Samuel M. Jenness, PhD

Curriculum vitae

Department of Epidemiology
Rollins School of Public Health
Emory University
1520 Clifton Road (4013 CNR)
Atlanta, GA 30322

Tel 917.414.6566
samuel.m.jenness@emory.edu
http://samueljenness.org/
http://epimodel.org/

Education

PhD, Department of Epidemiology — 2015
University of Washington, School of Public Health

MPH, Department of Health Law & Bioethics — 2005
Boston University, School of Public Health

BA, Department of Philosophy — 2002
Boston University, College of Arts & Sciences

Academic Positions

Full Member, Population Biology, Ecology, and Evolution Program — 2020–*present*
Emory University, Graduate Division of Biological and Biomedical Sciences

Assistant Professor, Department of Epidemiology — 2016–*present*
Emory University, Rollins School of Public Health

Postdoctoral Research Associate, Department of Epidemiology — 2015
University of Washington, School of Public Health

Research Positions

Research Scientist, HIV Epidemiology Program — 2006–2011
New York City Department of Health & Mental Hygiene

Research Analyst, HIV/AIDS Bureau — 2002–2006
Massachusetts Department of Public Health

Peer-Reviewed Publications

70. Vermeer W, Hjorth A, **Jenness SM**, Brown CH, Wilensky U. Leveraging Modularity During Replication of High-Fidelity Models: Lessons from Replicating an Agent-Based Model for HIV Prevention. *Journal of Artificial Societies and Social Simulation.* 2020; 23(4): 7.

69. Cassels S, Mwenda K, Biney A, **Jenness SM**. Is It the Timing? Short-Term Mobility and Coital Frequency in Agbogbloshie, Ghana. *Archives of Sexual Behavior.* 2020. *Online ahead of print.* DOI: 10.1007/s10508-020-01815-7.

68. **Jenness SM**, Johnson JA, Hoover KW, Smith DK, Delaney K. Modeling an Integrated HIV Prevention and Care Continuum to Achieve the Ending the HIV Epidemic Goals. *AIDS.* 2020. 34(14): 2103–2113.

67. Maloney KM, Driggers R, Sarkar S, Anderson EA, Malik AA, **Jenness SM**. Projected Impact of Concurrently Available Long-Acting Injectable and Daily-Oral HIV Pre-Exposure Prophylaxis. *Journal of Infectious Diseases.* 2020. *Online ahead of print.* DOI: 10.1093/infdis/jiaa552.

66. Chandra CL, Weiss KM, Kelley CF, Marcus JL, **Jenness SM**. Gaps in Screening of Sexually Transmitted Infections among Men Who Have Sex with Men during PrEP Care in the United States. *Clinical Infectious Diseases.* 2020. *Online ahead of print.* DOI: 10.1093/cid/ciaa1033.

65. Westreich D, **Jenness SM**, Marcus JL. Endorsing Contact Tracing. *Clinical Infectious Diseases.* 2020. *Online ahead of print.* DOI: 10.1093/ciaa717.

64. Nelson KN, Gandhi NR, Mathema B, Lopman BA, Brust JC, Auld SC, Ismail N, Omar SV, Brown RS, Allana S, Campbell A, Moodley P, Mlisana K, Shah NS, **Jenness SM**. Modeling Missing Cases and Transmission Links in Networks of Extensively Drug-Resistant Tuberculosis in KwaZulu-Natal, South Africa. *American Journal of Epidemiology.* 2020; 189(7): 735–745.

63. Jones J, Dominguez K, Stephenson R, Stekler J, Castel A, Mena L, **Jenness SM**, Siegler A, Sullivan PS. A Theoretically Based Mobile App to Increase Pre-Exposure Prophylaxis Uptake Among Men Who Have Sex with Men: Protocol for a Randomized Controlled Trial. *Journal of Medical Internet Research, Research Protocols*. 2020; 9(2): e16231.

62. Weiss KM, Prasad P, Ramaraju R, Zlotorzynska M, **Jenness SM**. Estimated Number of Men who have Sex with Men with Indications for HIV Pre-Exposure Prophylaxis in a National Sexual Network Study. *Journal of Acquired Immune Deficiency Syndrome.* 2020; 84(1): 10–17.

61. Vaz O, Ellingson MK, Weiss P, **Jenness SM**, Bardaji A, Bednarczyk RA, Omer SB. Mandatory Vaccination in Europe. *Pediatrics.* 2020; 145(2): e20190620.

60. Weiss KM, Goodreau SM, Morris M, Prasad P, Ramaraju R, Sanchez T, **Jenness SM**. Egocentric Sexual Networks of Men Who Have Sex with Men in the United States: Results from the ARTnet Study. *Epidemics.* 2020; 30: 100386.

59. Uong S, Rosenberg ES, Luisi N, Goodreau SM, Sullivan PS, **Jenness SM**. Assessing the Validity of Sexual Network Degree among Men Who Have Sex with Men using Prospective Cohort Data. *Epidemiology*. 2020; 31(2): 229–237.

58. Nelson KN, **Jenness SM**, Mathema B, Lopman BA, Auld SC, Shah NS, Brust JC, Ismail N, Omar SV, Brown TS, Allana S, Campbell A, Moodley P, Mlisana K, Gandhi NR. Social Mixing and Clinical Features Linked with Transmission in a Network of Extensively Drug-Resistant (XDR) Tuberculosis Cases is KwaZulu-Natal, South Africa. *Clinical Infectious Diseases*. 2020; 70(11): 2396–2402.

57. Weiss KM, Jones JS, Anderson EJ, Gift T, Chesson H, Bernstein K, Workowski K, Tuite A, Rosenberg ES, Sullivan PS, **Jenness SM**. Optimizing Coverage versus Frequency for Sexually Transmitted Infection Screening of Men Who Have Sex with Men. *Open Forum Infectious Diseases*. 2019; 6(10): ofz405.

