NBER RDRC Report

Becky Staiger, Madeline Helfer, and Jessica Van Parys

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NB #22-13: Racial Disparities in SSI Enrollment Across Medicaid Managed Care Plans

In our pilot project, NB #22-14, we found significant differences in primary care utilization, emergency care utilization, and health outcomes by race and ethnicity in the adult SSI population. In particular, we found that racial/ethnic minorities have worse access to primary care compared to their White counterparts. In this pilot, we consider why primary care access may differ across racial/ethnic groups in SSI. In particular, a key mediating factor when it comes to access-to-care in Medicaid, is the managed care plan. As of 2022, 33 states require SSI recipients to enroll in managed care plans when recipients become eligible for Medicaid, and 4 states make managed care plan selection voluntary (Hinton and Raphael, 2023; KFF, 2023; CMS, 2022). Our TAF data show, at a national level, that more 75% of adult SSI recipients are enrolled in comprehensive managed care plans as of 2019. In states with mandatory managed care, SSI enrollees select a managed care plan each year during open enrollment. If they do not select a plan, then the state assigns them to a plan. The managed care plan then constructs networks of health care providers, and the SSI enrollees in the plan must receive care from the providers within the plan network. In this way, managed care plans restrict access to care for Medicaid enrollees. However, Ndumele et al. (2018) show that not all plans are created equal; some have larger networks than others. Therefore, this pilot project shows how plan options and enrollment differ for SSI recipients of different racial/ethnic groups. We use TAF data in 2018-2019 from 9 states with mandatory managed care for SSI enrollees: California, Florida, Kentucky, Maryland, Michigan, New Mexico, Ohio, Pennsylvania, and Texas. We chose these states because they have high quality race/ethnicity data according to the DQ Atlas, in addition to having mandatory managed care for SSI

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recipients (Atlas; CMS, 2022).[3]

This project is comprised of two aims:

1. Show how Medicaid managed care plan options differ by race and ethnicity in the SSI population.

2. Show how plan turnover and plan switching differs by race and ethnicity in the SSI population.

As in our pilot project, NB #22-14, we estimate linear regression models, which allow us to compare outcomes across SSI recipients of different races/ethnicities within states. The rules and regulations governing managed care plans differ substantially across states, so our adjusted estimates paint the clearest picture of how MMC plan options and enrollment vary across SSI recipients who live in the same state. Since our model in this pilot, NB #22-13, is the same as the model in our first pilot, NB #22-14, we can interpret the results of both in the same context. Specifically, we estimate the following equation:

Equation 3 shows how managed care plan options and managed care plan choices differ by recipient race and ethnicity within the adult SSI population:

$$y_{ist} = \beta_0 + \beta_1 Black_i + \beta_2 Hisp_i + \beta_3 Other_i + \beta_4 female_i + \mathbf{\Omega} \boldsymbol{X}_{it} + \lambda_t + \delta_s + \varepsilon_{ist} \tag{3}$$

where i indexes the adult SSI recipient living in state s in year $t \in (2018, 2019)$. $Black_i$, $Hisp_i$, and $Other_i$ are indicators for race/ethnicity, whose associated coefficients are interpreted relative to the omitted category of non-Hispanic $White_i$; $female_i$ is an indicator for the recipient's biological sex listed as female; $\boldsymbol{X}_{it}$ is a vector of time-varying recipient-level controls: age, age-squared, and an indicator for urban county of residence). λ_t are year fixed effects and δ_s are recipient state-of-residence fixed effects.

We convert the estimates from Equation 3 into bar charts to provide visual interpretations. Specifically, the mean of the dependent variable for White recipients appears as a bar. Then we add $\hat{\beta}_1$ to the White mean to construct the adjusted dependent variable mean for Black SSI recipients. We do the same for Hispanic and Other SSI recipients. We use the standard errors from the regression model to construct 95% confidence intervals.

