

Elizabeth M. White, APRN, PhD

Curriculum Vitae

OFFICE:

Center for Gerontology and Healthcare Research
 Center for Long-Term Care Quality & Innovation
 Brown University School of Public Health
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 Providence, RI 02912
 Tel: 401-863-6172, e-mail: elizabeth_white@brown.edu

EDUCATION

2003 BSN, University of Pennsylvania School of Nursing
 2006 MSN, University of Pennsylvania School of Nursing
 Concentration: Adult Gerontology Primary Care Nurse Practitioner
 2013 MPH, Columbia University Mailman School of Public Health
 Concentration: Health Policy and Management
 2018 PhD, University of Pennsylvania School of Nursing

ACADEMIC APPOINTMENTS

2015-2018 **NINR T32 Predoctoral Fellow** – Center for Health Outcomes and Policy Research, University of Pennsylvania School of Nursing
 2018-2020 **AHRQ T32 Postdoctoral Fellow** – Center for Gerontology and Healthcare Research, Brown University School of Public Health
 2020-2021 **Investigator** – Department of Health Services, Policy, and Practice, Brown University School of Public Health
 2021-present **Assistant Professor of Health Services, Policy, and Practice**, Brown University School of Public Health

CLINICAL & PROFESSIONAL EXPERIENCE

1999-2003 **Research Assistant** - Children's Hospital of Philadelphia, Division of Infectious Diseases, H. Fred Clark Lab (rotavirus vaccine development), Philadelphia, PA
 2003 **Visiting Scholar** – International Council of Nurses, Geneva, Switzerland
 2003-2005 **Staff Nurse** – New York Presbyterian, Weill Cornell Medical Center, Acute Care for Elders Unit, New York, NY
 2005-2007 **Staff Nurse** - Hospital of the University of Pennsylvania, General Medicine, Philadelphia, PA
 2007-2015 **Nurse Practitioner** – Optum CarePlus (formerly Evercare), New York, NY
 2015-2018 **Nurse Practitioner, part-time** – Mercy LIFE West Philadelphia, Philadelphia, PA
 2018-present **Nurse Practitioner, part-time** – PACE Organization of Rhode Island, Providence, RI

PROFESSIONAL LICENSURE & CERTIFICATIONS

ACTIVE LICENSES

Rhode Island Advanced Practice Registered Nurse Adult/Gerontology
Rhode Island Registered Nurse

INACTIVE LICENSES

Pennsylvania Certified Registered Nurse Practitioner
Pennsylvania Registered Nurse
New York Nurse Practitioner Adult Health
New York Nurse Practitioner Gerontology
New York Registered Nurse

CERTIFICATIONS

ANCC Board Certification: Adult Gerontology Primary Care Nurse Practitioner (active)
NPI Registration (active)
Basic Life Support for Healthcare Providers (active)

HONORS & AWARDS

1999-2005	Alex Hillman Family Foundation Scholar , University of Pennsylvania, Philadelphia, PA
2000	Merck Scholar , Penn-Merck Collaborative for the Enhancement of Science, Philadelphia, PA
2001	Sigma Theta Tau International Honor Society of Nursing , Xi Chapter, University of Pennsylvania School of Nursing, Philadelphia, PA
2000, 2003	Dean's List , University of Pennsylvania, Philadelphia, PA
2003	Theresa I. Lynch Graduation Award for consistent contribution to the advancement of the School of Nursing, University of Pennsylvania School of Nursing, Philadelphia, PA
2006	Ralston Center Award for Gerontology Nursing Excellence , Ralston Penn Center, Philadelphia, PA
2008	Hillman Award for Excellence in Advanced Practice Nursing , Hillman Alumni Nursing Network, New York, NY
2017-2018	Associate Fellow , Leonard Davis Institute of Health Economics, University of Pennsylvania
2018	Dorothy Mereness Graduation Award for exceptional ability in scholarly writing, University of Pennsylvania School of Nursing, Philadelphia, PA
2019-present	Senior Fellow , Center for Health Outcomes and Policy Research, University of Pennsylvania School of Nursing
2023	<i>Health Affairs</i> paper named as a "2023 Top Ten Editor's Pick" (DOI: 10.1377/hlthaff.2022.01011; DOI: 10.1377/forefront.20231227.291278)

MEMBERSHIP IN SOCIETIES

2009-present American Geriatrics Society
 2016-present AcademyHealth
 2020-present AMDA: The Society for Post-Acute and Long-term Care Medicine
 2018-2019 Gerontological Society of America
 2007-2020 Gerontological Advanced Practice Nurses Association

DEPARTMENT, CENTER, OR UNIVERSITY ACTIVITIES**UNIVERSITY OF PENNSYLVANIA**

2000-2003 Member, Student Committee on Undergraduate Education (university student government)
 2001-2002 Vice President, Student Nurses at Penn, School of Nursing
 2002-2003 President, Student Nurses at Penn, School of Nursing
 2016-2018 Student representative, PhD Curriculum Committee, School of Nursing
 2017-2018 Board member and seminar series coordinator, Doctoral Student Organization, School of Nursing

BROWN UNIVERSITY

2018-2020 Seminar series coordinator for Health Services, Policy, and Practice PhD students
 2020 Social media committee, Center for Gerontology and Healthcare Research
 2022- Gerontology/OIT Steering Committee
 2023- HSPP Department Website Committee
 2023- Q&I Center Leadership Committee

NATIONAL OR INTERNATIONAL SERVICE**EDITORIAL BOARDS**

2022-present Journal of the American Geriatrics Society

JOURNAL MANUSCRIPT REVIEWER

Journal of the American Geriatrics Society, JAMDA, JAMA Internal Medicine, JAMA Network Open, Journal of General Internal Medicine, Medical Care, Medical Care Research and Review, BMJ Quality & Safety, Nature Aging, Health Affairs Scholar, Geriatric Nursing, PLOS One, International Journal of Nursing Studies, International Journal of Older People Nursing, Health Services Insights

GRANT APPLICATION REVIEW BOARDS

2019 Ad hoc grant reviewer: Icelandic Research Fund, Clinical Sciences and Public Health Panel
 2023 Reviewer, NIA IMPACT Collaboratory, LTC Data Cooperative Real World Data Scholars Program

