

# Teaching Portfolio

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## 1 Teaching Related Awards

### 1.1 National

- Association of Schools of Public Health (ASPH)/Pfizer Early Career in Public Health (2010)
- Teaching Award (2010) Outstanding Teaching Award: given by the American Statistical Association Section on Teaching Statistics in the Health Sciences (2010)
- Best Contributed Paper, Joint Statistical Meetings 2006, Section on Teaching Statistics in the Health Sciences (2006)

### 1.2 Johns Hopkins

- “Ernest Lyman Stebbins Medal for Excellence in Education (2021)
- “Golden Apple” Award for Excellence in Teaching (2001, 2004, 2008, 2012, 2016, 2020)
- Advising, Mentoring, and Teaching Recognition (2018)
- Excellence in Online Education Award (2001, 2005)
- Teaching Assistant Recognition Award (2000)
- Cited for Excellent Course Evaluations (2004 -17)

### 1.3 Other

- Teaching Assistant of the Year, Harvard School of Public Health (1996)
- Teaching Fellow, Harvard School of Public Health (1995)

## 2 Statement of Teaching Philosophy

Teaching statistics is one of my passions and a major part of my vocation. It is hard to quantify how grateful I am for the opportunities that I have been given in the past eighteen years, nor the amount I have learned and experienced in the same time period. (I realize this is ironic given that I am a quantitative scientist, but even statisticians realize some things are beyond our beloved field). For me, teaching encompasses many dimensions including personal interaction, dynamic critical thinking and strategy, deep learning in order to educate others, empathy, excitement about my field of study, and intensive listening.

For the past eighteen plus years I have been on the Biostatistics faculty at the Bloomberg School of Public Health. In this time period I have progressed from being a “professional teaching assistant” to the designer and primary instructor of my own courses catering to graduate students in Public Health. I have taught basic and intermediate biostatistics courses in a variety of settings including the classroom, online, and in intensive week long half-day workshops. I have advised many students both with project and thesis work. I actively collaborate with faculty from other School departments, and from outside of the University, and consider my primary roles in these collaborations to be both a teacher and a learner. I will attempt to highlight some of the reasons that teaching statistics is such an intrinsic part of my identity and why I love it so much, by sharing facets of my experiences with “Statistical Reasoning in Public Health” and other courses below:

Things I love about teaching statistics:

- The interactions with the students – certainly this could come from teaching any discipline, but in some ways I feel the need to work harder on engaging students because statistics is such a misunderstood/demonized subject. Establishing mutual respect between teachers and students, and encouraging a Socratic style dynamic is really important to maximize the learning experience of both the students and the instructors.
- The challenge of making the mathematical practical. Having received my Master’s from a theory-centric program, I initially felt that if one mastered the mathematics of statistics, this was synonymous with a complete and deep understanding. My thinking was quickly corrected upon taking my first data-centric position upon completion of my master’s degree.
- The amazing wealth of topical and interesting examples that can be utilized to put a context on the material.
- The challenges that come with staging the same basic course materials for different sets of students every year. While the materials can remain constant between year (although as note previously I try to update these with some regularity), the students can be very different from one year to the next in both the traditional

campus based quarter-long courses, online courses, and short workshop style offerings. Learning the “personality” of each class is essential in my teaching process.

- The unbelievable amount of learning that I experience: this sounds cliché, but really cannot be overstated. Every year I am constantly updating and improving my knowledge and understanding of both the basics and more advanced principles of biostatistics because of the questions and comments raised by students themselves.

Teaching qualities I try to embrace include:

- Enthusiasm, excitement and more enthusiasm. I am of the mindset that if an instructor is not excited about his/her subject area, there is no reason to expect students to respond in an excited manner.
- Classroom Management: I treat the classroom like a guided discussion session even with a large number of enrollees. I ask questions of the group, encourage questions from the students, walk around, and make eye contact all while maintaining control of the pacing of the material. For the “virtual classroom” in an online course setting, I regularly monitor and respond to student queries on the course bulletin-board system, and give weekly online “live talk” sessions where I interact with the students. My lecture videos include short snippets of me speaking directly to the students watching, sandwiched in between narrated slides that include handwriting and drawing portions.
- I make it a priority to learn student names, and to remember details about their interests and background.
- Designing effective assignments. Assignments need to connect students to, and reinforce both the big picture ideas and important details in the course materials. Assignments should be challenging yet doable, and should connect the statistical concepts to context based examples.
- Additional Information for interested learners: I like to provide supplementary materials for those interested in learning about topics above a beyond the scope of course specific curriculum goals.
- Attentive listening: Effective teaching goes hand in hand with listening to students’ questions, comments, and discussion points carefully. While I have never formally studied this issue, in my experiences this is an often overlooked part of the teaching process.

