Supplemental Medicare Insurance Coverage for Older Adults with Probable Dementia

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Word count: 1,242 words

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Abstract (348 words; limit 350 words)

Importance: Older Americans confront a complex series of health insurance decisions which may be challenging for adults with declining cognitive skills, potentially contributing to less complete coverage for people with probable dementia (PWPD).

Objective: To compare rates of supplemental Medicare insurance coverage for older PWPD to matched controls without dementia in the years prior to and following dementia onset.

Design: Retrospective secondary data analysis using propensity score weights to match PWPD (N=3,001 unique individuals) to controls who never experienced dementia (N=14,055 unique individuals) in the 2000-2016 Health and Retirement Study.

Setting: Nationally representative data measuring self- and proxy-reports of cognition and health insurance. Analyzed from February to December 2025.

Participants: Adults age 65 and older who were enrolled in Medicare with non-missing information on cognition, insurance coverage, and the observable characteristics used for matching.

Exposure: Assessment of probable dementia using the Langa-Weir approach and interviewer assessments for proxy interviews.

Main Outcomes and Measures: Mutually exclusive measures of insurance coverage measured up to ten years before and six years after dementia onset. Secondary outcomes were eligibility for Medicaid and Medicaid participation among eligibles.

Results: Beginning four years prior to onset, PWPD were 2.97 percentage points more likely to have traditional Medicare (TM) without a supplemental policy ($p=0.0016$) than matched control respondents. PWPD were less likely than controls to have Medicare Advantage (MA) coverage (-4.17 percentage points, $p<0.001$, four years before onset) or TM with private supplemental coverage (-6.25 percentage points, $p<0.001$, two years before onset); these patterns were offset by increased Medicaid participation by PWPD relative to controls (1.84 percentage points, $p=0.0072$, four years before onset). These gaps increased in size and remained statistically significant in subsequent years. Two years prior to onset, PWPD were more likely than controls to be eligible for Medicaid (4.95, $p<0.001$) but take-up rates among the eligible were comparable in both groups.

Conclusion and Relevance: Given that loss of supplemental coverage begins before dementia onset, added enrollment assistance may help increase supplemental coverage

for PWPD in the years up to and following dementia onset, and may subsequently improve financial access to care for PWPD.

Key Points (97 words; recommendation 75-100 words)

Question: How does insurance coverage for people with probable dementia (PWPD) compare to coverage among their cognitively-normal peers in the years leading up to and following dementia onset?

Findings: In this observational study that included 3,001 PWPD and 14,055 controls, PWPD were less likely to have supplemental coverage for Medicare beginning four years prior to dementia onset even though they had increased likelihood of Medicaid coverage.

Meaning: Increased enrollment assistance and navigation support may help increase supplemental insurance coverage as older adults approach and experience a dementia diagnosis and may improve financial access to care for PWPD.

Draft dated February 4, 2026

Introduction (1242 words, counting headings)

Older adults enrolling in Medicare each year confront a complex series of health insurance decisions, including the choice of traditional Medicare (TM) or Medicare Advantage (MA), the decision to add Medigap coverage to TM, and the choice of specific MA or Medigap plans. Lower-income older adults eligible for Medicaid must provide significant documentation of program eligibility. Navigating this health insurance landscape is challenging and burdensome, especially for people experiencing declines in memory, numeracy, and other cognitive skills used in financial decision-making.[1] A particular concern is whether cognitive decline coupled with institutional complexity leads to less complete insurance coverage, with less access to valuable supplemental benefits, for people with probable dementia (PWPD).

Prior studies reported that the consequences of poor financial decision-making manifest years prior to the onset of dementia diagnosis.[2,3] In this study, we examined whether older PWPD had different types of health insurance coverage than matched controls without dementia in the years prior to and following dementia onset.

Methods

Data. We used the public use 2000-2016 Health and Retirement Study (HRS), a nationally representative longitudinal survey of adults age 50 and older. The 2000 wave was the first to include information used to measure probable dementia in proxy interviews, and 2016 was the last wave before a web component, which contributed to higher cognitive scores, was introduced.[4] This study was deemed not human research by the Tufts University Institutional Review Board.

Probable dementia (PD) measure. For non-proxy interviews, we identified PWPD using the Langa-Weir algorithm applied to a 27-point cognition scale.[5] Per the algorithm, we identified PWPD as those with a score of six or lower in a given wave. For proxy interviews, we used an 11-point scale based on interviewer-assessments and identified PWPD based on scores of six or higher in a given wave.[6]

Outcomes. Primary outcomes included four binary, mutually exclusive indicators of supplemental insurance: 1) TM without private supplemental insurance as a non-dual eligible (i.e., not enrolled in Medicaid); 2) MA coverage as a non-dual eligible; 3) TM with private supplemental coverage as a non-dual eligible; and 4) dual Medicare-Medicaid coverage. Secondary outcomes included a binary variable for having income at or below the federal poverty level, a commonly-used proxy for full-benefit Medicaid eligibility.[7,8] We also examined Medicaid take-up with a binary measure of Medicaid enrollment conditional on meeting the proxy for eligibility.

Sample construction. We included HRS respondent-waves for people 65 years or older, enrolled in Medicare, and with non-missing data for probable dementia (PD). We required PWPD to be in the survey for at least one wave with PD and at least one wave prior. We defined a control group from respondents never assessed with PD in our period.

Statistical analysis. We compared outcomes in respondent-waves for PWPD relative to those without. For PWPD, the first wave where the respondent met the criteria for PD was the baseline wave; we examined outcomes in that wave and up to ten years before and six years after baseline. Since coverage and eligibility may change over time in the absence of dementia, we formed matched control groups for each period from respondents never assessed with PD in our period, and we tested the hypothesis that differences in outcomes for the two groups were statistically significant using alpha=0.05. The eAppendix reports detailed methods and full results, including results from two tests of robustness to restricting to a common support sample and trimming extreme values.

Results

The Table reports descriptive statistics for 2,790 PWPD two years prior to dementia onset and a matched control group of 2,812 respondents who never had PD. Mean age (SD) of PWPD was 79.6 (7.7) years, relative to 79.7 (8.0) years for matched controls (p=0.35). 62.5% of PWPD were female, compared to 62.4% among matched controls (p=0.89). Compared to matched controls without PD, PWPD were more likely to have TM without supplemental coverage (29.4% vs. 23.3%, p<0.001). This is because PWPD were less likely to have MA coverage (17.2% vs. 21.2%, p<0.001) or TM with supplemental private coverage (39.3% vs. 45.6%, p<0.001) relative to the matched controls, even though PWPD were more likely to have Medicaid coverage (14.1% vs. 9.9%, p<0.001) relative to the matched controls.

Figure 1 reports trajectories of insurance coverage for PWPD and matched controls. In most time periods, the shares of PWPD without supplemental coverage were significantly different from matched controls. Notably, beginning four years prior to onset, PWPD were 2.97 percentage points more likely to have Medicare without supplemental coverage (p=0.0016); these gaps were larger and statistically significant in subsequent years, reaching a high of 9.5 percentage points more likely two years after onset (p<0.001).

This increased likelihood of having Medicare without supplemental coverage reflects PWPD having reduced likelihood of MA coverage from four years prior to onset through six years following onset and reduced likelihood of having TM and Medigap from two years prior to onset through six years following onset, even though they have increased likelihood of Medicaid coverage for much of the time period (from t=-6 through t=6).

Figure 2 reports trajectories in secondary outcomes. Relative to matched controls, PWPD were 1.7 percentage points more likely to be Medicaid eligible six years prior to onset ($p=0.017$), a gap that increased to 12.4 percentage points six years after onset ($p<0.001$). Rates of Medicaid take-up among the eligible were similar for both PWPD and matched controls prior to dementia onset and up to four years after onset; six years after onset, PWPD were 10 percentage points more likely to participate in Medicaid ($p=0.02$).

Discussion

Prior cross-sectional studies found that Medicare beneficiaries with limited cognitive ability and low numeracy were less likely to have private supplemental coverage.[9-11] In this case control study using longitudinal HRS data, we examined health insurance differences between PWPD and matched controls prior to dementia onset. Beginning four years prior to onset, PWPD were more likely to have "bare" Medicare coverage than matched controls; this finding likely helps to explain previously-documented increases in out-of-pocket spending for PWPD following onset.[12] Since we also document a decline in MA coverage, and many MA plans are available with no added premiums, these patterns may reflect the added difficulty of maintaining supplemental enrollment as cognitive skills worsen (as opposed to the increased financial burden of the disease).

