of data that should be collected, how it should be analyzed, and how a report card could best be formatted. In the fall of 1998 and 1999, two groups of community leaders (one African American and one Hispanic) met to advise project staff about the format and content of the report card and the processes for data collection.[22] A third group of Native Hawaiian, Asian, and Pacific Islander community leaders convened in January of 2001.[23] Each group had approximately 12 members and included community organization leaders, business owners, attorneys, and union officials, among others. A technical expert panel made up of representatives from NCQA, FACCT (the Foundation for Accountability), The Picker Institute, and several academic research centers also advised on technical issues of data definition, data collection, and data analysis and reporting.

All advisory groups held open-ended discussion followed by formal priority-setting and ranking exercises to identify the most important elements that indicate quality of care, such as member satisfaction, doctor–patient communication, and cultural and linguistic competence; specific quality measures within those concepts; high-priority clinical conditions; and preferred methods for obtaining data on race and ethnicity. A consistent policy recommendation from all groups was that health plans *should* collect data on the race and ethnicity of their members, as long as the data are used for public reporting and internal quality improvement purposes and not for illegal, unethical, or discriminatory purposes.

The groups disagreed on some specific questions regarding the design and content of a quality of care report card for minority populations. For example, the Hispanic and African American community leader groups gave relatively high rankings to some clinical conditions or health-related issues (such as prostate cancer, stress, and violence) for which there are no widely accepted quality measures derived from evidence-based guidelines. The groups' priority rankings did identify, though, four basic components of a quality of care report card for health plans:

- HEDIS Effectiveness of Care measures
- Consumer Assessment of Health Plans Survey (CAHPS) of health plan members' experiences with care
- Surveys of patients with asthma, diabetes, or newly diagnosed prostate cancer (to develop measures of adequacy of information, patient involvement in decision-

making, respect for patients' preferences and values, and other aspects of provider–patient communication)

- health plan survey of cultural and linguistic competence

Obtaining Data on Race and Ethnicity

In Phase I of the project, three participating health plans used three general methods to obtain data on the race and ethnicity of their members, which were then used to calculate HEDIS or other similar quality of care measures for different racial and ethnic groups:

1. Two self-report surveys (CAHPS and a special asthma quality of care survey), both of which contain questions on race and ethnicity, were used to assign survey respondents to racial and ethnic groups. Analyses were performed comparing patients' experiences with care across groups
2. A software package using surnames to assign Hispanic vs. non-Hispanic ethnicity was used to calculate HEDIS scores for those two groups of plan members.
3. Information from providers' medical records and electronic encounter databases was used to assign individuals to racial and ethnic groups. This information was then used to analyze disparities in care.

None of these three sources of data on race and ethnicity, even the self-report surveys, provided fully complete and accurate data. The advisory groups favored self-reporting as the best method of assigning individuals to racial and ethnic categories, but until health plans themselves begin collecting self-reported data on race and ethnicity from their members, other methods, with their inherent weaknesses, must be used as proxies.

Given these limitations, this analysis primarily focuses on demonstrating the feasibility of collecting data on race and ethnicity from other sources and incorporating these data into calculation of quality measures. Detailed analysis of the effects of flaws in various data sources on validity of quality measures will follow in future studies.

PHASE II (2000–02): DEMONSTRATION PROJECT

Eight health plans participated in Phase II (Figure 1), which was designed as a demonstration project to address two major questions:

- Can health plans obtain data on the race and ethnicity of their members and incorporate those data to analyze quality of care across groups?
- If so, are there disparities in quality of care for members of minority groups within specific health plans, and are there differences in levels of quality across plans for members of the same minority group?

Figure 1. Health Plans Participating in Phase II, 2000–02

Plan Name	Location	Plan Type
Arkansas Foundation for Medical Care	Little Rock, AR	Medicaid
Community Choice Michigan	Okemos, MI	Medicaid
Hawaii Medical Service Association	Honolulu, HI	Commercial
Henry Ford Health System/ Health Alliance Plan	Detroit, MI	Medicaid, Commercial
Kaiser Permanente Colorado	Denver, CO	Commercial
Kaiser Permanente Hawaii	Honolulu, HI	Commercial
Lovelace Health Plan	Albuquerque, NM	Medicaid, Commercial, Medicare+Choice
Physicians Health Plan of Mid-Michigan	Lansing, MI	Medicaid, Commercial

These plans are by no means a random or representative sample of health plans in the United States. They responded to written or verbal invitations to participate in the project or volunteered to participate after hearing a presentation on Phase I at a professional meeting. All of the health plans share an interest in addressing the problem of racial and ethnic disparities in quality of care and most have a history of doing either public domain research on the subject or innovative work on quality measurement and quality improvement. Since health plans were guaranteed anonymity, results are not attributed to health plans by name.

Quality Measurement Instruments

Each health plan was invited to participate in data collection and analysis for all four major quality domains in the project. The instruments used for these four domains included:

- HEDIS Effectiveness of Care measures (Figure 2)
- CAHPS measures (Figure 3)

- disease-specific surveys on aspects of doctor–patient communication and education for self-management
- cultural and linguistic competence survey

The HEDIS Effectiveness of Care measures and CAHPS are both existing quality measurement sets widely used by accredited health plans. However, in Phase I of this project, community advisory leaders expressed concern that neither of these instruments adequately captures information on many aspects of doctor–patient communication or patient education, particularly as they relate to the management of several diseases that disproportionately affect minority patient populations. Thus, three new survey instruments were created and administered to assess quality of clinical care for patients with diabetes or prostate cancer and children with asthma. In addition, a survey of cultural and linguistic competence was also developed. As the discussion below and Figure 4 illustrate, not all health plans were able to gather data in all four domains.

Figure 2. HEDIS Effectiveness of Care Measures

Measures
Well-child Visits First 15 Months
Well-child Visits Three to Six Years
Childhood Immunization Status
Adolescent Immunization Status
Breast Cancer Screening
Prenatal Care in the First Trimester
Beta Blocker Treatment After a Heart Attack
Comprehensive Diabetes Care
Use of Appropriate Medications for People with Asthma

Figure 3. CAHPS Measures

Measures
Getting Care You Need
Getting Care Without Long Wait
Communication
Enough Time Spent
Prevention
Customer Service
Finding Personal Doctor
Referral to Specialist Asthma Care
Patient Satisfaction
Follow-up After Acute Episodes

Diabetes Survey

A new survey instrument was created to address issues of self-management education in adult patients with diabetes. Two focus groups of diabetes patients, conducted during Phase I, formed the basis for the instrument. The focus groups elicited information about key issues, such as whether professional caregivers had trained patients in home blood glucose monitoring, helped them develop individualized meal plans, and discussed long-term complications, blood sugar level testing, depression, and other mental health issues. Project members translated these and other topics into questionnaire items.

The instrument was tested in several small samples and revised for clarity. A Spanish-language version was developed and mailed with the English version to patients in plans with large Hispanic populations. A factor analysis will be performed to evaluate the survey instrument for future use.

Prostate Cancer Survey

In Phase I, members of the African American community leaders group ranked prostate cancer as a clinical condition that "should definitely be included" or would be "good to include if resources allow" in the areas of prevention, process of care, and outcomes.

Prostate cancer screening and treatment represent a difficult challenge for a health plan report card on minority health. On the one hand, the disease has uniquely high prevalence and produces a disproportionate burden of illness in the African American male population. On the other, the lack of generally accepted clinical guidelines for screening or treatment makes it impossible to interpret data on either as measures of quality of care.

The panels recognized the difficulty of creating quality measures when no universal consensus about guidelines exists. Instead, they favored including measures about adequacy of communication between doctor and patient, either about screening options or treatment. The measures would identify satisfaction with information received and whether specific kinds of information or choices had been given.

The project used a set of questions adapted from a Picker Institute questionnaire on cancer care to measure:

- patient reports of having received adequate information about screening alternatives;
- patient satisfaction with information on screening alternatives;

- patient reports of having received adequate information about treatment alternatives; and
- patient satisfaction with information about treatment choices.

Survey of Children with Asthma

A questionnaire was constructed to assess parent/guardian satisfaction with information they may have received about their child's asthma care. The instrument used Expert Panel Report 2 (EPR-2) guidelines issued by the National Institutes of Health as its basis,[24] specifically drawing on its guidelines for education to establish partnership in asthma care. Actual questions were selected or developed based on EPR-II recommendations for key patient educational messages, which include basic facts about asthma, the role of each medication, skill development (such as inhaler use), environmental control measures, and rescue measures in case of an emergency.