Research interests sparked by teaching include:

- The comparability of statistical education delivered in a traditional, classroom and lecture based format as compared to an online setting.
- Basic, seemingly simple statistical questions for which there is no known and/or straightforward answer. Some examples include:

- What are the small sample properties of bootstrap based estimators of 95% confidence intervals for differences in population means, and how does the performance compare to the traditional t-test based approaches?
  - What is the role of small sample bias in the estimate of sample standard deviations on the resulting inferences about the mean difference between two populations?
  - How to efficiently do sample size estimates for the two (or greater) sample comparison problem (means or proportions) in the presence of one or more confounders.
- Developing computer applets to illustrate the potential difference in the value estimates of relative risks and odds ratios from the same data, and to effectively convert and display the results from logistic regressions as risks and relative risks assuming an appropriate study design.

Ultimately, teaching gratifying on multiple fronts. It allows for the joy of introducing students to one's substantive passions, encourages ongoing learning on the part of the teacher, and sparks exciting research opportunities.

### 3 Formal Instruction

#### 3.1 Classroom and Online Instruction at Johns Hopkins

##### 3.1.1 Statistical Reasoning in Public Health 1 and 2

**Role:** Instructor, On Campus 2003-2019 (in-campus suspended in 2020 because of Covid-19) and Online 2000–2022; Lead Teaching Assistant. On Campus 1999-2002.

**Target Audience:** Masters of Public Health (MPH) students, Masters of Health Administration (MHA) students in Health Policy and Management, Masters of Science in Public Health (MSPH) students in Health and Behavioral Sciences, Master of Health Sciences (MHS) students in Mental Health.

**Description:** This class provides a broad overview of biostatistical methods and concepts used in the public health sciences, emphasizing interpretation and concepts rather than calculations or mathematical details. The course develops the ability to read the scientific literature to critically evaluate study designs and methods of data analysis and introduces basic concepts of statistical inference, including hypothesis testing, p-values, and confidence intervals. Topics include comparisons of means and proportions; the normal distribution; regression and correlation; confounding; interaction; concepts of study design, including randomization, sample size, and power considerations; logistic regression; and an overview of some methods in survival analysis including Kaplan-Meier, the log-rank test and Cox regression. The class draws examples of the use and abuse of statistical methods from the current biomedical literature.

**Teaching Assistants:** 7 (Online, 2020-2022); 3 (On Campus, through 2019), 3 (Online through 2019)

**History:** The Statistical Reasoning sequence was initially developed and first taught on campus by former Hopkins faculty member Ron Brookmeyer in the 1998-1999 academic year. In 1999 I was hired to staff the Departmental Consulting Center and serve as a lead TA for Dr. Brookmeyer for the Statistical Reasoning Series. In 2000 I created and debuted the online version of the course with an enrollment of 35. In the year 2004, I assumed the role of instructor for the on campus version as well. Since my involvement, the enrollments have increased dramatically and I have updated the course materials four times. My course materials have been used by other faculty to teach the course at the University's Montgomery County Campus (2005-07), the School of Nursing (2008), in Afghanistan (2006), and both in person and online for students in India (2008, 2014, 2015). All materials are available via the School's Open Courseware initiative and iTunes University. A version of Statistical Reasoning 1 has been offered on Coursera since 2014, and a version of Statistical Reasoning 2 since 2015.

**Enrollments:** Total Enrollments across the two sections peaked at 512 in Academic Year (AY) 2021-22, and is currently at 422 for AY 2022-23.

### 3.1.2 Statistical Concepts in Public Health 1

**Role:** Instructor 2018-2021.

**Target Audience:** Degree candidates in the Online Programs in Applied Learning (OPAL) Master of Applied Science (MAS) degree programs.

**Description:** This class provides a broad overview of biostatistical methods and concepts used in the public health sciences. The course develops the ability to both read the scientific literature to critically evaluate study designs and methods of data analysis. **Teaching Assistants:** 2-4

**History** This is the first offering from the Department of Biostatistics for students in the new (as of 2017) MAS degree programs in Patient Safety and Population Health Management. **Enrollments:** 74 - 200 students

### 3.1.3 Public Health Statistics 1 and 2

**Role:** Instructor 2017 -2021

**Target Audience:** Degree candidates in the Online Programs in Applied Learning (OPAL) Master of Applied Science (MAS) degree program in Spatial Analysis for Public Health.

**Description:** This class provides a broad overview of biostatistical methods and concepts used in the public health sciences, and includes detailed instructions on the use of the statistical freeware package R. The course develops the ability to both

read the scientific literature to critically evaluate study designs and methods of data analysis, and to carry our analyses using the package R. Topics include comparisons of means and proportions; the normal distribution; regression and correlation; confounding; interaction; concepts of study design, including randomization, sample size, and power considerations; logistic regression; and an overview of some methods in survival analysis including Kaplan-Meier, the log-rank test, and Poisson and Cox regression.

