

The Value of Medicare Coverage on Depressive Symptoms Among Older Immigrants

Hankyung Jun, PhD,^{1,2,*} Soeren Mattke, MD, DSc,³ Alice Chen, PhD,¹ and Emma Aguila, PhD¹

¹Sol Price School of Public Policy, University of Southern California, Los Angeles, California, USA.

²Department of Health Care Policy, Harvard Medical School, Boston, Massachusetts, USA.

³Center for Economic and Social Research, University of Southern California, Los Angeles, California, USA.

*Address correspondence to: Hankyung Jun, PhD. E-mail: jun@hcp.med.harvard.edu

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Abstract

Background and Objectives: The immigrant population, the primary driver of U.S. population growth, is aging and many immigrants remain uninsured. Lack of health insurance limits access to care, aggravating the already high level of depression for older immigrants. However, there is scarce evidence on how health insurance, particularly Medicare, affects their mental health. Using the Health and Retirement Study, this study examines the effect of Medicare coverage on depressive symptoms of older immigrants in the United States.

Research Design and Methods: Exploiting the fact that many immigrants are not covered by Medicare after passing age 65, we use a difference-in-difference model with propensity score weighting to compare differences in depressive symptoms pre- and post-age-65. We further stratify the sample by socioeconomic status and by race/ethnicity.

Results: Medicare coverage was significantly associated with a reduction in the probability of reporting depressive symptoms for immigrants with low socioeconomic status, especially for those below median wealth levels. The beneficial effect of Medicare coverage was also statistically significant for non-White immigrants—Black, Hispanic, and Asian/Pacific Islander—even when holding socioeconomic status constant.

Discussion and Implications: Our findings imply that immigration policies that expand health care protection to older immigrants can lead to further health benefits and reduce existing disparities for the aging population. Policy reforms such as providing limited Medicare access to immigrants who paid sufficient taxes but are still awaiting permanent residency status could increase coverage for the uninsured and improve participation of immigrants in the payroll system.

Keywords: Depression, Disparities, Health insurance

Background and Objectives

Lack of health insurance is associated with worse health outcomes (McWilliams et al., 2007a), and uninsured older adults are the most vulnerable, as overall health declines with age (Kim & Durden, 2007). However, for most Americans, circumstances change at age 65 because of Medicare. Medicare, the largest social health insurance program in the country, has lowered death rates among severely ill patients (Card et al., 2009) and increased health care utilization from age 65 (Card et al., 2008; McWilliams et al., 2007b), including mammogram screenings of less-educated Black women (Decker & Rapaport, 2002). Medicare also has reduced out-of-pocket medical expenditure risk when the program was introduced in 1965 (Finkelstein & McKnight, 2008) and, more recently, in the late 2000s (Barcellos & Jacobson, 2015).

The benefits of Medicare and other health insurance programs, however, are not available for many immigrants. In 2019, 9% of naturalized immigrants, 25% of legally documented immigrants, and 46% of undocumented immigrants younger than 65 were uninsured (Kaiser Family Foundation, 2021). Among immigrants aged 65 and older, many lack

Medicare coverage. For example, in New York City, where immigrants comprise around 45% of the city's older population, 16%–18% did not have access to Medicare (Gray et al., 2006). Documented residents may be ineligible for Medicare even after making qualifying tax contributions because of the substantial backlog of lawful permanent residence applications. Yet, recent information on Medicare coverage of the foreign-born is scarce.

This lack of data is concerning because the foreign-born population is rapidly growing and aging. Population projections report that the foreign-born will increase from 47 million in 2021 to 69 million in 2060, indicating 17% of the U.S. population will be from abroad (U.S. Census Bureau, 2018). During the past decade, the foreign-born population aged 65 and older increased by 51%, from 5 million in 2010 to 7.5 million in 2019, which is higher than the 30% increase in the native-born (U.S. Census Bureau, 2019). As people age, they become more susceptible to health problems, especially for those with low socioeconomic status (Kim & Durden, 2007). This implies that there will likely be an increase in uninsured older immigrants, one of the most vulnerable groups in the country.

