

Curriculum Vitae

Benjamin A. Goldstein

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Personal Information

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Academic Training

Wesleyan University	2002	BA	Psychology
University of California, Berkeley	2007	MPH	Epidemiology/Biostatistics
University of California, Berkeley	2011	PhD	Biostatistics with designated emphasis Genomic & Computational Biology

Doctoral Dissertation
Title: Finding genes related to disease using statistical learning
Sponsor: Alan E. Hubbard, University of California, Berkeley

Academic Appointments

2011 – 2014	Instructor of Medicine, Quantitative Sciences Unit Department of Medicine of Stanford University, Palo Alto CA
2014 – 2018	Assistant Professor, Division of Translational Biomedical Informatics, Department of Biostatistics & Bioinformatics, Duke University, Durham, NC
2018 –	Associate Professor, Division of Translational Biomedical Informatics, Department of Biostatistics & Bioinformatics, Duke University, Durham, NC
2018 –	Associate Professor, Children's Health & Discovery Initiative, Department of Pediatrics, Duke University, Durham, NC
2019 –	Associate Professor, Department of Population Health, Duke University, Durham, NC
2014 –	Center for Predictive Medicine, Duke Clinical Research Institute, Durham, NC

Awards

Apr 2002	Walkely Prize for Outstanding Original Research, Wesleyan University, Psychology
May 2002	High Honors Thesis, Wesleyan University, Psychology
Jan 2010	Russel M. Grossman Endowment, UC Berkeley, Biostatistics
Mar 2010	Award for Academic Excellence, UC Berkeley, Biostatistics
May 2012	Young Investigator Award, European Renal Association - European Dialysis & Transplant Association Conference, Paris, France
Sep 2012	Young Investigator Finalist, Cardiovascular Institute, Stanford University

Grant Support (*PI)

(a) Active Support

2017 – 2020	Funder: NIH/NSF R01 EB025020-01 Title: QuBBD: Deep Poisson Methods for Biomedical Time to Event and Longitudinal Data
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Role: Co-Investigator (PI: M. Pencina) (10%)

*2019 – 2021 Funder: NIH-NHLBI R21 HL145415
Title: Environmental Impacts of Asthma exacerbation in children
Role: Co-PI (Co PI: J. Lange) 10%

(b) Pending Support

*2019 – 2024 Funder: NIH-NIDDK R01
Title: Personalizing Dialysis Treatment Based on Life Expectancy
Role: PI 30%

(c) Duke Institutional Funding

2016 – Department: Surgery Outcomes Group (SCORES)
Role: Faculty statistician to support research in surgery
Staff: 1 staff statistician
Support: 10%

2016 – Department: Duke Health Technology Solutions
Role: Provide statistical support for high priority projects defined by the health system
Staff: 2 staff statisticians and 1 student intern
Support: 30% effort

2018 – Department: Children's Health Discovery Initiative
Role: Data science and Analytic Leader for CHDI
Staff: 2 staff statisticians
Support: 20% effort

2018 – Department: Duke Heart Center
Role: Supervise quality improvement projects for the heart center
Staff: 1 staff statistician
Support: 10% effort

(d) Past Support

2008–2011 Funder: NIH-NHGRI T32 HG 00047
Role: Genomics Graduate training grant

2011 Funder: NIH-NHLBI 5K23 HL09133402
Title: Early Acute Lung Injury (EALI): A Prospective Evaluation Prior to Respiratory Failure
Role: Advised statistical analysis (PI: J. Levitt)

2011 Funder: NIH-NIDDK R21DK077336-01
Title: Warfarin Use in ESRD Patients with Atrial Fibrillation: Risks, Benefits, Behavior
Role: Senior Biostatistician; advised statistical analysis. (PI: W. Winkelmayr)

2011 Funder: Stanford Cardiovascular Research Institute
Title: Comprehensive and Real Time Assessment of a Genetic Risk Score for Cardiovascular Disease in the Women's Health Initiative
Role: Advised statistical analysis. (PI: T. Assimes)

*2011-2012 Funder: Stanford Innovation Awards in Population Science
Title: Prediction of Acute Risk of Sudden Cardiac Death in Hemodialysis Patients
Role: PI

