CURRICULUM VITAE

Stavroula A. Chrysanthopoulou, PhD

Assistant Professor of Biostatistics
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PERSONAL INFORMATION

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EDUCATION

2003	BS	Statistics	Athens University of Economics and Business
2007	MS	Biostatistics	University of Athens
2013	PhD	Biostatistics	Brown University
		Dissertation:	*Statistical Methods in Micro-Simulation Modeling: Calibration and Predictive Accuracy*
		Advisor:	Constantine A. Gatsonis, PhD

ACADEMIC APPOINTMENTS

2013 - 2014	Investigator,	Department of Biostatistics,	Brown University
2015 - 2017	Instructor,	Department of Quantitative Health Sciences,	University of Massachusetts Medical School
2017 - present	Assistant Professor,	Department of Biostatistics,	Brown University
2018 - 2020	Associate Director,	Master's Program in Biostatistics	Brown University
2019 - present	Director,	Statistical Consulting Unit at the Center for Statistical Sciences	Brown University
2020 - present	Director,	Master's Program in Biostatistics	Brown University

OTHER APPOINTMENTS

2003 – 2007	Consulting Biostatistician, Athens, Greece
2005 – 2008	Statistical Consultant, Agilis SA - Statistics & Informatics, Athens, Greece

HONORS AND AWARDS

2017	Dean's Award for Research Mentoring and Commitment to Student Professional Advancement, University of Massachusetts Medical School

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Statistical Association
Society for Medical Decision Making
New England Statistical Society
International Microsimulation Association
Eastern North American Region, International Biometric Society
Rhode Island Public Health Association

NATIONAL OR INTERNATIONAL SERVICE

- Society for Medical Decision Making
  - 2020 - : Education Committee [Member]
  - 2022 - : Task Force 5: Hosting educational activities for effective communication, translation and dissemination of research to different audiences. [Member]
  - 2022 - : Task Force 7: Creation of different types of guidance documents that describe best practices in the MDM field. [Member]
  - 2020 - : SMDM Meetings Abstract Submission [Reviewer]
  - 2020 - 2021 : Digital Communication Committee [Member]
- New England Statistical Society
  - 2021 - : Society Council [Member]
- Rhode Island Public Health Association
  - 2020 - : Strategic Planning Committee [Member]
  - 2021 - : Annual Event Planning Committee [Chair]
- Journal Manuscript Reviewer
  - *Medical Decision Making*
  - *International Journal of Microsimulation*
  - *BMC – Population Health Metrics*
- NESS 2019 IBM Student Paper Committee [Reviewer]

PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. Thielking, A.M., Fitzmaurice, K.P., Sewpaul, R., **Chrysanthopoulou, S.A.**, Dike, L., Levy, D.E., Rigotti, N.A., Siedner, M.J., Wood, R., Paltiel, A.D., Freedberg, K.A., Hyle, E.P. and Reddy, K.P. (2024), Tobacco smoking, smoking cessation and life expectancy among people with HIV on antiretroviral therapy in South Africa: a simulation modelling study. J Int AIDS Soc., 27: e26315. https://doi.org/10.1002/jia2.26315

2. Barry CV, Chrysanthopoulou SA, Tallo V, Jarilla B, Vargas Z, McDonald E, Gundogan F, Friedman JF. The Impact of Prenatal Alcohol Exposure on Longitudinal Growth, Nutritional Status, and Insulin-Like Growth Factor 1 in Early Childhood in Leyte, the Philippines. J Pediatr. 2024 Jun;269:113977. doi: 10.1016/j.jpeds.2024.113977. Epub 2024 Feb 23. PubMed PMID: 38401788; PubMed Central PMCID: PMC11096041

3. Sawe SJ, Mugo R, Wilson-Barthes M, Osetinsky B, Chrysanthopoulou SA, Yego F, Mwangi A, Galárraga O. Gaussian process emulation to improve efficiency of computationally intensive multidisease models: a practical tutorial with adaptable R code. BMC Med Res Methodol. 2024 Jan 27;24(1):26. doi: 10.1186/s12874-024-02149-x. PubMed PMID: 38281017; PubMed Central PMCID: PMC10821551

4. Flam-Ross JM, Marsh E, Weitz M, Savinkina A, Schackman BR, Wang J, Madushani RWMA, Morgan JR, Barocas JA, Walley AY, **Chrysanthopoulou SA**, Linas BP, Assoumou SA. Economic Evaluation of Extended-Release Buprenorphine for Persons With Opioid Use Disorder. JAMA Netw Open. 2023 Sep

5;6(9):e2329583. doi: 10.1001/jamanetworkopen.2023.29583. PubMed PMID: 37703018; PubMed Central PMCID: PMC10500382.

5. Saiganesh H, Duffy C, **Chrysanthopoulou SA**, Dizon DS. Predictors and impact of survivorship care plans and survivorship care visits. J Cancer Surviv. 2023 Jan 24;. doi: 10.1007/s11764-023-01334-z. [Epub ahead of print] PubMed PMID: 36692704; PubMed Central PMCID: PMC9871419.

6. Ledesma JR, Zou L, **Chrysanthopoulou SA**, Giovenco D, Khanna AS, Lurie MN. Community Mitigation Strategies, Mobility, and COVID-19 Incidence Across Three Waves in the United States in 2020. Epidemiology. 2023 Jan 1;34(1):131-139. doi: 10.1097/EDE.0000000000001553. Epub 2022 Nov 30. PubMed PMID: 36137192; PubMed Central PMCID: PMC9811991.

7. Ledesma JR, Lurie P, Yorlets RR, Daly G, **Chrysanthopoulou SA**, Lurie MN. Spurious early ecological association suggesting BCG vaccination effectiveness for COVID-19. PLoS One. 2022;17(9):e0274900. doi: 10.1371/journal.pone.0274900. eCollection 2022. PubMed PMID: 36125984; PubMed Central PMCID: PMC9488757.

8. Shewmaker P, **Chrysanthopoulou SA**, Iskandar R, Lake D, Jutkowitz E. Microsimulation Model Calibration with Approximate Bayesian Computation in R: A Tutorial. Med Decis Making. 2022 Mar 21:272989X221085569. doi: 10.1177/0272989X221085569. Epub ahead of print. PMID: 35311401.

