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Education

2011	**Ph.D. Statistics**, Harvard University, Cambridge, MA.
Advisors	Prof. Donald B. Rubin & Prof. Jun S. Liu
Ph.D. Thesis	*Topics and Applications in Missing Data and Causality*
2007	**AM Statistics**, Harvard University, Cambridge, MA.
2004	**M.Sc. Statistics**, *summa cum laude*, Tel Aviv University, Faculty of Exact Sciences, School of Mathematics, Tel Aviv, Israel.
Thesis Advisor	Yosef Hochberg
Masters Thesis	*Improved Multiple Test Procedures for Discrete Distributions: New Ideas and Analytical Review.*
1999	**B.Sc.**, *magna cum laude*, Tel Aviv University, Faculty of Exact Sciences, School of Mathematics, Tel Aviv, Israel.
Major	Statistics and Computer Science (including Operations Research)

Experience

Academic Appointments

2018–Current	**Associate Professor of Biostatistics (Tenured)**, Brown University, Department of Biostatistics.
2011–2018	**Assistant Professor of Biostatistics (Tenure Track)**, Brown University, Department of Biostatistics.
2007–2011	**Research Assistant**, Harvard University, Department of Statistics.

Industry

1999–2006	**Officer (Captain)**, Technological Intelligence Unit, Israel Defense Forces. Last position was head of section, managed seven programmers.
1998–1999	**Head of computer lab**, School of Social Work, Tel Aviv University.

Publications (students marked with *)

Statistical Methodology

[1] *Review and Evaluation of Imputation Methods for Multivariate Longitudinal data with Mixed-type Incomplete Variables*, *Y. Cao, H. Allore, B. Vander Wyk, **R. Gutman**, *Statistics in Medicine*, (Accepted 2022)

[2] *A Bayesian Singular Value Decomposition Procedure for Missing Data Imputation*, *R. Zhai, **R. Gutman**, *Journal of Computational and Graphical Statistics*, (Accepted 2022)

[3] *Reformulating provider profiling by grouping providers treating similar patients prior to evaluating performance*, *G.C. Silva, **R. Gutman**, *Biostatistics*, (Accepted 2022).

[4] *A Bayesian MultiLayer Record Linkage Procedure to Analyze Post-Acute Care Recovery of Patients with Traumatic Brain Injury*, *M. Shan, K.S. Thomas, **R. Gutman**, *Biostatistics*, (Accepted 2022).

[5] *Multiple imputation procedures for estimating causal effects with multiple treatments with application to the comparison of healthcare providers*, *G.C. Silva, **R. Gutman**, *Statistics in medicine*, 41 (1), 208-226, 2022.

[6] *Bayesian Approaches for Handling Hypothetical Estimands in Longitudinal Clinical Trials with Gaussian Outcomes*, L.G. Frank, J. Liu, F. Chen, **R. Gutman**, K. Lu, *Statistics in Biopharmaceutical Research*, (Accepted 2021).

[7] *Using the potential outcome framework to estimate optimal sample size for cluster randomized trials: a simulation-based algorithm*, *R. Zhai, **R. Gutman**, *Journal of Statistical Computation and Simulation*, 91 (18), 3744-3770, 2021.

[8] *A Multiple Imputation Procedure for Record Linkage and Causal Inference to Estimate the Effects of Home-Delivered Meals*, *M. Shan, K.S. Thomas, **R. Gutman**, *Annals of Applied Statistics*, 15 (1), 412-436, 2021.

[9] *Statistical Considerations for Embedded Pragmatic Clinical Trials in People Living with Dementia*, H. G. Allore, K. S. Goldfeld, **R. Gutman**, F. Li, J. K. Monin, M. Taljaard, T. G. Travison, *Journal of the American Geriatrics Society*, 68, S68-S73, 2020.

[10] *Approximate Bayesian Bootstrap procedures to estimate multilevel treatment effects in observational studies with application to type 2 diabetes treatment regimens*, *A. Scotina, **R. Gutman**, *Statistical Methods in Medical Research*, 29 (11), 3362-3380, 2020.

[11] *Propensity scores for proxy reports of care experience and quality: are they useful?*, *J.K. Roydhouse, **R. Gutman**, N. Keating, V. Mor, I. Wilson, *Health Services and Outcomes Research Methods*, 20 (1), 40-59, 2020.

[12] *Developing and Evaluating Methods for Estimating Race/Ethnicity in an Incomplete Dataset using Address, Surname and Family ID*, *G.C. Silva, A.N. Trivedi **R. Gutman**, *Health Services and Outcomes Research Methodology*, 19(2-3), 175-195, 2019.

[13] *Matching Estimators for Causal effects With Multiple Treatments*, *A. Scotina, F. Beaudoin, **R. Gutman**, *Statistical Methods in Medical Research*, 29(4), 1051-1066, 2020.

[14] *Matching Algorithms for Causal Inference with Multiple Treatments*, *A. Scotina, **R. Gutman**, *Statistics in Medicine*, 38(17), 3139-3167, 2019.

[15] *Development of a Common Patient Assessment Scale Across the Continuum of Care: a Nested Multiple Imputation Approach*, *C. Gu, **R. Gutman**, *Annals of Applied Statistics*, 13(1), 466-491, 2019.

[16] *A Bayesian procedure for estimating the causal effects of nursing home bed-hold policy*, **R. Gutman**, O. Intrator, A. Lancaster, *Biostatistics*, 19(4):444–460, 2018.

[17] *Estimation of Causal Effects with Multiple Treatments: A Review and New Ideas*, *M.J. Lopez, **R. Gutman**, *Statistical Science* 32(3): 432-454, 2017.

[18] *Combining Item Response Theory with Multiple Imputation to Equate Health Assessment Questionnaires*, *C. Gu, **R. Gutman**, *Biometrics*, 73(3):990-998, 2017.

[19] *Error Adjustments for File Linking Methods Using Encrypted Unique Client Identifier (eUCI) with Application to Recently Released HIV+ Prisoners*, **R. Gutman**, C.J. Sammartino, T.C. Green, B.T. Montague, *Statistics in Medicine*, 35(1), 115-129, 2016.

[20] *Estimation of Causal Effects of Binary Treatments in Unconfounded Studies*, **R. Gutman**, D.B. Rubin, *Statistics in Medicine*, 34(26), 3381-3398, 2015.

[21] *Estimation of causal effects of binary treatments in unconfounded studies with one continuous covariate.*, **R. Gutman**, D.B. Rubin, *Statistical Methods in Medical Research*, 26(3), 1199-1215, 2017.

[22] *Estimating the Average Treatment Effects of Nutritional Label Use Using Subclassification with Regression Adjustment*, *M.J. Lopez, **R. Gutman**, *Statistical Methods in Medical Research*, 26(2), 839-864, 2017.

[23] *Monitoring methods in the surgical arena : Assumptions and potential pitfalls*, **R. Gutman**, H. Gutman, *European Journal of Surgical Oncology*, 39(6), 575–583, 2013.

[24] *A Bayesian Procedure for File Linking to Analyze End-of-Life Medical Costs*, **R. Gutman**, C. Afendulis, A.M. Zaslavsky, *Journal of the American Statistical Association*, 108(501),34–47, 2013.

[25] *Robust Estimation of Causal Effects of Binary Treatments in Unconfounded Studies with Dichotomous Outcomes*, **R. Gutman**, D.B. Rubin, *Statistics in Medicine*, 32(11), 1795–814, 2013.

[26] *Discussion of Bayesian Effect Estimation Accounting for Adjustment Uncertainty*, **R. Gutman**, D.B. Rubin, *Biometrics*, 68, 671–675, 2012.

[27] *Rasch Model and its Extensions for Analysis of Aphasic Deficits in Syntactic Comprehension*, **R. Gutman**, G. DeDe, D. Caplan, J.S. Liu, *Journal of the American Statistical Association*, 106:496, 1304–1316, 2011.