Results Preview: We find that racial/ethnic minority SSI recipients have more managed care plan options than White SSI recipients; however, they tend to be enrolled in larger plans overall (i.e., with more SSI enrollees). We find that enrollees of different races/ethnicities switch plans at about the same rates from 2018-2019, but their reasons for switching plans differ by race/ethnicity. In particular, White and Black SSI recipients are most likely to actively choose new plans, while Hispanic and Other race/ethnicity recipients are more likely to be forced to switch plans due to plan exits. To the extent that plan switching, in the absence of plan exits, reveals enrollees' dissatisfaction with their plans, our results suggest that White and Black SSI recipients were the least satisfied with their MMC plans in 2018. In future work, we aim to show how provider networks vary across plans, and whether SSI recipients are more likely to switch out of plans with narrower provider networks.

[3]We initially proposed to use Minnesota and Virginia as well. However, those two states are 209(b) states, where we cannot easily identify SSI enrollees in the data.

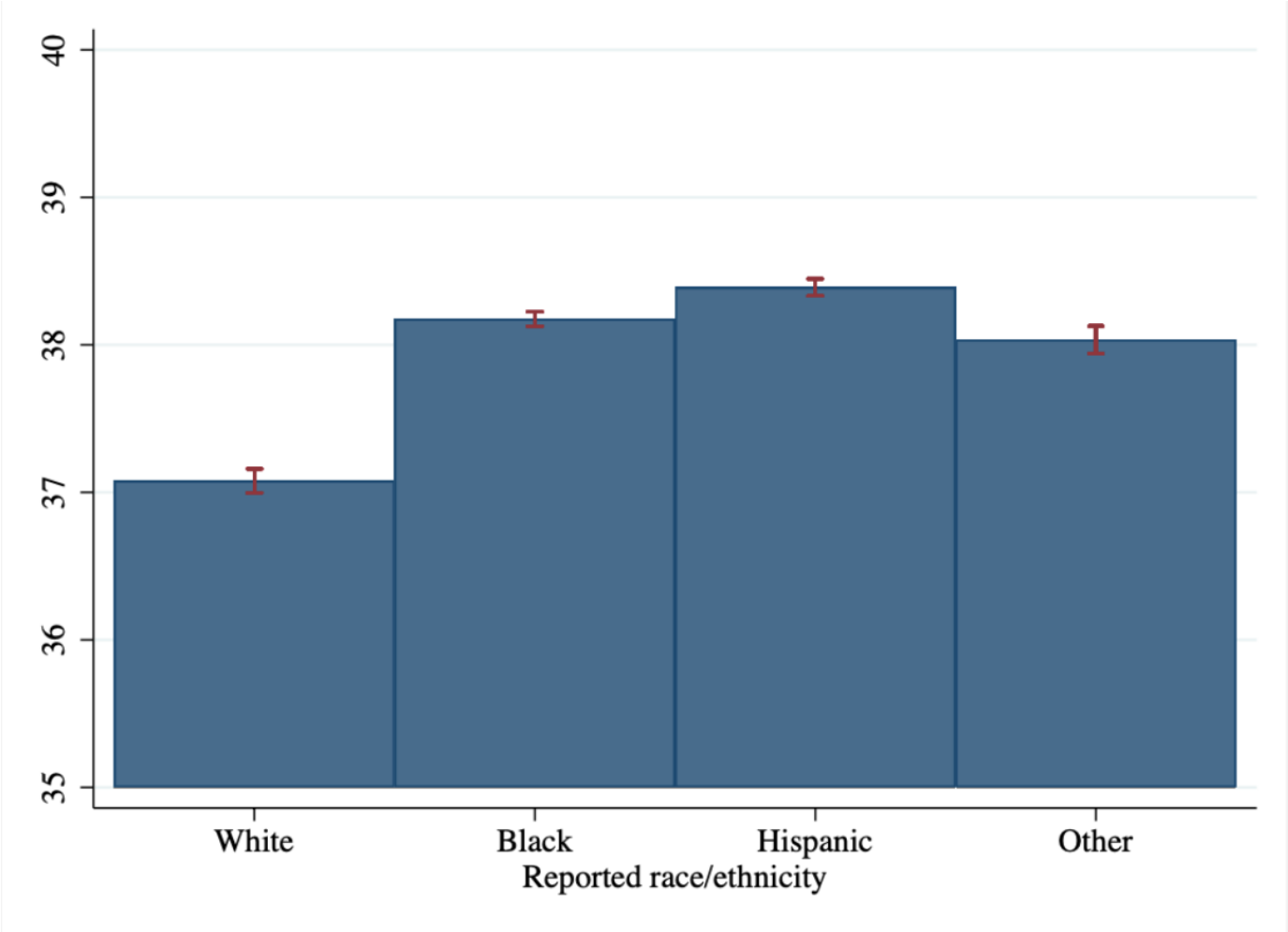
2.1 Medicaid Managed Care Plan Options by Race/Ethnicity