9. Aung S, Hardy N, **Chrysanthopoulou S**, Htun N, Kyaw A, Tun MS, Aung KW, Kantor R, Rana A. Evaluation of peer-to-peer HIV counseling in Myanmar: a measure of knowledge, adherence, and barriers. AIDS Care. 2021 Mar 21:1-9. doi: 10.1080/09540121.2021.1902929. Epub ahead of print.

10. Aung S, Hardy N, **Chrysanthopoulou SA**, Kyaw A, San Tun M, Aung KW, Rana A, Kantor R. Stigma Determines Antiretroviral Adherence in Adults With HIV in Myanmar. J Acquir Immune Defic Syndr. 2022 Jan 1;89(1):19-26. doi: 10.1097/QAI.0000000000002813. PMID: 34542090; PMCID: PMC8675909.

11. Ruchman SG, Delong AK, Kamano JH, Bloomfield GS, **Chrysanthopoulou SA**, Fuster V, Horowitz CR, Kiptoo P, Matelong W, Mugo R, Naanyu V, Orango V, Pastakia SD, Valente TW, Hogan JW, Vedanthan R. Egocentric social network characteristics and cardiovascular risk among patients with hypertension or diabetes in western Kenya: a cross-sectional analysis from the BIGPIC trial. BMJ Open. 2021 Sep 2;11(9):e049610. doi: 10.1136/bmjopen-2021-049610.

12. **Chrysanthopoulou SA**, Rutter CM, Gatsonis CA. Bayesian versus Empirical Calibration of Microsimulation Models: A Comparative Analysis. Medical Decision Making. May 2021. doi:10.1177/0272989X211009161

13. Wilson-Barthes M, **Chrysanthopoulou SA**, Atwoli L, Ayuku D, Braitstein P, Galárraga O. Cost-Effectiveness of Care Environments for Improving the Mental Health of Orphaned and Separated Children and Adolescents in Kenya. J Ment Health Policy Econ. 2021 Jun 1;24(2):31-41.

14. Vedanthan R, Kamano JH, **Chrysanthopoulou SA**, Mugo R, et al. Group Medical Visit and Microfinance Intervention for Patients With Diabetes or Hypertension in Kenya. J Am Coll Cardiol. 2021 Apr 27;77(16):2007-2018. doi: 10.1016/j.jacc.2021.03.002. PubMed PMID: 33888251; PubMed Central PMCID: PMC8065205

15. Omari F, **Chrysanthopoulou SA**, Embleton LE, Atwoli L, Ayuku DO, Sang E, Braitstein P., The impact of care environment on the mental health of orphaned, separated and street-connected children and adolescents

in western Kenya: a prospective cohort analysis. BMJ Glob Health. 2021 Mar;6(3). doi: 10.1136/bmjgh-2020-003644.

16. Linas BP, Savinkina A, Madushani RWMA, Wang J, Eftekhari Yazdi G, Chatterjee A, Walley AY, Morgan JR, Epstein RL, Assoumou SA, Murphy SM, Schackman BR, **Chrysanthopoulou SA**, White LF, Barocas JA., Projected Estimates of Opioid Mortality After Community-Level Interventions. JAMA Netw Open. 2021; 4(2):e2037259. doi:10.1001/jamanetworkopen.2020.37259

17. Velasco, MC, **Chrysanthopoulou, SA** and Galárraga, O, 2020, Cash Transfers and Contraceptive Use: A Regression Discontinuity Analysis. Studies in Family Planning, 51: 309-321. https://doi.org/10.1111/sifp.12142

18. Kimaina, A, Dick, J, DeLong, A, **Chrysanthopoulou, SA**, Kantor, R, & Hogan, JW. 2020, Comparison of machine learning methods for predicting viral failure: a case study using electronic health record data, Statistical Communications in Infectious Diseases, 12(s1), 20190017. doi: https://doi.org/10.1515/scid-2019-0017

19. Chen K, **Chrysanthopoulou SA**, Galárraga O. Analysis of the impact of cash transfer programs on HIV risk behaviors in Kenya. Journal of Global Health Reports. 2020;4:e2020004. doi:10.29392/001c.12101

20. Vedanthan R, Kamano JH, DeLong AK, Naanyu V, Binanay CA, Bloomfield GS, **Chrysanthopoulou SA**, Finkelstein EA, Hogan JW, Horowitz CR, Inui TS, Menya D, Orango V, Velazquez EJ, Were MC, Kimaiyo S, Fuster V. Community Health Workers Improve Linkage to Hypertension Care in Western Kenya. J Am Coll Cardiol. 2019 Oct 15;74(15):1897-1906. doi: 10.1016/j.jacc.2019.08.003. Epub 2019 Sep 2. [PMID: 31487546]; [PMCID: PMC6788970].

21. Liu SH, **Chrysanthopoulou SA**, Chang Q, Hunnicutt JN, Lapane KL. Missing Data in Marginal Structural Models: A Plasmode Simulation Study Comparing Multiple Imputation and Inverse Probability Weighting. Med Care. 2019 Mar;57(3):237-243. doi: 10.1097/MLR.0000000000001063. [PMID: 30664611]; [PMCID: PMC6436551].

