

## Supplemental Online Content

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This supplemental material has been provided by the authors to give readers additional information about their work.

## eMethods. Supplemental Description of Methods

### **A. Background on Medicare and the age-based discontinuity in program eligibility**

#### A1. Age-based discontinuity in eligibility for Medicare

The Medicare program is a (nearly) universal health insurance program for people age 65 or older, and younger people with disabilities with End Stage Renal Disease (ESRD). Medicare has multiple parts; it provides hospital insurance via Part A, coverage for outpatient and other medical services via Part B, and drug coverage via Part D. Individuals become eligible for premium-free Medicare Part A when they turn 65 if they or their spouse have worked and paid Medicare taxes for at least 10 years. Since nearly all Americans qualify for Medicare based on their (or their spouses) work history, this creates a large age-based discontinuity in eligibility for Medicare at age 65.<sup>1</sup> A number of prior studies have leveraged this discontinuity to estimate the causal effects of Medicare coverage.<sup>1-3</sup>

#### A2. Transitions in coverage at age 65

As a result of the age-based discontinuity in eligibility at age 65, most people in the United States undergo a transition in health insurance coverage at 65. For those who were previously uninsured, and who qualify for Medicare, turning age 65 provides them with health insurance coverage where previously they had none; they transition from uninsured to insured. For people who are covered at age 64, the transition when they turn 65 changes the composition of their coverage. For those with Medicaid or employer-sponsored insurance, for example, Medicare typically becomes their primary payer with their prior source of coverage becoming secondary. This can affect the generosity of their coverage, the network of providers they have access to, and their covered benefits.<sup>1</sup>

### **B. Additional details on the primary data sources and sample construction**

#### B1. Behavioral Risk Factor Surveillance Survey

This section describes our primary data source, the Behavioral Risk Factor Surveillance Survey.

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<sup>1</sup> Additional details on Medicare eligibility criteria are available on the U.S. Department of Health & Human Services website at: <https://www.hhs.gov/answers/medicare-and-medicaid/who-is-eligible-for-medicare/index.html>

### *Overview of the BRFSS*

The BRFSS is a health-related telephone survey established in 1984 that now collects data on health-related risk behaviors, chronic health conditions, and the use of preventive services from all 50 states, completing more than 400,000 adult interviews each year.<sup>2</sup> There were 2,434,320 person-years in our BRFSS sample.

### *Study variables*

From the BRFSS, we assessed respondents' demographics, access to health care, and self-reported health. As respondent demographics, we assessed race/ethnicity, levels of education, employment status, marital status, income category, and sex. To measure access to health care, we assessed whether respondents reported having health insurance, having a usual source of care, or being unable to see a doctor due to cost. To measure health, we assessed whether respondents reported being in "poor" self-reported health, "fair" self-reported health, or "good or better" self-reported health which we defined as "good," "very good," or "excellent" health.

### *Survey response rates by year*

Figure S1 reports BRFSS response rates by year. Since the BRFSS is a state-led survey, response rates are reported at the state-level, separately for cellphone and landline respondents. Figure S1 plots the median of the state-level response rates each year.

### *Sample inclusion criteria*

We limited to 2008-2018 BRFSS data and respondents aged 50-79. Respondents were only included if their race/ethnicity was reported as white, Black, or Hispanic. We excluded observations that had missing data for any of our primary outcomes (i.e., health insurance, usual source of care, cost-related barriers to care, and self-reported health).

## B2. CDC-WONDER Data

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<sup>2</sup> Additional detail on the BRFSS is available at the Center for Disease Control and Prevention website at: <https://www.cdc.gov/brfss/about/index.htm>

This section discusses the CDC-WONDER data we use to measure all-cause mortality. We retrieved the CDC-WONDER data on 03/27/2020 for all deaths recording during the years 2008-2018. We retrieved the data collapsed at the state, year, age, and race/ethnicity group. We grouped deaths into white and non-white, with the white group comprising of white, non-Hispanics, and the non-white group comprising Blacks and Hispanics. There were 44,587 state-age-year observations in our CDC WONDER data.

## **C. Additional details on our primary statistical analysis**

### C1. Method for estimating confidence intervals in adjusted discontinuities in disparities

To estimate the confidence intervals for our adjusted discontinuities, we use the underlying standard error and bias estimates from the racial/ethnic group-specific discontinuities (e.g.,  $\beta_{\{Black\}}$  and  $\beta_{\{white\}}$ ). The adjusted discontinuity in disparities for Black vs. white is  $\phi_{\{black,white\}} = \beta_{\{Black\}} - \beta_{\{white\}}$ , the difference in the group-specific discontinuity estimates. Since each estimate is independent, calculating the variance of  $\phi_{\{black,white\}}$  is a straightforward application of the delta method:  $Var(\phi_{\{Black,white\}}) = Var(\beta_{\{Black\}}) + Var(\beta_{\{white\}})$ . To account for the potential bias in the extrapolation due to the discrete running variables, we follow the application of the delta method from Appendix B.1.1 of Armstrong and Kolesar (2020), and adjust our confidence intervals accordingly.<sup>4,5</sup>

### C2. Multiple inference correction

We use the Benjamini-Hochberg procedure to account for testing of multiple outcomes. In Table 1, we report  $p$ -values from a set of statistical tests assessing whether there was a change in racial/ethnic disparities after age 65. To adjust for the multiple outcomes we examined within each domain, we apply the Benjamini-Hochberg procedure to control the false discovery rate at the 5% significance level by domain. Additional details on this procedure are available elsewhere.<sup>6</sup>

### C3. Approach to measuring what share of the change in racial/ethnic disparities after age 65 was driven by closing the racial/ethnic gap *within* states

After documenting a large reduction in national-level racial/ethnic disparities at age 65 for measures of health insurance, health care access, and health, we perform a decomposition using

our state-level estimates of the reduction in disparities to understand the drivers of the reduction in the disparity at the national-level. Since racial/ethnic groups are concentrated geographically (e.g., Blacks in the South), it is possible that the national level reduction in disparities reflects the larger impacts of Medicare in regions of the country where non-whites reside. For example, if the effects of Medicare on coverage, access, and health are largest in the South (for all race/ethnicities) they may nevertheless have the effect of reducing national-level racial/ethnic disparities since the South represents a disproportionate share of the non-white population. Another possibility is that large disparities exist between racial/ethnic groups *within-states* and Medicare reduces national-level disparities by closing the gaps between non-whites and whites within states.

To answer this question, we use state-level estimates of the pre-Medicare racial/ethnic disparity and our estimated effects of Medicare by race/ethnicity and by state to decompose the national-level reduction in disparities for a particular outcome as follows:

$$\theta_{NW} - \theta_W = \underbrace{\sum_{s=1}^{51} (\theta_{NW,s} - \theta_{W,s}) \pi_{s,W}}_{\text{Changes in disparities within-state at 65}} + \underbrace{\sum_{s=1}^{51} \theta_{NW,s} (\pi_{s,NW} - \pi_{s,W})}_{\text{Differences across states in where Medicare's effects are largest}}$$

where  $\theta_{NW,s}$  and  $\theta_{W,s}$  are the adjusted discontinuities at age 65 for nonwhites (“NW”) and whites (“W”) respectively, in state  $s$  for any given outcome. Let  $\pi_{s,W}$  be the share of the national white population that resides in state  $s$  and  $\pi_{s,NW}$  be the share of the national nonwhite population that resides in state  $s$ . The choice to weight by  $\pi_{s,W}$  in the first term is arbitrary, as in a Oaxaca-Blinder decomposition.<sup>7-9</sup>

The decomposition is related to the evidence presented in eFigure 4. This figure captures, intuitively, the covariance between the post-Medicare disparity and the pre-Medicare disparity, at age 65. If that covariance is zero, then the slope coefficient is exactly 1 (this would be the case, for example, if the disparity were exactly zero post-Medicare). If the covariance differs from zero, it suggests that the pre-Medicare level of disparity is predictive of the impact of Medicare, and hence location would matter (and hence the reweighting across-states could explain a significant share). Instead, we see in eFigure 4 a slope very close to 1, consistent with the results of our decomposition suggesting that *within state* changes in disparities dominate.

#### C4. Empirical Bayes Shrinkage

To address noisiness caused by small sample sizes in our state-level estimates in Figure 3, we shrink the estimates using a standard empirical Bayes procedure. The procedure shrinks each state-level coefficient towards the overall average. The relative shrinkage of the estimate is a function of each state-level estimate's standard error—estimates with larger error are shrunk further towards the overall mean.<sup>10,11</sup> This approach substantially reduces the mean-squared error of the estimates and prevents states with tiny minority population shares from being outliers.

### **D. Sensitivity analyses and robustness**

The section describes how we assess the robustness of our results to alterations of our statistical model, including alternate bandwidths, alternate functional forms, and the inclusion of respondent-level covariates.

#### D1. Testing the sensitivity of our nonparametric results to alternative kernels and bounds on the second derivative of the age function

For each racial/ethnic group and each outcome, we use the *R* package *RDHonest* (Link here: <https://github.com/kolesarm/RDHonest>) to implement a data-driven process that selects an optimal bandwidth that balances bias and variance, accounting for the discreteness of our running variable.<sup>4,5</sup> We then run a local linear regression with a uniform kernel using the selected bandwidth. We perform two sensitivity checks on this model. First, we assess how robust our results are to using a triangular kernel, which places more weight on the observations closer to the cutoff than observations farther from the cutoff. Second, the RD Honest model requires researchers to set a bound on the second derivative of the function that relates the outcomes and age. We set this bound to be a function of the size of the coefficient on the squared term in a quadratic model relating our outcomes to age on the left side of the discontinuity (e.g., the estimated second derivative).<sup>12</sup> Specifically, we scale this coefficient by  $K$ , with our primary specification multiplying the second derivative by  $K = 2$ . In robustness checks, we assess the sensitivity of our results to using  $K = 1$  or  $K = 4$ . Intuitively, as this  $K$  scaling factor grows, we allow for more potential misspecification (and bias) in our estimates, which will lead our estimates to be estimated with a smaller bandwidth and larger confidence intervals (since the

estimation procedure will account for this bias). We present the results of these sensitivity tests in eTable 2.

