

Anshul Kumar

Curriculum Vitae as of March 15 2025

Contact Information

Health Professions Education Department
School of Healthcare Leadership
MGH Institute of Health Professions
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Employment

MGH Institute of Health Professions

Department of Health Professions Education

Assistant Professor

April 2019 – Present

Part-Time Lecturer

January 2019 – March 2019

Department of Genetic Counseling

Assistant Professor

April 2019 – Present

Tufts University

Department of Community Health

Part-Time Lecturer

January 2019 – May 2019

Global Health Education and Learning Incubator, Harvard University and
Center for Health Decision Science, Harvard School of Public Health

Postdoctoral Research Fellow

February 2018 – March 2019

Education

Graduate School of Arts and Sciences, Harvard University

PhD in Sociology

May 2018

A.M. in Sociology

May 2014

College of Arts and Sciences, Cornell University

B.A. in Sociology, B.A. in Economics

May 2009

Written Works

Peer-reviewed publications

Kinney, A., Nordon-Craft, A., Kardong-Edgren, S., Kumar, A., & Thompson, A. (2024, March 10). Digital recordings of a clinical encounter facilitate reflection in physical therapy students and clinicians. *Frontiers in Medicine*, 11, 1516724. <https://doi.org/10.3389/fmed.2024.1516724>.

Arja, S. B., Kumar, A., White, B. A., & Thompson, A. (2024). Did the students' satisfaction rates at Avalon University School of Medicine correlate with the occurrence of accreditation site visits? *Medical Teacher*. <https://doi.org/10.1080/0142159X.2024.2359967>.

Mousavian, M., Ranganathan, K., Keuroghlian, A. S., Park, Y. S., & Kumar, A. (2024). What are the Barriers to Health Professionals' Training on Gender-Affirming Care from Patients' and Clinicians' Perspectives? *Social Science & Medicine*, 351. <http://doi.org/10.1016/j.socscimed.2024.116983>.

Klein, R., Snyder, E. D., Koch, J., Volerman, A., Alba-Nguyen, S., Julian, K. A., Thompson, V., Ufere, N. N., Burnett-Bowie, S.-A. M., Kumar, A., White, B. A. A., Park, Y. S., & Palamara, K. (2024). Analysis of narrative assessments of internal medicine resident performance: are there differences associated with gender or race and ethnicity? *BMC Medical Education*, 24(1). <https://doi.org/10.1186/s12909-023-04970-2>.

Klein, R., Julian, K. A., Koch, J., Snyder, E. D., Jassal, S., Simon, W., Millard, A., Uthlaut, B., Burnett-Bowie, S.-A. M., Ufere, N. N., Alba-Nguyen, S., Volerman, A., Thompson, V., Kumar, A., White, B. A., Park, Y. S., Palamara, K., & Gender Equity in Medicine Workgroup. (2024). Gender differences in clinical performance assessment of internal medicine residents: A longitudinal analysis of the influence of faculty and trainee gender. *Academic Medicine*, 99(12), 1413–1422. <https://doi.org/10.1097/ACM.0000000000005884>.

Klein, R., Snyder, E. D., Koch, J., Volerman, A., Alba-Nguyen, S., Julian, K. A., Thompson, V., Ufere, N. N., Burnett-Bowie, S.-A. M., Kumar, A., Adair White, B. A., Park, Y. S., & Palamara, K. (2023). Exploring gender and thematic differences in qualitative assessments of internal medicine resident performance. *BMC Medical Education*, 23, 932. <https://doi.org/10.1186/s12909-023-04917-7>. Correction: <https://doi.org/10.1186/s12909-023-05000-x>.

Yeo, M. M., Lim, S. H., Kumar, A., & Thompson, A. W. (2023). Calculator for predicting the probability of faculty promotion in an academic medical centre. *BMJ leader*, 06 October. <http://doi.org/10.1136/leader-2023-000861>.

Kumar, A., DiJohnson, T., Edwards, R. A., & Walker, L. (2023). The application of adaptive minimum match k-nearest neighbors to identify at-risk students in health professions education. *The Journal of Physician Assistant Education*, 34(3), 171-177. DOI: <http://doi.org/10.1097/JPA.0000000000000513>. Pre-print: <https://doi.org/10.35542/osf.io/wtuv6> and <https://arxiv.org/abs/2108.07709>.

Jafri, F. N., Yang, C. J., Kumar, A., Torres, R. E., Ahmed, S. T., Seneviratne, N., Zarowin, D., Bajaj, K., & Edwards, R. A. (2023). In situ simulation as a tool to longitudinally identify and track latent safety threats in a structured quality improvement initiative for SARS-CoV-2 airway management: a single-center study. *Simulation in Healthcare*, 18(1), 16-23.

