### Jason R. Gantenberg



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### DOCTORAL RESEARCH

"Understanding the Transmission of Gonorrhea among Men Who Have Sex with Men Using Agent-based Modeling"

My dissertation research focused on using agent-based models to estimate latent epidemiologic parameters relating to gonorrhea transmission among men who have sex with men. The models address the lack of empirical data on key features of gonorrhea, including natural history, incidence, the relative importance of infection at different anatomic sites, and the role of implied transmission pathways.

### ACADEMIC APPOINTMENTS

Nov 2022 - Present

# Brown University Assistant Professor of the Practice

Secondary appointment in the Department of Epidemiology, School of Public Health. Co-taught *Intermediate Methods in Epidemiologic Research* in Spring 2023 as secondary instructor.

Aug 2022 – Dec 2022 (PT)

Loyola University Chicago Adjunct Assistant Professor

Co-instructor for *Introduction to Epidemiology*.

### WORK EXPERIENCE

Sep 2022 - Present

### Brown University Research Scientist

I work in the Department of Health Services, Policy & Practice (Center for Evidence Synthesis in Health) at the Brown University School of Public Health. My research and interests include epidemiologic methods, computational modeling of infectious disease transmission, and applied machine learning.

 $July\ 2022-Dec\ 2022\quad (\text{per project})$ 

## Emory University External Consultant

I design and program modules related to bacterial STI transmission and sexual behavior for EpiModelHIV, an agent-based network model of HIV/STI transmission. Project: EpiModel 2.0 (PI: Samuel M. Jenness).

DEC 2021 - Aug 2022

#### EDUCATION

2016 – 2022	Ph.D., Epidemiology Department of Epidemiology Brown University
2013 – 2015	M.P.H., Epidemiology Dept. of Public Health Sciences Loyola University Chicago
2010 – 2012	M.A., Writing & Publishing GRADUATED WITH DISTINCTION Department of English DePaul University
2002 – 2005	<b>B.A., English</b> Department of English

### **Publications**

Yorlets RR, Lee Y, **Gantenberg JR**. (2023) Calculating risk and prevalence ratios and differences in R: Developing intuition with a hands-on tutorial and code. *Annals of Epidemiology* doi:10.1016/j.annepidem.2023.08.001

**Gantenberg, J.R.**, McConeghy, K.W., Howe, C.J., Steingrimsson, J., van Aalst, R., Chit, A., Zullo, A.R. (2023). Predicting seasonal influenza hospitalization using an ensemble super learner: a simulation study. *American Journal of Epidemiology*. doi:10.1093/aje/kwad113

Gantenberg, J.R., van Aalst, R., Zimmerman, N., Limone, B., Chaves, S.S., La Via, W.V., Nelson, C.B., Rizzo, C., Savitz, D.A., Zullo, A.R. (2022). Medically attended illness due to respiratory syncytial virus (RSV) infection among infants born in the United States between 2016 and 2020. *The Journal of Infectious Diseases*, 2022;(Supplement 2):S164–74. doi:10.1093/infdis/jiac185.

Zullo, A.R. (co-first), Adams, J.W. (co-first), **Gantenberg**, **J.R.**, Marshall, B.D.L., Howe, C.J. (2019). Examining neighborhood poverty-based disparities in HIV/STI prevalence: an analysis of Add Health data. *Annals of Epidemiology*, 39:8–14,

doi:10.1016/j.annepidem.2019.09.010.

Gantenberg, J.R., King, M., Montgomery, M.C., Galárraga, O., Prosperi, M., Chan, P.A., Marshall, B.D.L. (2018). Improving the impact of HIV pre-exposure prophylaxis implementation in small urban centers among men who have sex with men: an agent-based modelling study. *PLoS ONE*, 0199915, doi:10.1371/journal.pone.0199915.

