Health Care Organizations’ Use Of Race/Ethnicity Data To Address Quality Disparities

Many of these projects have worked, but there is still much room for improvement.

by David R. Nerenz

ABSTRACT: Health care organizations—health plans, hospitals, community health centers, clinics, and group practices—can play an important role in the elimination of racial/ethnic disparities in health care. There are now a number of examples of organizations that have been successful in reducing or eliminating disparities, and a number of published examples of how quality improvement initiatives can improve care for members of targeted minority groups, thereby contributing to the elimination of disparities.

In two important reports, Unequal Treatment and the National Healthcare Disparities Report, the Institute of Medicine (IOM) and the Agency for Healthcare Research and Quality (AHRQ), respectively, have summarized a large body of evidence on the existence of disparities in quality of care among U.S. racial and ethnic groups. Although there is some evidence that disparities are being reduced or have been eliminated over time in some clinical domains, there is no evidence yet that the general pattern of disparities is improving to the point at which we can anticipate the end of this problem in the near future.

Our understanding of the reasons for disparities in quality of care is still incomplete, but no single dominant reason has been identified. Disparities seem to be the end result of a complex set of causal factors that include differential access to care; doctor-patient communication barriers and lack of trust; limited cultural competence of providers and health care organizations; patients’ health beliefs and behavior; stereotypical thinking and biased decision making among providers; problems with literacy and limited English proficiency; and differential access to high-quality hospitals and other facilities.

The IOM and AHRQ reports have drawn attention to the disparities issue, and the U.S. Department of Health and Human Services (HHS) has taken a number of steps to increase research funding and other programmatic support for projects aimed at either understanding the reasons for disparities or doing something to
eliminate them. Several private foundations (most notably the Commonwealth Fund and the Henry J. Kaiser Family and Robert Wood Johnson Foundations) have identified disparities as a priority area for grant making.\(^4\) Also, a number of national or state membership organizations have developed disparities initiatives.\(^5\)

Many of the activities that will lead to a tangible reduction in, or elimination of, disparities in quality of care must be carried out by local health care organizations that have responsibility for the health and well-being of defined groups of people—health plans serving defined sets of members, hospitals serving specific communities, and clinics or medical groups serving panels of regular patients. These are the settings in which the current patterns of disparities are found; they therefore are the settings in which change must occur to alter those patterns.\(^6\)

The purpose of this paper is to provide examples of projects that involve specific health care organizations’ use of data on the race/ethnicity of patients or members to address disparities in quality of care.

**Status Of Race/Ethnicity Data In Health Care Organizations**

Having data on race/ethnicity is a basic first step toward using the data to address disparities. For hospitals, requirements exist in twenty-two states for hospitals to collect data on race/ethnicity.\(^7\) These requirements usually have their historical roots in the requirements of Title VI of the 1964 Civil Rights Act barring discriminatory treatment by hospitals.\(^8\)

Medicaid managed care plans are being affected by a requirement initiated by the Centers for Medicare and Medicaid Services (CMS) in fiscal year 2003, in which state Medicaid programs are required to provide data on enrollees’ race/ethnicity and primary language to managed care plans.\(^9\) The purpose of this data sharing is to allow plans to identify disparities in quality of care and to develop programs in the general area of Culturally and Linguistically Appropriate Services (CLAS). (CLAS programs might include educational materials in languages other than English, translation services, and cultural competence training for providers and staff.) Approximately twelve state Medicaid programs and managed care plans are now involved in a project coordinated by the Center for Health Care Strategies (CHCS), using the Best Clinical and Administrative Practices (BCAP) model as a template for sharing data between state Medicaid programs and plans and organizing quality improvement (QI) projects aimed at racial/ethnic health care quality disparities.\(^10\)

Medicare+Choice (now known as Medicare Advantage) plans have been under a similar requirement since FY 2003. The CMS has been providing data on enrollees’ race/ethnicity from HHS files and requiring plans to conduct at least one QI project in the areas of either CLAS or disparities.\(^11\)
Data Collection Projects To Identify Disparities

Since 1998, the Commonwealth Fund and the Health Resources and Services Administration (HRSA) have supported a series of demonstration projects in the context of managed care plans (commercial, Medicare, and Medicaid). These projects have involved health plans’ either collecting data on race/ethnicity directly or using proxy methods such as geocoding and surname recognition to prepare Health Plan Employer Data and Information Set (HEDIS) reports stratified by race/ethnicity. Participating plans were able to use one or more methods to generate these HEDIS reports, and meaningful disparities were identified in approximately half of the HEDIS Effectiveness of Care measures examined at the individual health plan level. As part of this series of projects, a set of five Medicaid managed care plans was able to obtain data on members’ race/ethnicity from state Medicaid programs and generate HEDIS and Consumer Assessment of Health Plans (CAHPS) reports stratified by race/ethnicity.

