

C H A P T E R

# 5

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**Disparities in outcomes for  
Medicare beneficiaries with  
different social risks**

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# Disparities in outcomes for Medicare beneficiaries with different social risks

## Chapter summary

Social risk factors such as income, housing, social support, transportation, nutrition, and race/ethnicity can influence health outcomes. These factors stem from social determinants of health (SDOH), which are the conditions in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risk. Addressing SDOH aims to reduce health disparities—that is, differences among populations in the burden of disease or in opportunities to achieve optimal health—and achieve health equity across patient populations. Widespread recognition of health disparities has prompted many policymakers and health care organizations to prioritize health equity as a key component of health care quality improvement.

To better understand steps that health care providers, payers, and other organizations have taken to address SDOH, the Commission contracted with L&M Policy Research in the summer and fall of 2021 to review the literature and conduct stakeholder interviews. Five broad themes emerged from this work. First, many approaches and specific interventions have been used to try to address SDOH. Second, SDOH initiatives are usually aimed at populations that include but are not exclusive to Medicare beneficiaries. Third, participation in value-based payment arrangements such as accountable care organizations may help

## In this chapter

- Beneficiary race/ethnicity and low-income status associated with differential health outcomes
- The Commission's work to improve incentives to deliver high-quality, efficient care to all beneficiaries

motivate efforts to address SDOH. Fourth, most health care organizations are not operating SDOH initiatives by themselves; they usually collaborate with community-based organizations such as food banks or public housing agencies. And finally, though many organizations are working to address SDOH, objective evaluations of the effectiveness of these efforts are limited and the findings are often mixed.

To date, our analyses of claims-based outcome measures have generally assessed outcomes in aggregate for all Medicare beneficiaries or beneficiaries receiving care by certain types of providers. Because health outcomes can be influenced by patients' social risk factors, in this chapter we report findings from an examination of ambulatory care-sensitive (ACS) hospitalizations and emergency department visits for fee-for-service beneficiaries in 2019, stratified by race/ethnicity and low-income status. We also analyzed hospital readmission rates by race/ethnicity and low-income status for beneficiaries who had had a recent hospital stay. We examined rates of successful discharge to the community for beneficiaries who had used skilled nursing facilities and home health agencies. Reporting disparities in quality measure results among groups of Medicare beneficiaries allows for greater transparency regarding inequities in care delivery and is an important first step to developing and implementing strategies to decrease those disparities.

We found that both race/ethnicity and low income were associated with differential outcomes. Beneficiaries with low incomes were more likely to have worse outcomes. For example, beneficiaries receiving the Part D low-income subsidy (LIS) had rates of ACS hospitalization that were 1.3 times higher than those not receiving the LIS (higher rates are worse). The difference in performance was also pronounced for skilled nursing facilities: Non-LIS beneficiaries had a rate of successful discharge to the community that was 1.5 times higher than that of LIS beneficiaries (higher rates are better). At the same time, beneficiaries who were Black or Hispanic were more likely to have worse outcomes, while Asian/Pacific Islander and non-Hispanic White beneficiaries were more likely to have better outcomes. For example, Black beneficiaries had a rate of ACS emergency department visits that was 2.1 times higher than that of Asian/Pacific Islander beneficiaries (higher rates are worse). Outcomes for low-income beneficiaries were worse across race/ethnicity categories for all the measures examined. However, even within income categories, differences across the race/ethnicity groups persisted. For example, among non-LIS beneficiaries, Black beneficiaries had a rate of ACS hospitalizations that was 1.8 times higher (worse) than that of Asian/Pacific Islander beneficiaries.

Much of the Commission's work has focused on modifying payment systems to incentivize health care providers and payers to deliver high-quality care in the most efficient manner. While strong incentives for achieving value-based care objectives are critical, it is also important to recognize when financial incentives place certain patients and the providers who care for them at a relative disadvantage. The Commission's recent work on accounting for differences in patients' social risk factors in quality payment programs and on payment policies for safety-net providers recognizes differences in patient social risk factors and aims to improve incentives to deliver high-quality and efficient care to all beneficiaries.

In addition to accounting for patient social risk in quality payment programs and in supporting safety-net providers, the Commission also generally supports two other policies to encourage providers to focus on reducing health disparities: (1) public reporting of quality results stratified by social risk factors, and (2) adding a focus on reducing disparities in quality payment programs. CMS should weigh implementing these policies on a case-by-case basis and carefully consider any unintended consequences associated with implementing the policies. ■



## Defining key terms

**Health disparities:** Preventable differences in the burden of disease, injury, or violence, or in opportunities to achieve optimal health, experienced by socially disadvantaged racial, ethnic, and other population groups and communities (Centers for Disease Control and Prevention 2017).

**Health equity:** The attainment of the highest level of health for all people, where everyone has a fair and just opportunity to attain their optimal health regardless of race, ethnicity, disability, sexual orientation, gender identity, socioeconomic status, geography, preferred language, or other factors that affect access to care and health outcomes (Centers for Medicare & Medicaid Services 2022e).

**Social determinants of health (sometimes called social drivers of health) (SDOH):** Conditions in the environments where people are born, live, learn,

work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. SDOH can be grouped into five domains: economic stability, education access and quality, health care access and quality, neighborhood and built environment, and social and community context (Office of Disease Prevention and Health Promotion 2021).

**Social risk factors:** A set of constructs that captures the primary ways in which social processes and social relationships can influence key health-related outcomes. Indicators of social risk factors include dual eligibility for Medicare and Medicaid, race and ethnicity, marital status, and neighborhood deprivation (Assistant Secretary for Planning and Evaluation 2016, National Academies of Sciences, Engineering, and Medicine 2016b). ■

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## Background

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Social risk factors such as income, housing, social support, transportation, nutrition, and race/ethnicity can influence health outcomes. These factors stem from social determinants of health (SDOH), which are the conditions in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. Addressing SDOH aims to reduce health disparities—that is, differences among populations in the burden of disease or in opportunities to achieve optimal health—and achieve health equity across patient populations. (See text box for definitions of terms used in this chapter.) Strategies to address SDOH include health care policies that provide access to appropriate medical care regardless of a patient's ability to pay. Social policies that are not traditionally considered health care interventions, such as providing

access to housing and nutritious food, can also address SDOH.