To explore managed care plan options and choices among SSI recipients enrolled in Medicaid, we first define managed care enrollment. We focus on SSI recipients who are enrolled in comprehensive managed care plans in one of nine states with mandatory comprehensive managed care for SSI enrollees. The TAF DE files show managed care enrollment by month. We use the modal plan ID per SSI recipient over the course of the calendar year to identify which plan the recipient is enrolled in. Then within the recipient's county of residence, we count the number of unique plan IDs, which captures the recipient's set of plan options. We note, however, that our analysis is preliminary. We find that states report managed care plan IDs differently, and some counties have unrealistically high numbers of "unique plans." We have requested supplemental data – the TAF APL files – as part of our data use agreement amendment. The APL files are crosswalks between plan IDs, as entered in the TAF DE files, and unique insurance carrier IDs. We will redo this analysis as soon as our DUA amendment is approved.

Figure 5 shows the average number of Medicaid managed care plans available in the average SSI recipient's county of residence by race/ethnicity in 2018-19. Given the data issues involved in counting unique plans, the levels presented in Figure 5 are probably too large; however, the relative differences across race/ethnicity are likely accurate. For example, we find that racial and ethnic minority SSI recipients have, on average, one additional plan option compared to White SSI recipients. The estimates presented in Figure 5 control for recipient sex, age, age-squared, an indicator for urban county residence, and state fixed effects. Therefore, even within states and controlling for urban residency, we still find that racial/ethnic minorities live in counties with more managed care plans. This is consistent with our stated hypothesis under this aim.