In 2004 the Oregon Department of Human Services conducted an analysis of CAHPS survey data from 2003 for the fifteen health plans serving members of the Oregon Health Plan (the state’s Medicaid managed care program). Results were stratified by groupings that generally included white, black, Hispanic, Native American, and “other.” (Some groups were combined in plan-level analyses when sample sizes in individual groups were too small.) Some significant disparities were noted in both state-level and plan-level analyses.

Projects to improve quality that have reduced disparities. There are several recent examples of projects in which a general QI or clinical guideline initiative directed at patients or plan members without regard to race/ethnicity had the effect of reducing an existing disparity in quality of care.

Hemodialysis. In 2003, Ashwini Sehgal reported on the results of a QI intervention in hemodialysis. The project was designed to improve the adequacy of dialysis, anemia management, and nutritional status among patients receiving hemodialysis. The intervention included the dissemination of numerical quality metrics, regular feedback of results to dialysis sites, and workshops and direct supervision for poorly performing facilities. The findings for adequacy of hemodialysis dose indicated steady quality improvement over eight years and a reduction of an initial disparity between black and white patients in the percentage of patients receiving adequate dose, from 10 percent in 1993 to 3 percent in 2000. The intervention did not, though, affect disparities in anemia management or nutritional status.

This project is interesting for at least two reasons. First, the intervention was national in scope and was coordinated by the CMS but implemented locally by individual dialysis centers and clinicians. The nature of the project, then, is consistent with the focus of this paper on initiatives by local health care organizations. Second, the project reduced one type of disparity but did not reduce two others, even though all were part of the same project, over the same time period, with the
same target group of patients, in the same institutions. The underlying dynamics of disparities in quality of care are complicated enough that even a potent QI intervention may not touch all of the relevant processes.

**Childhood immunization rates.** WellPoint of California, in collaboration with the University of California, Los Angeles (UCLA), recently completed analysis of a QI project designed to improve childhood immunization rates for its Medicaid enrollees. Baseline data from 1998 and 1999 showed varicella immunization rates to be low relative to other immunizations and characterized by a marked disparity by race/ethnicity in which non-Hispanic white children had immunization rates of 39 percent, African American and Hispanic children had rates of approximately 50 percent, and “other” children (predominantly Asian) had rates of 61 percent.

The plan initiated a QI initiative with mailings to network providers that included lists of children overdue for immunizations; member newsletter articles, in English and Spanish, about immunizations; low-literacy member education materials in five languages; and a specific mailing to parents of children who were due for an immunization. Follow-up analyses of varicella immunization rates were conducted in 2001 and 2002 using the same methodology as in the baseline period. Immunization rates rose significantly for all groups, to a range of 84–92 percent across groups, with the disparities at baseline largely eliminated.17

In another example, Brendan Flannery and colleagues reported on the results of introducing a vaccine for pneumococcal disease among young children in 2000, along with a positive recommendation in October 2000 from the Advisory Committee on Immunization Practices.18 In the two years immediately preceding the introduction, black children were approximately three times as likely as white children to be diagnosed with invasive pneumococcal disease. By 2002, rates overall had dropped markedly, and the disparity had also decreased so that black children were only half again as likely as white children to develop the disease. As in the Sehgal hemodialysis project, the effort was initiated at the national level but ultimately implemented by local providers.

**Functional status of heart patients.** Finally, in a project using disease management rather than QI approaches, David Walker and colleagues reported the elimination of a disparity in functional status between black and white patients with heart failure.19

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>From 2002 to 2004, HRSA sponsored a six-state demonstration project involving twelve Medicaid managed care plans in which baseline analyses of HEDIS and CAHPS data were followed by QI initiatives designed to reduce or eliminate disparities found at baseline. Each of the plans organized at least one QI project aimed at reducing or eliminating a disparity; virtually all of the projects were targeted specifically at plan members who were members of the minority group identified in baseline analyses as receiving poorer-quality care. These QI projects included several different disease or case management approaches, culturally and linguistically...</td>
</tr>
</tbody>
</table>
appropriate mailings to members or providers about preventive services, and partnerships with community organizations to promote behavior change. Most of the plans were able to evaluate their projects using data from subsequent time periods (usually HEDIS data from the next reporting year), and some were able to show progress toward reducing or eliminating the disparity in less than a year. In two of the plans, a disparity at baseline was completely eliminated or even reversed in follow-up analyses; in three other plans, there were marked improvements in quality of care for members of a targeted minority group, even if disparities were not reduced or eliminated.²⁰

Community health centers. In 1998, HRSA’s Bureau of Primary Health Care established a series of Health Disparity Collaboratives, organized among regional networks of community health centers (CHCs). The collaboratives are focused on improving quality of care for traditionally underserved populations in the CHCs. Chronic diseases such as diabetes, asthma, depression, and hypertension have been the focus of this work. Projects typically involve applying concepts of the Chronic Care Model and Plan-Do-Check-Act (PDCA) cycles from continuous quality improvement (CQI) to improve performance on a specific set of quality-of-care measures for patients with one or more of the chronic conditions.²¹