We found that differences in Medicaid eligibility were observed six years prior to dementia onset, but found no changes in Medicaid take-up among the eligible prior to onset. Patterns in Medicaid eligibility were consistent with prior evidence of declining socioeconomic status prior to onset among PWPD.[3] Results for Medicaid take-up did not show evidence of differential administrative barriers to enrollment for PWPD compared to matched controls.

Limitations

This study has several limitations. We used propensity score weighting to construct matched controls similar to PWPD in their observable traits; it is possible that matched controls differed in unobservable traits. We used survey-based methods to assess probable dementia; outcomes were self- (or proxy-) reported.

Conclusions

Several years prior to onset, PWPD were more likely to have "bare" Medicare coverage (TM without a supplemental policy) than matched control respondents. PWPD were more likely to be eligible for Medicaid but had comparable take-up rates despite greater cognitive needs. The relatively high cost-sharing of TM may have increased financial burden and reduced access prior to onset. Increased enrollment assistance and navigation support may especially help increase supplemental coverage for PWPD in the years up to and following dementia onset and subsequently improve financial access to care for PWPD.[13,14]

References

1. 2024 Alzheimer's disease facts and figures. *Alzheimers Dement* 20, 3708-3921 (2024).
2. Nicholas LH, Langa KM, Bynum JPW & Hsu JW. Financial Presentation of Alzheimer Disease and Related Dementias. *JAMA Intern Med* 181, 220-227 (2021).
3. Li J, Skinner JS & McGarry K. Declines in Wealth Among US Older Adults at Risk of Dementia. *JAMA Neurol* 80, 1250-1252 (2023).
4. Domingue BE, McCammon RJ, et al. The mode effect of web-based surveying on the 2018 U.S. Health and Retirement Study Measure of Cognitive Functioning. *J Gerontol Psychol Sci Soc Sci* 78, 1466-1473. (2023)
5. Crimmins EM, Kim JK, Langa KM, & Weir DR. Assessment of cognition using surveys & neuropsychological assessment: the Health and Retirement Study & the Aging, Demographics & Memory Study. *J Gerontol B Psychol Sci Soc Sci* 66 Suppl 1, i162-71 (2011).
6. Langa KM, Weir DR, Kabeto M & Sonneg A. Langa-Weir Classification of Cognitive Function (1995-2020). Available at https://hrsdata.isr.umich.edu/sites/default/files/documentation/data-descriptions/1695907706/Data_Description_Langa_Weir_Classifications2020_V2.pdf. Accessed November 16, 2025.
7. Pezzin M & Kasper JD. Medicaid Enrollment among Elderly Medicare Beneficiaries: Individual Determinants, Effects of State Policy, and Impact on Service Use. *Health Serv Res*, 37(4), 827-847 (2002).
8. Roberts ET, Glynn A, Cornelio N, Donohue JM, Gellad W, McWilliams JM, & Sabik LM. Medicaid Coverage 'Cliff' Increases Expenses and Decreases Care for Near-Poor Medicare Beneficiaries. *Health Aff* 40(4), 552-61 (2021).
9. Kuye IO, Frank RG & McWilliams JM. Cognition & take-up of subsidized drug benefits by Medicare beneficiaries. *JAMA Intern Med* 173, 1100-1107 (2013).
10. Chan S & Elbel B. Low cognitive ability & poor skill with numbers may prevent many from enrolling in Medicare supplemental coverage. *Health Aff* 31, 1847-1854 (2012).
11. Roberts ET, McGarry BE & Glynn A. Cognition & Take-up of the Medicare Savings Programs. *JAMA Intern Med* 180, 1529-1531 (2020).
12. Oney M, White L, & Coe NB. Out-of-pocket costs attributable to dementia: A longitudinal analysis. *J Am Geriatr Soc* 70, 1538-1545. (2022).
13. Johnston KJ, Roberts ET, Figueroa JF. Helping Dual-Eligible Individuals Navigate Medicare and Medicaid. *JAMA.* 2024;332(23):1971–1972. doi:10.1001/jama.2024.20355
14. Cottrill A, Cubanski J, Freed M, Neuman T. The Role of SHIPs in Helping People with Medicare Navigate Their Coverage. KFF. September 24, 2025. Available at https://www.kff.org/medicare/the-role-of-ships-in-helping-people-with-medicare-navigate-their-coverage/. Accessed December 12, 2025.

Table. Characteristics of PWPD Two Years Prior to Dementia Onset and Matched Control Respondents

	Weighted No. (%) Without probable dementia	No. (%) With probable dementia	Difference in %	p-value
No. of unweighted obs.	62482	2790		
No. of weighted obs.	2812	2790		
Characteristics used in matching				
Age, mean (SD)	79.7 (8.0)	79.6 (7.7)	-0.15	0.35
Sex				
Female	1755 (62.4)	1745 (62.5)	0.13	0.89
Male	1057 (37.6)	1045 (37.5)	-0.13	0.89
Education				
No high school degree	1193 (42.4)	1167 (41.8)	-0.61	0.54
High school degree or GED	935 (33.3)	937 (33.6)	0.33	0.72
Some college or above	684 (24.3)	686 (24.6)	0.28	0.74
Marital status				
Married or partnered	1226 (43.6)	1223 (43.8)	0.23	0.81
Divorced or separated	223 (7.9)	216 (7.7)	-0.19	0.72
Widowed	1234 (43.9)	1234 (44.2)	0.34	0.73
Never married	70 (2.5)	63 (2.3)	-0.24	0.42
Primary Outcomes				
Non-dual, enrolled in Traditional Medicare without private supplemental coverage	655 (23.3)	820 (29.4)	6.09	<0.001
Non-dual, enrolled in Medicare Advantage (MA)	596 (21.2)	480 (17.2)	-4.00	<0.001
Non-dual, enrolled in Traditional Medicare with private supplemental coverage	1281 (45.6)	1097 (39.3)	-6.25	<0.001
Dually enrolled in Medicare and Medicaid	279 (9.9)	393 (14.1)	4.16	<0.001
Secondary Outcomes				
Income <= 100% FPL	250 (8.9)	386 (13.8)	4.95	<0.001
Dually enrolled in Medicare and Medicaid if income <= 100% FPL	121 (48.6)	168 (43.5)	-5.01	0.08

Notes: Authors' calculations from the Health and Retirement Study.

Figure 1. Trajectories of Medicare Supplemental Insurance Coverage among PWPD and Matched Controls