OTHER SERVICE

- 2021-present Member, Technical Expert Panel, 2024 National Impact Assessment of the Centers for Medicare & Medicaid Services (CMS) Quality Measures Report
- 2022 Reviewer, VA Evidence Synthesis Program
- 2022-present Member, AMDA PALTC Workforce Development Committee
- 2022-present Co-Chair, Workforce Committee of the John A. Hartford Foundation's *Moving Forward: Nursing Home Quality Coalition*
- 2023-present Advisory Board Member, Advanced Training in Nursing Outcomes Research T32 Training Program, University of Pennsylvania School of Nursing
- 2023 Expert panel member, National Academies of Sciences, Engineering, and Medicine / U.S. Government Accountability Office *Expert Meeting on Efforts to Improve Diagnostic Testing for Future Pandemics*, January 22, 2024 – January 26, 2024

PUBLICATIONS

PEER REVIEWED JOURNALS

2017

1. **White, E.M.** (2017). A comparison of nursing education and workforce planning initiatives in the United States and England. *Policy, Politics, & Nursing Practice*, 18(4), 173-185. DOI: 10.1177/1527154418759666

2018

2. **White, E.M.**, Smith, J.G., Trotta, R.L., & McHugh, M.D. (2018). Lower postsurgical mortality for individuals with dementia with better-educated hospital workforce. *J Am Geriatr Soc*, 66(6), 1137–1143. DOI: 10.1111/jgs.15355

2019

3. **White, E.M.**, Aiken, L.H., & McHugh, M.D. (2019). Registered nurse burnout, job dissatisfaction, and missed care in nursing homes. *J Am Geriatr Soc*, 67(20), 2065-2071. DOI: 10.1111/jgs.16051
4. **White, E.M.**, Aiken, L.H., Sloane, D.M., & McHugh, M.D. (2019) Nursing home work environment, care quality, registered nurse burnout, and job dissatisfaction. *Geriatric Nursing*, 41(2), 158-164. DOI: 10.1016/j.gerinurse.2019.08.007

2020

5. + Blackman, C., Farber, S., Feifer, R.A., Mor, V., & **White, E.M.** (2020). An Illustration of SARS-CoV-2 Dissemination within a skilled nursing facility using heat maps. *J Am Geriatr Soc*, 68(10), 2174-2178. DOI: 10.1111/jgs.16642
6. **White, E.M.**, Kosar, C.M.*, Feifer, R.A., Blackman, C., Gravenstein, S., Ouslander, J., & Mor, V. (2020). Variation in SARS-CoV-2 prevalence in US skilled nursing facilities. *J Am Geriatr Soc*, 68(10), 2167-2173. DOI: 10.1111/jgs.16752

7. **White, E.M.**, Kosar, C.M.*, Rahman, M., & Mor, V. (2020). Trends in hospitals and skilled nursing facilities sharing medical providers, 2008-2016. *Health Affairs*, 39(8), 1312-1320. DOI: 10.1377/hlthaff.2019.01502
 8. Kosar, C.M.*, Loomer, L. *, Thomas, K.S., **White, E.M.**, Panagiotou, O.A., Rahman, M. (2020) Association of diagnosis coding with differences in risk-adjusted short-term mortality between critical access and non-critical access hospitals. *JAMA*, 324(5): 481-487. DOI: 10.1001/jama.2020.9935.
 9. **White, E.M.**, Santostefano, C.M., Feifer, R.A., Kosar, C.M*., Blackman, C., Gravenstein, S. & Mor, V. (2020). Asymptomatic and pre-symptomatic SARS-CoV-2 infection rates in a multistate sample of skilled nursing facilities. *JAMA Intern Med*, 180(12): 1709-1711. DOI: 10.1001/jamainternmed.2020.5664
 10. Rahman, M. **White, E.M.**, Thomas, K.S., & Jutkowitz, E. (2020). Assessment of Rural-Urban Differences in Health Care Use and Survival Among Medicare Beneficiaries With Alzheimer Disease and Related Dementia. *JAMA Network Open*, 3(10), e2022111. DOI:10.1001/jamanetworkopen.2020.22111 [Epub ahead of print].
 11. **White, E.M.**, Wetle, T.F., Reddy, A., & Baier, R.R. Front-line nursing home staff perspectives during the COVID-19 pandemic. (2020). *J Am Med Dir Assoc*, 22(1): 199-203. DOI: 10.1016/j.jamda.2020.11.022.
 12. McConeghy, K.W., **White, E.M.**, Panagiotou, O.A., Santostefano, C.M.*, Halladay, C., Feifer, R.A., Blackman, C., Rudolph, J.L., Mor, V. & Gravenstein, S. (2020). Temperature Screening for SARS-CoV-2 in Nursing Homes: Evidence from Two National Cohorts. *J Am Geriatr Soc*, 68(12):2716-2720. doi: 10.1111/jgs.16876.
- 2021
13. Panagiotou, O.A., Kosar, C.M.*, **White, E.M.**, Santostefano, C.M.*, Feifer, R.A., Blackman, C., Rudolph, J.L., Gravenstein, S., Mor, V. (2021). Risk Factors Associated with All-Cause 30-Day Mortality in Nursing Home Residents with COVID-19. *JAMA Intern Med*; 181(4):439-448. doi: 10.1001/jamainternmed.2020.7968
 14. McGarry, B.E., **White, E.M.**, Resnick, L., Rahman, M., & Grabowski, D.C. (2021). Implementation of Medicare's new Patient Driven Payment Model resulted in reductions in therapy staffing in skilled nursing facilities. *Health Affairs*, 40(3):392-399. doi: 10.1377/hlthaff.2020.00824.
 15. Rahman, M, **White, E.M.**, Mills, C., Thomas, K.S, & Jutkowitz, E. (2021). Rural-urban differences in diagnostic incidence and prevalence of Alzheimer's disease and related dementias. *Alzheimer's & Dementia*; doi: 10.1002/alz.12285. [Epub ahead of print]

