

M. ELIZABETH HALLORAN, MD, MPH, DSc**1. PERSONAL DATA**

Place of birth: Wooster, Ohio, USA

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cell: 770-330-2986

2. EDUCATION

1970–1972 BSc, General Science, University of Oregon, Eugene, OR

1976–1983 MD, Freie Universität Berlin, West Berlin, Germany

1984–1985 MPH, Tropical Public Health, Harvard School of Public Health, Boston, MA

1986–1989 DSc, Population Sciences, Harvard School of Public Health, Boston, MA

Concentration: Human Ecology & Population Dynamics of Infectious Diseases

3. POST GRADUATE TRAINING**A.**

1984 Diploma in tropical medicine and parasitic diseases Bernard-Nocht Institute of Tropical Medicine, Hamburg, Germany

1985–1986 Research Fellow, Department of Tropical Public Health, Harvard School of Public Health, Boston, MA. Faculty Advisor: Andrew Spielman.

1989 Research Associate, Department of Biology, Princeton University, based at the Department of Pure and Applied Biology, Imperial College, University of London. Faculty Advisor: Robert M. May.

B.

1982–1983 Medical Internship, City Hospital of Neukölln, Berlin, Germany

1983–1984 Medical Research Associate, City Hospital of Neukölln, West Berlin, study of a hypo-allergenic oral formula to prevent chronic diarrhea in infants with acute diarrhea

4. FACULTY POSITIONS HELD (see A. Primary, and B. Secondary, and Leadership Positions)**A. Primary**

1989–1990 Assistant Professor, Department of Epidemiology and Biostatistics, School of Medicine, Emory University

1990–1993 Assistant Professor, Department of Biostatistics, School of Public Health, Emory University

1993–1998 Associate Professor, Department of Biostatistics, School of Public Health, Emory University

1998–2005 Professor, Department of Biostatistics, Rollins School of Public Health, Emory University

2006– Professor, Division of Public Health Sciences, Biostatistics Program, Fred Hutchinson Cancer Center

2006– Professor, Department of Biostatistics, School of Public Health, University of Washington

2008– Adjunct Professor, Applied Mathematics, University of Washington, Seattle, WA

2010– Professor, Vaccine and Infectious Diseases Division, Biostatistics, Bioinformatics and Epidemiology Program, Fred Hutchinson Cancer Center

2015– Professor, Department of Epidemiology, School of Public Health, University of Washington

B. Secondary

1992–2005 Secondary appointment, Department of Biology, Emory College, Atlanta, GA

1992–2003 Director, NIH Statistical and Clinical Research Training Grant in AIDS, Emory University, Atlanta, GA

1994–2005 Secondary appointment, Department of Epidemiology, Rollins School of Public Health, Atlanta, GA

- 1996–2005 Faculty, Population Biology, Ecology, and Evolution (PBEE) PhD Program, Graduate Division of Biological and Biomedical Sciences, Emory University, Atlanta, GA
- 2002–2005 Director, Center for AIDS Research, Biostatistics Core, Emory University, Atlanta, GA
- 2004–2005 Director, Center for Highthroughput Experimental Design and Analysis (CHEDA), Emory University, Atlanta, GA
- 2005 Director, NIH/NIGMS Training Grant in Biostatistics in Genetics, Immunology, and Neuroimaging (BGIN), Department of Biostatistics, Rollins School of Public Health, Emory University, Atlanta, GA

C. Leadership Positions

- 2009–2023 Director and Founder, Summer Institute in Statistics and Modeling in Infectious Diseases (SISMID), Department of Biostatistics, University of Washington, Seattle, WA
- 2014–2023 Director, MIDAS Center for Inference and Dynamics of Infectious Diseases, Fred Hutchinson Cancer Center, Seattle, WA
- 2018–2022 Director, PAHO/WHO Collaborating Center for Inference and Dynamics of Infectious Diseases, Vaccine and Infectious Disease Division, Fred Hutchinson Cancer Center, Seattle, WA
- 2020–2024 Program Head, Biostatistics, Bioinformatics and Epidemiology Program, Vaccine and Infectious Disease Division, Fred Hutchinson Cancer Center, Seattle, WA
- 2023 Search Committee Chair, Biostatistics Faculty Search, Vaccine and Infectious Diseases Division, Fred Hutchinson Cancer Center, Seattle, WA

