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Access to medications for medicare enrollees related to race/ethnicity: Results from the 2013 Medicare Current Beneficiary Survey

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ABSTRACT

Background: Prescription medications are taken by millions of Americans to manage chronic conditions and treat acute conditions. These medications, however, are not equally accessible to all.
Objective: To examine medication access by race/ethnicity among Medicare beneficiaries.
Methods: Using the 2013 Medicare Current Beneficiary Survey (n = 10.515), this study examined access to medications related to race/ethnicity, comparing non-Hispanic blacks and Hispanics to whites. Multivariable logistic regression models were estimated, controlling for age, gender, income, education, chronic conditions, and type of drug coverage.
Results: Non-Hispanic blacks were less satisfied than whites with amount paid for prescriptions [OR = 0.69,95%CI(0.55,0.86)], the list of drugs covered by their plan [OR = 0.69,95%CI(0.56,0.85)], and finding a pharmacy that accepts their drug coverage [OR = 0.59,95%CI(0.48,0.72)], after adjustment. Low-income individuals were more likely to report not filling a prescription and taking less medication than prescribed. Compared to beneficiaries with excellent health, those with poor, fair, or good health were less satisfied with access. Access was also diminished for patients with depression, diabetes, and chronic obstructive pulmonary disease, emphysema or asthma.
Conclusion: Possible interventions for non-Hispanic blacks might include assisting them in finding the best drug plan to meeting their needs, connecting them to medication assistance programs, and discussing convenience of pharmacy with patients.

1. Introduction

In 2015, the US spent $457 billion on prescription medications.[1] Patients with chronic conditions have benefitted from these medications through reduced morbidity and mortality, and increased health-related quality of life.[2–5] Health improvements related to prescription medications are documented for a number of diseases, including cardiovascular disease and its risk factors,[6,7] diabetes,[8] HIV/AIDS,[9,10] and mental health conditions.[11,12] One study estimated that, without antihypertensive medication, average blood pressures would have been 10–13% higher, and 86,000 excess premature deaths from cardiovascular disease would have occurred in 2001.[13]

Unfortunately, many Americans do not benefit from these potentially life-saving treatments due to issues with access. The Commonwealth Fund 2007 International Health Policy Survey found that 23.1% of Americans reported not filling a prescription or skipping a dose due to cost compared to 13.4% of Australians, 11.5% of Germans, 10.0% of New Zealanders, 8.0% of Canadians, and 5.4% of people from the United Kingdom.[14]

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Prior research suggests that limited access to care is particularly pronounced among non-Hispanic Blacks and Hispanics compared to non-Hispanic whites.[15] Analysis of the survey responses from the 2015 Health Interview Survey found that compared with non-Hispanic whites, Hispanics had worse access to care on 14 of the 20 access measures, similar access on 3 measures, and better access on 3 measures, while non-Hispanic blacks had worse access on 12 measures and similar access on 10 measures.[16]

Addressing lack of access to prescription medications requires a better understanding of problematic areas. The goal of this study was to examine differences in medication access related to race and ethnicity in five specific areas: 1) amount paid for prescriptions; 2) drug plan list of covered medications; 3) finding a pharmacy that accepts your prescription drug plan; 4) not filling prescriptions due to cost; 5) taking smaller dose or skipping doses.

2. Methods

2.1. Medicare Current Beneficiary Survey

This study used the 2013 Medicare Current Beneficiary Survey (MCBS) Access to Care File, which includes survey responses from a random sample of current beneficiaries.[17] This public use file contains interviews from individuals living in the community and excludes all beneficiaries who were in a health care facility (n = 950). The sample includes a random cross-section of all beneficiaries who were continuously enrolled in one or both parts of the Medicare program in 2013. MCBS sampling weights account for stratification, clustering, multiple stages of selection, and disproportionate sampling and adjust for survey nonresponse.