56. Weiss KM, Jones J, Katz DA, Gift TL, Bernstein K, Workowski K, Rosenberg E, **Jenness SM**. Epidemiological Impact of Expedited Partner Therapy for Men Who Have Sex with Men: A Modeling Study. *Sexually Transmitted Diseases*. 2019; 46(11): 697–705.

55. Siegler A, Brock JB, Hurt CB, Ahlschlager L, Dominguez K, Kelley C, **Jenness SM**, Wilde G, Jameson S, Bailey-Herring G, Mena LA. Advancing PrEP Delivery: Protocol for a Randomized Controlled Trial for Use of ePrEP to Expand PrEP Access to Non-Urban Young MSM. *Journal of Medical Internet Research, Research Protocols*. 2019; 8(6): e13982.

54. Chapin-Bardales J, Rosenberg ES, Sullivan PS, **Jenness SM**, Paz-Bailey G. Trends in Number and Composition of Sex Partners among Men Who Have Sex with Men in the United States, National HIV Behavioral Surveillance, 2008–2014. *Journal of Acquired Immune Deficiency Syndrome.* 2019; 81(3): 257–265.

53. Hamilton D, Rosenberg ES, **Jenness SM**, Sullivan PS, Wang LY, Dunville RL, Barrios LC, Aslam M, Goodreau SM. Modeling the Joint Effects of Adolescent and Adult PrEP for Sexual Minority Males in the United States. *PLoS One.* 2019; 14(5): e0217314.

52. Cassels S, **Jenness SM**, Biney A. Coital Frequency and Male Concurrent partnerships During Pregnancy and Postpartum in Agbogbloshie, Ghana. *AIDS & Behavior.* 2019; 23(6): 1508–1517.

51. Jones J, Weiss K, Mermin J, Dietz P, Rosenberg ES, Gift T, Chesson H, Sullivan PS, Lyles C, Bernstein K, **Jenness SM**. Proportion of Incident HIV Cases among Men Who Have Sex with Men Attributable to Gonorrhea and Chlamydia: A Modeling Analysis. *Sexually Transmitted Diseases.* 2019; 46(6): 357–363.

50. Ebert CD, Astale T, Sata E, Zerihun M, Nute AW, Stewart AEP, Gessese D, Ayenew G, Ayele Z, Melak B, Chanyalew M, Gashaw B, Tadesse Z, Kelly Callahan E, **Jenness SM**, Nash SD. Population Coverage and Factors Associated with Participation Following a Mass

Drug Administration of Azithromycin for Trachoma Elimination in Amhara, Ethiopia. *Trop Med Int Health.* 2019; 24(4): 493–501.

49. **Jenness SM**, Maloney K, Smith SK, Hoover KW, Rosenberg ES, Goodreau SM, Weiss KM, Liu AY, Rao D, Sullivan PS. Addressing Gaps in HIV Preexposure Prophylaxis Care to Reduce Racial Disparities in HIV Incidence in the United States. *American Journal of Epidemiology.* 2019; 188(4): 743–752.

48. **Jenness SM**, Weiss KM, Prasad P, Zlotorzynska M, Sanchez T. Bacterial STI Screening Rates by Symptomatic Status among Men Who Have Sex with Men in the United States: A Hierarchical Bayesian Analysis. *Sexually Transmitted Diseases.* 2019; 46(1): 25–30.
Web App: [https://epimodel.shinyapps.io/sti-screen/]

47. Hamilton DT, Goodreau SM, **Jenness SM**, Sullivan PS, Wang LY, Dunville RL, Barrios LC, Rosenberg ES. Potential Impact of HIV Preexposure Prophylaxis Among Black and White Adolescent Sexual Minority Males: A Modeling Study. *American Journal of Public Health.* 2018; 108(S4): S284–S291.

46. Goldstein ND, **Jenness SM**, Tuttle D, Power M, Paul DA, Eppes SC. Evaluating a neonatal intensive care unit HRSA surveillance programme using agent-based network modeling. *Journal of Hospital Infection.* 2018; 100(3): 337–343.

45. Jones J, Guest JL, Sullivan PS, Sales J, **Jenness SM**, Kramer M. The Association Between Monetary and Sexual Delay Discounting and Risk Sexual Behavior in an Online Sample of Men Who Have Sex with Men. *AIDS Care.* 2018; 30(7): 844–852.

44. Jones J, Guest JL, Sullivan PS, Kramer M, **Jenness SM**, Sales J. Concordance Between Monetary and Sexual Delay Discounting in Men Who Have Sex with Men. *Sexual Health.* 2018; 15(3): 214–222.

43. Luo W, Katz DA, Hamilton DT, McKenney J, **Jenness SM**, Goodreau SM, Stekler JD, Rosenberg ES, Sullivan P, Cassels S. Development of an Agent-Based Model to Investigate the Impact of HIV Self-Testing Programs for Men Who Have Sex with Men in Atlanta and Seattle. *Journal of Medical Internet Research, Public Health Surveillance.* 2018; 4(2): e58.

42. **Jenness SM**, Weiss KM, Goodreau SM, Rosenberg E, Gift T, Chesson H, Hoover KW, Smith DK, Liu AY, Sullivan P. Moving Forward with Treatment of Gonorrhea for Users of HIV Preexposure Prophylaxis Given the Threat of Antimicrobial Resistance. *Clinical Infectious Diseases.* 2018; 67(1): 155–156.

41. **Jenness SM**, Goodreau SM, Morris M. EpiModel: An R Package for Mathematical Modeling of Infectious Disease over Networks. *Journal of Statistical Software.* 2018; 84(8): 1-47.

40. Goodreau SM, Hamilton DT, **Jenness SM**, Sullivan PS, Valencia RK, Wang LY, Dunville RL, Barrios LC, Rosenberg ES. Targeting Strategies for HIV Pre-Exposure Prophylaxis among Adolescent Sexual Minority Males in Higher Prevalence Areas of the United States: A Modeling Study. *Journal of Adolescent Health.* 2018; 62(3): 311–319.

