Kenneth J. Nieser, PhD

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EDUCATION & TRAINING

2023–present	Postdoctoral Fellow, Big Data-Scientist Training Enhancement Program Center for Innovation to Implementation VA Palo Alto Health Care System, Menlo Park, CA
2023–present	Postdoctoral Fellow, Department of Surgery Stanford-Surgery Policy Improvement Research and Education Center Stanford University School of Medicine, Stanford, CA
2018–2023	Ph.D. Epidemiology, Minor in Statistics Department of Population Health Sciences, University of Wisconsin–Madison School of Medicine and Public Health, Madison, WI
2009–2013	B.A. Physics and Mathematics, High Honors Swarthmore College, Swarthmore, PA

RESEARCH & PROFESSIONAL EXPERIENCE

2020–2023	Research Assistant, Department of Population Health Sciences, University of Wisconsin–Madison, Madison, WI. (PI: Amy Cochran)
2019–2020	Project Assistant, Department of Population Health Sciences, University of Wisconsin–Madison, Madison, WI. (PI: Amy Cochran)
2017–2018	Senior Analyst, Healthgrades, Madison, WI
2015–2017	Market Analyst, Healthgrades, Madison, WI
2014–2015	Healthcare Data Analyst for Wisconsin Medicaid, HP Enterprise Services, Madison, WI
2013–2014	Technical Services Analyst, Epic, Verona, WI

AWARDS & HONORS

2020	Rankin/Skatrud Travel Award
2019	Biology and Medicine through Mathematics (BAMM!) Travel Award
2019	Student Research Grants Competition–Conference Presentation Funds
2018–2019	New Graduate Student Fellowship, Department of Population Health Sciences

PEER-REVIEWED JOURNAL ARTICLES

1. **Nieser, K. J.**, Chen, C., Harris, A. H. S., Wagner, T. H., Schmidt, E. M. (in press). Purchasing vs. providing care at the VHA: Quality differences in follow-up after psychiatric hospitalization. *Medical Care*.

2. **Nieser, K. J.**, Tancredi, D. J., Harris, A. H. S. (2025). The unreliability of two publicly reported outcome quality measures for characterizing health care quality within the Veterans Health Administration. *Health Services Research*, Online Version, e70050. https://doi.org/10.1111/1475-6773.70050

3. **Nieser, K. J.**, Ortiz-Torres, B. S., Cochran, A. L., Zayas-Cabán, G. (2025). REMLA: An R package for robust expectation-maximization estimation for latent variable models. *SoftwareX*, *30*, 102112. https://doi.org/10.1016/j.softx.2025.102112

4. **Nieser, K. J.**, Harris, A. H. S., Binswanger, I. A., Clark, S. C., Finlay, A. K. (2025). Legal-involved veterans are less likely to receive guideline-concordant colorectal cancer screening. *BMC Health Services Research*, *25*(1), 333. https://doi.org/10.1186/s12913-025-12490-6

5. Harris, A. H. S., Davis-Lopez, K., Schmidt, E., **Nieser, K.**, Massarweh, N. N. (2025). Landscape of consensus-based entity-endorsed perioperative quality measures. *Annals of Surgery Open, 6*(1), e559. https://doi.org/10.1097/AS9.0000000000000559

6. **Nieser, K. J.**, Harris, A. H. S. (2024). Comparing methods for assessing the reliability of health care quality measures. *Statistics in Medicine, 43*(23), 4575-4594. https://doi.org/10.1002/sim.10197

7. Harris, A. H. S., Eddington, H., Shah, V., Shwartz, M., Gurewich, D., Rosen, A., Quinteros, B., Wilcher, B., **Nieser, K. J.**, Jones, G., Wu, J., Morris, A. M. (2024). Statistical methods to examine racial and ethnic disparities in the surgical literature: A review and recommendations for improvement. *Annals of Surgery, 280*(6), 960-965. https://doi.org/10.1097/SLA.0000000000006440

8. Harris, A. H. S., Liu, P., Breland, J. Y., **Nieser, K. J.**, Schmidt, E. M. (2024). Differences across race and ethnicity in the quality of antidepressant medication management. *Health Services Research, 59*(5), e14347. https://doi.org/10.1111/1475-6773.14347

9. Pingeton, B. C., **Nieser, K. J.**, Cochran, A., Goodman, S. H., Laurent, H., Sbrilli, M. D., Knight, B., Newport, D. J., Stowe, Z. N. (2024). Childhood maltreatment exposure is differentially associated with transdiagnostic perinatal depression symptoms. *Journal of Affective Disorders, 358*, 183-191. https://doi.org/10.1016/j.jad.2024.05.021

10. **Nieser, K. J.**, Harris, A. H. S. (2024). Split-sample reliability estimation in health care quality measurement: Once is not enough. *Health Services Research, 59*(4), e14310. https://doi.org/10.1111/1475-6773.14310