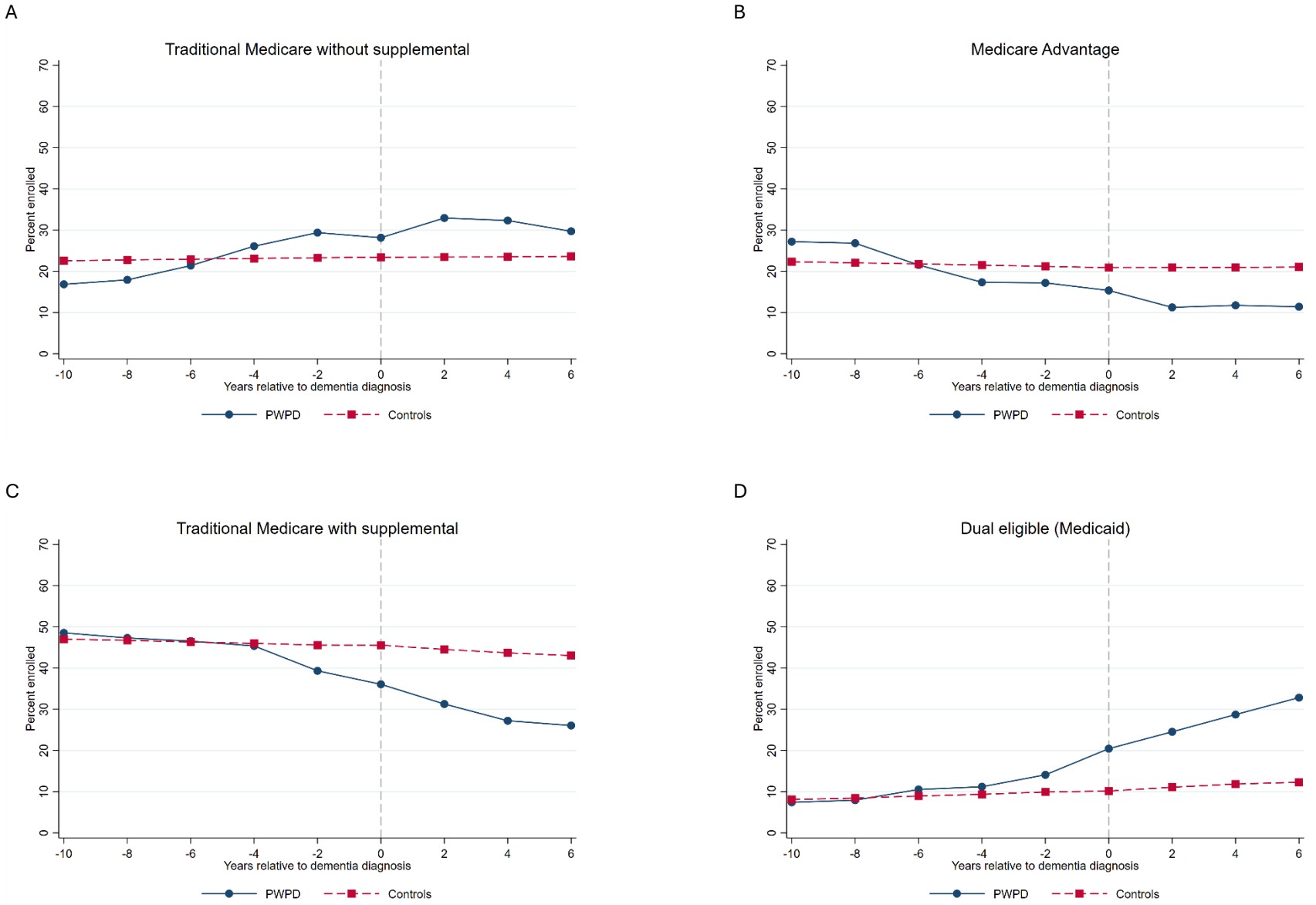
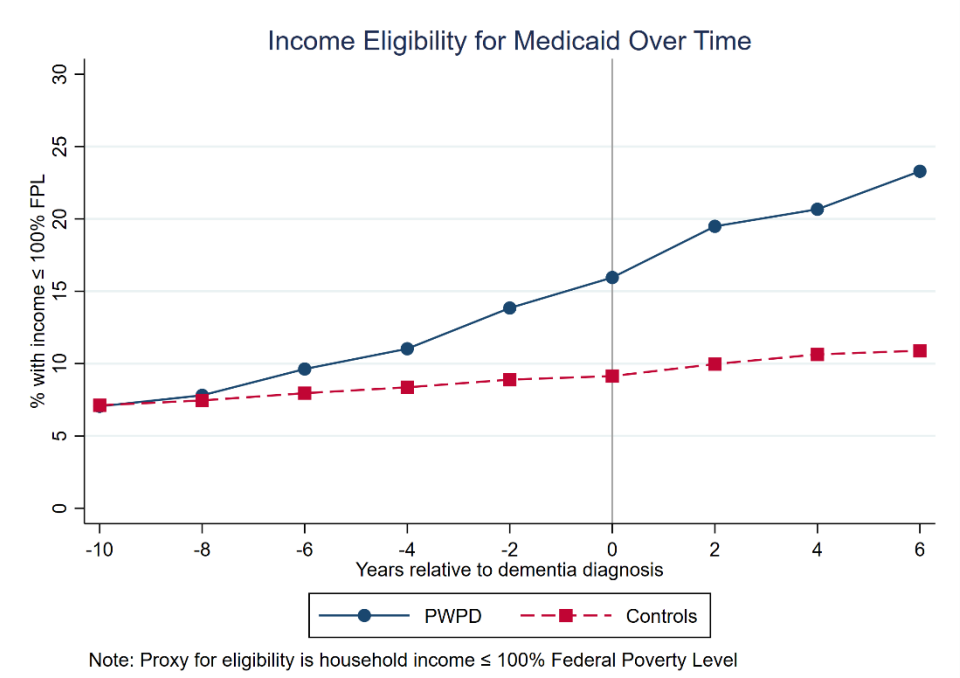
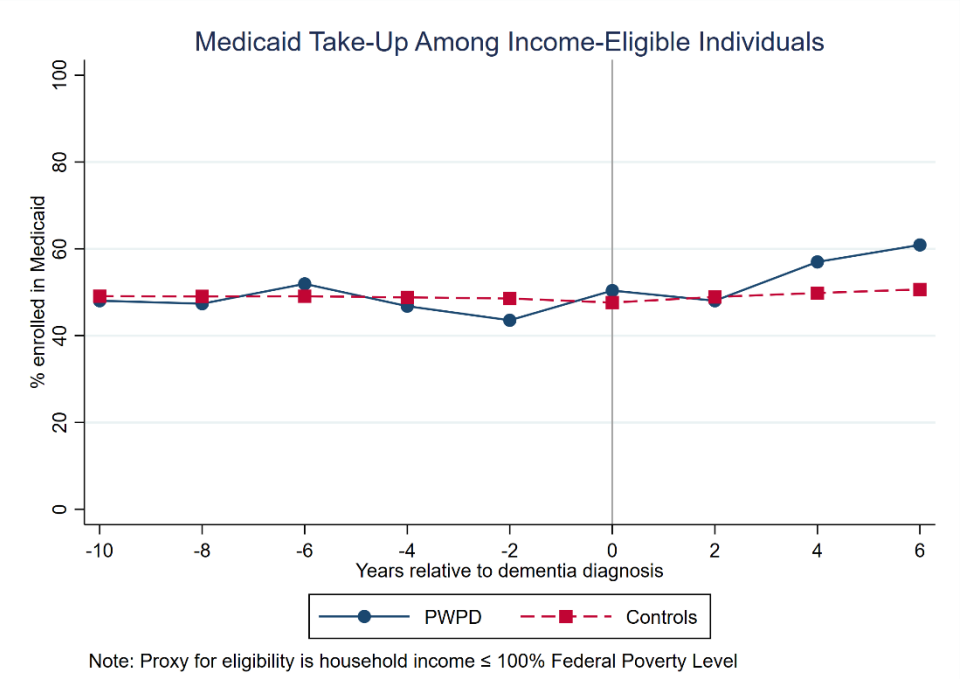


Figure 2. Trajectories of Medicaid Eligibility and Participation Conditional on Eligibility among PWPD and Matched Controls

A



B



Supplemental Content

"Supplemental Medicare Insurance Coverage for Older Adults with Probable Dementia"

eAppendix 1. Methods

eTable 1. Hypothesis Tests of Differences in Primary Outcomes among People with Probable Dementia (PWPD) and Matched Controls without Dementia

eTable 2. Hypothesis Tests of Differences in Secondary Outcomes among People with Probable Dementia (PWPD) and Matched Controls without Dementia

eTable 3. Sample Inclusion/Exclusion Criteria

eFigure 1. Trajectories of Medicare Supplemental Insurance Coverage among PWPD and Matched Controls, restricted to common support

eFigure 2. Trajectories of Medicare Supplemental Insurance Coverage among PWPD and Matched Controls, restricted to control observations <99th percentile in the propensity score weight distribution

eFigure 3. Trajectories of Medicaid Eligibility and Participation Conditional on Eligibility among PWPD and Matched Controls, restricted to common support

eFigure 4. Trajectories of Medicaid Eligibility and Participation Conditional on Eligibility among PWPD and Matched Controls, restricted to control observations <99th percentile in the propensity score weight distribution

eAppendix 1. Methods used to calculate results for Figures 1 and 2

For each wave t, where t ranges from -10 to +6, we assessed the shares of respondents with each main and secondary outcome, for both PWPD and a group of respondents who were never assessed with dementia.

For PWPD, we constructed shares of respondents with each outcome using all PWPD with available data on that outcome and the variables used as matching criteria, and we measured shares separately for each period t. We defined t=0 as the first wave the respondent met the criteria for probable dementia according to the algorithms we applied, and t=-10 through t=6 represented respondent-waves for PWPD up to 10 years prior to the wave and up to 6 years after that wave, depending on data availability.