Construction of the questionnaire required the review of three existing tools. Several of the asthma-specific questions were modified from the patient experience and satisfaction sections of the FACCT Adult Asthma Measurement Survey.[25] For satisfaction of care questions, the instrument included modified items from the CAHPS adult questionnaire and The Picker Institute cancer care questionnaire.[26]

Cultural and Linguistic Competence Survey

The project also created and administered a survey instrument to help determine cultural and linguistic competence among participating health plans and providers. The instrument, developed in Phase I and revised in Phase II, was divided into the following sections:

1. *Health plan staff knowledge.* This section sought to assess health plan staff's knowledge about its organization and customers. Therefore, it inquired about staff members' positions, time in those positions, and familiarity with the racial and ethnic characteristics of the health care providers in the network and/or the members served by the health insurance company.
2. *Health plan characteristics.* This section gathered information about plans for comparative analysis. It included questions about type of plan (commercial, Medicaid, or Medicare), products offered (health maintenance organization, physician provider organization, individual practice association), and total number of members served.

3. *Accreditation*. This section gathered information about whether health plans were accredited by NCQA, whether they reported HEDIS measures, and if they used CAHPS to assess member satisfaction.

4. *Cultural competency*. The items in this section assessed racial and ethnic information available about health care providers and mechanisms in place to ensure the diversity of health plan staff and health care providers. Specific items included:
    - information for members that allows them to identify and choose providers who are African American, Hispanic, and of other racial and ethnic groups;
    - cultural sensitivity training of health plan staff and health care providers; and
    - community input and representation on the health insurance company's board.
5. *Linguistic competency*. This section requested information about:
    - demand for bilingual services, percent of health care providers and plan staff who speak different languages;
    - predominant languages in service areas and availability of interpreter services;
    - materials printed in different languages, such as bilingual forms, educational materials, and treatment information; and
    - training of interpreters, assessment of language proficiency, and members' satisfaction with communication and translated materials.

Data Collection Methods

Participating plans generally did not commit to collecting data and producing reports in all four domains. Figure 4 summarizes the domains in which each of the plans actively participated.

Figure 4. Measurement Domains by Health Plan in Phase II, 2000–02

Health Plan Name	Measures
Arkansas Foundation for Medical Care	HEDIS Effectiveness of Care, CAHPS
Community Choice Michigan	HEDIS Effectiveness of Care
Hawaii Medical Service Association	HEDIS Effectiveness of Care, CAHPS
Henry Ford Health System/ Health Alliance Plan	Disease-Specific Surveys for Diabetes and Prostate Cancer
Kaiser Permanente Colorado	HEDIS Effectiveness of Care, CAHPS, Cultural and Linguistic Competence Survey
Kaiser Permanente Hawaii	HEDIS Adolescent and Child Immunizations, CAHPS, Cultural and Linguistic Competence Survey
Lovelace Health Plan	HEDIS Effectiveness of Care, CAHPS, Cultural and Linguistic Competence Survey, Disease-Specific Surveys for Diabetes and Asthma
Physicians Health Plan of Mid-Michigan	CAHPS, Cultural and Linguistic Competence Survey

Because the plans serve different racial and ethnic populations, they differed in their ability to make comparisons between groups. Figure 5 shows the racial and ethnic groups that each plan included in its comparisons.

Figure 5. Racial and Ethnic Comparisons Made by Health Plans, 2000–02

Health Plan Name	Racial and Ethnic Comparisons
Arkansas Foundation for Medical Care	African American, Caucasian
Community Choice Michigan	African American, Caucasian
Hawaii Medical Service Association	Caucasian, Chinese, Filipino, Hawaiian, Japanese
Henry Ford Health System/ Health Alliance Plan	African American, Caucasian
Kaiser Permanente Colorado	Hispanic, Non-Hispanic
Kaiser Permanente Hawaii	Caucasian, Filipino, Hawaiian
Lovelace Health Plan	Hispanic, Non-Hispanic
Physicians Health Plan of Mid-Michigan	African American, Caucasian, Hispanic, Non-Hispanic

When the demonstration project began, none of the eight health plans was routinely collecting data on the race and ethnicity of their members. Thus, each plan identified one or more methods of obtaining data from various sources, including:

- purchasers (such as state Medicaid program enrollment files)
- self-report items in surveys (for example, CAHPS)

- medical records or automated encounter records in contracting provider organizations
- surname-recognition software for Hispanic plan members (see details below)
- geo-coding, or inferring race/ethnicity based on knowledge of home address (no plans actually used this option)

Figure 6 summarizes the method or methods each plan used to obtain data on the race and ethnicity of its members.

Figure 6. Methods Used to Obtain Race and Ethnicity Data by Health Plan, 2000–02

Plan Name	Methods
Arkansas Foundation for Medical Care	Medicaid Membership Files
Community Choice Michigan	Medicaid Membership Files
Hawaii Medical Service Association	Member Surveys, CAHPS
Henry Ford Health System/ Health Alliance Plan	Clinical Administrative Data
Kaiser Permanente Colorado	Modified GUESS Software,* CAHPS
Kaiser Permanente Hawaii	Medical Records (HEDIS Hybrid Method)
Lovelace Health Plan	Modified GUESS Software,* CAHPS
Physicians Health Plan of Mid-Michigan	CAHPS

* Originally developed by the University of Mexico and modified by Lovelace Health Plan, GUESS (Generally Useful Ethnicity Search System) is a software program that uses surnames to identify individuals as Hispanic or non-Hispanic.

Experience with Obtaining Data on Race and Ethnicity

All plans were able to use successfully at least one method of obtaining race and ethnicity data. As a general rule, plans obtained such data either concurrently with ongoing data collection for creating quality reports (such as part of CAHPS or during the medical record review step of the HEDIS hybrid method process) or after the regular data collection processes had occurred (such as applying GUESS software to names of individuals already sampled and included in a HEDIS denominator population). Some plans, however, were able to skip this second step in data collection.

Some plans can obtain data from state Medicaid programs or apply geo-coding or surname recognition software programs to all of their enrollees prior to drawing samples for HEDIS, CAHPS, or special disease-focused surveys. These techniques permit over-sampling of the target groups to assure adequate sample sizes for analysis. Plans serving commercial populations will not be able to obtain race/ethnicity information on enrollees from public agencies (e.g., Medicaid programs). Plans interested in comparisons other than

Hispanic/non-Hispanic will generally not be able to use surname recognition software. In those instances, geo-coding may be the only viable option for stratified sampling.

Health plans' experience using each method is described below.

Self-Report Items in Surveys

Using self-identification data from demographic items in the CAHPS or disease-specific surveys proved to be the simplest method of collecting data on race and ethnicity, as this information automatically comes as part of the survey data set. Three of the participating plans had difficulty analyzing CAHPS data separately by race and ethnicity, however, because their relationship with a contract vendor did not include return of the raw data sets that would allow additional analyses—for instance, analyses not required for NCQA reporting—to be done. In these instances, plans did have "cross-tab" reports available with responses to individual questions broken down by racial and ethnic categories, and these reports were used to calculate composite scores for comparison. (For more detail, see "Consumer Assessment of Health Plans Survey" below.) Since the CAHPS and disease-specific surveys themselves include the data on race and ethnicity, it was not possible to build race and ethnicity into a sampling strategy for the surveys. Health plans worked with whatever sample sizes occurred naturally in the survey data sets.

Data from Medicaid Enrollment Files

Three plans obtained data on race and ethnicity from state Medicaid enrollment files. Two of the plans were able to match the data to their own member identifiers and incorporate the data into HEDIS and other quality of care analyses. One plan was able to determine that the identifiers matched, but the software available for performing HEDIS sampling and data analysis did not have an empty data field available for adding race and ethnicity data. It was impossible to modify the software in the time frame of this project, although such modification will be possible in future cycles of HEDIS surveying.

States generally do not include information on race and ethnicity when they provide Medicaid enrollment data to health plans. In Michigan, special requests needed to be made to obtain the data from enrollment files. Staff in the state's Department of Community Health were extremely helpful, though, and first provided a one-month test file and then a full-year file containing data on race and ethnicity for enrollees in two health plans. One plan noted that the time required to receive and check data, and to match data to plan membership records, was significant, but suggested that the work could be made much easier if the state regularly provided race and ethnicity information with new enrollee data. One state that routinely provides data on the race and ethnicity of its

Medicaid enrollees to health plans is Arkansas, enabling the Arkansas Foundation for Medical Care to quickly access this information without undue effort.

