

# Anshul Kumar

Curriculum Vitae as of June 7 2024

## Contact Information

Health Professions Education Department  
School of Healthcare Leadership  
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## Employment

MGH Institute of Health Professions (MGHIHP)

*Assistant Professor*

*April 2019 – Present*

*Part-Time Lecturer*

*January 2019 – March 2019*

Tufts University

*Part-Time Lecturer, CH 1 – Introduction to Community Health*

*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*

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>.
- 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. (2022). 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 microdebriefing 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. *MGHHP 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)

- 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)

### *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, 2020-2023.
- Advanced Quantitative Methods and Measurement (HE802), MGHHP, Spring, 2019-2021
- Statistics/Predictive Analytics for Health Professions Education (HE930), MGHHP, Summer, 2020-2022.
- 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: Advanced Quantitative Research Methods (taught by Chris Winship), Social Network Analysis (Peter Marsden), Computational Methods for Complex Networks (Georgi Kossinets), Population Dynamics (David Brown).

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