Correction: 10.1016/j.annepidem.2019.09.010

### Brown University Postdoctoral Research Associate

I worked in the Department of Health Services, Policy & Practice and Center for Gerontology at the Brown University School of Public Health. My research and interests include respiratory syncytial virus, epidemiologic methods, applied machine learning, and computational modeling of infectious disease.

Aug 2016 – May 2021

### Brown University *Graduate Research Assistant*

Worked on a number of projects related to infectious disease transmission, agent-based modeling, machine learning, causal inference, and disparities in HIV/STI outcomes. 20 hrs/wk.

Aug 2017 – Dec 2018

# Brown University *Graduate Teaching Assistant*

Introduction to Epidemiologic Methods
Served as head TA, graded assignments and exams, held office hours, and lectured. 20 hrs/wk.

Applied Epidemiologic Analysis using SAS Graded assignments and lectured. 5 hrs/wk.

*Current Topics in Environmental Health* Graded assignments and exams. 10 hrs/wk.

Advanced Quantitative Methods in Epidemiology Graded assignments and held office hours. 5 hrs/wk.

Nov 2014 - Apr 2015

### Chicago Department of Public Health *Public Health Volunteer*

As the practicum requirement for my MPH degree, I conducted a descriptive study on extragenital gonorrhea among women reporting to Chicago Department of Public Health STD clinics.

Aug 2014 – Dec 2014

# Loyola University Chicago *Teaching Assistant*

Introduction to Epidemiology

Recorded lectures, graded assignments, and provided feedback to students.

Jan 2013 – Aug 2016

### American Journal of Neuroradiology Electronic Publications Manager

Designed and edited online medical case quizzes collated by expert section editors. Edited and oversaw the *AJNR* Blog and *AJNR* News Digest.

Jun 2005 – Dec 2012

### American Journal of Neuroradiology Editorial & Web Assistant

Handled day-to-day peer review workflow (approx. 1,300 manuscript submissions per year). Created production-quality materials for journal publication, advertising,

### Under Review / In Progress

Thompson K.D., **Gantenberg J.R.**, et al. Inpatient Service Utilization Amongst Infants Diagnosed with Respiratory Syncytial Virus Infection in the United States.

**Gantenberg J.R.** et al. Risk Analysis of Respiratory Syncytial Virus Among Infants in the United States by Birth Month.

**Gantenberg J.R.** et al. Healthcare Utilization During Acute Medically Attended Respiratory Syncytial Virus Episodes Among Infants in the United States.

### Conference Presentations

Gantenberg, J.R., van Aalst, R., Diakun, D.R., Limone, B.L., Nelson, C.B., Savitz, D.A., Zullo, A.R. Healthcare Utilization During Acute Medically Attended Respiratory Syncytial Virus (RSV) Episodes among Infants in the United States. *IDWeek* 2022, October 19–23, 2022. Poster.

Gantenberg, J.R., Zimmerman, N.M., Zullo, A.R., Limone, B., Demont, C., Chaves, S.S., La Via, W.V., Nelson, C., Rizzo, C., Savitz, D., van Aalst, R. (2021). Medically Attended (MA) Illness Due to Respiratory Syncytial Virus (RSV) Infection among Infants in the United States during the 2016–17, 2017–18, 2018–19, and 2019–20 RSV Seasons: The Need for All-Infant Protection. *IDWeek* 2021, September 29 – October 3, 2021. Poster.

**Gantenberg, J.R.**, McConeghy, K.W., Howe, C.J., Steingrimsson, J., van Aalst, R., Chit, A., Zullo, A.R. (2021). Assessing the super learner as a tool for predicting seasonal influenza hospitalizations: a simulation study. *Society for Epidemiologic Research Annual Meeting*, June 22–25, 2021. Poster.

Gantenberg, J.R., King, M., Montgomery, M.C., Galárraga, O., Prosperi, M., Chan, P.A., Marshall, B.D.L. Improving statewide pre-exposure prophylaxis implementation among men who have sex with men. *Conference on Retroviruses and Opportunistic Infections*, March 4–7, 2018, Boston, MA. Poster.