16. Kosar, CM, **White, EM**, Feifer, RA, Blackman, C, Gravenstein, S, McConeghy, K*, Panagiotou, OA, Mor, V. (2021) COVID-19 Mortality Rates Among Nursing Home Residents Declined From March To November 2020. *Health Affairs*, 40(4), 655-663; doi: 10.1377/hlthaff.2020.02191
17. **White, EM**, Saade, EA, Yang, X, Canaday, DH, Blackman, C, Santostefano, CM*, Nanda, A, Feifer, RA, Mor, V, Rudolph, JL, Gravenstein, S. (2021). SARS-CoV-2 Antibody Detection in Skilled Nursing Facility Residents. *J Am Geriatr Soc*, 69(7):1722-1728. doi: 10.1111/jgs.17061
18. **White, EM**, Yang, X, Blackman, C, Feifer, RA, Gravenstein, S, Mor, V. (2021). Incident SARS-CoV-2 Infections Among mRNA-Vaccinated and Unvaccinated Nursing Home Residents. *N Engl J Med*, 385, 474-476. doi: 10.1056/NEJMc2104849
19. Mor, V, Gutman, R, Yang, X, **White, EM**, McConeghy, KW*, Feifer, RA, Blackman, CR, Kosar, CM, Bardenheier, BH, Gravenstein, SA. (2021) Short Term Impact of Nursing Home SARS-CoV-2 Vaccinations on New Infections, Hospitalizations and Deaths. *J Am Geriatr Soc*, 69(8), 2063-2069. doi: 10.1111/jgs.17176
20. Bardenheier BH, Gravenstein S, Blackman C, Gutman R, Sarkar IN, Feifer RA, **White EM**, McConeghy K*, Nanda A, Mor V. Adverse events following mRNA SARS-CoV-2 vaccination among U.S. nursing home residents. *Vaccine*. 2021 Jun 29;39(29):3844-3851. doi: 10.1016/j.vaccine. PMID: 34092431; PMCID: PMC8162901.
21. Feifer, RA, Bethea, L, **White, EM**. (2021). COVID-19 Vaccine Acceptance Among Black and Hispanic Nursing Home Staff: Building Trust to Protect Both Staff & Residents. *JAMDA*, 22(9):1853-1855.e1. doi: 10.1016/j.jamda.2021.07.006.
22. Niznik JD, Harrison J, **White EM**, Syme M, Hanson LC, Kelley CJ, Porter L, Berry SD. Perceptions of COVID-19 vaccines among healthcare assistants: A national survey. *J Am Geriatr Soc*. 2022 Jan;70(1):8-18. doi: 10.1111/jgs.17437. Epub 2021 Sep 8. PMID: 34449885.
23. Santostefano, CM*, **White, EM**, Feifer, RA, Mor, V. Accuracy of ICD-10 codes for identifying skilled nursing facility residents with lab-confirmed COVID-19. *J Am Geriatr Soc*. 2021; 69(12): 3397- 3399. doi:10.1111/jgs.17412
24. Konetzka, RT, **White, EM**, Pralea, A*, Grabowski, DC, Mor, V. A systematic review of long-term care facility characteristics associated with COVID-19 outcomes. *J Am Geriatr Soc*. 2021; 69(10): 2766- 2777. doi: 10.1111/jgs.17434 PMID: 34549415
25. Thorsness R*, Raines NH, **White EM**, Santostefano CM, Parikh SM, Riester MR*, Feifer RA, Mor V, Zullo AR. Association of Kidney Function With 30-Day Mortality Following SARS-CoV-2 Infection in Nursing Home Residents: A Retrospective

- Cohort Study. *Am J Kidney Dis*. 2022 Feb;79(2):305-307. doi: 10.1053/j.ajkd.2021.09.009. Epub 2021 Oct 14. PMID: 34656641
26. Bardenheier, B., Gravenstein, S., Blackman, C., Gutman, R., Sarkar, IN, Feifer, RA, **White, EM**, McConeghy, K, Nanda, A, Mor, V. Adverse Events Following One Dose of mRNA COVID-19 Vaccination among U.S. Nursing Home Residents with and without a previous SARS-CoV-2 Infection. *JAMDA*, 22(11), 2228-2232. doi: 10.1016/j.jamda.2021.08.0
 27. McConeghy KW*, Cinque M, **White EM**, Feifer RA, Blackman C, Mor V, Gravenstein S, Zullo AR. Lessons for deprescribing from a nonessential medication hold policy in US nursing homes. *J Am Geriatr Soc*. 2022 Feb;70(2):429-438. doi: 10.1111/jgs.17512. Epub 2021 Oct 25. PMID: 34695233.
 28. **White, EM**. Underreporting of Nursing Home COVID-19 Cases and Deaths in Federal Data [Invited Commentary in response to: Shen, K., Loomer, L., Abrams, H., Grabowski, D. & Gandhi, A. (2021). Estimates of nursing home resident COVID-19 cases and deaths not reported in federal data.]. *JAMA Netw Open*, 4(9):e2123696. doi:10.1001/jamanetworkopen.2021.23696
- 2022
29. Rahman, M., **White, EM**, McGarry, BE, Santostefano, C, Shewmaker, P, Resnik, L, Grabowski, DC. Association Between the Patient Driven Payment Model and Therapy Utilization and Patient Outcomes in US Skilled Nursing Facilities. *JAMA Health Forum* 2022;3(1):e214366. doi:10.1001/jamahealthforum.2021.4366
 30. Hawk T, **White EM**, Bishnoi C, Schwartz LB, Baier RR, Gifford DR. Facility characteristics and costs associated with meeting proposed minimum staffing levels in skilled nursing facilities. *J Am Geriatr Soc*. 2022 Apr;70(4):1198-1207. doi: 10.1111/jgs.17678. Epub 2022 Feb 3. PMID: 35113449.
 31. Bardenheier BH, **White EM**, Blackman C, Gravenstein S, Gutman R, Sarkar IN, Feifer RA, McConeghy K, Nanda A, Duprey M, Mor V. Adverse events following third dose of mRNA COVID-19 vaccination among nursing home residents who received the primary series. *J Am Geriatr Soc*. 2022 Jun;70(6):1642-1647. doi: 10.1111/jgs.17812. Epub 2022 Apr 27. PMID: 35460263
 32. Canaday DH, Oyebanji OA, **White E**, Keresztesy D, Payne M, Wilk D, Carias L, Aung H, St Denis K, Sheehan ML, Berry SD, Cameron CM, Cameron MJ, Wilson BM, Balazs AB, King CL, Gravenstein S. COVID-19 vaccine booster dose needed to achieve Omicron-specific neutralisation in nursing home residents. *EBioMedicine*. 2022 Jun;80:104066. doi: 10.1016/j.ebiom.2022.104066. Epub 2022 May 20. PubMed PMID: 35605428.
 33. Ritter AZ, Kosar CM, **White EM**, Feifer RA, Blackman C, Mor V. Incidence and Outcomes of SARS-CoV-2 in Post-Acute Skilled Nursing Facility Care. *J Am Med*