- 2011-2012 Funder: Stanford Innovation Awards in Population Science
Title: A Randomized Trial of Personal Genomics for Preventive Cardiology
Role: Senior Biostatistician. Designed genetic risk score (PI: J. Knowles)
- 2011 – 2013 Funder: United Therapeutics
Title: Combination Up-Front Therapy for PAH- A Phase4, Randomized, Open-Label, Multi-Center Study of Inhaled Treprostinil in Treatment-naïve PAH Patients Starting on Tadalafil
Role: Senior Biostatistician. Oversee data collection and analysis (PI: R. Zamanian)
- 2011 – 2013 Funder: NIH-NHLBI K23HL09114301
Title: Clinical and Genetic Evaluation of Donors for Cardiac Transplantation
Role: Designed and performed analytic plan for studies of heart transplant utilization (PI: K. Khush)
- 2012 – 2013 Funder: NIH-NIHHD R018419065
Title: Causes of Asian American mortality understood by socio-economic status
Role: Designed statistical analytic plan, oversee data collection and coordination (PI: L. Palaniappan)
- 2012 – 2014 Funder: NIH – NHLBI K24HL08670306
Title: Mentoring for the Development of Translational Scientists
Role: Provide statistical mentorship to postdocs (PI: R. Stafford)
- *2013 – 2013 Funder: AHA – Career Development Grant
Title: Understanding and predicting cardiac events in HD using real-time EHRs
Role: PI (Funding Returned for K25)
- 2011 – 2014 Funder: Stanford Center for Policy, Outcomes & Prevention
Role: Provide biostatistical support for a variety of projects at PCOR (PI: P. Wise)
- 2013 – 2014 Funder: Stanford Translational Research and Applied Medicine
Title: Development, Evaluation, and Implementation of a Genetic Risk Score for Skin Cancer Prediction
Role: Co-Investigator (PI: K. Sarin)
- 2011 – 2014 Funder: NIH grant R01AG02629106
Title: Disease, Disability and Death in an Aging Workforce
Role: Senior Biostatistician (PI: M. Cullen)
- 2011 – 2014 Funder: NIH-NIDDK R01DK090181-01A1
Title: Comparative Effectiveness and Safety of Newer Agents for Anemia Treatment in HD
Role: Senior Biostatistician. Designed statistical analytic plan. (PI: W. Winkelmayr)
- 2012 – 2016 Funder: NIH-NIDDK R01 DK095024 01A1
Title: The Atrial Fibrillation - Factor Identification to Risk Modification Study in HD
Role: Co-Investigator, Senior Biostatistician. Designed research questions and analytic plan. (PI: W. Winkelmayr)
- *2016 – 2017 Funder: Duke Collaborative Quantitative Approaches to Problems in the Basic and Clinical Sciences
Title: Incorporating dynamic Electronic Health Records into a model for patient deterioration
Role: PI

- *2016 – 2017 Funder: Sanofi S.A.
Title: Using Machine Learning and Electronic Health Records to predicting hospitalization among diabetics
Role: PI
- *2013 – 2018 Funder: NIH – NIDDK K25DK09727901
Title: Understanding and predicting cardiac events in HD using real-time EHRs
Role: PI; Career Development award covering 75% of support
- 2014 – 2019 Funder: NIH-NHLBI 1R01HL125303
Title: Evidence-Based Evaluation and Acceptance of Donor Hearts for Transplantation
Role: Co-Investigator. Designed analysis to assess graft choice for heart transplantation (PI: K. Khush)
- 2017 – 2018 Funder: Duke Institute for Health Innovation
Title: Reducing emergency department length of stay through population-based predictive modeling
Role: Co-Investigator (PI: K. Knutson)
- 2017 – 2018 Funder: Duke Institute for Health Innovation
Title: Dashboard for aggressive treatment among oncology patients at end of life
Role: Co-Investigator (PI: N. Bhavsar)
- 2017 – 2018 Funder: NSF-STTR Phase I 1721737
Title: Development of a machine learning platform to predict surgical complication
Role: Senior Biostatistician (PI: E. Huang)

Teaching Experience

Biost 707, Duke University

Biostatistics for Learning and Discovery

Fall 2017 (18 Students)

Fall 2018 (24 Students)

Fall 2019 (26 Students)

Biost 824, Duke University

Health Data Science Case Studies – Electronic Health Records Data

Spring 2019 (7 Students)

“Clinical Research with Electronic Health Records”

Summer Institute in Biostatistics, North Carolina State University

Summer 2015 – 2019

Intensive Course in Clinical Research Methods, Stanford University

Fall 2011, Spring 2012, Fall 2012, Fall 2013

“Ask A Biostatistician”, Cardiovascular Institute Retreat, Stanford University

Fall 2011, Fall 2012

Public Health PH 242C, UC Berkeley

Longitudinal Data Analysis

Spring 2009 (TA)

Mentoring activities

Faculty

Nrupen Bhavsar, Department of Medicine, Mentor on K01
David Ming, Department of Pediatrics, Mentor on K12
Neha Pagidipati, Department of Cardiology, Mentor on K12

Doctoral Students

Zidi Xu, B&B PhD Primary Advisor Student
Phil White, DSS, PhD Dissertation Committee Member
Aaron Jones, B&B PhD Rotation Student
Ben Brewer, B&B PhD Rotation Student

*Masters and Undergraduates (*Primary Mentor)*

Aaron Jones, Masters B&B, 2015
*Xiruo Ding, Masters B&B, 2017
Allen Ross, Masters B&B, 2017
Reuben McCreanor, Masters DSS, 2017
Angie Shen, BS DSS 2017
*Aijing Gao, Masters B&B, 2018
*Karine Yekonen, Masters B&B, 2018
Wen Fan, Masters B&B, 2018
*Yue Liang, Masters B&B, 2019
*Zhecheng Sheng, Masters B&B, 2019
Kristie Kusibab, Masters B&B, 2019
Benji Wagner, Masters B&B, 2019
*Jingyi He, Masters B&B, 2020
Mengjie Xu, Masters B&B, 2020
Chun Xu, Masters B&B, 2020
Jakai Zhang, Masters B&B, 2020

