



RESEARCH BRIEF #50

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Proper Medication Adherence is a Challenge for Older SNAP Participants with Chronic Health Conditions

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Diabetes and hypertension are among the leading causes of poor health and mortality in the United States.¹ Properly taking medications to manage these conditions is critical for maintaining good health and preventing avoidable complications and hospitalizations. This is particularly true among older adults, who are more likely to live with either chronic condition, and low-income older adults, who are more likely to lack the resources to cover the cost of prescription drugs and other basic needs.^{2,3} Low-income older adults who experience food insecurity are particularly at risk of skipping prescription refills as they face a “treat or eat” tradeoff between purchasing food or necessary prescriptions.⁴

Participating in the Supplemental Nutritional Assistance Program (SNAP)—the country’s largest food and nutrition assistance program that is primarily designed to address food insecurity—may help alleviate the financial burdens that contribute to medication non-adherence. However, very little is known about rates of diabetes and hypertension or medication adherence among the population of older adults participating in SNAP.⁵

This brief summarizes findings from our recently published paper, in which we performed a cohort study among a population aged 60 and older that participated in SNAP between 2006 and 2014 in the state of Missouri. Using state administrative data, we linked SNAP records to Medicaid pharmacy claims to estimate hypertension and diabetes diagnosis rates and to calculate levels of medication non-adherence for different population sub-groups.

KEY FINDINGS

- Among our sample of older adult SNAP participants, about 69% were diagnosed with hypertension and 40% were diagnosed with diabetes.
- On average, 1 in 4 older adults with hypertension and 1 and 3 with diabetes did not properly take medications prescribed to manage their condition.
- The risk of medication non-adherence increases with age and is higher among non-White and urban residents.

Rates of Hypertension and Diabetes are High Among Older Adult SNAP Population

Among the older adult SNAP study population, about 69% of participants were diagnosed with hypertension and 40% were diagnosed with diabetes. Figure 1 reports the breakdown of prevalence by chronic condition and population sub-group characteristics. Hypertension and diabetes rates increased with age and were higher among female, Black, U.S. citizen, and rural-dwelling participants. Chronic disease management is likely an important part of daily life for older adult SNAP participants, who face additional financial challenges to manage their conditions compared to their better-resourced peers.

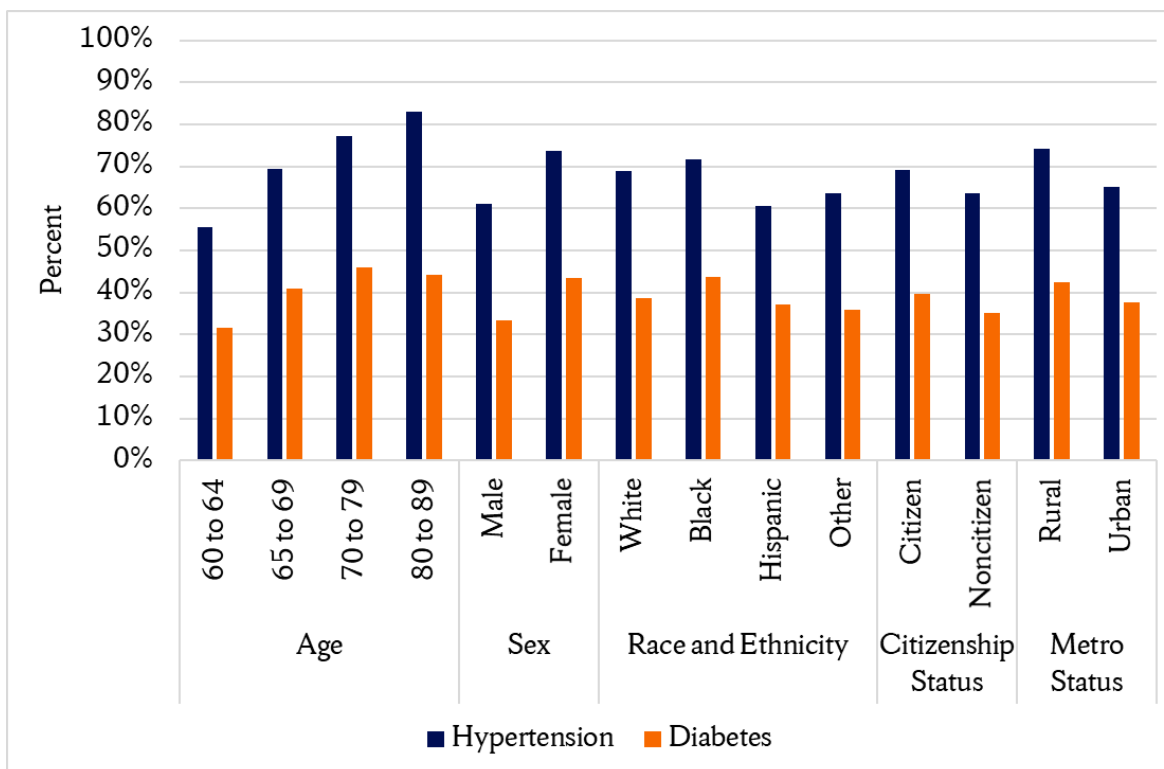


Figure 1: Prevalence of Chronic Conditions by Population Subgroup Among SNAP Recipients Ages 60 and Older, 2006-2014

Source: Heflin, Hodges, Ojinnaka, & Arteaga. 2021. [“Hypertension, Diabetes and Medication Adherence among the Older Supplemental Nutritional Assistance Program Population.”](#) *Journal of Applied Gerontology* June 2021.