**Teaching Assistants:** 1-2

**History** This is the first offering from the Biostatistics department for students in the new (as of 2015) MAS degree program in Spatial Analysis for Public Health.

**Enrollments:** 15-45 students

### 3.1.4 Data Analysis Workshops 1 and 2

**Role:** Instructor, Summer Institute of Biostatistics and Epidemiology 2000-2014, 2018-2021; Winter Institute 2001- 2004, 2007.

**Target Audience:** MPH students, SOM fellows and faculty, NIH post doctoral fellows.

**Description:** This course, composed of two one-week long intensive sessions, is intended for students with a broad understanding of biostatistical concepts used in public health sciences who seek to develop additional data analysis skills. It emphasizes concepts and illustration of concepts applying a variety of analytic techniques to public health datasets in a computer laboratory using Stata statistical software. In the first workshop (140.613), students learn basic methods of data organization/management and simple methods for data exploration, data editing, and graphical and tabular displays. Additional topics include comparison of means and proportions, for both the two-sample and multiple-sample situations. In the second workshop (140.614), students will master advanced methods of data analysis including analysis of variance, analysis of covariance, nonparametric methods for comparing groups, multiple linear regression, and logistic regression. The majority of the class time (60-65%) is a hands on data analysis laboratory with students working through exercises with real time guidance from the instructors.

**Teaching Assistants:** 3-6, depending on enrollment

**History:** This course was co-developed by myself, faculty member James Tonascia and Center for Clinical Trials statisticians Michele Donithan and Mark Van Natta. The course debuted in the Summer Institute of Biostatistic and Epidemiology in 2000. Since then I have taught it in both the Summer and Winter Institutes, initially with co-instructors including James Tonascia, Scott Zeger, Tom Louis, Michael Griswold, Patrick Tarwater and Elizabeth Sugar. Since 2007, I have been the sole instructor for the Summer Institute offering, with other faculty teaching

the Winter version. I have updated and improved the course materials several times since 2000, and my materials are used for all offerings.

**Enrollments:** Formally restricted to an enrollment of 50, but enrollments have been topped out at 65.

### 3.1.5 Statistical Methods in Public Health 3

**Role:** Primary instructor, 2012 - 2017. Lab instructor 2000-2011.

**Target Audience:** MPH students and PhD Students in departments other than Biostatistics.

**Description:** This course presents use of generalized linear models for quantitative analysis of data encountered in public health and medicine. Specific models include analysis of variance, analysis of covariance, multiple linear regression, logistic regression, and Cox regression.

**Teaching Assistants:** 16-20

**History:** As the primary instructor of the course, I give two 90-minute lectures per week, and facilitate 2-3 two-hour recitation sections weekly. Other responsibilities include developing student evaluations, holding exam review sessions, and coordinating teaching assistants. Prior to becoming the primary instructor, I served as a lab instructor for the course since starting at Hopkins. My role was to conduct 2-3 two-hour recitation sections weekly, leading students through guided exercises, and answering general questions. Attendance at sessions varies from 20-60.

**Enrollments:** 450+ annually. (across two sections)

### 3.1.6 Statistical Methods in Public Health 4

**Role:** Primary Instructor 2022; Lead Teaching Assistant 2000-2011;

**Target Audience:** MPH students and PhD Students in departments other than biostatistics.

**Description:** This course expands students' abilities to conduct and report the results of a valid statistical analysis of quantitative public health information. The class develops more advanced skills in multiple regression models (linear and logistic), and includes materials on log-linear models and on techniques for the evaluation of survival and longitudinal data. Also presented are methods for the measurement of agreement, validity, and reliability. As part of the course, students submit several analyses for feedback, culmination in a "Method and Results" section based on a data analysis of their choosing.

**Teaching Assistants:** 16-20

**History:** This course was developed by faculty member James Tonascia, who created and maintains the lecture materials and assignments. From 2000-11, my role in

the course was to oversee daily computer labs (with my colleague Mark Van Natta), providing individual hands on assistance to students doing their culminating data analysis projects, and supervising/triaging course teaching assistants. The type of guidance I provided to students includes (but is not limited to) assistance with computing, helping with the conceptualization and implementation of the scientific process, interpreting statistical results and translating such results to prose.

In 2022, I took over the course from Dr. Tonascia, and with my colleague Dr. Leah Jager, developed an updated version of the curriculum to include instruction and exercises with both R and Stata, and to incorporate peer feedback for several submissions culminating in a final "Method and Results" write-up.

**Enrollments:** 400 in 2022.

### 3.1.7 Doctoral Seminar in Epidemiology

**Role:** Guest lecturer 2009-2014.

**Target Audience:** PhD Students in the department Epidemiology.

**Description:**

For the past six offerings, I have given a guest lecture on power and sample size computation, including details on handling sample size computations for a binary outcome and binary predictor in the presence of a binary confounder.