For the matched control group, we constructed the shares of respondents with each outcome in each period t for a subset set of all respondent-waves for persons who never met the criteria for probable dementia across all waves in our sample period (2000-2016). For each period t, we chose the subset of respondent-waves by applying propensity score weights in order to produce matched controls for PWPD, following Li et al. (2023).

Specifically, we estimated a series of nine logistic regressions, one for each t ranging from -10 to 6 (note that t changes in two-year increments following the biennial waves of the HRS). In each regression, the dependent variable equaled one if the respondent had probable dementia in that period, and zero otherwise, and the explanatory variables were age (in years), sex (female relative to male), education (high school diploma/GED, some college, college or more, relative to less than high school), and marital status (married relative to unmarried). For each regression, the estimation sample included all PWPD specific to that period t and the full set of respondent-waves for persons who never developed dementia in our period. We then obtained predicted probabilities of having probable dementia (or propensity scores, denoted by p) for each observation from each regression, which we used to define weights for respondent-waves in the comparison group. Weights for matched controls were defined as p / (1-p). All PWPD were assigned a weight of one.

Once weights were defined, we used treated respondents and weighted control respondents for each time period t to test the hypothesis that differences in outcomes for the two groups were statistically significant using alpha=0.05 and a univariate regression of the outcome on an indicator of having probable dementia. For each primary outcome, eTable 1 reports the number of observations in each regression (for PWPD and weighted comparison respondents) by time period t, the proportions of each sample with the outcome of interest, and the *p*-value from a hypothesis test that the difference was

statistically significantly different from zero. eTable2 reports comparable results for secondary outcomes. The data in eTables 1 and 2 correspond to the data reported in Figures 1 and 2 of the text.

Reference

Li J, Skinner JS, McGarry K. Declines in Wealth Among US Older Adults at Risk of Dementia. JAMA Neurol 80, 1250-1252 (2023).

eTable 1. Hypothesis Tests of Differences in Primary Outcomes among People with Probable Dementia (PWPD) and Matched Controls without Dementia

	Weighted No. and %					
	Without probable dementia (n)		With probable dementia (n)		Difference in percentage points	p-value of difference
	N	%	N	%		
Panel A: Share enrolled in traditional Medicare without supplemental private coverage as non-dual eligibles						
t=-10	1092	22.56	1092	16.85	-5.71	<0.001
t=-8	1462	22.77	1461	17.93	-4.84	<0.001
t=-6	1892	22.95	1889	21.39	-1.56	0.1056
t=-4	2304	23.13	2295	26.10	2.97	0.0016
t=-2	2812	23.30	2790	29.39	6.09	<0.001
t=0	3033	23.42	3001	28.16	4.74	<0.001
t=2	1808	23.48	1794	32.94	9.47	<0.001
t=4	1136	23.51	1132	32.33	8.82	<0.001
t=6	712	23.63	710	29.72	6.08	<0.001
	Weighted No. and %					
	Without probable dementia (n)		With probable dementia (n)		Difference in percentage points	p-value of difference
Panel B: Share enrolled in Medicare Advantage as non- dual eligibles						
t=-10	1092	22.33	1092	27.20	4.87	<0.001
t=-8	1462	22.07	1461	26.83	4.77	<0.001
t=-6	1892	21.80	1889	21.55	-0.25	0.7923
t=-4	2304	21.52	2295	17.34	-4.17	<0.001
t=-2	2812	21.21	2790	17.20	-4.00	<0.001
t=0	3033	20.89	3001	15.36	-5.53	<0.001
t=2	1808	20.92	1794	11.26	-9.66	<0.001
t=4	1136	20.96	1132	11.75	-9.21	<0.001
t=6	712	21.05	710	11.41	-9.64	<0.001

-Continued next page-

	Weighted No. and %					
	Without probable dementia (n)		With probable dementia (n)		Difference in percentage points	p-value of difference
Panel C: Share enrolled in traditional Medicare with supplemental private coverage as non-dual eligibles						
t=-10	1092	47.01	1092	48.53	1.53	0.3167
t=-8	1462	46.71	1461	47.30	0.58	0.6606
t=-6	1892	46.31	1889	46.53	0.23	0.8464
t=-4	2304	46.00	2295	45.36	-0.64	0.5526
t=-2	2812	45.56	2790	39.32	-6.25	<0.001
t=0	3033	45.55	3001	36.05	-9.50	<0.001
t=2	1808	44.52	1794	31.27	-13.25	<0.001
t=4	1136	43.68	1132	27.21	-16.47	<0.001
t=6	712	43.03	710	26.06	-16.97	<0.001
	Weighted No. and %					
	Without probable dementia (n)		With probable dementia (n)		Difference in percentage points	p-value of difference
Panel D: Share dually enrolled in Medicare and Medicaid						
t=-10	1092	8.10	1092	7.42	-0.68	0.3957
t=-8	1462	8.45	1461	7.94	-0.51	0.4811
t=-6	1892	8.94	1889	10.53	1.59	0.0281
t=-4	2304	9.36	2295	11.20	1.84	0.0072
t=-2	2812	9.92	2790	14.09	4.16	<0.001
t=0	3033	10.14	3001	20.43	10.28	<0.001
t=2	1808	11.08	1794	24.53	13.44	<0.001
t=4	1136	11.85	1132	28.71	16.86	<0.001
t=6	712	12.29	710	32.82	20.52	<0.001

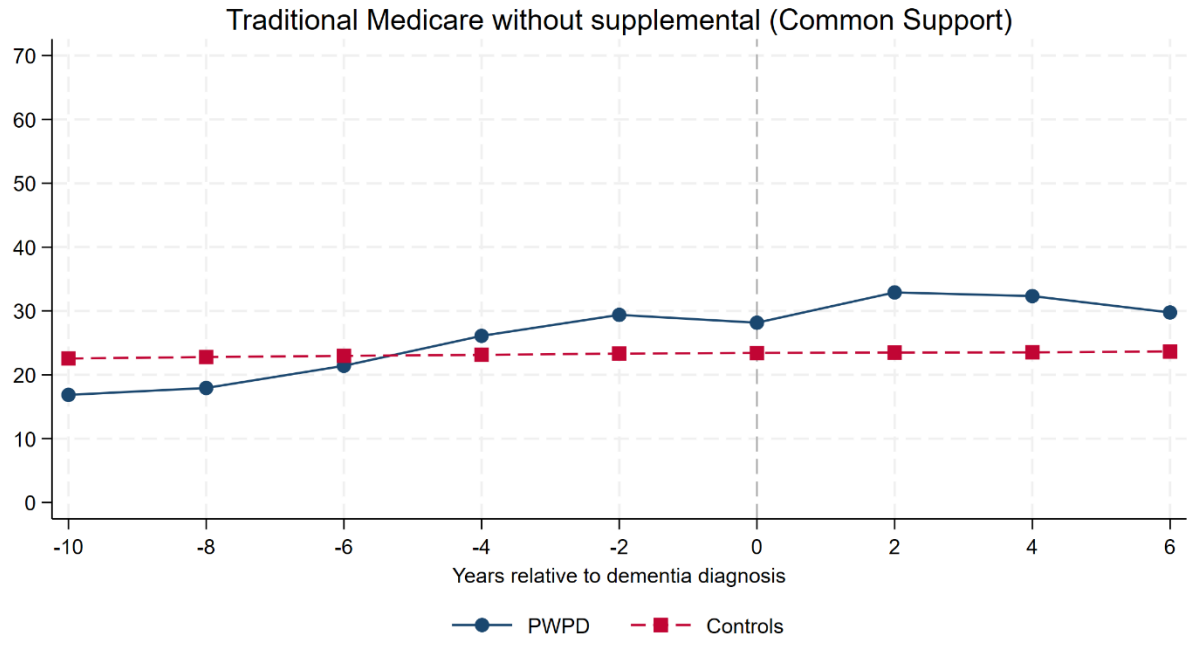
eTable 2. Hypothesis Tests of Differences in Secondary Outcomes among People with Probable Dementia (PWPD) and Matched Controls without Dementia