It was not possible given the scope of this project to formally validate the race and ethnicity data in the state files, but all plans using Medicaid data reported a very small amount (less than 5%) of missing or unusable data on race and ethnicity.

Surname-Recognition Software

Originally, the University of New Mexico developed a software program called GUESS (Generally Useful Ethnicity Search System), which identifies Hispanic and non-Hispanic ethnicity based on surname with a 90 percent accuracy rate.[27,28] The software does have some limitations, however. While it can assign individuals to either "Hispanic" or "non-Hispanic" categories, it cannot identify members of Hispanic sub-groups, such as Puerto Rican, Mexican American, Guatemalan; nor can it identify members of non-Hispanic sub-groups. As the composition of Hispanic groups and patterns of surnames and intermarriage with non-Hispanic groups can vary by region, the system is likely more useful for within-plan than across-plan comparisons.

Two plans used the GUESS software to identify plan members as either Hispanic or non-Hispanic. Comparisons with self-reported data from surveys and medical record information continued to show accuracy of 90 percent or higher in classifying individual plan members. These plans were able to use the GUESS software in HEDIS data analyses and produce comparative reports for the two groups. One of the plans was also able to use the software to identify Hispanic and non-Hispanic samples for disease-specific surveys.

HEALTH PLAN REPORT CARD FINDINGS OF DISPARITIES IN QUALITY OF CARE

HEDIS Effectiveness of Care and Outpatient Follow-Up of Acute Asthma Exacerbation Measures

Overall Trends

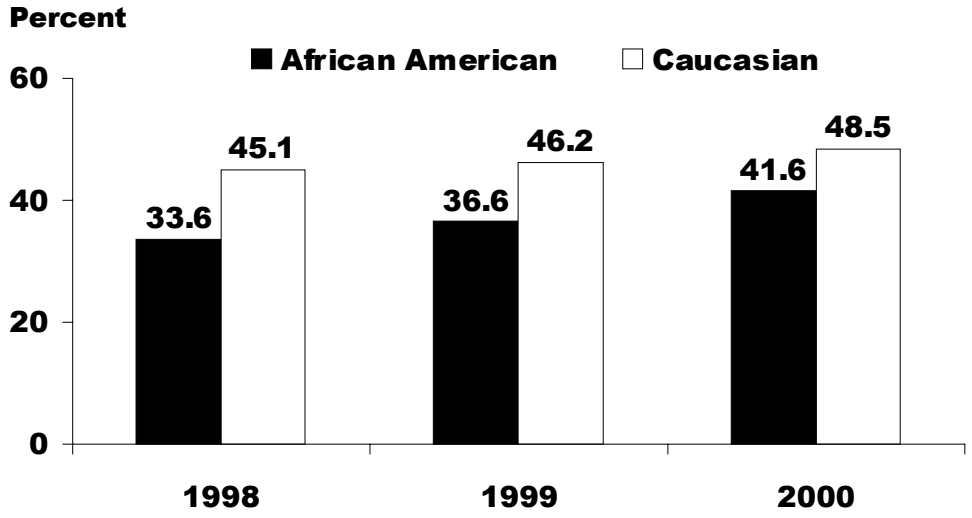
Preliminary analysis of some of the HEDIS data showed statistically significant differences with absolute magnitudes as small as one percentage point, because of large underlying sample sizes. We also recognized that a careful approach to testing significance of disparities in HEDIS measures should involve adjustment for other demographic factors that might affect disparities, many of which were not available in a basic HEDIS data set. Therefore, we decided to identify as "significant" those differences that were either (a) statistically significant in analyses done locally by a participating health plan, or (b) greater than or equal to five percentage points. The latter criterion is clearly arbitrary, but seemed reasonable to project participants until we have a more formal method available to decide which differences are clinically and administratively, as well as statistically, significant.

Comparisons Between African Americans/Caucasians and Hispanics/ Non-Hispanics

In two health plans, comparisons were made between African American and Caucasian plan members. Of 30 possible HEDIS measures, 24 showed significant disparities. Ten of the disparities indicated higher quality for Caucasian plan members; 14 indicated higher quality for African American plan members. This pattern is not typical of the general body of published literature on disparities in quality of care, and may reflect the fact that the comparisons were made on Medicaid members only, in plans with relatively large African American populations, and in provider networks with a relatively large representation of community health centers.

Given the age and gender demographics of the Medicaid population, the plans were able to calculate measures related to care for children and women of child-bearing age but did not have an adequate sample to calculate rates for all of the Effectiveness of Care measures appropriate to older adult populations. Figures 7 and 8 show examples of comparisons in these two plans. It is interesting to note that the data on race and ethnicity in one of the plans could be linked not only to data for 2000, but also to data for 1998 and 1999, allowing an examination of trends in overall quality and disparities in quality over time.

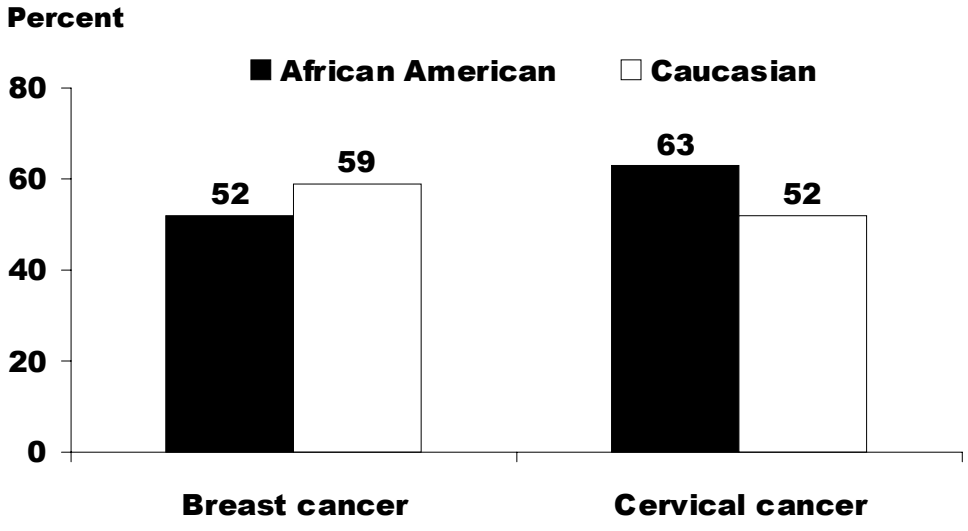
Figure 7. Comparison of HbA1c Testing Rates Among African Americans and Caucasians with Diabetes in One Health Plan, 1998–2000



Note: HbA1c tests measure blood sugar levels.

Source: Health plan HEDIS data, using authors' specifications for stratification by race/ethnicity.

Figure 8. Comparison of Breast and Cervical Cancer Screening Rates Among African Americans and Caucasians in One Health Plan, 2000



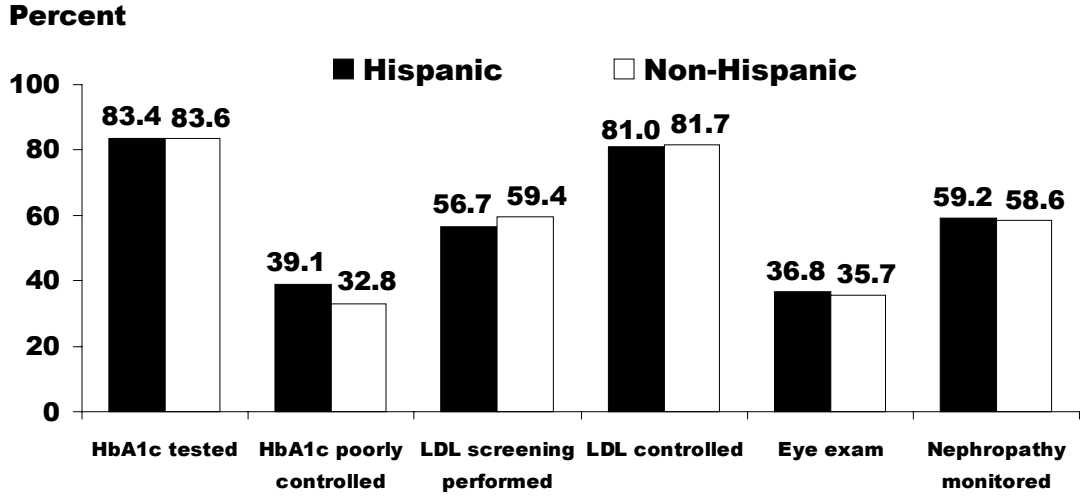
Source: Health plan HEDIS data, using authors' specifications for stratification by race/ethnicity.