Immigration and Depression

Older immigrants may conceive depression differently compared to the U.S.-born. According to the biopsychiatric model, depression is a medical problem requiring professional treatment (Keyes, 1985). However, groups outside of western societies tend to conceptualize depression as a social problem or as emotional reactions to situations (Karasz et al., 2009; Patel, 1995), and such ‘situational’ models tend to be associated with lower use of medical treatment. Among immigrants, the difference in attitudes toward depression can be strongly influenced by acculturation (Karasz, 2005), which is often associated with language proficiency and the age of arrival. Acculturation itself could cause psychological stress. Previous studies have found evidence that immigrants are more likely to suffer from psychological distress if they arrived at older ages (Angel et al., 2001), have language barriers (Coffman & Norton, 2010), and are part of a minority racial/ethnic group (Lum & Vanderaa, 2010). According to the situational model, lower levels of acculturation could further worsen psychological health because immigrants have a lower tendency to seek mental health care treatment.

Aging and Depression

Depression among older immigrants can also be triggered by various risk factors associated with aging. Late-life depression is associated with an increase in health problems and chronic conditions, such as cardiovascular diseases and diabetes (Moussavi et al., 2007). Correspondingly, being uninsured can cause substantial psychological distress at older age (Jun & Aguila, 2021). Retirement is another major transition that occurs later in life that often leads to changes in social roles and reduces tangible income which all could heighten risks of depression (Dang et al., 2022). With deterioration in financial status being one of the most stressful life events among older adults, socioeconomic status can also play a crucial role in late-life depression (Fiske et al., 2009).

Conceptual Framework and Hypotheses

We based our conceptual framework on the fact that public health insurance offers two potential benefits (Finkelstein & McKnight, 2008) and further applied the models describing

how immigration and other environmental factors could influence one’s mental health. As presented in Figure 1, Medicare can affect mental health via two pathways: direct benefits on risk reduction and indirect benefits on improved overall health. The former reflects the primary purpose of any insurance product, which is to reduce financial uncertainty (Arrow, 1992). Previous empirical research has shown that health insurance provides psychological relief through reduced financial strain and lower medical expenditure burdens (Barcellos & Jacobson, 2015; Finkelstein & McKnight, 2008). The indirect effect explains that health insurance can indirectly improve one’s mental health by increasing the use of mental health treatments and related medications (Donohue et al., 2011) and also overall health care use (McWilliams et al., 2007b), which could lead to better health in general. While having Medicare coverage can help relieve depressive symptoms, older immigrants are also exposed to various risk factors associated with older age, immigration, low socioeconomic status, and being a member of a racial/ethnic minority group, which can heighten risks of psychological distress. Our choice of variables in the empirical model was guided by this conceptual framework and theories from previous literature (Karasz et al., 2009; Patel, 1995).

The aim of this study is to deepen the understanding of the relationship between Medicare coverage and depressive symptoms among older immigrants, particularly documented immigrants. Analyzing the foreign-born population allowed us to contribute to the small literature on the mental health of older immigrants. We also constituted new empirical evidence on the association between overall Medicare coverage and mental health. Because the universal nature of Medicare makes it challenging to find a meaningful counterfactual, previous research has focused on evaluating specific subprograms such as Medicare Part D beneficiaries (Ayyagari & Shane, 2015; Donohue et al., 2011). Our study exploited the fact that the foreign-born population presents a counterfactual group of persons without Medicare and that among documented immigrants, those with and without Medicare have many similarities. The use of a longitudinal sample and our conceptual framework allowed us to test the following three hypotheses: (1) among the foreign-born, Medicare coverage is associated with a reduction in symptoms of depression, and (2) the beneficial effect is greater for individuals with low socioeconomic status as well as for (3) individuals of racial or ethnic minorities.

Research Design and Methods

Data and Sample

We used the Health and Retirement Study (HRS), a nationally representative, longitudinal study of older adults aged 50 and older in the United States. The study contains a wide range of information on demographics, socioeconomic status, health, and immigration. We used data from Wave 2 to 13 (1994–2016) because complete information on depressive symptoms was available from the second wave.

We analyzed foreign-born individuals 50–79 years of age: 15 years before and after the Medicare eligibility “treatment” age of 65. We assumed the probability of undocumented immigrants participating in the survey was low because undocumented immigrants have a lower tendency to participate in surveys that require personal information. With the lack of cross-sectional data on unauthorized immigrants (Bachmeier