5. HOSPITAL POSITIONS HELD

(N/A)

6. HONORS

- 1986–1987 Graduate Associate, Takemi Program of International Health, Harvard School of Public Health
- 1996-present Fellow, American Statistical Association
- 1997-present Fellow, Royal Statistical Society
- 2002 40th Don W. Gudakunst Memorial Lecture, Department of Epidemiology, University of Michigan
- 2006–2007 Dr. Ross Prentice Professor of Biostatistics, University of Washington
- 2006 Featured in a *Vogue* article: Power Players, for her work simulating possible flu pandemics, 2006 Mar 1, pages 534-538. <https://archive.vogue.com/issue/20060301>
- 2009-present Fellow, American Association for the Advancement of Science
- 2010–2022 NIH/NIAID MERIT Award. Methods for Evaluating Vaccine Efficacy
- 2016 Aspen Institute Italia Prize for Research and Collaboration between Italy and United States
- 2019 Invited Speaker, Buehler-Martin Plenary Lecture, IRSA Annual Conference, University of Minnesota, Minneapolis
- 2019 Nathan Mantel Lifetime Achievement Award for contributions at the intersection of statistical science and epidemiology, The American Statistical Association
- 2019 Invited Plenary Speaker, Epidemics 7 Conference, Charleston, South Carolina
- 2019-present Member, National Academy of Medicine
- 2020-present Member, Washington State Academy of Sciences

7. BOARD CERTIFICATION

(N/A)

8. LICENSURE

(N/A)

9. PROFESSIONAL ORGANIZATIONS

2024-present	Society for Causal Inference
2022-2023	American Society of Tropical Medicine and Hygiene (also 1993-2002, 2010-2019)
1996-present	Royal Statistical Society
1994–2018	Institute of Mathematical Statistics
1990-present	American Association for the Advancement of Science
1990-present	American Statistical Association
1990-present	International Biometric Society (ENAR)
1989-2009, 2019	Society for Epidemiologic Research
1989-2004	Society for Vector Ecology

10. TEACHING RESPONSIBILITIES

Harvard University courses

1986-1987	Population Dynamics of Infectious Diseases in Humans, full year undergraduate seminar, Biology Department, Faculty of Arts and Sciences
WS 1988	Population Dynamics of Infectious Diseases in Humans, Biology Department, Faculty of Arts and Sciences
SS 1989	Teaching Fellow (course coordinator), Biology, Epidemiology, Economics and Policy of Malaria (BEEP), Department of Tropical Public Health, School of Public Health

Emory University courses

1989 SS; 1991-92 WS	Epidemiology of AIDS: methodological issues
1990-91 SS; 1992-93 SS	Analytic methods for infectious disease interventions (also 1995-96 WS; 1997-98 WS)
1990 WS; 1993 SS	Advanced Seminar in Biometry
1992; 1994 SS	Theory of survival analysis, including counting processes
1993 SS	Introduction to analytic methods for infectious disease interventions
1993-94 WS	Population Biology and Dynamics of Disease
1995-97 WS; 1998-99 WS	PhD Biostatistics Research Seminar
1996 SS; 2000-01 WS	Bayes and empirical Bayes methods (also 2003 SS)
1996-97 WS; 2000 SS	Missing and mismeasured data
1998-99 WS	Bayes and empirical Bayes methods
1997-98 WS; 2000 SS	Statistical computing
2001 SS	Generalized Linear Models
2002 SS; 2003 WS	Analysis of microarray data
2005 WS	Causal Inference