11. **Nieser, K. J.**, Cochran, A. L. (2023). Quantifying and reducing inequity in average treatment effect estimation. *BMC Medical Research Methodology*, *23*(297). https://doi.org/10.1186/s12874-

023-02104-2

12. Green, R. K., **Nieser, K. J.**, Jacobsohn, G. C., Cochran, A. L., Caprio, T. V., Cushman, J. T., Kind, A. J., Lohmeier, M., Shah, M. N. (2023). Differential effects of an emergency department-to-home care transitions intervention in an older adult population: A latent class analysis. *Medical Care, 61*(6), 400-408. https://doi.org/10.1097/MLR.0000000000001848

13. **Nieser, K. J.**, Stowe, Z. N., Newport, J., Coker J. L., Cochran, A. L. (2023). Detection of differential depressive symptom patterns in a cohort of perinatal women: An exploratory factor analysis using a robust statistics approach. *eClinicalMedicine*, 57, 101830. https://doi.org/10.1016/j.eclinm.2023.101830

14. **Nieser, K. J.**, & Cochran, A. L. (2023). Addressing heterogeneous populations in latent variable settings through robust estimation. *Psychological Methods, 28*(1), 39-60. https://doi.org/10.1037/met0000413

15. Cochran, A. L., **Nieser, K. J.**, Forger, D. B., Zöllner, S., & McInnis, M. G. (2020). Gene-set enrichment with mathematical biology (GEMB). *GigaScience, 9*(10), giaa091. https://doi.org/10.1093/gigascience/giaa091

16. Collings, P. J., Goldstein, J. N., Hamilton, E. J., Mercado, B. R., **Nieser, K. J.**, & Regan, M. H. (2015). The nature of the assembly process in chromonic liquid crystals. *Liquid Crystals Reviews, 3*(1), 1-27. https://doi.org/10.1080/21680396.2015.1025305

17. Mercado, B. R., **Nieser, K. J.**, & Collings, P. J. (2014). Cooperativity of the assembly process in a low concentration chromonic liquid crystal. *The Journal of Physical Chemistry. B, 118*(46), 13312–13320. https://doi.org/10.1021/jp510025j

SUBMITTED TO PEER-REVIEWED JOURNALS

18. Harris, A. H. S., Navarro, M., Burduli, E., **Nieser, K. J.** Estimating the Reliability of Measures of Organizational Characteristics: Conceptual and Methodological Recommendations.

SOFTWARE PACKAGES

1. QualityMeasure: an R package to assist with analysis of health care quality measures; especially reliability calculations. https://github.com/knieser/quality_measure_reliability

2. REMLA: Robust Expectation-Maximization Estimation for Latent Variable Models. https://CRAN.R-project.org/package=REMLA

PRESENTATIONS AT SCIENTIFIC MEETINGS

1. Sox-Harris, A., **Nieser, K.** (Sep. 23, 2025). Evaluating the Reliability of Measures of Organizational Characteristics: Issues and Recommendations. C-DIAS PSMG Virtual Grand Rounds.

2. **Nieser, K.** (Sep. 22, 2025). Statistical challenges in health care provider profiling. Stanford-Surgery Policy Improvement and Education Center, Department of Surgery, Stanford University School of Medicine.

3. **Nieser, K.** (Sep. 16, 2025). Do some VA facilities deliver a higher quality of care than others? Center for Innovation to Implementation, VA Palo Alto Health Care System.

4. **Nieser, K.**, Sox-Harris, A. (Jun. 7–10, 2025). The Unreliability of Two Publicly Reported CMS Outcome Measures When Applied to Veterans Health Administration Facilities. 2025 Academy Health Annual Research Meeting in Minneapolis, MN.

5. **Nieser, K.** (Apr. 28, 2025). Colorectal cancer screening among legal-involved Veterans. Veterans Justice Programs National Training Call Series. Veterans Health Administration.

6. Harris, A.H., Davis-Lopez, K., **Nieser, K.**, Massarweh, N. (Oct. 19–22, 2024). Surveying the Landscape of Consensus-Based Entity-endorsed Surgery-related Quality Measures. Annual Clinical Congress of the American College of Surgeons in San Francisco, CA.

7. Schmidt, E. M., Chen, C., **Nieser, K.**, Wagner, T. H., Harris, A.H.S. (Jun. 29–Jul. 2, 2024). Differences in Follow up after Psychiatric Hospitalizations for VA Purchased Versus VA Provided Care. 2024 Academy Health Annual Research Meeting in Baltimore, MD.

8. **Nieser, K.** (Jun. 25, 2024). Quality measure reliability estimates can depend on the method and the population. Veterans Health Administration, Office of Performance Measurement.

9. **Nieser, K.** (Sep. 25, 2023). Improving health care equity requires reliable quality measurement. Stanford-Surgery Policy Improvement and Education Center, Department of Surgery, Stanford University School of Medicine.