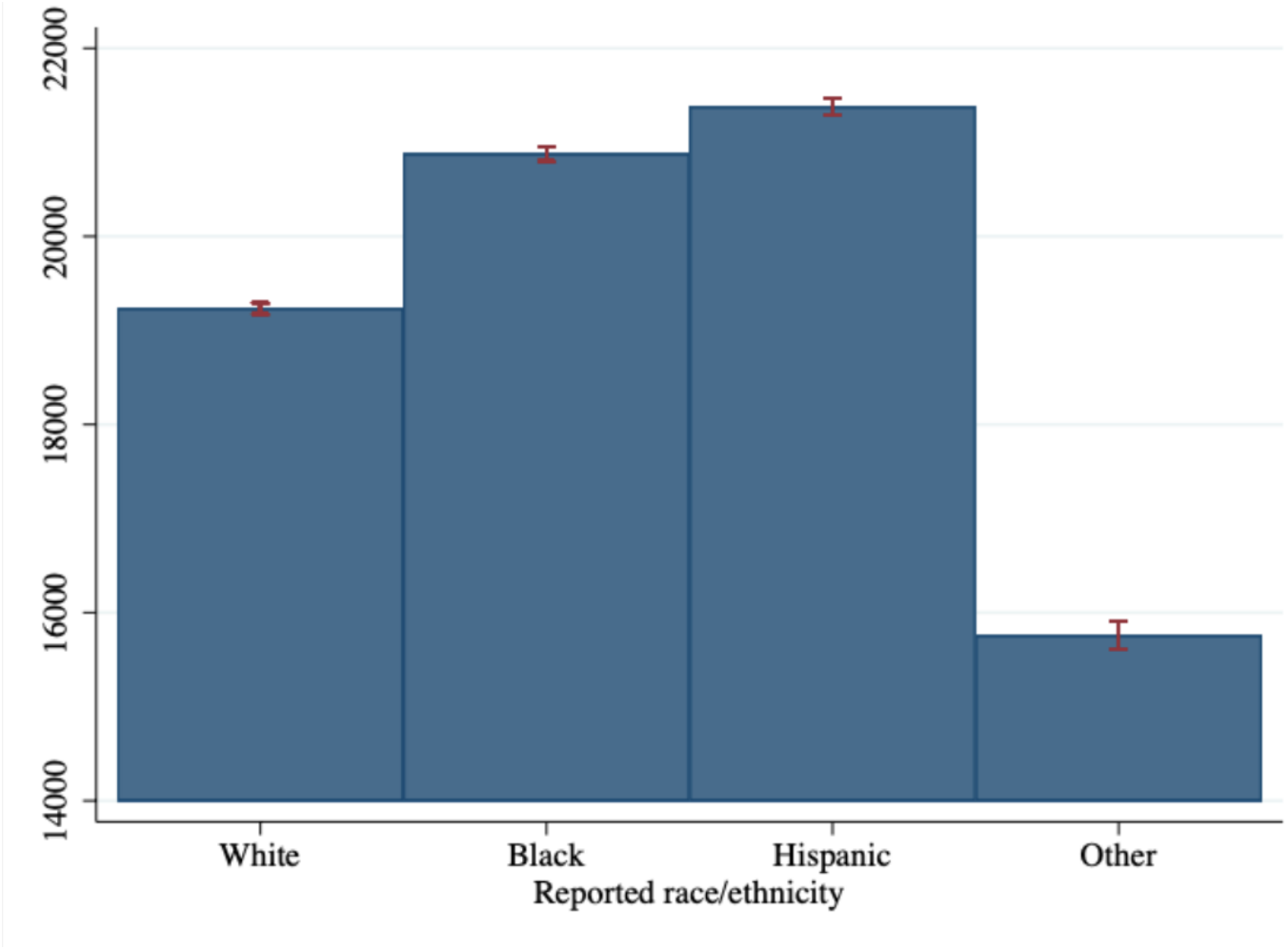
Figure 6 shows the number of SSI enrollees in the average SSI recipient's chosen managed care plan, by race/ethnicity. We find that Black and Hispanic SSI recipients are enrolled in plans with more enrollees overall (at least 200 more SSI enrollees) compared to White and other race/ethnicity SSI recipients. These estimates are adjusted for whether recipients live in urban counties; nevertheless the differences could reflect the fact that Black/Hispanic SSI recipients live in different counties within states compared to White/Other race/ethnicity recipients. In future work, we will explore whether patient-to-provider ratios are also higher in the plans that Black/Hispanic SSI recipients are enrolled in. If so, differences in managed care plan networks by race/ethnicity may help explain why access to primary care is more limited for racial/ethnic SSI recipients.

Figure 5: Average Number of Medicaid Managed Care Plans in Recipient's County



This figure depicts the average number of comprehensive managed care plans (MCO) offered in a SSI recipient's reported county of residence by race and ethnicity. Averages are adjusted for gender, age, urban county status, state, and year effects. Data is from the TAF 2018-2019. The sample is restricted to SSI recipients aged 18-64 who are enrolled in comprehensive managed care plans, and recipients residing in a 209b state or Oregon are removed from the sample.

Figure 6: Average SSI Enrollment in Recipient's Managed Care Plan



This figure depicts the average number SSI recipients enrolled in a given recipient's comprehensive managed care plan (MCO) statewide by race and ethnicity. Averages are adjusted for gender, age, urban county status, state-of-residence, and year effects. Data is from the TAF 2018-2019. The sample is restricted to SSI recipients aged 18-64 who are enrolled in comprehensive managed care plans, and recipients residing in a 209b state or Oregon are removed from the sample.