#### D2. Testing the sensitivity of our results to using parametric regression discontinuity models

For transparency, we also assess the robustness of our results to several parametric regression discontinuity models. We estimate regression discontinuity models that model the relationship between our outcome and age using linear or quadratic age trends (that vary around the cutoff) for bandwidths ranging from 3 to 15 years around the Medicare eligibility age. We also select a bandwidth in the center of that range, 10 years, and present a full set of results based on a parametric model with linear age trends (eTable 3). We then assess whether these results are sensitivity to the inclusion of controls, which we cannot incorporate into our primary local linear regression discontinuity models (eTable 4).

#### D3. Testing for smoothness in BRFSS response rates at the discontinuity

We also assess whether response rates in the BRFSS trend smoothly across the discontinuity. We performed two sets of statistical tests. First, we assessed whether item response rates trended smoothly at the discontinuity. We present the results of this test in eTable 5, which reports the results of estimating our RDHonest regression discontinuity model on the response rate for each of our outcomes separately by race. We report the expected response rate at age 65 and the adjusted discontinuity. Reassuringly, the response rates for our outcomes are generally very high and we do not evidence of large discontinuities at age 65. Second, we performed a McCrary test on our primary analytic sample. We failed to reject a discontinuous change in the density of our observations across the age threshold ( $p = 0.25$ ), suggesting that there is no discontinuous change in unit responses across the Medicare age eligibility threshold. This test was implemented using the `rddensity` package in R.

**eTable 1. Share of the Reduction in Discontinuities in Racial/Ethnic Disparities After 65 Due to Within-State Reductions in Disparity**

	White-Black Disparity				White-Hispanic Disparity			
	Expected Disparity <sup>a</sup>	Adjusted Discontinuity in Disparity (95% CI) <sup>b</sup>	% Reduction in Disparity	% of Reduction Due to Within-State Reductions in Disparity	Expected Disparity <sup>†</sup>	Adjusted Discontinuity in Disparity (95% CI) <sup>b</sup>	% Reduction in Disparity	% of Reduction Due to Within-State Reductions in Disparity
Insurance coverage (%)	5.7	-3.0 (-5.1, -0.9)	53%	92%	14.6	-7.4 (-9.5, -5.3)	51%	98%
Healthcare access								
Have a usual source of care (%)	1.2	-1.2 (-3.2, 0.7)	100%	95%	10.5	-3.0 (-6.1, 0.0)	29%	88%
Unable to see physician in past year because of cost (%)	-5.8	1.5 (-0.8, 3.8)	26%	95%	-11.4	4.5 (2.4, 6.7)	39%	88%
Received a flu vaccination in past year (%)	11.0	-0.7 (-3.1, 1.7)	6%	–	8.1	-4.8 (-8.4, -1.3)	59%	109%
Health								
Poor self-reported health (%)	-4.4	2.4 (0.8, 4.0)	55%	100%	-8.9	3.6 (1.1, 6.1)	40%	87%
Fair self-reported health (%)	-11.3	-0.5 (-2.6, 1.7)	-4%	–	-17.5	-1.0 (-4.1, 2.2)	-6%	–
Good or better self-reported health (%)	15.9	-1.8 (-4.5, 0.9)	11%	–	26.8	-2.1 (-6.1, 1.8)	8%	–
Mortality rate (per 100,000)	-641.5	-4.3 (-77.2, 68.5)	-0.7%	–	228.7	-2.0 (-72.6, 68.5)	1%	–

<sup>a</sup> Column presents the expected disparity at age 65, the age eligibility threshold for Medicare, based on the linear relationship between age and the outcomes for nonwhite and white populations. The expected disparity subtracts the expected mean for nonwhites from the expected mean for whites at age 65.

<sup>b</sup> Adjusted discontinuity estimates are in percentage points.



**eTable 2. Medicare Eligibility Age-Related Discontinuities in White-Black Disparities in Coverage, Access, and Health by State<sup>a</sup>**