22. Motzkus CA, **Chrysanthopoulou SA**, Luckmann R, Rincon TA, Lapane KL, Lilly CM. ICU Admission Source as a Predictor of Mortality for Patients With Sepsis. J Intensive Care Med. 2018 Sep;33(9):510-516. doi: 10.1177/0885066617701904. Epub 2017 Apr 7. [PMID: 28385105]

23. Wood ME, **Chrysanthopoulou S**, Nordeng HME, Lapane KL. (2017) The Impact of Nondifferential Exposure Misclassification on the Performance of Propensity Scores for Continuous and Binary Outcomes: A Simulation Study. Med Care. [PMID: 28922298]

24. Ulbricht, CM, **Chrysanthopoulou, SA**, Levin, L, & Lapane, KL (2018). The use of latent class analysis for identifying subtypes of depression: A systematic review. Psychiatry Research, 266, 228-246. doi:https://doi.org/10.1016/j.psychres.2018.03.003 [PMID:29605104]

25. Erskine NA, Gandek B, Waring ME, Kinney RL, Lessard DM, Devereaux RS, **Chrysanthopoulou SA**, Kiefe CI, Goldberg RJ. (2017) Survivors of an Acute Coronary Syndrome with Lower Patient Activation Are More Likely to Experience Declines in Health-Related Quality of Life. Journal of Cardiovascular Nursing. [PMID:28574974]

26. Hunnicutt JN, **Chrysanthopoulou SA**, Ulbricht CM, Hume AL, Tjia J, Lapane KL. (2017). Prevalence of Long-Term Opioid Use in Long-Stay Nursing Home Residents. J Am Geriatr Soc. [PMID: 28940193]

27. **Chrysanthopoulou, SA** (2017). MILC: A microsimulation model of the natural history of lung cancer. IJM, 10(3), 5-26. doi:10.34196/ijm.00164

28. Griffith, G, Kumaraswami, T, **Chrysanthopoulou, SA**, Mattocks, K, & Robin, C (2017). Prescription Contraception Use and Adherence by Women with Substance Use Disorders. Addiction. 112(9):1638-1646. [PMID:28387979]

29. Hunnicutt, JN, Ulbricht, CM, **Chrysanthopoulou, SA**, & Lapane, KL (2016). Probabilistic bias analysis in pharmacoepidemiology and comparative effectiveness research: a systematic review. Pharmacoepidemiology and Drug Safety. 25(12):1343-1353. [PMID:27593968]

30. Liu, S-H, Ulbricht, CM, **Chrysanthopoulou, SA**, & Lapane, KL (2016). Implementation and reporting of causal mediation analysis in 2015: a systematic review in epidemiological studies. BMC Research Notes. 9:354. [PMID:27439301]

31. Risvas G, Panagiotakos DB, **Chrysanthopoulou S**, Karasouli K, Matalas AL, Zampelas A. Factors associated with food choices among Greek primary school students: a cluster analysis in the ELPYDES study. J Public Health (Oxf). 2008 Sep;30(3):266-73. doi: 10.1093/pubmed/fdn039. Epub 2008 May 22. PubMed PMID: 18502745.

32. Panou FK, Kotseroglou VK, Lakoumentas JA, **Chrysanthopoulou S**, Armeniakos JA, Stratigou T, Veve H, Zacharoulis AA. (2006) Significance of brain natriuretic peptide in the evaluation of symptoms and the degree of left ventricular diastolic dysfunction in patients with hypertrophic cardiomyopathy. Hellenic Journal of Cardiology. 47(6):344-51. [PMID:17243506]

33. Vardakas KZ, Soteriades ES, **Chrysanthopoulou SA**, Papagelopoulos PJ, Falagas ME. (2005) Perioperative anti-infective prophylaxis with teicoplanin compared to cephalosporins in orthopaedic and vascular surgery involving prosthetic material. Clinical Microbiology and Infection. 11(10):775-7. [PMID:16153250]

34. Bliziotis IA, Michalopoulos A, Kasiakou SK, Samonis G, Christodoulou C, **Chrysanthopoulou S**, Falagas ME. (2005) Ciprofloxacin vs an aminoglycoside in combination with a beta-lactam for the treatment of febrile neutropenia: a meta-analysis of randomized controlled trials. Mayo Clinic Proceedings. 80(9):1146-56. [PMID:16178494]

35. Bliziotis IA, Samonis G, Vardakas KZ, **Chrysanthopoulou S**, Falagas ME, (2005). Effect of aminoglycoside and beta-lactam combination therapy versus beta-lactam monotherapy on the emergence of antimicrobial resistance: a meta-analysis of randomized, controlled trials, Clinical Infectious Diseases. 41(2):149-58. [PMID:15983909]

36. Vardakas KZ, Samonis G, **Chrysanthopoulou SA**, Bliziotis IA, Falagas M, (2005). Role of glycopeptides as part of initial empirical treatment of febrile neutropenic patients: a meta-analysis of randomised controlled trials, Lancet Infectious Diseases. 5(7):431-9. [PMID:15978529]

Complete List of Published Work in MyBibliography:
https://www.ncbi.nlm.nih.gov/myncbi/stavroula.chrysanthopoulou.1/bibliography/public/

SCHOLARLY WORK PUBLISHED IN OTHER MEDIA

1. **Chrysanthopoulou SA.** (2014) MILC: MIcrosimulation, Lung Cancer (MILC) model. URL http:CRAN.R-project.org/package=MILC. R package version 1.0

PRESENTATIONS

National

1. **Chrysanthopoulou SA,** "*Statistical methods in Micro-simulation modeling: Calibration and Predictive accuracy of an MSM for lung cancer*", CISNET Annual Meeting, 2013, Washington DC

2. **Chrysanthopoulou SA,** "*Comparative Study of Two Calibration Methods for Microsimulation Models*", Modern Modeling Methods (M3) Conference, University of Connecticut, 2014

3. **Chrysanthopoulou SA,** "*MILC*: A Microsimulation Model of the Natural History of Lung Cancer", North American Microsimulation Workshop, 2016, Washington DC

4. Kim N, **Chrysanthopoulou SA,** "*Demographic and Geographic Disparity of Social Determinants of Health: The Rhode Island Health Opportunity Index*", Gerontological Society of America (GSA) Annual Scientific Meeting. Nov 14-18, 2018, Boston MA

5. Invited Talk: **Chrysanthopoulou SA,** "*Microsimulation Models in Medical Decision Making – Calibration and Predictive Accuracy*", TRIPODS Workshop: Models and Machine Learning for Causal Inference and Decision Making in Health Research, Jan 14-18, 2019, Providence RI

6. Velasco MC, **Chrysanthopoulou SA**, Galárraga O, "*The Impact of a Cash Transfer on Contraception Utilization in Ecuador: A Regression Discontinuity Approach*", Population Association of America Annual Meeting, April 10-13, 2019, Austin TX.