[28] *Testing treatment effects in unconfounded studies under model misspecification: logistic regression, discretization, and their combination.*, M.Z. Cangul, Y.R. Chretien, **R. Gutman**, D.B. Rubin, *Statistics in Medicine*, 28(20):2531-51, 2009.

[29] *Improved Multiple Test Procedures for Discrete Distributions: New Ideas and Analytical Review.*, **R. Gutman**, Y. Hochberg, *Journal of Statistical Planning and Inference*, Volume 137:2380-2393, 2007.

Clinical Trials

[30] *Assessment of patient perception of treatment assignment and patient-reported outcomes in a cannabis use disorder trial*, J. Roydhouse, R.L. Tomko, K.M. Gray, **R. Gutman**, *American Journal of Drug and Alcohol Abuse*, (Accepted 2022)

[31] *Home-delivered meals for people with dementia: Which model delays nursing home placement? - Protocol for a feasibility pilot*, K.S. Thomas, D.M. Dosa, A Fisher, E. Gadbois, J Harrison, M. Hilgeman, E.A. Largent, J. Lima, K. McAuliff, E. McCreedy, W. Mills, K.A. Ornstein, R.R. Shield, M. Barron, S. Callaghan, K. Clark, C. Culak, V. Faris, A.E. Frankhauser, S. Huerta, K. Krause, I. Martinez, A. Mayer, J. Rodrriguez, L. Theilheimer, W. Truelove, I Wilson, **R. Gutman**, *Contemporary Clinical Trials*, (Accepted 2022)

[32] *Pragmatic Trial of Personalized Music for Agitation and Antipsychotic Use in Nursing Home Residents with Dementia*, E.M. McCreedy, *A. Sisti, **R. Gutman**, L. Dionne, J. Rudolph, R. Baier, K. Thomas, M. Olson, E. Zediker, R. Uth, R.R. Shield, V. Mor, *JAMDA*, (Accepted 2022).

[33] *Effect of advance care planning video on do-not-hospitalize orders for nursing home residents with advanced illness*, E.M. McCreedy, X. Yang, S.L. Mitchell, **R. Gutman**, J. Teno, L. Loomer, P. Moyo, A. Volandes, P.L. Gozalo, E. Belanger, J. Ogarek, *BMC geriatrics*, 22(1), 1-8 , 2022.

[34] *Effect of advance care planning video on do-not-hospitalize orders for nursing home residents with advanced illness*, E.M. McCreedy, X. Yang, S.L. Mitchell , **R. Gutman**, J. Teno, L. Loomer, P. Moyo, A. Volandes, P.L. Gozalo, E. Belanger, J. Ogarek, V. Mor, *BMC Geriatrics*, 22, Article number: 298, 2022.

[35] *Measuring implementation fidelity in a cluster-randomized pragmatic trial: development and use of a quantitative multi-component approach*, M.B. Olson, E.M. McCreedy, R.R. Baier, R.R. Shield, E.E. Zediker, R. Uth, K.S. Thomas, V. Mor, **R. Gutman**, J.L. Rudolph, *Trials*, 1, 1-12, 2022.

[36] *Effect of a Video-Assisted Advance Care Planning Intervention on End-of-Life Health Care Transitions Among Long-Stay Nursing Home Residents*, P. Moyo, L. Loomer, J.M. Teno, **R. Gutman**, E.M. McCreedy, E. Bélanger, A.E. Volandes, S.L. Mitchell, V. Mor, *Journal of the American Medical Directors Association*, 23 (3), 394-398, 2022.

[37] *Measuring the effects of a personalized music intervention on agitated behaviors among nursing home residents with dementia: design features for cluster-randomized adaptive trial*, E.M. McCreedy, **R. Gutman**, R. Baier, J.L. Rudolph, K.S. Thomas, F. Dvorchak, R. Uth, J. Ogarek, V. Mor, *Trials*, 22 (1), 1-12, 2021.

[38] *Does Knowledge of Treatment Assignment Affect Patient Report Of Symptoms, Function, and Health Status? An Evaluation Using Multiple Myeloma Trials*, J.K. Roydhouse, P.S. Mishra-Kalyani, V Bhatnagar, **R. Gutman**, B.L. King-Kallimanis, R. Sridhara, P.G. Kluetz, *Value in Health*, 24 (6), 822-829, 2021.

[39] *Impact of an Advance Care Planning Video Intervention on Care of Short-Stay Nursing Home Patients*, L. Loomer, J.A. Ogarek, S.L. Mitchell, A.E. Volandes, **R. Gutman**, P.L. Gozalo, E.M. McCreedy, V. Mor, *Journal of the American Geriatrics Society*, 69 (3), 735-743, 2021.

[40] *Mindfulness-Based College: A Stage 1 Randomized Controlled Trial for University Student Well-Being* E. B. Loucks, W. R. Nardi, **R. Gutman**, F. B. Saadeh, Y. Li, D. R. Vago, L. B. Fiske, J. J. Spas, A. Harrison, *Psychosomatic Medicine*, 83 (6), 602-614, 2021.

[41] *Advance Care Planning Video Intervention Among Long-Stay Nursing Home Residents: A Pragmatic Cluster Randomized Clinical Trial* S. L. Mitchell, A. E. Volandes, **R. Gutman**, P. L. Gozalo, J. A. Ogarek , L. Loomer, E. M. McCreedy, *R. Zhai, V. Mor, *JAMA Internal Medicine*, 180 (8), 1070-1078, 2020.

[42] *Mindfulness-Based Blood Pressure Reduction (MB-BP): Stage 1 single-arm clinical trial*, E.B. Loucks, W.R. Nardi, **R. Gutman**, I.M. Kronish, F.B. Saadeh, Y. Li, A.E. Wentz, J. Webb, D.R. Vago, A. Harrison, W.B. Britton, *PloS One*, 14(11): e0223095, 2019.

[43] *Analyzing patient-reported outcome data when completion differs between arms in open-label trials: an application of principal stratification*, J.K. Roydhouse, **R. Gutman**, V. Bhatnagar, P. G. Kluetz, R. Sridhara, P. S. Mishra-Kalyani, *Pharmacoepidemiology and Drug Safety*, 28 (10), 1386-1394, 2019.

[44] *PRagmatic trial Of Video Education in Nursing Homes (PROVEN): A Model for Pragmatic Cluster Randomized Trials in the Nursing Home Setting*, V. Mor, A. Volandes, **R. Gutman**, C. Gatsonis, S. Mitchell, *Clinical Trials* 14(2): 140-151, 2017.

Health Policy, Epidemiology and Medical Science

[45] *The Potential Impact of Proxy Reports for Patient Care Quality, Experience and Symptom Management in Advanced Cancer*, J. Roydhouse, **R. Gutman**, J.M. Teno, *Palliative & Supportive Care*, (Accepted 2023)

[46] *Predicting progression from gestational diabetes to impaired glucose tolerance using peri-delivery data: an observational study*, A.M. Bengtson, A.L. Espinosa Dice, M.A. Clark, **R. Gutman**, D. Rouse, E. Werner, *American Journal of Perinatology*, (Accepted 2022).

[47] *Adverse Events Following Third Dose of mRNA COVID-19 Vaccination among Nursing Home Residents Who Received the Primary Series*, B.H. Bardenheier, E.M. White, C. Blackman, S. Gravenstein, **R. Gutman**, I.N. Sarkar, R.A. Feifer, K. McConeghy, A. Nanda, M. Duprey, V. Mor, *Journal of the American Geriatrics Society*, (Accepted 2022).