**Teaching Assistants:**1

**History:** In 2009 I was asked by David Celentano, Chair of Epidemiology, to develop and present this lecture. The lecture was quite well received and I was invited to present the same materials in subsequent seminars. The development of the lecture materials (and revisions) involved approximately 40-50 hours of research and computer programming.

**Enrollments:** 20-30 annually.

### 3.1.8 Advanced Data Analysis Workshop

**Role:** Instructor 2008.

**Target Audience:** DrPH students in Health Policy and Management from a Taiwanese student cohort.

**Description:** This course covers methods for the organization, management, exploration, and statistical inference from data derived from multivariable regression models, including linear, logistic, Poisson and Cox regression models. Students apply these concepts to two or three public health data sets in a computer laboratory setting using STATA statistical software.

**Teaching Assistants:** 0

**History:** This course, a week-long intensive course (4 hours per day) generally taught in the Summer Institute of Biostatistics and Epidemiology, was offered during the School's Winter Session to students in the HPM DrPH cohort from Taiwan. The course was taught at the University of Hawaii in Honolulu HI.

**Enrollments:** 25 students

### 3.1.9 Introduction to Public Health Statistics

**Role:** Instructor 2002-2004.

**Target Audience:** MPH students.

**Description:**

This course provided a very basic introduction to biostatistics and epidemiology. Topics included were arithmetic versus logarithmic scales, appropriate graphical displays, and direct and indirect adjustment of rates.

**Teaching Assistants:** 0

**History:** The version of the course I taught consisted of weekly 3 hour session, taught simultaneously in two sections (East Baltimore and Montgomery County campuses) . I would alternate delivering the material "in-person" between the two campuses each week, with the other section receiving the class via closed circuit television (specially wired classrooms were available at each campus). This course was discontinued in after the 2004 offering.

**Enrollments:** 25-30

## 3.2 Other Instruction at Johns Hopkins: Seminars and Workshops

### 3.2.1 Clinical Epidemiology and Biostatistics for the Practitioner

**Role:** Co-developer and lecturer.

**Target Audience:** Clinical faculty and fellows at The Johns Hopkins Medical Institutions who are interested in receiving a brief overview of research methods, and tips on formal coursework in biostatistics and epidemiology.

**Description:** This one day workshop consisting of four one-hour lectures, and structured interaction between the presenters and participants was debuted in March 2011, with subsequent offerings in September and October 2011, and October 2012. Lecture include material on study design, the role of context in reseacrh, basic statistical inference, sample size and power computation, and regression methods. The workshops were held at the Bayview Medical Center.

**History:** This workshop was developed by myself, and four other faculty from the Johns Hopkins Medical Institutions. I prepared and delivered two lecture sets, "Interaction Effects and Explanatory Designs" and "A Quick Primer on Regression".

**Enrollments:** 20-30

### 3.2.2 Practical Genomics: From Biology to Biostatistics

**Role:** Co-developer and instructor 2011-13.

**Target Audience:** Biologists and others involved with the genetics field interested in learning more about biostatistics and genomics tools (online databases, R, PERL, etc.)

**Description:** This  $2\frac{1}{2}$  day workshop debuted in August of 2011, and will recur in 2012 and 2013 (and possibly beyond). My portion of the workshops involved the development and presentation of lecture materials encompassing descriptive statistics and inferences for multi-dimensional gene-expression data, and lecture materials on using linear models to adjust for confounding from batch effects and other factors related to both gene expression levels and phenotype.

**History:** This workshop was partially funded by a 3-year grant from the National Institutes of Health to encourage collaboration between biologists and statisticians.

**Enrollments:** 20-25

### 3.2.3 Clinical Research Course

**Role:** Co-instructor 2009-17.

**Target Audience:** Clinical faculty and fellows at The Johns Hopkins Medical Institutions who are interested in receiving a brief but intensive overview of research methods.

**Description:** This 2-week, all day everyday intensive lecture series occurs during the month of July. Attendees are exposed to topics in study design, grant writing, epidemiology and biostatistics. My contribution is five one-hour lectures covering the basics of statistical inference and estimation, and linear, logistic, Poisson and Cox regressions.

**History:** This course has been for over 20 years, and involves faculty from the Johns Hopkins School of Medicine and the Bloomberg School of Public Health. I was involved for the years 2009-13.

**Enrollments:** 40

## 3.3 Classroom Instruction at Other Institutions

### 3.3.1 Techworld Public Charter School, Washington DC

**Role:** Mathematics Teacher 1998-99.

**Target Audience:** Ninth grade mathematics students enrolled in the flagship class at a Washington DC public charter school.