Fellows and Residents

Morgan Cox, MD – CRTP Committee Mentor

Participation in academic and administrative activities

1. University and Medical Center Committees
 - B&B ML Faculty Search Committee, 2020
 - B&B PhD Student Admission Committee, 2020-2021
 - DHTS Predictive Analytics Oversight Committee, co-chair, 2018 – Present
 - PDC Outcomes Research Team Steering Committee, 2018 – Present
 - B&B Health Data Science Track Academic Committee, 2018 – 2019
 - B&B PhD Program Redesign Committee, 2018 – 2019
 - CTSA Funding Review Committee 2016, 2017
 - SCORES RFA Review Committee 2016, 2017
 - FORGE Design Workshop Quantitative Expert 2018
2. Professional Committees
 - ASA working group for use of real world data in regulatory process, 2018-2020
 - Scientific Program Coordinator – Data Science Track, AMIA Informatics Summits, 2019
 - Vice Chair – Data Science Track, AMIA Informatics Summits, 2020
3. Leadership Positions
 - Analytic and Data Science Leader for Children’s Health Discovery Initiative, 2018 -

Editorial Activities

European Heart Journal (*Regular Statistical Reviewer*)
JAMA Open (*Regular Statistical Reviewer*)
Journal of the American Medical Informatics Association (JAMIA)

Journal of Biomedical Informatics
Statistics in Medicine
Statistical Applications in Genetics and Molecular Biology
International Journal of Biostatistics
Statistical Analysis and Data Mining
Data Mining and Knowledge Discovery
Journal of the American Medical Association (JAMA)
JAMA Cardiology
Clinical Journal of the American Society of Nephrology
Kidney International
American Heart Journal

Bibliography

(a) Original, Peer-Reviewed Articles (Published: 84; first/last/corresponding: 31)

* Paper written by trainee/mentee

2020

1. O'Brien, C, **Goldstein BA**, Shen, Y, Phelan, M, Lambert, C, Lambert, C, Bedoya AD, and Steorts, RC. Development, Implementation, and Evaluation, of an In-Hospital Optimized Early Warning Score for Patient Deterioration. *Medical Decision Making: Policy & Practice*. In Press.
2. Bedoya, AD, Bhavsar, N, Page, C, **Goldstein, BA**, McIntyre, NR. Unanticipated Respiratory Compromise and Unplanned Intubations on General Medical and Surgical Floors. *Respiratory Care*, In Press.
3. Kaufman BG, Klemish D, Olson A, Kassner CT, Reiter JP, Harker M, Sheble L, **Goldstein BA**, Taylor DH Jr, Bhavsar NA. Use of Hospital Referral Regions in Evaluating End of Life Care. *Journal of Palliative Medicine*, 2020, 23: 90-96.

2019

4. **Goldstein, BA**, Phelan M, Pagidipati, NJ, Peskoe, SB. How and When Informative Visit Processes Can Bias Inference when Using Electronic Health Records Data for Clinical Research. *Journal of the American Medical Informatics Association*, 26(12): 1609-1617.
5. Lin, Q*, Betancourt, B, **Goldstein, BA**, Steorts, RC. Prediction of Appointment No Shows Using Electronic Health Records. *Journal of Applied Statistics*, In Press.
6. Bedoya, AD*, Clement, ME, Phelan, M, Steorts, RC, O'Brien, C, & **Goldstein, BA**. Minimal Impact of Implemented Early Warning Score and Best Practice Alert for Patient Deterioration. *Critical Care Medicine*, 2019, 47(1):49-55.
7. Setji, T, Page, C, Pagidipati, NJ and **Goldstein BA** Differences in Achieving A1c Goals Among Patients Seen by Endocrinologists and Primary Care Providers. *Endocrine Practice*, 2019, 25: 461-469.
8. Clement ME*, Johnston BE, Eagle C, Taylor D, Rosengren AL, **Goldstein BA**, Seña AC. Advancing the HIV Pre-Exposure Prophylaxis Continuum: A Collaboration Between a Public Health Department and a Federally Qualified Health Center in the Southern United States. *AIDS Patient Care and STDs*. 2019, 33(8): 366-371.
9. Han T, Gagnon J, Barth P, Schilder M, **Goldstein BA**, Faerber G, Lipkin M, Moul J. No-Shows in Adult Urology Outpatient Clinics: Economic and Operational Implications. *Urology in Practice*, In Press.
10. The effect of treatment on patient-reported distress after breast cancer diagnosis. Fayanju OM, Yenokyan K, Ren Y, **Goldstein BA**, Stashko I, Power S, Thornton MJ, Marcom PK, Hwang ES. *Cancer*, 2019, 125: 3040-3049.
11. Routh, JC., Wolf, Tejwani, R., Jiang, R., Pomann, GM., **Goldstein, BA.**, Maciejewski, ML. and Allori, AC. Early Impact of the Patient Protection and Affordable Care Act on Children's Surgical Care, *Clinical Pediatrics*, 2019, 58: 453-460.