State	Health insurance coverage (%)			Poor self-reported health (%)			Have a usual source of care (%)			Cost-related barriers to care (%)		
	Expected disparity at age 65	Adjusted discontinuity in disparity	Bias-corrected 95% CI	Expected disparity at age 65	Adjusted discontinuity in disparity	Bias-corrected 95% CI	Expected disparity at age 65	Adjusted discontinuity in disparity	95% CI	Expected disparity at age 65	Adjusted discontinuity in disparity	Bias-corrected 95% CI
ALABAMA	-0.0514	0.0229	[-0.0386, 0.0844]	0.0276	-0.0293	[-0.0779, 0.0192]	-0.0401	0.07	[-0.001, 0.141]	0.052	-0.0289	[-0.0707, 0.0129]
ALASKA	0.0233	0.0382	[-0.2548, 0.3312]	0.0536	0.0115	[-0.3278, 0.3507]	0.0499	-0.0228	[-0.3531, 0.3075]	-0.0332	-0.0368	[-0.2392, 0.1655]
ARIZONA	0.0869	-0.11	[0.2665, 0.0466]	0.1486	-0.1421	[-0.2702, -0.0141]	0.0328	-0.0209	[-0.2284, 0.1866]	-0.0895	0.0464	[-0.1395, 0.2323]
ARKANSAS	-0.0472	0.0122	[-0.0545, 0.0789]	0.0694	-0.0457	[-0.1266, 0.0352]	0.0487	0.0613	[-0.0705, 0.1929]	0.0514	0.0037	[-0.1143, 0.1069]
CALIFORNIA	-0.0574	0.0353	[-0.0439, 0.1145]	0.0445	-0.0317	[-0.1103, 0.047]	-0.0497	0.0475	[-0.0483, 0.1432]	0.0035	0.023	[-0.0369, 0.083]
COLORADO	-0.0176	0.0099	[-0.0967, 0.1166]	0.0268	0.0382	[-0.0638, 0.1402]	0.0045	0.0077	[-0.0724, 0.0878]	0.034	0.0477	[-0.0987, 0.1942]
CONNECTICUT	0.0327	-0.0079	[-0.0758, 0.06]	0.0444	-0.0364	[-0.0981, 0.0253]	0.0193	0.0451	[-0.109, 0.0188]	0.0702	0.0003	[-0.1256, 0.1262]
DELAWARE	0.0443	-0.072	[-0.1502, 0.0061]	0.027	-0.027	[-0.0892, 0.0353]	0.0522	-0.0206	[-0.1165, 0.0753]	0.0125	0.0415	[-0.0497, 0.1328]
DIST. OF COLUMBIA	-0.0351	0.0132	[-0.0185, 0.0489]	0.059	0.0153	[-0.0314, 0.0621]	-0.0127	-0.0216	[-0.095, 0.0518]	0.0366	0.0592	[0.005, 0.1134]
FLORIDA	0.085	0.0617	[-0.0016, 0.1249]	0.0564	-0.0418	[-0.0918, 0.0082]	-0.0366	0.0525	[-0.0019, 0.107]	0.0229	-0.0087	[-0.1221, 0.1046]
GEORGIA	-0.0486	0.0165	[-0.0538, 0.0867]	0.0025	-0.0115	[-0.0533, 0.0304]	-0.0298	0.0374	[-0.0201, 0.0949]	0.065	-0.0452	[-0.0979, 0.0074]
HAWAII	-0.195	-0.0351	[-0.2145, 0.1443]	-0.0095	-0.0136	[-0.0751, 0.0479]	-0.0038	-0.0037	[-0.1605, 0.1532]	-0.0624	0.2154	[-0.0164, 0.4144]
IDAHO	0.3482	-0.6337	[-1.4309, 1.235]	0.0498	-0.1037	[-0.3028, 0.0954]	0.0942	0.1867	[-0.7168, 1.0901]	0.2189	-0.288	[-1.2104, 0.6344]
ILLINOIS	-0.0259	-0.0015	[-0.0661, 0.0631]	-0.0114	0.0346	[-0.0426, 0.1119]	0.0431	0.0432	[-0.0222, 0.1086]	0.058	-0.041	[-0.1296, 0.0477]
INDIANA	-0.0265	0.0058	[-0.0502, 0.0619]	-0.0127	0.0202	[-0.0614, 0.1019]	-0.0282	-0.0072	[-0.088, 0.0736]	0.0971	-0.0837	[-0.1697, 0.0022]
IOWA	-0.1129	0.1148	[-0.0833, 0.313]	0.0685	-0.0509	[-0.2377, 0.1359]	0.1005	-0.1147	[-0.3392, 0.1098]	0.0259	0.1542	[-0.0475, 0.3559]
KANSAS	-0.0325	-0.002	[-0.0649, 0.0609]	-0.0004	0.0589	[-0.0116, 0.1293]	-0.0451	0.0187	[-0.0574, 0.0948]	0.0834	-0.0306	[-0.1082, 0.0469]
KENTUCKY	-0.0424	0.0567	[-0.0108, 0.1242]	-0.0273	-0.0206	[-0.1044, 0.0632]	-0.0086	0.014	[-0.0819, 0.11]	0.0199	-0.0305	[-0.1591, 0.0981]
LOUISIANA	-0.0505	0.017	[-0.0263, 0.0604]	0.0682	-0.025	[-0.09, 0.04]	0.0228	-0.0364	[-0.1061, 0.0333]	0.0346	0.0631	[-0.0095, 0.1357]
MAINE	0.1091	-0.0631	[-0.2322, 0.1059]	0.0343	0.0093	[-0.2282, 0.4268]	0.0761	-0.0353	[-0.2706, 0.1999]	0.0237	0.0555	[-0.345, 0.234]
MARYLAND	-0.0266	0.0104	[-0.0282, 0.0491]	0.0032	-0.0026	[-0.0364, 0.0312]	-0.0206	0.001	[-0.0445, 0.0462]	0.0552	-0.0379	[-0.095, 0.0193]
MASSACHUSETTS	-0.0727	0.0478	[-0.0631, 0.1386]	0.0196	-0.0642	[-0.1207, -0.0078]	-0.005	-0.0152	[-0.1234, 0.093]	0.0559	-0.0688	[-0.1656, 0.0279]
MICHIGAN	0.0103	0.001	[-0.0399, 0.0418]	0.0561	-0.0434	[-0.0986, 0.0117]	0.0083	0.0109	[-0.0313, 0.0932]	0.0326	0.0211	[-0.0336, 0.0758]
MINNESOTA	-0.1665	0.1233	[0.0228, 0.2239]	0.0368	0.0191	[-0.0937, 0.1319]	-0.1346	0.1134	[-0.1266, 0.3535]	0.1663	-0.0345	[-0.1822, 0.1133]
MISSISSIPPI	-0.0488	0.0217	[-0.0444, 0.0378]	0.0858	-0.0646	[-0.1232, -0.006]	-0.0029	-0.0027	[-0.0632, 0.0578]	0.0329	-0.0108	[-0.0876, 0.0601]
MISSOURI	0.051	-0.1033	[-0.1955, -0.0111]	0.0394	-0.0397	[-0.0987, 0.0192]	0.0499	-0.0637	[-0.1323, 0.005]	-0.0394	0.0913	[-0.0222, 0.2049]
MONTANA	-0.1424	0.1604	[-0.5019, 0.8226]	0.004	-0.0632	[-0.6159, 0.4894]	-0.2481	0.3656	[-0.3462, 1.0773]	-0.0393	0.0876	[-0.4588, 0.634]
NEBRASKA	-0.0735	0.034	[-0.0854, 0.1535]	0.0561	0.0322	[-0.0631, 0.1276]	-0.0499	0.0356	[-0.0542, 0.1255]	0.0448	-0.0296	[-0.1362, 0.0769]
NEVADA	-0.0099	0.0163	[-0.0743, 0.1068]	0.0015	-0.002	[-0.1344, 0.1303]	0.0581	0.0886	[-0.1188, 0.296]	-0.0151	0.1039	[-0.093, 0.3008]
NEW HAMPSHIRE	0.0988	-0.023	[-0.2768, 0.2307]	-0.0206	-0.0096	[-0.1759, 0.1567]	0.1218	0.0567	[-0.2715, 0.3848]	0.141	-0.123	[-0.4066, 0.1606]
NEW JERSEY	-0.0985	0.0714	[-0.04, 0.143]	0.0608	-0.0423	[-0.0857, 0.0012]	-0.0295	0.0148	[-0.0423, 0.0718]	0.068	-0.0272	[-0.1138, 0.0593]
NEW MEXICO	-0.0312	0.0432	[-0.1033, 0.1898]	0.0091	0.0538	[-0.1279, 0.2354]	0.0077	-0.0614	[-0.2679, 0.1452]	-0.0258	0.0621	[-0.1561, 0.2781]
NEW YORK	0.1201	0.0708	[-0.009, 0.1505]	0.0318	0.045	[-0.0223, 0.1123]	-0.0384	0.0299	[-0.0147, 0.0746]	0.0951	-0.0071	[-0.1071, 0.093]
NORTH CAROLINA	-0.0519	0.0237	[-0.0333, 0.0807]	0.0293	0.0026	[-0.0531, 0.0553]	0.0096	-0.0435	[-0.102, 0.015]	0.0721	-0.0191	[-0.0898, 0.0516]
NORTH DAKOTA	-0.0015	0.0227	[-0.3816, 0.4271]	0.1543	-0.0981	[-0.5614, 0.3652]	-0.3194	0.4147	[-0.1072, 0.9365]	0.4921	-0.5147	[-1.0914, 0.062]
OHIO	0.0742	0.0441	[-0.0247, 0.1129]	0.0098	0.0002	[-0.0533, 0.0537]	0.0371	0.0047	[-0.0648, 0.0554]	0.0403	0.0203	[-0.0803, 0.0396]
OKLAHOMA	-0.0604	0.0257	[-0.0707, 0.1222]	-0.002	-0.0033	[-0.073, 0.0665]	-0.0055	-0.0064	[-0.0853, 0.0725]	0.0614	-0.04	[-0.1454, 0.0654]
OREGON	0.0346	-0.02	[-0.2796, 0.2397]	0.0967	0.011	[-0.2226, 0.2446]	0.1955	-0.0302	[-0.3062, 0.2458]	0.1346	-0.1818	[-0.4528, 0.0893]
PENNSYLVANIA	0.051	0.0402	[-0.0114, 0.0919]	0.0486	-0.0199	[-0.0722, 0.0325]	0.0045	0.0063	[-0.0624, 0.075]	0.0445	-0.0693	[-0.1782, 0.0397]
RHODE ISLAND	-0.0107	-0.0351	[-0.1554, 0.0852]	0.0517	0.0083	[-0.1372, 0.1538]	0.0179	-0.1194	[-0.2588, 0.02]	0.0444	0.0519	[-0.063, 0.1667]
SOUTH CAROLINA	-0.0502	0.0185	[-0.0359, 0.0729]	0.055	-0.0364	[-0.0774, 0.0047]	-0.0034	-0.0076	[-0.0533, 0.0381]	0.0906	-0.0457	[-0.1052, 0.0137]
SOUTH DAKOTA	0.881	1.095	[0.2335, 1.9564]	0.088	-0.192	[-0.4825, 0.0985]	0.8732	1.2901	[0.2892, 2.2911]	-0.039	0.009	[-0.5986, 0.6165]
TENNESSEE	-0.0145	-0.0058	[-0.0885, 0.0769]	-0.0086	-0.0243	[-0.0977, 0.049]	0.0437	-0.0081	[-0.1037, 0.0874]	-0.026	0.0853	[-0.0052, 0.1758]
TEXAS	-0.0288	0.0279	[-0.0571, 0.1129]	0.0992	-0.0783	[-0.1851, 0.0285]	-0.0043	-0.0079	[-0.1055, 0.0896]	0.089	-0.0112	[-0.103, 0.0806]
UTAH	0.0245	0.0221	[-0.1543, 0.1986]	-0.0006	0.0871	[-0.1185, 0.2926]	0.0073	0.1532	[-0.1091, 0.4154]	0.1857	0.0973	[-0.5642, 0.3696]
VERMONT	0.0753	-0.0628	[-0.1129, -0.0127]	0.0232	0.0254	[-0.1483, 0.1991]	0.1062	-0.3282	[-0.8103, 0.1538]	0.0434	-0.0822	[-0.3416, 0.1772]
VIRGINIA	-0.068	0.0348	[-0.0189, 0.0885]	-0.0099	0.0284	[-0.0206, 0.0775]	-0.0295	0.0318	[-0.0432, 0.1067]	0.0729	-0.0107	[-0.07, 0.0486]
WASHINGTON	-0.0184	0.0165	[-0.079, 0.112]	-0.0082	0.0356	[-0.05, 0.1213]	-0.0252	-0.0933	[-0.2993, 0.1127]	0.0561	-0.0158	[-0.1724, 0.1408]
WEST VIRGINIA	0.016	0.0033	[-0.0899, 0.0964]	0.0037	0.0086	[-0.1072, 0.1244]	0.0151	0.0165	[-0.1037, 0.1366]	0.0165	0.0704	[-0.1257, 0.2665]
WISCONSIN	-0.1128	0.1185	[-0.0166, 0.2536]	0.0226	-0.0389	[-0.1418, 0.064]	-0.0909	0.1486	[-0.0437, 0.3408]	0.099	-0.0504	[-0.2603, 0.1594]
WYOMING	0.0466	-0.0821	[-0.3111, 0.1469]	-0.0547	0.0792	[-0.1227, 0.2811]	0.3114	-0.2402	[-0.6578, 0.1774]	-0.0463	0.0092	[-0.2889, 0.3073]

<sup>a</sup> Table presents the expected disparity at age 65, the age eligibility threshold for Medicare, based on the local linear relationship between age and the outcomes for Black and white populations. The expected disparity subtracts the expected mean for Black populations from the expected mean for white populations at age 65. The table also presents the adjusted discontinuity in the disparity and bias-corrected 95% confidence intervals estimated using our RDHonest regression discontinuity model (eMethods). The estimated discontinuities in this table are not shrunk and so the point estimates do not match those in eFigure 4.

**eTable 3. Medicare Eligibility Age-Related Discontinuities in White-Hispanic Disparities in Coverage, Access, and Health by State<sup>a</sup>**