University of Washington courses

2007 Winter	Analytic Methods for Infectious Disease
2009 Winter	Analytic Methods for Infectious Disease

Short courses and tutorials

1992	New England Epidemiology Summer Program, Boston MA, July 12-31, Concepts in Infectious Disease Epidemiology
1992	University of São Paulo, Brazil, August 3-6, Concepts in Infectious Disease Epidemiology
1997	Chiron Corporation, Emeryville, CA, December 15-16, Design and Analysis of Vaccine Studies
1998	Bristol Myers Squibb, Connecticut, April 24, Design and Analysis of Vaccine Studies, Causal Inference
2000	Research Methods on Vaccines and Immunization in Public Health, Oswaldo Cruz Foundation, Rio de Janeiro, Brazil, December 18-22
2006	Analytic Methods for Infectious Diseases, ENAR Biometrics Meeting, Tampa, FL, March
2007	Analytic Methods for Infectious Diseases, ENAR Biometrics Meeting, Atlanta GA, March

- 2009-2023 Markov Chain Monte Carlo (MCMC I), course in Summer Institute in Statistics and Modeling in Infectious Disease, University of Washington, held annually in July
- 2011 Design and Analysis of Vaccine Studies, Deming Conference, Atlantic City, NJ, December

Scientific Initiatives/Workshops

- 2007-2009 Proposer and Organizer, Workshop on Analysis of Infectious Disease Data, Mathematisches Forschungsinstitut in Oberwolfach, Germany, November 2009
- 2011-2013 Proposer and Organizer, Weeklong Workshop on Analysis of Infectious Disease Data, Mathematisches Forschungsinstitut in Oberwolfach, Germany, November 2013
- 2013 Co-organizer, Workshop on Integrating Genomic Data and Transmission Analysis, University of Florida, January 2013
- 2016-2018 Proposer and Organizer, Weeklong Workshop on Analysis of Infectious Disease Data, Mathematisches Forschungsinstitut in Oberwolfach, Germany, February 2018
- 2021-2023 Proposer and Organizer, Weeklong Workshop on Analysis of Infectious Disease Data, Mathematisches Forschungsinstitut in Oberwolfach, Germany, February 2023

A. DOCTORAL MENTORSHIP ACTIVITIES

a. PRE-DOCTORAL FELLOWS DIRECTED

Emory:

- 1992 P. Rhodes, PhD Biostatistics
- 1992 O. Devine, PhD Biostatistics
- 1995 M. Kolczak, PhD Biostatistics
- 1997 D. Dunson, PhD Biostatistics
- 1998 G.T. Golm, PhD Biostatistics
- 2001 K. T. Cuenco, PhD Epidemiology
- 2003 Haitao Chu, PhD Biostatistics
- 2007 Haiyan Wu, PhD Biostatistics

U Washington:

- 2011 Nicole E. Basta, PhD Epidemiology, University of Washington
- 2015 Leora Feldstein, PhD Epidemiology, University of Washington
- 2018 Lauren Schwartz, PhD Epidemiology, University of Washington
- 2019 Natasha Wenzel, PhD Epidemiology, University of Washington
- 2020 Madhura Rane, PhD Epidemiology, University of Washington

b. POST-DOCTORAL FELLOWS SINCE 2013

- 2013-2019 Laura Matrajt, Post-Doctoral Fellow
- 2016-2017 Leora Feldstein, Post-Doctoral Fellow

DOCTORAL COMMITTEES

Emory:

- 1990 V.J.C. Suman, PhD Biostatistics.
- 1990 W.S. Clark, PhD Biostatistics
- 1994 J. Bertolli, PhD Epidemiology (UCLA).
- 1995 D.J. Mosur, PhD Epidemiology.
- 1997 L.K. Durham, PhD Biostatistics.
- 1997 M.R. Sternberg, PhD Biostatistics
- 1999 B. Viswanathan, PhD Biostatistics
- 2000 M. Hudgens, PhD Biostatistics
- 2000 D. Price, PhD Biostatistics
- 2002 E. Hill, PhD Biostatistics
- 2004 Y. Yang, PhD Biostatistics
- 2006 E. Tassone, PhD Biostatistics

U Washington:

2008	JoAnna Scott, PhD Biostatistics
2010	Jonathan Sugimoto, PhD Epidemiology
2010	Gail Potter, PhD, Statistics
2011	Laura Matrajt, PhD, Applied Mathematics
2014	Amanda Koepke, PhD, Statistics, University of Washington
2016	Leigh Fisher, PhD Biostatistics, University of Washington
2017	Yingying Chen, PhD Biostatistics, University of Washington
2017	Diana Rojas, PhD Epidemiology, University of Florida
2018	Jon Fintze, PhD Biostatistics, University of Washington
2018	Maryclare Griffin PhD Statistics, University of Washington
2020	Fareed A. Awan, PhD Philosophy, University of Washington
2020	Allison Black, PhD Epidemiology, University of Washington
2020	Tracy Dong, PhD Biostatistics, University of Washington
2023	Julia Rogers, PhD Epidemiology, University of Washington
2023	John M. Henry, QERM PhD, University of Washington
2024	Miguel Paredes, PhD Epidemiology, University of Washington
2024	Marlin Figgins, PhD Applied Mathematics, University of Washington
(2025)	Brooks Morgan, PhD Epidemiology, University of Washington
(2025)	Leah Andrews, PhD Biostatistics, University of Washington

U Florida:

2016	Diana Riojas, PhD Epidemiology, University of Florida, Gainesville
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OTHER MENTORING

2022-2023 Dr. Bingkai Wang, Advisory Committee for the NIAID K99/R00 pathway to independence award

B. MEDICAL STUDENTS

(N/A)

C. UNDERGRADUATE STUDENTS

(N/A)

D. INVITED TALKS

(Not tracked)

11. EDITORIAL RESPONSIBILITIES

1993 – 1998	Editorial Board, Epidemiology
1994 – 2005	Editorial Board, Statistics in Medicine
1998 – 2003	Associate Editor, Journal of the American Statistical Association, Applications and Case Studies
2002 – 2009	Associate Editor, American Journal of Epidemiology (also 1991–1997)
2004 – 2014	Associate Editor, Biometrics
2008 – 2023	Editorial Board, Epidemics
2009 – 2012	Editorial Board, Statistical Communications in Infectious Diseases
2011 – 2020	Editorial Board, Epidemiologic Methods
2014 –	Editorial Advisory Board, Observational Studies

12. SPECIAL NATIONAL RESPONSIBILITIES

1991-1993	Member, Core exam writing group, American Board of Preventive Medicine
1994–1995	Program Chair, Section on Epidemiology, American Statistical Association
1998–2003	Board of Trustees, National Institute of Statistical Sciences
2003–2005	Member, Committee on Excellence in Statistical Reporting Award, American Statistical Association
2004–2006	Member, (2006 Chair) Fellow Selection Committee, American Statistical Association

- 2004 FDA on improving FDA's approach to Clin Trials and vaccines, October 2004, invited talk
- 2008–2012 Committee on Sections, Section on Statistics in Epidemiology, American Statistical Association
- 2010–2014 Elected Member-at-Large, Statistics Section, American Association for Advancement of Science
- 2011–2016 NIH Study Section on Clinical Research and Field Studies
- 2012–2014 Chair-elect, Chair, Past, Section on Statistics in Epidemiology, American Statistical Association
- 2013–2016 Dengue Modeling Consortium (FHCRC, U Florida, Johns Hopkins, Imperial College, Sanofi Pasteur)
- 2014–2018 Nominating Committee, Statistics Section, American Association for Advancement of Science
- 2015–2016 Wellcome Trust PhD Programmes Committee
- 2015– Scientific Advisory Group, WHO Blueprint for R and D to prevent outbreaks
- 2016– WHO Blueprint Working Group for Study Designs for Outbreaks
- 2020– DMID/NIAID/NIH trial External Advisory Board Member for EVITA: a cluster-randomized trial to Evaluate the efficacy of Wolbachia-InfecTed Aedes aegypti mosquitoes in reducing the incidence of Arboviral infection in Brazil
- 2021– Scientific Advisory Board, Evaluating Modes of Influenza Transmission (EMIT-2) using Innovative Technologies and Designs in Controlled Environments