Gantenberg, J.R., Marshall, B.D.L., King, M., Galárraga, O., Prosperi, M., Tributino, A., Montgomery, M., Chan, P.A. The impact of a real-world pre-exposure prophylaxis program on HIV transmission among men who have sex with men: an agent-based modeling study. *International AIDS Society Conference on HIV Science*, July 23–26, 2017, Paris, France. Poster.

Kliethermes, S. (co-first), Gantenberg, J.R. (co-first), Mora, N., Phillips, R.O., Opare-Sem, O., Owusu, D., Layden, J.E. (2016). Age- and region-specific prevalence of hepatitis C virus in Ghana: a population-based study. *The 67th Annual Meeting of the American Association for the Study of Liver Diseases: The Liver Meeting 2016*, November 11–16, 2016, Boston, MA. Abstract.

Gantenberg, J.R., Mikati, T., Tabidze, I. Extragenital screening for chlamydia and gonorrhea increases prevalence of infection in women reporting to Chicago Department of Public Health STD clincs. *American Public Health* 

social media, and promotional materials. Collated journal submission and publication statistics for Editor and Editorial Board meetings.

Service

2022	<b>Abstract Reviewer</b> Society for Epidemiologic Research Annual Meeting
2019 – 2022	Communications Committee Society for Epidemiologic Research
Spring 2021	<b>Student Advisory Committee</b> Department of Epidemiology Brown University
2019 – 2021	<b>Graduate Library Advising Committee</b> Brown University Libraries
2014 - 2015	MPH Student Assembly Communications Officer Loyola University Chicago
2013	Strategic Planning Committee Student Representative, Epidemiology Loyola University Chicago

### Society Membership

2021 – Present	Society for Causal Inference
2017 – PRESENT	Society for Epidemiologic Research
2015 - PRESENT	American Sexually Transmitted Disease
	Association
2017 - 2019	International AIDS Society
2014 - 2015	American Public Health Association

### Peer Review

PLoS ONE, Sexually Transmitted Diseases, Addiction

### OTHER EDUCATION

Jun. 2022 Target Trial Emulation

WORKSHOP

Harvard University School of Public Health

Boston, MA

*June* 27 – *July* 1, 2022

Jun. 2022 Targeted Learning I and II

PRE-CONFERENCE WORKSHOPS

Targeted Learning I: Causal Inference

Meets Machine Learning

Targeted Learning II: Advanced Applic-

ations of Causal Inference Society for Epidemiologic Research

2022 Annual Meeting

Chicago, IL

June 14, 2022

2018 – 2019 Reflective Teaching (Seminar)

CERTIFICATE

The Harriet W. Sheridan Center for

Association Annual Meeting, November 4, 2015, Chicago, IL. Oral.

#### **Awards**

2017 Spring Student Abstract Award

Second Prize, Dept. of Epidemiology

Brown University

#### COMPUTING

Familiar Python, Javascript, Stata, WinBUGS,

SQL, MySQL, PHP, Stan, elisp

PROFICIENT LATEX, HTML, CSS, Shiny, Bash,

SLURM, Git, SAS, NetLogo

FLUENT R, R/Markdown

Office Windows, Linux, Microsoft Office,

Adobe Photoshop

### Talks & Lectures

NIAID Fellowship Workshop: Resources for Successful Transition into Research Independence. (May 3–4, 2022). Panelist: Importance of Mentorship in Your Careers.

Open Access and Scientific Publishing for Public Health Researchers. (2019). Brown University Open Access Week. Organizer. *Co-organizers:* Andrew Creamer, Erin Athony

Random Error and Validity. (2016–2022). Guest lecturer in Introduction to Epidemiologic Methods at Brown University.

Teaching and Learning Brown University Providence, RI

### Aug. 2018 Network Modeling for Epidemics

WORKSHOP

University of Washington

Seattle, WA

August 20 – August 24, 2018

### Spring 2016 Introduction to Genetics

COURSE

College of DuPage Glen Ellyn, IL