<https://doi.org/10.1097/SIH.0000000000000633>.

Mousavian, M., Ranganathan, K., & Kumar, A. (2022). State of educational modalities employed in gender-affirming surgery amongst surgical residencies. *Global Surgical Education*, 1.

<https://doi.org/10.1007/s44186-022-00065-6>.

Jafri, F. N., Dadario, N. B., Kumar, A., Silverstein, S. R., Quintero, F., Larsen, E. A., Fasciglione, K., Mirante, D., Ellsworth, K., Amicucci, B., & Ricca, J. (2021). The addition of high-technology into the Stop The Bleed program among school personnel improves short-term skill application, not long-term retention. *Simulation in Healthcare*, 16(6), e159-e167. <https://doi.org/10.1097/sih.0000000000000546>.

Jafri, F. N., Mirante, D., Ellsworth, K., Shulman, J., Dadario, N. B., Williams, K., Yu, S., Thomas, J., Kumar, A., Edwards, R. A., Torres, R. E., & Straff, D. J. (2021). A microbriefing crisis resource management program for simulated pediatric resuscitation in a community hospital: a feasibility study. *Simulation in Healthcare*, 16(3), 163-169. <http://doi.org/10.1097/sih.0000000000000480>.

Marks, B. E., Waldman, G., Reardon, K., Terrio, S., Kumar, A., Stafford, D. E. J., Garvey, K. C., & Wolfsdorf, J. I. (2020). Improving pediatric endocrinology trainees' knowledge about insulin pumps and continuous glucose monitors with online spaced education: Technology Knowledge Optimization in T1D (TeKnO T1D). *Pediatric Diabetes*, 21(5), 814-823. <https://doi.org/10.1111/pedi.13010>.

Kumar, A. (2019). Cultures of learning in developing education systems: Government and NGO classrooms in India. *International Journal of Educational Research*, 95, 76-89.

<https://doi.org/10.1016/j.ijer.2019.02.009>.

Teaching materials

Kumar, Anshul. 2024. *Responsible applied statistics in R for behavioral and health data (working title)*. Textbook used for course HE-902 at MGHHP.

<https://bookdown.org/anshul302/HE902-MGHIHP-Spring2020/> or <http://tinyurl.com/he902stats>.

Kumar, Anshul. 2024. *Introductory predictive analytics and machine learning in education and healthcare*. Course book for HE-930 at MGHHP. <https://bookdown.org/anshul302/paml/>

Kumar, Anshul. 2021. *MGHIHP HE-802, Spring 2021*. Course book.

<https://bookdown.org/anshul302/HE802-MGHIHP-Spring2020/>.

Kumar, Anshul, et al. Equal first authorship. *Coronavirus Vaccine / कोरोनावाइरस वैक्सीन*. (COVID-19 vaccine information and resources for Indian audiences). <https://globalhealtheducation.github.io/>.

Software, code, and tools

Project director: Anshul Kumar. Developers: Dennis Eum, Lei Chen, Mohib Jafri. Adaptive Learner App. <https://educ-app-2.vercel.app/>.

Kumar, Anshul & Edwards, Roger. 2021. AdaptiveLearnalytics: Adaptive Predictive Learning Analytic Tools. <https://github.com/readcreate/AdaptiveLearnalytics>.

Kumar, Anshul. 2021. Predictive analytics tutorial: identify groups in your data using unsupervised machine learning. <http://tinyurl.com/AnshulCluster1>.

Unpublished research

Kumar, Anshul. 2018. *Innovating in Education: NGO Interventions in New Delhi Government Schools*. PhD Dissertation. Committee: Chris Winship, Orlando Patterson, Katherine Merseth.

Kumar, Anshul. 2013. "The organization and behavior of HIV-affected families in 18 African countries." (Graduate Qualifying paper). Committee: Martin Whyte, Gunther Fink, Nicholas Christakis.

Kumar, Anshul. 2009. "Food and Nutrition in Kabula – a Qualitative Examination in Western Kenya." Sociology Honors Thesis at Cornell University. Advisor: David Brown.