**Description:** I was the sole mathematics instructor for a school with an enrollment of 150 ninth grades. I was responsible for all mathematics teaching including courses in Pre-algebra, Algebra 1 and Geometry. My total course load was 5 classes per semester.

**Enrollments:** 160

### 3.3.2 Harvard School of Public Health, Boston MA

**Role:** Teaching Assistant for 3 introductory biostatistics courses 1995-1996.

**Target Audience:** MPH, ScM and PhD students in departments other than Biostatistics.

**Description:** I was a teaching assistant for 3 introductory courses:

- Biostatistics for Health Policy and Management (30 students)
- Biostatistical Methods (120 students)
- Regression Methods for Health Policy and Management (60 students)

## 4 Advising, Mentoring and Evaluating Students

### 4.1 Preliminary Oral Exam Participation (PhD and DrPH Candidates)

2021	Elizabeth Graham	PhD student, International Health
2021	Gabby Headrick	PhD student, International Health
2021	Eva Leidman	PhD student, International Health
2019	Shannon Wood	PhD student, Population, Family and Reproductive Health
2018	Farah Yehia	PhD student, Health Policy and Management
2018	Monica Pasqualino	PhD student, International Health
2018	Jennifer Gerber	PhD student, International Health
2018	Magdalena Fandino	PhD student, Environmental Health and Engineering
2018	Kate Merrill	PhD student, International Health
2018	Molly Jung	PhD student, Epidemiology
2017	Laura Beres	PhD student, International Health
2016	Geoffrey Dougherty	PhD student, Epidemiology
2016	Saba Rouhani	PhD student, International Health
2016	Matthew Murrill	PhD student, Epidemiology
2016	Amber Cox	PhD student, International Health
2015	Susan Lynch	DrPh student, Health Policy and Management
2014	Claro Pio Rodo	Health Policy and Management
2014	Amanda Kalamar	Population, Family and Reproductive Health
2014	Jennifer Lam	International Health
2014	Fatima Al Dhaheri	Health Policy and Management
2013	Cesar Ugarte Gil	Epidemiology
2012	Beth Linas	Epidemiology
2012	Chadd Krauss	Health Policy and Management
2012	Aarushi Bhatnager	International Health
2011	Tammy Brady	Clinical Investigations
2011	Mollie Marko	Biomedical Engineering (Medicine)
2010	Yu-Wen Yang	Health Policy and Management
2010	Mary Sheehan	Health Policy and Management
2010	Gowri Jayaram	Biomedical Engineering (Medicine)
2010	Melissa Opryszko	Environmental Health Sciences
2010	Nrupen Bhavsar	Epidemiology
2009	Laura Malone	Biomedical Engineering (Medicine)
2009	James Cope	Health Policy and Management
2009	Sheree Schwartz	Epidemiology
2008	Lydie Lebrun	Health Policy and Management
2008	Sarika Rane	Health Policy and Management

## 4.2 Final Doctoral Oral Exam Participation

2022	Eva Leidman	PhD, International Health
2022	Neisha Opper	PhD, Population, Family and Reproductive Health
2021	Monica Pasqualino	PhD, International Health
2020	Leah Horton	PhD, Population, Family and Reproductive Health
2020	Jennifer Gerber	PhD, International Health
2020	Farah Yehia	PhD, Health Policy and Management
2020	Shannon Wood	PhD, Population, Family and Reproductive Health
2019	Laura Beres	PhD, International Health
2019	Liana Rosenthal	PhD, Clinical Investigation
2018	Matthew Murrill	PhD Epidemiology
2017	Chiadi Ndumele	PhD, Epidemiology
2017	Fatima Al Dhaeri	DrPH, Health Policy and Management
2016	J. Michael Colacco	PhD, Epidemiology
2016	Susan Lynch	DrPH, Health Policy and Management
2015	Claro Pio Rodo	DrPH, Health Policy and Management
2015	Amanda Kalamar	PhD , Population,Family, and Reproductive Health
2014	Beth Linas	Epidemiology
2014	Chadd Krauss	Health Policy and Management
2012	Alyson Schuster	Health Policy and Management
2011	Mary Sheehan	Health Policy and Management
2011	James Cope	Health Policy and Management
2010	Alex Ergo	International Health
2009	Carol Christensen	Epidemiology
2008	JoAnna Zablotzky	Health Policy and Management

## 4.3 Master's Thesis Reading

2010	Adam Pittman	Vidya Venugopal	Biostatistics
2011	Kareshma Mohanty		Biochemistry and Molecular Biology
2010	Laura Hummers		Clinical Investigation
2010	Vidya Venugopal		Biostatistics