State	Health insurance coverage (%)			Poor self-reported health (%)			Have a usual source of care (%)			Cost-related barriers to care (%)		
	Expected disparity at age 65	Adjusted discontinuity in disparity	Bias-corrected 95% CI	Expected disparity at age 65	Adjusted discontinuity in disparity	Bias-corrected 95% CI	Expected disparity at age 65	Adjusted discontinuity in disparity	95% CI	Expected disparity at age 65	Adjusted discontinuity in disparity	Bias-corrected 95% CI
ALABAMA	-0.1687	0.1707	[-0.0952, 0.4366]	-0.0072	-0.0104	[-0.1918, 0.1711]	0.0076	0.0421	[-0.1208, 0.2051]	0.2878	-0.2418	[-0.6219, 0.1383]
ALASKA	0.0844	-0.1092	[-0.2699, 0.0635]	-0.1179	0.0599	[-0.0714, 0.1912]	0.1335	-0.3185	[-0.5992, -0.0379]	0.2295	-0.1797	[-0.5323, 0.1729]
ARIZONA	-0.0774	0.0521	[-0.0581, 0.1623]	0.1445	-0.0916	[-0.1982, 0.0151]	-0.0631	0.0086	[-0.1283, 0.1454]	0.1013	-0.0267	[-0.1412, 0.0878]
ARKANSAS	0.1856	0.1797	[0.08, 0.4394]	0.1874	-0.1795	[-0.3991, 0.0401]	0.1546	0.2074	[-0.0055, 0.4204]	0.3297	-0.05	[-0.525, 0.425]
CALIFORNIA	-0.1267	0.0332	[-0.0261, 0.0925]	0.136	-0.0614	[-0.1089, -0.014]	-0.1036	0.0315	[-0.028, 0.091]	0.0744	0.0078	[-0.0483, 0.0638]
COLORADO	-0.0541	-0.0043	[-0.085, 0.0764]	0.0648	0.0058	[-0.0537, 0.0654]	-0.0462	-0.0022	[-0.094, 0.0896]	0.0654	0.0095	[-0.0636, 0.0827]
CONNECTICUT	0.0987	0.0175	[-0.072, 0.1069]	0.0757	0.0165	[-0.0741, 0.1072]	0.0721	-0.0831	[-0.1869, 0.0207]	0.1981	-0.0853	[-0.2246, 0.0541]
DELAWARE	-0.2464	0.2585	[0.0521, 0.4648]	0.0131	-0.0441	[-0.2235, 0.1353]	-0.0773	0.1245	[-0.0817, 0.3307]	0.0362	0.0571	[-0.1999, 0.314]
DIST. OF COLUMBIA	-0.0247	-0.0414	[-0.2923, 0.2094]	0.2464	-0.192	[-0.5163, 0.1322]	-0.0377	0.0792	[-0.2469, 0.4052]	0.0542	0.0583	[-0.1538, 0.2704]
FLORIDA	-0.1837	0.1021	[-0.0178, 0.2219]	0.0441	-0.0056	[-0.0715, 0.0602]	-0.1379	0.1118	[-0.0145, 0.2381]	0.2081	-0.1504	[-0.2588, -0.042]
GEORGIA	-0.2254	0.1224	[-0.0269, 0.2717]	0.0446	-0.0574	[-0.1911, 0.0763]	-0.2488	0.1224	[-0.1476, 0.3923]	0.1403	-0.0226	[-0.2226, 0.1774]
HAWAII	-0.0071	-0.0024	[-0.0485, 0.0436]	0.0818	-0.032	[-0.12, 0.056]	0.04	-0.0399	[-0.1101, 0.0302]	0.0401	-0.0093	[-0.0998, 0.0813]
IDAHO	0.1296	0.0633	[-0.1503, 0.277]	0.1272	-0.1284	[-0.2738, 0.0169]	0.0531	0.0595	[-0.1282, 0.2471]	0.0439	0.0521	[-0.1301, 0.2343]
ILLINOIS	-0.3727	0.2565	[0.0503, 0.4626]	0.1059	0.0092	[-0.1249, 0.1432]	0.1209	-0.0367	[-0.2156, 0.1421]	0.1177	-0.0131	[-0.1657, 0.1395]
INDIANA	-0.1083	-0.0226	[-0.2317, 0.1866]	-0.0204	0.0802	[-0.0998, 0.2602]	-0.0144	0.0333	[-0.1396, 0.2063]	0.1855	0.0194	[-0.1783, 0.2171]
IOWA	-0.2713	0.2113	[-0.0541, 0.4767]	0.0339	0.0047	[-0.1692, 0.1785]	-0.12	0.1219	[-0.1902, 0.434]	0.0602	0.0619	[-0.2195, 0.3453]
KANSAS	-0.1216	0.0772	[-0.0426, 0.1969]	0.0157	-0.0006	[-0.0815, 0.0803]	-0.0527	0.0189	[-0.0805, 0.1184]	0.0429	0.041	[-0.0819, 0.1639]
KENTUCKY	-0.0042	-0.1505	[-0.3957, 0.0947]	-0.0298	0.0413	[-0.2375, 0.3201]	0.0023	-0.1443	[-0.3635, 0.0749]	0.1184	-0.0777	[-0.3279, 0.1725]
LOUISIANA	-0.1215	0.0665	[-0.0834, 0.2165]	0.0575	0.0543	[-0.1488, 0.2573]	-0.0573	0.0532	[-0.1197, 0.226]	0.0289	0.1387	[-0.1675, 0.445]
MAINE	0.1282	-0.1461	[-0.2988, 0.0065]	0.0721	0.0342	[-0.2397, 0.3081]	0.0741	0.1231	[-0.3222, 0.0759]	-0.0932	0.1584	[-0.124, 0.4407]
MARYLAND	-0.1893	0.1218	[-0.0524, 0.2959]	-0.0106	0.0389	[-0.0789, 0.1568]	-0.1381	-0.0002	[-0.1627, 0.1623]	0.0694	-0.0016	[-0.1659, 0.1628]
MASSACHUSETTS	-0.0401	-0.0157	[-0.1046, 0.0733]	0.142	-0.0492	[-0.1705, 0.0721]	0.0811	0.0401	[-0.0777, 0.1579]	0.0848	0.0045	[-0.0916, 0.1005]
MICHIGAN	0.0075	0.0034	[-0.1247, 0.1314]	0.0196	-0.0261	[-0.1526, 0.1003]	0.0568	0.0813	[-0.0783, 0.2409]	0.0866	0.0469	[-0.0263, 0.1326]
MINNESOTA	-0.1475	0.0525	[-0.0899, 0.1949]	0.0185	0.0161	[-0.1082, 0.1404]	-0.1346	-0.0895	[-0.2738, 0.1128]	0.0863	0.1022	[-0.1196, 0.3241]
MISSISSIPPI	-0.1781	0.1728	[-0.0094, 0.4396]	0.1057	-0.0048	[-0.2459, 0.2363]	-0.1099	0.1929	[0.0271, 0.3588]	0.1046	0.0296	[-0.3416, 0.4008]
MISSOURI	0.0296	-0.0186	[-0.2014, 0.1642]	0.2115	-0.2026	[-0.4176, 0.0124]	-0.1759	0.1279	[-0.1274, 0.3832]	0.0086	0.0003	[-0.2545, 0.255]
MONTANA	-0.0804	0.014	[-0.206, 0.234]	0.074	-0.0681	[-0.2376, 0.1014]	-0.055	-0.0651	[-0.3286, 0.1985]	0.0499	-0.0023	[-0.173, 0.1684]
NEBRASKA	-0.092	-0.0075	[-0.1144, 0.0993]	0.0237	0.0307	[-0.0808, 0.1421]	-0.1858	0.1275	[-0.0501, 0.3051]	0.0469	0.0302	[-0.1377, 0.1982]
NEVADA	-0.0874	0.0548	[-0.1503, 0.2598]	0.1065	-0.0845	[-0.2122, 0.0451]	0.1388	-0.0025	[-0.2547, 0.2497]	0.0766	0.0481	[-0.2775, 0.1813]
NEW HAMPSHIRE	0.0785	-0.1344	[-0.342, 0.0732]	-0.0562	0.0544	[-0.0758, 0.1846]	0.0337	-0.0024	[-0.1465, 0.1417]	-0.0775	0.2427	[-0.0514, 0.5368]
NEW JERSEY	-0.1626	0.06	[-0.0177, 0.1378]	0.105	-0.052	[-0.1229, 0.019]	-0.0908	-0.004	[-0.1161, 0.1082]	0.1835	-0.1008	[-0.1992, -0.0025]
NEW MEXICO	-0.04	0.0018	[-0.0479, 0.0514]	0.0598	0.0401	[-0.013, 0.0931]	0.0185	-0.047	[-0.117, 0.0231]	0.0619	0.0222	[-0.0326, 0.0769]
NEW YORK	0.1299	0.0478	[-0.061, 0.1566]	0.0844	0.0038	[-0.0865, 0.0941]	-0.0728	-0.0204	[-0.1216, 0.0808]	0.0575	0.0411	[-0.0507, 0.133]
NORTH CAROLINA	-0.2622	0.0407	[-0.1641, 0.2454]	0.0202	-0.0326	[-0.1662, 0.101]	-0.1646	-0.0723	[-0.3008, 0.1562]	0.0866	0.0425	[-0.1966, 0.2815]
NORTH DAKOTA	-0.2533	0.2692	[-0.0199, 0.5384]	-0.0584	0.1689	[-0.0317, 0.3695]	-0.1344	0.1432	[-0.2383, 0.5246]	-0.1724	0.1877	[-0.2598, 0.6353]
OHIO	0.01	-0.0263	[-0.2063, 0.1538]	0.0977	-0.0711	[-0.247, 0.1048]	0.0257	0.1036	[-0.3165, 0.1094]	0.1209	0.0259	[-0.2161, 0.1643]
OKLAHOMA	-0.3031	0.2514	[0.0305, 0.4724]	0.0376	-0.0106	[-0.1527, 0.1316]	-0.3204	0.2576	[0.0421, 0.4731]	0.3078	-0.2403	[-0.4827, 0.0021]
OREGON	-0.0901	0.0154	[-0.1982, 0.2289]	0.056	0.0802	[-0.1263, 0.2868]	0.0393	-0.1427	[-0.4111, 0.1256]	0.126	-0.1225	[-0.3364, 0.0914]
PENNSYLVANIA	0.0185	-0.017	[-0.1874, 0.1533]	0.1335	-0.1522	[-0.315, 0.0107]	0.0623	0.0482	[-0.1459, 0.2423]	0.0152	0.1266	[-0.0778, 0.331]
RHODE ISLAND	-0.1245	0.0521	[-0.0793, 0.1836]	0.0729	0.0583	[-0.0818, 0.1984]	-0.0484	-0.075	[-0.253, 0.1029]	0.0903	0.065	[-0.1072, 0.2373]
SOUTH CAROLINA	-0.2025	0.1065	[-0.1167, 0.3298]	0.0574	-0.0709	[-0.2012, 0.0594]	-0.035	0.0098	[-0.1336, 0.1531]	0.1642	-0.0751	[-0.2896, 0.1394]
SOUTH DAKOTA	0.2624	0.2795	[-0.2376, 0.7966]	0.0123	-0.0349	[-0.2015, 0.1317]	0.4755	0.3808	[-0.124, 1.2857]	0.1661	-0.2096	[-0.4832, 0.0641]
TENNESSEE	-0.2521	0.2749	[-0.0396, 0.5894]	-0.0158	-0.0553	[-0.198, 0.0874]	-0.1777	0.1735	[-0.1904, 0.5375]	0.3177	0.2619	[-0.5133, 1.0372]
TEXAS	-0.218	0.1337	[0.0578, 0.2097]	0.0861	-0.0181	[-0.0836, 0.0473]	-0.0644	-0.0592	[-0.1683, 0.0499]	0.17	-0.0831	[-0.1775, 0.0113]
UTAH	-0.1608	0.08	[-0.0542, 0.2142]	0.083	-0.0694	[-0.1509, 0.012]	0.1959	0.0864	[-0.0829, 0.2557]	0.1371	0.1039	[-0.2442, 0.0364]
VERMONT	0.018	-0.0548	[-0.1913, 0.0818]	-0.0198	0.058	[-0.057, 0.1729]	0.0622	-0.1015	[-0.2965, 0.0934]	0.0149	-0.1721	[-0.5053, 0.1611]
VIRGINIA	-0.3403	0.3477	[0.058, 0.6375]	0.0326	-0.0219	[-0.1115, 0.0676]	-0.1274	0.0215	[-0.1691, 0.2121]	0.0157	0.0806	[-0.0798, 0.241]
WASHINGTON	-0.1128	-0.0105	[-0.134, 0.113]	0.0407	0.0499	[-0.0526, 0.1524]	-0.1241	0.0287	[-0.0977, 0.155]	0.0446	-0.0276	[-0.1696, 0.1145]
WEST VIRGINIA	0.0877	-0.0706	[-0.3218, 0.1806]	0.0621	-0.114	[-0.3956, 0.1676]	-0.1367	0.1526	[-0.1126, 0.4179]	-0.1249	0.0955	[-0.1618, 0.3529]
WISCONSIN	-0.2015	0.1877	[-0.1023, 0.4776]	-0.017	-0.0296	[-0.1986, 0.1395]	-0.0636	-0.0153	[-0.3378, 0.3071]	0.002	0.0339	[-0.2501, 0.318]
WYOMING	-0.075	0.0565	[-0.1007, 0.2137]	0.053	-0.0299	[-0.1306, 0.0708]	0.0563	-0.062	[-0.2356, 0.1116]	0.0003	0.0045	[-0.1942, 0.2033]