The past decade has seen a growing recognition of the importance of social risk factors for health outcomes, prompting many organizations in the public and private sectors to prioritize SDOH as a key component of health care quality improvement. Many U.S. health systems are making sizable investments in addressing SDOH, particularly with housing-focused interventions (Horwitz et al. 2020). (See text box, pp. 208–209, with findings from a literature review and interviews about interventions to address social determinants of health in Medicare.) In the last few years, the disparate effects of COVID-19 across Medicare subpopulations have underscored the role that race/ethnicity plays in health outcomes. Black, Hispanic, and American Indian/Alaska Native Medicare beneficiaries have been disproportionately impacted by the disease compared with White and Asian/Pacific Islander beneficiaries (Centers for Medicare & Medicaid Services 2022g).

## Literature review and interviews: Interventions to address social determinants of health in Medicare

To better understand health care providers', payers', and other organizations' efforts to address social determinants of health (SDOH), the Commission contracted with L&M Policy Research in the summer and fall of 2021 to review the literature and conduct stakeholder interviews. Several themes emerged: (1) Many approaches and specific interventions have been used to try to address SDOH; (2) SDOH initiatives are usually aimed at populations that include but are not exclusive to Medicare beneficiaries; (3) participation in value-based payment arrangements such as accountable care organizations may help motivate efforts to address SDOH; (4) most health care organizations are not operating SDOH initiatives by themselves; they usually collaborate with community-based organizations (CBOs) such as food banks or public housing agencies; and (5) though many organizations are working to address SDOH, objective evaluations of the effectiveness of these efforts are limited and the findings are often mixed.

### What we found in the literature review

The literature review focused on interventions that included Medicare beneficiaries in 33 peer-reviewed studies, grey literature, and government reports examining a variety of interventions to address social risks and the impact those programs had on health outcomes, utilization, and health expenditures. Many of the studies examined

initiatives to improve population health that included a segment of the Medicare population (e.g., beneficiaries dually eligible for Medicare and Medicaid) but were not aimed exclusively at Medicare beneficiaries. The most common types of interventions involved coordination of care (i.e., connecting at-risk patients with various social and or medical services), food insecurity and nutrition, and housing needs. A handful of studies examined programs that addressed health literacy, social isolation, or transportation. Each study attempted to quantify the impact that the programs had on clinical outcomes, but the specific measures were different across studies. Most of the studies focused on how interventions affected quality and use of health care services.

Most interventions in the reviewed literature were associated with improvements in some measures but mixed or inconclusive results in others. Twenty-four articles showed improvement in at least one measure, nine described trends indicative of improvement, and one article showed no impact (one article is counted twice since it covered two separate interventions). To the extent that studies estimated the effect of SDOH programs on health care expenditures, improvements in health outcomes or decreases in utilization were sometimes, but not always, associated with reductions in spending.<sup>1</sup> Few studies evaluated the relationship between SDOH interventions and Medicare spending, and their findings were mixed.

*(continued next page)*

Under fee-for-service (FFS) payment systems, providers have little financial incentive to address the social needs of their patient populations since such initiatives often increase practice costs without commensurate increases in revenue. Medicare Advantage (MA) plans and alternative payment models, such as accountable care organizations (ACOs), have

more of a financial incentive to improve outcomes for their enrolled populations, and they have more flexibility to do so. Recent laws, regulations, and guidance from CMS have created more opportunities for MA plans to innovate on supplemental benefits, such as nonmedical benefits that target SDOH (e.g., food and transportation). ACOs also have a financial



## Literature review and interviews: Interventions to address social determinants of health in Medicare (cont.)

### What we found in the stakeholder interviews

The structured stakeholder interviews were conducted with representatives from a range of health care organizations selected because they conduct programs to address health-related social needs in older adult populations. The interviewees represented three health care plans offering Medicare Advantage (MA) products, a Medicare accountable care organization (ACO), three integrated health care systems (one of which has several ACOs), two organizations taking part in the Center for Medicare & Medicaid Innovation's Accountable Health Communities model, and a state Medicaid agency. Interviewees' organizations focused on improving food insecurity, and most of the organizations also had programs that address transportation and housing needs. The organizations also targeted other types of social needs such as social isolation and interpersonal violence. Organizations generally had not conducted objective evaluations of their impact, but all were in the process of evaluating their programs or planned to do so.

Organizations that took part in the interviews usually pointed to one (or several) of the following reasons for taking steps to address SDOH: mission-driven values, specific community needs, and participation in a value-based payment arrangement (or preparing for such arrangements in the future).

The organizations depended to some extent on local CBOs, such as food banks, public housing authorities, or social service nonprofits. Six of the organizations used a “screen and refer to service” approach, which involved identifying patients who need services and referring them to an appropriate CBO. The other four organizations used a “screen and provide services” approach, which involved taking a more direct role in addressing social needs in collaboration with CBOs. To identify patients for intervention, some organizations used direct patient screening tools, often supplemented by administrative data. Others used predictive analytic tools using information drawn from administrative and secondary data sources.

The organizations cited four types of funding sources for their SDOH activities: pilot and demonstration funding, ongoing operational revenues (including rebates from the MA Special Supplemental Benefits for the Chronically Ill program), philanthropy, and shared savings payments. Stakeholders said that sustainability of their programs depends on CMS continuing policies that provide flexibility to use Medicare and Medicaid funds for nonmedical purposes, value-based payment programs that reward organizations for bringing down costs and improving quality, and adequate funding for CBOs. ■

incentive to invest in staff, services, and partnerships in support of SDOH interventions because, under their payment structure, ACOs allow providers to earn shared savings for keeping the total costs of their covered populations under a targeted spending amount.