Hispanic vs. Non-Hispanic Comparisons

Two other plans were able to calculate separate HEDIS Effectiveness of Care measures for Hispanics and non-Hispanics. One used the hybrid method, which examines the provision of preventive services and reviews medical records, and the other used administrative (billing) data only. Of 64 possible HEDIS comparisons in these plans, 19 showed disparities. Fifteen of the disparities indicated higher quality in non-Hispanic populations, and four indicated higher quality in Hispanic populations.

Although rates for HEDIS measures are typically higher using the hybrid method, that difference was not seen in data by the two plans in this project. Figures 9 and 10 show comparisons among Hispanics and non-Hispanics across a selection of HEDIS measures. It is interesting to note that in at least one of the comparisons, in the plan's Medicaid product line, quality of care for the Hispanic group was higher than for the non-Hispanic group—opposite the usual trend.

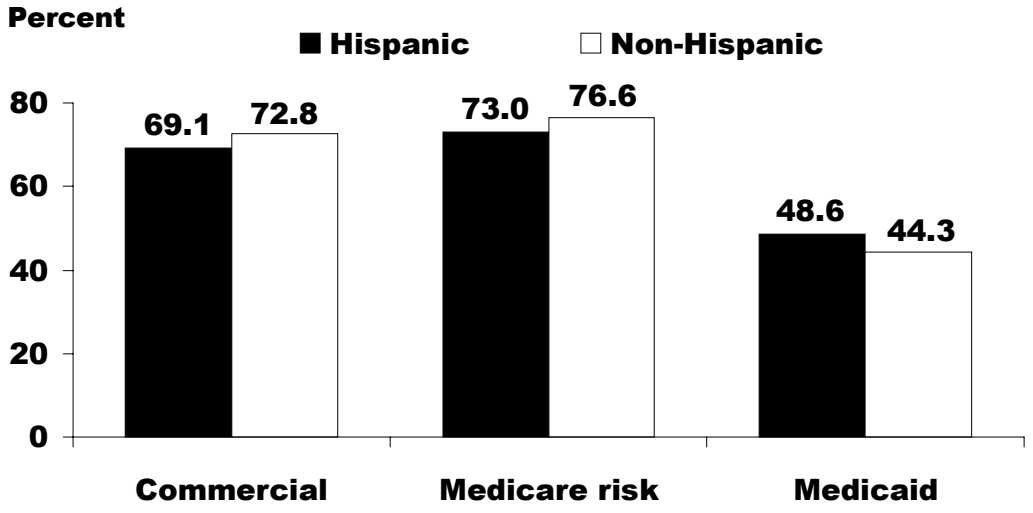
Figure 9. Comparison of Comprehensive Diabetes Care Among Hispanics and Non-Hispanics in One Health Plan, 2000



Notes: HbA1c tests measure blood sugar levels. LDL (low-density lipoprotein) tests measure "bad cholesterol." Nephropathy is damage to the kidneys assessed by a laboratory test.

Source: Health plan HEDIS data, using authors' specifications for stratification by race/ethnicity.

Figure 10. Comparison of Breast Cancer Screening Rates Among Hispanics and Non-Hispanics in One Health Plan by Type of Insurance, 2000



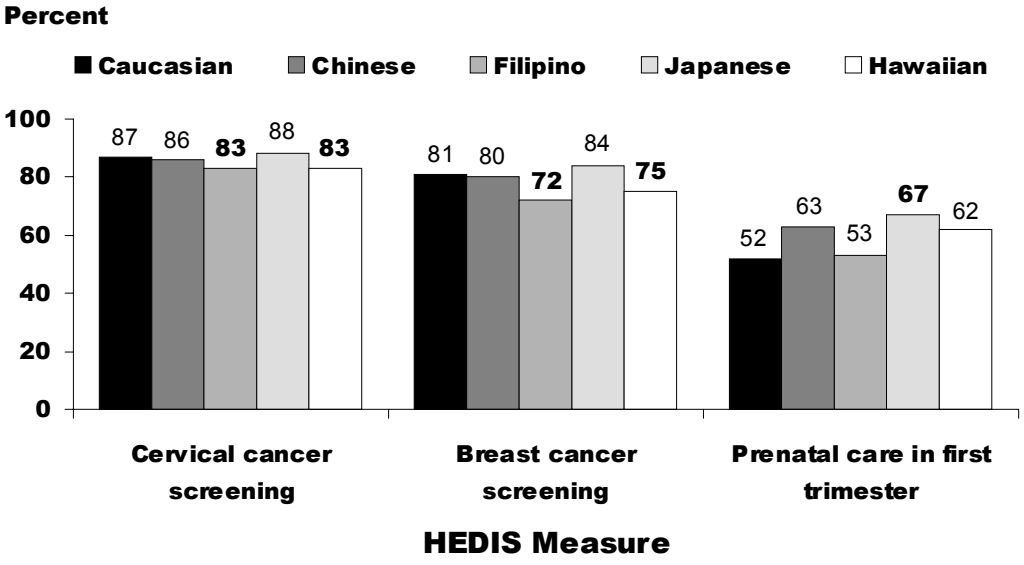
Source: Health plan HEDIS data, using authors' specifications for stratification by race/ethnicity.

Native Hawaiian, Asian/Pacific Islander, and Caucasian Comparisons

Two plans were able to compare HEDIS measures of quality of care for several Asian/Pacific Islander groups. Of 54 possible comparisons, there were 34 significant disparities. Twenty-one of the 34 showed a higher level of quality for one of the Native Hawaiian or Asian/Pacific Islander subgroups compared to the Caucasian reference group. Thirteen indicated higher quality in the Caucasian group.

Both Hawaii-based plans were able to calculate HEDIS measures separately for members of several Asian and Pacific Islander sub-groups (as well as for Caucasian plan members). For most of the HEDIS clinical quality indicators, Asian and Pacific Islanders' scores were similar to those of Caucasians, even though some disparities exceeded the 5 percent threshold for significance. Filipinos and Native Hawaiians, in one of the two health plans, however, showed significantly lower rates than Caucasians for breast cancer screening and cervical cancer screening (Figure 11). Eighty-one percent of Caucasians received the recommended breast cancer screening, compared to 72 percent of Filipinos ($p=0.002$) and 75 percent of Hawaiians ($p=0.049$). For cervical cancer, 87 percent of Caucasians received appropriate screenings compared to 83 percent of Filipinos ($p=0.003$) and 83 percent of Hawaiians ($p=0.020$).

Figure 11. Selected HEDIS Measures by Race and Ethnicity in One Health Plan, 2001



Notes: Not all HEDIS measures could be analyzed due to sample size < 50. Caucasians are the reference group for all tests of significance; values significantly different are bolded.

Source: Health plan HEDIS data, using authors' specifications for stratification by race/ethnicity.

Significant differences in the opposite direction were observed for screenings for low-density lipids. Seventy-one percent of Filipinos were screened compared to 45 percent of Caucasians (p=0.019; not shown on Figure 11). For prenatal care, 67 percent of Japanese received recommended care compared to 52 percent of Caucasians (p=0.018).

The lower screening rates for Filipino and Native Hawaiian women for both mammograms and Pap smears suggest that there may be cultural or demographic reasons that some Asian and Pacific Islander sub-groups are being screened less often for these conditions. Women's health concerns are a sensitive issue for many women regardless of race and ethnicity, as many relate to sexuality. Differences in culture may enhance these sensitivities and create barriers to awareness, understanding, and/or access to screenings. These results emphasize the importance of analyzing quality of care among the distinct subgroups of Asian and Pacific Islanders.

New Measure: Outpatient Follow-Up of Acute Asthma Exacerbations

In 2000, HEDIS included a new measure for appropriate asthma medications. The measure specifically reports on the percentage of patients identified as having persistent asthma that have received medications shown to be effective in reducing airway

inflammation. One of the plans in our project elected to address a related issue and assess racial and ethnic differences in follow-up after acute asthma events.