7. Organizer and Chair of an Invited Session at the 33rd New England Statistics Symposium, May 15-17, 2019, Hilton Hartford, Connecticut
   Session Title: "Predictive Modeling in Data Science: Methods and Applications"
   Presentations:
   1) Michael Wolfson, University of Ottawa, "*Applying Dynamic Microsimulation to Understand Health Inequalities*"
   2) Jon Steingrimsson, Brown University, "*Deep Learning with Time-to-Event Outcomes*"
   3) Petros Pechlivanoglou, The Hospital for Sick Children, "Using Microsimulation for Inference and Prediction in the Presence of Competing Risks and Recurrent Events: A Multistate Model Perspective"
   4) Eric Jutkowitz, Brown University, "*Societal, Medicare, Medicaid, and Family Cost of Dementia in the United States*"

8. Invited Talk: **Chrysanthopoulou SA,** "*Microsimulation models in Medical Research*", University of Rhode Island, Department of Computer Science and Statistics, 2019 Statistics Seminar Series, November 15, 2019, RI, USA

9. **Stavroula A. Chrysanthopoulou**, Jianing Wang, Shayla Nolen, Benjamin P. Linas Laura F. White, "*Analysis and Predictions of Recurrent Opioid Use Disorder Relapse Events – a Comparative Study*", 42nd Annual Meeting of the Society for Medical Decision Making, October 06-27 2020, Virtual Meeting

10. Rajesh Vedanthan, Jemima H. Kamano, **Stavroula A. Chrysanthopoulou,** Richard Mugo, Vitalis Orango, Allison K. DeLong, Gerald S. Bloomfield, Valentin Fuster, Carol R. Horowitz, Peninah Kiptoo, Winnie Matelong, Violet Naanyu, Sonak D. Pastakia, Thomas W. Valente, Joseph W. Hogan, Rajesh Vedanthan, "*Group Medical Visits And Microfinance For Patients With Diabetes And Hypertension In Western Kenya: Results Of The BIGPIC Trial*", American Heart Association's virtual Scientific Sessions 2020, November 13 – 17

11. Peter Shewmaker, **Stavroula A. Chrysanthopoulou**, Rowan Iskandar, Eric Jutkowitz, "*Calibration of a Microsimulation Model Using Approximate Bayesian Computation*", American Statistical Association Conference on Statistical Practice, February 17–19, 2021, Virtual Meeting.

12. Rajapaksha Wasala Mudiyanselage, AM, Linas, BP, Wang, J, White, LF, **Chrysanthopoulou, SA** "*Empirical Calibration of a Simulation Model of Opioid Use Disorder*", American Statistical Association Symposium on Data Science & Statistics, June 2–4, 2021, Virtual Meeting.

13. Lin Zou, Jorge Ledesma, Mark Lurie, **Stavroula A. Chrysanthopoulou**, "*The association between mitigation efforts and COVID-19 outcomes in the US*", 43rd Annual North American Meeting of the Society for Medical Decision Making, October 18–20, 2021, Virtual Meeting.

14. Flam-Ross, J.; Savinkina, A.; Schackman, B., Wang, J.; Madushani, R. W. M. A.; Morgan, J.; Barocas, J.; Walley, A.; **Chrysanthopoulou, S. A.**; Linas, B.; Assoumou, S. A. Extended-Release Buprenorphine for Patients with Opioid Use Disorder: A Cost-effectiveness Analysis. Short Research Presentation. 2021 Symposium on Substance Use Research. Virtual Conference. November 9-11, 2021.

15. Flam-Ross, J.; Savinkina, A.A.; Wang, J.; Madushani, R.W.M.A.; Walley, A.Y.; **Chrysanthopoulou, S.A.**; Linas, B.P.; Assoumou, S.A. Extended-Release Buprenorphine for Opioid Use Disorder: A Cost-effectiveness Analysis. ASAM 53rd Annual Conference. March 31-April 3, 2022, Florida, US.

16. Zou, L.F., **Chrysanthopoulou, S.A.**; United States COVID-19 Daily Cases Prediction in 2020 Using Bidirectional LSTM with Clustered Data, Brown University Public Health Research Day, April 5, 2022, Rhode Island, US. [Dean's Award, Master's Poster Runner-Up]

17. Organizer and Moderator of the 1st Webinar of the Society for Medical Decision Making, May 18, 2022 (Virtual Session) Speaker: Anna Heath, PhD, Topic: "Simulating Study Data to Support Expected Value of Sample Information".

18. Organizer and Chair of an Invited Session at the 35th New England Statistics Symposium, May 22-25, 2022, Storrs (UConn campus), Connecticut
    Session Title: "Predictive Modeling in Medical Decision Making: Methods and Applications"
    Presentations:
    1) Krishna Reddy, MD, Harvard Medical School: "*Simulation Modeling to Inform Clinical and Public Health Policy in HIV and Tobacco*"
    2) Jenny Wang, Boston University, "*Applying Dynamic Microsimulation to Understand Health Inequalities*"
    3) Lin Zou, Brown University, "*Predicting US COVID-19 cases using Bidirectional Long-Short Term Memory Recurrent Neural Network with Clustered Data*"
    4) Aditya Khanna , Brown University, "*Stimulant use interventions may strengthen 'Getting to Zero' HIV elimination initiatives in Illinois: Insights from a modeling study*"

19. Invited Talk: **Chrysanthopoulou SA,** Irvine, M., Linas, BP, "Methods Panel: *Metamodeling and Model comparisons*", CHERISH, Opioid Use Disorder Simulation Modeling Workshop 2022, October 22, 2022, Seattle, WA, USA

20. Hedspeth, T., **Chrysanthopoulou SA**, "*Mathematical Models for Bladder Cancer; a systematic review*", 44th Annual North American Meeting of the Society for Medical Decision Making, October 23–26, 2022, Seattle, WA, USA

21. **Chrysanthopoulou SA**, Hedspeth, T., "*Simulation models for bladder cancer: a systematic review*", CISNET Annual Meeting, December 15-16, 2022, Washington DC, USA

22. **Chrysanthopoulou SA**, Hedspeth, T., "*Variance Reduction Technique in simulation models*", CISNET Annual Meeting, December 15-16, 2022, Washington DC, USA

23. Organizer and Moderator of the 2nd Webinar of the Society for Medical Decision Making, February 2, 2023 (Virtual Session) Speaker: Peter Shewmaker, ScM, Topic: "Calibration of a Microsimulation Model using Approximate Bayesian Computation".