- Dir Assoc.* 2022 Aug;23(8):1269-1273. doi: 10.1016/j.jamda.2022.05.014. Epub 2022 May 23. PMID: 35718000
34. Recker A, **White EM**, Yang X, Feifer RA, Gravenstein S, Blackman C, Nanda A, Berry SD, Mor V. Factors Affecting SARS-CoV-2 Test Discordance in Skilled Nursing Facilities. *J Am Med Dir Assoc.* 2022 Aug;23(8):1279-1282. doi: 10.1016/j.jamda.2022.06.006. Epub 2022 Jun 20. PMID: 35809634
 35. McGarry BE, Gandhi AD, Syme M, Berry SD, **White EM**, Grabowski DC. Association of State COVID-19 Vaccine Mandates With Staff Vaccination Coverage and Staffing Shortages in US Nursing Homes. *JAMA Health Forum.* 2022 Jul 29;3(7):e222363. doi: 10.1001/jamahealthforum.2022.2363. PMID: 35983581
 36. McConeghy KW*, **White, EM**, Blackman, C, Santostefano, CM, Lee Y, Rudolph JL, Canaday DH, Zullo AR, Jernigan, JA, Pilishvili T, Mor, V, Gravenstein, S. Effectiveness of a Second COVID-19 Vaccine Booster Dose Against Infection, Hospitalization, or Death Among Nursing Home Residents — 19 States, March 29–July 25, 2022. *MMWR Morb Mortal Wkly Rep* 2022;71:1235–1238. DOI: 10.15585/mmwr.mm7139a2
 37. McConeghy KW*, Bardenheier B, Huang AW*, **White EM**, Feifer RA, Blackman C, Santostefano CM, Lee Y, DeVone F, Halladay CW, Rudolph JL, Zullo AR, Mor V, Gravenstein S. Infections, Hospitalizations, and Deaths Among US Nursing Home Residents With vs Without a SARS-CoV-2 Vaccine Booster. *JAMA Netw Open.* 2022;5(12):e2245417. doi:10.1001/jamanetworkopen.2022.45417
- 2023
38. Hua CL, Cornell PY, **White EM**, Thomas KS. Injury-related emergency department use among assisted living residents with Alzheimer's disease and related dementias. *J Am Geriatr Soc.* 2023 Feb;71(2):538-545. doi: 10.1111/jgs.18207. Epub 2022 Dec 26. PMID: 36572964; PMCID: PMC9957931.
 39. **White EM**, Travers JL, Gouskova N, Oh G, Syme M, Yang X, Montoya A, Feifer RA, Grabowski DC, Mor V, Berry SD. Differences In Nursing Home Staff COVID-19 Testing Rates And Odds Of Vaccination Across Work Shifts. *Health Aff (Millwood).* 2023 Feb;42(2):217-226. doi: 10.1377/hlthaff.2022.01011. PMID: 36745839; PMCID: PMC9990769.
*** Named as a “2023 Top Ten Editor’s Picks” article DOI: 10.1377/forefront.20231227.291278
 40. Canaday DH, Oyebanji OA*, **White EM**, Bosch, J, Nugent, C, Vishnepolskiy, I, Abul, Y.*, Didion, EM, Paxitzis, A, Sundheimer, N, Ragavapuram, V, Wilk, D, Keresztesy, D, Cao, Y, St. Denis, K, McConeghy, KW*, McDonald, LC, Jernigan, JA, Mylonakis, E., Wilson, BM, King, CL, Balazs, AB, Gravenstein, S. SARS-CoV-2 Antibody Responses to the Ancestral SARS-CoV-2 Strain and Omicron BA.1 and BA.4/BA.5 Variants in Nursing Home Residents After Receipt of Bivalent COVID-

- 19 Vaccine — Ohio and Rhode Island, September–November 2022. *MMWR Morb Mortal Wkly Rep* 2023;72:100–106. DOI: <http://dx.doi.org/10.15585/mmwr.mm7204a4>
41. Montoya A, Wen K*, Travers JL, Rivera-Hernandez M, **White E**, Mor V, Berry SD. Resident Factors Associated With Breakthrough SARS-CoV-2 Infections. *J Am Med Dir Assoc*. 2023 Jun;24(6):901-905. doi: 10.1016/j.jamda.2023.02.102. Epub 2023 Mar 2. PMID: 36965506; PMCID: PMC9977610
 42. Oh H*, **White EM**, Muench U, Santostefano C, Thapa B*, Kosar C, Gadbois EA, Osakwe ZT, Gozalo P, Rahman M. Advanced practice clinician care and end-of-life outcomes for community- and nursing home-dwelling Medicare beneficiaries with dementia. *Alzheimers Dement*. 2023 Sep;19(9):3946-3964. doi: 10.1002/alz.13052. Epub 2023 Apr 18. PMID: 37070972; PMCID: PMC10523969
 43. Gadbois EA, Brazier JF, Meehan A, Madrigal C, **White EM**, Rafat A*, Grabowski D, Shield RR. COVID-19 Vaccination Among Skilled Nursing Facility Staff: Challenges and Strategies Identified by Administrators. *Med Care Res Rev*. 2023 May 12:10775587231168435. doi: 10.1177/10775587231168435. PMID: 37170944 [Epub ahead of print].
 44. Rahman M, Meyers D, **White EM**, McGarry BE, Santostefano C, Resnik L, Grabowski DC. Spillover effect of the Patient Drive Payment Model on skilled nursing facility therapy delivery among Medicare Advantage enrollees. *Health Econ*. 2023 Sep;32(9):1887-1897. doi: 10.1002/hec.4714. Epub 2023 May 23. PMID: 37219337.
 45. Nugent C, Abul Y*, **White EM**, Shehadeh F, Kaczynski M, Oscar Felix L, Ganesan N, Oyebanji OA*, Vishnepolskiy I, Didion EM, Paxitzis A, Sheehan ML, Chan PA, Pfeifer WM, Dickerson E, Kamojjala S*, Wilson BM, Mylonakis E, King CL, Balazs AB, Canaday DH, Gravenstein S. Second monovalent SARS-CoV-2 mRNA booster restores Omicron-specific neutralizing activity in both nursing home residents and health care workers. *Vaccine*. 2023 Apr 24;41(22):3403–9. doi: 10.1016/j.vaccine.2023.04.034. PMID: 37117056; PMCID: PMC10123357. [Epub ahead of print.]
 46. Brazier JF, Geng* F, Meehan A, **White EM**, McGarry BE, Shield RR, Grabowski DC, Rahman M, Santostefano C, Gadbois EA. Examination of Staffing Shortages at US Nursing Homes During the COVID-19 Pandemic. *JAMA Netw Open*. 2023 Jul 3;6(7):e2325993. doi: 10.1001/jamanetworkopen.2023.25993. PMID: 37498600; PMCID: PMC10375301.
 47. Oyebanji OA*, Abul Y*, Wilson BM, Bosch J, Didion EM, Paxitzis AN, Sundheimer N, Ragavapuram V, Wilk D, Keresztesy D, Aung H, Cao Y, King CL, Balazs AB, **White EM**, Gravenstein S, Canaday DH. Neutralization and binding antibody response to second bivalent COVID-19 vaccination in nursing home residents. *J Am*