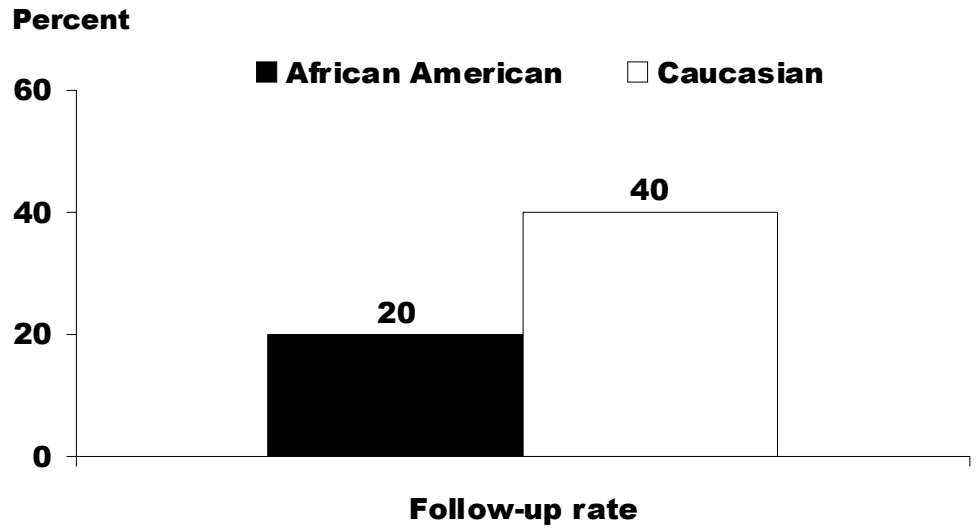
In this analysis, this measure was only applied to pediatric patients with asthma. Children were eligible if they had been continuously enrolled between January 1, 1999, and December 31, 2000, and were ages 5 to 17 as of December 31 of the measurement year (January 1, 2000, to December 31, 2000). The denominator (those children who could have had follow-up after acute events) was composed of patients who had been discharged from the hospital or emergency room within the first 355 days of the measurement year. The numerator was defined as those who had had one or more ambulatory encounters with a primary care provider, specialist, or family practitioner within five days of an emergency room encounter or within seven days of a hospital discharge. Demographic information, including race and ethnicity, was also retrieved from the patient encounter database.

A total of 1,518 children fulfilled enrollment and asthma criteria. Mean age for the study sample was 8.0 years. The population was 47.4 percent African American, 46.9 percent Caucasian, and 5.7 percent "other." Males comprised 62.4 percent of the sample.

A total of 189 children, or 13.2 percent, had had at least one acute asthma event within the measurement year. Fifty-five children, or 29.1 percent, had experienced multiple consecutive events (such as two emergency department visits within three days). A total of 136, or 18.9 percent of African American children, experienced an acute asthma event, compared to 53, or 7.4 percent of Caucasian children. African American children also experienced a considerably higher percentage of multiple consecutive events compared to Caucasian children, 32.4 percent vs. 20.8 percent, respectively.

Forty-eight children (25.4%) received appropriate follow-up care after an acute or multiple consecutive events. Most visited a primary care physician (n=44), while four children (2.1%) visited a specialist within an appropriate time frame. Although African American children experienced more acute events, they were less likely to experience appropriate follow-up care compared to Caucasian children. Of the 136 African American children with acute events, 27 (19.9%) had appropriate follow-up care, whereas 21 (39.6%) of Caucasian children had follow-up within the specified time frame (p=0.006) (Figure 12).

Figure 12. Follow-Up Care for African American and Caucasian Children with Asthma in One Health Plan After Acute Episodes, 2000



Source: Health plan HEDIS data, using authors' specifications for stratification by race/ethnicity.

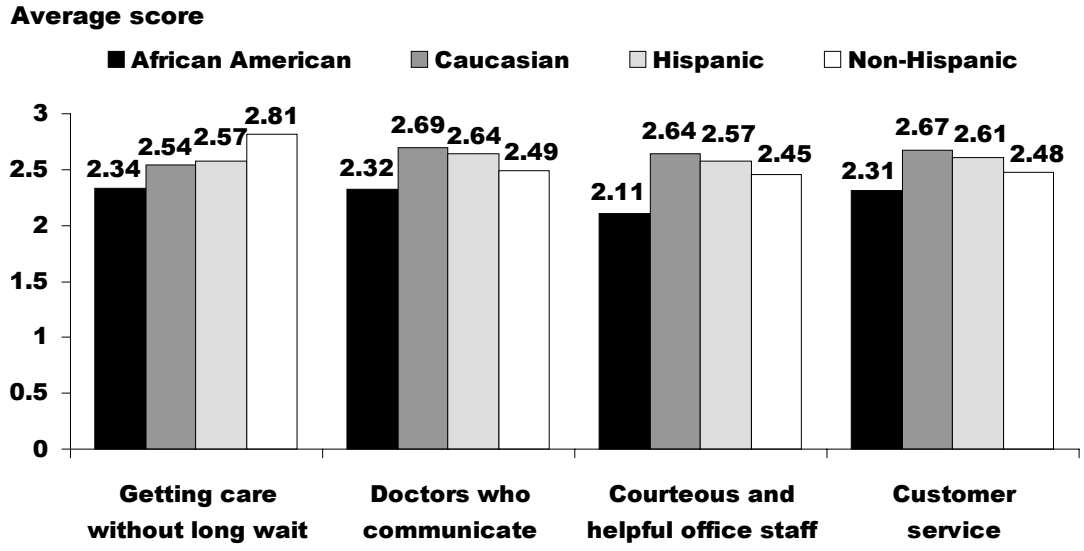
Consumer Assessment of Health Plans Survey

CAHPS data were available from six of the participating plans. Race and ethnicity classifications were based on responses to the self-report item contained in the demographic section of the survey. CAHPS provides a limited set of race and ethnicity categories for respondents, so it is generally not possible to analyze anything beyond such broad groupings as Caucasian, African American, Asian, and Native Hawaiian/Pacific Islander. One of the Hawaii-based plans was able to add an item to the survey to create more fine-grained categories, resulting in separate analyses and comparisons for Caucasian, Hawaiian, Japanese, Chinese, and Filipino respondents.

Overall Trends

In most cases, absolute magnitudes of differences were small, and directions of disparity were mixed. In several comparisons involving African American and Caucasian respondents in one plan, for example, there were differences in a consistent direction, while there were disparities in both directions in comparisons involving Hispanic and non-Hispanic respondents in the same plan (Figure 13). A similar mixed pattern for Asian or Native Hawaiian and Pacific Islander groups was found (Figure 14). For comparisons involving Hispanic and non-Hispanic respondents in another plan, though, the differences were consistently in the direction of higher ratings by Hispanic respondents (Figure 15).

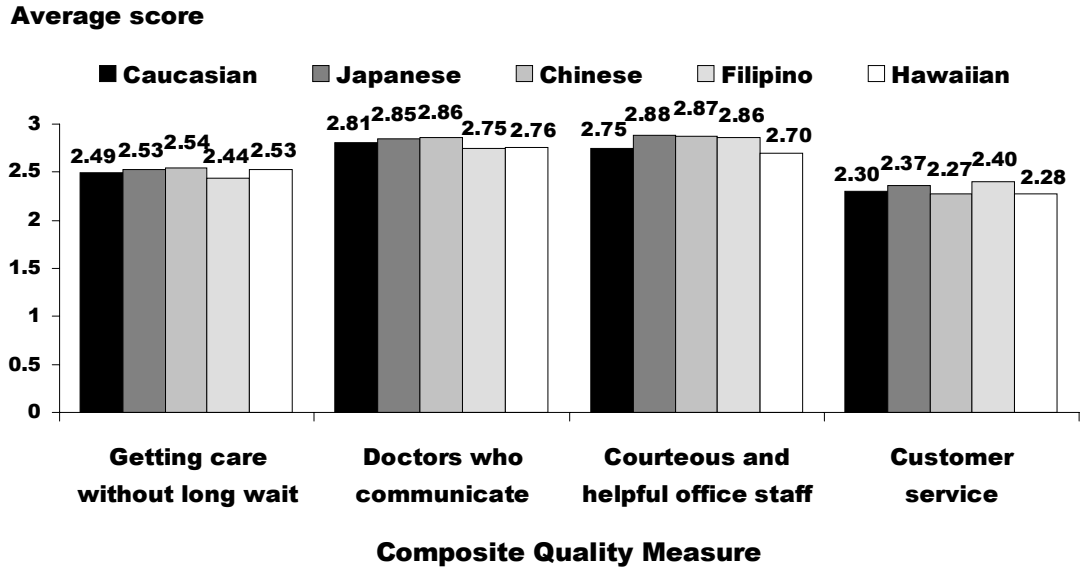
Figure 13. CAHPS Results Comparing Parents' Assessment of Their Children's Care by Race/ Ethnicity in One Health Plan, Medicaid Product, 2001



Note: CAHPS scores are based on a 0–3 scale.