[48] *Effects of dipeptidyl peptidase-4 inhibitors and sulphonylureas on cognitive and physical function in nursing home residents*, A.R. Zullo, M.S. Duprey, R.J. Smith, **R. Gutman**, S.D. Berry, M.N. Munshi, D.D. Dore, *Diabetes, Obesity and Metabolism*, 24 (2), 247-256, 2022.

[49] *Risk Factors of Skilled Nursing Facility Admissions and the Interrelation with Hospitalization and Amount of Informal Caregiving Received*, *Y. Cao, H. Allore, **R. Gutman**, B. Vander Wyk, T. S. Høj Jørgensen, *Medical Care*, 60 (4), 294-301, 2022.

[50] *Health Outcomes Associated With Clinician-initiated Delivery for Hypertensive Disorders at 34–38 Weeks' Gestation*, D.A. Savitz, V.A. Danilack, *J. Cochancela, B.L. Hughes, D.J. Rouse, **R. Gutman**, *Epidemiology*, 33 (2), 260-268, 2022.

[51] *Functional motor improvement during inpatient rehabilitation among older adults with Traumatic Brain Injury*, E. Evans, C. Krebill, **R. Gutman**, L. Resnik, M.R. Zonfrillo, S.N. Lueckel, W. Zhang, R.G. Kumar, K. Dams-OĆonnor, K.S. Thomas, *PM&R*, 14 (4), 417-427, 2022.

[52] *Adverse events following mRNA SARS-CoV-2 vaccination among US nursing home residents*, B.H. Bardenheier, S. Gravenstein, C. Blackman, **R. Gutman**, I.N. Sarkar, R.A. Feifer, E.M. White, K. McConeghy, A. Nanda, V. Mor, *Vaccine*, 39(29):3844-3851, 2021.

[53] *Association of patient-reported physician awareness of complementary medicine, medical care experience and care quality*, J.K. Roydhouse, I.B. Wilson, **R. Gutman**, R.B. Wallace, T. Berman, N.L. Keating, *Journal of Patient Experience*, Volume 8, 2021.

[54] *Racial/Ethnic Differences in 30-Day Mortality for Heart Failure and Pneumonia in the Veterans Health Administration Using Claims-based, Clinical, and Social Risk-adjustment Variables*, *G.C. Silva, L. Jiang, **R. Gutman**, W.C Wu, V. Mor, M.J. Fine, N.R. Kressin, A.N. Trivedi, *Medical Care*, 59 (12), 1082-1089, 2021.

[55] *Adverse events following one dose of mRNA COVID-19 vaccination among US nursing home residents with and without a previous SARS-CoV-2 infection*, B.H. Bardenheier, S. Gravenstein, C. Blackman, **R. Gutman**, I.N. Sarkar, R.A. Feifer, E.M. White, K. McConeghy, A. Nanda, E. Bosco, V. Mor, *Journal of the American Medical Directors Association*, 22 (11), 2228-2232, 2021.

[56] *Comparative safety of dipeptidyl peptidase-4 inhibitors and sulfonylureas among frail older adults*, A.R Zullo, R.J. Smith, **R. Gutman**, B. Kohler, M.S. Duprey, S.D. Berry, M.N. Munshi, D.D. Dore, *Journal of the American Geriatrics Society*, 69 (10), 2923-2930, 2021.

[57] *Short-term impact of nursing home SARS-CoV-2 vaccinations on new infections, hospitalizations, and deaths*, V. Mor, **R. Gutman**, X. Yang, E.M. White, K.W. McConeghy, R.A. Feifer, C.R. Blackman, C.M. Kosar, B.H. Bardenheier , S.A. Gravenstein, *Journal of the American Geriatrics Society*, 69 (8), 2063–2069, 2021.

[58] *Association of Inclusion of Medicare Advantage Patients in Hospitals' Risk-Standardized Readmission Rates, Performance, and Penalty Status*, O.A. Panagiotou, K.R. Voorhies, L.M. Keohane, D. Adhikari, A. Kumar, M. Rivera-Hernandez, M. Rahman, P. Gozalo, **R. Gutman**, V. Mor, A.N. Trivedi, *JAMA network open*, 4 (2), e2037320-e2037320, 2021.

[59] *Successful Community Discharge Among Older Adults with Traumatic Brain Injury in Skilled Nursing Facilities*, E. Evans, **R. Gutman**, L. Resnik, M. Zonfrillo, S. Lueckel, R.G. Kumar, F. DeVone, K. Dams-O'connor, K.S. Thomas, *Journal of Head Trauma Rehabilitation*, 36 (3), E186-E198, 2021.

[60] *Evaluation of Changes in Veterans Affairs Medical Centers' Mortality Rates After Risk Adjustment for Socioeconomic Status*, A.N. Trivedi, L. Jiang, *G.C. Silva, W. Wu, V. Mor, M.J. Fine, N.R. Kressin, **R. Gutman**, *JAMA Network Open*, 3 (12), e2024345-e2024345, 2020.

[61] *Patient and proxy reports regarding the experience of treatment decision-making in cancer care*, J.K. Roydhouse, **R. Gutman**, I.B. Wilson, K.L. Kehl, N.L. Keating, *Psycho-Oncology*, 29 (11), 1943-1950, 2020.

[62] *Mortality trends for veterans hospitalized with heart failure and pneumonia using claims-based vs clinical risk-adjustment variables*, *G.C. Silva, L. Jiang, **R. Gutman**, W. Wu, V. Mor, M.J. Fine, N.R. Kressin, A.N. Trivedi, *JAMA Internal Medicine*, 180 (3), 347-355, 2020.

[63] *The association of provider and practice factors with HIV ART adherence*, D.J. Meyers, M.B. Cole, M. Rahman, Y. Lee, W. Rogers, **R. Gutman**, I.B. Wilson, *Aids*, 33 (13), 2081-2089, 2019.

[64] *Is Medical Foster Home Less Costly than Traditional Nursing Home Care?*, C. Levy, E.A. Whitfield, **R. Gutman**, *Health Services Research*, 19(2-3), 175-195, 2019.

[65] *Hospital Readmission Rates in Medicare Advantage and Traditional Medicare: A Retrospective Population-Based Analysis*, O.A. Panagiotou, A. Kumar, **R. Gutman**, L.M. Keohane, M. Rivera-Hernandez, M. Rahman, P.L. Gozalo, V. Mor, A.N. Trivedi, *Annals of Internal Medicine*, 171(2), 99-106, 2019.

[66] *Delayed Childbearing as a Growing Previously Unrecognized Contributor to the National Plural Birth Excess*, E. Adashi, **R. Gutman**, *Obstetrics and Gynecology*, 132(4):999-1006, 2018.

[67] *A New Data Resource to Examine Meals on Wheels Clients' Healthcare Utilization and Costs*, M. Shan*, **R. Gutman**, D. Dosa, P. L. Gozalo, J.A. Ogarek, S. Kler, K. S. Thomas, *Medical Care*, 57(3):e15-e21, 2019.

[68] *The Impact of Medicaid Managed Care Plan Type on Continuous Medicaid Enrollment: A Natural Experiment*, S.H. Gordon, Y. Lee, C. D. Ndumele, P.M. Vivier, **R. Gutman**, S. Swaminathan, E.A. Gadbois, R.R. Shield, A.J.H. Kind, and A.N. Trivedi, *Health services research*, 53(5):3770-3789, 2018

[69] *Impact Of Risk Adjustment For Socioeconomic Status On Medicare Advantage Plan Quality Rankings*, S.N.M. Durfey, A.J.H Kind, **R. Gutman**, K. Monteiro, W. R. Buckingham, E.H. DuGoff, A.N. Trivedi, *Health Affairs*, 37(7):1065-1072, 2018

[70] *The association of proxy care engagement with proxy reports of patient experience and quality of life*, *J.K. Roydhouse, **R. Gutman**, N. Keating, V. Mor, I. Wilson, *Heath Services Research*, 53(5):3809-3824, 2018

[71] *Assessing the Effect of Recent Incarceration in Prison on HIV Care Retention and Viral Suppression in Two States*, M. Costa, B. Montague, L. Solomon, C. Sammartino, **R. Gutman**, C. Zibman, D. Rosen, J. Rich, *Journal of Urban Health*, 95(4):499-507, 2018

[72] *Racial differences in presentations and predictors of acute pain following motor vehicle collision*, *F. Beaudoin, **R. Gutman**, W. Zhai, R.C. Merchant, M.A. Clark, K.A. Bollen, P. Hendry, M.C. Kurz, D. Peak, C. Lewandowski, C. Pearson, B. O'Neil, P. Mitchell, R. Domeier, S.A. McLean, *PAIN*, 159(6):1056-1063, 2018.