	Weighted No. and %					
	Without probable dementia (n)		With probable dementia (n)		Difference in percentage points	p-value of difference
	N	%	N	%		
Panel A: Share with income <= 100% FPL						
t=-10	1082	7.12	1092	7.05	-0.07	0.9314
t=-8	1445	7.46	1460	7.81	0.35	0.6231
t=-6	1866	7.96	1880	9.63	1.67	0.0166
t=-4	2264	8.36	2267	11.03	2.67	<0.001
t=-2	2752	8.90	2687	13.84	4.95	<0.001
t=0	2955	9.14	2464	15.95	6.81	<0.001
t=2	1760	9.97	1442	19.49	9.52	<0.001
t=4	1106	10.64	900	20.67	10.03	<0.001
t=6	694	10.89	571	23.29	12.40	<0.001
Panel B: Share dually enrolled in Medicare and Medicaid if income <= 100% FPL						
t=-10	77	49.09	77	48.05	-1.04	0.8566
t=-8	108	49.05	114	47.37	-1.68	0.7252
t=-6	148	49.08	181	51.93	2.85	0.4594
t=-4	189	48.82	250	46.80	-2.02	0.5463
t=-2	245	48.56	372	43.55	-5.01	0.0805
t=0	270	47.63	393	50.38	2.75	0.3456
t=2	175	48.92	281	48.04	-0.88	0.7923
t=4	118	49.82	186	56.99	7.17	0.0692
t=6	76	50.65	133	60.90	10.25	0.0224

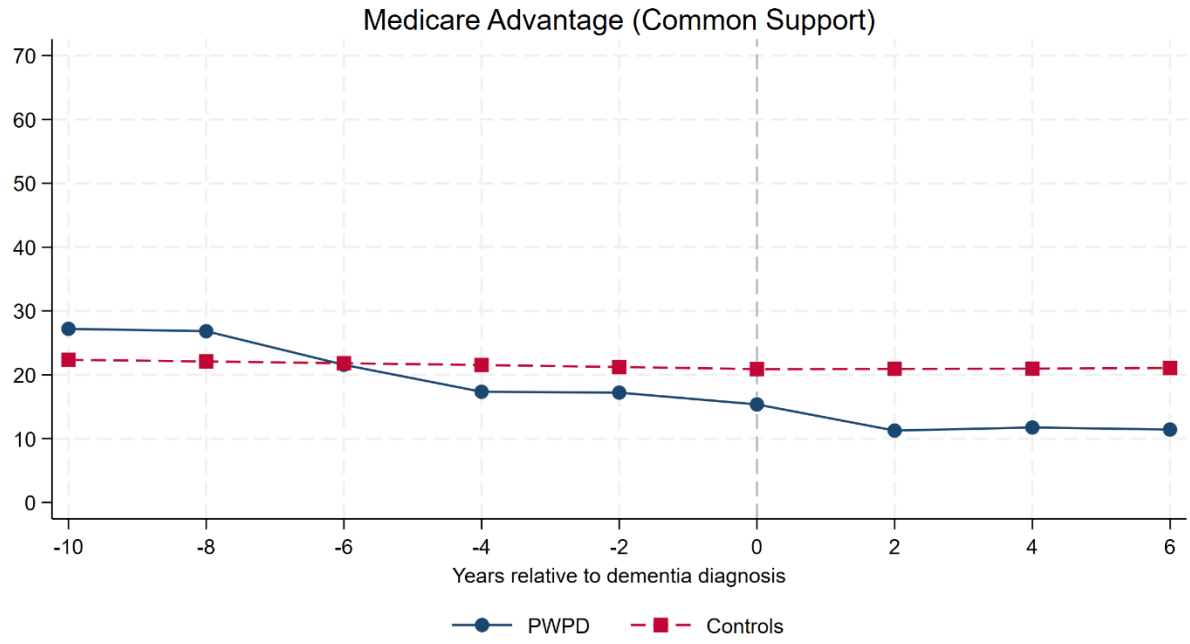
eTable 3 . Sample Inclusion/Exclusion Criteria

		Number of person-waves				Number of unique respondents		
		All	Ever has PD	Never has PD		All	Ever has PD	Never has PD
(1)	Has at least one valid interview 2000-16 (rwiwstat==1)	175754			Has at least one valid interview 2000-2016	36170		
(2)	(1) + Person-waves with non-missing Weir-Langa information or proxy cognitive information	174070	32377	141693	(1) + Unique i. with non-missing Weir-Langa information	35584	6118	29466
(3)	(2) + Person-waves where individuals with PD have to be present at least one wave before diagnosis (and no restrictions on persons without PD)	168081	26388	141693	(2) + Unique i. where individuals with PD have to be present at least one wave before diagnosis	33733	4267	29466
(4)	(3) + Person-waves where age 65+	91907	21576	70331	(3) + Unique i. where person is in HRS age 65+	19525	3844	15681
(5)	(4) + Person-waves that have Medicare every wave after age 65	82221	19013	63208	(4) + Unique i. where individuals has Medicare every wave after age 65	17487	3404	14083
(6)	(5) + non-missing the four insurance main outcomes (dual, MA, TM w supp, TM no supp)	80814	18277	62537	(5) + Unique with non-missing in four insurance main outcomes (dual, MA, TM w supp, TM no supp)	17460	3399	14061
(7)	(6) + non-missing matching variables (age, sex, marital status, education level)	80748	18266	62482	(6) + Unique individuals with non-missing matching variables	17454	3399	14055
(8)	(7) + Restrict PWPD person-waves to analysis window (t=-10 to t=6)	78646	16164	62482	(7) + Unique individuals in analysis window (PWPD must be at t=0)	17056	3001	14055
(9)	(8) + Restrict to observations with non-missing income information	76732	14763	61969	(8) + Restrict to observations with non-missing income information	16963	2964	13999

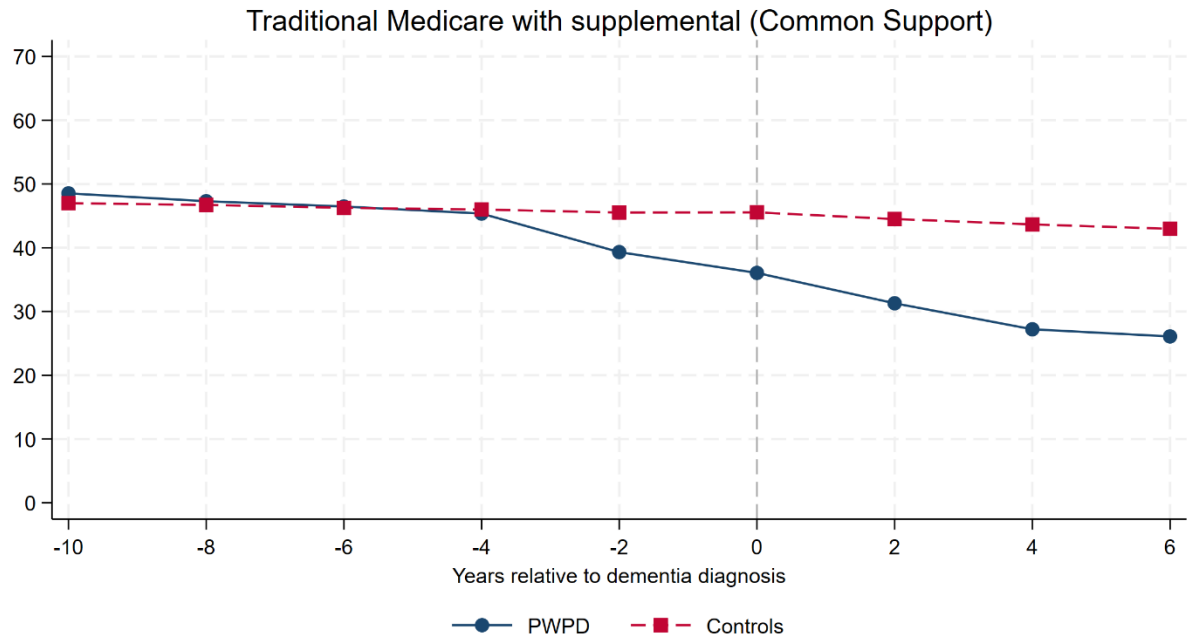
eFigure 1. Trajectories of Medicare Supplemental Insurance Coverage among PWPD and Matched Controls, restricted to common support