Source: Health plan HEDIS data, using authors' specifications for stratification by race/ethnicity.

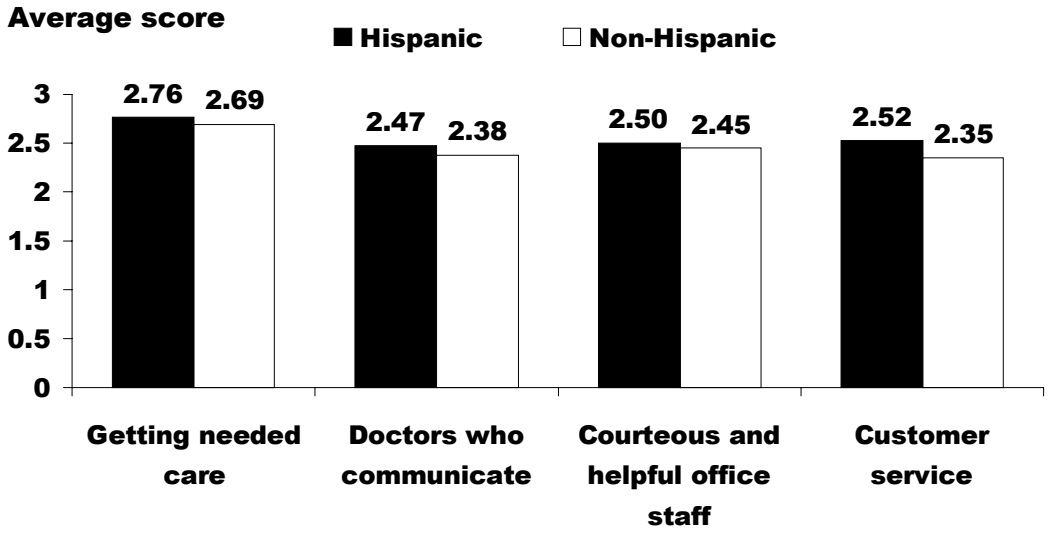
Figure 14. CAHPS Results by Race/Ethnicity in One Health Plan, 2001



Note: CAHPS scores are based on a 0–3 scale.

Source: Health plan HEDIS data, using authors' specifications for stratification by race/ethnicity.

Figure 15. CAHPS Results Comparing Hispanic and Non-Hispanic Adults in One Health Plan, Commercial Insurance Product, 2001



Note: CAHPS scores are based on a 0–3 scale.
Source: Health plan HEDIS data, using authors' specifications for stratification by race/ethnicity.

New Surveys of Doctor–Patient Communication and Self-Management Education

In general, plans that administered the asthma, diabetes, or prostate cancer surveys were able to:

- identify appropriate target populations and draw samples;
- obtain physician consent and administer surveys; and
- analyze data to identify possible areas of disparity by race/ethnicity.

Relatively small sample sizes made definitive statistical tests impossible, but trends were observed that can be pursued in future studies.

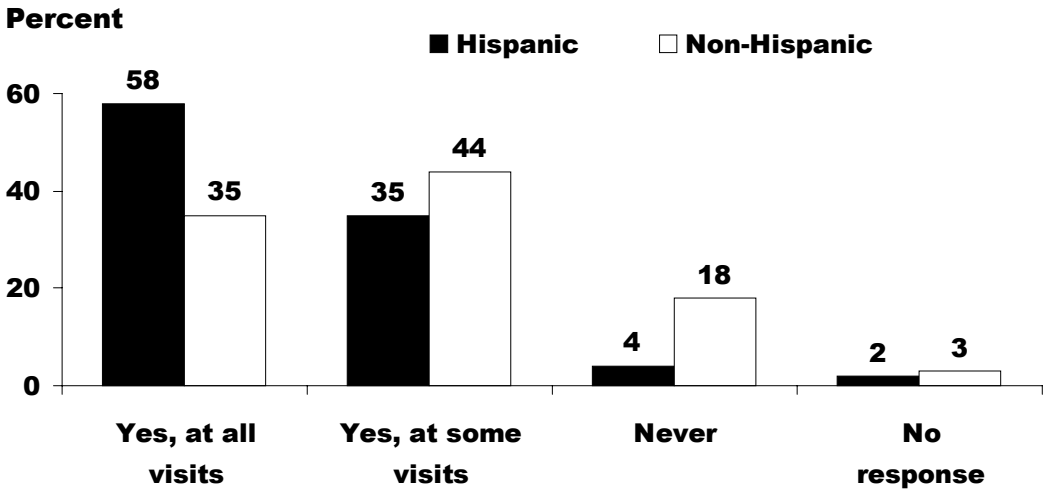
Survey of Patients with Diabetes

Lovelace Health Plan. This health plan identified an initial target sample of 808 adult patients with diabetes within its commercial population using HEDIS criteria, after allowing for exclusions due to physician request or incorrect addresses. Usable surveys were returned by 214 patients (26.5%). The analysis excluded patients who indicated that they had not been told they had diabetes, leaving a sample size of 202. Forty-four percent

of the respondents were Hispanic, 54 percent were non-Hispanic, and 2 percent did not indicate their race/ethnicity.

Health plan staff analyzed ethnic differences (Hispanic vs. non-Hispanic) for each question, and analysis found 11 questions for which there were statistically significant differences between groups. All but two of these questions asked about services received in relation to diabetes care from the health care provider and if the services were helpful. *On all of these questions, more Hispanics answered with the most positive responses* (Figure 16). The other two questions pertained to demographics: marital status and educational level.

Figure 16. Response by Lovelace Health Plan Members with Diabetes to the Questionnaire Item, "When You Saw Your Primary Care Provider, Did He or She Discuss Diabetes Complications?" 2001



Note: p = .007.
Source: Health plan HEDIS data, using authors' specifications for stratification by race/ethnicity.

Henry Ford Health System. This health plan identified a sample of 1,000 members for the study based on HEDIS criteria using a computerized clinical encounter database with demographic information that included a field for race and ethnicity. The demographic information came from providers (medical groups), who obtained it at new patient registration, often on the basis of visual classification by registration clerks. The sample was stratified to produce 500 African Americans and 500 Caucasians.

After removing deceased members, those whom providers identified as not diagnosed with diabetes, and those whose providers refused consent, 915 members were

mailed a cover letter and questionnaire. Of the 915 mailed, 24 were returned due to incorrect address, leaving 891 potential respondents.

Over 45 percent (n=414) of the members completed the survey. Of the 414 respondents, using the self-report item on race and ethnicity, 31 percent (n=128) were African American, 64.5 percent (n=257) were Caucasian, and 4.6 percent (n=19) were among other racial and ethnic groups. Significant differences were found between African American and Caucasian responses to six survey questions.

African Americans were more likely than Caucasians to report that their health insurance plan covered the cost of their home glucose meter (p=0.002); that they had been told they have diabetes (p=0.001); and that they had been given an individualized meal plan at all or some visits (p=0.006). By contrast, Caucasians were more likely than African Americans to report that their provider had asked them if they felt depressed (p=0.036); asked them if they were in good health (p=0.005); and that their provider had discussed HbA1c test results and implications of these results at all visits (p=0.047). Additional analysis, including factor analysis, will be conducted to further explore the differences found to validate the survey for future use.

Survey of Patients with Newly Diagnosed Prostate Cancer

Henry Ford Health System. Because the Henry Ford Health System maintains a pathology database along with an electronic medical record, health plan staff were able to obtain a sample of men diagnosed with prostate cancer (some treated) in the previous six months. The electronic medical record provided the data on race and ethnicity.

The eligible population:

- was 40 years and older;
- had been diagnosed with prostate cancer, confirmed by a needle biopsy;
- had been diagnosed between December 1, 2000, and May 2001;
- was of African American or Caucasian race; and
- had no prior cancer diagnosis.