13. SPECIAL LOCAL RESPONSIBILITIES

- 2013–2014 PATH Technical Consulting Group I: Phase III cluster-randomized design for malaria transmission blocking vaccines, Seattle, WA
- 2013–2014 PATH Technical Consulting Group II: Novel design of Phase III studies for malaria transmission blocking vaccines, Seattle, WA
- 2019–2020 M2 Renovation Steering Committee, Vaccine and Infectious Diseases Divisions, Fred Hutchinson Cancer Center, Seattle, WA
- 2020-present Executive Committee of the Vaccine and Infectious Diseases Division
- 2020-present Steering Committee of the Vaccine and Infectious Diseases Division
- 2020-present Program Head, Biostatistics, Bioinformatics and Epidemiology Program, Vaccine & Infectious Disease Division, Fred Hutchinson Cancer Center, Seattle, WA
- 2021-2022 Search Committee Member, Biostatics Faculty Search, Vaccine and Infectious Diseases Division, Fred Hutchinson Cancer Center, Seattle, WA
- 2021-2022 Search Committee Member, Phylodynamic Faculty Search, Vaccine and Infectious Diseases Division, Fred Hutchinson Cancer Center, Seattle, WA
- 2020-2021 Mayor's Task Force on the Covid-19 Pandemic Response, City of Seattle, WA

14. RESEARCH FUNDING

A. CURRENT

- 2009-2025 Sponsor: NIH, R01 AI085073
Title: Causal Inference for Infectious Disease Studies, PI Michael Hudgens, UNC Chapel Hill
Total Costs: \$822,258, Direct Costs: \$39,172 (annual)
Role: Consortium PI
- 2018-2024 Sponsor: NIAID, R01 AI132496
Title: Quantifying the Breadth and Duration of Immunity Induced by Meningococcal B Vaccine, PI Nicole Basta, McGill University, Montreal, Quebec, Canada
Total Costs: \$41,376, Direct Costs: \$25,217 (annual)
Role: Consortium PI
- 2019-2024 Sponsor: NIH, U24 GM132013

- Title: MIDAS Coordinating Center, PI Harry Hochheiser, University of Pittsburgh, Pittsburgh
 Total Costs: \$65,109, Direct Costs: \$36,994 (annual)
 Role: Consortium PI
- 2020-2025 Sponsor: NIAID, U01 AI148069 (sub from Emory, PI Gonzalo M. Vazquez Prokopec)
 Title: Quantifying the Epidemiological Impact of Targeted Indoor Residual Spraying on Aedes-borne Diseases
 Direct Costs: \$41,845 (annual)
 Role: Consortium PI (NOA pending)
- 2020-2024 Sponsor: NIAID, NIH, R25 AI147391
 Title: Summer Institute in Statistics and Modeling in Infectious Diseases, University of Washington (SISMID), Seattle Washington, PI M. Elizabeth Halloran
 Total Costs: \$1,662,546, Direct Costs: \$1,567,173 (five years)
 Role: PI
- 2023-2028 Sponsor: CDC (sub from Northeastern University, PI Alessandro Vespignani)
 Title: Epistorm: Center for Advanced Epidemic Analytics and Predictive Modeling Technology
 Total Costs: \$349,965 (five years)
 Role: Consortium PI