Recently, CMS has prioritized advancing health equity across all programs by, among other things,

focusing on improving health equity in payment models tested in the Center for Medicare & Medicaid Innovation (CMMI) (Centers for Medicare & Medicaid Services 2021). The CMS Framework for Health Equity 2022–2023, released in February 2023, includes such priorities as expanding the collection, reporting, and analysis of standardized data and assessing causes of disparities within CMS programs (Centers for Medicare & Medicaid Services 2022d).

**TABLE  
5-1**

**Shares of FFS beneficiaries by race/ethnicity and income status, 2019**

	All	LIS	Non-LIS
All	100%	21%	79%
Race/ethnicity			
Non-Hispanic White	80	60	85
Black	9	18	6
Hispanic	6	13	4
Asian/Pacific Islander	3	6	2

Note: FFS (fee-for-service), LIS (low-income subsidy). The percentages are based on FFS beneficiaries who qualify for inclusion in our ambulatory care-sensitive hospital use measures (because they had a complete year of Part A and Part B coverage in 2019). Totals do not sum to 100 percent because the “Unknown,” “American Indian or Alaska Native,” and “Other” race/ethnicity categories are excluded. The “LIS” group includes beneficiaries who receive full or partial Medicaid benefits and beneficiaries who do not qualify for Medicaid benefits in their state of residence but receive the Part D LIS, which provides premium and cost-sharing assistance to low-income beneficiaries enrolled in Part D.

Source: MedPAC analysis of 2019 FFS Medicare claims data.

### Beneficiary race/ethnicity and low-income status associated with differential health outcomes

To date, the Commission’s analyses of claims-based outcome measures have generally assessed outcomes in aggregate for all Medicare beneficiaries or beneficiaries receiving care from certain types of providers. Because health outcomes can be influenced by patients’ social risk factors, in this chapter we report findings from an examination of national rates on certain outcome measures (developed by the Commission) for Medicare beneficiaries, stratified by race/ethnicity and low-income status, in 2019. Reporting disparities in quality measure results among groups of Medicare beneficiaries allows for greater transparency regarding inequities in care delivery and is an important first step to developing and implementing strategies to decrease those disparities.

We found that both race/ethnicity and low income were associated with differential outcomes. Beneficiaries with low incomes were more likely to have worse outcomes, as were beneficiaries who were Black or Hispanic. Worse outcomes for low-income beneficiaries were seen across race/ethnicity

categories for all the measures examined. However, even within income categories, differences across the race/ethnicity groups persisted, with Black and Hispanic beneficiaries having worse outcomes than non-Hispanic Whites and Asian/Pacific Islander beneficiaries.

### Analytic approach

We grouped beneficiaries by two social risk factors: race/ethnicity categories and low-income status. These factors conceptually differentiate beneficiaries’ social risk and are readily available in Medicare administrative data.

- **Race/ethnicity:** Race and ethnicity capture social disadvantage, including access to social institutions and rewards; behavioral and other sociocultural norms; inequality in the distribution of power, status, and material resources; and psychosocial exposures (National Academies of Sciences, Engineering, and Medicine 2016b).<sup>2</sup> We include four race/ethnicity categories in our study: non-Hispanic White, Black, Hispanic, and Asian/Pacific Islander.<sup>3,4</sup> Using these categories in our 2019 data, we found that about 80 percent of Medicare FFS beneficiaries were non-Hispanic White, 9 percent

were Black, 6 percent were Hispanic, and 3 percent were Asian/Pacific Islander (Table 5-1).

- **Income:** Socioeconomic position (SEP) is an indicator of an individual's absolute and relative position in a socially stratified society. SEP captures a combination of access to material and social resources as well as relative status, meaning prestige-related or rank-related characteristics, and is commonly measured through indicators such as income and wealth, education, and occupation (National Academies of Sciences, Engineering, and Medicine 2016b). Consistent with our work revisiting payment policies for safety-net providers, the Commission's definition of low-income Medicare beneficiaries includes all those who receive full or partial Medicaid benefits, as well as those who do not qualify for Medicaid benefits in their states but who receive the Part D low-income subsidy (LIS) because they have limited assets and an income below 150 percent of the federal poverty level (Medicare Payment Advisory Commission 2023). Collectively, we refer to this population as "LIS beneficiaries" because Medicare beneficiaries who receive full or partial Medicaid benefits are automatically eligible to receive the LIS.

About 20 percent of FFS beneficiaries are in the LIS group (Table 5-1). Non-Hispanic White beneficiaries are the largest proportion of both the LIS and non-LIS groups (60 percent and 85 percent, respectively). Black and Hispanic beneficiaries make up a larger proportion of the LIS group than of the non-LIS group (31 percent compared with 10 percent).

We calculated several outcome measures for groups of beneficiaries by race/ethnicity categories and by LIS status (as a proxy for income level). We also calculated outcome results for beneficiaries classified using both factors (e.g., Black beneficiaries who also receive the LIS). We examined ambulatory care-sensitive (ACS) hospitalizations and emergency department (ED) visits for the FFS beneficiaries in these groups. We also analyzed hospital readmission rates for beneficiaries who had had an inpatient hospital stay. For beneficiaries who used skilled nursing facilities (SNFs) and home health agencies (HHAs), we examined rates of successful discharge to the community.

Future work could include examining differences in outcomes for these groups of beneficiaries across

and within geographic areas. We could also examine differences in these outcomes for beneficiaries residing in rural locations versus urban locations.

### **Ambulatory care-sensitive hospitalizations and ED visits**

The Commission has developed measures of ACS hospitalizations and ED visits to compare quality of care within and across different populations.<sup>5,6</sup> Both events have adverse effects on beneficiaries and increase the cost of care. Conceptually, an ACS hospitalization or ED visit is one that could have been prevented with timely, appropriate, high-quality care. For example, if a diabetic patient's primary care physician and specialists effectively control the condition and have a system to allow urgent visits, the patient may be able to avoid a visit to the ED for a diabetic crisis. Two categories of ACS conditions are included in the measures: chronic (e.g., diabetes, asthma, hypertension) and acute (e.g., bacterial pneumonia, cellulitis).