A total sample of 180 newly diagnosed individuals, whose physicians gave approval for inclusion in the study, was identified. The final sample size was 107, or a 59 percent response rate.

The survey included an expanded set of race and ethnicity options. Respondents could identify themselves as members of more than one racial/ethnic group, as well as "other." As a result, the racial and ethnic categories became African American/part African American (n=38), Caucasian/part Caucasian (n=48), and all others (n=14). Individuals were classified as "part" African American or Caucasian if they identified as belonging to that group and another ethnic group (such as Hispanic) that had too few respondents in the data set to be analyzed separately. For simplicity, this discussion will drop the "part" reference.

Chi square analysis identified two questions where responses differed significantly between racial and ethnic groups. More Caucasians than African Americans felt that doctors and nurses treated them with respect and dignity (p=.031) and that they received enough information about possible changes in their emotions (p=.017).

Responses to the question, "Were you given enough information about the therapies for treating cancer?" were not significantly different (p=.060). Caucasians were more likely to answer "yes, definitely" or "yes, completely" to 14 other questions about communication and involvement in decision-making, but none of the differences were large enough to reach statistical significance.

Similarly, more Caucasians than African Americans felt that their family and friends were given the "right amount" of opportunity to be involved in their care, that they were never given confusing or contradictory information about their health or treatments, and that they "usually" or "always" knew what the next step in their care would be.

More Caucasians than African Americans rated the quality of care in the last three months as "good," "very good," and "excellent" (vs. "fair" or "poor"), and more Caucasians than African Americans rated their satisfaction with care in the last three months as "very satisfied" and "somewhat satisfied."

In summary, although the majority of responses to individual survey questions were not significantly different, the general pattern indicated higher levels of involvement and satisfaction by Caucasian than African American respondents.

Survey of Parents of Children with Asthma

Lovelace Health Plan distributed a questionnaire to parents of 583 patients (children 5 to 19 years old) within its commercial membership. Of the 583, 143 responded and returned analyzable questionnaires (24.5%). Respondents who answered "no" to the question of

whether they had been told by a doctor that their child had asthma were excluded, leaving a sample of 132 for analysis.

Ethnic differences (Hispanic vs. non-Hispanic) were analyzed for each question using chi square tests. None of the differences, except for parents' education level, were statistically significant at the .05 level, indicating fairly similar care experiences among Hispanics and non-Hispanics.

The small sample size of the survey (132) limits the statistical inferences that can be made with these data. A larger sample size may help detect potential differences between racial and ethnic groups. Additional analyses, such as factor analysis, are being performed to validate the surveys for future use.

Survey of Cultural and Linguistic Competence

Four health plans were willing to commit the time to complete the cultural and linguistic competence survey. While they were able to obtain data on many of the key elements of cultural and linguistic competence (such as availability of translation services, availability of written materials in languages other than English, and members of staff, board, or provider networks who are members of minority groups), the small sample size of plans surveyed precluded analysis of patterns of responses across plans. This project is working to identify more plans to conduct the survey and has agreements with several Health Resources and Services Administration (HRSA)-affiliated health plans to conduct it in mid-2002.

CONCLUSIONS AND RECOMMENDATIONS

This demonstration project found that health plans *can* obtain data on the race and ethnicity of their members and use it to identify quality of care for and disparities among racial and ethnic groups. A careful review of federal and state policies and regulations also concludes that there are no regulatory or policy barriers to the collection of this data, with the exception of four states.[29]

Most of the plans obtained data on the race and ethnicity of their members through one of four methods—self-reported items in surveys, abstraction of data from clinical records or automated encounter systems, surname recognition software, or matching of data from Medicaid enrollment databases. Once data were obtained, it was possible to incorporate them into ongoing quality measurement processes, such as HEDIS and CAHPS, or to use the data to design new questionnaires that could identify quality of care for patients in different racial and ethnic groups with similar conditions, such as diabetes and asthma.

At the individual plan level, there were statistically significant differences among racial and ethnic groups on many individual measures and virtually all classes of measures. For instance, in more than 50 percent of the HEDIS measures examined, there were disparities of at least 5 percentage points across groups within individual plans.

The patterns did not always point to lower quality of care for minority groups, however. On some measures, particularly in Medicaid plans, members of minority groups had higher quality of care scores than did non-minority members. While it is beyond the scope of this project to explore the reasons for these unexpected differences, evidence from this project points to the possibility that minority members of Medicaid plans may receive higher quality of care or that plans that make extensive use of community health centers may provide higher quality of care. To examine this issue in more detail, HRSA provided this demonstration project with a contract in 2001 to expand its investigation to include several health plans that have strong affiliations with community health centers.

Recommendations

The data did indicate a few instances of dramatic differences in quality across groups (such as rates of asthma follow-up in one group being half of those in another), but no standard exists to indicate when the size of a difference should warrant concern. Statistical significance is one indication, but in health plans with thousands of members in various racial and ethnic groups, statistically significant differences may not be clinically or otherwise meaningful. As a rough rule of thumb, this study noted differences in measures

of five or more percentage points, but more work will need to be done to determine how large a difference should be before focused attention and action is warranted.

This project was not designed to identify or test methods of reducing disparities and improving quality of care in general. Such an effort will require the concerted efforts of researchers and institutions throughout the health care system. It is hoped that this project, by providing solid evidence that health plans can collect and analyze data on racial disparities in care for their own members, will stimulate public and private purchasers, plans, and their provider networks to develop their own efforts to collect data on the race and ethnicity of their members and use it to reduce disparities and improve overall quality of care. Multiple models for reducing racial and ethnic disparities will be required to meet the varied needs, resources, and circumstances of health systems and patient populations across the country.

Given the absence of legal barriers and the tremendous potential for understanding and eliminating disparities, this project recommends that all health plans, whether managed care or indemnity, be required to collect data on the race and ethnicity of their members as part of accreditation by NCQA or the Joint Commission on Accreditation of Healthcare Organizations, or as a condition of receiving federal funds. This data should be obtained from plan members directly, preferably at enrollment as part of an intake health assessment/care planning process, and then linked to encounter databases and other sources of information used to evaluate quality of care. Data should be used for external reporting and internal quality improvement purposes; it should never be used in a way that would adversely affect access to care or quality of care for any individual.

Public and private purchasers, acting individually or collectively, should encourage health plans through contract language, financial incentives, or less formal means of persuasion to routinely conduct these analyses and use the results to improve quality and reduce disparities among groups. The requirement for Medicare+Choice plans to conduct a project on disparities or on culturally and linguistically appropriate services in 2003, the reports by the National Quality Forum and the Institute of Medicine[30] on racial and ethnic disparities in quality, and interest on the part of private purchaser groups like the Washington Business Group on Health are all encouraging signs to suggest that the successful experience of this project may be replicated on a much larger scale in the near future.

Ideally, health plans would be able to collect data on the race/ethnicity of their members directly from the members, along with other important demographic or health

risk information, such as education, occupation, primary language, and family history of illness. Until such time as there are processes in place for gathering this kind of information, though, health plans will have to make do either with currently available information (e.g., demographic items in CAHPS, or information provided by the Centers for Medicare and Medicaid Services to Medicare+Choice plans starting in 2003) or with methods such as those used by participating plans in this project. Data on race/ethnicity obtained by direct member self-report is preferable, but if the information is not available, then one or more methods used in this project should be feasible.

If none of these options is feasible in a particular instance, then we believe that geo-coding could be explored as a possible interim solution. Knowledge of local residential patterns would help determine whether addresses would provide a sufficiently accurate estimate of race/ethnicity for individual plan members.

This project was designed as a feasibility study or demonstration project, focusing on the technical steps of obtaining data on race/ethnicity and generating comparative quality reports. More research can and should be done on what disparities in quality exist at the individual health plan level, and what interventions are effective in reducing or eliminating the disparities that are found. The latter focus is particularly important now; we already know that disparities exist now that health plans can measure them, but we do not yet know whether health plans or other organizations can effectively eliminate them. The Agency for Health Care Research and Quality (AHRQ) is a likely funding source for this area of study; NIH may be an appropriate funding source for projects focusing on specific clinical areas such as diabetes, cancer screening, or asthma. The Health Resources and Services Administration (HRSA) has provided support to the current project, and may find opportunities for future support to projects that involve health plans (particularly those serving Medicaid populations or affiliated with community health centers) taking action to reduce or eliminate disparities in quality. Private foundations have been, and can continue to be, a key source of support for research in this area as well.