Participants Are at High Risk of Not Adhering to Necessary Medications

Hypertension and diabetes are chronic conditions that require daily medication. Yet in our study population, only 1 in 4 participants with hypertension (24%) and 1 in 3 with diabetes (36%) did not take necessary medications as prescribed in a given year. These levels are substantially higher than estimates for chronic conditions among the all-age general population.^{4,6}

Figure 2 reports the average of annual non-adherence rates overall and by population sub-groups. Older, Black, and urban dwelling participants have significantly higher medication non-adherence levels for both conditions. Females have higher levels of medication adherence than males for hypertension but

lower levels for diabetes. Medication non-adherence is a meaningful threat to health and well-being among all demographic groups, but our findings illuminate the higher risk among certain subpopulations.

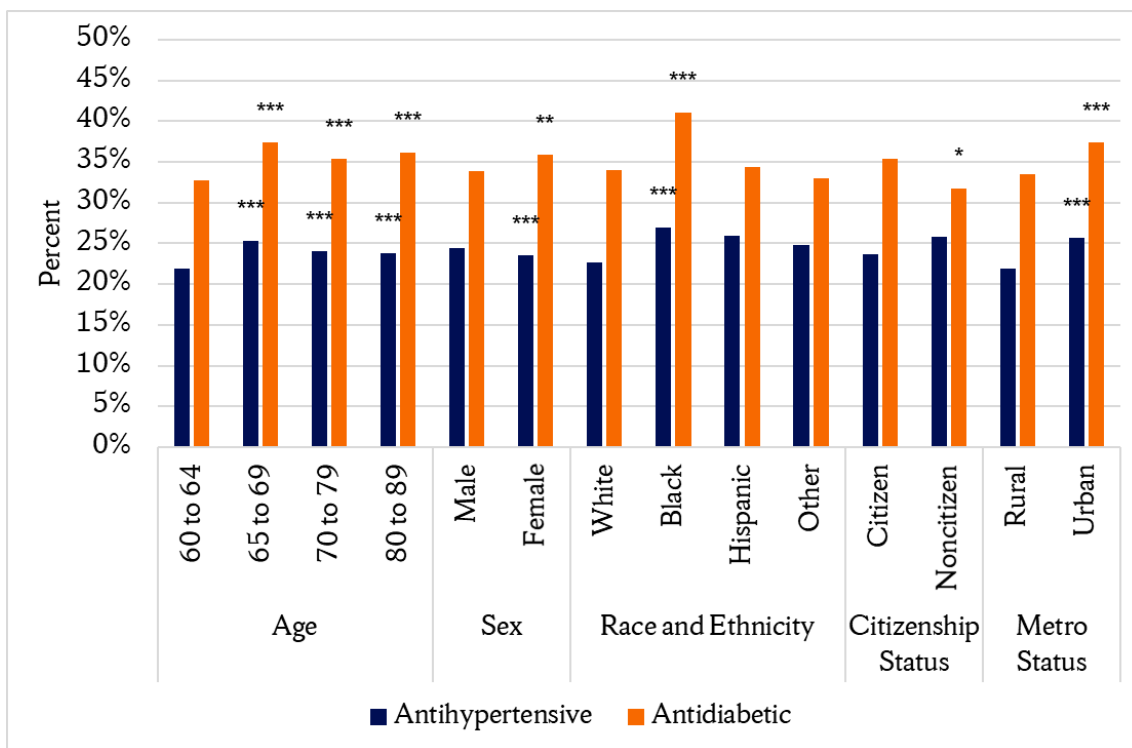


Figure 2: Percent Medication Non-Adherence by Population Subgroup Among SNAP Recipients Ages 60 and Older, 2006-2014

Note: Significance estimates reported are relative to the first value in each category. *** $p < .001$ ** $p < .01$ * $p < .05$

Source: Heflin, Hodges, Ojinnaka, & Arteaga. 2021. [“Hypertension, Diabetes and Medication Adherence among the Older Supplemental Nutritional Assistance Program Population.”](#) *Journal of Applied Gerontology* June 2021.

Policymakers Should Target Program Interventions to Increase Coordination and Improve Chronic Disease Management

When older adults fail to take medications properly, they increase their risk of experiencing negative health outcomes. As older adults’ share of the total population grows and health costs constitute an increasing share of public expenditures, policymakers should adopt interventions to reduce avoidable health events. Our findings underscore the value of investing in interventions to improve medication adherence among the older adult SNAP-eligible population.

In particular, SNAP and Medicaid program administrators can improve outreach to eligible older adults with chronic conditions to understand how the programs can coordinate benefits and services that support long-term disease management. By identifying common barriers to medication adherence—especially those that disproportionately affect Black, urban dwelling, and aging participants—policymakers can consider revising program procedures or policy guidelines to support individuals in managing chronic disease.

Data and Methods

The cohort study linked SNAP and Medicaid data from the state of Missouri for adults aged 60 or older who received SNAP between 2006 and 2014 (N = 154,020). We used claim codes for diagnoses and prescription drugs to identify individuals with hypertension or diabetes and pharmacy claims for antihypertensive and antidiabetic medications. The analysis applied a measure of non-adherence that identified periods between the date of their first medication fill and the last day of the calendar year when individuals had a proportion of days covered below 0.80 (calculated on an annual basis). Finally, we used regression to model the rate of medication adherence for each chronic disease condition as a function of population characteristics. Full details about the data and modeling approach are included in the [peer-reviewed article](#).

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