<sup>a</sup> Table presents the expected disparity at age 65, the age eligibility threshold for Medicare, based on the local linear relationship between age and the outcomes for Hispanic and white populations. The expected disparity subtracts the expected mean for Hispanic populations from the expected mean for white populations at age 65. The table also presents the adjusted discontinuity in the disparity and bias-corrected 95% confidence intervals estimated using our RDHonest regression discontinuity model (eMethods). The estimated discontinuities in this table are not shrunk and so the point estimates do not match those in eFigure 4.

**eTable 4. Robustness of Primary Regression Discontinuity Estimates to Alterations in the Statistical Model**

	Adjusted Discontinuity in White-Black Disparity (95% CI)				Adjusted Discontinuity in White-Hispanic Disparity (95% CI)			
	Primary estimate <sup>a</sup> (K=2)	Alternative with K = 1 <sup>b</sup>	Alternative with K = 4 <sup>b</sup>	Triangular kernel (K=2)	Primary estimate <sup>a</sup> (K=2)	Alternative with K = 1 <sup>b</sup>	Alternative with K = 4 <sup>b</sup>	Triangular kernel (K=2)
<b>Insurance coverage (%)</b>	-3.0 (-5.1,-0.9)	-2.9 (-4.6,-1.1)	-2.9 (-5.5,-0.3)	-2.9 (-4.9,-0.9)	-7.4 (-9.5,-5.3)	-7.6 (-9.6,-5.6)	-7.0 (-9.4,-4.7)	-7.2 (-9.4,-4.9)
<b>Healthcare access</b>								
Have a usual source of care (%)	-1.2 (-3.2,0.7)	-1.7 (-3.3,-0.1)	-0.8 (-3.2,1.5)	-1.5 (-3.4,0.3)	-3.0 (-6.1,0.0)	-2.6 (-5.2,0.0)	-2.0 (-5.8,1.8)	-2.3 (-5.2,0.7)
Unable to see physician in past year because of cost (%)	1.5 (-0.8,3.8)	1.3 (-0.6,3.2)	2.0 (-0.8,4.8)	1.3 (-0.9,3.5)	4.5 (2.4,6.7)	4.4 (2.4,6.5)	4.8 (2.4,7.1)	3.8 (1.5,6.2)
Received flu vaccination in past year (%)	-0.7 (-3.1,1.7)	-0.2 (-2.4,2.0)	0.1 (-2.7,3.0)	0.1 (-2.3,2.6)	-4.8 (-8.4,-1.3)	-4.3 (-7.5,-1.2)	-4.7 (-9.0,-0.5)	-4.0 (-7.5,-0.4)
<b>Health</b>								
Poor self-reported health (%)	2.4 (0.8,4.0)	2.3 (1.0,3.7)	1.8 (0.0,3.7)	2.1 (0.5,3.6)	3.6 (1.1,6.1)	3.9 (1.8,6.1)	3.9 (0.9,6.8)	3.8 (1.4,6.3)
Fair self-reported health (%)	-0.5 (-2.6,1.7)	0.1 (-1.8,2.0)	0.4 (-2.1,3.0)	-0.3 (-2.3,1.8)	-1.0 (-4.1,2.2)	-0.3 (-3.1,2.5)	-1.9 (-5.6,1.9)	-1.1 (-4.2,2.0)
Good or better self-reported health (%)	-1.8 (-4.5,0.9)	-1.9 (-4.2,0.5)	-1.2 (-4.4,1.9)	-1.6 (-4.2,1.0)	-2.1 (-6.1,1.8)	-3.0 (-6.4,0.5)	-2.7 (-7.4,2.0)	-2.4 (-6.2,1.5)
Mortality rate (per 100,000)	-4.3 (-77.2,68.5)	-8.1 (-67.3,51.1)	-13.5 (-98.5,71.5)	-5.6 (-73,0,61.7)	-2.0 (-72.6,68.5)	-9.7 (-69.2,49.8)	-1.4 (-87.3,84.4)	1.9 (-65.6,69.5)

<sup>a</sup> Columns present our primary local linear regression discontinuity estimates of the adjusted discontinuity in the white-Black and white-Hispanic disparities.

<sup>b</sup> Columns present sensitivity checks that vary the bound on the second derivative of the function that relates our outcomes to age. Columns present results based on a local linear regression model with a uniform kernel.

**eTable 5. Robustness of Regression Discontinuity Results to Using Parametric Model with Linear Age Trend and 10 Year Bandwidth**

	White		Black		Hispanic		White-Black Disparity			White-Hispanic Disparity		
	Expected Mean <sup>a</sup>	Adjusted Discontinuity (95% CI) <sup>d</sup>	Expected Mean <sup>a</sup>	Adjusted Discontinuity (95% CI) <sup>d</sup>	Expected Mean <sup>a</sup>	Adjusted Discontinuity (95% CI) <sup>d</sup>	Expected Disparity <sup>b</sup>	Adjusted Discontinuity in Disparity (95% CI) <sup>d</sup>	P-value <sup>c</sup>	Expected Disparity <sup>b</sup>	Adjusted Discontinuity in Disparity (95% CI) <sup>d</sup>	P-value <sup>c</sup>
<b>Insurance coverage (%)</b>	92.5	6.1 (5.9,6.4)	87.1	9.2 (8.0,10.4)	77.0	14.0 (11.7,16.4)	5.4	-3.1 (-4.3, -1.9)	<.001 [<0.001]	15.4	-7.9 (-10.3, -5.6)	<.001 [<0.001]
<b>Healthcare access</b>												
Have a usual source of care (%)	92.6	1.3 (0.9,1.6)	90.5	3.2 (1.9,4.4)	82.1	4.0 (1.5,6.5)	2.1	-1.9 (-3.2, -0.6)	0.005 [0.02]	10.4	-2.7 (-5.2, -0.2)	0.034 [0.05]
Unable to see physician in past year because of cost (%)	8.1	-3.3 (-3.6,-2.9)	13.8	-4.3 (-5.8,-2.8)	19.0	-6.2 (-8.7,-3.8)	-5.7	1.0 (-.5, 2.6)	0.18 [0.36]	-11.0	3.0 (0.5, 5.4)	0.019 [0.038]
Received flu vaccine in past year (%)	53.7	2.5 (1.8,3.1)	42.6	1.9 (-0.5,4.4)	45.8	7.2 (3.7,10.7)	11.1	0.5 (-2.0, 3.0)	0.69 [0.79]	7.9	-4.8 (-8.3, -1.2)	0.008 [0.02]
<b>Health</b>												
Poor self-reported health (%)	6.4	-1.0 (-1.2,-0.7)	10.3	-2.6 (-3.8,-1.4)	15.1	-4.2 (-6.1,-2.3)	-3.9	1.7 (0.4, 2.9)	0.008 [0.02]	-8.7	3.2 (1.3, 5.2)	0.001 [0.004]
Fair self-reported health (%)	13.7	-0.9 (-1.3,-0.5)	24.8	-0.2 (-1.9,1.6)	31.1	0.1 (-2.7,2.8)	-11.1	-0.7 (-2.5, 1.1)	0.42 [0.56]	-17.4	-1.0 (-3.8, 1.8)	0.49 [0.56]
Good or better self-reported health (%)	79.9	1.9 (1.4,2.3)	64.9	2.8 (0.9,4.7)	53.8	4.1 (1.2,7.0)	14.9	-0.9 (-2.9, 1.1)	0.36 [0.56]	26.1	-2.3 (-5.2, 0.7)	0.13 [0.173]
Mortality rate (per 100,000)	1204.7	-32.0 (-47.6, -16.4)	1869.7	-32.1 (-61.6, -47.6)	998.9	-24.9 (-55.7, 5.8)	-665.0	-0.6 (-32.8, 33.0)	0.99 [0.99]	205.8	-7.0 (-41.5, 27.4)	0.69 [0.69]

<sup>a</sup> Columns present the expected mean at age 65, the age eligibility threshold for Medicare, based on the linear relationship between age and the outcome. The expected means contain the counterfactual outcome at age 65 in the absence of the treatment (i.e., the expected outcome at age 65 without Medicare).

