

Racial/Ethnic Differences in Quality of Care for North Carolina Medicaid Recipients

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Abstract

Background: National health care quality measures suggest that racial and ethnic minority populations receive inferior quality of care compared to whites across many health services. As the largest insurer of low-income and minority populations in the United States, Medicaid has an important opportunity to identify and address health care disparities.

Methods: Using 2006 Healthcare Effectiveness Data and Information Set (HEDIS) measures developed by the National Committee for Quality Assurance (NCQA), we examined quality of care for cancer screening, diabetes, and asthma among all eligible non-dual North Carolina Medicaid recipients by race and ethnicity.

Results: In comparison to non-Latino whites, non-Latino African Americans had higher rates of screening for breast cancer (40.1% vs. 36.1%), cervical cancer (60.5% vs. 54.6%), and colorectal cancer (25.5% vs. 20.6%) and lower rates of LDL testing among people with diabetes (61.8% vs. 65.1%) and appropriate asthma medication use (88.7% vs. 91.0%). A1C testing and retinal eye exam rates among people with diabetes were similar. Smaller racial/ethnic minority groups had favorable quality indicators across most measures.

Limitations: Comparability of findings to national population-based quality measures and other health plan HEDIS measures is limited by lack of case-mix adjustment.

Conclusions: For the health services examined, we did not find evidence of large racial and ethnic disparities in quality of care within the North Carolina Medicaid program. There is substantial room for improvement, however, in cancer screening and preventive care for Medicaid recipients as a whole.

Keywords: disparities; quality of care; Medicaid; cancer screening; chronic disease

Medicaid is the largest provider of health insurance for low-income and minority populations in the United States and has both a responsibility and a vested interest to address health care disparities.¹ According to the 2006 National Healthcare Disparities Report, which tracks the extent to which minority populations receive evidence-based care for specific health care services, African Americans receive poorer quality of care than whites for the majority of core measures. Despite increasing national attention to health care disparities, quality differences continue to worsen

for lower income people across two-thirds of core measures and for racial and ethnic minorities across one-third of measures.² Disparities are also well-documented across payer type; nationally, Medicaid recipients enrolled in managed care receive lower quality care than the commercially-insured population.³

In North Carolina, 15% of the population receives health care coverage under Medicaid. The North Carolina Division of Medical Assistance (NC DMA) is committed to monitoring the quality of health care delivered to North Carolina

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Medicaid recipients, detecting disparities where they exist, and identifying opportunities to improve health and health care for this vulnerable population. Since 2001, the NC DMA has been monitoring and reporting the Healthcare Effectiveness Data and Information Set (HEDIS) measures endorsed by the National Committee for Quality Assurance (NCQA)⁴ a quality monitoring tool employed by over 90% of America's health plans to generate comparable measures of performance on important dimensions of care.⁵

Presented here are HEDIS measures for measurement year 2006 pertaining to quality and effectiveness of care. Specifically, we report the proportion of eligible non-dual Medicaid recipients who have received breast, cervical, and colorectal cancer screening, as well as recommended diabetes and asthma care. This report is unique from nationally available NCQA data in its inclusion of the entire state non-dual Medicaid population (including both fee-for-service patients and those enrolled in managed care) and its stratification of results by race and ethnicity.

Methods

Seven quality of care measures derivable from administrative data alone were considered for this report: three for cancer screening, three for diabetes care, and one for asthma care. Diagnosis and procedure codes in Medicaid administrative claims data were used to identify eligible patients and recommended services, in accordance with HEDIS 2007 Technical Specifications (see Table 1).⁶ Inclusion required continuous Medicaid enrollment during the measurement year (2006) for all measures. Colorectal cancer, breast cancer, and asthma care measures required continuous enrollment in the prior year (2005) as well. One gap of up to 45 days in continuous enrollment during each year was allowed. The NC DMA data warehouse contained 72 months of historical data. Exclusion criteria for some measures (such as prior hysterectomy for cervical cancer screening) might not have been identified if the occurrence was prior to this period. Persons who are eligible for both Medicaid and Medicare coverage were not considered in these analyses due to incomplete availability of Medicare claims data.