- Geriatr Soc.* 2023 Aug 17. doi: 10.1111/jgs.18557. Epub ahead of print. PMID: 37589423.
48. Berning MJ*, Zhong Z*, **White EM**, Niznik JD, Berry SD. Retention and Resilience of Nursing Home Staff During the COVID-19 Pandemic: Voices from the Frontline. *J Am Med Dir Assoc.* 2023 Oct;24(10):1606-1608. doi: 10.1016/j.jamda.2023.07.011. Epub 2023 Aug 12. PMID: 37582480; PMCID: PMC10543619.
49. Gadbois EA, Brazier JF, **White EM**, Hawes C, Meehan A, Rafat A*, Geng F*, Rahman M, Grabowski DC, Shield RR. Caring for nursing home residents with dementia during the COVID-19 pandemic: Perspectives from administrators. *J Am Geriatr Soc.* 2023 Oct 12. doi: 10.1111/jgs.18634. Epub ahead of print. PMID: 37823457.

* Denotes student or trainee

+ Denotes senior authorship

UNDER REVIEW

+ Kosar CM, Thapa BB*, Muench U, Santostefano C, Gadbois EA, Oh H*, Gozalo PL, Rahman M, **White EM**. Association of nurse practitioner care and scope of practice regulations with end-of-life outcomes for nursing home residents with dementia

Gravenstein S, DeVone F, Oyebanji OA*, McConeghy KW, Abul Y*, Cao Yi, Chan PA, Halladay CW, Rudolph JL, Nugent C, Bosch J, King CL, Wilson BM, Balazs AB, **White EM**, Canaday DH. Durability of immunity and clinical protection in nursing home residents following bivalent SARS-CoV-2 vaccination

Wen, K, McGarry, B, Yu, H*, Syme, M., Berry, S., **White, EM**, Mor, V, Larkin, I, Gandhi, A. The Health and Employment Effects of Employer Vaccination Mandates

Hua CL, Nelson M, Cornell PY, **White EM**, Thomas, KS. Nursing staff levels and injury-related emergency department visits among assisted living residents with Alzheimer's disease and related dementias

White EM, Bayer T, Santostefano CM, Muench U, Oh, H*, Gadbois EA, Gozalo, P, Rahman, M. Differences in Setting of Initial Dementia Diagnosis Among Medicare Beneficiaries

Brazier, J, **White EM**, Meehan A, Gadbois, EA. Rethinking Infection Control and Infection Control Infrastructure: Nursing Home Administrator Experiences During the COVID-19 Pandemic

OTHER NON-PEER REVIEWED PUBLICATIONS

2020

White, E.M., Woodford, E., Britton, J., Newberry, L.W., & Pabico, C. (2020). Nursing practice environment and care quality in nursing homes A case study of the Pathway to Excellence in Long-Term Care® model. *Nursing Management*, 51(6): 9-12. DOI: 10.1097/01.NUMA.0000662656.07901.a8

White, E.M., Reddy, A., Wetle, T., & Baier, R.R. (2020, June). Front-line nursing home staff perspectives during the COVID-19 pandemic: Personal protective equipment (PPE) [Issue Brief]. Brown University School of Public Health, Center for Long-term Care Quality and Innovation.

White, E.M., Reddy, A., Wetle, T., & Baier, R.R. (2020, July). Front-line nursing home staff perspectives on staffing challenges during the COVID-19 pandemic [Issue Brief]. Brown University School of Public Health, Center for Long-term Care Quality and Innovation.

White, E.M., Reddy, A., Wetle, T., & Baier, R.R. (2020, July). Nursing home front-line staff experiences during the COVID-19 pandemic [Issue Brief]. Brown University School of Public Health, Center for Long-term Care Quality and Innovation.

2021

Canaday, DH, Oyebanji, OA, **White EM**, Keresztesy, D, Payne M, Wilk, D, Carias, L, Htin, A, St. Denis, KM, Sheehan, ML, Berry, SD, Cameron, SM, Cameron MJ, Wilson, BM, Balazs, AB, King, CL, Gravenstein, SG. (2021). Significantly elevated antibody levels and neutralization titers in nursing home residents after SARS-CoV-2 BNT162b2 mRNA booster vaccination. *medRxiv* 2021. doi: 10.1101/2021.12.07.21267179 [Pre-print]

2022

McConeghy K, Bardenheier B, Huang A, **White EM**, Feifer R, Blackman C, et al. Effectiveness of a SARS-CoV-2 mRNA vaccine booster dose for prevention of infection, hospitalization or death in two nation-wide nursing home systems. *medRxiv*. 2022. DOI: 2022.01.25.22269843 [Pre-print]

2023

Moving Forward Coalition. Action Plan: Expanding CNA Career Pathways. <https://movingforwardcoalition.org/wp-content/uploads/2023/07/Expanding-CNA-Career-Pathways.pdf> [Action plan]

Moving Forward Coalition. Integrating State Efforts to Advance CNA Career Pathway Programs. October 10, 2021 [Policy brief]