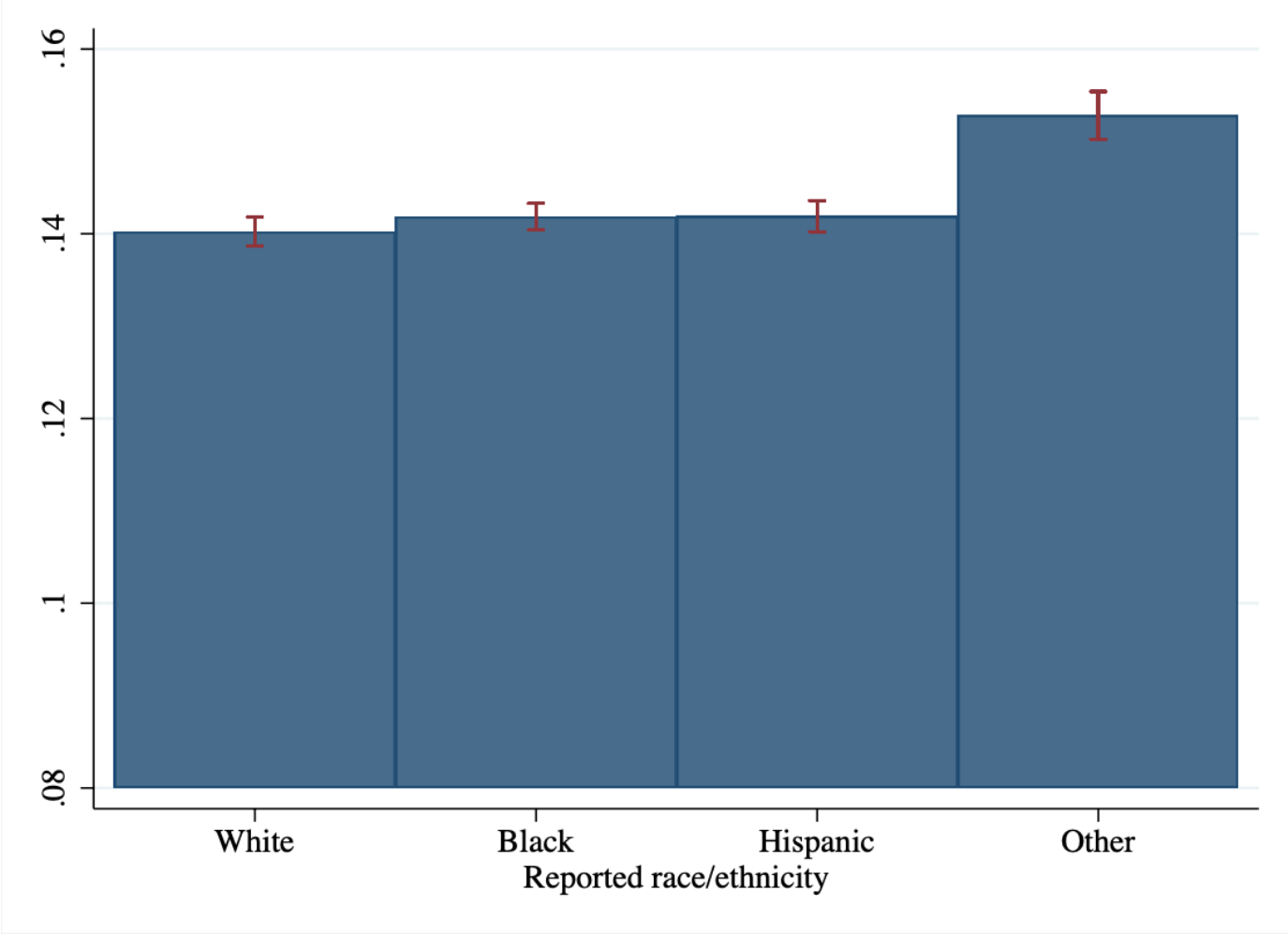
2.2 Plan Switching and Exits by Race/Ethnicity