#### 4.4 MPH Capstone Advisor

2022 Albert Holler  
2022 Darien Colson-Fearon  
2021 Jennifer Los  
2020 Christine Zemsky  
2019 Moaath Mustafa Ali  
2019 Abhinav Sidana  
2019 Wan-Ju Liao  
2019 Erin Feddema  
2016 Andrea Martin  
2013 Jiyeong Kim  
2013 Kenneth Gibbs  
2012 Abbas Kharal  
2011 Joseph Collaco  
2011 Patrick Akhiwu  
2010 Carrie Miller  
2010 Scott Penfil  
2009 Zachary Stednick  
2009 Hannah Paxton  
2009 Steven Scott  
2006 Barbara Ship  
2006 Snehal Shah  
2006 Jill Nogi  
2005 Abdolreza Hariharian  
2005 Jacquelyn Quin  
2004 Edward Bini  
2004 Abraham Thomas  
2004 Dhvani Mankad

#### 4.5 Academic Advisor

2017	Olufemi Erinoso	MPH
2016	William Levitt	MPH
2016	Abhinav Sidana	MPH
2016	Feiyang Zheng	ScM Biostatistics
2016	Yu-Han Hsueh	MPH
2016	Jahanzaib Idrees	MPH
2015	Arwa Altaf	MPH
2015	Farjah AlQahtani	MPH
2015	Anthony (Todd) Fojo	MHS Biostatistics
2014	Miren Dudha	MPH
2014	Weixang Fang	ScM Biostatistics
2013	Christine Shirley	MPH
2013	Sausan Alfaris	MPH
2012	Ximin Li	ScM Biostatistics
2012	Abbas Kharal	MPH
2011	Detian Deng	ScM Biostatistics
2010	Xuan Yang	MPH
2010	Jordan Hoolachan	MHS Biostatistics
2010	Wei-teng Yang	MPH
2009	Zachary Stednick	MPH
2009	Hannah Paxton	MPH
2007	Mandeep Singh	MPH
2006	Snehal Shah	MPH
2005	Jacquelyn Quin	MPH
2004	Edward Bini	MPH
2004	Abraham Thomas	MPH
2004	Dhwani Mankad	MPH

#### 4.6 Publications with Mentored Students (student indicated with a \*)

- Sadhna V, Zegar J, Hoge C, McGready J, and Sidana A\*. Multiparametric MRI-ultrasound fusion prostate biopsy in patients without prior diagnosis of Prostate Cancer: Beyond Centers of Excellence. *The Aging Male*, 23:5, 1570-1575, DOI: 10.1080/13685538.2021.1873263
- Beres L\*, Mody A, Kombatende S, Nicholas LH, Schwartz S, Eshun-Wilson I, Somwe P, Simbeza S, Pry J, Kaumba P, McGready J, Holmes C, Bolton-Moore C, Sikazwe I, Denison J, and Gang E. The effect of tracer contact on return-to-care among adult , “lost-to-follow-up” patients with HIV in Zambia: an instrumental variable analysis. *Journal of the International Aids Society*. 2021. 24:e25853.
- Mustafa Ali MK\* Sabha MM., MD, Mustafa, SK, Banifadel M, Ghazaleh S, Abu-rayyan, KM, Ghanim MT3; Awad MT, Gekonde, DN, Amala A.; Ramahi A, ,

- Elzanaty, AM, Nesheiwat, Z, Shastri PM, Al-Sarie M, McGready J. Hospitalization and Post-hospitalization Outcomes among Teaching Internal Medicine, Employed Hospitalist and Locum Tenens Hospitalist Services in a Tertiary Center: A Prospective Cohort Study. *Journal of General Internal Medicine*. 2021.
- Beres L\*, Schwartz S, Simbeza S, McGready J, Eshun-Wilson I, Mwamba C, Sikombe K, Topp S, Somwe P, Mody A, Mukamba, Ehrenkranz P, Padian N, Pry J, Moore CB, Holmes C, Sikazwe I, Denison J, and Geng E. Patterns and Predictors of Incident Return to HIV Care Among Traced, Disengaged Patients in Zambia: Analysis of a prospective cohort. *Journal of Acquired Immune Deficiency Syndromes (JAIDS)* 2021. 86(3):313-322
  - Wood SN\*, Kennedy SR, I Akumue I , Tallam, C, Asira B, Hameeduddin Z, **McGready J**, Zimmerman L, Kennedy C, Glass N, and Decker M. Reproductive coercion among intimate partner violence survivors in Nairobi. *Studies in Family Planning*. 2020. 51(4)
  - Pasqualino M\*, Saijuddin S , Islam T, ParvinS , Ali H, **McGready J**, HossainI, and Palmer A. Household Livestock and Fishpond Ownership Are Associated with Consumption of Eggs, Milk, and Fish, but Not Meat, Among Infants 6–12 Months of Age in Rural Bangladesh. *Current Developments in Nutrition*. 2020 Jun; 4(Suppl 2): 884.
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- Slutsman J\*, Kass N, **McGready J**, Wynia M. Health information, the health insurance portability and accessibility act (HIPPA), privacy rule, and health care: what do physicians think? *Health Affairs*. (2005) Vol. 24, No. 3, Pages 832-842.
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## 5 Other Educational Activities

### 5.1 Education Related Presentations

- The Luxury (and Necessity) of Context in Graduate Level Statistics Courses for Health Sciences Students. Invited Talk. Annual Meetings of the Statistical Society of Canada, Montreal QB, June 2018.

