



Kenneth Nieser

Postdoctoral Scholar, General Surgery

Bio

BIO

Ken Nieser is a postdoctoral research fellow through the Big Data-Scientist Training Enhancement Program (BD-STEP) at the Palo Alto VA and in the Department of Surgery, Stanford School of Medicine. Ken received a BA in Physics and Mathematics from Swarthmore College and a PhD in Epidemiology with a minor in Statistics from the University of Wisconsin-Madison. During his PhD, Ken developed and applied statistical methods for improving algorithmic fairness of data analyses used to inform screening and treatment of mental illnesses. These projects included development of an approach for detecting sample subsets with differential psychological symptom patterns and a sample representation reweighting method for improving the precision of subgroup-specific treatment effect estimation.

Ken's current research interests are in health care inequities, quality measurement, and algorithmic fairness. During his fellowship, Ken will be working on investigating the statistical reliability of quality measures and decomposing health care disparities to provide practical information for resolving inequities, with applications in mental health care and surgical care.

STANFORD ADVISORS

- Alex Sox-Harris, Postdoctoral Faculty Sponsor

LINKS

- Personal website: <https://knieser.github.io/>

Publications

PUBLICATIONS

- **Comparing methods for assessing the reliability of health care quality measures.** *Statistics in medicine*
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2024
- **Split-sample reliability estimation in health care quality measurement: Once is not enough.** *Health services research*
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- **Quantifying and reducing inequity in average treatment effect estimation.** *BMC medical research methodology*
Nieser, K. J., Cochran, A. L.
2023; 23 (1): 297
- **Detection of differential depressive symptom patterns in a cohort of perinatal women: an exploratory factor analysis using a robust statistics approach.** *EClinicalMedicine*
Nieser, K. J., Stowe, Z. N., Newport, D. J., Coker, J. L., Cochran, A. L.

2023; 57: 101830

- **Addressing heterogeneous populations in latent variable settings through robust estimation.** *Psychological methods*
Nieser, K. J., Cochran, A. L.
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- **Statistical Methods to Examine Racial and Ethnic Disparities in the Surgical Literature: A Review and Recommendations for Improvement.** *Annals of surgery*
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- **Differences across race and ethnicity in the quality of antidepressant medication management.** *Health services research*
Harris, A. H., Liu, P., Breland, J. Y., Nieser, K. J., Schmidt, E. M.
2024
- **Childhood maltreatment exposure is differentially associated with Transdiagnostic perinatal depression symptoms.** *Journal of affective disorders*
Pington, B. C., Nieser, K. J., Cochran, A., Goodman, S. H., Laurent, H., Sbrilli, M. D., Knight, B., Newport, D. J., Stowe, Z. N.
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- **Differential Effects of an Emergency Department-to-Home Care Transitions Intervention in an Older Adult Population: A Latent Class Analysis.** *Medical care*
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2023; 61 (6): 400-408
- **Gene-set Enrichment with Mathematical Biology (GEMB).** *GigaScience*
Cochran, A. L., Nieser, K. J., Forger, D. B., Zöllner, S., McInnis, M. G.
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