12. **Goldstein, BA**, Phelan, M, Pagidipati, NJ, Holman, RR., Pencina, MJ, Stuart, EA. An Outcome Model Approach to Transporting a Randomized Controlled Trial Results to a Target Population. *Journal of the American Medical Informatics Association*, 2019, 26: 429:437.

2018

13. Bhavsar, NA.*, Gao, A., Phelan, M., Pagidipati, NJ., & **Goldstein, BA**. Value of Neighborhood Socioeconomic Status in Predicting Risk of Outcomes in Studies That Use Electronic Health Record Data. *JAMA Network Open*, 2018, 1(5): e182716.
14. Ding X.*, Gellad Z.F., Mather, C. Barth, P., Poon, E.G., Newman, M., and **Goldstein B.A**. Designing Risk Prediction Models for Ambulatory No-Shows Across Different Specialties and Clinics. *Journal of the American Medical Informatics Association*, 2018, 25(8): 924-930.
15. Cox ML*, Farjat AE, Risoli TJ, Peskoe S, **Goldstein BA**, Turner DA, and Migaly J. Documenting or Operating: Where Is Time Spent in General Surgery Residency? *Journal of Surgical Education*, 2018 75(6):e97-e106.

2017

16. **Goldstein B.A.**, Pomann, GM, Winkelmayr, WC., and Pencina, MJ. Comparison of risk prediction methods using repeated observations with application to Electronic Health Record. *Statistics in Medicine*, 2017, 36(17) 2750 – 2763.
17. Phelan, M.*, Bhavsar, N.A., **Goldstein, B.A**. Illustrating Informed Presence Bias in Electronic Health Records Data: How Patient Interactions with a Health System Can Impact Inference. *EGEMS*, 2017, 5(1): 22.
18. **Goldstein B.A.**, Navar, A.M., and Carter, R. E. Beyond Logistic Regression: Using machine learning from risk prediction in clinical cardiology studies. *European Heart Journal*, 2017, 38: 1805-1814.
19. Winkelmayr, W.C., **Goldstein, B.A.**, Mitani, A.A., Ding, V., Airy, M., Mendayam, S., Chang, T.I., Brookhart, M.A., and Fishbane, S. Safety of Intravenous Iron in Hemodialysis: Longer-term Comparisons of Irons Sucrose versus Sodium Ferric Gluconate Complex. *American Journal of Kidney Disease*, 2017, 69(6) 771-779.
20. Airy, M., Chang, T.I., Ding, V.Y., **Goldstein, B.A.**, Bansal, N., Niu, J., Navaneethan, S.D., Turakhia, M.P., Winkelmayr, W.C. Risk Profiles for Acute Health Events after Incident Atrial Fibrillation in Patients with End-stage Renal Disease on Hemodialysis. *Nephrology, Dialysis Transplant*, In Press.
21. **Goldstein B.A**. Pencina M. J., Montez-Rath, M.E. and Winkelmayr W.C. Value of different categories of information available in electronic health records for prediction of mortality in patients on dialysis. *Journal of the American Medical Informatics Association*, 2017, 24(1): 176-181.
22. **Goldstein B.A.**, Navar, A.M., Pencina, M.J., and Ioannidis, J.P. Opportunities and challenges in developing risk prediction models with electronic health records data: A systematic review. *Journal of the American Medical Informatics Association*, 2017, 24(1): 198-208.
23. Spratt, SE. Pereira, K., Granger, BB.,Batch, BC., Phelan, M., Pencina, M., Miranda, ML., Boulware, E., Lucas, JE., Nelson, CL., Neely, B., **Goldstein, BA.**, Barth, P., Richesson, RL., Riley, IL., Corsino, L., McPeck Hinz, ER., Rusincovitch, S., Green, J., Barton, AB., and the DDC Phenotype Group., Assessing Electronic Health Record Phenotypes against Gold-Standard Diagnostic Criteria for Diabetes Mellitus. *Journal of the Medical Informatics Association*, 2017, 24, e121-e128.
24. Knowles, J.W., Zarafshar S., Pavlovic, A., **Goldstein B.A.**, Tsai, S., Li, J., McConnel, M.V., Absher, D., Ashley, E.A., Kiernan, M., Ioannidis, J.P.A., Assimes, T.L. Impact of a genetic risk score for coronary artery disease on reducing cardiovascular risk: a pilot randomized controlled study. *Frontiers in Cardiovascular Medicine*, 2017, 4:53.
25. Pun, P.H. **Goldstein, B.A**. Gallis, J., Middleton, J.P., Svetkey, L.P. Serum Potassium Levels and Risk of Sudden Cardiac Death Among Patients with Chronic Kidney Disease and Significant Coronary Artery Disease. *Kidney International Reports*, 2017, 2:1122-1131.