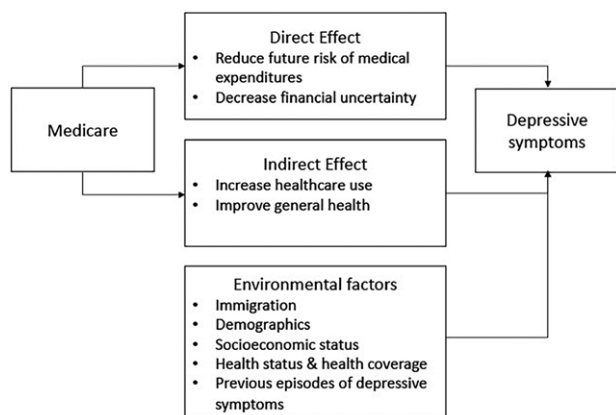


Figure 1. Conceptual framework for evaluating the role of Medicare on the depressive symptoms of older immigrants.

et al., 2014), it is unlikely that the HRS, which follows each respondent every 2 years, includes samples of undocumented immigrants. Hence, the sample was most likely restricted to legally documented immigrants. Immigrants who paid payroll taxes and became U.S. citizens or lawful permanent residents are eligible to receive premium-free Medicare Part A; therefore, the group with Medicare coverage after age 65 will likely be naturalized immigrants or those with permanent residency. We included respondents with complete information on all covariates, yielding a sample of 13,560 person-year observations.

We further analyzed subgroups of the foreign-born sample, based on different socioeconomic status groups as well as race and ethnicity, because the heterogeneous nature of the immigrant population leads to differences in mental health and health insurance status, and many of these heterogeneous factors are unobservable. We distinguished the sample by the following socioeconomic characteristics: educational attainment, household wealth, and health insurance coverage before age 65. Educational attainment was based on whether the respondent graduated high school or not; around 48% of the sample did not have a high school diploma. We also divided the sample by whether household wealth of the respondent was above or below the median of \$128,805 in 2020 USD. Household wealth across waves was inflated to 2020 values using the Consumer Price Index. For health insurance, we categorized respondents that were continuously uninsured from age 50 to 64 as being uninsured before age 65. Additionally, we analyzed the model by different race/ethnic groups among the foreign-born: non-Hispanic White, non-Hispanic Black, Hispanic, and Asian/Pacific Islander.

Variables

For the outcome variable, we used a binary variable indicating symptoms of depression. The HRS contains a shorter version of the Center for Epidemiological Studies—Depression scale (CES-D); scores on this range from 0 to 8, with a higher score indicating poorer mental health. Many studies have transformed the CES-D score into a binary variable indicating a high likelihood of clinical depression, with previous studies validating the cutoff score to be 4 or higher (Zivin et al., 2010). We followed this method to create a variable that equals 1 if the summary score is 4 or greater and equals 0 if the score is less than 4.

Covariates included demographic variables such as age and gender, and separate binary variables of whether the respondent had a private health insurance plan or Medicaid. We controlled for household income and whether the respondent was currently working for pay. Because current reports of depression are associated with previous depressive episodes and other chronic diseases, we controlled for whether the individual had depressive symptoms before age 65 and included a binary variable indicating whether the individual had been diagnosed with at least one of the following: high blood pressure, arthritis, diabetes, heart problem, cancer, lung problem, and stroke. Immigrant-specific variables were included such as English language proficiency and age of entry, and missing data for these two variables were imputed using age, sex, race/ethnicity, education, and citizenship. Consistent with previous research, we divided age of entry into three categories: childhood (age 14 and younger), young adulthood (age 15–34), and late adulthood (age 35 and older; Angel et al., 2001). All dollar values were adjusted to 2020 values

using the Consumer Price Index and yearly fixed effects were included to control for annual shocks that could have affected all respondents.

Statistical Analysis

We used a difference-in-differences model to estimate changes in depressive symptoms among the foreign-born associated with Medicare coverage. For each wave, HRS asked respondents whether they were covered by Medicare. We categorized individuals with Medicare coverage at age 65 and older as the “treatment group” and those without it as the “comparison group.” Because postponing Medicare enrollment comes with penalties, we assumed all eligible individuals were enrolled. Among the respondents, 93% were in the treatment group, and 7% were in the comparison group. We used information before (age 50–64) and after (age 65–79) the Medicare eligibility threshold for the pre- and posttreatment periods. Figure 2 shows that the difference in depressive symptoms between the treatment and comparison group remained fixed before the Medicare eligibility age, implying the parallel trends assumption holds. Details on the parallel trends assumption test are noted in [Supplementary Material](#).

While the treatment group and comparison group shared similar underlying characteristics on average, we applied propensity score weights to make them more comparable across key demographic indicators. An advantage of propensity score weighting over matching is that all individuals in the sample can be used rather than only matched cases (Guo & Fraser, 2015), making it more suitable for analyzing smaller samples such as we used.