39. **Jenness SM**, Weiss KM, Goodreau SM, Rosenberg E, Gift T, Chesson H, Hoover KW, Smith DK, Liu AY, Sullivan P. Incidence of Gonorrhea and Chlamydia Following HIV Preexposure Prophylaxis among Men Who Have Sex with Men. *Clinical Infectious Diseases.* 2017; 65(5): 712–18.

38. Goodreau SM, Rosenberg ES, **Jenness SM**, Luisi N, Stansfield SE, Millett G, Sullivan P. Sources of Racial Disparities in HIV Prevalence among Men Who Have Sex with Men in Atlanta, GA: A Modeling Study. *Lancet HIV.* 2017; 4(7): e311–e320.
Web App: [https://prism.shinyapps.io/mixing/]

37. Neaigus A, Reilly KH, **Jenness SM**, Hagan H, Wendel T, Gelpi-Acosta C, Marshall DM. Trends in HIV and HCV Risk Behaviors and Prevalent Infection among People Who Inject Drugs in New York City, 2005–2012. *Journal of Acquired Immune Deficiency Syndrome.* 2017; 75 Suppl 3: S325–S332.

36. Cassels S, **Jenness SM**, Biney AA, Dodoo FN. Geographic Mobility and Potential Bridging for Sexually Transmitted Infections in Agbogbloshie, Ghana. *Social Science and Medicine.* 2017; 184: 27–39.

35. Gwadz M, Cleland C, Perlman D, Hagan H, **Jenness SM**, Leonard N, Ritchie A, Kutnick A. Public Health Benefit of Peer-Referral Strategies for Detecting Undiagnosed HIV Infection among High-Risk Heterosexuals in New York City. *Journal of Acquired Immune Deficiency Syndrome.* 2017; 74(5): 499–507.

34. **Jenness SM**, Sharma A, Goodreau SM, Rosenberg E, Hoover KW, Smith DK, Sullivan P. Individual HIV Risk versus Population Impact of Risk Compensation after Preexposure Prophylaxis Initiation among US Men Who Have Sex with Men. *PLoS One.* 2017; 12(1): e0169484.

33. **Jenness SM**, Goodreau SM, Rosenberg E, Beylerian EN, Hoover KW, Smith DK, Sullivan PS. Impact of CDC's HIV Pre-Exposure Prophylaxis Guidelines among MSM in the United States. *Journal of Infectious Diseases.* 2016; 214(12): 1800–1807.
Web App: [https://prism.shinyapps.io/cdc-prep-guidelines/]

32. **Jenness SM**, Goodreau SM, Morris M, Cassels S. Effectiveness of Combination Packages for HIV-1 Prevention in Sub-Saharan Africa Depends on Partnership Network Structure. *Sexually Transmitted Infections.* 2016; 92: 619–624.

31. Reilly KH, Neaigus A, Shepard CW, Cutler BH, Sweeney MM, **Jenness SM,** Wendel T, Marshall DM, Hagan H. It's Never Just HIV: Exposure to an HIV Prevention Media Campaign and Behavior Change Among Men Who Have Sex with Men Participating in the National HIV Behavioral Surveillance System in New York City. *LGBT Health.* 2016; 3(4):314–18.

30. Reilly KH, Neaigus A, **Jenness SM**, Wendel T, Marshall DM, Hagan H. Experiences of Discrimination and HIV Risk Among Men Who Have Sex with Men in New York City. *American Journal of Men's Health.* 2016; 10(6): 505–514.

29. Neaigus A, **Jenness SM**, Reilly KH, Youm Y, Hagan H, Wendel T, Gelpi-Acosta C. Community Sexual Bridging Among Heterosexuals at High-Risk of HIV in New York City. *AIDS & Behavior*. 2016; 20(4): 722–36.

28. Gwadz M, Cleland CM, **Jenness SM**, Silverman E, Hagan H, Ritchie AS, Leonard NR, McCright-Gill T, Martinez B, Swain Q, Kutnick A, Sherpa D. Exploring Factors Associated with Recent HIV Testing among Heterosexuals at High Risk for HIV Infections Recruited with Venue-Based Sampling. *Journal of AIDS & Clinical Research*. 2016; 7:2: 1000544.

27. **Jenness SM**, Biney AA, Ampofo WK, Nii-Amoo Dodoo F, Cassels S. Minimal Coital Dilution in Accra, Ghana. *Journal of Acquired Immune Deficiency Syndrome*. 2015; 69: 85–91.

26. Gwadz M, Cleland CM, Hagan H, **Jenness SM**, Kutnick A, Leonard NR, Applegate E, Ritchie AS, Banfield A, Belkin M, Cross B, Del Olmo M, Ha K, Martinez BY, McCright-Gill T, Swain QL, Perlman DC, Kurth AE. Strategies to Uncover Undiagnosed HIV Infection among Heterosexuals at High Risk and Link Them to HIV Care with High Retention: a "Seek, Test, Treat, and Retain" Study. *BMC Public Health*. 2015; 15(1): 481.

25. **Jenness SM**, Neaigus A, Wendel T, Gelp-Acosta C, Hagan H. Spatial Recruitment Bias in Respondent-Driven Sampling: Implications for HIV Prevalence Estimation in Urban Heterosexuals. *AIDS & Behavior*. 2014; 18(12): 2366–73.

24. Cassels S, **Jenness SM**, Khanna AS. Conceptual Framework and Research Methods for Migration and HIV Transmission Dynamics. *AIDS & Behavior*. 2014; 18(12): 2302–13.

23. Neaigus A, Reilly KH, **Jenness SM**, Wendel T, Marshall DM, Hagan H. Multi-level Risk Factors for Greater HIV Infection of Black Men Who Have Sex with Men in New York City. *Sexually Transmitted Diseases*. 2014; 41(7): 433–9.