24. Hedspeth, T., **Chrysanthopoulou SA**, "*Research on the development of microsimulation models for medical decision making; a study on models for bladder cancer*", ENAR Spring Meeting, May 19–22, 2023, Nashville, TN, USA

25. Invited Talk: **Chrysanthopoulou SA**, "*RESPOND: a simulation model for Opioid Use Disorder (OUD) treatment decision making*", COBRE on Opioids and Overdose Guest Lecture Series, July 31, 2024, Providence, RI, USA

26. **Chrysanthopoulou SA**, Chen W, Carroll M., Baptiste D., Linas, BP, "*Exploring statistical approaches for building emulators: an application to the RESPOND simulation model for Opioid Use Disorder (OUD)*", ENAR Spring Meeting, March 10–13, 2024, Baltimore, MD, USA

27. Chatterjee A, Stewart EA, Assoumou SA, **Chrysanthopoulou SA**, Harris RA, O'Dea R, Schackman BR, White L, Linas BP. *Health and Economic Outcomes of Offering Buprenorphine in Shelters in Massachusetts: Results of a Simulation Model*. Society for General Internal Medicine National Meeting, May 15-18, 2024, Boston, MA, USA

28. Zwick, H, O'Dea, R, Barocas, JA, Flam-Ross, J, Chatterjee, A, Walley, AY, Harris, R, Schackman, BR, White, LF, **Chrysanthopoulou, SA**, Assoumou, SA, Murphy, SM, Morgan, JR, Baptiste, D, Carroll, D, Linas, BP. *Clinical and economic outcomes of approaches to encampments of individuals experiencing homelessness in Massachusetts: A modelling approach*. Abstract presented at: Boston Addiction Conference; March 15-16, 2024; Boston, MA. https://www.bmc.org/together-for-hope-2024

29. Invited Talk: **Chrysanthopoulou SA (Brown Uni),** Mozer, R. (Bentley Uni), Mukherjee, D (Boston Uni), Clark, D (Williams College) "*Careers in Academia: A Panel Discussion by NESS Nextgen*", NESS, The 37th New England Statistics Symposium, May 20-24, 2024, University of Connecticut, CT, USA

30. Zwick, H., Vititow, J., Savitzky, C., Carroll, M., Baptiste, B., **Chrysanthopoulou, SA**, Benda, NC, Linas BP. *HEAL D2A Modeling and Economic Resource Center (MERC): Semi-Structured Interviews to Support Opioid Intervention Decision-Making*. Addiction Health Services Research Conference, Oct 16-18, 2024, San Francisco, CA, USA

International

1. **Chrysanthopoulou SA**, Pongas E, "*Harmonization and extension of controls at various stages of External Trade statistical production*", EDICOM/ICT Working Group Meeting, Eurostat, Luxembourg, 2007

2. **Chrysanthopoulou SA**, Petrakos G, "*The Metadata of Frames, Populations, and Coverage as a quality assessment tool in statistical surveys*", 2nd European Survey Research Association Conference, 2007, Prague

3. **Chrysanthopoulou SA**, Stavropoulos P, Pongas E "*Research on validation and automatic correction methods in Foreign Trade Data*", ICT Working Group Meeting, Eurostat, 2007, Luxembourg

4. **Chrysanthopoulou SA**, "*Statistical methods in Micro-simulation modeling: Development and Calibration of an MSM for lung cancer*", Joint Statistical Meetings, 2013, Montreal, Canada

5. **Chrysanthopoulou SA**, "Calibration and Predictive Accuracy of Microsimulation Models: an application to the MILC model", International Microsimulation Association, 2014, Maastricht, The Netherlands

6. **Chrysanthopoulou SA**, "*Calibration and Predictive Accuracy of the MIcro-simulation Lung Cancer (MILC) model*", International Statistical Institute, 2015, Rio de Janeiro, Brazil

7. Wood M, **Chrysanthopoulou SA**, Nordeng H, Lapane KL *The impact of nondifferential exposure misclassification on the performance of propensity scores for continuous and binary outcomes: a simulation study*. ISPE annual meeting, 2017, Dublin

8. Hunnicutt JN, Ulbricht CM, **Chrysanthopoulou SA**, Lapane KL. *Probabilistic bias analysis in pharmaco-epidemiologic studies*. 32nd Annual International Conference for Pharmacoepidemiology. 2016, Dublin, IE.

9. **Chrysanthopoulou SA**, "*Calibration and Predictive Accuracy of Microsimulation Models*", 38th Annual North American Meeting, Society for Medical Decision Making, 2016, Vancouver, BC, Canada

10. Wood M, **Chrysanthopoulou SA**, Nordeng H, Lapane KL, *The impact of nondifferential exposure misclassification on the performance of propensity scores for continuous and binary outcomes: a simulation study*. Norwegian Pharmacoepidemiology Society annual meeting, 2017.