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[77] *Persistent pain after motor vehicle crash: Comparative effectiveness of opioid analgesics versus non-steroidal anti-inflammatory drugs prescribed from the emergency department - A propensity matched analysis*, *F. Beaudoin, **R. Gutman**, R.C Merchant, M.A Clark, R. Swor, J. Jones, D. Lee, D. Peak, R. Domeier, N. Rathlev, S.A McLean, *PAIN*, 158(2):289-295, 2017.

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[81] *Systematic Assessment of Linkage to Care for Persons with HIV Released from Corrections Facilities Using Existing Datasets*, B.T. Montague, D.L. Rosen, C. Sammartino, M. Costa, **R. Gutman**, L. Solomon, J.D. Rich, *AIDS Patient Care and STDs*, 30(2), 84-91, 2016.

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[88] *Dissecting the fission yeast regulatory network reveals phase-specific control elements of its cell cycle*, P.R. Bushel, N.A. Heard, **R. Gutman**, L. Liu, S.D. Peddada, S. Pyne, *BMC Systems Biology*, 3:93, 2009.

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[93] *Impaired Platelet Aggregation in Melanoma Patients Treated with INF-.-2b Adjuvant Therapy*, H. Gutman, J. Schachter, E. Stopel, **R. Gutman**, J. Lahav, *Cancer*, 94: 780-5, 2002.

Non–Refereed Publications

[94] *The Many Tentacles of Estimands in HEOR – From PROs to RWD*, J. Roydhouse, **R. Gutman**, P. Mishra-Kalyani, S. Manson ISPOR, Value & Outcomes Spotlight. 2022.

[95] *Combining Inexactly-Matched Datasets to Analyze End-of-Life Medical Costs*, **R. Gutman**, A.M. Zaslavsky, In JSM Proceedings, Section on Bayesian Statistical Science. Alexandria, VA: American Statistical Association. 2009.

[96] *Improved Multiple Test Procedures for Discrete Distributions: New Ideas and Analytical Review.*, **R. Gutman**, M.Sc. Thesis Faculty of Exact Sciences, School of Mathematics, Tel Aviv University, Tel Aviv, Israel, 2004.

Submitted and In Preparation

[97] *A Bayesian Record Linkage Approach that Adjusts for Variables in One File*, *G. Kamat, *M. Shan, **R. Gutman**, (Statistics in Medicine)

[98] *Multiple imputation of missing race/ethnicity information in the National Assisted Reproductive Technology Surveillance System*, Y. Zhang, D.M. Kissin, K.J. Liao, C.E. DeSantis, A.K. Yartel, **R. Gutman**, (Population Health Metrics)

[99] *Causal Inference with cross-temporal design*, *Y. Cao, P. Gozalo, **R. Gutman**, In preparation.

[100] *Combining Predictive Mean Matching with the Penalized Spline of Propensity Prediction for Multiple Imputation*, *J. Xu, **R. Gutman**, In preparation.

Presentations

Invited Talks

2023 *A Bayesian Multi-Layered Record Linkage Procedure to Analyze Functional Status of Medicare Patients with Traumatic Brain Injury*, R. Gutman, **International Conference on Health Policy Statistics**, Scottsdale, AZ (January 2023).

2022 *Bayesian Procedures for File Linking with Application to Health Services Research*, R. Gutman, **MDI and the ASA Record Linkage Interest Group's Linkage Seminar Series**, (April 2022).

2022 *Bayesian Procedures for File Linking with Application to Health Services Research*, R. Gutman, **Boston University Biostatistics Seminar Series**, (March 2022).

2021 *Combining Item Response Theory with Multiple Imputation to Equate Health Assessment Questionnaires*, R. Gutman, **The 34th New England Statistical Symposium**, (October 2021).

2021 *A multiple imputation procedure for record linkage and causal inference to estimate the effects of home-delivered meals*, R. Gutman, **The Society for Applied Pharmacological Studies - Italian Biostatistics Group Forum**, (September 2021).

2021 *The Many Tentacles of Estimands- Patient-Reported Outcomes, Real-World Evidence, Health Economics and Outcomes Research, and Beyond*, R. Gutman, J. Roydhouse, S. Manson, P.S. Mishra-Kalyani, **Virtual ISPOR**, (May 2021).

2021 *Dyadic Designs versus Proxy Reported Outcomes*, J. Monin, K. Newkirk, R. Gutman, Z. Baker, **IMPACT Collaboratory Annual Meeting**, (April 2021).

2020 *A Bayesian Multi-Layered Record Linkage Procedure to Analyze Functional Status of Medicare Patients with Traumatic Brain Injury*, R. Gutman, **Joint Statistical Meeting**, Philadelphia, PA (August 2020).

2019 *Estimating the effects of Meals on Wheels through Linkage to Claims Data Sources*, R. Gutman, **Pfizer Knowledge Forum on Novel Analytical Methods**, New York City, NY (November 2019).

2019 *Optimal Sample Size for Cluster Randomized Trials: A Simulation-Based Search Algorithm*, R. Gutman, **Design and Analysis of Experiments Conference**, Knoxville, TN (October 2019).

2019 *Comparing Multiple Treatments in Observational Studies with Application to Type 2 Diabetes Treatment Regimens*, R. Gutman, **PCORI Annual Meeting**, Washington, DC (September 2019).

2019 *Approximate Bayesian Bootstrap Procedures to Estimate Multilevel Treatment in Observational Studies with Application to Type 2 Diabetes Treatment Regimens*, R. Gutman, **Joint Statistical Meeting**, Denver, CO (August 2019).

2019 *Discussion - Gaining Insights from Multiple Data Sources*, R. Gutman, **Academy Health Annual Research Meeting**, Washington, DC (June 2019).

2019 *Bayesian Procedure for File Linking with Application to Health Services Research*, R. Gutman, **Putting the Pieces Together: Promise, Programs and Pitfalls in Linking Historical and Contemporary Records**, Northwestern University, Evanston, IL (May 2019).

2019 *Panel Discussant: Measurement and data: Outcomes, exposures, and subgroups based on EHR data*, R. Gutman, **Design & Analysis of Embedded Pragmatic Clinical Trials Workshop.**, Bethesda, MD (May 2019).

2019 *Multiple Imputation Procedure for Record Linkage and Causal Inference to Estimate the Effects of Home-delivered Meals*, R. Gutman, **Models and Machine Learning for Causal Inference and Decision Making in Health Research**, Providence, RI (January 2019).

2018 *Estimating the Effects of Health and Medical Interventions using Multiple Imputations and File Linking Techniques*, R. Gutman, **Advance-CTR Statistical Methods in Translational Science Symposium**, Providence, RI (June 2018).

2018 *Lightning Introduction to Casual Inference*, R. Gutman, **Advance-CTR Statistical Methods in Translational Science Symposium**, Providence, RI (June 2018).

2018 *Bayesian Procedures for File Linking with Application to Health Services Research*, R. Gutman, **Department of Industrial Engineering and Management, Ben Gurion University of the Negev**, Beer-Sheva, Israel (June 2018).