We found disparities in rates of ACS hospitalizations across different groups of Medicare beneficiaries, which could indicate differential access to high-quality ambulatory care. Beneficiaries receiving the LIS had a rate of ACS hospitalizations (55.9 per 1,000 beneficiaries) that was 1.3 times higher than those not receiving the LIS (41.7 per 1,000 beneficiaries) (higher rates are worse) (Table 5-2, p. 212). Across the race/ethnicity categories, Black beneficiaries had the highest (worst) rate of ACS hospitalizations: 57.7 per 1,000 beneficiaries, which was 1.7 times higher than the rate of the lowest group (Asian/Pacific Islander beneficiaries, with a rate of 33.8 per 1,000 beneficiaries).

Though rates of ACS hospitalization for all the race/ethnicity categories we examined were lower for non-LIS than for LIS beneficiaries, the differences across the race/ethnicity categories persisted: Among non-LIS beneficiaries, Black beneficiaries had a rate of ACS hospitalizations (49.6 per 1,000 beneficiaries) that was 1.8 times higher than that of Asian/Pacific Islander beneficiaries (28.2 per 1,000 beneficiaries). We present 2019 results here, but we also observed these differences across populations in 2017 and 2018.

We also found disparities in rates of ACS ED visits across different Medicare beneficiary groups, which

**TABLE  
5-2**

**Risk-adjusted rates of ambulatory care-sensitive hospitalizations by beneficiary race/ethnicity and income status, 2019**

**Risk-adjusted rate of ACS hospitalizations per 1,000 FFS beneficiaries**

	All	LIS	Non-LIS	Ratio of highest to lowest
All	46.2	55.9	41.7	1.3
Race/ethnicity				
Non-Hispanic White	44.9	55.1	41.6	1.3
Black	57.7	63.6	49.6	1.3
Hispanic	48.6	54.1	38.6	1.4
Asian/Pacific Islander	33.8	37.9	28.2	1.3
Ratio of highest to lowest	1.7	1.7	1.8	

Note: Ambulatory care-sensitive (ACS), FFS (fee-for-service), LIS (low-income subsidy). Lower rates are better. To measure population-based outcomes for FFS Medicare beneficiaries, we calculated the risk-adjusted rates of admissions tied to a set of acute and chronic conditions per 1,000 FFS Medicare beneficiaries by groups of beneficiaries. Race and ethnicity categories are defined using the RTI race code. The “Unknown,” “American Indian or Alaska Native,” and “Other” race/ethnicity categories are not presented. The “LIS” group includes beneficiaries who receive full or partial Medicaid benefits and beneficiaries who do not qualify for Medicaid benefits in their state of residence but receive the Part D LIS, which provides premium and cost-sharing assistance to low-income beneficiaries enrolled in Part D.

Source: MedPAC analysis of 2019 FFS Medicare claims data.

also could signal differential access to high-quality ambulatory care. Beneficiaries receiving the LIS had a rate of ACS ED visits that was 1.5 times higher than those not receiving the LIS (89.6 per 1,000 beneficiaries vs. 61.7 per 1,000 beneficiaries) (Table 5-3). Across the race/ethnicity categories, Black beneficiaries had the highest (worst) rate of ACS ED visits (96.2 per 1,000 beneficiaries), which was 2.1 times the rate of ACS ED visits for Asian/Pacific Islanders (46.1 per 1,000 beneficiaries).

Though rates of ACS ED visits for all the race/ethnicity categories examined were lower for non-LIS than for LIS beneficiaries, the differences across the race/ethnicity categories persisted: Among non-LIS beneficiaries, Black beneficiaries had a rate of ACS ED visits (81.5 per 1,000 beneficiaries) that was 2.0 times higher than that of Asian/Pacific Islander beneficiaries (41.7 per 1,000 beneficiaries). We present 2019 results here, but we also observed these differences across populations in 2017 and 2018.

Our results are consistent with other studies that have found disparities across race/ethnicity groups in rates of hospital admissions and ED visits for ACS conditions (Figueroa et al. 2020, Hanchate et al. 2019, Mahmoudi et al. 2020, Ochieng et al. 2021). Other studies also have found that dual-eligible beneficiaries and beneficiaries with lower socioeconomic status had higher rates of hospital admissions and ED use for ACS conditions compared with their non-dual-eligible, higher-income counterparts (Mahmoudi et al. 2020, Radley et al. 2016, Venkatesh et al. 2020, Wallar et al. 2020).

**Hospital readmissions**

The Commission developed a hospital readmission measure to assess the quality of care provided by hospitals.<sup>7</sup> Hospital readmissions are disruptive to patients and caregivers and costly to the health care system; they also put patients at additional risk of hospital-acquired infections and complications. Readmissions are a major source of patient and family

**TABLE  
5-3**

**Risk-adjusted rates of ambulatory care-sensitive ED visits by beneficiary race/ethnicity and income status, 2019**

**Risk-adjusted rate of ACS ED visits per 1,000 FFS beneficiaries**

	All	LIS	Non-LIS	Ratio of highest to lowest
All	70.9	89.6	61.7	1.5
Race/ethnicity				
Non-Hispanic White	67.1	85.5	60.4	1.4
Black	96.2	106.9	81.5	1.3
Hispanic	84.7	95.1	68.0	1.4
Asian/Pacific Islander	46.1	50.0	41.7	1.2
Ratio of highest to lowest	2.1	2.1	2.0	

Note: ED (emergency department), ambulatory care-sensitive (ACS), FFS (fee-for-service), LIS (low-income subsidy). Lower rates are better. To measure population-based outcomes for FFS Medicare beneficiaries, we calculated the risk-adjusted rates of ED visits tied to a set of acute and chronic conditions per 1,000 FFS Medicare beneficiaries by groups of beneficiaries. Race/ethnicity categories are defined using the RTI race code. The "Unknown," "American Indian or Alaska Native," and "Other" race/ethnicity categories are not presented. The "LIS" group includes beneficiaries who receive full or partial Medicaid benefits and beneficiaries who do not qualify for Medicaid benefits in their state of residence but receive the Part D LIS, which provides premium and cost-sharing assistance to low-income beneficiaries enrolled in Part D.