2.2. Study population

A total of 10,515 elderly (age 65 or older) Medicare beneficiaries responded to the survey. Individuals under age 65 (n = 2512) or of "Other" race/ethnicity (n = 812) were dropped, as were respondents who stated "refused" or "don't know" for outcome or control variables, resulting in a study population of between 9951 and 10,515 depending on the outcome. For two measures, satisfaction with drug list and finding a pharmacy, the sample was also limited to those who reported having prescription drug coverage (n = 8901 and 9,057, respectively).

2.3. Race/ethnicity

Race/ethnicity was self-reported and categorized into one of four groups: 1) Non-Hispanic blacks (n = 999, weighted percent 9.2%); 2) Non-Hispanic whites (n = 8,821, weighted percent 82.3%); 3) Hispanics (n = 976, weighted percent 8.5%).

2.4. Access

Table 1 displays question content for access measures. The first three are ratings of satisfaction, with response sets ranging from very satisfied to very dissatisfied, while (4) and (5) are reports of access, with response sets ranging from often to never.

2.5. Statistical analyses

Demographic characteristics and measures of medication access by race/ethnicity were compared using chi-squared tests. Multivariable logistic models examined association between medication access and race/ethnicity, adjusting for age, gender, education, income level, chronic conditions, health status, and drug coverage. Analyses were conducted using STATA V13 (College Station, TX) adjusting for sampling weights provided in the public use data file. Because this was de-identified public use data, it did not meet the criteria of human subjects research and was exempt from IRB approval.

3. Results

3.1. Patient characteristics

Age, income, education, prevalence of a number chronic conditions, general health status, and drug coverage differed significantly by race and ethnicity (Table 2). Compared to non-Hispanic whites, non-Hispanic blacks and Hispanics were more likely to be under age 75 [54.5%, 58.0%, and 56.9%, respectively, $P < 0.001$] and had lower income [30.8%, 59.6%, and 68.5%, respectively, $P < 0.001$]. In addition, non-Hispanic blacks and Hispanics were more likely to have less than a high school education [13.1%, 34.3%, and 50.1%, respectively, $P < 0.01$], and be in excellent health [20.9%, 12.9%, 14.5%, respectively, $P < 0.001$]. In terms of drug coverage, non-Hispanic whites are more likely than other groups to have Medicare Advantage coverage. Non-Hispanic black and Hispanics are more than three times as likely as non-Hispanic whites to have Medicaid dual coverage.

3.2. Medication access: unadjusted results

In unadjusted analyses, race/ethnic differences in medication access existed for four measures (Table 3). Non-Hispanic whites (29%) and Hispanics (28%) were more likely than non-Hispanic

Table 1
Medicare Current Beneficiary Survey (MCBS) questions related to medication access.

Topic	Question content
Amount paid for prescription	Please tell me how satisfied you have been with … The amount you have to pay for your prescribed medicine. [Very satisfied; Satisfied; Dissatisfied; Very dissatisfied]
List of drugs covered by drug plan	Please tell me how satisfied you have been with … Your prescription drug plan's formulary or the list of drugs covered by the plan. [Very satisfied; Satisfied; Dissatisfied; Very dissatisfied]
Finding a pharmacy that accepts drug plan	Please tell me how satisfied you have been with … The ease of finding a pharmacy which accepts your drug plan. [Very satisfied; Satisfied; Dissatisfied; Very dissatisfied]
Not fill due to cost	Please tell me how often during (current year) have you done any of the following things. Have you often, sometimes, or never … Decided not to fill a prescription because it cost too much. (Often, Sometimes, Never)
Took smaller dose	Please tell me how often during (current year) have you done any of the following things. Have you often, sometimes, or never … taken smaller doses than prescribed to make the medicine last longer. (Often, Sometimes, Never)
Skipped dose	Please tell me how often during (current year) have you done any of the following things. Have you often, sometimes, or never … Skipped doses to make the medicine last longer. (Often, Sometimes, Never)

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