26. Profit J, Gould JB, Bennett M, **Goldstein BA**, Draper D, Phibbs CS, Lee HC. Racial/Ethnic disparity in NICU quality of care delivery. *Pediatrics*, 2017, 140(3): e20170918.

2016

27. **Goldstein B.A.**, Bhavasar, N.A., Phelan, M., and Pencina, M.J. Controlling for informed presence bias due to the number of health encounters in an Electronic Health Record. *American Journal of Epidemiology*, 2016, 184(11): 847-855.
28. **Goldstein, B.A.**, Thomas, L., Zaroff, J.G., Nguyen, J., Menza, R.L., and Khush, KK. Longer Waiting List Time Leads to Increased Mortality in Heart Transplantation: A Mixed Methods Approach. *Epidemiology*, 2016, 27, 469 - 476.
29. **Goldstein, B.A.**, Polley, E.C. Briggs, F.B.S., van der Laan M. J. and Hubbard A.E.. Testing the relative performance of data adaptive prediction algorithms: A generalized test of conditional risk differences. *International Journal of Biostatistics*, 2016, 12(1): 117-129.
30. Hernandez-Boussard, T., Morrison, D., **Goldstein, B.A.** Hsia, R.Y. Relationship of Affordable Care Act Implementation to Emergency Department Utilization Among Young Adults. *Annals of Emergency Medicine*, 2016, 67, 714-720.
31. Kelly, K., Grau-Sepulveda, MV., **Goldstein, B.A.**, Spratt, S.E., Wolfley, A., Hatfield, V., Murphy, M., Jones, E., Granger, B.B. The Agreement of Patient-Reported Versus Observed Medication Adherence in Type 2 Diabetes Mellitus (T2DM), *BMC Open Diabetes*, 2016, 4:e000182.
32. David, S.P. Kapphahn, K., Hedlin, H., Wang A., Desai, M. Henderson, M., Yang, L., Walsh, K.M., Schwartz, A.G., Wiencke, J.K., Spitz, M.R., Wenzlaff, A.S., Wrensch, M.R., Eaton, C., Furberg, H., Brown, M., **Goldstein, B.A.** Assimes, T., Tang, H., Kooperberg, C., Tindle, H., Amos, C., Bergen, A.W., Swan, G.E., and Stefanick, M. Gene by environment investigation of incident lung cancer risk in African Americans. *EBioMedicine*, 2016, 4: 153-161.
33. Profit, J., Gould, J.B., Bennet, M., **Goldstein, B.A.**, Draper, D., Phibbs, C.S., and Lee, HC. The Association of Level of Care with NICU Quality. *Pediatrics*, 2016, 137: 1-9.
34. Burns, C., Wang, N.E., **Goldstein, B.A.** and Hernandez-Boussard, T. Characterization of young adult emergency department users: Evidence to guide policy. *The Journal of Adolescent Health*, 2016, 654-661.

2015

35. Salfati E., Nandkeolyar, S., Fortmann, S., Sidney, S., Hlatky, M.A., Quertermous, T, Go, A.S., Iribarren, C., **Goldstein, B.A.**, Assimes, T.L. Susceptibility loci for clinical CAD and subclinical coronary atherosclerosis throughout the life course. *Circulation: CV Genetics*, 2015, 8(6): 803-811.
36. **Goldstein BA**, Cheng TI, and Winkelmayer, WC. Classifying Individuals Based on a Densely Captured Sequence of Vital Signs: An Example using Repeated Blood Pressure Measurements during Hemodialysis Treatment. *Journal of Biomedical Informatics*, 2015, 57: 219-224.
37. Airy, M., Mandayam, S., Mitani, A.A., Chang, T.I., Ding, V., Brookhart, M.A., **Goldstein, B.A.** Winkelmayer, W.C. Comparative outcomes of predominant facility-level use of ferumoxytol versus other intravenous iron formulations in incident hemodialysis patients. *Nephrology Dialysis Transplantation*, 2015, 30: 2068-2075.
38. Anoshiravani, A, Saynina O, Chamberlain LJ, **Goldstein B.A.**, Huffman LC, Wang NE, and Wise PH. Mental illness drives hospitalizations in detained California youth. *Journal of Adolescent Health*, 2015, 57: 455-461.
39. Wu LT, Ghitza UE, Batch BC, Pencina MJ, Rojas LF, **Goldstein BA**, Schibler T, Dunham AA, Rusincovitch S, Brady KT. Substance Use and mental diagnoses among adults with and without type 2 diabetes: results from electronic health records data. *Drug and Alcohol Dependence*, 2015, 156:162-169.
40. **Goldstein, B.A.**, Assimes TL., Winkelmayer WC, and Hastie T. Detecting clinically meaningful biomarkers with repeated measurements in an Electronic Health Record. *Biometrics*, 2015, 71, 478-486.