We used a linear probability model for the binary variable of reporting depressive symptoms because our interest is in the difference in conditional means for the treatment and comparison group. If our outcomes had a very high or low mean probability, this would pose concerns (Angrist & Pischke, 2009; Finkelstein et al., 2012); however, the average of our outcome variables was not extreme as shown in Table 1. Standard errors were corrected for heteroskedasticity and serial correlation by clustering them at the individual level. To distinguish the effect by subgroups, we ran the analyses separately for each socioeconomic status group and by race/ethnicity as described above. All models included control variables and time-fixed effects, and models for each race/ethnic group additionally controlled for socioeconomic status (high school diploma, median wealth, and insurance status before age 65). For sensitivity analyses, we also reported results using a logistic model (the marginal effects at the mean of all variables).

Results

Summary statistics of the pretreatment period for the treatment group (with Medicare) and comparison group (without Medicare) are reported in Table 1. Before age 65, immigrants ineligible for Medicare had characteristics similar to those who were eligible, with propensity score weighting further reducing the differences. The weighted sample showed that for both groups, around half did not speak fluent English and around one-fifth entered the country in late adulthood. About 10% in both groups had Medicaid and more than 60% had private insurance.

Both groups reported similar prevalence of depressive symptoms before age 65 (23% vs 25%). There were noteworthy

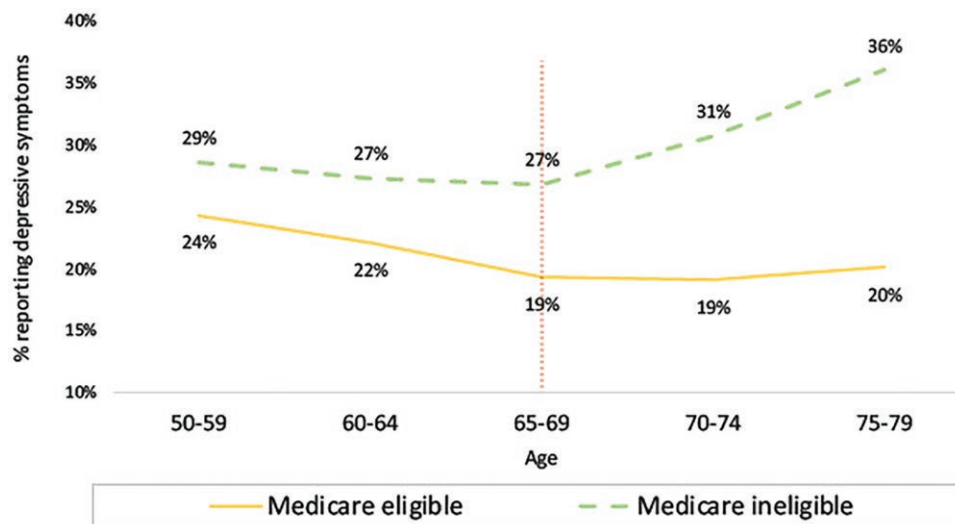


Figure 2. Trends in depressive symptoms among the foreign-born aged 50–79. *Source:* Health and Retirement Study, 1994–2016. A respondent is categorized to have depressive symptoms if the corresponding Center for Epidemiological Studies—Depression scale is 4 or higher.

differences in depressive symptoms between low and high socioeconomic status, with those of lower educational attainment and wealth being at least twice as likely as others to report depressive symptoms. For instance, the treatment and comparison group below median wealth levels reported a similar prevalence of 32% and 33%, respectively, while the prevalence of those above median wealth levels was less than half the size of 14% and 13%, respectively. Those without insurance coverage before age 65 also reported greater prevalence of depressive symptoms than its counterpart. Among racial/ethnic groups, Hispanic immigrants had the highest prevalence rate: around one third of the sample reported symptoms of depression.

Figure 3 presents unadjusted trends in reporting of depressive symptoms by age groups. At each age category, the foreign-born eligible for Medicare were less likely to report depressive symptoms. This gap remained fairly stable before the Medicare eligibility age, but then widened after the Medicare eligibility age. Immigrants without Medicare saw their depressive symptoms increase; those with Medicare coverage saw little change in their depressive symptoms.