In this section, we show how often SSI recipients of different races/ethnicities switch managed care plans. Here we focus on adult SSI recipients who are continuously enrolled in Medicaid in 2018 and 2019. In general, SSI recipients may switch plans if they are dissatisfied with their plan's quality, or if they are forced to switch. Recipients are forced to switch plans if their plan exits the local marketplace. Managed care plans often exit due to lack of profitability. Exits may be especially disruptive events for SSI recipients. Recipients may receive little notice, and may need to seek care from new providers following their managed care plan's exit. Therefore, this section shows which SSI recipients are most likely to switch plans overall, which recipients are most likely to actively choose new plans, and which recipients are most affected by disruptive plan exits.

2.2.1 Plan Switching

Figure 7 shows average rates of plan switching by race/ethnicity from 2018 to 2019. Note that recipients may choose to switch plans or they may be forced to switch plans. Here we combine both types of switching. We find that switching rates are fairly stable across racial/ethnic groups. About 14% of SSI recipients switch plans from 2018-19. Switching rates are highest for "Other" racial/ethnic recipients at 15%. As in our previous results, these estimates are adjusted for recipient sex, age, urban residence, and state-of-residence.

Figure 7: Average Rates of Plan Switching

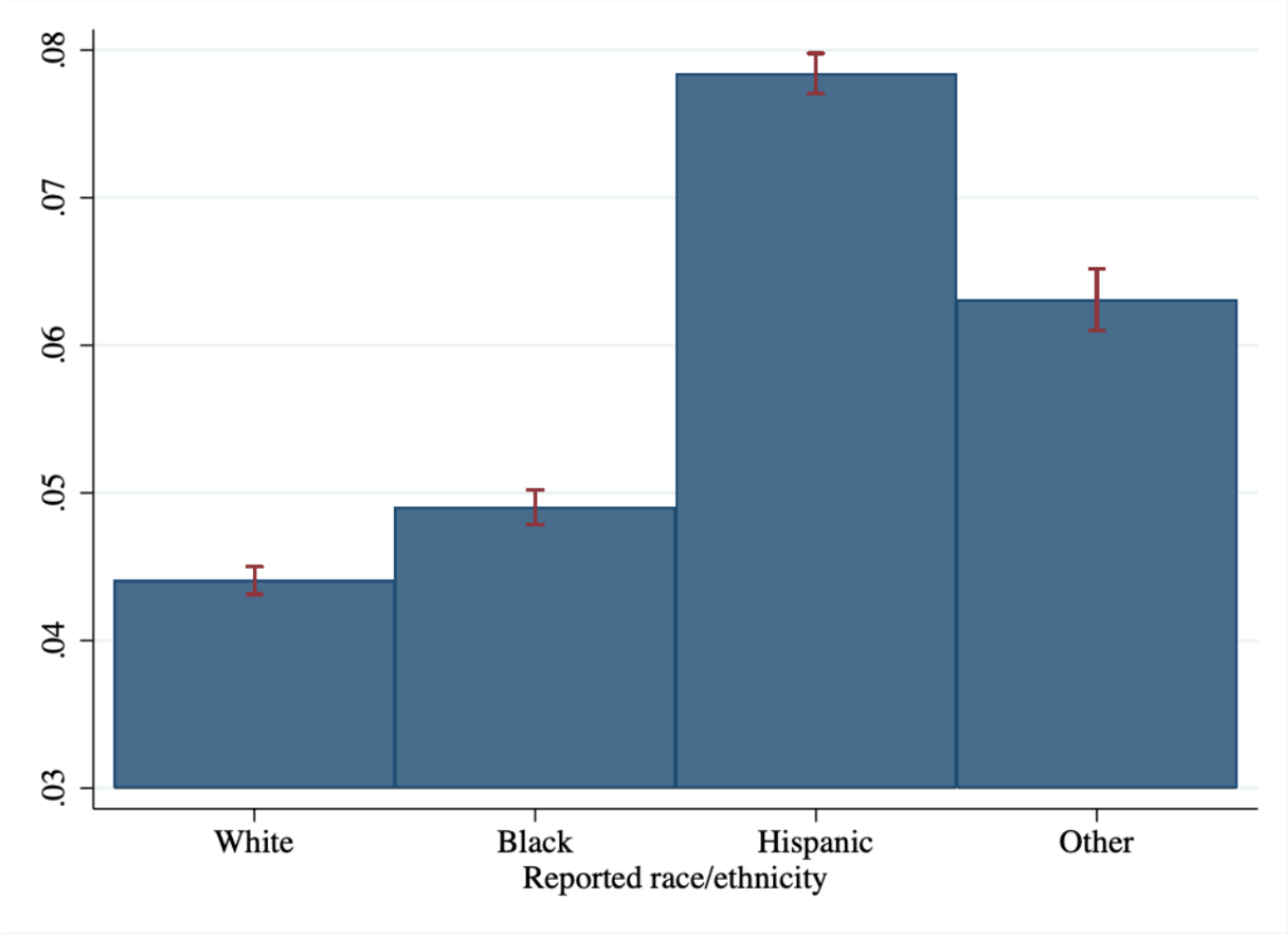


This figure depicts the average rate of comprehensive managed care plan switching by race and ethnicity. Plan switching occurs when a recipient's MMC plan ID in 2018 does not match their plan ID in 2019. Averages are adjusted for gender, age, urban county status, and state effects. Data is from the TAF 2018-2019. The sample is restricted to SSI recipients aged 18-64 who are enrolled in comprehensive managed care plans in 2018 and 2019. Recipients residing in a 209b state or Oregon are removed from the sample.

2.2.2 Plan Exits

Figure 8 shows average rates of plan exits by race/ethnicity in 2018-19. Here we find that only 4.5% of White SSI recipients switch plans each year due to their plans exiting the marketplace. Hispanic SSI recipients are most likely to be affected by plan exits – nearly 8% of Hispanic recipients switch plans due to exits in 2018 – followed by Other race/ethnicity recipients (6%), and then Black recipients (5%).