10. Hansmann, K., Jenkins, M., **Nieser, K.**, Svenson, E., Walts, Z. (Apr. 25, 2022). PHS Antiracism Initiative: Research Methods Toolkit. Population Health Sciences Monday Seminar, University of Wisconsin–Madison. *All presenters contributed equally.

11. **Nieser, K.** (Apr. 9, 2021). Optimizing for whom? The role of robustness in equitable algorithms. Machine Learning Day, Arizona State University.

12. **Nieser, K.** (Feb. 3, 2021). Detecting Inequity in the Analysis of Mental Health. Data Science Research Bazaar: Data Science for the Social Good, University of Wisconsin–Madison [lightning talk].

13. **Nieser, K.**, Collings, P. (Mar. 18–22, 2013). Kinetics of Assembly and Dis-assembly of Structures Forming a Chromonic Liquid Crystal at Low Concentrations. American Physical Society March Meeting in Baltimore, MD.

POSTERS AT SCIENTIFIC MEETINGS

1. **Nieser, K.**, Sox-Harris, A., Binswanger, I., Clark, S., Finlay, A. (Jun. 7–10, 2025). Disparities in Colorectal Cancer Screening Rates by Legal-Involved Status: An Analysis of Patients of

the Veterans Health Administration. 2025 Academy Health Annual Research Meeting in Minneapolis, MN.

2. **Nieser, K.,** Schmidt, E., Harris, A. (Jun. 29–Jul. 2, 2024). Health Care Quality Measure Reliability Estimates Can Hinge on the Method. 2024 Academy Health Annual Research Meeting in Baltimore, MD.

3. Harris, A., Eddington, H., Shah, V., Shwartz, M., Gurewich, D., Rosen, A., Quinteros, B., Wilcher, B., **Nieser, K.,** Jones, G., Wu, J., Morris, A. (Jun. 29–Jul. 2, 2024). Statistical Methods to Examine Racial and Ethnic Disparities in the Surgical Literature: A Review and Recommendations for Improvement. 2024 Academy Health Annual Research Meeting in Baltimore, MD.

4. Harris, A., Eddington, H., Shah, V., Shwartz, M., Gurewich, D., Rosen, A., Quinteros, B., Wilcher, B., **Nieser, K.,** Jones, G., Wu, J., Morris, A. (Nov. 13, 2023). Statistical Methods to Examine Racial and Ethnic Disparities in the Surgical Literature: A Review and Recommendations for Improvement. ISPOR Europe 2023 in Copenhagen, Denmark.

5. **Nieser, K.,** Cochran, A. (Jun. 14–17, 2022). Average Treatment Effects in Synthetic Samples with More Equitable Representation. Society for Epidemiologic Research Annual Meeting in Chicago, IL.

6. **Nieser, K.** (Dec. 15–18, 2020). Bias Analysis of Depression Rate Comparisons between Racial/Ethnic Groups. Society for Epidemiologic Research Annual Meeting [online].

7. **Nieser, K.,** Stowe, Z., Cochran, A. (Mar. 9, 2020). Addressing Heterogeneity in Mental Illnesses through Robust Estimation. Department of Population Health Sciences Annual Poster Session, University of Wisconsin–Madison.

8. **Nieser, K.,** Stowe, Z., Cochran, A. (May 17–19, 2019). Robust estimation for factor loadings with application to postpartum depression. Biology and Medicine through Mathematics (BAMM!) in Richmond, VA.

RESEARCH FUNDING

10/2025–09/2026   VA Office of Health Equity, Telehealth Research & Innovation for Veterans with Cancer (THRIVE) Scholars Program
Role: PI
Title: Utilization and impacts of telehealth among Veterans with positive fecal immunochemical tests.
Budget: $25,000

10/2025-09/2026   Center for Innovation to Implementation, VA Palo Alto Health Care System
Locally Initiated Project #: LIP 26-KN-1
Role: PI

Title: Comparing risk-standardization methods used for facility outlier identification in health care quality measurement
Budget: $23,813

TEACHING

Teaching Associate, Swarthmore College

Spring 2013	General Physics II
Spring 2012	General Physics II with Biomedical Applications
Fall 2011	General Physics I
Fall 2011–12	Spacetime, Quanta & Cosmology

Tutor, Swarthmore College

Spring 2013	General Physics II
Spring 2012	General Physics II with Biomedical Applications
Fall 2011–12	General Physics I

MENTORING

Stanford Science Small Groups: Mentored groups of 3-5 local community college students to each explore a scientific question of interest (10 weeks in Fall 2024 and in Spring 2025).

SERVICE

Manuscript review
Journal of General Internal Medicine (2025)
BMC Medical Informatics and Decision Making (2024)
Journal of Medical Internet Research (2022)

Grant review
University of Wisconsin Institute for Clinical and Translational Research (2023)

Conference abstract review
Society for Epidemiologic Research Annual Meeting (2022)