2018 *Robust Estimation of Causal Effects to Evaluate the Effects of Opioids versus NSAIDS on Persistent Pain*, R. Gutman, **Israeli Statistical Association 2018**, Weizmann Institute of Science, Israel (May 2018).

2018 *Estimating the effects of Meals on Wheels through Linkage to Claims Data Sources* , R. Gutman, **ICHPS 2018**, Charleston, SC (Jan 2018).

2017 *Is Medical Foster Care a cost-effective substitute for Nursing Home Care?*, R. Gutman & C. Levi, **HERC Health Economics Seminar**, Cyberseminar (Sep 2017).

2017 *Combining IRT with Multiple Imputation to Crosswalk between Health Assessment Questionnaires*, R. Gutman, **9th meeting of the Eastern Mediterranean Region of the International Biometric Society (EMR-IBS)**, Thessaloniki, Greece (May 2017).

2017 *Combining IRT with Multiple Imputation to Crosswalk between Health Assessment Questionnaires*, R. Gutman, **ENAR**, Washington, DC (March 2017).

2017 *Beyond Difference-in-Differences – A Bayesian Procedure to Estimate the Effects of Nursing Home Bed-Hold Policies*, R. Gutman, **Department of Statistics and Operation Research, School of Mathematics, Tel Aviv University**, Tel Aviv, Israel (January 2017).

2016 *Combining IRT with Multiple Imputation to Crosswalk between Health Assessment Questionnaires*, R. Gutman, **Joint Statistical Meeting**, Chicago, IL (August 2016).

2016 *Causal Inference in Health-care Studies with Multiple Treatments*, R. Gutman, **Academy Health Annual Research Meeting**, Boston, MA (June 2016).

2016 *Combining IRT with Multiple Imputation to Crosswalk between Health Assessment Questionnaires*, R. Gutman, **International Chinese Statistical Association**, Atlanta, GA (June 2016).

2016 *Beyond Difference-in-Difference to Analyze Changes in Bed-Hold Policy for Nursing Homes*, R. Gutman, **New England Statistical Symposium**, New Haven, CT (April 2016).

2016 *Bayesian Procedures for File Linking with Application to Health Services Research*, R. Gutman, **Working Group on Statistical Methods in Epidemiology at Harvard School of Public Health, Dept. of Biostatistics, Harvard University**, Boston, MA (March 2016).

2015 *Error Adjustments for File-Linking Methods Using Encrypted Unique Client Identifier (eUCI) with Application to Recently Released HIV+ Prisoners*, R. Gutman, **International Conference for Health Policy Statistics**, Providence, RI (October 2015).

2015 *Robust Estimation of Causal Effects with Application to Erythropoiesis-stimulating Agents for End-stage Renal Disease*, R. Gutman, **Quantitative Methods Core Methods Seminar**, University of Massachusetts Medical School, Worcester, MA (September 2015).

2015 *Nationwide Surveillance of Linkage to HIV Care on Release from Corrections*, Josiah Rich, Brian Montague, R. Gutman, **Bureau of Justice Statistics & HRSA HIV/AIDS Bureau**, Washington DC & Rockville MD, USA (April 2015).

2015 *Robust Estimation of Causal Effects with Application to Erythropoiesis-stimulating Agents for End-stage Renal Disease*, R. Gutman, **The Department of Epidemiology, Biostatistics and Occupational Health**, McGill University, Montreal, Canada (March 2015).

2014 *Discussion: The Effect of Jurisdictional Competition for Corporate Charters on Financial accounting Measures of Firm Performance*, R. Gutman, **Journal of Law, Finance & Accounting**, NYU, NY, USA (September 2014).

2014 *Beyond Difference-in-Difference to Analyze Changes in Bed-Hold Policy for Nursing Homes*, R. Gutman, **Joint Statistical Meeting**, Boston, MA, USA (August 2014).

2014 *Full Bayesian Procedure for File Linking to Analyze End-of-Life Medical Costs*, R. Gutman, **Computational Methods for Survey and Census Data in the Social Sciences**, Centre de recherches mathématiques, Université de Montréal, Montreal, Canada (June 2014).

2014 *Beyond Difference-in-Difference to Analyze Changes in Bed-Hold Policy for Nursing Homes*, R. Gutman, **Atlantic Causal Inference Conference**, Brown University, RI, USA (May 2014).

2014 *Robust Estimation of Causal Effects of Erythropoiesis-stimulating Agents (ESAs) on Mortality*, R. Gutman, **ENAR**, Baltimore, MD, USA (March 2014).

2014 *Full Bayesian Procedure for File Linking to Analyze End-of-Life Medical Costs*, R. Gutman, **SAMSI, Computational Methods for Censuses and Surveys**, Washington, DC, USA (January 2014).

2013 *Robust Estimation of Causal Effects with Application to Erythropoiesis-stimulating Agents for End-stage Renal Disease*, R. Gutman, **Department of Statistical Science**, Duke University, NC, USA (November 2013).

2013 *Analyses That Inform Policy Decisions Are, De Facto, Causal*, R. Gutman, **Joint Statistical Meeting**, Montreal Canada (August 2013).

2013 *A robust outcome-free procedure for interval estimation of causal effects*, R. Gutman, **15th IMS New Researchers Conference**, Montreal Canada (August 2013).

2013 *Robust Estimation of Causal Effects of Erythropoiesis-Stimulating Agents on Mortality*, R. Gutman, **7th meeting of the Eastern Mediterranean Region of the International Biometric Society (EMR-IBS)**, Tel Aviv, Israel (April 2013)

2013 *A Robust Outcome-Free Procedure for Interval Estimation of Causal Effects*, **R. Gutman**, **Department of Statistics**, University of Waterloo, ON, Canada (March 2013).

2012 *An Outcome-Free Procedure for Interval Estimation of Causal Effects*, R. Gutman, **Department of Statistics**, University of Connecticut, CT, USA (October 2012).

2011 *An Outcome-Free Procedure for Interval Estimation of Causal Effects*, R. Gutman, **Department of Biostatistics (Environmental Statistics Seminar)**, Harvard University, MA, USA (November 2011).

Contributed Talks Presented by Me

2012 *A Robust Outcome-free Procedure for Interval Estimation of Causal Effects*, **R. Gutman** and D.B. Rubin, **International Society for Bayesian Analysis World Meeting**, Kyoto, Japan (June 2012).

2010 *Full Bayesian Procedure for File Linking to Analyze End-of-Life Medical Costs*, **R. Gutman** and A.M. Zaslavsky, **Joint Statistical Meeting**, Washington, DC, USA (August 2010).

2009 *Combining Inexactly-Matched Data Sets to Analyze End-of-Life Medical Costs*, **R. Gutman** and A.M. Zaslavsky, **Joint Statistical Meeting**, Washington, DC, USA (August 2009).

2008 *Rasch and Mixture of Generalized Linear Mixed Models for Analysis of Aphasic Deficits of Syntactic Comprehension*, **R. Gutman**, G. DeDe, D. Caplan and J.S. Liu, **Joint Statistical Meeting**, Denver, Colorado, USA (August 2008).

Short Courses

2023 *Estimating Correlations and Causal Relationships with Linked Data Sources*, **R. Gutman**, **International Conference on Health Policy Statistics**, Scottsdale, AZ (Jan 2023).

2020 *Estimating Causal and Causal Relationships with Linked Data Sources*, **R. Gutman**, **International Conference on Health Policy Statistics**, San Diego, CA (Jan 2020).

2016 *Introduction to Causal Inference in Medicine and Health Service Research*, **R. Gutman**, **Evidence Synthesis Academy**, Providence, RI (May 2016).

2015 *Causal Inference in Healthcare Studies with Multiple Treatments*, **R. Gutman** and M.J Lopez, **International Conference on Health Policy Statistics**, Providence, RI (October 2015).