Source: MedPAC analysis of 2019 FFS Medicare claims data.

stress and can contribute substantially to loss of functional ability, particularly in older patients.<sup>8</sup>

We found disparities in risk-adjusted, all-condition hospital readmission rates across different groups of Medicare beneficiaries, which may signal differential access to high-quality hospital and posthospital care. However, rates of hospital readmissions differed less than those of ACS hospitalizations and ED visits. Across the income groups, beneficiaries receiving the LIS had a rate of hospital readmissions (17.2 percent) that was 1.2 times higher (worse) than those not receiving the LIS (14.6 percent). Across the race/ethnicity categories, Black beneficiaries had the highest (worst) rate of hospital readmissions (17.1 percent), followed by Hispanics (16.3 percent) (Table 5-4, p. 214). Non-Hispanic White beneficiaries and Asian/Pacific Islander beneficiaries had the lowest rates of hospital readmissions (15.0 percent). The rate of hospital readmissions for Black beneficiaries was 1.1 times the rate for Asian/Pacific Islanders. We present

2019 results here, but we saw these differences across populations in 2017 and 2018 as well.

Race/ethnicity and low-income status were both associated with differential rates of hospital readmissions. Though the hospital readmission rates for all the race/ethnicity categories we examined were lower for non-LIS than LIS beneficiaries, the differences across the race/ethnicity groups persisted: Among non-LIS beneficiaries, Black beneficiaries had a rate of hospital readmissions (15.8 percent) that was 1.1 times higher than that of Asian/Pacific Islander beneficiaries (13.8 percent) (Table 5-4, p. 214).

Our results are consistent with several recent studies that found higher rates of readmissions among Black beneficiaries compared with White beneficiaries and beneficiaries of other racial/ethnic groups (Anderson et al. 2022, Li et al. 2017, Ochieng et al. 2021, Rivera-Hernandez et al. 2019a, Rodriguez-Gutierrez et al. 2019). Similarly, studies found higher readmission rates among beneficiaries who are dually eligible for

**TABLE  
5-4**

**Risk-adjusted, all-condition hospital readmission rates by beneficiary race/ethnicity and income status, 2019**

	All	LIS	Non-LIS	Ratio of highest to lowest
All	15.3%	17.2%	14.6%	1.2
Race/ethnicity				
Non-Hispanic White	15.0	16.9	14.5	1.2
Black	17.1	18.3	15.8	1.2
Hispanic	16.3	17.3	14.6	1.2
Asian/Pacific Islander	15.0	15.9	13.8	1.2
Ratio of highest to lowest	1.1	1.2	1.1	

Note: LIS (low-income subsidy). Lower rates are better. Analysis includes fee-for-service Medicare beneficiaries ages 65 and older. Race/ethnicity categories are defined using the RTI race code. The “Unknown,” “American Indian or Alaska Native,” and “Other” race/ethnicity categories are not presented. The “LIS” group includes beneficiaries who receive full or partial Medicaid benefits and beneficiaries who do not qualify for Medicaid benefits in their state of residence but receive the Part D LIS, which provides premium and cost-sharing assistance to low-income beneficiaries enrolled in Part D.

Source: MedPAC analysis of 2019 fee-for-service Medicare claims data.

Medicare and Medicaid compared with non-dual-eligible beneficiaries (Anderson et al. 2022, Lloren et al. 2019, Silvestri et al. 2022).

**Successful discharge to community from skilled nursing facility and home health agency care**

Discharge to a community setting following post-acute care is an important health care outcome for many patients for whom the overall goals of post-acute care include optimizing function and returning home. However, providers should not discharge patients who are not medically ready to return to the community because doing so may result in hospital events.

The Commission has developed a successful discharge to the community measure for SNFs and HHAs.<sup>9</sup> This measure defines a beneficiary’s successful discharge to the community as a discharge from a post-acute care (PAC) provider to the community without an unplanned hospitalization or death in the next 30 days.<sup>10</sup> The measure uses the same definitions and risk-adjustment variables for SNFs and HHAs.<sup>11</sup>

Our analysis of 2019 data found disparities in the rates of successful discharge to community across groups of Medicare beneficiaries, though the magnitude varied for combinations of LIS status, race/ethnicity, and PAC setting (Table 5-5 and Table 5-6). In both SNFs and HHAs, LIS beneficiaries had a lower (worse) rate of successful discharge to community compared with the non-LIS population. The difference in performance for income status categories was more pronounced for SNFs, with non-LIS beneficiaries having a rate of successful discharge to community that was 1.5 times (19 percentage points) higher (better) than the rate for LIS beneficiaries (Table 5-5). The difference in performance for income status categories was much smaller in home health care, where the rate of successful discharge to community for LIS beneficiaries (72 percent) was 4 percentage points lower than the rate for non-LIS beneficiaries (76 percent) (Table 5-6).