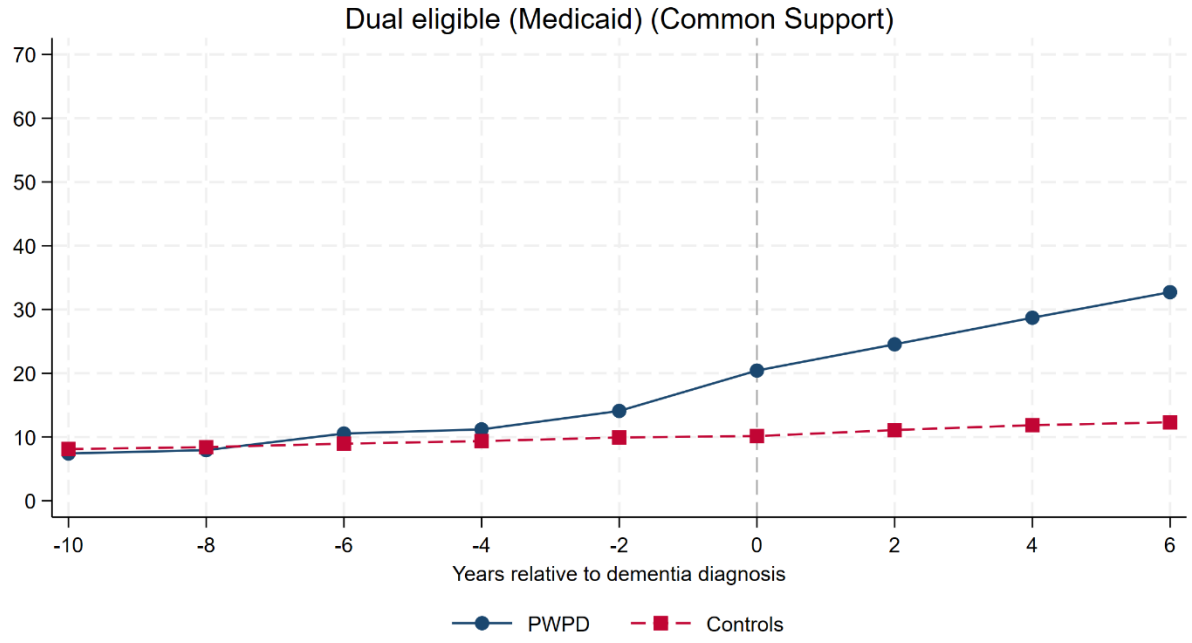
Note: Restricted to common support region.
Interpretation: Differences between PWPD and controls are statistically significant at t=-10, -8, -4, -2, 0, 2, 4, 6 (p<0.05).



Note: Restricted to common support region.
Interpretation: Differences between PWPD and controls are statistically significant at t=-10, -8, -4, -2, 0, 2, 4, 6 (p<0.05).

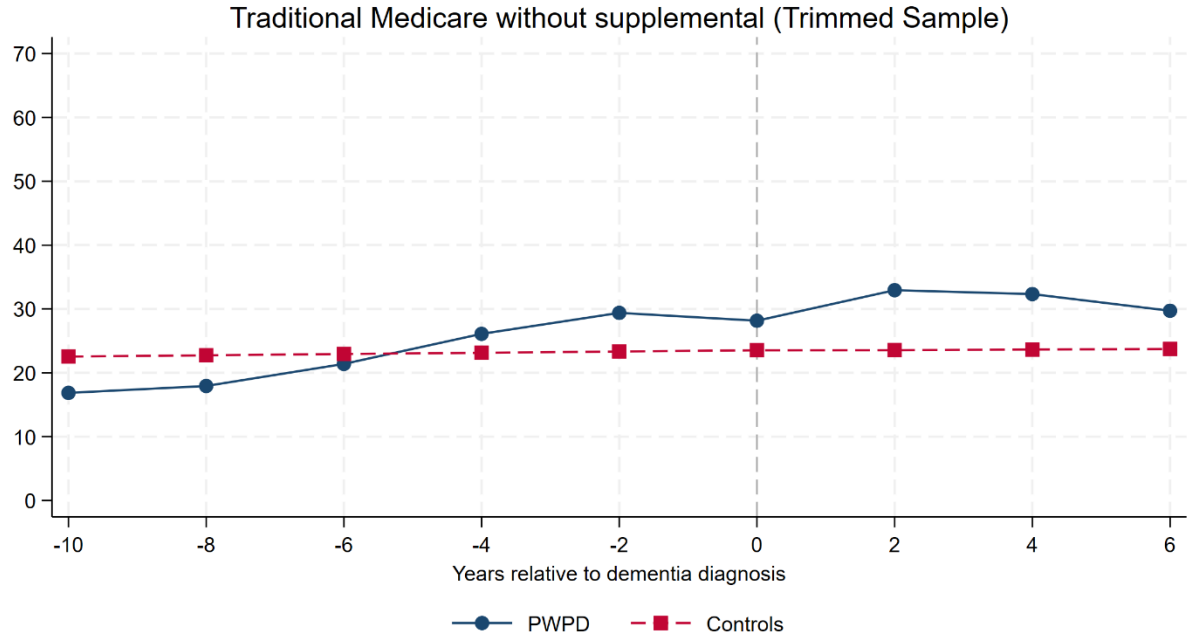


Note: Restricted to common support region.
Interpretation: Differences between PWPD and controls are statistically significant at t=-2, 0, 2, 4, 6 (p<0.05).

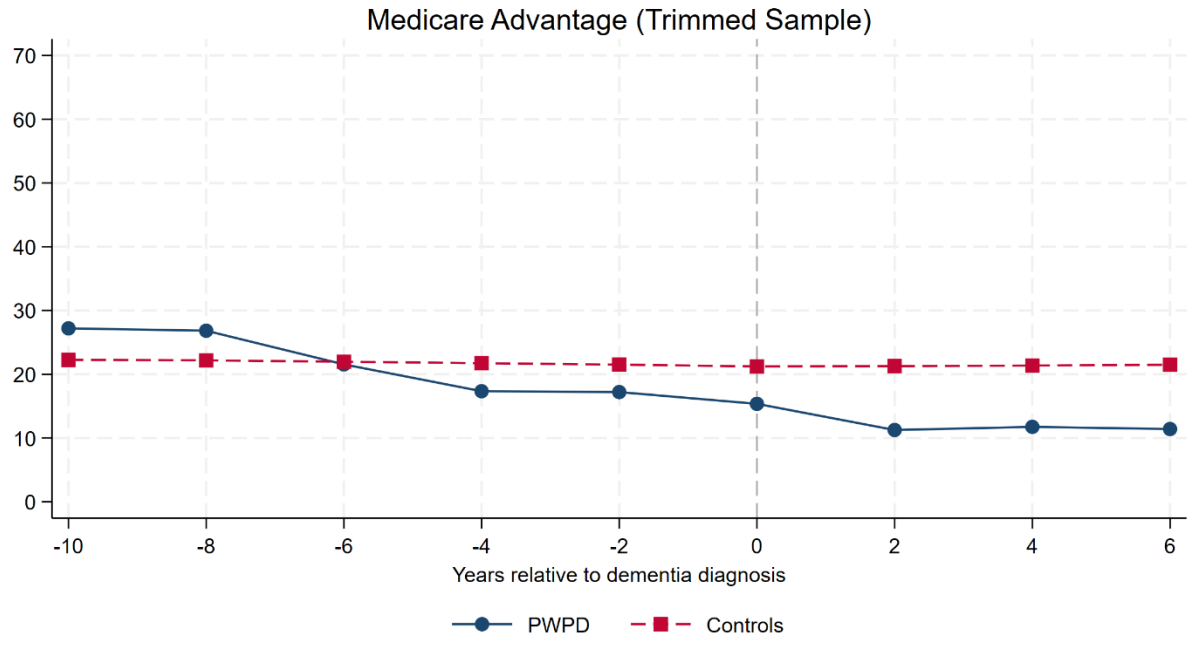


Note: Restricted to common support region.
Interpretation: Differences between PWPD and controls are statistically significant at t=-6, -4, -2, 0, 2, 4, 6 (p<0.05).