Race and ethnicity is self-reported by Medicaid recipients during enrollment. Six categories of self-reported race and nine categories of self-reported ethnicity were grouped into seven distinct race/ethnicity categories for this report for ease of comparison and to allow for sufficient size in each group. Recipients identified as Hispanic or Latino in administrative data were categorized as "Latino." Non-Latino recipients were categorized as African American, white, American Indian/Alaskan Native, Asian/Pacific Islander, other, or unreported race/ethnicity. National HEDIS means, reflecting HEDIS performance among participating managed care organizations, are reported as a point of reference,⁷ though unexamined case-mix differences between North Carolina Medicaid recipients and persons enrolled in managed care plans nationally preclude direct comparison.

Results

Race and ethnicity data were unavailable for 3-7% of the eligible population across measures. African Americans and whites together comprised between 84% and 95% of the eligible population within each measure.

Results are shown in Tables 2-4. In comparison to whites, African Americans had higher rates of screening for breast cancer (40.1% vs. 36.1%), cervical cancer (60.5% vs. 54.6%), and colorectal cancer (25.5% vs. 20.6%). Among people with diabetes, rates of A1C testing and retinal eye exams were similar for African Americans and whites, but LDL cholesterol screening rates were lower among African Americans (61.8% vs. 65.1%). African Americans had slightly lower rates of appropriate asthma medication use (88.7% vs. 91.0%). Among Latino, American Indian/Alaskan Native, and Asian/Pacific Islander Medicaid recipients, observed rates of cancer screening and diabetes and asthma care were similar or better than rates observed among whites.

Appropriate asthma medication use among North Carolina Medicaid recipients exceeded that of national Medicaid managed care and commercially insured populations. For all other quality of care indicators, North Carolina Medicaid rates were substantially lower than these national comparison groups.

Discussion

Stratification of HEDIS quality of care measures by race and ethnicity did not reveal a consistent pattern of disparities within the North Carolina Medicaid population. African Americans had better rates of cancer screening than whites, similar quality of diabetes care, and slightly worse asthma care. These findings differ from national estimates which suggest lower rates of colorectal cancer screening and diabetic A1C testing, similar rates of mammography, and higher rates of cervical cancer screening and diabetic eye exams among African Americans compared to whites in the general population.² Medicaid recipients constitute a lower-income segment of the general population, with a higher prevalence of chronic disease and disability which may present additional barriers to receiving recommended screening tests. Importantly, however, Medicaid recipients have health care coverage for all services examined in these measures. Therefore the interplay between socioeconomic status, health status, access to care, and race/ethnicity may be expected to operate differently within a Medicaid population than the general US population.

Among American Indians/Alaskan Natives, Latinos, and Asians/Pacific Islanders, quality of care also appears to exceed that of whites across most measures. Exceptions are lower rates of cervical cancer screening among Asians/Pacific Islanders and A1C testing among American Indians/Alaskan Natives. Firm conclusions cannot be drawn about these smaller race/ethnicity groups, however, because of the much larger number of recipients with unreported race and ethnicity. It is unclear why recommended diabetes care and

cancer screening rates were highest among recipients with unreported race and ethnicity, with the exception of cervical cancer. Any association between race/ethnicity and the likelihood of that information being recorded in Medicaid administrative data could create significant error in reported rates for the smaller race/ethnicity groups.

The inherent limitations of using paid claims data to assess quality of care must also be acknowledged. Diagnostic coding for asthma or diabetes on claims submitted to Medicaid were required to identify individuals eligible for these measures. Coding for bilateral mastectomy, hysterectomy, or colon cancer in Medicaid claims history was required to appropriately exclude