The rates for successful discharge to community varied by race/ethnicity categories, though there were some commonalities. For both SNF and home health users,

**TABLE  
5-5****Risk-adjusted rates of successful discharge to the community for beneficiaries treated in SNFs, by beneficiary race/ethnicity and income status, 2019**

	All	LIS	Non-LIS	Ratio of highest to lowest
All	48%	35%	54%	1.5
Race/ethnicity				
Non-Hispanic White	48	34	54	1.6
Black	45	37	57	1.5
Hispanic	45	39	57	1.5
Asian/Pacific Islander	48	44	54	1.2
Ratio of highest to lowest	1.1	1.3	1.1	

Note: SNF (skilled nursing facility), LIS (low-income subsidy). Successful discharge to the community includes beneficiaries discharged to the community (including those discharged to the same nursing home they were in before) who did not have an unplanned hospitalization or die in the 30 days after discharge. Higher rates are better. Race/ethnicity categories are defined using the RTI race code. The "Unknown," "American Indian or Alaska Native," and "Other" race/ethnicity categories are not presented. The "LIS" group includes beneficiaries who receive full or partial Medicaid benefits and beneficiaries who do not qualify for Medicaid benefits in their state of residence but receive the Part D LIS, which provides premium and cost-sharing assistance to low-income beneficiaries enrolled in Part D.

Source: MedPAC analysis of 2019 fee-for-service Medicare claims data.

**TABLE  
5-6****Risk-adjusted rates of successful discharge to the community for beneficiaries treated by home health agencies, by beneficiary race/ethnicity and income status, 2019**

	All	LIS	Non-LIS	Ratio of highest to lowest
All	75%	72%	76%	1.1
Race/ethnicity				
Non-Hispanic White	75	72	76	1.1
Black	72	70	75	1.1
Hispanic	73	73	75	1.1
Asian/Pacific Islander	77	77	77	1.0
Ratio of highest to lowest	1.1	1.1	1.0	

Note: LIS (low-income subsidy). Successful discharge to the community includes beneficiaries discharged to the community (including those discharged to the same nursing home they were in before) who did not have an unplanned hospitalization or die in the 30 days after discharge. Higher rates are better. Race/ethnicity categories are defined using the RTI race code. The "Unknown," "American Indian or Alaska Native," and "Other" race/ethnicity categories are not presented. The "LIS" group includes beneficiaries who receive full or partial Medicaid benefits and beneficiaries who do not qualify for Medicaid benefits in their state of residence but receive the Part D LIS, which provides premium and cost-sharing assistance to low-income beneficiaries enrolled in Part D.

Source: MedPAC analysis of 2019 fee-for-service Medicare claims data.

Black beneficiaries had the lowest (worst) rates, while Asian/Pacific Islanders had the highest (best) rates. The variation by race/ethnicity was greater among LIS beneficiaries than non-LIS beneficiaries. However, the range of variation for LIS beneficiaries between the lowest and highest racial groups was greater for SNFs (1.3) (Table 5-5, p. 215) than for home health care (1.1) (Table 5-6, p. 215). In the home health setting, the ratios between the highest- and lowest-performing racial/ethnic groups fell within a range of 1.0 to 1.1, indicating narrower differences across these groups compared with the SNF beneficiaries. The results indicate that both LIS status and race/ethnicity affect outcomes for beneficiaries in home health care and SNFs, though the magnitude of the impact varies by setting, LIS status, and race/ethnicity.

Our results are consistent with those of other studies that have investigated racial/ethnic disparities in rates of successful discharge to community from SNFs and HHAs. Several recent studies have found lower rates of successful discharge to community among SNFs and HHAs with high proportions of Black and Hispanic beneficiaries (Knox et al. 2022, Rivera-Hernandez et al. 2020, Rivera-Hernandez et al. 2019b). However, we did not identify studies that investigated disparities in rates of successful discharge to community between LIS and non-LIS beneficiary populations.

Several factors should be considered when interpreting the successful discharge to community rates for SNF and HHA by beneficiary race/ethnicity category and low-income status. More so than with our measures of hospital use, the variation across subgroups observed in Table 5-5 (p. 215) and Table 5-6 (p. 215) could reflect the quality of providers most commonly used by beneficiary subgroups. Historically marginalized and low-income beneficiaries use lower-quality SNFs and nursing homes (Rahman et al. 2014b, Sharma et al. 2020, Zuckerman et al. 2019). Dual-eligible beneficiaries are more likely to be discharged to SNFs with lower nurse staffing, and these beneficiaries are more likely to become long-stay nursing residents than Medicare-only beneficiaries if treated in SNFs with low nurse-to-patient ratios (Rahman et al. 2014a).

### **Analysis limitations**

This analysis has certain limitations. First, our analysis is limited to the social risk factors that can be

measured using administrative data. For example, social relationships, including marital/partnership status and living alone, are important for health because they provide access to social networks that can, in turn, provide access to health care resources. However, beneficiary-level data on social relationships is not available in current Medicare administrative data.

Second, the variables used in our analysis have limitations. The race/ethnicity data allow broad categorizations, but we are limited in our ability to differentiate within racial/ethnic groups. For example, data are not available on the origin of Hispanic beneficiaries, such as Cuban, Mexican, and Puerto Rican. The LIS metric is an improvement over dual eligibility as a proxy for income because it includes not just beneficiaries dually eligible for Medicare and Medicaid but also beneficiaries enrolled in Part D who are not enrolled in Medicaid but who have incomes under 150 percent of the federal poverty level. However, it excludes beneficiaries with incomes below 150 percent of poverty who are not enrolled in either Medicaid or Part D.

Third, Medicare does not systematically collect clinical data that can be used to study differences in clinical outcomes across different groups of Medicare beneficiaries (e.g., controlled HbA1c levels for patients with diabetes or controlled high blood pressure).

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## **The Commission's work to improve incentives to deliver high-quality, efficient care to all beneficiaries**

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Much of the Commission's work has focused on modifying payment systems to create incentives for health care providers and payers to deliver high-quality care in the most efficient manner. While strong incentives for achieving value-based care objectives are critical, it is also important to recognize when these incentives place certain patients and the providers who care for them at a relative disadvantage. The Commission's recent work on accounting for differences in patients' social risk factors in quality payment programs and on payment policies for safety-net providers recognizes differences in patients' social risk factors and aims to improve incentives to deliver high-quality, efficient care to all beneficiaries.