There are now a set of formal evaluation projects being done on the impact of the Health Disparity Collaboratives, so it is perhaps too early to determine the extent to which the collaboratives have been able to reduce or eliminate quality disparities. Some initial reports suggest that they have been able to significantly improve quality of care for diabetes and reduce disparities in specific quality-of-care measures.²²

Projects using data to improve quality but not necessarily address disparities. Any project designed to improve quality of care for a defined minority group has the potential to both reduce disparities in quality and improve quality overall, even if the intervention is not designed to produce any improvement for the non-Hispanic white population or for patients or plan members in general.²³ A number of published studies evaluating such interventions can serve as models for projects aimed more specifically at reducing or eliminating disparities.

Primary care for inner-city children. Peter Szilagyi and colleagues reported on an effort in Rochester, New York, to target primary care practices serving inner-city children in a reminder, recall, and outreach program designed to promote childhood immunizations. An 18 percent disparity in rates between inner-city and suburban children was cut to 4 percent over six years of program implementation; disparities of 13 percent and 15 percent between white and Hispanic children, respectively, were cut to 7 percent and 1 percent, respectively, over the last three years of program implementation.²⁴

Depression care. Jeanne Miranda and colleagues describe a project in which QI interventions with some modest amount of tailoring for minority patients were used to try to improve quality of care for patients with depression. Although the
general finding was improved quality of care for members of all racial/ethnic groups, results for specific aspects of quality was mixed. All groups had approximately the same improvement in measures of appropriate care, so disparities at baseline were still present post-intervention. Black and Hispanic patients appeared to have better clinical outcomes (reporting of depression at follow-up), but white patients had better outcomes in terms of likelihood of employment.\textsuperscript{25}

Diabetes care. Other positive examples of QI projects focused on specific racial/ethnic patient groups include an educational intervention for African American diabetic patients that was effective in improving measures of glycemic control and blood pressure and also produced a positive, but not statistically significant, effect on lipid control.\textsuperscript{26} A similar educational intervention provided by bilingual nurses to Mexican Americans with Type II diabetes produced improvements in glycemic control and fasting blood glucose.\textsuperscript{27} Improvements in glycemic control in a Hispanic diabetic population were also produced by a program designed to introduce treatment algorithms into two different types of clinic practice.\textsuperscript{28}

Breast cancer screening. Finally, use of targeted mailings based on “ethnic language groups” was successful in producing significant increases in breast cancer screening rates among non-English-speaking immigrant groups in Cardiff, Wales.\textsuperscript{29}

Gaps In Knowledge About Organizational Initiatives

The examples described above are only a few selected from a larger body of published papers that do not usually include the word “disparity” in the title or abstract but are clearly relevant to the question of how health care organizations can use race/ethnicity data to design QI projects and reduce or eliminate disparities. These projects all involved the targeting of QI interventions to individual patients or clinic sites based on race/ethnicity, and all were able to produce significant improvements in core quality-of-care measures for members of those groups.

The examples show that hospitals, health plans, and clinics have been able to use data on race/ethnicity to make major reductions in, or even elimination of, disparities in quality of care. However, there are some specific issues to which additional attention should be paid if we are to move beyond our current state of knowledge about organization-level disparities initiatives.

(1) Having more examples of organizational projects that have been able to reduce or eliminate quality disparities would be particularly desirable if those projects had been able to produce a corresponding rise in overall rates for the target quality-of-care measure(s). (2) Although it is useful to have data on the effectiveness of single-intervention programs or projects, most quality improvement in health care organizations goes on over relatively long periods of time.\textsuperscript{30} The important test of a QI initiative to reduce disparities is not whether it produces a statistically significant difference in one measurement cycle but rather whether it produces sustained reduction in, or elimination of, the target disparity over time. (3) Some of the work on disparities has been prompted by interest on the part of pub-
lic and private purchasers, but that interest has to be sustained if the initial momentum in any of these projects is to be sustained. A strong “business case” for attention to disparities, either at the health care organization level or at the employer or community level, will need to be articulated. (4) Work in the area of cultural competence in disease and case management programs has already begun, and there have been some notable successes. If disease management is going to continue to be a popular model for the care of chronic illness, though, there is room for continued improvement in its cultural and linguistic competence.

There is a reasonable body of evidence demonstrating that health care organizations can use data on patients’ or members’ race/ethnicity to identify disparities in quality of care and to organize QI projects that reduce or eliminate those disparities. However, there is no evidence that the end of this problem is close at hand.

Preparation of this paper was supported by a grant from the Robert Wood Johnson Foundation.

NOTES
11. Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (BIPA), Sec. 1852.
ports?" Health Affairs 21, no. 3 (2002): 259–263.