11. **Chrysanthopoulou SA,** *Calibration Methods for Microsimulation Models: An application on the MIcrosimulation Lung Cancer (MILC) model*, 9th EMR & Italian Region Conference of the International Biometric Society, 2017, Thessaloniki, Greece

31. Invited Talk: **Chrysanthopoulou SA,** "*Development, Assessment and Use of Microsimulation models in Medical Research*", Toronto Health Economics and Technology Assessment (THETA) Collaborative Lecture Series (& Online Webinar), University Health Network Toronto General Hospital, June 7, 2019, Toronto, Canada

32. **Chrysanthopoulou SA,** Julia Mullokandova, "*Statistical methods in microsimulation – a systematic review of models for lung cancer*", The 13th International Conference on Health Policy Statistics, January 6-8, 2020, San Diego, California, USA

33. Rajapaksha Wasala Mudiyanselage AM, Wang, J, Linas, BP, White, LF, **Chrysanthopoulou SA,** "*Bayesian Calibration of a Simulation Model of Opioid Use Disorder"*, ISPOR Europe 2022, November 6-9, 2022, Vienna, Austria

34. Reddy, K, Mulroy, N, Richards, B, Rosen, L, Levy, DE, Rigotti, NA, **Chrysanthopoulou, SA**, "*Projected impact of higher e-cigarette and/or combustible cigarette taxes on use of both products in the US*", Society For Research On Nicotine & Tobacco (SRNT) 2024, March 20-23, Edinburg, Scotland

35. Virtual Course: **Chrysanthopoulou, SA**, "*Simulation Models for Public Health Decision Making*", Society for Medical Decision Making, September 11, 2024, (online) 12-15:30pm EDT

GRANTS

Current Grants

Title : *Researching Effective Strategies to Prevent Opioid Death (RESPOND)*
Project Number / Funding Source : R01 DA046527 / NIH
Funding Period : 10/01/23 – 07/31/24
Description : The Researching Effective Strategies to Prevent Opioid Death (RESPOND) project will develop a population simulation model of opioid use disorder (OUD) in a state and use it to inform state-level innovations for low-barrier access to medications for opioid use disorder.
Role: Sub-PI (PI Linas)

Title : *Tobacco Use and Cessation, HIV, and TB in South Africa: Clinical and Economic*
Project Number / Funding Source : R01 DA050482 / NIH
Funding Period : 08/01/21 – 07/31/25

Description : This project will combine an integrated cost-effectiveness model of tobacco, HIV, and tuberculosis care with tobacco-related findings from a population-based cohort in South Africa to project clinical and economic outcomes and cost-effectiveness of tobacco cessation interventions in HIV care. The overall goal is to promote an evidence-based approach to decisions around the integrated health care and services for the overlapping tobacco, HIV, and tuberculosis epidemics.
Role: Sub-PI (PI Krishna)

Title : *Population Modeling of Bladder Cancer Detection and Control*
Project Number / Funding Source : U01 CA21071151 / NCI
Funding Period : 09/01/21 – 08/31/26
Description : This project will complete the development, calibration and validation of two independent population models of bladder cancer, and will address major questions in the surveillance, treatment, prevention, and diagnosis of bladder cancer by means of comparative mathematical modeling.
Role: Sub-PI (PIs Trikalinos, Hawre)

Title : *Training on Variance Reduction techniques with an application to KYSTIS*
Project Number / Funding Source : U01 CA265750 / NCI: CISNET Juice Program
Funding Period : 02/01/22 – 08/31/24
Description : The primary objective of this project will be to study thoroughly and obtain solid knowledge of variance reduction methods and adopt these to improve performance of complex predictive models. We will use the Kystis simulation model to implement, test, and compare performance of VRT with respect to results from model calibration and validation, sensitivity analyses, and predictive accuracy.
Role: PI

Title : *HEAL Data2Action Modeling and Economic Resource Center*
Project Number / Funding Source : U24DA057650 / NIH
Funding Period : 09/30/22-08/31/27
Description : Dr. Chrysanthopoulou, in consultation with the research team, will oversee the development and validation of an emulator of the Researching Effective Strategies to Prevent Opioid Death (RESPOND) model, a state-level, population simulation model of Opioid use disorder (OUD) treatment and delivery. She will also oversee the implementation of the model for creating a web-based tool for applying RESPOND to real data aiming at answering primary and secondary research questions posed by stakeholders in this area.
Role: Co-Investigator (PI Schackman, Bruce)

Completed Grants

Title : *PIPP Phase I: Mobility Analysis for Pandemic Prevention Strategies (MAPPS)*
Project Number / Funding Source : / National Science Foundation (NSF)
Funding Period : 08/01/22-01/31/24
Description : Thrust Areas: 1) curating currently available data on human mobility and social mixing into a federated data clearinghouse; 2) designing accurate, wearable devices for real-time biometric sensing and tracking of mobility and social interaction; 3) conducting athematical modeling of mixing and mobility and their implications for infectious disease dynamics; and 4) infusing our work with a strong ethics and privacy focus.
Role: Co-Investigator (PI Lurie)

Title : *Complex Predictive Modeling for evaluating the impact of a pandemic in public health*
Project Number / Funding Source : 008225 / Peterson Foundation/Brown University
Funding Period : 06/15/22 – 06/15/23

Description : The primary objective of this project will be to conduct preliminary work for developing a complex simulation model for evaluating the impact of a pandemic in Public Health.
Role: PI

Title : *Addressing Alcohol Misuse in HIV Prevention and Care: The Brown University Alcohol Research Center on HIV (ARCH)*
Project Number / Funding Source : P01 AA019072 / NIAAA
Funding Period : 07/01/20 – 05/31/25
Description : The goal of this program project is to test and move towards implementation of alcohol misuse interventions that can have substantial population reach and can improve (a) prevention of new HIV infections and (b) reduction in alcohol-related comorbidities in people with HIV.
Role: Co-Investigator (PI Kahler; Biostat Core Liu)

Title : *Microsimulation Modeling to Compare the Effectiveness and Cost-Effectiveness of Nondrug Interventions to Manage Clinical Symptoms in Racially/Ethnically Diverse Persons with Dementia*
Project Number / Funding Source : R01 AG060871 / NIH
Funding Period : 07/01/19 – 05/31/23
Description : The study will be the first to compare the effectiveness, cost-effectiveness, and affordability of nondrug ADRD interventions, by race (African American, Asian, and White) and ethnicity (Hispanic), on outcomes of family time caregiving, days in a nursing home, costs of families/Medicaid/Medicare, and the person with ADRDs and their caregivers quality-adjusted life-years.
Role: Co-Investigator (PI Jutkowitz)

Title : *ECOG-ACRIN Network Group Statistics and Data Management Center Supplement (CDISC Implementation)*
Project Number / Funding Source : U10 CA180794 / NCI/Dana Farber Cancer Institute
Funding Period : 03/01/20 – 02/28/21
Description : Conforming to CDISC standards allows the cooperative group system to have a uniform standards structure that allows sharing of data across agencies, including the FDA. This project aims to support our continue work training staff and implementing of CDISC standards related to image collection, acquisition and analysis in our clinical trials.
Role: Co-Investigator (PI Gray and Gatsonis)