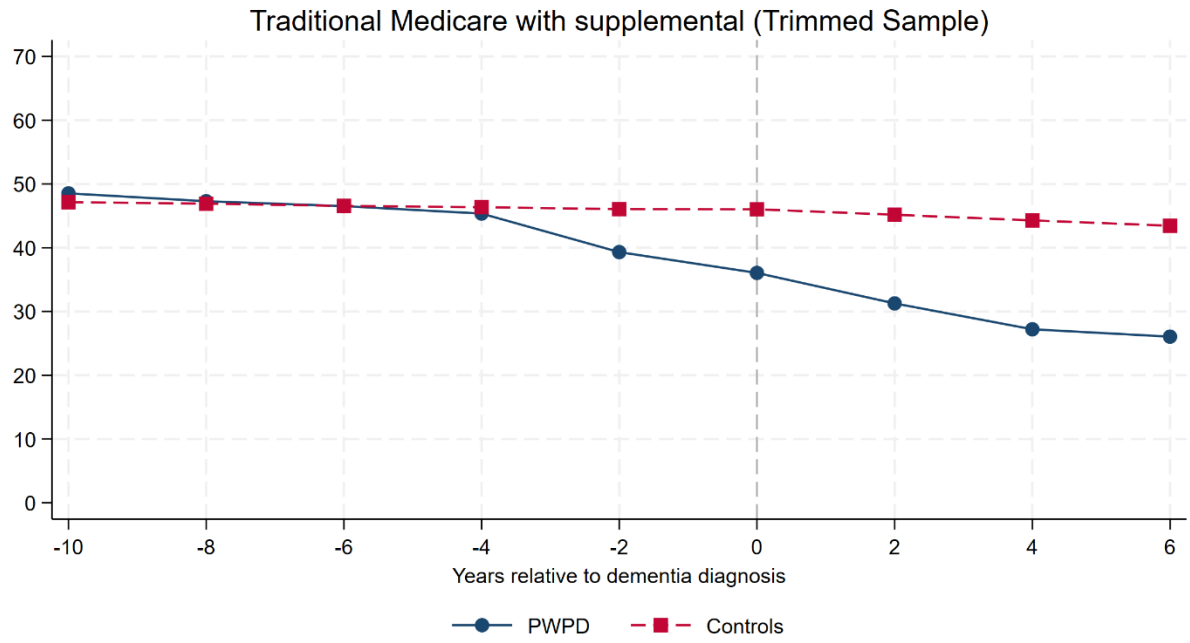
eFigure 2. Trajectories of Medicare Supplemental Insurance Coverage among PWPD and Matched Controls, restricted to control observations <99th percentile in the propensity score weight distribution



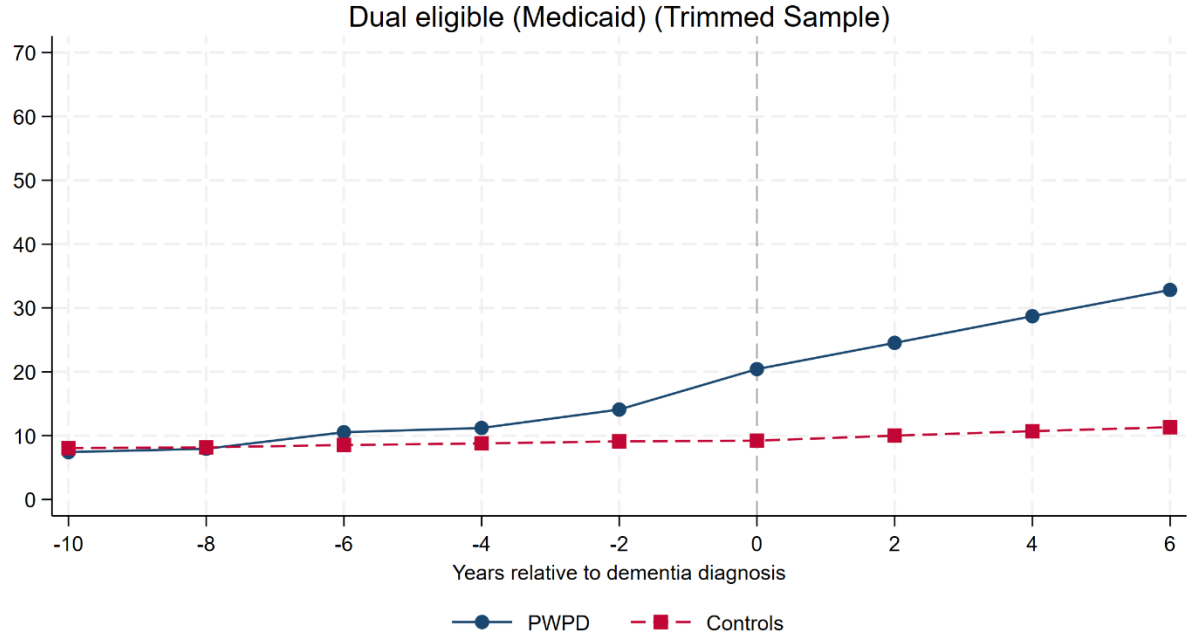
Note: Restricted to control observations <99th percentile in the propensity score weight distribution.
Interpretation: Differences between PWPD and controls are statistically significant at t=-10, -8, -4, -2, 0, 2, 4, 6 (p<0.05).



Note: Restricted to control observations <99th percentile in the propensity score weight distribution.
Interpretation: Differences between PWPD and controls are statistically significant at t=-10, -8, -4, -2, 0, 2, 4, 6 (p<0.05).

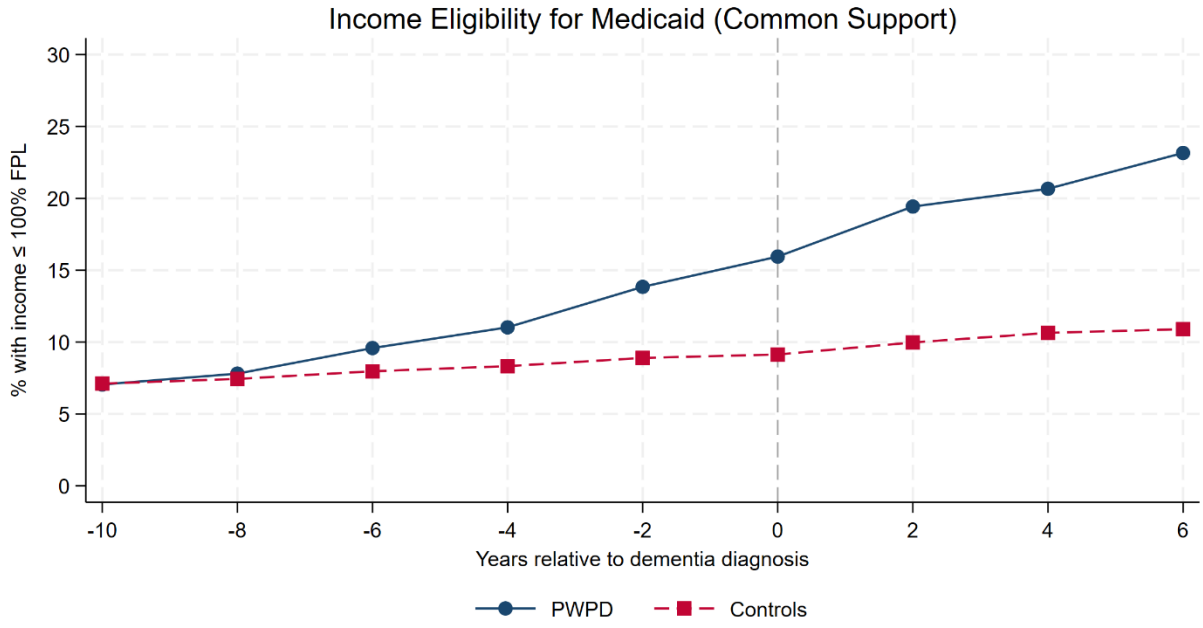


Note: Restricted to control observations <99th percentile in the propensity score weight distribution.
Interpretation: Differences between PWPD and controls are statistically significant at t=-2, 0, 2, 4, 6 (p<0.05).