2012 *Causality 101: Instrumental Variables and Principal Stratification*, **R. Gutman**, **Department of Biostatistics**, The Brown University ARCH Summer Research Workshop (July 2012).

Poster Presentation

2016 *Combining IRT with Multiple Imputation to Crosswalk between Health Assessment Questionnaires*, **R. Gutman**, **Academy Health Annual Research Meeting**, Boston, MA (June 2016).

2012 *An Outcome-Free Procedure for Interval Estimation of Causal Effects*, **R. Gutman**, and D.B. Rubin, **Workshop on Causal Inference and Graphical Models**, Department of Statistics, University of Florida, January (2012).

Talks Presented by Others

2019 *Multiple Imputation Procedure for Record Linkage and Causal Inference to Estimate the Effects of Home-Delivered Meals*, M. Shan, K. Thomas, **R. Gutman**, **Joint Statistical Meeting**, Denver, CO, USA (August 2019).

2017 *Power and Money: Optimal Sample Size for Cluster Randomized Trials Based on the Randomization Distribution*, R. Zhai, **R. Gutman**, **BIOSTATMCW**, Milwaukee, WI, USA (September 2017).

2016 *Using Machine Learning Algorithms for Handling Missingness: Application to Predicting Drug-Disease and Drug-Drug Interactions*, R. Zhai, **R. Gutman**, **Joint Statistical Meeting**, Chicago, IL, USA (August 2016).

2016 *Bayesian Multiple Imputation Procedures to Equate Health Assessment Questionnaires*, C. Gu, **R. Gutman**, **Joint Statistical Meeting**, Chicago, IL, USA (August 2016).

2014 *Matching to Estimate the Causal Effects from Multiple Treatments*, M. Lopez, **R. Gutman**, **Joint Statistical Meeting**, Boston, MA, USA (August 2014).

2013 *Estimating the Average Treatment Effects of Nutritional Label Use Using Subclassification with Regression Adjustment*, M. Lopez, **R. Gutman**, **Joint Statistical Meeting**, Montreal, Canada (August 2013).

2012 *Nutritional label use and causal effects on body mass index*, M. Lopez, **R. Gutman**, **New England Statistical Symposium**, Boston University, Boston, MA, USA (April 2012).

2008 *Rasch Models of Aphasic Deficits of Syntactic Comprehension*, D. Caplan, G. DeDe, **R. Gutman**, J.S. Liu and G. Waters, **Clinical Aphasiology Conference**, Teton Village, WY, USA (May 2008).

2007 *"Gloves and Socks" Melanoma: Does Histology Make a Difference?* , E. Soudry, H. Gutman, M. Feinmesser, **R. Gutman** and J. Schachter, **The Society of Surgical Oncology's 60th Annual Cancer Symposium**, Washington, DC, USA (March 2007).

2003 *Impaired Platelet Aggregation in Melanoma Patients Treated with INF-α-2b Adjuvant Therapy* , H. Gutman, J. Schachter, E. Stopel, **R. Gutman** and J. Lahav, **Research Fair, Sackler Faculty of Medicine, Tel Aviv University**, Tel Aviv, Israel (April 2003).

2002 *Patients with Melanoma Given INF-α-2b Adjuvant Therapy Have Impaired Aggregation of Platelets.*, H. Gutman, J. Schachter, E. Stopel, **R. Gutman** and J. Lahav, **The 7th World Congress on Advances in Oncology, and 5th International Symposium on Molecular Medicine**, Hersonissos, Crete, Greece (October 2002).

Research Grants (PI are in bold)

Active

[1] **Improving PCOR/CER Study Methodologies in Studies with Different Respondent Types Using IRT**

> Role: **Co-PI**
> Agency: PCORI
> Period: 11/01/2022 –10/31/2025
> Amount:$931,657

[2] **Improving CER/PCOR Methods for Analyzing Linked Data Sources in the Absence of Unique Identifier**

> Role: **PI**
> Agency: PCORI
> Period: 12/01/18-09/31/22
> Amount:$728,016

[3] **Outcomes Associated with Significant Incidental Findings in Lung Cancer Screening**

> Role: Co-investigator
> Project PI:Gareen
> Agency: NCI
> Period: 03/17/17-02/28/22
> Amount: $1,254,419

[4] **Lung Screening: Efficacy versus Effectiveness**

Role: Co-investigator
Project PI:Gareen
Agency: NCI
Period: 01/01/18-12/31/23
Amount: $403,582

[5] **METRIcAL – Music & Memory: a Pragmatic TRIal for Nursing Home Residents with ALzheimer's Disease**

Role: Investigator
Project PI:Mor
Agency: NIA
Period: 09/15/17-08/31/22
Amount: $399,984

[6] **Next Generation Machine Vision for Automated Behavioral Phenotyping of Knock-in ALS-FTD Mouse Models**

Role: Co-investigator
Project PI:Fallon
Agency: NINDS
Period: 04/01/2020 – 03/31/2022
Amount: $446,875

[7] **New IDEAS: Imaging Dementia - Evidence for Amyloid Scanning Study: A Study to Improve Precision in Amyloid PET Coverage and Patient Care**

Role: Investigator
Project PI:Gatsonis
Agency: ACR
Period: 07/01/2020 – 12/31/2024
Amount: $1,770,341

[8] **Developing an Analytic Resource for Efficiently Linking EA Participants to Medicare data to identify patients with Alzheimer's disease and its related dementias (DAREtoLEAP)**

Role: Investigator
Project PI:Schnall
Agency: NCI
Period: 08/01/2021 – 07/31/2022
Amount: $296,089

[9] **Home-delivered meals for persons with dementia: Which model delays nursing home placement?**

Role: Study Statistician
Project PI:Thomas
Agency: NIA
Period: 09/30/2020 – 08/31/2025
Amount: $823,497

[10] **Safe Cardiometabolic Drug Prescribing to Prevent Injury in the Nursing Home**

Role: Co-investigator
Project PI: Berry
Subcontract:Hebrew Senior Life-Harvard
Period: 07/15/19-02/28/23

[11] **NIA AD/ADRD Health Care Systems Research Collaboratory**

Role: Design and Statistics Core executive committee member
Project PI:Mor, Mitchell
Agency: NIA
Period: 09/01/19-06/30/24
Amount: $7,035,838

[12] **The Impact of Cost Sharing on Medication Adherence in the MHS for both Non-retirees and Retirees**

Role: Co-investigator
Project PI:Wilson
Agency: DoD
Period: 09/01/19-08/31/21
Amount: $1,837,151

[13] **Alzheimer's Disease and Related Disorders Treatment and Outcomes in America: Changing Policies and Systems**

Role: Core C Investigator
Project PI:Mor, Trivedi
Agency: NIA
Period: 04/01/19-03/31/24
Amount: $28,402,016

Pending

[14] **Returning home after TBI: Informing effective post-acute care for older adults with TBI**

Role: Co-investigator
Project PI:Evans
Agency: NIH
Period: 04/01/2022 –03/31/2024
Amount: $420,731

[15] **Health care processes, outcomes, and costs for aging Medicare beneficiaries with HIV: a national, longitudinal (2007-2020) comparison using rigorously selected HIV-negative controls**

Role: Co-investigator
Project PI:Wilson
Agency: NIA
Period: 04/01/2022 –03/31/2027
Amount: $3,912,365

Completed

[16] **Effect of a COVID-specific advance care planning intervention on documentation of advance directives and goals of care**

Role: Co-investigator
Project PI:Mor, Mitchell
Agency: NIA
Period: 08/11/2020 – 06/30/2021
Amount: $242,130

[17] **Opioid use in Post-acute Hip Fracture Care: Prescribing patterns, effectiveness, and safety**