41. Profit, J., **Goldstein, B.A.**, Tamaresis, J, Kan, P, and Lee, HC. Spreading Quality Improvement to Care Networks: Regional Variation in Antenatal Corticosteroid Use in California. *Pediatrics*, 2015, 135, 397-404.
42. Hastings, KG. Powell, J.O., Frank, A.T.H., Kapphahn, K.I., **Goldstein, B.A.**, Eggleston, K., Cullen, M.R., and Palaniappan, L.P. Leading Causes of Death Among Asian Americans., *PLOS One*, 2015, 10(4).
43. Hamad, R, Modrek, S, Kubo, J., **Goldstein, B.A.**, and Cullen MR. Using “big data” to capture overall health status: Properties and predictive value of a claims-based health risk score. *PLOS One*, 2015, 10(5).
44. Khush, K.K., Zaroff, J.G., Nguyen J., Menza, R. and **Goldstein, B.A.** National Decline in Donor Heart Utilization, with Regional Variability: 1995-2010. *American Journal of Transplantation*, 2015, 15, 642-649.
45. Rosas, L.G., Thiyagarajan, S., **Goldstein, B.A.**, Drieling, R., Padilla, P.R., Ma, J., Yank, V. and Stafford, R.S. Social and Environmental Support to Promote Weight Loss Among Latino Immigrant Men and Women: A Randomized Controlled Trial. *Journal of the American Academy of Nutrition and Dietetics*, 2015, 115, 537-550.
46. Rehkopf, D., Eisen, E., Modrek, S., Horner, E., **Goldstein, B.**, Costello, S., Cantley, L., Slade, M., Kubo, J., Loftus, P., and Cullen MR. Early life state of residence characteristics and later life hypertension, diabetes and ischemic heart disease. *American Journal of Public Health*, 2015, 11, e1-e7.
47. Winkelmayr, W.C., Chang, T.I., Mitani, A.A., Spivak, J.L., Adamson, J.W., Chertow, G.M., Brookhart, M.A., and **Goldstein, B.A.** Longer-term Outcomes of Darbepoetin Alfa versus Epoetin Alfa in Patients with End-Stage Renal Disease Initiating Hemodialysis: A Quasi-Experimental Study. *American Journal of Kidney Disease*, 2015, 66, 106-113.
48. **Goldstein, B.A.**, Yang, L., Salfati, E., and Assimes, T.L., Contemporary considerations for constructing a Genetic Risk Score: An Empirical Approach. *Genetic Epidemiology*, 2015, 39, 439-445.

2014

49. **Goldstein, B.A.**, Chang, TI, Mitani, A.A., Assimes TL., and Winkelmayr WC. Near-term prediction of sudden cardiac death in older patients using the electronic health records. *Clinical Journal of the American Society of Nephrology*, 9, 2014, 82-91.
50. Dewey F.E., Grove M., Pan, C., **Goldstein, B.A.**, Bernstein, J., Chaib, H., Goldfeder, R., Caleshu, C., Kingham, K., Ormond, K.E., Klein, T.E., Whirl-Carillo, M., Sakamoto, K., Wheeler, M.T., Butte, A., Merker, J., Ford, J., Boxer, L., Ioannidis, J.P.A., Yeung, A.C., Altman, R., Assimes, T.L., Snyder, M., Ashley, E.A., and Quertermous T. Opportunity and cost of clinical whole genome sequencing. *Journal of the American Medical Association*, 2014, 311, 1035-1045.
51. Kubo, J., **Goldstein, B.A.**, Cantley, L.F. Tessier-Sherman, B., Galusha, D., Slade, M.D., Chu, A.M., and Cullen, M.R. Contribution of health status and prevalent chronic disease to individual risk for workplace injury in the manufacturing environment. *Occupational and Environmental Medicine*, 2014, 71, 159-166.
52. Winkelmayr, W.C., Mitani, A.A., **Goldstein B.A.**, Brockhart, A., and Chertow, G. Trends in Anemia Care in Older Patients Approaching End-Stage Renal Disease in the U.S. (1995-2010). *JAMA Internal Medicine*, 2014, 174, 699-707.
53. Tamura, M.K., **Goldstein, B.A.**, Hall, Y.N., Mitani, A.A. and Winkelmayr, W.C. Variations in State Medicaid Coverage, ESRD Incidence and Access to Care Among Non-elderly Adults. *Journal of the American Society of Nephrology*, 2014, 25, 1321-1329.
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55. **Goldstein, B.A.**, Knowles, J.W., Salfati, E., Ioannidis J.P.A and Assimes, T.A., Simple and effective incorporation of genetic risk into traditional risk prediction tools for CHD. *Frontiers in Genetics*, 2014, 5.