<sup>b</sup> Column presents the expected disparity at age 65, the age eligibility threshold for Medicare, based on the linear relationship between age and the outcomes for nonwhite and white populations. The expected disparity subtracts the expected mean for nonwhites from the expected mean for whites at age 65.

<sup>c</sup> Benjamini-Hochberg corrected *p*-values are presented in brackets.

<sup>d</sup> Adjusted discontinuity estimates are in percentage points.

**eTable 6. Robustness of primary BRFSS Results to Additionally Adjusting for Individual-Level Covariates in Parametric Model with Linear Age Trend and 10 Year Bandwidth**

	White		Black		Hispanic		White-Black Disparity			White-Hispanic Disparity		
	Expected Mean <sup>a</sup>	Adjusted Discontinuity (95% CI) <sup>d</sup>	Expected Mean <sup>a</sup>	Adjusted Discontinuity (95% CI) <sup>d</sup>	Expected Mean <sup>a</sup>	Adjusted Discontinuity (95% CI) <sup>d</sup>	Expected Disparity <sup>b</sup>	Adjusted Discontinuity in Disparity (95% CI) <sup>d</sup>	P-value <sup>c</sup>	Expected Disparity <sup>b</sup>	Adjusted Discontinuity in Disparity (95% CI) <sup>d</sup>	P-value <sup>c</sup>
<b>Insurance coverage (%)</b>	92.5	6.1 (5.9,6.4)	87.1	9.1 (8.0,10.2)	77.0	13.7 (11.5,16.0)	5.4	-2.9 (-4.1, -1.7)	<.0001 [0.0007]	15.4	-7.6 (-9.9, -5.3)	<.0001 [0.0007]
<b>Healthcare access</b>												
Have a usual source of care (%)	92.6	1.0 (0.7,1.3)	90.5	2.8 (1.6,4.1)	82.1	3.6 (1.1,6.0)	2.1	-1.8 (-3.1,-4.9)	0.007 [0.025]	10.4	-2.6 (-5.0, -0.1)	0.044 [0.077]
Unable to see physician in past year because of cost (%)	8.1	-3.4 (-3.7,-3.1)	13.8	-4.0 (-5.5,-2.5)	19.0	-5.7 (-8.1,-3.3)	-5.7	0.6 (-0.9,2.1)	0.44 [0.62]	-11.0	2.3 (-0.1, 4.7)	0.066 [0.092]
Received flu vaccine in past year (%)	53.7	2.1 (1.4,2.7)	42.6	1.5 (-1.0,3.9)	45.8	6.8 (3.3,10.2)	11.1	0.6 (-1.9,3.1)	0.64 [0.75]	7.9	-4.7 (-8.2, -1.1)	0.01 [0.023]
<b>Health</b>												
Poor self-reported health (%)	6.4	-1.6 (-1.8,-1.3)	10.3	-2.7 (-3.9,-1.5)	15.1	-4.6 (-6.4,-2.7)	-3.9	1.2 (0.0,2.4)	0.06 [0.14]	-8.7	3.0 (1.1, 4.9)	0.002 [0.007]
Fair self-reported health (%)	13.7	-1.5 (-1.9,-1.1)	24.8	-0.3 (-2.0,1.4)	31.1	-0.2 (-2.8,2.5)	-11.1	-1.2 (-2.9,0.6)	0.19 [0.33]	-17.4	-1.3 (-4.0, 1.4)	0.35 [0.35]
Good or better self-reported health (%)	79.9	3.0 (2.6,3.5)	64.9	2.0 (1.2,4.9)	53.8	4.7 (2.0,7.4)	14.9	0.0 (-1.9, 1.9)	0.98 [0.98]	26.1	-1.7 (-4.4, 1.1)	0.23 [0.27]

- <sup>a</sup> Columns present the expected mean at age 65, the age eligibility threshold for Medicare, based on the linear relationship between age and the outcome. The expected means contain the counterfactual outcome at age 65 in the absence of the treatment (i.e., the expected outcome at age 65 without Medicare).
- <sup>b</sup> Column presents the expected disparity at age 65, the age eligibility threshold for Medicare, based on the linear relationship between age and the outcomes for nonwhite and white populations. The expected disparity subtracts the expected mean for nonwhites from the expected mean for whites at age 65.
- <sup>c</sup> Benjamini-Hochberg corrected *p*-values are presented in brackets.
- <sup>d</sup> Adjusted discontinuity estimates are in percentage points.

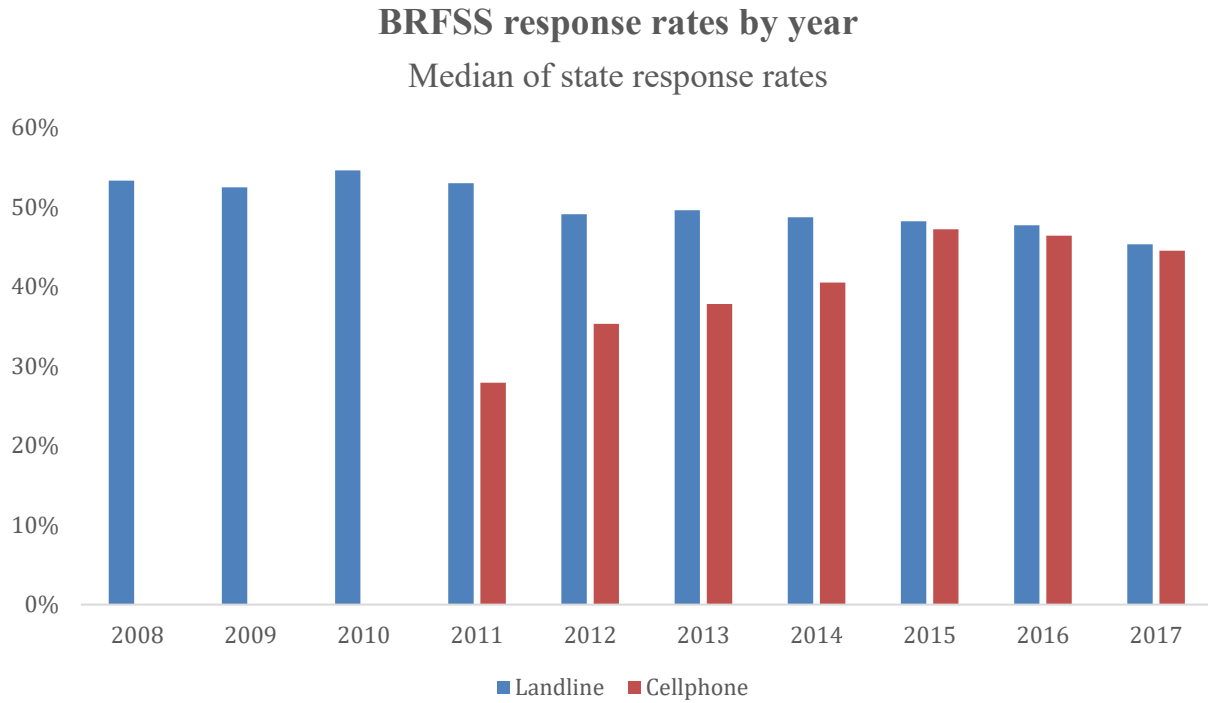
**eTable 7. Response Rates at the Discontinuity and Adjusted Discontinuities in Response Rates, by Outcome**

	White		Black		Hispanic	
	Expected Response Rate <sup>a</sup>	Adjusted Discontinuity (95% CI) <sup>b</sup>	Expected Response Rate <sup>a</sup>	Adjusted Discontinuity (95% CI) <sup>b</sup>	Expected Response Rate <sup>a</sup>	Adjusted Discontinuity (95% CI) <sup>b</sup>
<b>Insurance coverage (%)</b>	99.8	0.09 (0.04, 0.14)	99.7	0.06 (-0.16, 0.28)	99.6	0.04 (-0.29, 0.37)
<b>Healthcare access</b>						
Have a usual source of care (%)	99.7	0.06 (-0.01, 0.13)	99.5	0.17 (-0.21, 0.55)	99.2	0.36 (-0.03, 0.76)
Unable to see physician in past year because of cost (%)	99.8	0.04 (-0.02, 0.10)	99.8	-0.19 (-0.51, 0.14)	99.8	-0.24 (-0.75, 0.26)
Received flu vaccine in past year (%)	95.1	0.19 (-0.10, 0.47)	93.1	0.07 (-1.56, 1.71)	89.1	1.25 (-0.41, 2.92)
<b>Health</b>						
Poor self-reported health (%)	99.7	-0.02 (-0.10, 0.07)	99.5	0.09 (-0.20, 0.38)	99.4	-0.66 (-1.32, 0.00)
Fair self-reported health (%)	99.7	-0.02 (-0.10, 0.07)	99.5	0.09 (-0.20, 0.38)	99.4	-0.66 (-1.32, 0.00)
Good or better self-reported health (%)	99.7	-0.02 (-0.10, 0.07)	99.5	0.09 (-0.20, 0.38)	99.4	-0.66 (-1.32, 0.00)

<sup>a</sup> Columns present the expected response rate at age 65, the age eligibility threshold for Medicare, based on the linear relationship between age and the response rate for each outcome. The expected response rate contains the counterfactual response rate at age 65 in the absence of the treatment (i.e., the expected response rate at age 65 without Medicare).