Role: Co-investigator
Project PI:Zullo, Beaudoin
Agency: NIH
Period: 9/1/18-8/31/20
Amount: $168,712

[18] **Comparing Glycemic Profiles in Pregnancy and Maternal and Child Health Outcomes**

Role: Statistician
Project PI:Werner
Agency: NIH
Period: 12/01/19-11/30/24
Amount: $335,367

[19] **Caregivers' Reactions and Experience: Imaging Dementia Evidence for Amyloid Scanning**

Role: Co-investigator
Project PI:Wetle
Agency: NIA
Period: 09/15/17-05/31/21
Amount: $680,589

[20] **Imaging Dementia-Evidence for Amyloid Scanning (IDEAS) Study**

Role: Investigator
Project PI:Gatsonis
Agency: ACR
Period: 06/01/15-06/30/20
Amount: $802,165

[21] **Pragmatic Trial of Video Intervention for Advance Care Planning in Nursing Homes**

Role: Investigator
Project PI:Mor
Agency: UH2/UH3/NIH
Period: 08/15/14-05/31/20
Amount: $2,920,367

[22] **Claude D. Pepper Older Americans Independence Center at Yale**

Role: Brown subcontract PI
Project PI:Allore
Agency: NIA
Period: 10/01/18-06/30/20
Amount: $61,535

[23] **Innovative Approaches to Examine Post-Acute Care Outcomes of Older Adults with Traumatic Brain Injury**

Role: **Co-PI**
Agency: NIA
Period: 10/1/18 - 3/31/20
Amount:$285,308

[24] **Implementing and Evaluating INTERACT in VA CLCs**

Role: Brown Subcontract
Project PI:Mor
Agency: VA
Period: 4/1/13-3/31/16
Amount: $454,321

[25] **Center of Innovation (COIN), Long-term Services and Supports for Vulnerable Veterans**

Role: Brown Subcontract
Project PI:Mor
Agency: VA
Period: 10/01/13 – 09/30/18

[26] **Researcher Training and Workforce Development in Methods and Standards for Conducting Patient Centered Outcomes**

Role: Investigator
Project PI:Schmid
Agency: AHRQ
Period: 06/01/14 – 05/31/19
Amount: $272,305

[27] **Effectiveness of Medicaid's Home- and Community-Based Services for Persons with Multiple Sclerosis**

Role: Investigator
Project PI:Shireman
Agency: National Multiple Sclerosis Society
Period: 10/1/2014 - 9/30/2017
Amount: $560,861

[28] **Medicaid Managed Care and the Quality of Care for Women and Children: Evaluating a Randomized Trial of Enrollment in a Medicaid-Focused or Commercial Health Insurance Plan**

Role: Investigator
Project PI:Trivedi
Agency: HRSA
Period: 4/1/15 – 3/31/18
Amount: $594,648

[29] **Changing Long Term Care in America: Policies, Markets, Strategies, and Outcomes**

Role: Investigator
Project PI:Mor
Agency: NIA
Period: 12/1/13 - 11/30/18
Amount: $5,149,670

[30] **Aging, comorbid conditions, and health care utilization in persons with HIV**

Role: Investigator
Project PI:Wilson
Agency: NIMH
Period: 04/01/14 - 03/31/18
Amount: $1,999,264

[31] **Effect of Iatrogenic Delivery at 34-38 Weeks' Gestation on Pregnancy Outcome**

Role: Investigator
Project PI:Savitz
Agency: WIH/NICHHD
Period: 05/01/14 – 04/30/19
Amount: $105,612

[32] **Estimation of Multi-Treatment Effects from Observational Data with Application to Diabetes Mellitus**

Role: **PI**
Agency: PCORI
Period: 02/1/15 - 02/01/19
Amount:$700,000

[33] **Merging National Hospital Trauma Registry Data with Medicare Claims and Post-Acute Care Patient Assessments to Examine Predictors of Functional Improvement among Older Adults with Traumatic Brain Injury**

Role: **Co-PI**
Agency: Advanced-CTR
Period: 08/1/17 - 08/1/18
Amount:$74,924

[34] **Improving Linkage to HIV Care Following Release from Incarceration (LINCS)**

Role: Investigator
Project PI:Judy Rich
Agency: NIH/The Miriam Hospital
Period: 11/01/12 - 06/30/15

[35] **Geriatric Extended Care Data Analysis Center (GEC DAC)**

Role: Brown Subcontract
Project PI:Orna Intrator
Agency: VA
Period: 7/1/11-8/31/13

[36] **QuBBD: Estimating drug-drug and drug-disease interactions for nursing homes residents**

Role: **PI**
Agency: NSF
Period: 09/15/15 - 08/30/17
Amount:$99,998

Service Activities

University Services

2022-2022	Member, School of Public Health Senior Faculty in Health Data Science Search Committee, Brown University
2021-present	Member, Brown University University Resource Committee
2017-2019	Member, Brown University College Curriculum Committee
2013-2020	Member, Department of Biostatistics PhD Admission Committee
2012-present	Director, Undergraduate Concentration in Statistics
2012-present	Member, Department of Biostatistics Curriculum Committee

2011-2020	Member, School of Public Health MPH Admission Committee
2015,2018,2019	Member, Faculty Search Committee, Department of Biostatistics
2013-2015	Member, School of Public Health Curriculum Committee
2012-2019	Member, SPH Undergraduate Studies Committee
2011-2017	Member, Department of Biostatistics Web Committee
2011-2013	Member, Department of Biostatistics Master graduate Admission Committee

Professional Services

2022	Chair Elect - American Statistical Association – Record Linkage Interest Group
2022	Congressionally Directed Medical Research Program (CDMRP), Detection, Diagnosis, and Prognosis-1 (DDP-1) panel of the Traumatic Brain Injury and Psychological Health Research Program (TBIPHRP) – grant reviewer
2022–present	Member - AcademyHealth - Health Economics Interest Group
2021–2022	Statistician - NIA Data and Safety Monitoring Board (DSMB) for a R61 study (AG070265-01)
2020–present	Associate Editor - Population Health Metrics
2019–present	Member - New England Rare Disease Statistics Workshop - organizing committee
2019–2021	Member - The National Academy of Sciences Engineering and Medicine Committee on Developing a Behavioral and Social Science Research Agenda on Alzheimer's and Alzheimer's-Related Dementias
2021	NHLBI Single-Site and Pilot Clinical Trials Study Section (SSPT) – panel reviewer
2020,2021,2022	The Donaghue Foundation - Another Look statistical reviewer
2020	NIH - Biostatistical Methods and Research Design (BMRD) Study Section – panel reviewer
2019	DME Medicare Administrative Contractors - Contractor Advisory Committee (CAC) on Topical Oxygen Therapy
2019-2020	Chair Student Committee ICHPS 2020
2018	Local organizing committee - StatFest 2018
2018	Organizer invited session ICHPS 2018, Linking Registries and other Clinical and Administrative Data to Enhance Comparative Effectiveness Research
2019	Program Chair - Health Policy Statics Section, American Statistical Association
2018,2021	NIH/NHLBI - Summer Institute for Research Education in Biostatistics (R25) – panel reviewer
2018	PCORI Assessment of Prevention, Diagnosis, and Treatment Options PCORI funding announcement, grant reviewer
2017–present	Associate Editor - PLOS 1
2017–2022	Board Member - New England Statistical Society
2017–present	Editorial Board - Statistical Method in Medical Research
2017–present	PCORI Methods Consultant
2016–present	PCORI - Methods to Improve PCOR studies review panel, PCORnet Phase 3, Phased Large Awards in Comparative Effectiveness Research (PLACER) – grant reviewer
2016	Congressionally Directed Medical Research Programs (CDMRP) Orthotics and Prosthetics Outcomes Research Program – grant reviewer
2015	Organizer invited session ICHPS 2015, Linking Records from Different Sources in Health-care Applications
2015	Chair of the local organizing committee of ICHPS, Providence, RI, 2015
2014,2016	NSF Ad-hoc grant reviewer
2014	Organizer invited session JSM 2014, Recent Advances in Causal Inference Methods for Health Policy and Services Research
2014	Committee member Atlantic Causal Inference Conference, Brown University, Providence, RI, 2014