56. Maxwell B.G., Levitt J.E., **Goldstein, B.A.**, Nicolls, M.R., Zamora, M., Valentine V., Weill, D. and Dhillon, G.S. Impact of the Lung Allocation Score on the survival beyond one year post transplantation. *American Journal of Transplantation*, 2014, 14: 2288-2294.
57. Hernandez-Boussard T., Burns C., Wang N.E., Baker L.S., and **Goldstein B.A.** Decrease in Emergency Department Utilization for Young Adults under the Healthcare Reform. *Health Affairs*, 2014, 33: 1648-1654.
58. Chen, S., Tierney, E.S.S., Khush, K.K., Nguyen, J., **Goldstein, B.A.**, May, L.J., Hollander, S.A., Kaufman, B.D., and Rosenthal, D.N. Reliability of Echocardiographic Measurements of Left Ventricular Systolic Function in Potential Pediatric Heart Transplant Donors. *Journal of Heart and Lung Transplant*, 2014, 34: 100-106.
59. Khush, K, Nguyen, J, **Goldstein, B.A.**, Menza, R, McGlothlin, DP, and Zaroff, JG. Reliability of Transthoracic Echocardiogram Interpretation in Potential Adult Heart Transplant Donors. *Journal of Heart and Lung Transplant*, 2014, 2498: S1053.
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2013

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84. **Goldstein, B. A.**, & Rosselli F. Etiological paradigms of depression: The relationship between perceived causes, empowerment, treatment preferences, and stigma. *Journal of Mental Health*, 12, 2003, 551 – 563.

(b) Editorials

1. **Goldstein, BA** & Rigdon, J. Using machine learning to identify heterogeneous effects in randomized clinical trials: Moving beyond the forest plot and into the forest. *JAMA Network Open*, 2019, 2(3): e190004.
2. **Goldstein B.A.**, Carlson, D., and Bhavsar, N.E. Subject Matter Knowledge in the Age of Big Data and Machine Learning. *JAMA Network Open*, 2018, 1(4): e181516.
3. **Goldstein B.A.**, Navar, A.M., and Pencina, M.J., Risk prediction with Electronic Health Records – the importance of model validation and clinical context. *JAMA: Cardiology*, 2016, 1(9): 976-977.
4. Assimes, T.L. and **Goldstein B.A.** Genetic Cardiovascular Risk prediction – are we already there? *European Heart Journal*, 2016, 37(43): 3279-3281.
5. **Goldstein, B.A.** and Winkelmayr, W.C. Comparative Health Services Research across Populations: The Unused Opportunities in Big Data. *Kidney International*, 2015, 87, 1094-1096.

(c) Other Publications

1. **Goldstein BA** and Pencina MJ. Developing Implementable Risk Prediction Models with Electronic Health Records Data. *Wiley StatsRef: Statistics Reference Online*, 2019.
2. Chapfuwa, P., Tao, C., Li, C., Page, C., **Goldstein BA.**, Carin, L., Henao R. Adversarial Time-to-Event Modeling. ArXiv e-prints, 2018.
3. **Goldstein, B.A.**, Assimes TL., Winkelmayr WC, and Hastie T. Detecting clinically meaningful biomarkers with repeated measurements in an Electronic Health Record, ArXiv e-prints, 2014.
4. **Goldstein, B.A.**, Polley, E.C. Briggs, F.B.S., van der Laan M. J. and Hubbard A.E.. Testing the relative performance of data adaptive prediction algorithms: A generalized test of conditional risk differences. Technical Report 1318, UC Berkeley, 2013.
5. **Goldstein, B.A.**, Hubbard A.E. & Barcellos, L.F. A Generalized Approach for Testing the Association of a Set of Predictors with an Outcome: A Gene Based Test. Technical Report 274, UC Berkeley, 2011.

(d) Presentations at Professional Meetings

1. Design Considerations for Running Health System Based Trials Through the Electronic Health Record. UPenn Conference on Clinical Trials, April 2019 (Invited Speaker)
2. Incorporating Longitudinal Predictors into a risk model with applications to EHR Data. Joint Statistical Meetings (JSM) Vancouver, CA, August 2018 (Invited Session)
3. Translating Clinical Trial Results to a Target EHR Population Using Machine Learning & Causal Inference, American Medical Informatics Association (AMIA) Joint Summits, San Francisco, CA March 2018.
4. Translating Clinical Trial Results to a Target EHR Population Using Machine Learning & Causal Inference, ENAR, Atlanta, GA, March 2018 (Invited Session)
5. Informed Presence in the Analysis of Electronic Health Records. Joint Statistical Meetings, Baltimore, MD, August, 2017
6. Opportunities and Challenges for Clinical Research with Electronic Health Records. American Association of Clinical and Translational Statisticians (ACTStat), Baltimore MD July 2017 (Keynote Address)
7. Designing & Implementing a Micro-Randomized- Cluster- Crossover Trial Through The EHR To Detect & Reduce Patient No Show. Advanced Healthcare Analytics Summit, Boston, MA May 2017.
8. Informed Presence in the Analysis of Electronic Health Records. American Medical Informatics Association (AMIA) Joint Summits, San Francisco, CA March 2017.
9. Informed Presence in the Analysis of Electronic Health Records. Duke Industry Statistics Symposium, Durham, NC September 2016.

