



**CENTER *on the* ECONOMICS of
ALZHEIMER'S DISEASE /ADRD**

Strengthening the Dementia Care Workforce: Analyzing Economic Policies' influence on Workers and their Patients Living with Dementia

Katherine Miller, Johns Hopkins Bloomberg School of Public Health

Norma Coe (PI), Division of Health Policy, Perelman School of Medicine, University of Pennsylvania

Atheendar Venkataramani, Division of Health Policy, Perelman School of Medicine, University of Pennsylvania

Adam Dean, Department of Political Science, George Washington University

Jamie McCallum, Department of Sociology, Middlebury College

Alon Bergman, Division of Health Policy, Perelman School of Medicine, University of Pennsylvania

Lindsey White, Division of Health Policy, Perelman School of Medicine, University of Pennsylvania

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Background

- Direct care workers critical care to people living with AD/ADRD (PLWD) and constitute the largest group of paid dementia care providers.
 - But the direct care workforce is plagued with supply-side issues, including poor working conditions, low wages, worker shortages, and high turnover rates.
- People living with AD/ADRD may be particularly vulnerable to workforce instability.
- The effectiveness of economic policy levers, such as minimum wages, unionization, and minimum staffing regulations, to improve direct care worker and PLWD outcomes is unknown.

Research Objective

- To estimate the effects of economic policy levers, e.g., minimum wage and wage pass-through policies, minimum staffing regulations, and unionization, on the direct care workforce and patient-centered outcomes for PWLD
 - **Aim 1:** Estimate the effect of wage changes, driven by minimum wage regulation and targeted pandemic-related efforts, on home health care workers and patients with dementia living in the community.
 - **Aim 2:** Estimate the effect of nursing home unionization on their workforce and residents with AD/ADRD.
 - **Aim 3:** Estimate the effect of nursing home staffing regulations on the workforce and nursing home residents with AD/ADRD.

Data Source & Study Population

- Direct Care Workers in home health
 - occupation and industry codes from American Community Survey, 2010-2025
 - NAICS industry code from the Quarterly Workforce Indicators, 2010-2025
 - Enhabit Home Health administrative data, 2015-2025
- PLWD who are home health users
 - Medicare Home Health Outcome and Assessment Information Set (OASIS), 2010-2025
- Direct Care Workers in nursing homes
 - occupation and industry codes from American Community Survey, 2010-2025
 - NAICS industry code from the Quarterly Workforce Indicators, 2010-2025
 - Payroll Based Journal, 2017-2025
- PLWD who are nursing home residents
 - Medicare Assessments from Minimum Data Set, 2010-2025
 - IMPACT Collaboratory Long-Term Care (LTC) Data Cooperative

Key Measures & Outcomes

- Key Independent Variables:
 - Minimum wages, hazard pay, wage pass-through laws for direct care workers
 - Unionization of nursing staff
 - Minimum nursing facility staffing requirements
- Primary Outcomes:
 - Economic security and labor force attachment of direct care workers
 - Wages, earnings, turnover, poverty, hours worked, health insurance
 - Functional status, mental health, physical health, acute health care use, and mortality of PLWD

Analytic Approach

- Event-study difference-in-difference design

$$Y_{ijt} = \alpha_0 + \sum_{p=-n}^n (\beta_p Treat_{ijp}) + \mu_j + \theta_t + X_{ijt-1} + \varepsilon_{ijt}$$

- Individual-level control variables measured in the previous year in order to help address simultaneity problems, such as health conditions, age, sex, and race, which are not influenced by being in an intervention later but may predict the likelihood of being in an intervention group. Intervention area fixed-effects to capture time-invariant differences across the intervention areas (state, locality, or nursing home).

Implications for the Economics of ADRD

- Timely understanding of the effectiveness of three key policy levers
- Links policies to both important inputs, the workforce, and ultimately to patient outcomes, to better understand the effects of the policies and the mechanisms through which they work.
- Provide key insights as to how these policies impacted workers and PLWD before, during, and after the COVID-19 public health emergency.

Leveraging the Coordinating Center

- Works-in-progress, workshops and conferences
- Hosting visiting scholars across centers
- Participating in stakeholder engagement activities to leverage our collective networks
- Hosting data/programs to meet data transparency and reproducibility standards