2011–present **Peer Reviewer.** *Annals of Applied Statistics, Annals of Epidemiology, Bayesian Statistics, Biometrics, Biometrika, BMC Bioinformatics, BMC Research Notes, BMJ Open, Circulation, Computational and Graphical Statistics, Educational Researcher, Epidemiology, Guilford Press, Health Services and Outcomes Research Methodology, Health Informatics Journal, Health Services Research, IIE Transactions, International Journal of Epidemiology, JAMDA, Journal of Applied Statistics, Journal of the American Statistical Association, Journal of the Royal Statistical Society: Series A, Journal of Survey Statistics and Methodology, PLOS ONE, Quality of Life Research, Radiology, Research Synthesis Methods, Statistics in Medicine, Statistica Sinica, The Social Science Journal.*

Academic and Professional Awards & Fellowships

2022	ISPOR Health Economics Outcomes and Research - Methodology Award
2022	ASA/NSF/BLS Senior Research Fellow
2020	Brown University School of Public Health Award for Excellence in Research Collaboration
2018-2020	Brown University Faculty Advising Fellow
2013	Brown University Richard B. Salomon Faculty Research Awards
2010	JSM Student Award, Section on Health Policy Statistics, American Statistical Association
2007	Harvard University Derek Bok Center, Certificate of Distinction in Teaching of Undergraduates
2006	The James Mills Pierce Fellowship, Graduate School of Arts and Sciences, Harvard University
2001,2002,2005	Excellent Officer Award, Israel Defense Forces
2002	Excellence Award Teaching Assistant, School of Mathematics, Faculty of Exact Sciences, Tel Aviv University
2000	The Nimrod Lapid Award for Excellence of B.Sc. Students in Statistics, School of Mathematics, Faculty of Exact Sciences, Tel Aviv University
1999	Dean's Excellence Award in Statistics, Operation Research and Computer Science. School of Mathematics, Faculty of Exact Sciences, Tel Aviv University

Memberships

2022–present	ISPOR
2017–present	New England Statistical Society
2016–present	AcademyHealth
2012–2013	International Society for Bayesian Analysis
2007–present	American Statistical Association
2009–2011	Institution of Mathematical Statistics
2004–2006	Associate Member of the Ben-Tal Bioinformatics Group, Biochemistry Department, Tel Aviv University
2001–2004	Member of the False Discovery Rate group, Faculty of Exact Sciences, School of Mathematics, Tel Aviv University

Teaching

Courses Taught

Spring 2021 **Guest Lecture**, *Causal Inference by Imputation with Application to Health Services Research.*
–Yau Mathematical Sciences Center, Tsinghua University

Spring 2015, 2017 **Guest Lecture**, *Causal Inference in Health Services Research.*

–Statistics 186. Statistical Methods for Evaluating Causal Effects, Harvard University, Cambridge, MA

Fall 2014 - 2021 **Instructor**.

–PHP 1501 (58, 68, 73, 85, 64, 75, 96, 99): Essentials of Data Analysis

Fall 2014 **Co-Instructor**.
–PHP 0100 (7): Statistics is Everywhere

| Spring 2014, 2015, 2016, 2017 | **Co-Instructor**. |
| | |

–EMHL 2030 (28, 30, 21, 15): Data Driven Decision Making

| Spring 2014 | **Instructor**. |

–PHP 2511 (25): Applied Regression Methods

| 2011–2013, 2015, 2017–2020, 2022 | **Instructor**. |

–PHP 2530 (5, 15, 5, 20, 7, 13, 28): Bayesian Statistical Methods

| Spring 2013 | **Instructor**. |

–PHP 2540 (5): Advanced Methods for Multivariate Analysis

| 2007–2011 | **Teaching Fellow**, Harvard University, Department of Statistics. |

–Stat 110: Introduction to Probability

–Stat 111: Introduction to Stochastic Processes

–Stat 220: Bayesian Data Analysis

–Stat 221: Statistical Computing Methods and Learning

–Stat 249/149: Statistical Sleuthing through Generalized Linear Models

Master's Theses/Projects Directed

2012	**Ye Xu**, *Comparison of the Procedures for Estimation of Causal Effects.*
2013	**Elizabeth Piette (Public Health)**, *Attempting to Use Causal Inference Methods to Profile Health Providers.*
2014	**Anja Zgodic**, *Possible Pitfalls of Cumulative Sum Charts and Funnel Plots in Monitoring Clinical Performance and Outcomes.*
2016	**Valerie Langberg**, *Sample Size Calculation for Cluster Randomized Trials Based on the Randomization Distribution.*
2017	**Chang Chen**, *Comparative Outcomes of Treatment Regimens in Waldenstrom Macroglobulinemia.*
2020	**Frank DeVone**, *Power Prior Distribution for Bayesian Record Linkage.*
2021	**Abigail Foley**, *A Comparison of Prediction Methods under Different Extrapolation Schemes.*
2022	**Yezhi Pan**, *Effect of Co-prescribing Benzodiazepines and Opioid Analgesics Among Older Cancer Patients.*

Ph.D. Theses Supervised (as Primary or Sole Advisor)

2014	**Michael Lopez**, *Causal Inference for Multiple Treatments*, Current Position: Director of Data and Analytics at the National Football League.
2016	**Chenyang Gu**, *Statistical Missing Data Methods with Applications to Health Services Research*, Current Position: Biopharma Equity Research at Goldman Sachs.
2018	**Anthony Scotina**, *Estimation of Multi-Treatment Effects from Observational Data with Applications to Type 2 Diabetes Mellitus*, Current Position: Senior Statistician at Koneksa Health.
2019	**Mingyang Shan**, *Record Linkage and Causal Inference with Applications to Health Services Research*, Current Position: Research Scientist - Senior Research Scientist - Real World Analytics at Eli Lilly and Company.
2020	**Ruoshui Zhai**, *Multiple Imputation and Computational Methods for Design and Analysis of Cluster Randomized Trials*, Current Position: Senior Data Scientist at Boston Consulting Group.
2021	**Gabriella Silva**, *Addressing Statistical Issues in Provider Profiling*, Current Position: Blue Cross Blue Shield of Massachusetts.
2022	**Yi Cao**, *Addressing Missing Data and Causal Inference for Time-varying Data*, Current Position: Postdoctoral Research Fellow - Fred Hutch.

Current PhD Students

–Jerson Cochancela

–Anthony Sisti

–Patrick Gravelle

–Gauri Kamat

–Jennifer Scodes

PhD Committee Member

–Dana Udwin (Biostatistics - 2022)

–Nana Boame (Epidemiology - 2022)

–Jessica Roydhouse (HSPP - 2017)

–Francesca Beaudoin (Epidemiology - 2017)

–Andrew Zullo (HSPP - 2017)

–Kristen McCausland (Epidemiology - 2017)

Graduated Masters Students

–Russell Forman (Biostatistics) (2013)

–Bin Lin (Biostatistics) (2014)

–Chieh Chu (Biostatistics) (2014)

–Yinan Zhang (Biostatistics) (2014)

Undergraduate Thesis Supervised

–Jay J. Xu (Statistics) (2015)

–Kavia Khosla (Public Health) (2016)

–Brian Gilbert (Statistics) (2018)

–Edwin Farely (Applied Mathematics) (2019)

–Nicholas Pellegrino (Statistics) (2021)

–Rohan Gupta (Applied Mathematics) (2022)