10. A systematic review of using Electronic Health Records to predict clinical events: Assessment of opportunities and challenges. American Medical Informatics Association (AMIA) Joint Summits, San Francisco, CA March 2016.
11. Functional Regression Approach to Detect Clinically Meaningful Markers of Acute Events from an EHR. Joint Statistical Meetings (JSM), Boston, MA, August, 2014.
12. Academic Collaborative Statistics - Sponsored Roundtable. Joint Statistical Meetings (JSM), Boston, MA, August, 2014.
13. Understating and Predicting Cardiac Events in Hemodialysis using Electronic Health Records: Making Big Data Small. Conference in Statistical Practice, Tampa Bay, CA, February. 2014.
14. Analyzing Data with Competing Risk. American Society of Nephrology, invited course, San Diego, CA, October, 2012.
15. Functional Data Analysis of Blood Pressure Across & During Dialysis Sessions. Joint Statistical Meetings (JSM), San Diego, CA, July, 2012.
16. Predicting Acute Sudden Cardiac Death. European Renal Association - European Dialysis & Transplant Association (ERA-EDTA), Paris, Fr, May, 2012.
17. A Generalized Approach for Testing the Association of a Set of Predictors with an Outcome: A Gene Based Test. Western North American Region (WNAR), San Luis Obispo, CA, June, 2011.
18. Determining the genic contribution to disease by evaluating component SNPs. Joint Statistical Meetings (JSM), Vancouver, CA, August, 2010.
19. Applying Random Forests for Genome Wide Association Studies. Salford Data Mining Conference, San Diego, CA, August, 2009.
20. Comparison of multiple testing procedures to identify MHC association in type 1 diabetes, Type 1 Diabetes Genetics Consortium, Washington DC, August, 2007.

(e) Invited Talks

1. Predicting Inpatient Deterioration: From Quality Improvement to Research (A Story in 5 Acts), Duke University, Duke Center Health Informatics Seminar, April 2019
2. Predicting Inpatient Deterioration: From Quality Improvement to Research (A Story in 5 Acts), Johns Hopkins University, Biostatistics Seminar, April 2019
3. Clinical Risk Prediction with Electronic Health Records: Leveraging the Available Data, Canadian Heart Society Meeting, Toronto, Canada, May 2016. (Keynote Address)
4. Clinical Research with Electronic Health Records: What and How?, Duke Clinical Research Institute, Durham, NC, May 2016.
5. Clinical Research with Electronic Health Records: Opportunities and Challenges, National University of Singapore, Singapore, February 2016.
6. Leveraging Electronic Health Records to Understand and Predict Cardiac Events in Hemodialysis: Making Big Data Small, University of Miami Department of Biostatistics, Miami, FL, March 2015.
7. Leveraging Electronic Health Records to Understand and Predict Cardiac Events in Hemodialysis: Making Big Data Small, North Carolina State Department of Statistics, Raleigh, NC, February 2015.
8. Understating and Predicting Cardiac Events in Hemodialysis using Electronic Health Records. Duke University Department of Biostatistics & Bioinformatics, Durham, NC, May, 2014.

9. Understating and Predicting Cardiac Events in Hemodialysis using Electronic Health Records. Mayo Clinic Department of Biostatistics, Rochester, MN, March, 2014.
10. Understating and Predicting Cardiac Events in Hemodialysis using Electronic Health Records. Albert Einstein Division of Biostatistics, NY, NY, September, 2013.
11. Predicting Acute Sudden Cardiac Death Using Electronic Health Records. Cardiovascular Institute Retreat, Stanford, Ca, September, 2012.
12. Predicting Acute Sudden Cardiac Death Using Electronic Health Records. Biostatistics Workshop, Stanford, Ca, May, 2012.
13. Predicting Acute Sudden Cardiac Death Using Electronic Health Records. Quantitative Sciences Unit Seminar, Stanford, Ca, May, 2012.

14. Prediction in Medical Studies: What, Why & How. Quantitative Sciences Unit Seminar, Stanford, Ca, Nov, 2011.
15. A Generalized Approach for Testing the Association of a Set of Predictors with an Outcome: A Gene Based Test. Stanford University, Stanford, CA, December, 2010.
16. A Generalized Approach for Testing the Association of a Set of Predictors with an Outcome: A Gene Based Test. Affymetrix Inc., Emeryville, CA, October, 2010.
17. A Generalized Approach for Testing the Association of a Set of Predictors with an Outcome: A Gene Based Test. CNA, Washington DC, October, 2010.
18. A Generalized Approach for Testing the Association of a Set of Predictors with an Outcome: A Gene Based Test. UCSF, San Francisco, CA, August, 2010.
19. A Walk Through the Woods: Applying Random Forests for Genome Wide Association Studies. Statistics Department Student Seminar, Berkeley, CA, November, 2009.