Figure 3 presented socioeconomic characteristics by race/ethnicity. On average, Hispanic immigrants had the highest share of older adults that did not graduate high school, with wealth below median levels, and that were uninsured, followed by Black immigrants. Surprisingly, a high share of middle-aged immigrants was uninsured. In our sample, 48% of Hispanic immigrants, 32% of Black immigrants, and 26% of Asian/Pacific Islander immigrants did not have any type of health insurance coverage at age 50–64.

Table 2 reports the difference-in-differences treatment effect of Medicare on the probability of reporting depressive symptoms using the propensity score weighted sample. Each row represents the results from a separate regression analysis on a specific sample of the data. Panel A shows results for each socioeconomic status group and Panel B results for each race/ethnic group. Estimated coefficients of the full list of covariates are reported in Supplementary Tables S3 and S4.

Medicare coverage appeared to be significantly associated with a reduction in depressive symptoms for only immigrants with low socioeconomic status. Reductions in depressive

symptoms were greatest for those below the median wealth threshold: receiving Medicare coverage was associated with a reduction in the probability of reporting symptoms of depression by 15 percentage points on average relative to those without Medicare, equivalent to a 47% reduction ($-0.15/0.32$). For the foreign-born without a high school degree and those without health insurance before age 65, Medicare coverage was associated with an average 9-percentage point and 11-percentage point reduction in the probability of reporting depressive symptoms, equivalent to a 28% and 39% reduction, respectively.

Racial and ethnic minorities had higher proportions of low socioeconomic status, as shown in Figure 3. Even when we hold socioeconomic status constant, however, the estimates in Panel B showed that the effect of Medicare coverage was statistically significant for non-White immigrants. The reduction in depressive symptoms was the greatest for Black immigrants (17 percentage points), followed by Asian/Pacific Islander immigrants (15 percentage points) and Hispanic immigrants (13 percentage points).

For sensitivity analysis, we ran the model using a logistic model and reported the marginal effects at the means of each variable, as shown in the last column of Table 2. Results were very similar to the estimates using a linear model in terms of magnitude, direction, and significance.

Discussion and Implications

Medicare coverage was significantly associated with a reduction in the probability of reporting depressive symptoms for immigrants with low socioeconomic status. Based on significance and coefficient size, we found the association was strongest among older immigrants with below-median wealth. Analyses by race/ethnicity showed that Medicare coverage was related with improvements in the mental health of Hispanic immigrants, Black immigrants, and Asian/Pacific Islander immigrants, but not of White immigrants, even when we control for educational attainment, household wealth, and health insurance status.

We hypothesized that receiving Medicare coverage at age 65 could provide psychological health benefits to immigrants, who are more likely to be uninsured or with a cheaper

Table 1. Characteristics of the Foreign-Born Aged 50–64, Before and After Propensity Score Weighting

	Unweighted sample		Propensity score weighted sample	
	Medicare eligible	Medicare ineligible	Medicare eligible	Medicare ineligible
Number of observations	5,175	427	5,175	427
Individual characteristics				
Male	37%	45%	37%	37%
Age	59.1	59.2	59.1	59.1
Household income (\$)	58,207	46,523	58,207	57,842
Have a chronic condition	66%	64%	66%	68%
Medicaid	9%	7%	9%	11%
Private insurance	62%	54%	62%	62%
Currently working for pay	62%	58%	58%	58%
Poor English	47%	56%	47%	46%
Age of entry to the United States				
≤14 years old	29%	16%	29%	31%
15–34 years old	49%	46%	49%	49%
≥35 years old	22%	38%	22%	20%
Probability of reporting depressive symptoms				
Total	23%	28%	23%	25%
By socioeconomic status				
<High school graduate (48%)	32%	39%	32%	40%
≥High school graduate	16%	14%	16%	12%
<Median wealth (50%)	32%	34%	32%	33%
≥Median wealth	14%	16%	14%	13%
Uninsured, age 50–64 (33%)	28%	36%	28%	34%
Insured, age 50–64	20%	17%	20%	18%
By race/ethnicity				
Non-Hispanic White (33%)	12%	17%	12%	12%
Non-Hispanic Black (9%)	21%	16%	21%	12%
Hispanic (49%)	31%	34%	31%	36%
Asian/Pacific Islander (8%)	19%	18%	19%	9%

Notes: Noted are the mean or percentages of the sample for the pretreatment period (age 50–64). Dollar values have been inflated to 2020 values. The proportion of each socioeconomic status and race/ethnic group are noted in parentheses.
Source: Health and Retirement Study, 1994–2016.

private insurance plan that are only used in emergencies due to very high deductibles. Our results imply that the difference between having and not having Medicare coverage makes a difference among older immigrants with similar characteristics, particularly among those with low socioeconomic status.