B. PENDING (N/A)**C. PAST**

- 1990-1991 Sponsor: CDC Contract 434MIM90
 Title: Mathematical Modeling of a Varicella Vaccination Program
 Total Costs: ~\$18,500
 Role: PI
- 1991-1992 Sponsor: CDC Contract 308MIM92
 Title: Application of Mathematical Modeling of a Varicella Vaccination Program
 Total Costs: ~\$9,840
 Role: PI
- 1991-1997 Sponsor: NIH FIRST Award R29 AI31057
 Title: Study designs for malaria and other vector-borne disease
 Total Costs: \$494,921
 Role: PI
- 1992-2003 Sponsor: NIH Training Grant T32 AI07442
 Title: Statistical and Clinical Research Training on AIDS
 Total Costs: \$825,494
 Role: Program Director
- 1992-2022 Sponsor: NIH, R01 AI032042: As of 10/2010: R37 AI032042 (MERIT Award)
 Title: Methods for evaluating vaccine efficacy
 Total Costs: \$9,886,609
 Role: PI
- 1994-1996 Sponsor: NSF Career Advancement Award DMS-9410138
 Title: Foundations and Methods of Inference
 Total Costs: \$30,000
 Role: Principal Investigator
- 1997 Sponsor: Emory University, University Teaching Fund Award
 Title: Developing a course in Statistical Computing
 Total Costs: \$4,900
 Role: Awardee/Recipient
- 1997-1998 Sponsor: Emory University, University Research Fund Award
 Title: Estimating the Relation of Exposure to Malaria Infection to Immunity
 Total Costs: ~\$4,800

- 1997-2001 Role: Awardee/Recipient
Sponsor: NIH, R01 AI40846:
Title: Design and analysis of HIV vaccine trials
Total Costs: \$552,000
Role: PI
- 2000-2001 Sponsor: Principal investigator, NIH, R13 CA91646
Title: Conference on Causation, Statistics, and Applications
Total Costs: \$99,000
Role: PI
- 2001-2002 Sponsor: CDC Contract 01IP09659
Title: Evaluating Prophylactic Antivirals against Influenza
Total Costs: \$43,645
Role: IPA Agreement
- 2001-2002 Sponsor: Emory University, University Teaching Fund Award
Title: Analysis of Microarray Data
Total costs: \$8,000
Role: Awardee/Recipient
- 2002-2005 Sponsor: NIH
Title: Center For AIDS Research (CFAR) (PI Curran)
Total Costs: \$97,650
Role: Core Director (Biostatistician)
- 2003-2004 Sponsor: NIH 263-MD-306089
Title: Analytic methods for determining smallpox control in response to a bioterrorist attack
Total Costs: \$196,000
Role: PI
- 2004-2014 Sponsor: NIH, U01 GM070749
Title: Containing Bioterrorist and Emerging Infectious Diseases (MIDAS Network)
Total Costs: ~\$2,700,000
Role: PI (MPI)
- 2005-2006 Sponsor: Emory University, University Teaching Fund Award
Title: Course on Causal Inference,
Total Costs: \$5,000
Role: Awardee/Recipient
- 2005-2006 Sponsor: NIH R56 AI32042-A1
Title: Methods for evaluating vaccine efficacy
Total Costs: \$390,537
Role: PI.
- 2005-2010 Sponsor: NIH NIGMS T32 GM074909 (left 12/05)
Title: Biostatistics in Genetics, Immunology, and Neuroimaging
Total Costs (2005-06): \$187,131
Role: Program Director
- 2007-2009 Sponsor: Bill and Melinda Gates Foundation, Contract 5485
Title: Evaluating the BMGF Portfolio of New TB Drugs, Diagnostics and Vaccines
Total Costs: \$711,128
Role: PI
- 2010-2019 Sponsor: NIH, R25 GM089694
Title: Summer Institute in Statistics and Modeling in Infectious Diseases
(SISMID), Biostatistics, University of Washington
Total Costs: \$1,833,760
Role: Director
- 2014-2020 Sponsor: NIH, U54 GM111274