Title : *Integrated Modeling of Epidemiological and Economic Long-Term Outcomes in Africa (inMODELA): Training for Kenya*
Project Number / Funding Source : R-2020104-67710 / CRDF
Funding Period : 05/21/21 – 11/20/21
Description : This inMODELA Training proposal is submitted on behalf of the Brown University School of Public Health and Moi University in response to the NIH/FIC request for applications on “Modeling to Guide Practice: Training on the Use of Mathematical Modeling to Inform HIV Integrated Care.” The aim of this proposal is to build mathematical modeling capacity in Kenya by developing and delivering an intensive short-term training with longer-term professional mentorship for two participants affiliated with the Academic Model Providing Access to Health Care (AMPATH) in Eldoret, Kenya. The training team is comprised of seasoned investigators who have worked closely on various HIV and non-communicable disease (NCD) projects including the prior RFA “PEPFAR-NCD Call for Modeling Proposal.”.
Role: Co-Investigator (PI Galarraga)

Title : *The Miriam Hospital Subcontract Center for AIDS Research Biostatistics Core*
Project Number / Funding Source : P30 AI042853 / NIAID
Funding Period : 09/01/98 - 06/30/23
Description : The primary goal involves providing biostatistical expertise for the design and analysis of individual projects within CFAR; the core will also be responsible for implementation of data analyses and will participate in the preparation of reports and manuscripts.
Role: Co-Investigator (PI Cu-Uvin)

Title : *Bridging Income Generation with GrouP Integrated Care (BIGPIC)*
Project Number / Funding Source : R01 HL125487 / NHLBI/MSSM Subcontract
Funding Period : 04/01/15 – 01/31/21

Description : This subcontract is a collaboration in a longitudinal cluster-randomized trial of four interventions designed to reduce hypertension among HIV-infected individuals in western Kenya.
Role: Co-Investigator (PI Vedanthan)

Title : *Orphaned & Separated Children's Assessment Related to their Health & Well-Being*
Project Number / Funding Source : R01 HD060478 / NIH/IU Subcontract
Funding Period : 06/01/15 – 05/31/21
Description : This project involves providing biostatistics expertise and collaboration in a longitudinal observational study aimed at identifying determinants of health outcomes among children orphaned by HIV.
Role: Co-Investigator (PI Braitstein)

Title : *East Africa International Epidemiologic Databases to Evaluate AIDS (IeDEA) Regional Consortium*
Project Number / Funding Source : U01 AI069911 NCE-NIH
Funding Period : 08/31/17- 07/31/19
Description : We propose to provide biostatistics expertise and collaboration in a cohort study designed to characterize linkage to and progression through HIV care among HIV-infected children in western Kenya. The data will be collected as part of an administrative supplement to the East Africa IeDEA Consortium parent grant, funded by the National Institutes of Health.
Role: Co-Investigator (PI Wools-Kaloustian)

Title : *Biostatistics Data Management Center for ACRIN*
Project Number / Funding Source : U01CA79778 / NCI
Funding Period : 03/01/99-12/31/12
Description : The primary goal of the project was to provide support for data management in the National Lung Screening Trial (NLST) that compared two screening methods of lung cancer detection, i.e., low-dose helical tomography (CT) and standard chest X-ray. In addition, data from this study were analyzed for identifying possible predictors of lung cancer, as well as checking for differences between subgroups of the study population.
Role: Co-Investigator (PI Gatsonis)

UNIVERSITY TEACHING AND MENTORING ROLES

Teaching

Teaching (at Brown University)

Introduction to Biostatistics	Teaching Assistant	2008 (Fall)
Applied Regression Models	Teaching Assistant	2009 (Spring)
Analysis of Life Time Data	Teaching Assistant	2012 (Spring)
PHP2514 - Applied Generalized Linear Models	Instructor	2017 (Spring), 2021- current (Fall)
PHP2510/1510 - Principles of Biostatistics and Data Analysis	Instructor	2017 (Fall)
PHP2516: Applied Longitudinal Data Analysis	Instructor	2018 (Fall), 2019 – 2022 (Spring)
PHP2517:Applied Multilevel Data Analysis	Instructor	2019 – 2022 (Spring)
PHP2506: Biostatistics for Public Health Research	Instructor	2022 - current (Fall)
PHP2670: Simulation Models for Public Health Decision Making	Instructor	2023 - current (Spring)

Teaching (at UMASS Medical School)

Introduction to Clinical Epidemiology and Biostatistics	Instructor	2015 - 2017 (Summer)
Survival & Longitudinal Data Analysis	Instructor	2015 - 2017 (Fall)
Advanced Topics in Biostatistics – Simulation Studies in Medical Research	Instructor	2016 (Fall)

Curriculum Development (graduate level)

Curriculum Development (at UMASS Medical School)

2015 CTS608B - Survival and Longitudinal Data Analysis
2015 CTS605A - Introduction to Clinical Epidemiology and Biostatistics
2016 CTS712 - Advanced Topics in Biostatistics : Simulation Studies in Medical Research

Curriculum Development (at Brown University)

2017	PHP 2514 - Applied Generalized Linear Models
2017	PHP 1510 - Principles of Biostatistics and Data Analysis (undergraduate level)
2017	PHP 2510 - Principles of Biostatistics and Data Analysis (graduate level)
2018	PHP 2516 - Applied Longitudinal Data Analysis
2019	PHP 2517 - Applied Multilevel Data Analysis
2022	PHP 2506 - Biostatistics for Public Health Research
2023	PHP 2670 - Simulation Models for Public Health Decision Making

Professional Service

Professional Service (at Brown University)

2017 - 2020 Associate Director, Master's Program in Biostatistics
2017 - 2020 Master's Admissions Committee (member), SPH-Biostatistics
2018 - 2019 Sheridan Center Advisory Board [representing the SPH]

2018 - 2022 Diversity and Inclusion Committee, SPH - Biostatistics
2018 - current Academic Programs Committee, SPH - Biostatistics
2019 - current Public Health Curriculum Committee, SPH
2019 - current Leadership Committee, SPH - Biostatistics
2020 - current Director, Master's Program in Biostatistics
2021 - 2023 Chair, Master's Admissions Committee, SPH-Biostatistics
2021 - current Sheridan Center Faculty Liaison of SPH - Biostatistics
2023 - current Program Planning; online ScM in Biostatistics, SPH - Biostatistics

Doctoral Dissertation Committee Member (Brown University)

1. Jason Gantenberg (2021) Brown University, PhD in Epidemiology
   Title: *Using Agent-based Models to Understand the Epidemiology of Gonorrhea among Men Who Have Sex with Men in the United States*.
2. Christopher Barry (2022) Brown University, PhD in Epidemiology
   Title: *Mechanistic Pathways of Prenatal Ethanol Exposure and Growth Delay in Early Childhood: The Role of Placental Disruption and IGF-1 Signaling at the Maternal-Fetal Interface*.
3. Jorge Ledesma (*current*) Brown University, PhD in Epidemiology
   Title: *Pandemic preparedness and response: epidemiologic analyses of the COVID-19 pandemic*.

Master's Thesis Advisor (Brown University)

1. Julia Mullokandova (2017-2019) Brown University, Master of Science in Biostatistics.
   Thesis: *Application and Reporting Practices of Microsimulation Models in Medical Research*.
2. Carolina Velasco (2018-2019) Brown University, Master of Science in Biostatistics.
   Thesis: *The Impact of a Cash Transfer Program on Contraception Utilization in Ecuador: A Regression Discontinuity Approach*.
3. Kim Narae (2017-2019) Brown University, Master of Public Health, Biostatistics Concentration.
   Thesis: *Demographic and Geographic disparity of Social Determinants of Health: The Rhode Island Health Opportunity Index.*
4. Peter Shewmaker (2018-2020) Brown University, Master of Science in Biostatistics.
   Thesis: *Calibration Methods for Microsimulation Models; Application to a Model for Dementia.*
5. Nicole Hardy (2018-2020) Brown University, Master of Science in Biostatistics.
   Thesis: *Statistical Methods to Analyze the effectiveness of Peer-To-Peer HIV Counseling in Myanmar: A Measure of Knowledge, Adherence, and Barriers.*
6. Kira Raskina (2018-2020) Brown University, Master of Science in Biostatistics.
   Thesis: *Statistical Methods to Assess the Predictive Accuracy of Microsimulation Models.*
7. Lin Zou (2020-2022) Brown University, Master of Science in Biostatistics.
   Thesis: *Predicting US COVID-19 Cases Using Bidirectional Long Short Term Memory Recurrent Neural Networks with Clustered Data* [**Dean's Award**, Master's Poster Runner-Up, Brown Public Health Research Day, 2022] [Best ScM in Biostatistics thesis, 2022]
8. Ding Yi (2020-2022) Brown University, Master of Science in Biostatistics.
   Thesis: *Exploring COVID-19 Incidence Trends in the US using ARIMA models; a comprehensive analysis*
9. Timothy Hedspeth (2021-2023) Brown University, Master of Science in Biostatistics.
   Thesis: *Complex Simulation Models for Bladder Cancer*
10. Breanna Richards (2021-2023) Brown University, Master of Science in Biostatistics.
    Thesis: *Calibrating Transition Probabilities for Tobacco and E-cigarettes Use using Markov Multi-state Modeling effect [**Dean's Award**, Master's Poster,* Brown Public Health Research Day, 2023*]*
11. Sirui Cui (2021-2023) Brown University, Master of Science in Biostatistics.
    Thesis: *Developing Microsimulation Models for COVID19; an example*

Master's Thesis Committee Member (Brown University)

1. Alan Kimaina (2017-2019) Brown University, Master of Science in Biostatistics.
   Thesis: *Evaluating Deep Learning Methods for Early Detection of HIV Virology Failure.*
2. Wei Wang (2017-2019) Brown University, Master of Science in Biostatistics.
   Thesis: *Deep Learning of low-dose chest CT in lung cancer.*
3. Tingyi Li (2019-2022) Brown University, Master of Science in Biostatistics.
   Thesis: *Apply Multilevel Functional Principal Component Analysis (MFPCA) to simulated lesion development processes with systolic blood pressure (sbp) in multiple sclerosis*
4. Yanyu Tao (2020-2022) Brown University, Master of Science in Biostatistics.
   Thesis: *Factors Associated with Weight Gain and Viral Suppression in Dolutegravir Combination Therapy Receivers*
5. Kyla Fynlanson (2021-2023) Brown University, Master of Science in Biostatistics.
   Thesis: *Predicting and Profiling Long COVID Using Machine Learning Methods.*
6. Abraham Liu (2021-2023) Brown University, Master of Science in Biostatistics.
   Thesis: *Simulating survival of advanced breast cancers.*
7. Tabib Chowdhury (2022-2024) Brown University, Master of Science in Biostatistics.
   Thesis:
8. Dapnhe Lo (2022-2024) Brown University, Master in Public Health
   Thesis:
9. Sophie Lazar (2022-2024) Brown University, Master in Public Health
   Thesis:

Honors Thesis Committee Member (Brown University)

1. Kevin Chen (2018-19) ScB in Biostatistics
   Honors Thesis in Public Health: *Analysis of the Impact of Cash Transfer Programs on HIV and Multimorbid Conditions in Kenya*
2. Amy Liu (2019-20) BA in Public Health
   Honors Thesis in Biostatistics & Capstone Project for concentration in statistics: *How well-being affects insurance plan choices among the elderly.*
3. Anuva Goel (2020-21) BA in Public Health
   Honors Thesis in Public Health: *Variations in Nursing Home Staffing and Depressive Symptoms among Residents According to Proportion of Residents with Cognitive Impairment*

Master's in Biostatistics, Academic Advisor (Brown University)

Served in the Academic Advisor role of over 50 Biostat ScM students.