APPENDIX. Study Participants

Participating Health Plans	Contact Information	
	Representative	Address
Arkansas Foundation for Medical Care	Clayton Wells Medicaid Data Analysis Manager	401 West Capitol Suite 410 Little Rock, AR 72201
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[19] The policy statement reads: "Whenever possible, racial and ethnic data regarding populations served by HHS-funded programs should either be collected and reported at the providing organizational level and program beneficiary level or be available at that level through use of existing data systems (e.g., matching of enrollment and claims data) so as to be useful in assessing compliance with Title VI of the Civil Rights Act of 1964. Such information would be collected either directly from such entities, or through us and/or matching of existing administrative data sets, including upgrading of such data sets as appropriate to contain information consistent with Directive 15 reporting categories." *Policy Statement on Inclusion of Race and Ethnicity in HHS Data Collection Activities*, October 24, 1997, http://aspe.os.dhhs.gov/datacncl/inclusn.htm.

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Addressing Racial and Ethnic Barriers to Effective Health Care: The Need for Better Data (May/June 2002). Arlene S. Bierman, Nicole Lurie, Karen Scott Collins, and John M. Eisenberg, *Health Affairs,* vol. 21, no. 3. Copies are available from *Health Affairs,* 7500 Old Georgetown Road, Suite 600, Bethesda, MD 20814-6133, Tel: 301-656-7401 ext. 200, Fax: 301-654-2845, www.healthaffairs.org.

#557 *Eliminating Racial/Ethnic Disparities in Health Care: Can Health Plans Generate Reports?* (May/June 2002). David R. Nerenz, Vence L. Bonham, Robbya Green-Weir, Christine Joseph, and Margaret Gunter. *Health Affairs,* vol. 21, no. 3. The absence of data on race and ethnicity in health plan and provider databases is a significant barrier in the creation and use of quality-of-care reports for patients of minority groups. In this article, however, the authors show that health plans are able to collect and analyze quality of care data by race/ethnicity.

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#526 *Quality of Health Care for Hispanic Populations* (March 2002). Michelle M. Doty and Brett L. Ives. This fact sheet, based on the Fund's 2001 Health Care Quality Survey and companion piece to pub. **#523** (above), examines further the survey findings related to the health, health care, and health insurance coverage of Hispanics.

#532 *Racial Disparities in the Quality of Care for Enrollees in Medicare Managed Care* (March 13, 2002). Eric C. Schneider, Alan M. Zaslavsky, and Arnold M. Epstein, Harvard School of Public Health/Harvard Medical School. *Journal of the American Medical Association,* vol. 287, no. 10. In this article the authors report that among Medicare beneficiaries enrolled in managed care plans,

African Americans are less likely than whites to receive follow-up care after a hospitalization for mental illness, eye exams if they are diabetic, beta-blocker medication after a heart attack, and breast cancer screening.

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Are Urban Safety Net Hospitals Losing Low-Risk Medicaid Maternity Patients? (April 2001). Darrell J. Gaskin, Jack Hadley, and Victor G. Freeman. *HSR: Health Services Research,* vol. 36, no. 1, part 1. Copies are available from *HSR: Health Services Research,* Foundation of the American College of Healthcare Executives, Publication Services, One North Franklin, Suite 1700, Chicago, IL 60606-3491, Fax: 312-424-0703.

Addressing Racial Disparities in Health Care Delivery: A Regional Response to the Problem (January 2001). Alan R. Fleischman and Emily B. Wood, New York Academy of Medicine. Copies are available from the New York Academy of Medicine, 1216 Fifth Avenue, New York, NY 10029, Tel: 212-822-7222, E-mail: ewood@nyam.org.

Reforming the Medicaid Disproportionate Share Hospital Program in the 1990s (January 2000). Teresa A. Coughlin, Leighton Ku, and Johnny Kim, The Urban Institute. This discussion paper, part of the Assessing the New Federalism program, compares a 1997 40-state survey of Medicaid DSH usage with one from 1993, finding that a much higher share of federal DSH funds were being paid to local hospitals in 1997. Copies are available from The Urban Institute, 2100 M Street, NW, Washington, DC 20037, Tel: 202-833-7200.

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Vulnerable Populations and Medicare Services: Why Do Disparities Exist? (2000). Marian E. Gornick. Copies are available from Century Foundation Press, The Brookings Institution, 1775 Massachusetts Avenue, NW, Washington, DC 20036, Phone: 800-552-5450, Fax: 202-797-6004, www.tcf.org.

Minority Health in America (2000). Carol J. Rowland Hogue, Martha A. Hargraves, and Karen Scott Collins (eds.). This book reviews findings from The Commonwealth Fund's 1994 National Comparative Survey of Minority Health Care, providing the documentation needed to assess the successes and failures of the current system with regard to minority health care and to chart productive directions for the future. Copies are available from the Johns Hopkins University Press, 2715 North Charles Street, Baltimore, MD 21218-4363, Tel: 410-516-6900, Fax: 410-516-6968, E-mail: www.press.jhu.edu.

#351 *The Dependence of Safety Net Hospitals and Health Systems on the Medicare and Medicaid Disproportionate Share Hospital Payment Programs* (November 1999). Lynne Fagnani and Jennifer Tolbert, National Association of Public Hospitals and Health Systems. As the federal government begins reducing subsidies for safety net hospitals, the authors detail the reliance of safety net hospitals—which treat all patients regardless of their ability to pay—on the Medicare and Medicaid disproportionate share hospital payment programs.

Experiences of Minority Primary Care Physicians with Managed Care: A National Survey (October 1999). Elizabeth R. Mackenzie, Lynne S. Taylor, and Risa Lavizzo-Mourey. *American Journal of Managed Care,* vol. 5, no. 10. From their analysis of a national survey of primary care physicians, the authors determine that differences in rates of termination, type of practice, board certification rates, and managed care affiliation are related to physician ethnicity. Copies are available from Elizabeth Mackenzie, Division of Geriatric Medicine, University of Pennsylvania Health System, 5 Maloney, 3400 Spruce Street, Philadelphia, PA 19104-4283, E-mail: emackenz@mail.med.upenn.edu.

Population Characteristics of Markets of Safety Net and Non-Safety Net Hospitals (September 1999). Darrell J. Gaskin and Jack Hadley. *Journal of Urban Health: Bulletin of the New York Academy of Medicine,* vol. 76, no. 3. This article reports that urban safety net hospitals disproportionately serve minority and low-income communities that otherwise face financial and cultural barriers to health care. Copies are available from the New York Academy of Medicine, 1216 Fifth Avenue, New York, NY 10029-5293.

Race, Gender, and Partnership in the Patient–Physician Relationship (August 11, 1999). Lisa Cooper-Patrick, Joseph J. Gallo, Junius J. Gonzales, Hong Thi Vu, Neil R. Powe, Christine Nelson, and Daniel E. Ford. *Journal of the American Medical Association,* vol. 282, no. 6. Copies are available from Genuine Article/Institute for Scientific Information, 3501 Market Street, Philadelphia, PA 19104, Phone: 1-800-336-4474 option 5, Fax: 215-386-4343, E-mail: ids@ininet.com.

#321 *U.S. Minority Health: A Chartbook* (May 1999). Karen Scott Collins, Allyson Hall, and Charlotte Neuhaus. This chartbook, which is intended to serve as a quick reference for currently available information on minority health, shows that minorities continue to lag behind whites on many important health indicators, including infant mortality rates, life expectancy, and health insurance coverage.

#300 *Community Health Centers in a Changing U.S. Health Care System* (May 1999). Karen Davis, Karen Scott Collins, and Allyson G. Hall. In this policy brief, the authors discuss how major changes in the health care system—the growth of managed care and an increasingly for-profit health care sector—affect the delivery of health services provided by community health centers. These centers have played a critical role in serving some of the most vulnerable populations for more than 30 years.

#311 *Medicaid Managed Care and Cultural Diversity in California* (March 1999). Molly Coye and Deborah Alvarez, the Lewin Group. The authors examine the effect of cultural competence contract provisions that were enacted in 1993 by Medi-Cal, California's Medicaid program. Analysis finds early promise in improving access to and understanding of health care services for low-income, non-English-speaking minority enrollees.

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