- Assessment: An Essential Component of Students' Learning and Educators' Understanding. Topic Contributed Panel Session. Annual Meetings of the American Statistical Association, Baltimore MD, August 2017.
- Assessment: An Essential Component of Students' Learning and Educators' Understanding. Topic Contributed Panel Session. Annual Meetings of the American Statistical Association, Baltimore MD, August 2017.
- Regression Based Techniques for Clinical and Translational Research. BEAD Core Research Workshop: From Study Design to Statistical Plan II, April 26 2017, Johns Hopkins Bayview Medical Center, Baltimore MD.
- Is Parenthood Worse than Death of a Partner? The Disconnect Between Research Results, Statistical Literacy, and Science Reporting. Invited Talk. Ignite Baltimore 18. Baltimore MD, April 2016.
- Statistics Education Through Online Education. Invited Panel Session. Annual Meetings of the American Statistical Association, Seattle WA, August 2015.
- The Quest for a Universal Foundation of Reasoning Across Multiple Levels of Biostatistical Education. Invited talk. Brown University, Department of Biostatistics, Providence RI, February 2015.
- Statistical Reasoning's New Look. Invited Session, International Conference on Teaching Statistics, Flagstaff AZ, 2014.
- Statistical Reasoning for the Masses. Invited Talk as part of the session "Massive Online Open Statistics (MOOS): Should We Be Teaching Statistics To 100,000 At a Time? ". Annual Meetings of the Eastern North American International Biometric Society, Baltimore MD. 2014.
- Teaching Statistical Reasoning to Public Health Graduate Students: Trying to Meet the Evolving Needs of Course Enrollees. Contributed Session, Section on Teaching Statistics in the Health Sciences. Annual Meetings of the American Statistical Association, Montreal, August 2013.
- Using Regression to Reinforce and Further Understanding about Confounding and Effect Modification. Invited Session "Teaching and Learning Applied Regression: Perspectives from Teachers and Students" Annual Meetings of the American Statistical Association, San Diego, August 2012.
- Online Learning Versus On Campus Learning. Invited Talk given at the State University of New York, Stony Brook, Program in Public Health. June, 2012.
- Regression Methods for Public Health and Medical Research. Invited Session given for the Academic Fellows from Division of General and Adolescent Medicine. Johns Hopkins School of Medicine, April 2012

- Admissions Data: Predictors of Low Epidemiology/Biostatistics Scores: Preliminary Results. Dean's Meeting at Johns Hopkins Bloomberg School, Baltimore MD, September 2011.
- Considering Confounding and Effect Modification in Population Based Research. General Academic Pediatric Fellows Meeting, Johns Hopkins Medicine, Baltimore MD, September 2011.
- Varying Data Based Examples to a Diverse Audience of Public Health Graduate Students in an Introductory Concept-Centric Biostatistics Course. Contributed Session, Section on Teaching Statistics in the Health Sciences. Annual Meetings of the American Statistical Association, Miami Beach FL, August 2011.
- Thoughts on Graduate Level Teaching. Invited Guest to the Teaching Assistant Training Course in the Department of Health Policy and Management, Johns Hopkins Bloomberg School, Baltimore MD, April 2011 (and 2010, 2006, and 2001).
- Demystifying Hypothesis Testing. Invited Panel Session "Moving Beyond the Roldodex of Formulas: Teaching Statistical Thinking". Annual Meetings of the Eastern North American International Biometric Society, Miami FL. 2011.
- Comparing and Contrasting Statistical Software Choices. Invited Lecture, Department of Biostatistics Student Computing Club, April 2010.
- On the Relative (Small Sample) Performance of Several Approaches to Confidence Intervals for a Difference in Means. Contributed Session, Section on Statistical Computing. Annual Meetings of the American Statistical Association, Washington DC, August 2009.
- Some Key Ideas in Biostatistics. Monthly Seminars for Johns Hopkins School of Medicine Department of Neurology Fellows, February – May 2009
- Teaching Introductory Statistics Online. Invited Panel Session, Section of Statistical Education. Annual Meetings of the American Statistical Associations, Denver CO, August 2008.
- Two Studies on Current Issues in Biostatistical Education. Public Thesis Defense Seminar, Johns Hopkins Bloomberg School of Public Health, Baltimore MD, August 2007.
- Basic Biostatistics: Online Learning Versus On Campus Learning. Annual Meetings of the American Statistical Associations, Seattle WA, August 2006.
- Enter the Bootstrap. Johns Hopkins University Bloomberg School of Public Health Wall of Wonder, March 2006. (part of the Department sponsored open lecture series "Everything You Wanted to Know About Biostatistics but were Afraid to Ask")