INVITED PRESENTATIONS

- 2019 **White, EM.** “Nurse Burnout, Job Dissatisfaction, and Missed Care in Nursing Homes.” (2019, September). Zurick Davis *Learn from Leaders*. [Webinar].
- 2020 **White, EM.** “Symptomatic and Asymptomatic SARS-CoV-2 Presentation in Nursing Home Residents.” (2020, June). *IMPACT Collaboratory Special Grand Rounds: COVID-19 Among Older Persons in Health care Systems: Pragmatic Responses to the Crisis*, [Webinar]
- 2021 **White, EM.** COVID Conversations. GSA webinar series, *Learning from the Pandemic - Implications for Gerontology*. July 20, 2021 [Virtual]
- Gravenstein, S., Canaday, DH, & **White, EM.** “When is the Next SARS-CoV-2 Vaccine Needed? A Pragmatic Nursing Home Study Design”. October 20, 2021. Joint Seminar Series on Clinical Trials in Aging, Brown University & Hebrew SeniorLife. [Virtual]
- 2022 **White, EM,** Kumar, R., Travers, JL, Sanders-Cepeda, D. “Collision of Crises: Addressing Diversity, Equity, & Inclusion’s Intersection with our PALTC Careforce Challenges”. October 28, 2022. AMDA EDGE Symposium. [Virtual]
- 2023 Nuozzo, J, Gifford, D, **White, EM,** & Gravenstein, S. “The Urgency of Protecting Older Americans and Nursing Homes against COVID-19.” February 17, 2023. Brown University School of Public Health Pandemic Center. [Webinar]
- Bonner, A, **White, EM,** Wasserman, M, Laxton, C, Morton, C, Longobardi, IO. “General Session III: Health Policy, Moving Forward: A Conversation on Nursing Home Reform.” March 11, 2023. AMDA PALTC23 Annual Conference, Tampa, FL [Plenary session]
- Bonner, A, Reifsnnyder, J, **White EM,** Longobardi, IO. “Progress and Updates from the Moving Forward Coalition”. March 10, 2023. AMDA PALTC23 Annual Conference, Tampa, FL. [Podium panel session]
- White, EM,** Fabius C. Williams, K, Douglas, N, Abbott, K, Ritchie, C., Hodgson, N., Travers, J. “Interventions Targeting Training the Workforce”. April 12, 2023. NIA IMPACT Collaboratory Scientific Conference. Bethesda, MD [Moderator of podium panel session]
- White, EM.** “COVID-19 in U.S. Nursing Homes: Evidence & Lessons Learned” University of Tübingen, Institute for Health Sciences, Population-based Medicine Department. Tübingen, Germany. June 22, 2023. [Virtual]

White, EM, on behalf of the Moving Forward Coalition Workforce Committee. “Expanding CNA Career Pathways”. September 27, 2023. Council of State Governments, National Long-Term Care Workforce Network meeting. [Virtual]

White, EM, on behalf of the Moving Forward Coalition Workforce Committee. “Action Plan Spotlight: Expanding CNA Career Pathways”. September 20, 2023. Moving Forward Coalition: Coalition Conversations. [Virtual]

Bonner, A, Scales, K, **White EM**, on behalf of the Moving Forward Coalition Workforce Committee. “Addressing State Long-Term Care Workforce Needs.” December 7, 2023. Council of State Governments National Conference. Raleigh, NC. [Podium panel session]

PODIUM PRESENTATIONS

2020 **White, E.M.**, Kosar, C.M., & Rahman, M. (2020, April). *The changing landscape of skilled nursing facility medical providers, 2008-2016.* Podium presentation. AMDA – The Society for Post-Acute and Long-Term Care Medicine Annual Conference. [Virtual meeting due to COVID-19 pandemic].

White, E.M., Kosar, C.M., & Rahman, M. (2020, July). *Regional variation in healthcare utilization among Medicare beneficiaries with Alzheimer’s Disease and Related Dementias.* Podium presentation. AcademyHealth Annual Research Meeting [Virtual meeting due to COVID-19 pandemic]

White, E.M., Kosar, C.M., & Rahman, M. (2020, August). *Nurse practitioners and physician assistants providing an increasing share of primary care in skilled nursing facilities, 2008-2016.* Podium presentation, AcademyHealth Annual Research Meeting, Interdisciplinary Research Group on Nursing Issues. [Virtual meeting due to COVID-19 pandemic]

Baier, R.R., Rudolph, J.L., **White, E.M.**, & Gravenstein, S. (2020, October). *Implications of Coronavirus Research for Clinical Practice and Operations.* Podium panel presentation. AHCA/NCAL Annual Meeting. [Virtual meeting due to COVID-19 pandemic]

White, E.M., Wetle, T.F., Reddy, A., & Baier, R.R. (2020, November). “*We are Scapegoats*”: *Front-line Nursing Home Staff Experiences During the COVID-19 Pandemic.* Podium panel presentation. Gerontology Society of America Annual Meeting. [Virtual meeting due to COVID-19 pandemic].

White, E.M., Kosar, C.M., & Rahman, M. (2020, November). *Regional Variation in Healthcare Utilization Among Medicare Beneficiaries with Alzheimer’s Disease & Related Dementias.* Podium presentation. Gerontology Society of America Annual Meeting. [Virtual meeting due to COVID-19 pandemic].

2021 **White, EM**, Feifer, RA, Blackman, C, Rudolph, JL, & Gravenstein, S. (2021, March) *Building an Evidence Base to Inform COVID-19 Management in Nursing Homes: Findings from Two Clinical-Academic Research Collaborations*. Podium panel presentation. AMDA Annual Meeting [Virtual meeting]

White, EM. *Incident SARS-CoV-2 Infections Among mRNA-vaccinated and unvaccinated Nursing Home Residents*. Plenary session presentation. (2021, June) Academy Health Annual Research Meeting. [Virtual meeting].

2022 **White, EM**, Feifer, RA, Blackman, C, Rudolph, JL, & Gravenstein, S. (2022, March). *Research Update on COVID-19 in Nursing Homes: Findings from Two Clinical-Academic Collaborations*. Podium panel presentation. AMDA Annual Meeting, Baltimore, MD.

White, EM, Gravenstein, S, Canaday, D. (2022, June). *Clinical and Immunologic Characteristics of Nursing Home Residents with SARS-CoV-2 Breakthrough Infections after Booster Vaccination*. Podium presentation. Academy Health Annual Research Meeting, Washington, DC.

2023 Istenes, NA, **White, EM**, Warnock, RP, Naqvi, F, von Preyss-Friedman, S (2023, March 11). *What Do We Know About PALTC Medical Workforce Development?* Podium panel presentation. AMDA PALTC23 Annual Conference, Tampa, FL.

White, EM, Gravenstein, S, Blackman, CR. (2023, March 10). *COVID-19 Boosters in Nursing Homes: Immunological Response, Effectiveness, and Real World Implementation*. Podium panel presentation. AMDA PALTC23 Annual Conference, Tampa, FL.

White, EM. (2023, May 5). *Differences in Nursing Home Staff COVID-19 Testing Rates and Odds of Vaccination Across Work Shifts*. Podium presentation. American Geriatrics Society Annual Meeting, Long Beach, CA.

Mor, V, **White, EM**, Simon, MA, Rogers Murray, C. (2023, Nov 8). *Leveraging Nursing Home Electronic Health Records for Research*. Pre-conference workshop. Gerontological Society of America Annual Meeting, Tampa, FL.

POSTER PRESENTATIONS (as first author)

2017 **White, E.M.**, Smith, J.G., McHugh, M.D. (2017, June). *Nurse education and mortality among surgical patients with Alzheimer's disease and related dementias*. Poster presentation, AcademyHealth Annual Research Meeting, New Orleans, LA.