22. Reilly KH, Neaigus A, **Jenness SM**, Wendel T, Marshall DM, Hagan H. Factors Associated with Recent HIV Testing among Men Who Have Sex with Men in New York City. *AIDS & Behavior*. 2014; 18(S3): 297–304.

21. Cassels S, **Jenness SM**, Biney AA, Ampofo WK, Dodoo FN. Migration, Sexual Networks, and HIV in Agbogbloshie, Ghana. *Demographic Research*. 2014; 31(28): 861–88.

20. Reilly KH, Neaigus A, **Jenness SM**, Wendel T, Hagan H, Marshall DM, Murrill CS, Koblin BA. Trends in HIV Prevalence and Risk Behavior Among Men Who Have Sex with Men in New York City, 2004–11. *AIDS Education & Prevention*. 2014; 26(2): 134–43.

19. Beletsky L, Heller D, **Jenness SM**, Neaigus A, Gelpi-Acosta C, Hagan H. Syringe Access, Syringe Sharing, and Police Encounters among People who Inject Drugs in New York City: A Community-Level Perspective. *International Journal of Drug Policy*. 2014; 25(1): 105–11.

18. Neaigus A, Reilly KH, **Jenness SM**, Hagan H, Wendel T, Gelpi-Acosta C. Dual HIV Risk: Receptive Syringe Sharing and Unprotected Sex Among HIV-Negative Injection Drug Users in New York City. *AIDS & Behavior*. 2013; 17(7): 2501–9.

17. Reilly KH, Neaigus A, **Jenness SM**, Hagan H, Wendel T, Gelp-Acosta C. High HIV Prevalence Among Low-Income, Black Women in New York City with Self-Reported HIV Negative and Unknown Status. *Journal of Women's Health*. 2013; 22(9): 745–54.

16. Neaigus A, **Jenness SM**, Hagan H, Murrill CS, Wendel T. Reciprocal Sex Partner Concurrency and Sexually Transmitted Diseases among Heterosexuals at High-Risk of HIV Infection. *Journal of Urban Health*. 2013;90(5): 902–14.

15. Cassels S, Manhart L, **Jenness SM**, Morris M. Short-term Mobility and Increased Partnership Concurrency among Men in Zimbabwe. *PloS One*. 2013; 8(6): e66342.

14. **Jenness SM**, Myers J, Neaigus A, Lulek J, Navejas M, Raj-Singh S. Delayed Entry into HIV Medical Care after HIV Diagnosis: Risk Factors and Research Methods. *AIDS Care*. 2012; 24(10): 1240–8.

13. Bertolli J, Shouse RL, Beer L, Valverde E, Fagan J, **Jenness SM**, Wogayehu A, Johnson C, Neaigus A, Hillman D, Courogen M, Brady KA, Bolden B. Using HIV Surveillance Data to Monitor Missed Opportunities for Linkage and Engagement in HIV Medical Care. *Open AIDS Journal*. 2012; 6(Supp 1): 131–41.

12. Neaigus A, **Jenness SM**, Hagan H, Murrill CS, Torian LV, Wendel T, Gelpi-Acosta C. Estimating HIV Incidence and the Correlates of Infection in Venue-Recruited Men Who Have Sex with Men in New York City. *AIDS & Behavior*. 2012; 16(3): 516–24.

11. **Jenness SM**, Neaigus A, Hagan H, Wendel T, Gelpi-Acosta C, Murrill CS. Recruitment-Adjusted Estimates of HIV Prevalence and Risk among Men Who Have Sex with Men: Effects of Weighting Venue-Based Sampling Data. *Public Health Reports*. 2011; 126(5): 635–42.

10. Gelpi-Acosta C, Hagan H, **Jenness SM**, Wendel T, Neaigus A. Sexual and Injection-Related Risk in Puerto Rican-Born Injection Drug Users Living in New York City: a Mixed-Methods Analysis. *Harm Reduction Journal*. 2011; 8(1): 28.

9. **Jenness SM**, Kobrak P, Wendel T, Neaigus A, Murrill CS, Hagan H. Patterns of Exchange Sex among High-Risk Heterosexual Men and Women. *Journal of Urban Health*. 2011; 88(2): 329–41.

8. **Jenness SM**, Begier E, Neaigus A, Murrill CS, Wendel T, Hagan H. Unprotected Anal Intercourse and Sexually Transmitted Diseases in High-Risk Heterosexual Women. *American Journal of Public Health*. 2011; 101(4): 745–50.

7. Smith BD, Teshale E, Jewett A, Weinbaum CM, Neaigus A, Hagan H, **Jenness SM**, Melville SK, Burt R, Thiede H, Al-Tayyib A, Pannala PR, Oster AM, Finlayson T, Bowles KE, DiNenno E. Performance of Pre-Market Rapid Hepatitis C Virus Antibody Assays in Four National HIV Behavioral Surveillance System Sites. *Clinical Infectious Diseases*. 2011; 53(8): 780–86.

6. **Jenness SM**, Neaigus A, Murrill CS, Gelpi-Acosta C, Wendel T, Hagan H. Estimated HIV Incidence among High-Risk Heterosexuals in New York City, 2007. *Journal of Acquired Immune Deficiency Syndrome*. 2011; 56(2): 193–97.

5. **Jenness SM**, Hagan H, Liu KL, Wendel T, Murrill CS. Continuing HIV Risk in New York City Injection Drug Users: The Association of Syringe Source and Syringe Sharing. *Substance Use & Misuse.* 2011; 46(2-3): 192–200.

4. **Jenness SM**, Hagan H, Wendel T, Murrill CS, Neaigus A, Gelpi-Acosta C. Reconsidering the Internet as an HIV/STD Risk for Men Who Have Sex with Men. *AIDS & Behavior.* 2010; 14(6): 1353–61.

3. Hagan H, **Jenness SM**, Wendel T, Murrill CS, Neaigus A, Gelpi-Acosta C. Herpes Simplex Virus Type 2 Associated with HIV Infection among New York Heterosexuals Living in High-Risk Areas. *International Journal of STD & AIDS.* 2010; 21(8): 580–3.