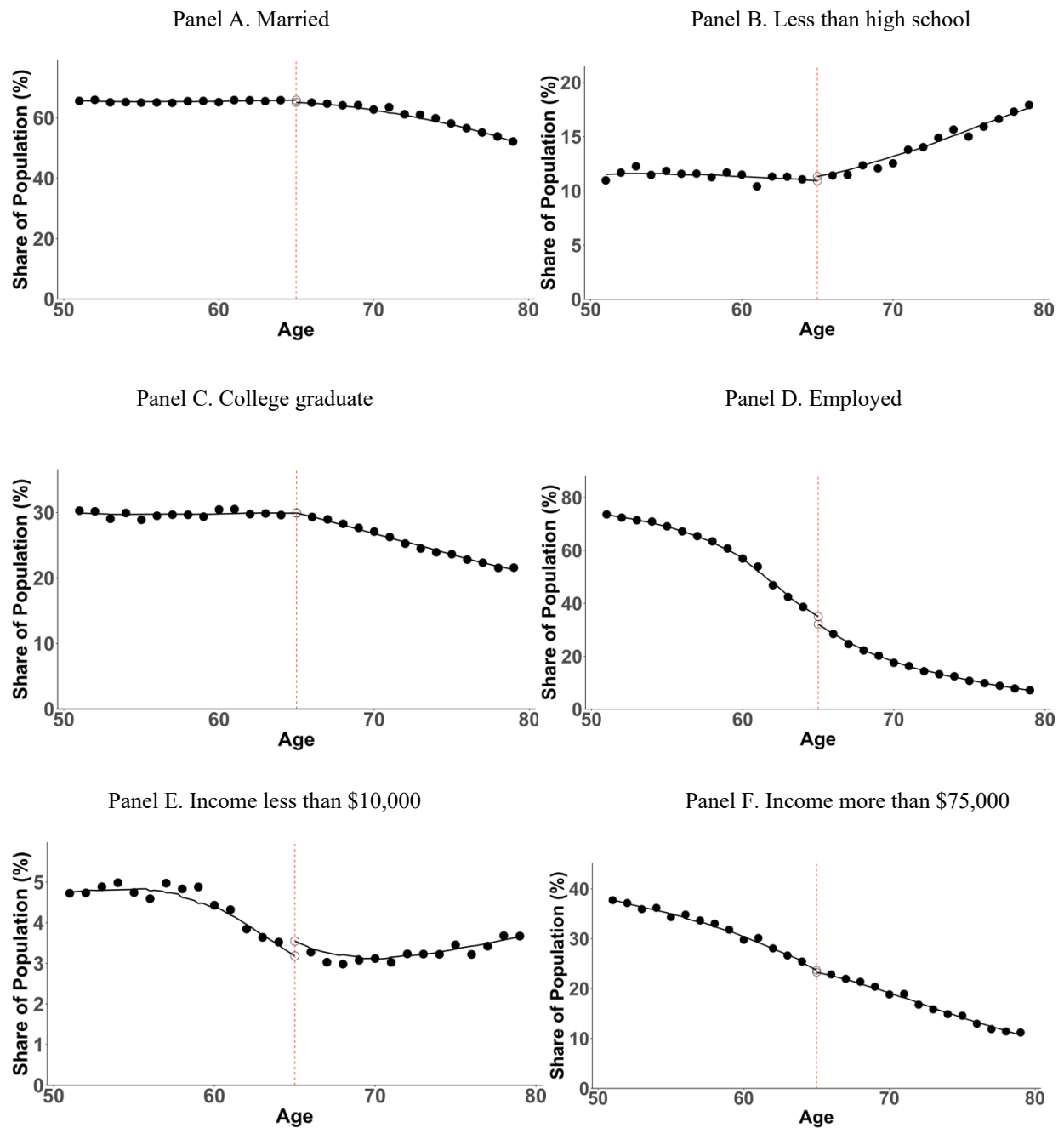
<sup>b</sup> Adjusted discontinuity estimates are in percentage points.

**eFigure 1. Behavioral Risk Factor Surveillance System (BRFSS) Response Rates by Year**



Notes: The BRFSS response rates are reported by state. The national-level BRFSS estimates presented in this chart reflect the median state-level BRFSS response rate for each year. Response rates for landline- and cellphone-based surveys are reported separately. Cellphone-only respondents were introduced in 2011. The annual BRFSS response rate data is available at the CDC BRFSS website: [https://www.cdc.gov/brfss/annual\\_data/annual\\_data.htm](https://www.cdc.gov/brfss/annual_data/annual_data.htm)

**eFigure 2. National Level Covariate Smoothness Figures, Select Outcomes**

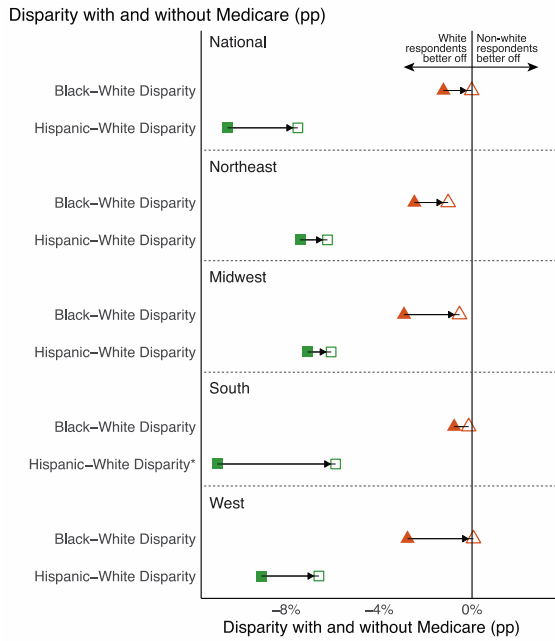


Notes: For each panel, the share of the population reporting that outcome is plotted by age in years for the study period, 2008-2017. For illustrative purposes, the line of best fit based on our local linear regression model on the underlying data is plotted. The slope of the lines of best fit are allowed to vary on either side of the Medicare eligibility age threshold at 65. The figures provide support for our identifying assumption that there were not large changes in respondent characteristics at age 65.



### eFigure 3. Changes in Racial/Ethnic Disparities, by Region

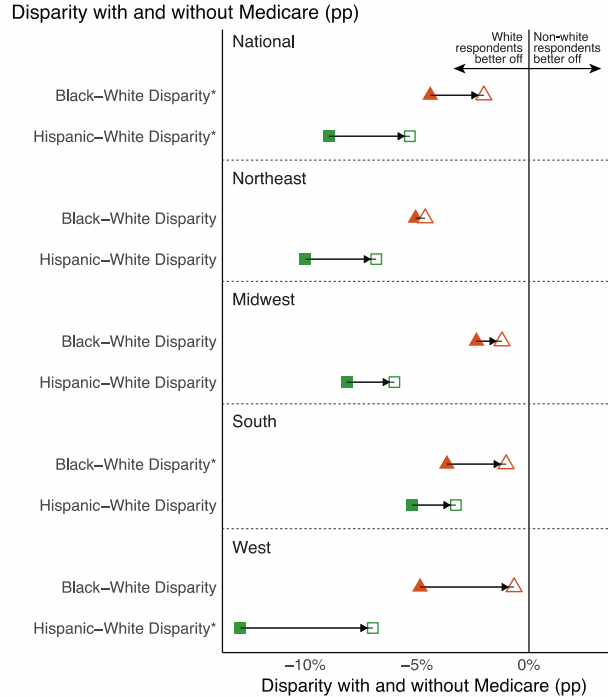
Panel A. Access to a usual source of care



Panel B. Cost-related barriers to provider access



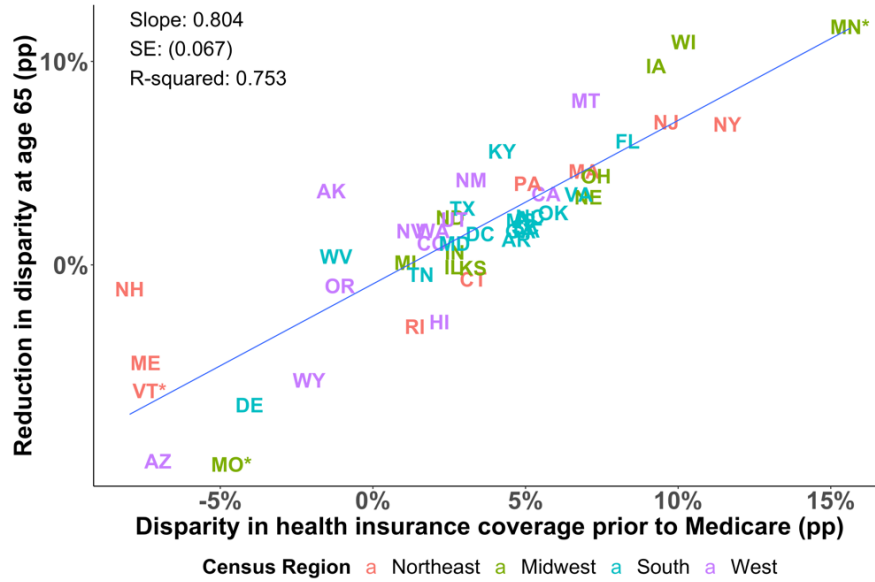
Panel C. Share in Poor Health



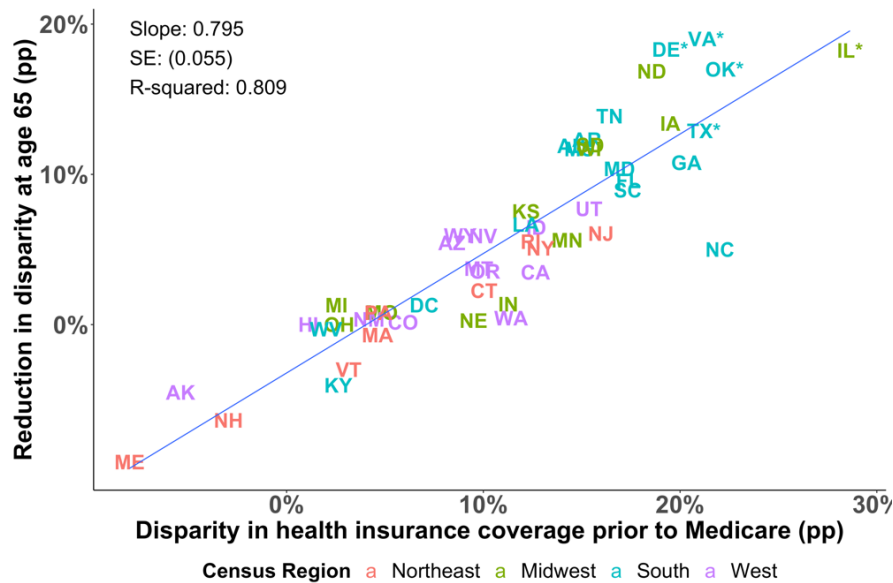
Notes: For each outcome, we use our regression discontinuity estimates to plot the adjusted Black-White and Hispanic-White disparities for 65 year-olds right before Medicare eligibility (in solid) and right after Medicare eligibility (in hollow). The black vertical line is the zero disparity line, to the left (right) a comparison of the mean outcome for whites and racial/ethnic minorities indicates that whites are better (worse) off.