Student advising and mentorship

Current graduate students

- Rachel Cox Simms (chair of PhD dissertation committee)
- Emma D'Arpino (chair of PhD dissertation committee)
- Solomon Germossa (chair of PhD dissertation committee)
- Rosemary Samia (PhD dissertation committee member)
- Farrukh Jafri (PhD dissertation committee member)
- Ayman Mohamed (MS scholarly project advisor)
- Abdullah Sakkat (MS scholarly project advisor)
- Lisa-Marie O'Brien (MS scholarly project advisor)
- Janelle Lambert (MS scholarly project advisor)
- Minyang Chow (MS scholarly project advisor)
- Charlotte Taylor-Drigo (MS scholarly project advisor)
- Yan Jiang (MS scholarly project advisor)
- Christopher Chillura (MS scholarly project advisor)
- Joel Yee (MS scholarly project advisor)

Alumni

- Mohammad Mousavian (chair of PhD dissertation committee, MS scholarly project advisor)
- Peter Stallo (PhD dissertation committee member)

- Robin Klein (chair of PhD dissertation committee)
- Sateesh Arja (PhD dissertation committee member)
- Toby Kinney (PhD dissertation committee member)
- May May Yeo (PhD dissertation committee member)
- Egide Abahuje (PhD dissertation committee member)
- Jabeen Fayyaz (PhD dissertation committee member)
- Wed Almutairi (MS scholarly project advisor)
- Schoen Kruse (MS scholarly project advisor)
- Brianna Vaa Stelling (MS scholarly project advisor)
- Margaret Mitchell (MS scholarly project advisor)

Selected Projects

COVID-19 Education and Community Health Worker Training in India

Principal investigator, with Claudia Rosu

March 2020 – Present

- Collaboration of 30-40 people from Sinchan Education & Rural Entrepreneurship Foundation, Lahanti Club community group, Universidad Anáhuac Mexico, Tufts University, Harvard University, MGHHP.
- Delivery of COVID-19 educational lessons and evaluation instruments regarding COVID-19 basics, mask usage, hand hygiene, vaccine, nutrition myths/facts, and MIS-C.
- Mass General Brigham IRB protocols #2020P003752 (PI: Claudia Rosu) and #2020P003554 (PI: Anshul Kumar).
- Partially funded by a \$5,000 COVID-19 Small Grant from MGHHP

Inequality in Water and Sanitation Conditions in DHS Countries

July 2018 – Present

Principal Investigator

- Quantitative cross-country examination of factors influencing differential access to hygienic drinking water and toilets, using data from Demographic and Health Surveys.

Water and Sanitation in Gulu, Uganda

July 2018 – Aug 2019

Advisor to organization Water and Health for All

- Advised organization on processing, analysis, and interpretation of survey data related to water quality in Gulu, Uganda.

Pre-Texts for India

May 2018 – May 2019

Principal Investigator, with Polly Lauer and Jahnvi Singh

- Conducting one-year controlled pilot to bring Pre-Texts teaching methodology to a network of schools in Coimbatore, Tamil Nadu, India, with specific focus on literacy, math, and health.
- Funded by a \$5,000 seed grant from the Lakshmi Mittal and Family South Asia Institute at Harvard University.
- Supervised by Professor Doris Sommer.

Teaching

Courses taught as instructor

- Advanced Statistical Modeling for Health Professions Education (HE902), MGHHP, Spring, 2020-2025.
- Advanced Quantitative Methods and Measurement (HE802), MGHHP, Spring, 2019-2021
- Statistics/Predictive Analytics for Health Professions Education (HE930), MGHHP, Summer, 2020-2024.
- Pharmacy Research Methods Certificate Program, MGHHP, 2021-2023.
- Introduction to Community Health (CH1), Tufts University, Spring 2019

Courses taught as teaching assistant

Harvard University

- Fundamental Concepts of Public Health (GHP556) with Suerie Moon and Julio Frenk; summer 2015
- Global Health Challenges: Complexities of Evidence-Based Policy (SW24) with Professor Sue Goldie; spring 2014
- Life and Death in the USA (SOC190) with Professor Nicholas Christakis; spring 2012, spring 2013
- The American Family (SOC107) with Professor Marty Whyte; fall 2011, fall 2012, fall 2013

Peer Review

- 4th International Conference on Physics, Mathematics and Statistics. December 2020.
- Fourth International Conference on Social Science Public Health and Education, August 2021.

Additional Skills and Training

Data and Computer Skills

- Proficient in data analysis and manipulation in R, Python, Stata, Google Drive API, Google Colab.
- Statistical and demography training from National Science Foundation Research Experience for Undergraduates Program in Minority Group Social Demography; Population Research Center, University of Texas, Austin. Summer 2008.
- Relevant coursework:
 - Harvard University: Advanced Quantitative Research Methods (taught by Chris Winship), Social Network Analysis (Peter Marsden),
 - Cornell University: Computational Methods for Complex Networks (Gueorgi Kossinets), Population Dynamics (David Brown).
 - San Diego College of Continuing Education: Full-stack web developer certificate (completed spring 2024).

Other selected graduate-level coursework: Charter Schools (with Katherine Merseth and Nelson Smith), Sociology of Development (Martin Whyte), Sociology of Families and Kinship (Martin Whyte).

Language abilities: Native English, intermediate Hindi and French.

Nationality: USA