- 2018 **White, E.M.,** Aiken, L.H., & McHugh, M.D. (2018, November). *The impact of nurse work environment on care quality in nursing homes*. Poster presentation, Gerontological Society of America Annual Scientific Meeting, Boston, MA.
- White, E.M.,** Aiken, L.H., & McHugh, M.D. (2018, June). *Effects of work environment on nurse job dissatisfaction, burnout, intent to leave, retention, and missed care in nursing homes*. Poster presentation, AcademyHealth Annual Research Meeting, Seattle, WA.
- 2019 **White, E.M.,** Kosar, C.M., & Rahman, M. (2019, June). *Shared medical provider relationships between hospitals and skilled nursing facilities*. Poster presentation, AcademyHealth Annual Research Meeting, Washington, DC.
- 2020 **White, E.M.,** Kosar, C.M., & Rahman, M. (2020, November). *Advanced Practice Clinicians Providing an Increased Share of Primary Care in Skilled Nursing Facilities, 2008-2016*. Poster presentation. Gerontology Society of America Annual Meeting. [Virtual meeting due to COVID-19 pandemic].
- 2022 **White, E.M.,** Thapa, B.B., Kosar, C.M., Santostefano, CM, Muench, U., & Rahman, M. (2022, June). *Nurse Practitioner Care, State Scope of Practice Laws, and End of Life Outcomes for Nursing Home Residents with ADRD*. Poster presentation. Academy Health Annual Research Meeting, Interdisciplinary Research Group on Nursing Issues Interest Group. Washington, D.C.

GRANTS & CONTRACTS

CURRENT SUPPORT

As Principal Investigator:

- | | |
|-----------------|---|
| Contract Title: | Characterizing the Duration of Vaccine-induced Immunity in Nursing Home Residents |
| Funding Agency: | Centers for Disease Control and Prevention, Safety and Healthcare Epidemiology Prevention Research Development (SHEPheRD) Program (200-2016-91773) |
| Dates: | 8/3/2021-8/2/2024 |
| Role: | Principal Investigator (MPI with Stefan Gravenstein and David Canaday) |
| Amount: | \$4,949,868 |
| | |
| Contract Title: | Characterizing the Duration of Vaccine-induced Immunity in Nursing Home Residents, Administrative Supplement CLIN 0001, subCLIN 000101, subCLIN 000102 |
| Funding Agency: | Centers for Disease Control and Prevention, Safety and Healthcare Epidemiology Prevention Research Development (SHEPheRD) Program (200-2016-91773 / 75D30121F00002) |

Dates: 2/24/2022-8/2/2024
 Role: Principal Investigator (MPI with Stefan Gravenstein and David Canaday)
 Amount: \$1,137,679

Grant Title: Improving Organizational Performance in Nursing Homes to Improve Dementia Care: A Pilot Program Evaluation of the AHCA/NCAL National Quality Award Program

Funding Agency: National Institute on Aging, Brown University Program Project Grant Pilot Program

Dates: 6/1/2023-5/30/2024
 Role: Principal Investigator
 Amount: \$63,798

As Co-Investigator:

Grant Title: NIA AD/ADRD Health Care Systems Research Collaboratory: Long Term Care Data Cooperative

Funding Agency: National Institute on Aging (3U54AG063546-02S6 and 04S1)

Dates: 2/1/2021-6/30/2024
 Role: Co-Investigator (PI: Vincent Mor)
 Amount: \$4,168,993

Grant Title: Assessing the Lasting Impact of the Pandemic on U.S. Nursing Homes

Funding Agency: Warren Alpert Foundation

Dates: 12/1/2022-11/30/2025
 Role: Co-Investigator (MPI: Emily Gadbois, David Grabowski, Momotazur Rahman)
 Amount: \$1.3M

Grant Title: Developing the Long Term Care Data Cooperative's Capacity to Monitor Nursing Home Based Infectious Disease Outbreaks

Funding Agency: National Institute on Aging (3U54AG063546-05S1)

Dates: 9/1/2023-6/30/2024
 Role: Co-Investigator (PI: Vincent Mor)
 Amount: \$199,997

Grant Title: The National Dementia Workforce Study

Funding Agency: National Institute on Aging (U54AG084520)

Dates: 9/30/2023-8/31/2028
 Role: Site PI / Co-Investigator / Survey Lead - Survey Development, Data Linkage, and Pilot Study Cores (MPI: Donovan Maust, Joanne Spetz)
 Amount: \$81M

UNDER REVIEW:

Grant Title: Assessing the Effects of Institutional Special Need Plan (I-SNP)

Enrollment on Quality of Long-Term and End-of-Life care for Elderly Individuals with Dementia (R01)

Funding Agency: National Institute on Aging
 Role: Co-Investigator (PI: Momotazur Rahman)
 Status: Scored, response to summary statement under review

Grant Title: Alzheimer's Disease and Related Disorders Treatment and Outcomes in America: Changing Policies and Systems (P01)

Funding Agency: National Institute on Aging
 Role: Co-Investigator, Project 4 and Core B (MPI: Amal Trivedi, Kali Thomas)
 Status: Initial submission under review

Grant Title: Policy-Driven Pathways: How State Shapes Dementia Healthcare Trajectories (R01)

Funding Agency: National Institute on Aging
 Role: Co-Investigator (MPI: Cyrus Kosar, Momotazur Rahman)
 Status: Initial submission under review

PAST SUPPORT:

Grant Title: The Effect of Nursing Work Environments on Alzheimer's Disease Patient Outcomes

Funding Agency: University of Pennsylvania Population Studies Center Trio Pilot Award, supported by the National Institute on Aging (P30 AG-012836-23), the National Institutes of Health, the Eunice Shriver Kennedy National Institute of Child Health and Development Population Research Infrastructure Program (R24HD-044964-13 and 14)

Dates: 07/01/16-06/30/17
 Role: Co-investigator (PI: Matthew McHugh)

Grant Title: Advanced Training in Nursing Outcomes Research

Funding Agency: National Institute of Nursing Research, T32 NR007104
 Dates: 06/01/99-06/30/19
 Role: Predoctoral fellow 9/1/2015-8/31/2018 (PI: Linda Aiken)

Grant Title: National Research Service Award

Funding Agency: Agency for Healthcare Research and Quality, T32 HS000011
 Dates: 09/30/86-06/30/23
 Role: Postdoctoral fellow, 9/1/2018 – 6/30/2019 (PI: Amal Trivedi)