- Smoothing Percentiles in R With an Application to Achondroplasia. Annual Meeting of the American Public Health Association, Philadelphia PA, December 2005.
- Basic Biostatistics: An Online Success Story. Annual Meetings of the American Statistical Associations, Minneapolis MN, August 2005.
- Confounding and Interaction in Public Health Studies. Geisinger Health Systems, Danville PA, July 2003.
- Everyone’s Favorite Subject On-Line! Bringing Biostatistics to the Web. The International Conference on Teaching and Learning, Jacksonville FL, April 2001.

## 5.2 Education Related Committees

- Member, R<sup>3</sup>(Rigor, Reproducibility Responsibility) Program Advisory Board (September 2019 – present)
- Member, Online Programs in Applied Learning (OPAL) Advisory Board (June 2016 – 2020)
- Member, Master of Public Health (MPH) Executive Board (June 2012 – present)
- Member and School of Public Representative, MEHP Curriculum Oversight Committee (MEHP is a University wide professional degree “Master Education for Health Professionals”) Johns Hopkins University. (2011 – 2014)
- Member, MPH Admissions Committee, Johns Hopkins Bloomberg School. (2011-present)
- Member, ad-hoc Committee on Utilizing Test Scores in the Admissions Decision Process, Johns Hopkins Bloomberg School. (2011)
- Member, Student Conduct Board, Johns Hopkins Bloomberg School. (2010)
- Member, Excellence in Teaching Task Force, Johns Hopkins Bloomberg School (2009-10)
- Member, Advisory Board, Center for Teaching and Learning Technology (CTLT), Johns Hopkins Bloomberg School. (2006- present)
- Member, Council on Education for Public Health (CEPH) Self-Study Steering Committee, Johns Hopkins Bloomberg School (2004-06)
- Member, Search Committee for Director of Medical Education, Johns Hopkins University School of Medicine. (2005).

### 5.3 Education Related Publications

- **McGready J**, Brookmeyer R. Evaluation of Student Outcomes in Online vs. Campus Biostatistics Education in a Graduate School of Public Health. *Preventive Medicine* 2013 56 (2): 142-122.
- Aggarwal R, R Nikhil Gupte N, Kass N, Taylor H, Ali J, Bhan A, Aggarwal A, Sisson S, Kanchanaraksa S, McKenzie-White J, **McGready J**, Miotti P and Bollinger RC. Distance Learning to Build International Health Research Capacity: A Randomized Study of Online versus On-site Training. *BMC Medical Education*. 2011. Vol 11: No 37 .
- **McGready J**. Book review: A short introduction to Stata for biostatistics. *The Stata Journal*. 2003, Vol. 3, No 1, Pages 100-104.

## 6 Student Evaluations from Johns Hopkins Biostatistics Courses

### 6.1 Statistical Reasoning in Public Health

#### 6.1.1 Statistical Reasoning 1 (Online)

Year	Enrolled	Response	Overall Course				Instructor			
			EX	GD	FR	PR	EX	GD	FR	PR
2021	509	93%	69%	26%	5%	0%	82%	16%	2%	0%
2020	374	91%	68%	27%	4%	1%	79%	18%	3%	1%
2019	240	92%	78%	20%	1%	1%	86%	12%	1%	1%

#### 6.1.2 Statistical Reasoning 1 (On Campus)

Year	Enrolled	Response	Overall Course				Instructor			
			EX	GD	FR	PR	EX	GD	FR	PR
2019	113	96%	67 %	31%	2%	0%	81%	19%	1%	0%
2018	140	96%	72%	26%	2%	0%	91%	7%	2%	0%

#### 6.1.3 Statistical Reasoning 2 (Online)

Year	Enrolled	Response	Overall Course				Instructor			
			EX	GD	FR	PR	EX	GD	FR	PR
2021	447	89%	68%	27%	4%	1%	81%	17%	1%	1%
2020	331	91%	71%	25%	3%	1%	85%	13%	2%	0%
2019	235	77%	70%	25%	4%	1%	84%	13%	3%	0%

#### 6.1.4 Statistical Reasoning 2 (On Campus)

Year	Enrolled	Response	Overall Course				Instructor			
			EX	GD	FR	PR	EX	GD	FR	PR
2019	76	75%	79%	18%	3%	0%	88%	11%	1%	0%
2018	118	97%	76%	21%	1%	2%	88%	8%	3%	8 1%

#### 6.2 Other Courses

Available upon request.