## **Using peer grouping in quality payment programs to account for differences in providers' patient populations**

Under Medicare quality payment programs, providers are held financially accountable for both the cost and quality of health care services. All else equal, patients with fewer social risk factors likely have better health outcomes than patients with more social risk factors, so quality payment programs should account for differences in providers' patient populations. Doing so reduces the possibility that providers will be unfairly rewarded for treating patients with low social risk, thus reducing incentives for providers to avoid caring for patients with high social risk. Rather than adjusting performance measures for patients' social risk factors, which can mask disparities in performance, the Commission has recommended that Medicare adjust payments based on a provider's performance compared with providers whose patients have similar social risk (that is, a provider's "peers") (Medicare Payment Advisory Commission 2018). With peer grouping, each provider's performance is compared with peers to determine rewards or penalties based on performance. A provider would earn points based on its performance relative to national performance scales, but the magnitude of the reward would be higher for peer groups with higher shares of beneficiaries at high social risk and lower for peer groups with higher shares of beneficiaries at low social risk.

Over the past several years, the Commission has recommended redesigned quality incentive payment programs for hospitals, Medicare Advantage plans, and skilled nursing facilities (Medicare Payment Advisory Commission 2021, Medicare Payment Advisory Commission 2020, Medicare Payment Advisory Commission 2019). The redesigned value incentive programs should incorporate peer grouping to account for the differences in the social risk of providers' patient populations. In our illustrative modeling of such designs, we found that peer grouping would result in more equitable quality payments across providers and plans.

## **Supporting safety-net hospitals and clinicians**

The Medicare program strives to ensure access to care for all beneficiaries and to adequately compensate providers to help ensure that access. However,

treating low-income beneficiaries can entail extra costs that are not adequately reflected in Medicare's payments, making it more difficult for providers who are substantially dependent on public payers to compete with other providers who can count on commercially insured patients for better payment rates. The Commission is concerned that caring for low-income beneficiaries or patients with public insurance (when the payment rates are low relative to commercial payers) may create an undue financial strain on providers with high shares of these patients, resulting in diminished access or quality of care for beneficiaries. However, supporting this subset of providers through large, across-the-board Medicare payment rate increases would be an inefficient use of scarce Medicare resources. For these reasons, the Commission has explored how safety-net providers should be defined and how the Medicare program can best support their critical missions (Medicare Payment Advisory Commission 2022b). In March 2023, the Commission recommended providing additional resources to Medicare safety-net hospitals and to clinicians who furnish care to Medicare beneficiaries with low incomes (Medicare Payment Advisory Commission 2023).

## **Other policies to encourage providers to address health disparities in Medicare**

The Commission also generally supports two other policies to encourage providers to focus on reducing health disparities: (1) public reporting of quality results stratified by social risk factors and (2) adding a focus on reducing disparities in quality payment programs. CMS should weigh implementing these policies on a case-by-case basis and carefully consider any unintended consequences associated with implementing the policies. Other policymakers and researchers have also supported or recommended these policies (Assistant Secretary for Planning and Evaluation 2020, National Academies of Sciences, Engineering, and Medicine 2016a, National Quality Forum 2022).

## **Publicly report quality measures stratified by social risk**

Publicly reported national and provider quality measures that are stratified by social risk factors could allow policymakers and providers to measure and track quality over time for beneficiaries with social risk factors. Publicly reporting Medicare quality information

has two main objectives. The first is to increase the accountability of health care providers by offering patients, payers, and purchasers a more informed basis on which to hold providers accountable (e.g., directly through purchasing and treatment decisions). The second objective is to maintain standards and stimulate improvements in the quality of care through economic competition (reputation and increased market share) and by appeals to health care professionals' desire to do a good job (Marshall et al. 2003).

CMS has made progress on publicly reporting stratified performance measures at a national level. For example, CMS's Office of Minority Health publicly reports national trends in MA performance on a number of quality and patient experience measures by race/ethnicity, sex, income, and rural/urban location (Centers for Medicare & Medicaid Services 2022h).<sup>12</sup>

CMS has also made progress on MA plan-level and some provider-level reporting by offering plans and hospitals confidential reports on their quality performance stratified by beneficiary social risk factors. These internal reports can help providers become more familiar with calculation methods and improve before wider reporting is implemented. In the spring of 2022, CMS provided MA plan sponsors with confidential reports, which stratified performance by LIS/dual-eligibility and disability status for most Part C and Part D star rating measures (Centers for Medicare & Medicaid Services 2022b). In the fiscal year 2018 final rules, CMS introduced confidential reporting of hospital quality measure data stratified by social risk factor, specifically reporting readmission rates for dual-eligible beneficiaries (Centers for Medicare & Medicaid Services 2017). CMS created two complementary methods to calculate disparities in condition-specific and procedure-specific readmission measures (Centers for Medicare & Medicaid Services 2022c). The first method (the within-hospital disparity method) calculates differences in outcome rates across beneficiary groups within a hospital while accounting for their clinical risk factors. This method also allows for comparison of those differences, or disparities, across hospitals, so hospitals can assess how well they close disparity gaps compared with other hospitals. The second methodological approach (the across-hospital method) assesses hospitals' outcome rates for subgroups of beneficiaries across hospitals, allowing for a comparison across hospitals on their performance serving beneficiaries with social risk factors.

The Commission supports CMS's overall efforts to measure and report health care disparities by stratifying quality measure results for different subgroups of beneficiaries; however, CMS should consider on a case-by-case basis whether the stratified results accurately measure the quality of care provided to different patient groups. Accurate and meaningful reporting can avoid unintended consequences of public reporting, such as providers avoiding caring for individuals at greater social risk. In the proposed rule-making process, CMS requested input on principles and approaches that could be used in various Medicare quality reporting programs to stratify measure results (Centers for Medicare & Medicaid Services 2022f). The Commission has encouraged CMS to report stratified results that are reliable, meaning they reflect true differences in performance and are not attributable to random variation (Medicare Payment Advisory Commission 2022a). Key steps for CMS include defining the reliability standard for measure results and selecting the strategies to ensure reliable measure results for as many providers as possible.