Table 1.
HEDIS Measures and Descriptions

HEDIS Measure	Description
Cancer Screening	
Breast	The percentage of women 40-69 years of age who had one or more mammograms during the measurement year or the year prior to the measurement year. Women who had a bilateral mastectomy were excluded.
Cervical	The percentage of women 21-64 years of age who received one or more Pap tests during the measurement year or the two years prior to the measurement year. Women who had a hysterectomy were excluded.
Colorectal	The percentage of adults 50-80 years of age who had appropriate screening for colorectal cancer, defined as any one of the following: fecal occult blood test during the measurement year; flexible sigmoidoscopy during the measurement year or the four years prior to the measurement year; double contrast barium enema during the measurement year or the four years prior to the measurement year; or colonoscopy during the measurement year or the nine years prior to the measurement year. (Only 72 months of historical data were available for identifying colonoscopies.) Recipients with a diagnosis of colorectal cancer or a total colectomy were excluded.
Comprehensive Diabetes Care	
A1C Testing	The percentage of members 18-75 years of age with diabetes (type 1 and type 2) who had an A1C test performed during the measurement year.
LDL-C Testing	The percentage of members 18-75 years of age with diabetes (type 1 and type 2) who had an LDL-C screening test performed during the measurement year.
Retinal Eye Exams	The percentage of members 18-75 years of age with diabetes (type 1 and type 2) who had a retinal or dilated eye exam by an eye care professional (optometrist or ophthalmologist) in the measurement year. (HEDIS specifications also allow a negative retinal exam in the year prior to the measurement year as evidence of screening. Exam results are not available in the NC DMA data, so this criterion was not used.)
Asthma Care	
Use of Appropriate Medications for People with Asthma	The percentage of members 5-56 years of age who were identified as having persistent asthma and who were appropriately prescribed medication during the measurement year. Persistent asthma is identified when a recipient has met at least one of the following four criteria during both the measurement year and the year prior to the measurement year: had at least one emergency room visit with asthma as the principal diagnosis; had at least one acute inpatient discharge with asthma as the principal diagnosis; had at least four outpatient asthma visits with asthma as one of the listed diagnoses and at least two asthma medication dispensing events; and had at least four asthma medication dispensing events (i.e., an asthma medication dispensed on four occasions). "Appropriately prescribed medications" include at least one dispensed prescription for inhaled corticosteroids, nedocromil, cromolyn sodium, leukotriene modifiers, or methylxanthines during the measurement year. Recipients who had been diagnosed with emphysema or chronic obstructive lung disease were excluded.

individuals from cancer screening measures. Any screening services performed but not reimbursed by Medicaid could not be counted. It is unlikely, however, that such omissions

are common enough to have created significant error in the observed rates. Findings represent only continuously-enrolled non-dual Medicaid recipients and may not be generalizable to

Table 2.
Proportion of Non-Dual North Carolina Medicaid Recipients Who Have Received Recommended Cancer Screenings, by Race/Ethnicity and 2006 National HEDIS Mean

	Breast Cancer		Cervical Cancer		Colorectal Cancer	
	Number of Eligible Individuals	Percent Screened	Number of Eligible Individuals	Percent Screened	Number of Eligible Individuals	Percent Screened
African American	19,043	40.1	57,799	60.5	18,825	25.5
White	19,035	36.1	53,378	54.6	24,858	20.6
American Indian/Alaskan Native	764	44.6	2,302	61.4	776	32.6
Latino	452	47.3	1,807	59.6	420	29.5
Asian/Pacific Islander	316	38.6	891	53.2	350	22.0
Other	836	26.9	1,707	46.0	1,144	18.3
Unreported Race/Ethnicity	2,653	44.9	3,588	45.6	2,767	36.1
Total Eligible North Carolina Medicaid Recipients	43,099	38.5	121,472	57.2	49,140	23.6
2006 National Medicaid MCO HEDIS mean		53.9		65.0		n/a
2006 National Commercial Plan HEDIS mean		72.0		81.8		52.3

Table 3.
Proportion of Non-Dual North Carolina Medicaid Recipients with Diabetes Who Have Received Recommended Services, by Race/Ethnicity and 2006 National HEDIS Mean