Figure 8: Average Rates of Plan Exit

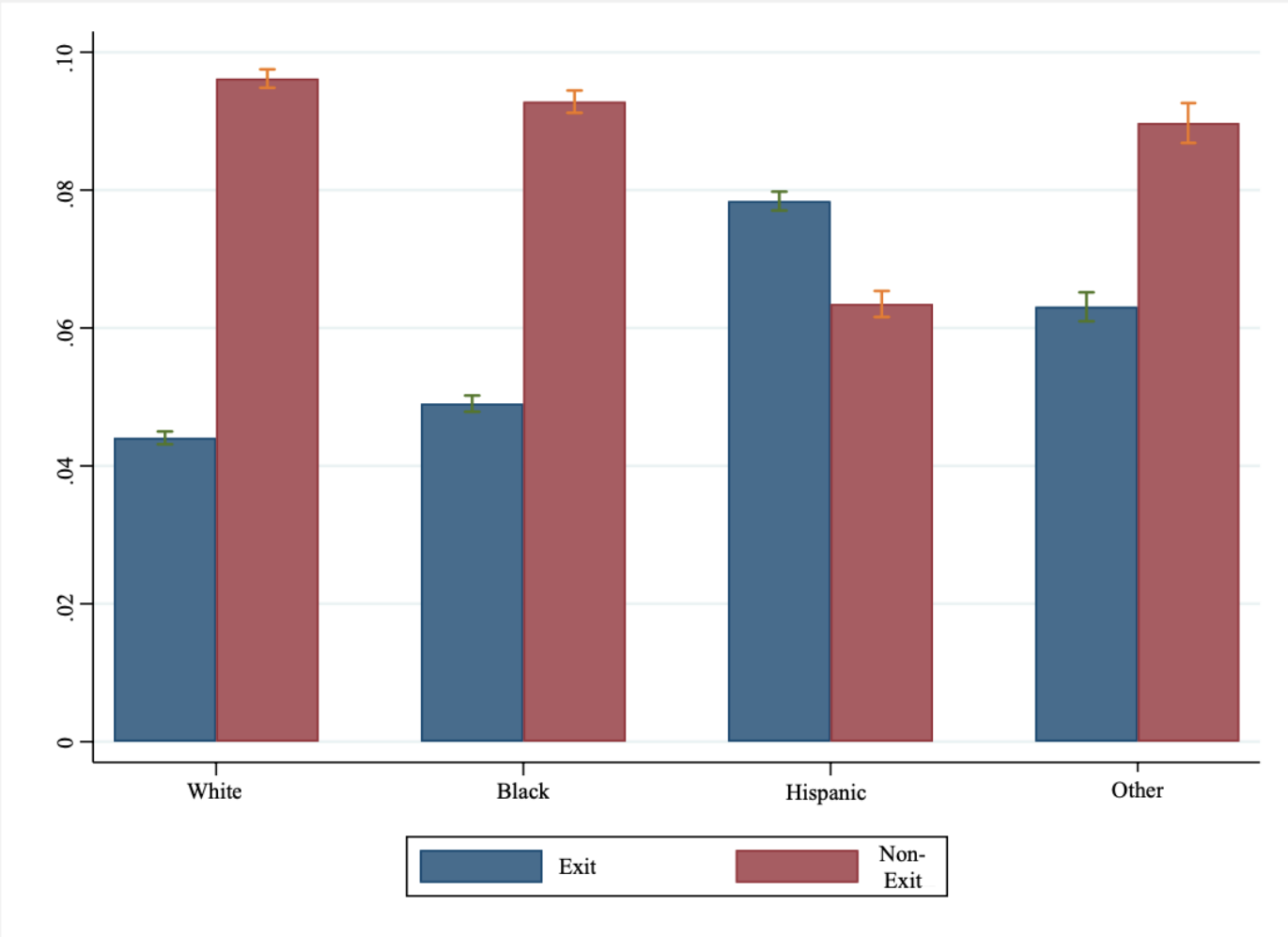


This figure depicts the average rate of comprehensive managed care plan exit by race and ethnicity. A plan exit occurs when the MMC plan ID that we identify in county c in 2018 is no longer present in county c in 2019. Averages are adjusted for gender, age, urban county status, and state-of-residence effects. Data is from the TAF 2018-2019. The sample is restricted to SSI recipients aged 18-64 who are enrolled in comprehensive managed care plans in 2018 and 2019. Recipients residing in a 209b state or Oregon are removed from the sample.

Even though overall rates of plan switching are similar across racial/ethnic groups, the reasons for plan switching differ. Figure 9 verifies this result. It shows that White, Black, and Other race/ethnicity SSI recipients are the most likely to switch plans for reasons unrelated to plan exits, while Hispanic recipients are more likely to switch plans because their plans exit. To the extent that plan switching, in the absence of plan exits, reveals patients' dissatisfaction, our results suggest that White and Black

SSI recipients are the least satisfied with their MMC plans' quality in 2018. In future work, we aim to determine whether SSI recipients' plan choices are a function of the plans' provider networks; i.e., are patients more likely to choose plans that offer better access to care? How do patients of different races/ethnicities weigh plan attributes?

Figure 9: Average Rates of Plan Switching by Switching Type



This figure depicts the average rate of plan switching by race and ethnicity broken down by plan exit and non-plan exit motivated switching. Averages are adjusted for gender, age, urban county status, and state effects. Data is from the TAF 2018-2019. The sample is restricted to SSI recipients aged 18-64 who are enrolled in comprehensive managed care plans in 2018 and 2019. Recipients residing in a 209b state or Oregon are removed from the sample.

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