### **Focus on reducing disparities in quality payment programs**

To encourage providers to reduce disparities, Medicare could develop and add health equity measures to quality payment programs. Including health equity measures can help providers prioritize areas for particular focus; specific measures targeting equity within existing quality reporting programs can motivate a focus on reducing disparities and signal that health equity is an important component of delivery system transformation. These measures could also encourage providers to address health equity through service enhancements, patient engagement activities, and adoption of best practices to improve performance in this domain.

CMS has developed and recently proposed a health equity index (HEI) reward for the 2027 MA star ratings to further incentivize MA plans to focus on improving care for enrollees with social risk factors (Centers for Medicare & Medicaid Services 2022b). The HEI is a composite score of an MA contract's disparities in performance on a subset of star rating measures across multiple dimensions. The HEI focuses on MA contracts' performance on certain quality indicators for LIS, dual-eligible, and disabled enrollees.

The CMS Office of Minority Health has been working to develop a health equity summary score (HESS) that examines MA plan differences by race and ethnicity and dual-eligibility/LIS status and assigns each contract composite scores for some of the clinical and patient experience measures used in the MA star rating system (Agniel et al. 2021, Centers for Medicare & Medicaid Services 2022a). The composite scores are based on a combination of current performance and improvement in performance over a four-year period. CMS continues to refine the HESS and is working to provide HESS reports to help contracts focus on quality improvement efforts.

CMS could consider developing measures of reducing disparities in other quality payment programs outside of MA. For example, CMS could develop and incorporate a measure of improving within-hospital disparities into a hospital quality payment program. If a hospital reduces differences in readmission rates across race/ethnicity groups over time, it could receive bonus points in the scoring of a quality payment program. There are several methodological issues that would need to be considered in the design and testing of health equity measures, such as the minimum sample sizes needed for reliable comparisons across patient populations. The minimum would exclude providers that do not treat a sufficient number of patients with social risk factors. ■

## Endnotes

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- 1 To the extent that a study indicated there was a reduction in health care spending, this calculation usually did not include the costs of the intervention itself.
- 2 Social rewards are a broad set of stimuli that instigate positive experiences involving other people, including verbal and nonverbal behaviors, gestures, and feelings, such as a smile and praise.
- 3 A beneficiary's race/ethnicity is identified using data collected by the Social Security Administration (SSA), with adjustments to improve the race/ethnicity classification for Hispanic and Asian/Pacific Islander populations. Specifically, CMS applies an algorithm developed with RTI International (RTI) that uses census surname lists for likely Hispanic and Asian/Pacific Islander origin and simple geography (residence in Puerto Rico or Hawaii) to improve the SSA race/ethnicity data. The SSA data are lacking for about 5 percent of beneficiaries (3.3 million) (Office of Inspector General 2022). After applying the RTI algorithm, Medicare lacks race/ethnicity information for about 3 percent of beneficiaries (2 million). Studies comparing self-reported race/ethnicity to the RTI race code variable found high validity for White and Black classification and intermediate validity for Hispanic and Asian/Pacific Islander classification (Eicheldinger and Bonito 2008, Filice and Joynt 2017, Grafova and Jarrin 2021, Jarrin et al. 2020, Office of Inspector General 2022, Zuckerman et al. 2022). We do not include the American Indian or Alaska Native category because these studies have found that the RTI race code does not demonstrate improved identification compared to the SSA code.
- 4 Recently, RAND has developed the Medicare Bayesian Improved Surname Geocoding (MBISG), which uses an improved algorithm to augment administrative measures with surname and geographic data to estimate race/ethnicity.
- 5 We present results of these measures annually in our March report to the Congress.
- 6 ACS hospitalizations include both inpatient admissions and observation stays, whereas ACS ED visits consist only of ED visits that did not result in an admission or observation stay. We defined the outcome variable as the count of ACS hospitalizations or ACS ED visits per beneficiary in each year. We used a regression model to produce risk-adjusted counts of ACS hospitalizations or ACS ED visits. Risk factors included beneficiary age, sex, end-stage renal disease status, disability status, and hierarchical condition categories. Using 2019 data, we identified all ACS hospitalizations and ACS ED visits and aggregated both the observed and expected numbers of events of each type from the beneficiary level to the race/ethnicity category and LIS group. Dividing the total number of observed ACS hospitalizations or ACS ED visits for each beneficiary group by the total number of expected ACS hospitalizations or ACS ED visits yielded the observed to expected ratios, which in turn were multiplied by the nationwide observed rates to obtain risk-adjusted rates.
- 7 We present these measure results annually in our March report to the Congress. Details of how the measure is calculated are described in our June 2019 report to the Congress, available at <http://www.medpac.gov>.
- 8 Measuring and adjusting payments based on a hospital's readmission rates holds the hospital accountable for ensuring that beneficiaries have the discharge information they need, and it encourages hospitals to coordinate with other providers.
- 9 We present these measure results for SNFs and HHAs, as well as for inpatient rehabilitation facilities and long-term care hospitals, in our annual March report to the Congress. For this chapter, we focus on SNFs and HHAs because these are the most common sites of post-acute care for Medicare beneficiaries.
- 10 Medicare-covered SNF stays that end in a discharge to a nursing home are not considered a discharge to the community for purposes of our measure.
- 11 The risk adjustment for the successful discharge to the community measure includes age and sex of the beneficiary, end-stage renal disease and disability status for entitlement, principal diagnosis, comorbidities, the length of stay of the preceding hospital stay (if there was one), and a count of the hospitalizations during the preceding year. Though this measure uses the same risk-adjustment factors for SNFs and HHAs, the rate of successful discharge to the community for each setting is computed in a separate model. The measure also includes all home health care that is not preceded by a hospitalization or SNF stay.
- 12 CMS's Office of Minority Health reporting also includes FFS patient experience results at the state level.

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