Grant Title: Front-line Nursing Home Staff Experiences During COVID-19: Best Practices and Implications for the Future (GR300199)

Funding Agency: Brown University, Office of the Vice President for Research
 Dates: 5/15/2020-5/15/2021
 Role: Co-Investigator (PI: Rosa Baier)

Amount: \$15,000

Grant Title: Alzheimer's Disease and Related Disorders Treatment and Outcomes in America: Changing Policies and Systems [Administrative Supplement]

Funding Agency: National Institute on Aging (3P01AG027296-11S1)

Dates: 4/7/2020-5/31/2020

Role: Co-Investigator (PI: Vincent Mor)

Amount: \$392,129

Grant Title: Improved Testing for COVID-19 in Skilled Nursing Facilities: IMPACT-C [Administrative Supplement]

Funding Agency: National Institute on Aging (3U54AG063546-02S2)

Dates: 9/30/2020-11/30/2022

Role: Co-Investigator, leading Data Analysis Core (PI: Vincent Mor)

Amount: \$4,777,699

Grant Title: Staffing characteristics and injury-related emergency department use among assisted living residents with Alzheimer's Disease and Related Dementias

Funding Agency: National Institute on Aging (1R03AG073805-01)

Dates: 8/15/2021-4/30/2023

Role: Co-Investigator (PI: Cassandra Hua)

Amount: \$122,296

Grant Title: NIA AD/ADRD Health Care Systems Research Collaboratory: Developing the Long Term Care Data Cooperative's Capacity to Monitor Nursing Home-based Infectious Disease Outbreaks

Funding Agency: National Institute on Aging (3U54AG063546-04S2)

Dates: 9/1/2022-6/30/2023

Role: Co-Investigator (PI: Vincent Mor)

Amount: \$199,523

Grant Title: Evaluating Medicare's New Skilled Nursing Facility Payment System

Funding Agency: Warren Alpert Foundation, (006963)

Dates: 11/1/2019-10/31/2023

Role: Co-Investigator (PI: David Grabowski, Momotazur Rahman)

Amount: \$2,438,659

Grant Title: The Impact of Advanced Practice Clinicians on End of Life Outcomes for Older Adults with Dementia

Funding Agency: National Institute on Aging (R01 AG065312)

Dates: 1/15/2020-12/31/2023

Role: Co-Investigator (PI: Momotazur Rahman)

Amount: \$1,384,052

TEACHING**UNIVERSITY OF PENNSYLVANIA SCHOOL OF NURSING**

- Spring 2007 Clinical lab instructor - Undergraduate clinical skills lab
 Fall 2017 Course faculty - Nursing 646: Primary Care: Diagnosis and Management of Adults Across the Lifespan.
 Fall 2017 Course faculty - Nursing 647: Primary Care Clinical Practicum: Diagnosis and Management of Adults Across the Lifespan
 Spring 2018 Lecturer – Nursing 690: Family Focused Primary Care of the Middle-Aged and Older Adult
 Spring 2021 Guest lecturer – Nursing 535: Comparing Health Care Systems in an Intercultural Context

NYU COLLEGE OF NURSING

- 2014-2015 Clinical preceptor – Adult gerontology primary care nurse practitioner program

COLUMBIA UNIVERSITY SCHOOL OF NURSING

- 2008-2015 Clinical preceptor - Adult gerontology primary care nurse practitioner program

MENTORSHIP**BROWN UNIVERSITY SCHOOL OF PUBLIC HEALTH**

- Project mentor PHP 2450, Cailey Kesselring, MPH student, Fall 2019
 Research Assistantship Advisor, Mykaila Shannon, MPH student, Summer 2020
 Project mentor PHP 2450, Mikaila Singleton, MPH student, Fall 2020
 Research Assistantship Advisor, Alex Pralea, undergraduate student, Summer 2020-present
 Research Assistantship Advisor, Shreya Kamojjala, undergraduate student, Spring 2022-Spring 2023
 Research Assistantship Advisor, Bunmi Osias, MPH student, Spring 2022
 Research Assistantship Advisor, Joyce Sunday, MPH student, Summer 2022 – Summer 2023
 Research Assistantship Advisor, Lucille Xiang, MPH student, Summer 2022 – Spring 2023
 Harkness Fellowship Mentor, Hanne Marie Rostad, PhD, MSN, visiting fellow from Norway, Fall 2022 – Summer 2023
 Research Assistantship Advisor, Joe Silva, PhD student, Fall 2022 – present
 Research Assistantship Advisor, Blythe Gulley, MPH student, Fall 2023 – present

EXTERNAL

- Dissertation committee member, Chrissy Radloff, PhD student, University of Utah College of Nursing, Spring 2023 - present

MEDIA COVERAGE & INTERVIEWS

- Brubaker, H. (2016, Oct 7). Tips for picking a good nursing home. *Philadelphia Inquirer*.
 Rapaport, L. (2018, Apr 27). Fewer dementia patients die after surgery when nurses more

educated. *Reuters*.

Burling, S. (2019, Jul 31). Nurses in nursing homes say they can't finish their work and many feel burned out. *Philadelphia Inquirer*.

Berklan, J.M. (2019, Jul 25). Nursing homes advised to start investing more in RNs. *McKnight's Long-Term Care News*.

Mascarenhas, L. (2020, Oct 19). Many nursing home residents with coronavirus don't show symptoms prior to testing, study shows. *CNN*.

Lasek, A. (2020, Oct 21). Nearly half of nursing home residents with COVID-19 show no symptoms, national study finds. *McKnight's Long-Term Care News*.

Englund, W. (2020, Dec 3). In a relentless pandemic, nursing-home workers are worn down and stressed out. *Washington Post*.

Smith, A, Widera, E, Panagiotou, O. White, EM. & Aliberti, M. (2021, Feb 11). Importance of Function in COVID Prognosis. *GeriPal Podcast* [Podcast]

'Vaccinations Sharply Cut the Spread of the Virus in U.S. Nursing Homes, Study Says' (2021, May 19). *The New York Times*.

Towhey, J.R. (2023, Feb 7). Researchers Identify Weak Links in Nursing Homes' COVID Defense. *McKnight's Long-Term Care News*.

Reed, T. (2023, Feb 7). Data Du Jour: The Difference a Few Hours Can Make. *Axios*.

Maust, D, Davis, M, & White, EM (2023, Sep 25). The Long-Term Care Data Cooperative: Your One Stop Shop for Nursing Home Data. *Minding Memory Podcast* [Podcast].