2. **Jenness SM**, Neaigus A, Hagan H, Murrill CS, Wendel T. HIV Infection and Sexual Partnerships between Injection Drug Users and Non-Injectors. *AIDS Patient Care & STDS.* 2010; 24(3): 175–81.

1. **Jenness SM**, Murrill CS, Liu KL, Wendel T, Begier E, Hagan H. Missed Opportunities for HIV Testing among High-Risk Heterosexuals. *Sexually Transmitted Diseases.* 2009; 36(11): 704–10.

Pre-Prints

8. **Jenness SM**, Knowlton G, Smith DK, Marcus JL, Anderson EJ, Siegler AJ, Jones J, Sullivan PS, Enns E. A Decision Analytics Model to Optimize Investment in Interventions Targeting the HIV PrEP Cascade of Care.
   Pre-Print: [https://doi.org/10.1101/2020.12.10.20247270]

7. Goodreau SM, Maloney KM, Sanchez TH, Morris M, Janulis P, **Jenness SM**. A Behavioral Cascade of HIV Seroadapation among US Men Who Have Sex with Men in the Era of PrEP and U=U.
   Pre-Print: [https://doi.org/10.1101/2020.11.25.20238758]

6. Janulis P, Goodreau SM, Birkett M, Phillips G, Mustanski B, **Jenness SM**. Temporal Variation in One-Time Partnership Rates among Young Men Who Have Sex with Men and Transgender Women.
   Pre-Print: [https://doi.org/10.1101/2020.10.19.20215178]

5. Kiti MC, Aguola OG, Liu C, Restrepo AM, Regina R, Willebrand K, Couzens C, Bartelsmeyer T, Nelson KN, **Jenness SM**, Riley S, Melegaro A, Adhmed F, Malik F, Lopman B, Omer SB. Social Contact Patterns among Employees in 3 U.S. Companies During Early Phases of the COVID-19 Pandemic, April to June 2020.
   Pre-Print: [https://doi.org/10.1101/2020.10.14.20212423]

4. Anderson EJ, Weiss KM, Morris M, Sanchez TH, Prasad P, **Jenness SM**. The HIV/STI Epidemic Potential for Dynamic Sexual Networks of Men Who Have Sex with Men in Atlanta and San Francisco.
   Pre-Print: [https://doi.org/10.1101/2020.10.12.20211540]

3. **Jenness SM**, Le Guillou A, Chandra C, Mann L, Sanchez T, Westreich D, Marcus JL. Projected HIV and Bacterial STI Incidence Following COVID-Related Sexual Distancing and Clinical Service Interruption.
   Pre-Print: [https://doi.org/10.1101/2020.09.30.20204529]

2. **Jenness SM**, Wilebrand KS, Malik AA, Lopman BA, Omer S. Modeling Dynamic Network Strategies for SARS-CoV-2 Control on a Cruise Ship.
   Pre-Print: [https://doi.org/10.1101/2020.08.26.20182766]

1. Lopman B, Liu CY, Le Guillou A, Lash TL, Isakov AP, **Jenness SM**. A Model of COVID-19 Transmission and Control on University Campuses.
   Pre-Print: [https://doi.org/10.1101/2020.06.23.20138677]

Invited Talks

30. Statistical Approaches to Modeling Epidemics Across Temporal Contact Networks. *Isaac Newton Institute for Mathematical Sciences, Models Old and New Seminar Series*. Cambridge, UK; 2020.

29. Epidemic Models for Projecting the COVID-19 Global Pandemic. *Oxford College at Emory University Special Seminar*. Atlanta; 2020.
Recording: [https://youtu.be/D-AY5nxXmV0]

28. Infectious Disease Dynamics and the COVID-19 Global Pandemic. *Emory University School of Medicine Seminar*. Atlanta; 2020.

27. Network Transmission Models to Identify Novel Strategies for HIV/STI Prevention. *City University of New York School of Public Health, Department of Epidemiology & Biostatistics Seminar*. New York City; 2019.

26. Linking Network Science and Epidemic Modeling to Optimize HIV/STI Prevention. *University of Alabama at Birmingham School of Public Health Epidemiology Seminar.* Birmingham; 2019.

25. Innovations in Methods and Applications of Mathematical Modeling for HIV PrEP. *Society of Epidemiological Research Annual Meeting.* Seattle; 2019.

24. Models for the HIV Prevention and Care Continuum in Atlanta and Beyond. *Emory University Center for AIDS Research Network Seminar.* Atlanta; 2019.

23. Network Modeling of HIV/STI Transmission Dynamics with EpiModel. *NIH Modeling Infectious Disease Agents Study (MIDAS) Annual Meeting.* Bethesda MD; 2019

22. Linking Network Science and Agent-Based Modeling for HIV/STI Prevention. *Center for Drug Use and HIV Research Seminar, New York University Global College of Public Health.* New York; 2019.

21. Network Transmission Models to Identify Novel Strategies for HIV and STI Prevention. *Infectious Disease Epidemiology Seminar, Columbia University Mailman School of Public Health.* New York; 2019.

20. Integrating Agent-Based Models for Infectious Disease and Statistical Methods for Dynamic Networks with EpiModel. *Sunbelt Conference of the International Network for Social Network Analysis.* Utretch (Netherlands); 2018.

19. Validation of Network Data for Dynamic Network Models of HIV/STI Transmission. *Integration of Empirical Data in Network Epidemiology Satellite, NetSci Conference*. Paris; 2018.

18. Network Modeling for Epidemics with EpiModel. *University of Minnesota School of Public Health Seminar.* Minneapolis; 2018.

17. Modeling Feedback Effects Between Sexual Behavior and Use of HIV/STI Prevention Tools. *Modeling Social Dynamics & Health Behavior Conference, University of Pittsburgh School of Public Health*. Pittsburgh; 2018.

16. Network Models for HIV/STI Transmission Dynamics: Statistical Methods and Computational Tools. *Society for Prevention Research Symposium.* Washington DC; 2018.

15. EpiModel: Software Tools for Modeling Infectious Disease over Dynamic Contact Networks. *NIH Modeling Infectious Disease Agents Study (MIDAS) Annual Meeting.* Bethesda MD; 2018.

14. Agent-Based Modeling and Network Analysis for Infectious Disease Epidemiology: Methods, Software, and Applications. *Department of Epidemiology and Biostatistics Seminar, Drexel University.* Philadelphia; 2018.

13. Network Modeling for Epidemics with EpiModel. *Public Health Dynamics Lab, University of Pittsburgh School of Public Health*. Pittsburgh; 2018.

12. Mathematical Models for Infectious Disease Transmission Dynamics over Complex Contact Networks: Statistical Methods and Applications for HIV/STI Prevention Science. *Northwestern University Institute on Complex Systems (NICO) Seminar*. Chicago; 2017.

11. STI Incidence Following HIV PrEP Initiation among United States Men Who Have Sex with Men. *National Coalition of STD Directors Seminar.* Atlanta; 2017.

10. Network Modeling for Infectious Disease Dynamics: A Brief Workshop. *University of California San Francisco PhD Program in Epidemiology and Translational Science*. San Francisco; 2016.

9. Mathematical Models for Infectious Disease Transmission Dynamics over Networks: Statistical Methods, Software Tools, and Applications for HIV/STI Prevention Science. *Northwestern University Center for Prevention Implementation Methodology (Ce-PIM) Grand Rounds.* Chicago; 2016.

8. Data-Driven Stochastic Modeling of HIV Epidemics over Networks using EpiModel. *Applying Simulation Science to HIV Prevention (NIAID/NIMH Research Consultation).* Washington DC; 2016.

7. Impact of CDC's HIV Preexposure Prophylaxis Guidelines among MSM in the United States. *CDC National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention Meeting.* Atlanta; 2016.

6. Network-Based Mathematical Models to Evaluate Interference within HIV Prevention Trials. *Harvard University Department of Biostatistics Causal Inference Working Group.* Boston; 2015.

5. HIV-1 Transmission Across Sexual Networks: Mathematical Methods for Evaluating HIV Prevention Strategies in Sub-Saharan Africa. *Emory University Department of Epidemiology Seminar.* Atlanta; 2015.

4. HIV-1 Transmission Across Sexual Networks: Implications for Comprehensive Prevention Strategies in Sub-Saharan Africa. *University of Washington Center for Studies in Demography & Ecology.* Seattle; 2015.

3. The Design, Implementation, and Analysis of Respondent-Driven Sampling and Venue-Based Sampling Studies. *New York University Grand Rounds.* New York; 2011.

2. Reconsidering the Internet as an HIV/STD Risk for Men Who Have Sex with Men. *New York City Department of Health HIV Grand Rounds.* New York; 2010.

1. HIV Testing among an Urban High-Risk Heterosexual Population: Implications for Routine and Risk- Based Testing Strategies. *New York City Department of Health Epidemiology Grand Rounds.* New York; 2008.

Copyrighted Software

EpiModel Tools for simulating mathematical models of infectious disease. Epidemic model classes include deterministic compartmental models, stochastic individual contact models, and stochastic network models using the stochastic framework of temporal exponential random graph models. *First published: April 2013. Last Update: November 2020.*
Metrics:* Downloads: ~130,000. Citations in peer-reviewed literature: 98.
Website: [http://epimodel.org/]

EpiModelHIV Extension package to EpiModel for simulating network models for HIV transmission dynamics, based on generalized framework of heterosexual couples in Sub-Saharan Africa and men who have sex with men (MSM) in the United States, with a focus on assessing emerging biomedical HIV prevention technologies. *First published: May 2015. Last Update: December 2020.*
Website: [http://github.com/statnet/EpiModelHIV/]

tergmLite Methods for simulating dynamic contact networks with ERGMs using a sparse matrix representation of the networks, resulting in an improvement in the efficiency and speed of epidemic models. *First published: September 2016. Last Update: August 2020.*
Website: [http://github.com/statnet/tergmLite/]

EpiModelHPC Supports simulating large-scale stochastic network models on modern high-performance computing systems. Functionality provided to simulate models in parallel using either single-node, multiple-core or multiple-node setups. *First published: October 2016. Last Update: April 2020.*
Website: [http://github.com/statnet/EpiModelHPC/]

EpiABC Implementation of Approximate Bayesian Computation with Sequential Monte Carlo Methods (ABC-SMC) optimized for use with EpiModel R package epidemic simulations running on High-Performance Computing (HPC) cluster environments. *First published: January 2018. Last Update: September 2020.*
Website: [http://github.com/EpiModel/EpiABC/]

** EpiModel is the broader software platform for which we are able to track scientific metrics. Some independent uses of the four following EpiModel extension packages are not necessarily counted within the EpiModel platform metrics.*

External Research Support

Current, as PI/Site-PI

EpiModel 2.0: Integrated Network Models for HIV/STI Prevention Science 2018–2022 *NIH R01 AI138783*

Role: Principal Investigator

This project will develop methods and software tools to forecast the performance of innovative HIV/STI prevention technologies, providing robust computational infrastructure to address critical questions in HIV/STI prevention over the next decade.

Enhancing Models of HIV, Viral Hepatitis, STIs, and Tuberculosis to Inform and Improve Public Health 2014–2024 *CDC U38 PS004646*

Role: Lead Investigator (Administrative PIs: Sullivan & Rosenberg)

Cooperative agreement for economic and epidemic modeling projects for directing national, state, and local infectious disease prevention activities. EpiModel Research Lab funded to conduct transmission modeling to investigate impact of federal HIV/STI policy.

Expedited Partner Therapy and the HIV Prevention Cascade Among MSM in Peru 2019–2024 *NIH R01 MH118973*

Role: Site PI (PIs: Clark)

This study will investigate how patient-delivered antibiotic treatment for gonorrhea and chlamydia will impact the incidence of recurrent STIs among men who have sex with men using a partner-linked randomized controlled trial and network-based mathematical modeling.

Modeling the Evolutionary and Public Health Impact of HIV Adaptation in Response to Vaccination 2017–2021 *NIH R01 GM125440*

Role: Site PI (PI: Herbeck)

This study will model the population-level impact of an HIV evolutionary response to a partially effective vaccine similar to RV144 to quantify viral adaptation across vaccine-related parameters.

Current, as Co-Investigator

ChiSTIG: Simulation Modeling to Understand and Address HIV Disparities in Racial and Sexual Minority Populations 2020–2024 *NIH R01 MD014703*

Role: Co-Investigator (PI: Birkett)

This project builds simulation models to understand the social contextual dynamics which lead to disparities in HIV. These models will be used as a counterfactual laboratory to test competing hypotheses regarding the etiology of infectious disease inequities in HIV for sexual minorities and potential routes for intervention.

CorporateMix: Comprehensive Profiling of Social Mixing Patterns in Workplace Settings 2019–2022 *CDC U01 CK000572*

Role: Co-Investigator (PI: Omer)

The purpose of this project is study social mixing patterns in corporate settings in order to better parameterize infectious disease models, and thus evaluate infectious disease interventions using seasonal influenza as a proxy for a pandemic.

GlobalMix: Comprehensive Profiling of Social Mixing Patterns in Resource Poor Countries 2019–2024 *NIH R01 HD097175*

Role: Co-Investigator (PIs: Lopman & Omer)

A multi-site study to use standardized methods to collect social contact data from urban and rural populations in Guatemala, Pakistan, India, and Mozambique using social contact diaries and wearable proximity-sensing devices.

CONTEXT: The Role of Casual Contact and Migration in XDR Tuberculosis Transmission 2018–2022 *NIH R01 AI38646*

Role: Co-Investigator (PI: Gandhi)

This study will integrate geospatial, genomic, and social network data to characterize the contributions of casual contact and migration to XDR TB transmission in Sub-Saharan Africa.

Making it Last: An RCT of a Home Care System to Promote Persistence in PrEP Care 2017–2022 *NIH R01 MH114692*

Role: Co-Investigator (PIs: Siegler & Mayer)

This trial will develop a home-based monitoring and support system to replace quarterly, in-person provider visits for ongoing HIV PrEP care, measuring the levels of retention in PrEP with biomarker and self-report.

Theoretically Based Mobile App to Increase PrEP Uptake among Men Who Have Sex with Men 2017–2022 *NIH R01 DA045612*

Role: Co-Investigator (PI: Sullivan)

This study will test the efficacy of a mobile phone application (HealthMindr) to promote PrEP uptake in 3 US cities, with self-administered assessments for behavioral risk, HIV testing, and initiation of HIV PrEP.

ePrEP: An RCT of an Electronic HIV PrEP Care System among Rural Men Who Have Sex with Men 2017–2021 *NIH U19 HD089881*

Role: Co-Investigator (PIs: Siegler & Mena)

ePrEP is a home-care system for PrEP allowing rural MSM to initiate and maintain PrEP clinical care without travel to a clinician office. The intervention will combine behavioral surveillance with app-based telemedicine.

Completed, as PI/Site-PI

Washington State HIV Prevention Models 2018–2020

Role: Site PI (PI: Morris) *WA DOH 23192*

This project will use dynamic epidemic models paired with health economic optimization models to evaluate optimal HIV prevention strategies for the Washington State Department of Health.

Modeling Antiretroviral-Based Prevention among 2017–2020

Men Who Have Sex with Men in the US *NIH R21 MH112449*

Role: Principal Investigator

This study collects network data from MSM in 15 high-incidence cities across the US, and integrate those into our model-based software platform for HIV transmission dynamics and interventions in this population.

Local Models for Comprehensive HIV Prevention Planning 2016–2017

Role: Principal Investigator *NIH P30 AI050409*

Feasibility study to develop a model of HIV transmission dynamics among heterosexual populations in Atlanta and Seattle. Funded through a competitive internal review of the Emory Centers for AIDS Research Developmental Core.

Completed, as Co-Investigator

Center for Prevention Implementation Methodology 2016–2018

Role: Co-Investigator (PIs: Brown & Mustanski) *NIH P30 DA027828*

NIDA Center for Excellence addressing HIV prevention as it relates to drug use and abuse, implementation science, and network science. Funded as an *Early Stage Investigator* to develop novel methods and applications in these areas.

Statistical Methods for Network Epidemiology 2011–2016

Role: Co-Investigator (PI: Morris) *NIH R01 HD068395*

Builds the statistical theory, methods, and computer software to establish a principled approach to network epidemiology, with a focus on a modeling platform for simulating epidemics over dynamic networks.

Peer-Driven Intervention to Seek, Test & Treat 2011–2015

Heterosexuals at High Risk for HIV *NIH R01 DA032083*

Role: Co-Investigator (PI: Gwadz)

Evaluates the efficacy of a multi-level enhanced peer-driven intervention to identify and HIV test high-risk heterosexuals, and to link newly diagnosed infected persons to HIV medical care with retention and ART adherence.

National HIV Behavioral Surveillance System 2006–2011

Role: Project Director (PI: Neigus) *CDC U62 PS000964*

Study of HIV risk behaviors, prevention services, and HIV prevalence among high-risk populations, including men-who-have-sex-with-men, injection drug users and heterosexuals at increased-risk of HIV in New York City.

Never in Care Study 2005–2010

Role: Project Director (PI: Neigus) *CDC U01 PS000108*

Study in New York City and other project areas to investigate the demographics, risk factors, and barriers to care for adults who delay entry into HIV medical care after HIV diagnosis.