**eFigure 4. Changes in Racial/Ethnic Disparities in Health Insurance Around the Medicare Eligibility Age vs. Existing Health Insurance Disparities, by State.**

**Panel A. Black-White Disparity**

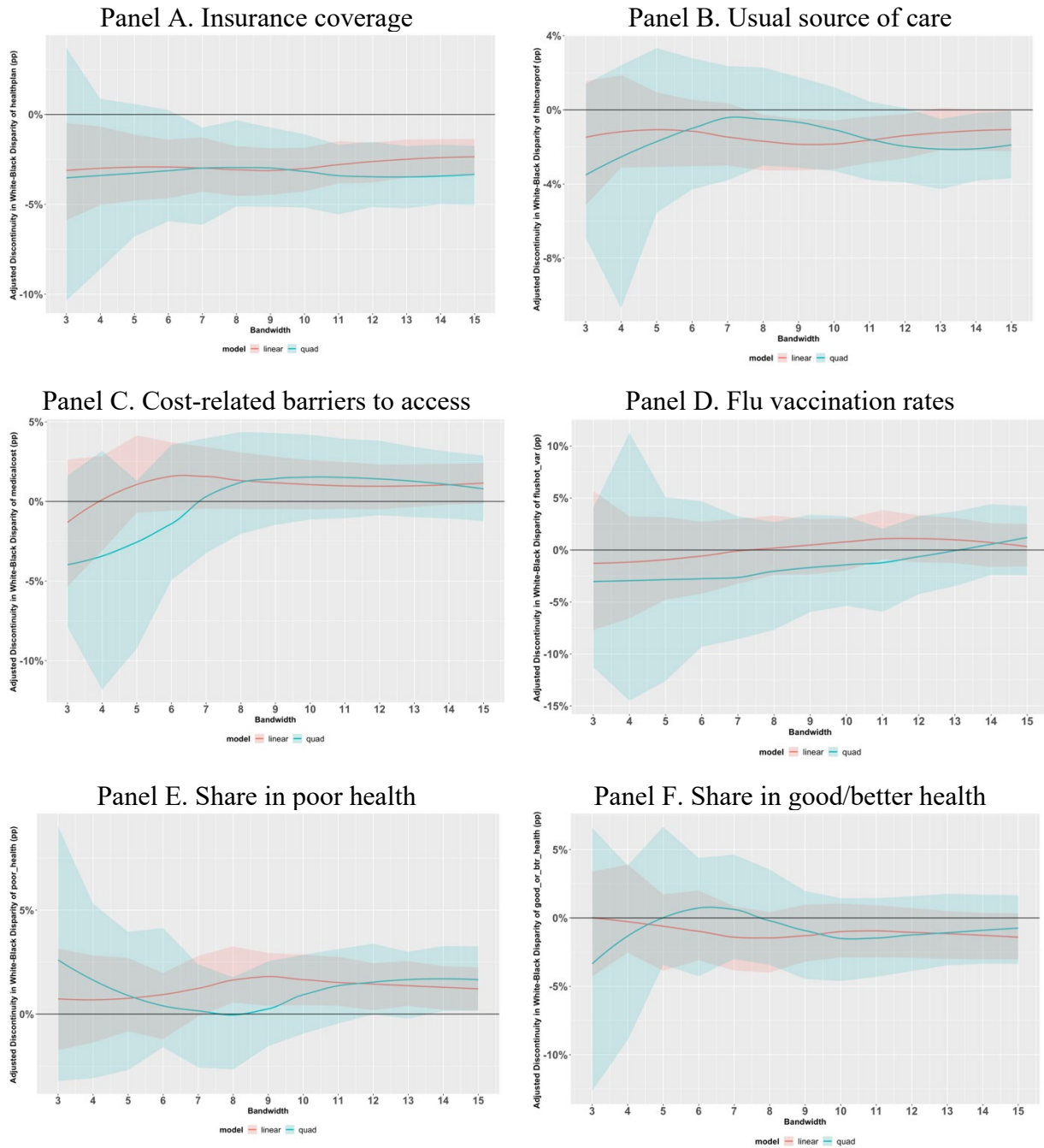


**Panel B. Hispanic-White Disparity**



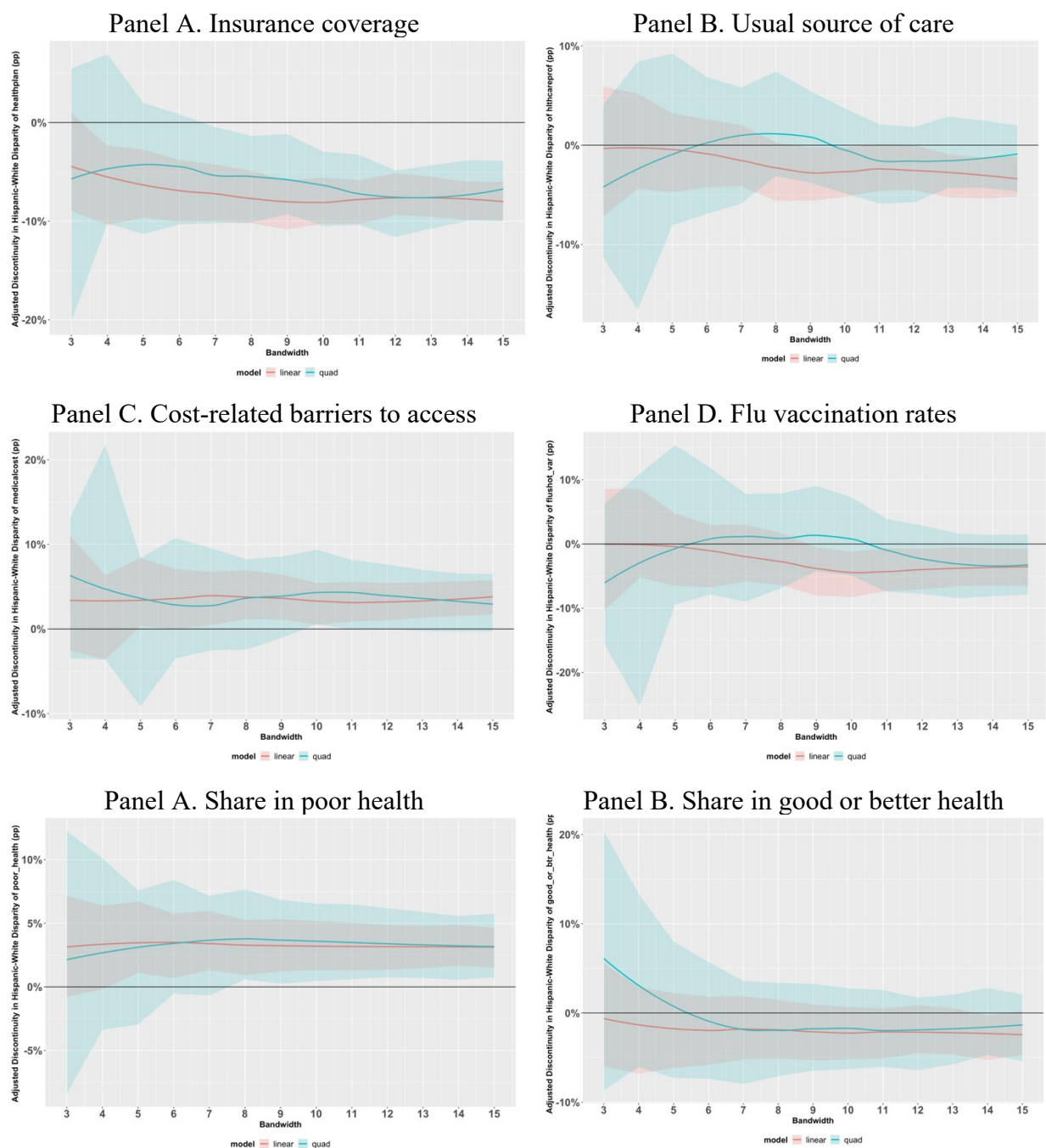
Notes: We plot our estimates of the adjusted discontinuity in the disparity in health insurance coverage on the y-axis against the preexisting disparity in health insurance coverage among the near-elderly (i.e., expected disparity at 65 without Medicare) on the x-axis separately by state of residence. We colored each state based on the US Census region it fell within. The states in the upper right-hand quadrant represent those with high pre-existing racial/ethnic disparities among the near-elderly and large reductions in the racial/ethnic disparity in health insurance coverage at age 65 due to eligibility for Medicare. We used empirical bayes shrinkage to address differences in the precision of the state-level estimates across states. Asterisks indicate those states with statistically significant changes in coverage disparities at 65.

**eFigure 5. Sensitivity of Adjusted Discontinuity in Disparity to Alterations in Bandwidth and Use of Parametric Regression Discontinuity Models, Black-White Disparity**



Notes: We plot our parametric regression discontinuity estimates of the adjusted discontinuity in the disparity for alternative bandwidths and model specifications. Specifically, we varied our bandwidth from 3 to 15 and, for each bandwidth, estimated a model with a linear age trend (“linear”) and a model with a quadratic age trend (“quad”). Each model allowed for the age trend to vary on both sides of the Medicare Eligibility Age.

**eFigure 6. Sensitivity of Adjusted Discontinuity in Disparity to Alterations in Bandwidth and Use of Parametric Regression Discontinuity Models, Hispanic-White Disparity**



Notes: We plot our parametric regression discontinuity estimates of the adjusted discontinuity in the disparity for alternative bandwidths and model specifications. Specifically, we varied our bandwidth from 3 to 15 and, for each bandwidth, estimated a model with a linear age trend (“linear”) and a model with a quadratic age trend (“quad”). Each model allowed for the age trend to vary on both sides of the Medicare Eligibility Age

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