- Title: MIDAS Center for Excellence: Center for Statistics and Quantitative Infectious Diseases, Fred Hutch
 Total Costs: \$12,453,836
 Role: PI
- 2015-2020 Sponsor: NIH R01 GM108731
 Title: A 3-population 3-scale Social Network Model to Assess Disease Transmission, PI Ling Bian, University of Buffalo, Buffalo
 Total Costs: \$16,356, Direct Costs: \$9,293 (annual)
 Role: Consortium PI
- 2020-2022 Sponsor: NIAID, R56 AI148284
 Title: Mathematical and Statistical Methods for the Control of Global Infectious Disease Threats, MPI Ira Longini, Jr., University of Florida, Gainesville, Alessandro Vespignani, Northeastern University, Boston
 Total Costs: \$802,262, Direct Costs: \$26,114 (annual)
 Role: MPI, Consortium PI
- 2021-2022 Sponsor: The Conway Foundation (FP50006531)
 Title: Target Vaccination Strategies for COVID-19: A Mathematical Modeling Approach, PI Ira Longini, Jr., Subcontract from University of Florida, Gainesville,
 Total Award Amount (including Indirect Costs): \$44,708
 Role: Consortium PI
- 2018-2023 Sponsor: NIH, R01 AI139761
 Title: Design and Analysis of Vaccine Trials for Emerging Infectious Disease Threats, PI Natalie Dean, Emory University, Atlanta
 Total Award Amount: \$1,126,763
 Role: Consortium PI
- 2021-2023 Sponsor: Emerson
 Title: Target Vaccination Strategies for COVID-19: A Mathematical Modeling Approach, PI Ira Longini, Jr., Subcontract from University of Florida, Gainesville,
 Total Award Amount (including Indirect Costs): \$89,416
 Role: Consortium PI

15. BIBLIOGRAPHY

a. PUBLICATIONS IN REFEREED JOURNALS

1. Russo VEA, Gallori E, and **Halloran ME**. Ethylene is Involved in the Autochemotropism of Phycomyces. *Planta*. 1977;134:61-67.
2. Struchiner CJ, **Halloran ME**, and Spielman A. Modeling Malaria Vaccines I: New Uses for Old Ideas. *Math Biosci*. 1989;94:87-113.
3. **Halloran ME**, Struchiner CJ, and Spielman A. Modeling Malaria Vaccines II: Population Effects of Stage-specific Malaria Vaccines Dependent on Natural Boosting. *Math Biosci*, 1989;94:115-149.
4. **Halloran ME**. Nicaragua Health Study Collaborative at Harvard, and CEIS, and UNAN. Health Effects of the War in Nicaragua in Two Communities. *Am J Pub Health*, 1989;79:424-430.
5. **Halloran ME**, Bundy DAP, and Pollitt E. Infectious Disease and the Unesco Basic Education Initiative. *Parasitol Today*. 1989;5:359-362.
6. Struchiner CJ, **Halloran ME**, Robins JM, Spielman A. The Behavior of Common Measures of Association Used to Assess a Vaccination Program under Complex Transmission Patterns – A Computer Simulation Study of Malaria Vaccines. *Int J Epidemiol*. 1990;19:187-196.
7. Longini IM, Haber MJ, **Halloran ME**. Efectos directos e indirectos de las vacunas: un anotacion sobre la estimación de la eficacia vacunal a partir de brotes por agentes de infecciones agudas como sarampion. *Bio Med Hosp Infant Mex*. 1990;47:516-520.
8. **Halloran ME**, Haber MJ, Longini IM, Struchiner CJ. Direct and Indirect Effects in Vaccine Efficacy and Effectiveness. *Am J Epidemiol*, 1991;133:323-331.

9. Haber MJ, Longini IM, **Halloran ME**. Measures of the Effects of Vaccination in a Randomly Mixing Population. *Int J Epidemiol*. 1991;20:300-310.
10. Haber MJ, Longini IM, **Halloran ME**. Estimation of Vaccine Efficacy in Outbreaks of Acute Infectious Diseases. *Stats in Med*. 1991;10:1573-1584.
11. **Halloran ME** and Struchiner CJ. Study designs for dependent happenings. *Epidemiology*. 1991;2:331-338. PMID: 1742381
12. Struchiner CJ and **Halloran ME**. Models of AIDS Vaccines: The Cellular Level. *Memorias de Instituto Oswaldo Cruz, Rio de Janeiro*. 1992;87:103-113.
13. **Halloran ME**, Haber MJ, and Longini, IM. Interpretation and Estimation of Vaccine Efficacy under Heterogeneity. *Am J Epidemiol*, 1992;136:328-343.
14. **Halloran ME** and Struchiner CJ. Modeling transmission dynamics of stage-specific malaria vaccines. *Parasitol Today*. 1992;8:77-85.
15. **Halloran ME**. