

BINOD ACHARYA

CONTACT INFORMATION	Urban Health Collaborative Drexel University 3600 Market St, Philadelphia, PA 19104 USA	Phone: (225)456-6324 Email: ba525@drexel.edu https://binod-acharya.github.io
RESEARCH INTERESTS	Health disparities; Social epidemiology; Spatial statistics; Statistical modeling	
EDUCATION	M.S., Biostatistics Drexel University	2019 Philadelphia, PA
	M.S., Entomology (Minor: Applied Statistics) Louisiana State University	2017 Baton Rouge, LA
	B.Sc., Agriculture Tribhuvan University	2011 Kritipur, Nepal
PROFESSIONAL EXPERIENCE	Data Analyst , Drexel University	Apr 2019 - Present
	<p>I have provided statistical expertise to multiple research projects led by academics and clinicians that involve the application of advanced statistical methods, including Bayesian inference, survival analysis, multilevel analysis, and generalized linear models. As a biostatistician to the SALURBAL project at Drexel University, much of my work is focused on understanding urban health disparity in Latin America using methods of small-area estimation. I have worked on many social-epidemiological research projects related to eviction, informal settlements, homelessness, and residential segregation. In the wake of the COVID-19 pandemic, I conducted research to understand health and behavioral disruptions brought about by the pandemic such as the utilization of telehealth services, consumer spending on food and alcohol, and the effectiveness of vaccine lottery programs in the uptake of vaccination rate. In 2019, I worked as an analyst for the project Reducing Cancer and improving health outcomes in Philadelphia Neighborhoods, where I developed methods, analysis, and visualizations.</p>	
	Research Assistant , Drexel University	Oct 2017 - Mar 2019
	<p>Worked on programming, cleaning, and management of data from various sources, including surveys, censuses, vital statistics registries, and GIS data. Provided statistical support for manuscripts involving multi-level designs and spatial analysis.</p>	
	Research Assistant , Louisiana State University	Jan 2015 - May 2017
	<p>Designed and conducted a laboratory research to identify the genetic basis of Bt protein resistance in fall armyworm and provided assistance in field research.</p>	
	Program Associate , World Wildlife Fund Inc, Nepal	Jun 2014 - Dec 2014
	<p>Provided technical support to community leaders to protect ecologically fragile hills of Nepal by improved agricultural and livestock management practices.</p>	
	Technical Officer , National Tea & Coffee Development Board, Nepal	Apr 2012 - Jun 2014
	<p>Provided technical and policy support to stakeholders for improved coffee farming practices and commercialization.</p>	

PUBLICATIONS

Bhatta, D., Sizer, M.A., and **Acharya, B.** Association between telehealth and missed appointments among patients experiencing behavioral health challenges. *JAMA Network Open* (Forthcoming)

Trotta, A., Bilal, U., **Acharya, B.**, Quick, H., Moore, K., Perner, S.M., Alazraqui, M., and Diez Roux, A.V. (2023). Spatial inequities in life expectancy in small areas of Buenos Aires, Argentina 2015-2017. *Journal of Urban Health*. [\[Link\]](#)

Guimarães, J.M.N., **Acharya, B.**, Moore, K., López-Olmedo, N., de Menezes, M.C., Stern, D., Friche, A.A.d.L., Wang, X., Delclòs-Alió, X., Rodriguez, D.A., Sarmiento, O.L., and de Oliveira Cardoso, L. (2022). City-level travel time and individual dietary consumption in Latin American cities: results from the SALURBAL Study. *International Journal of Environmental Research and Public Health*, 19(20), 13443. [\[Link\]](#)

López, S.R., Tumas, N., Bilal, U., Moore, K., **Acharya, B.**, Quick, H., Quistberg, A.D., Acevedo, G.E., and Diez Roux, A.V. (2022). Intraurban socioeconomic inequalities in life expectancy: a population based cross-sectional analysis in the city of Córdoba, Argentina (2015-2018). *BMJ Open*, 12(9), e061277. [\[Link\]](#)

Acharya, B., Bhatta, D., and Dhakal, C. (2022). The risk of eviction and the mental health outcomes among the US adults. *Preventive Medicine Reports*, 29, 101981. [\[Link\]](#)

Dhakal, C., **Acharya, B.**, and Wang, S. (2022). Food spending in the United States during the first year of the COVID-19 pandemic. *Frontiers in Public Health*, 10, 912922. [\[Link\]](#)

Sizer, M.A., Bhatta, D., **Acharya, B.**, and Paudel, K.P. (2022). Determinants of telehealth service use among mental health patients: a case of rural Louisiana. *International Journal of Environmental Research and Public Health*, 19(11), 6930. [\[Link\]](#)

Acharya, B. and Dhakal, C. (2022). Risky health behaviors during the COVID-19 pandemic: evidence from the expenditures on alcohol, non-alcoholic beverages, and tobacco products. *PLoS ONE*, 17(5), e0268068. [\[Link\]](#)

Subedi, K., **Acharya, B.**, and Ghimire, S. (2022). Factors associated with hospital readmission among patients experiencing homelessness. *American Journal of Preventive Medicine*, 63(3), 362-370. [\[Link\]](#)

Acharya, B., Subedi, K., Acharya, P., and Ghimire, S. (2022). Association between COVID-19 pandemic and the suicide rates in Nepal. *PloS ONE*, 17(1), e0262958. [\[Link\]](#)

Acharya, B. and Dhakal, C. (2021). Implementation of state vaccine incentive lottery programs and uptake of COVID-19 vaccinations in the United States. *JAMA Network Open*, 4(12), e2138238. [\[Link\]](#)

Acharya, B. and Tabb, L. (2021). Spatiotemporal analysis of overall health in the United States between 2010 and 2018. *Cureus*, 13(9). [\[Link\]](#)

Kaimal, G., Jones, J.P., Dieterich-Hartwell, R., **Acharya, B.**, and Wang, X. (2019). **Evaluation of long- and short-term art therapy interventions in an integrative care setting for military service members with post-traumatic stress and traumatic brain injury.** *The Arts in Psychotherapy*, 62, 28-36. [\[Link\]](#)

Acharya, B., Head, G.P., Price, P.A., and Huang, F. (2017). **Fitness costs and inheritance of Cry2Ab2 resistance in *Spodoptera frugiperda* (JE Smith).** *Journal of Invertebrate Pathology*, 149, 8-14. [\[Link\]](#)

WORK IN PROGRESS

Heffler, K. F., **Acharya, B.**, Subedi, K., and Bennett, D. S. **The association of early-life digital media experiences with development of atypical sensory processing.** *JAMA Pediatrics*. (Under review)

Perner, M.S. , Trotta, A., Bilal, U., **Acharya, B.**, Quick, H., Natalia, P., Berazategui, R., Alazraqui, M., and Diez Roux, A.V. **Social inequalities and COVID-19 mortality between neighborhoods of Bariloche city, Argentina.** *International Journal for Equity in Health*. (Under review)

Oliveira, T.L., Silva, U.M., **Acharya, B.**, Quick, H., Moore, K., Bilal, U., Pina, M.F., Skaba, D., Matos, V., Andrade, A.C.S., Diez Roux, A.V., Friche, A., and Caiaffa, W.T. **Life expectancy in small areas in six Brazilian state capitals, 2015-2019.** (Manuscript in preparation)

Barber, S., Guimarães, J.M.N., Goro, Y., **Acharya, B.**, Caiaffa, W., Friche, A.A.d.L, Araújo, E., Santos, G., Lucumi, D., and Diez Roux, A.V. **Racial inequities in non-communicable disease mortality across cities in Brazil: the role of residential segregation.** (Manuscript in preparation)

Lynch, S., **Acharya, B.**, Moore, K., and Quick, H. **Socioeconomic disparities in Colorectal cancer mortality in Philadelphia census tracts.** (Manuscript in preparation)

Ortigoza, A., **Acharya, B.**, Trotta, A., Alazraqui, M., Perner, S., López, S.R., Tumas, N., Melly, S., Moore, K., Bilal, U., Quick, H., Santa, H., Minujin, A., and Diez Roux, A.V. **Intraurban disparities in under-five mortality in three cities of Argentina (2015-2017).** (Manuscript in preparation)

Slesinski, C., Moran, M., **Acharya, B.**, Bakhtsiyarava, M., Vaz, C., Caiaffa, W., Castillo, M., Cuesta, D.M., Sarmiento, O.L., Trotta, A., Moore, K., and Diez Roux, A.V. **Relationship between self-rated health and greenness, green landscape, and parks in Latin American cities.** (Manuscript in preparation)

REPORTS POSTERS

[Poster] Bennett, D. S., Subedi, K., Acharya, B., Heffler, K. F. Sensory profiles at 33 months as a function of early screen media exposure. In 2023 Society for Research in Child Development (SRCD) Meeting.

[Poster] Acharya, B., Moore, K., Bilal, U., Quick, H., and Diez Roux, A.V. Small area estimation of life expectancy in cities in Argentina and Brazil: methodological approach. In 2022 UHC Day poster session, Drexel University.

[Poster] Subedi, K., Acharya, B., and Ghimire, S. Factors associated with hospital readmission among patients experiencing homelessness. In 2022 Annual meeting of

Association for Clinical and Translational Statisticians.

[Academic Report] [The State of Cancer in Philadelphia, 2020.](#)

[Web Report] [Cancer in Philadelphia Neighborhoods, 2020.](#)

[Community Brief] Livengood, K., Diez Roux, A.V., Mullin, G., Acharya, B., Bettigole, C., Moore, K., Rollins, H., and Washington, R. Community Brief: Cancer in Philadelphia. Drexel University Urban Health Collaborative, Mar 2020.

[Poster] Acharya, B. Spatiotemporal analysis of overall health in the United States between 2010-2018 using Bayesian methods. In 2019 American Public Health Association Annual Meeting and Expo.

[Poster] Acharya, B., Head, G.P., Price, P.A., and Huang, F. (Sep 2016). Lack of fitness costs associated with *Bacillus thuringiensis* Cry2Ab2 resistance in the fall armyworm, *Spodoptera frugiperda* (JE Smith). In 2016 International Congress of Entomology.

AWARDS	2019	Delta Omega student poster award
	2017-2019	Dean's scholarship Dornsife School of Public Health, Drexel University
SERVICES AND MEMBERSHIP	2023 - present	Academic Editor, <i>PLoS ONE</i>
	2021 - present	Ad-hoc journal referee for: <i>American Journal of Epidemiology</i> , <i>JAMA Pediatrics</i> , <i>Journal of Clinical Oncology</i> , <i>JAMA Network Open</i> , <i>Frontiers in Public Health</i> , <i>Frontiers of Medicine</i> , <i>PLoS ONE</i> , <i>PLoS Global Public Health</i> , <i>Applied Clinical Informatics</i> , <i>Digital Health</i> , etc.
	2020 - present	Member, American Public Health Association
	2020 - present	Member, Statistics without Border
GRADUATE COURSEWORK	Statistics	
	<input type="checkbox"/> Statistical Inference I	<input type="checkbox"/> Generalized Linear Models
	<input type="checkbox"/> Statistical Inference II	<input type="checkbox"/> Longitudinal Data Analysis
	<input type="checkbox"/> Statistical Computing I	<input type="checkbox"/> Machine Learning
	<input type="checkbox"/> Advanced Statistical Computing	<input type="checkbox"/> Survival Data Analysis
	<input type="checkbox"/> Linear Statistical Models	<input type="checkbox"/> Regression Analysis
	<input type="checkbox"/> Applied Bayesian Analysis	<input type="checkbox"/> Categorical Data Analysis
	<input type="checkbox"/> Design and Analysis of Clinical Trials	<input type="checkbox"/> Statistical Techniques I
	<input type="checkbox"/> GIS for Public Health	<input type="checkbox"/> Statistical Techniques II
RELEVANT SKILLS	Computer Languages/Software:	R, SAS, ArcGIS, WinBUGS, RMarkdown, Quarto, Python, Stata, SQL, JAGS, L ^A T _E X, Stan, Github
	Human Languages:	English, Nepali, Hindi
	Certification:	Data Scientist with R, Datacamp SAS Certified Clinical Trials Programmer SAS Certified Base Programmer for SAS 9
REFERENCES	Available upon request	