Teaching

Semester Courses

Emory EPI 570 (3 credits) 2017–*present*

Infectious Disease Dynamics: Theory and Models

Short Courses

Network Modeling for Epidemics 2013–*present*

University of Washington

Modeling for HIV/STI Prevention Science 2017

Harvard University School of Public Health

Network Statistics in Health Research 2014–2015, 2020

University of Ghent (Belgium)

Modeling Epidemics with EpiModel 2014–2015

INSNA Sunbelt Conference

Guest Lectures

Emory EPI 546 (HIV Epidemiology) 2017–2020

Lecture: Mathematical Modeling for HIV Epidemiology

Emory EPI 569 (Infectious Disease Epi Methods) 2017–2020

Lecture: Contact Networks for Infectious Diseases

Emory BSHE 535 (Social Determinants of Health) 2016–2020

Lecture: Agent-Based Modeling of Social Determinants of Health

Emory EPI 550 (STI Epidemiology) 2016

Lecture: Mathematical Modeling for STI Epidemics

Emory EPI 590 (Implementation Science) 2016
Lecture: Mathematical Modeling for Implementation Science Research

UW HSERV 490 (Social Networks & Health) 2014
Lecture: Networks and Infectious Disease

UW EPI 554 (Intro to Epidemic Modeling) 2012–2014
Lecture: Stochastic Models for Infectious Disease

Mentoring

Post-Doctoral Fellows

Adrien Le Guillou, MD 2019–2020
Visiting Scientist/Post-Doctoral Fellow *Fellowship Mentor*

PhD Students

Christina Chandra 2020–present
PhD, Epidemiology, Emory University *Faculty Advisor*

Enoch Chen 2020–present
PhD, Epidemiology, Emory University *PhD Committee Member*

Laura Mann 2018–present
PhD, Epidemiology, Emory University *Faculty Advisor*

Emeli Anderson 2017–present
PhD, Epidemiology, Emory University *PhD Committee Chair*

Jordan Johnson 2019–2020
PhD, Epidemiology, Brown University *Research Assistant Advisor*

Jason Gantenberg 2019–present
PhD, Epidemiology, Brown University *PhD Committee Member*

Kevin Maloney 2018–present
PhD, Epidemiology, Emory University *PhD Committee Chair*

Supriya Sarkar 2018–present
PhD, Epidemiology, Emory University *PhD Committee Member*

Kristin Nelson 2016–2018
PhD, Epidemiology, Emory University *PhD Committee Member*

Johana Bardales 2016–2018
PhD, Epidemiology, Emory University *PhD Committee Member*

Jeb Jones 2016
PhD, Epidemiology, Emory University *PhD Committee Member*

MPH Students

Kathyrn Krupinsky	2020–present
MPH, Epidemiology, Emory University	*Research Assistant Advisor*
Kathryn Willebrand	2020–present
MPH, Epidemiology, Yale University	*MPH Thesis Co-Chair*
Shiyun Qin	2020–present
MPH, Epidemiology, Emory University	*MPH Thesis Chair*
Connor Van Meter	2018–2020
MPH, Epidemiology, Emory University	*Research Assistant Advisor*
Yuan Zhao	2018–2019
MPH, Epidemiology, Emory University	*Research Assistant Advisor*
Ramya Ramaraju	2018–2019
MPH, Epidemiology, Emory University	*Research Assistant Advisor*
Pragati Prasad	2017–2019
MPH, Epidemiology, Emory University	*MPH Thesis Chair, Research Assistant Advisor*
Farah Ahmed	2017–2018
MPH, Epidemiology, Emory University	*MPH Thesis Chair*
Stephen Uong	2017–2018
MPH, Epidemiology, Emory University	*MPH Thesis Chair*
Caleb Ebert	2017–2018
MPH, Epidemiology, Emory University	*MPH Thesis Chair*
Bonnie Gale	2017–2018
MPH, Epidemiology, Emory University	*MPH Thesis Chair*
Kyndall White	2017–2018
MPH, Epidemiology, Emory University	*MPH Thesis Chair*
Romana Fetherolf	2016–2017
MPH, Epidemiology, Emory University	*MPH Thesis Chair*
Maraia Tremarelli	2016–2017
MPH, Epidemiology, Emory University	*Research Assistant Advisor*
Ilya Shats	2016
MS, Computer Science, Emory University	*MS Thesis Committee Member*

Committee Service

1. MPH/MSPH Admission Committee 2016–present
   Department of Epidemiology, Rollins School of Public Health
2. PhD Program Committee 2017–present
   Department of Epidemiology, Rollins School of Public Health
3. PhD Admissions Committee 2017–present
   Department of Epidemiology, Rollins School of Public Health
4. PhD Qualifying Exam Committee 2018–present
   Department of Epidemiology, Rollins School of Public Health
5. Faculty Search Committee 2019–present
   Department of Epidemiology, Rollins School of Public Health

Grant Review

1. Emory Center for AIDS Research 2017–present
   Development Core Pilot Grant Program
2. Emory University Research Committee 2018–present
   Interdisciplinary Pilot Grants Subcommittee
3. NIH Ad-Hoc Study Section Reviewer 2019
   Population and Public Health Approaches to HIV/AIDS (PPAH) Study Section

Editorial Services

Editorial Board Membership

Sexually Transmitted Diseases 2020–present

Journal Reviews

AIDS & Behavior, AIDS Care, AIDS Patient Care & STDs, American Journal of Epidemiology, American Journal of Public Health, Annals of Epidemiology, Bioinformatics, BMC Public Health, Clinical Infectious Diseases, Demography, Drug & Alcohol Dependence, eLife, Epidemics, Epidemiology, International Journal of STD & AIDS, Journal of AIDS (JAIDS), Journal of the International AIDS Society (JIAS), Journal of Medical Internet Research, Journal of Statistical Software, Journal of Women's Health, Lancet Infectious Disease, Lancet Public Health, Network Science, PLoS One, Prevention Medicine, R Journal, Sexually Transmitted Diseases, Sexually Transmitted Infections