The magnitude of the effect ranged from a 9- to 15-percentage point reduction in the probability of reporting depressive symptoms. In relative terms, this is equivalent to a 28%–47% decline. The relative magnitude is larger than the effect of a similar study that found that Medicare Part D reduced the probability of experiencing depressive symptoms by 21% among the U.S. population (Ayyagari & Shane, 2015). We believe that the higher magnitude of our study result reflects the differences in the treatment effect for the foreign-born that are more susceptible to depression, the difference between Medicare programs (having at least Part A vs having additionally Part D), and other changes that occur at age 65, such as Social Security income.

Additionally, we found that having a chronic health condition or previous experience of depressive symptoms was associated with higher symptoms of depression. Older age was

also associated with worse depressive symptoms for Hispanic and Black immigrants, which may be explained by the relatively lower household income level among these groups at older ages.

The Medicare effect on depressive symptoms may be explained by several mechanisms as described in our conceptual framework. Financial protection is a possible channel. Medicare coverage lowers out-of-pocket health expenditures (Finkelstein & McKnight, 2008) as well as financial strain (Barcellos & Jacobson, 2015), which could provide long-lasting psychological relief. Among the uninsured, recent immigrants are more likely to reduce health care spending than U.S. citizens when exposed to income shocks (Vargas Bustamante & Chen, 2014). Medical expenditure burdens are likely to weigh higher for uninsured or low-wealth individuals that showed more significant results in our analyses. Another possible explanation is an increase in health care utilization, in other words, the indirect effect of Medicare. Medicare coverage can boost health care use (McWilliams et al., 2007b), leading to better health in general. However, this may not be the case for the foreign-born. Previous research found that, even among the insured,

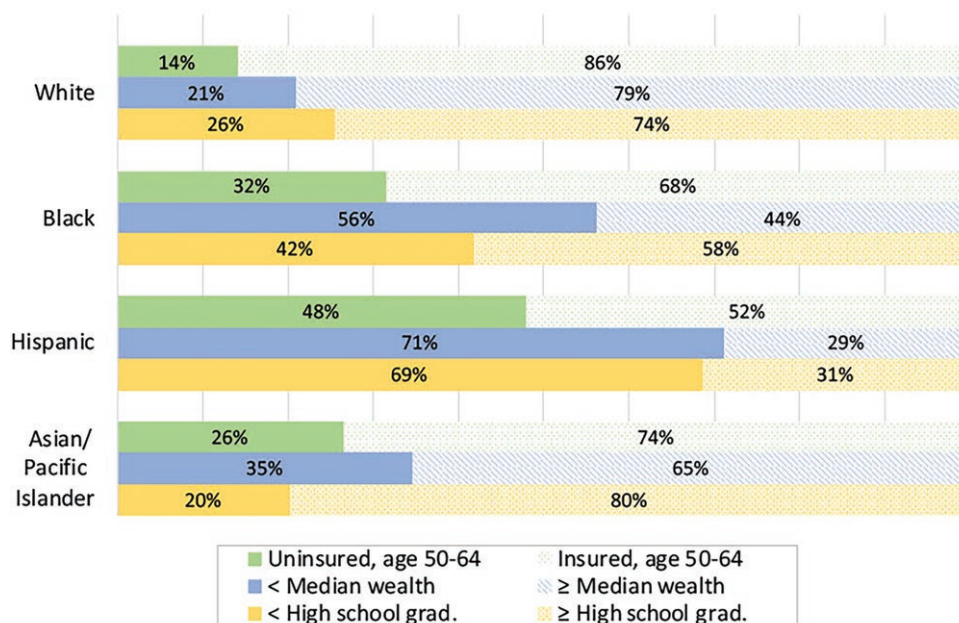


Figure 3. Uninsurance and socioeconomic status by race/ethnicity among the foreign-born aged 50–79. *Source:* Health and Retirement Study, 1994–2016.

Table 2. Change in Depressive Symptoms of the Foreign-Born Associated With Medicare Coverage

	Number of obs.	Linear probability model		Logit model		Marginal effects at the mean
		Estimate	95% CI	Estimate (odds ratio)	95% CI	
Total sample	13,556	-0.06	-0.17, -0.04	-0.45	-1.14, 0.24	-0.06
Panel A. By socioeconomic status						
Education levels						
<High school grad.	6,474	-0.09*	-0.21, -0.02	-0.56*	-1.18, 0.06	-0.12*
≥High school graduate	7,082	-0.03	-0.21, -0.15	-0.18	-1.64, 1.28	-0.01
Wealth levels						
<Median wealth	6,777	-0.15***	-0.24, -0.05	-0.86***	-1.44, -0.28	-0.17***
≥Median wealth	6,779	0.03	-0.13, -0.19	0.38	-1.20, 1.96	0.03
Health insurance <65						
Uninsured, age 50–64	4,520	-0.11*	-0.24, -0.02	-0.77*	-1.62, 0.08	-0.12*
Insured, age 50–64	9,036	-0.06	-0.19, -0.06	-0.38	-1.34, 0.59	-0.05
Panel B. By race and ethnicity						
Non-Hispanic White	4,498	0.06	-0.07, 0.20	1.12	-0.57, 2.82	0.05
Non-Hispanic Black	1,245	-0.17**	-0.33, -0.01	-1.50**	-2.51, -0.47	-0.10**
Hispanic	6,665	-0.13**	-0.25, -0.01	-0.68*	-1.40, 0.04	-0.13*
Asian/Pacific Islander	1,148	-0.15***	-0.25, -0.05	-1.56***	-2.71, -0.42	-0.09***

Notes: Noted are the estimates of the difference-in-differences treatment effect where treatment is Medicare status and outcome is the probability of reporting depressive symptoms. Each row shows the results of a separate regression. Standard errors are clustered at the individual level. All models use the propensity score weighted sample and include control variables of the following: age, gender, household income, private health insurance status, Medicaid status, whether have a chronic condition, whether reported depressive symptoms before age 65, work status, English language proficiency, age of entry, and time dummies. Models for race/ethnicity additionally control for socioeconomic status (high school degree, below/above median wealth, and insurance status before age 65). Full regression results are in the [Supplementary Material](#). CI = confidence interval; Obs = observations.

* $p < .10$. ** $p < .05$. *** $p < .01$.

Source: Health and Retirement Study, 1994–2016.

foreign-born adults tend to use less health care than the native-born, mostly as a result of language barriers, cultural differences, and concerns that seeking care could make it harder to gain citizenship or permanent residency (Ku & Jewers, 2013; McBride et al., 2020). Immigrants may also have lower tendencies to seek mental health care treatment

as explained by the situational model of depression. Future research may explore this topic further.

Policy Implications

Many immigrants do not have Medicare or other health insurance coverage. While recent discourse on immigrant

health insurance coverage is focused on undocumented residents, uninsured rates for naturalized citizens and lawfully present residents are also high (Kaiser Family Foundation, 2021). Anti-immigration policies have further restricted the ability of legal immigrants to gain health care protection. Compared to other immigrant groups, a relatively higher share of older immigrants from Mexico and Latin America are not covered by Medicare, which could be explained by policies in the 1990s that developed ideas of immigrants being a public charge (Bacong & Doan, 2022). Also, the revised public charge policies in 2019 created new barriers to obtaining legal permanent residency for immigrants who used public benefits, which led to a drop in Medicaid enrollment (Bustamante et al., 2022). The earlier Personal Responsibility and Work Opportunity Act prevents legal immigrants from receiving public program coverage in their first 5 years after arriving in the United States, which has led to lower health care use (Vega et al., 2018).

Several states and local safety-net providers have expanded health care coverage to uninsured immigrants (Bustamante et al., 2021). Illinois was the first state to extend health care coverage to low-income older immigrants not eligible for Medicaid due to immigration status. Recently, California announced an expansion of Medi-Cal coverage to low-income undocumented immigrants over age 50 (Caiola, 2021). Many legally documented immigrants, however, live in other states, have income levels above the Medicaid eligibility threshold, or are otherwise not eligible for such programs.

Expanding health insurance coverage for tax-paying legally documented residents may be a matter of fairness. Immigrants have a high labor force participation rate, comprising 17.4% of the total labor force in 2021 (Bureau of Labor Statistics, 2022), and many contribute to the payroll tax system (Mueller, 2019). In 2009, immigrants accounted for 14.7% of Medicare Trust Fund contributions but only 7.9% of its expenditures (Zallman et al., 2013), further suggesting that many immigrants pay taxes but are ineligible for public welfare benefits.