	A1C Testing		LDL-C Screening		Retinal Eye Exam	
	Number of Eligible Individuals	Percent Receiving Service	Number of Eligible Individuals	Percent Receiving Service	Number of Eligible Individuals	Percent Receiving Service
African American	12,369	72.6	12,369	61.8	12,369	39.8
White	11,026	72.4	11,026	65.1	11,026	38.8
American Indian/Alaskan Native	448	69.6	448	66.7	448	38.8
Latino	434	77.4	434	67.3	434	43.3
Asian/Pacific Islander	189	79.9	189	66.1	189	45.0
Other	399	66.9	399	59.6	399	39.3
Unreported Race/Ethnicity	1,361	79.8	1,361	70.8	1,361	44.5
Total Eligible North Carolina Medicaid Recipients	26,226	72.9	26,226	63.8	26,226	39.7
2006 National Medicaid MCO HEDIS mean		76.2		80.5		48.6
2006 National Commercial Plan HEDIS mean		87.6		92.3		54.8

persons with intermittent Medicaid coverage or to those over age 65 or on Social Security Disability with Medicare coverage.

Mean values for National HEDIS indicators for Medicaid managed care and commercial plans were provided in this report as a point of reference, but direct comparisons should be made with caution. To our knowledge, North Carolina is unique in publicly reporting HEDIS measures for both managed care and fee-for-service Medicaid recipients. Thus North Carolina measures include patients with more extensive chronic disability who may be excluded from managed care participation in other states. HEDIS methodology does not adjust for risk or case-mix differences in the population. Case mix differences may also confound differences observed across race/ethnicity groupings in these analyses.

Many factors may contribute to favorable rates of screening among minority populations in North Carolina. The Community Care of North Carolina (CCNC)⁸ system has strived to increase awareness of evidence-based practices throughout the state over the past decade, particularly in relation to diabetes and asthma care for Medicaid recipients. It is conceivable that CCNC participation and the impact of quality improvement efforts may have been greatest in the areas that serve more diverse populations. It is also plausible that local outreach efforts to raise awareness about prevention, supported through the North Carolina Office of Minority Health and Health Disparities, Division of Public Health, the faith-based community, and others, may have been more concentrated or more effective in predominantly minority communities. In fact, there may be a need for more aggressive prevention efforts targeting low-income whites. Observed differences in screening rates could reflect differential attention to preventive services on the part of health care providers, or a greater propensity to adhere to screening recommendations among minorities with Medicaid coverage. These potential factors could not be explored with available data and warrant further study.

These findings provide reassurance that, for the particular health services examined, large racial/ethnic disparities in quality of care are not readily apparent within the North Carolina Medicaid program. However, substantial deficiencies in care for Medicaid recipients as a whole are evident. A large

Table 4.
Proportion of Non-Dual North Carolina Medicaid Recipients with Persistent Asthma Who Have Received Appropriate Medications, by Race/Ethnicity and 2006 National HEDIS Mean

	Number of Eligible Individuals	Percent with Appropriate Medications
African American	6,977	88.7
White	5,882	91.0
American Indian/Alaskan Native	387	92.5
Latino	437	91.8
Asian/Pacific Islander	39	92.3
Other	551	93.1
Unreported Race/Ethnicity	1,053	91.2
Total Eligible North Carolina Medicaid Recipients	15,326	90.1
2006 National Medicaid MCO HEDIS mean		85.7
2006 National Commercial Plan HEDIS mean		89.9

majority of eligible patients have not been screened for breast and colorectal cancer, and over 40% have not been screened for cervical cancer. More than 25% of Medicaid enrollees with diabetes are not receiving recommended tests to monitor blood sugar control and cholesterol levels, and over 60% are not receiving routinely recommended eye care. Addressing racial/ethnic and income-related health disparities in North Carolina will require improved quality of care for all Medicaid recipients. Expansion of existing quality improvement efforts, to more broadly address preventive care and to engage additional providers and patients in better management of chronic disease, may move us further toward the goal of eliminating health care disparities in North Carolina. **NCMJ**

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Amanda Geiger bought these sunglasses
to wear on spring break. She wore them only once
before she was killed by a drunk driver.

Friends Don't Let Friends Drive Drunk.



Photo by Michael Mazzeo



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