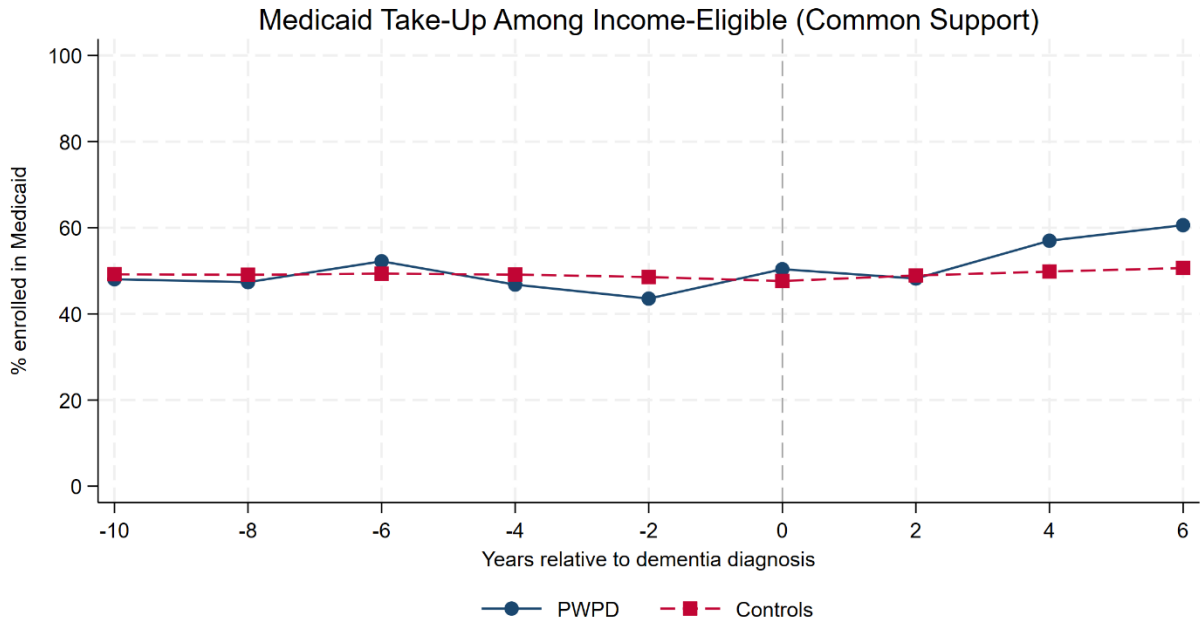


Note: Restricted to control observations <99th percentile in the propensity score weight distribution.
Interpretation: Differences between PWPD and controls are statistically significant at t=-6, -4, -2, 0, 2, 4, 6 (p<0.05).

eFigure 3. Trajectories of Medicaid Eligibility and Participation Conditional on Eligibility among PWPD and Matched Controls, restricted to common support

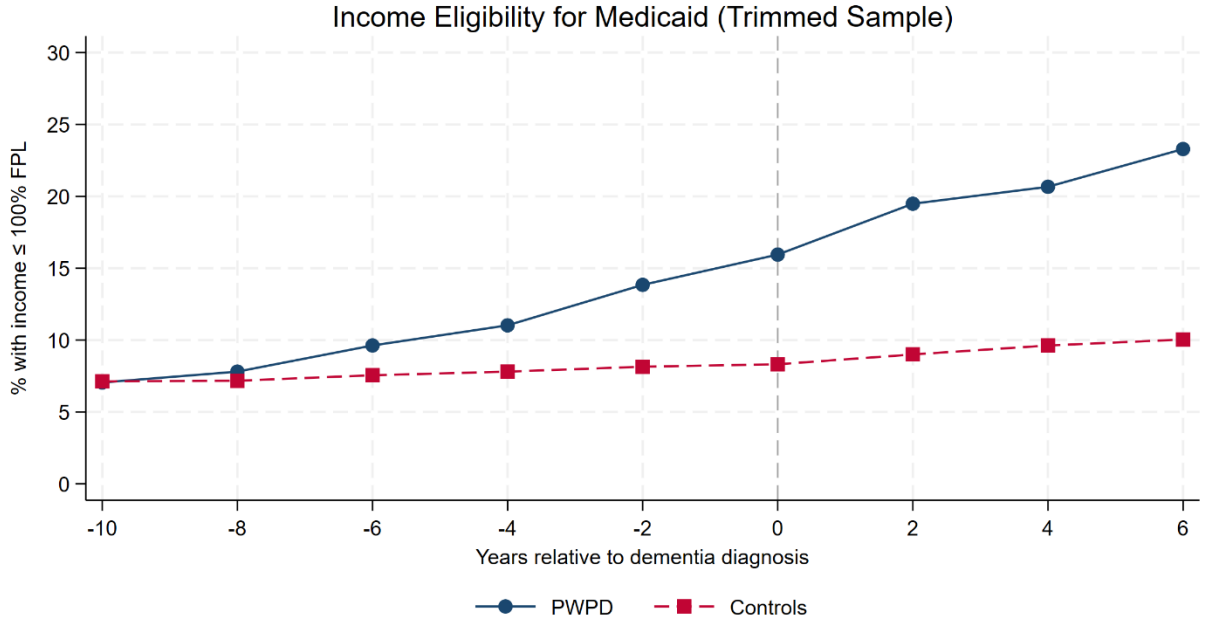


Note: Restricted to common support region.
Proxy for eligibility is household income ≤ 100% Federal Poverty Level.
Interpretation: Differences between PWPD and controls are statistically significant at t=-6, -4, -2, 0, 2, 4, 6 (p<0.05).

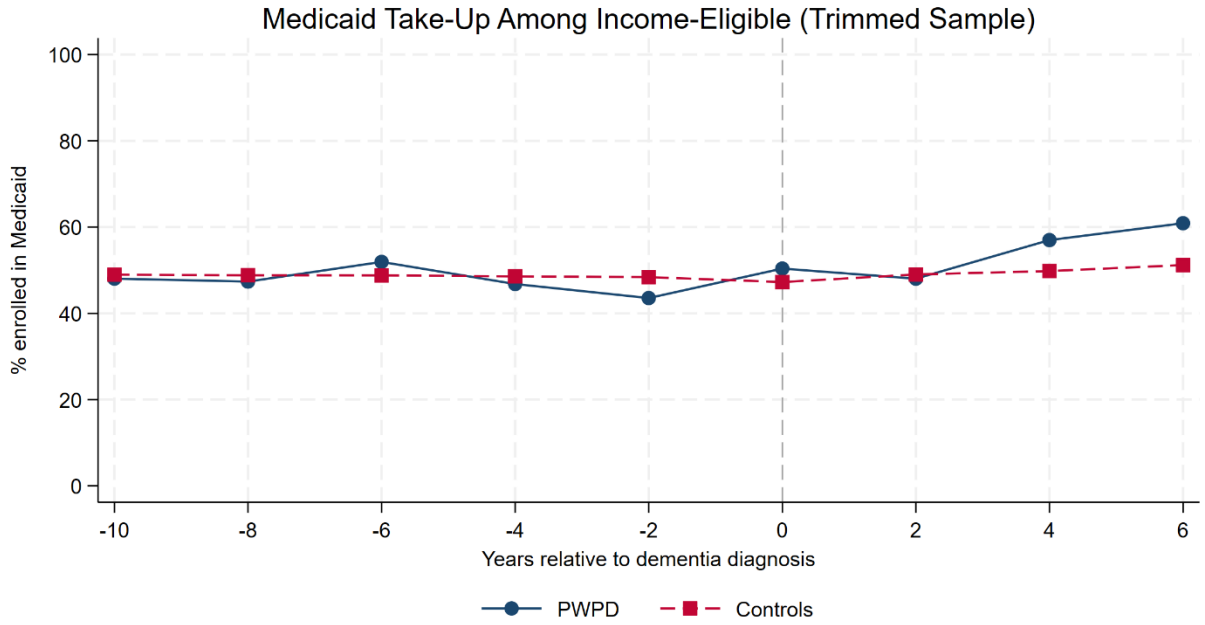


Note: Restricted to common support region.
Proxy for eligibility is household income ≤ 100% Federal Poverty Level.
Interpretation: Differences between PWPD and controls are statistically significant at t=6 (p<0.05).

eFigure 4. Trajectories of Medicaid Eligibility and Participation Conditional on Eligibility among PWPD and Matched Controls, restricted to control observations <99th percentile in the propensity score weight distribution



Note: Restricted to control observations <99th percentile in the propensity score weight distribution.
Proxy for eligibility is household income ≤ 100% Federal Poverty Level.
Interpretation: Differences between PWPD and controls are statistically significant at t=-6, -4, -2, 0, 2, 4, 6 (p<0.05).



Note: Restricted to control observations <99th percentile in the propensity score weight distribution.
Proxy for eligibility is household income ≤ 100% Federal Poverty Level.
Interpretation: Differences between PWPD and controls are statistically significant at t=6 (p<0.05).