Among tax-paying immigrants, those who lack premium-free Medicare coverage are most likely on the long waitlist to become a lawful permanent resident (also known as a “green card” holder). The wait time for a green card can range from none to decades depending on country of origin, type of job, type of application, and other factors. In 2018, 28% of applicants in family and employment preference categories had waited a decade or more for their green cards, and 41% had waited at least 5 years (Bier, 2019). Not surprisingly, Medicare coverage for older immigrants has been strongly influenced by years of residence, employment status, and birth country (Siddharthan, 1991).

However, in some cases, immigrant workers may not be eligible because they did not pay their Federal Insurance Contribution Act (FICA) taxes for at least 10 years. Immigrants who entered the country at later ages or those in certain occupations, such as day laborers or small business owners (Ku & Jewers, 2013), may have less likely contributed to the tax system for 10 years. Citizens and permanent residents without the required contribution history can purchase Medicare Part A for \$499 per month and Part B for \$170.10 per month (as of 2022) after residing in the country for 5 years continuously, yet it is more conventional to purchase a cheaper private plan or pay cash when medical care is needed.

The increase in immigrants among the older population provides implications for a change in Medicare eligibility requirements. Incremental reforms, such as providing limited Medicare access to immigrants who have paid sufficient FICA taxes but are still awaiting permanent residency status, could be a feasible solution. Coverage options could be tailored to years of residence, FICA tax credits, specific health conditions, or wealth levels. Such policy reform would increase coverage rates for uninsured older persons and encourage participation of immigrants in the payroll system, even bolstering the sustainability of Medicare’s financial health.

Increased Medicare coverage for uninsured older adults could yield substantial long-term benefits from a public policy perspective as the population ages. Depression at older ages can lead to an increase in emergency room usage (Katon & Ciechanowski, 2002), inpatient hospital stays (Prina et al., 2015), and long-term care use such as nursing home admissions (Harris & Cooper, 2006), which could burden Medicare and Medicaid budgets. Depression is known to increase risks of dementia (Byers & Yaffe, 2011) and could come with considerable societal costs (Prados et al., 2022). Older immigrants with worsening physical, mental, and cognitive health may exhaust their personal savings and qualify for Medicaid (Borella et al., 2018), creating additional burdens on state budgets. Given the growth of the foreign-born among the older population in the United States, current policies that restrict health care protection for immigrants need to be reexamined.

Limitations

Our study has several limitations. First, we have a small sample size like other immigrant-focused studies, with a smaller share of Asian and Pacific Islanders. The share of Hispanic immigrants (49%) and Black immigrants (9%) in our sample is similar to population estimates. However, only 9% of our sample are Asian and Pacific Islanders, which is smaller than the population estimates of around 27% (U.S. Census Bureau, 2019). The undersampling of Asian and Pacific Islander immigrants and oversampling of White immigrants may explain why the estimates were insignificant when using the total foreign-born sample. Also, population estimates of Asian and Pacific Islander immigrants could be even larger, because our smaller sample still captures the Medicare effect. Second, we do not distinguish different types of Medicare, whereas the health effect of having Part A coverage may differ from having additional coverage options. Part B enrollment could matter because depression care is mostly office-based; however, we note that our analysis provides implications on the benefit of having at least Part A, which will differ from having no Medicare coverage. Finally, our sample is most likely restricted to documented immigrants because we assume the probability of undocumented immigrants participating in a longitudinal survey is low. We believe the Medicare effect will also apply to undocumented residents because most such residents have low-income levels, poor health, and are uninsured (Bustamante et al., 2021). Policy interventions aimed at undocumented immigrants, however, will differ from those targeting documented residents and need further exploration.

Conclusion

Approximately 47 million immigrants reside in the country today and this population is rapidly aging. Older immigrants,

especially those with low socioeconomic status, are prone to poorer mental health than native-born adults. Policy reforms aimed at expanding Medicare coverage options for these immigrants could yield long-term health benefits and reduce existing health disparities. Future research can exploit differences in state policies that support immigrant health coverage.

Supplementary Material

Supplementary data are available at *The Gerontologist* online.

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Conflict of Interest

S. Mattke serves on the board of directors of Sencio Systems, Inc., and the scientific advisory board of AiCure Technologies, and Boston Millennia Partners. He has received consulting fees from AARP, Biogen, Biotronik, Bristol-Myers Squibb, Eisai, Roche, and Defined Health. H. Jun, E. Aguila, and A. Chen have nothing to declare.

Data Availability

This study used data from the Health and Retirement Study, which is publicly available at <https://hrs.isr.umich.edu/>. This study was not preregistered.

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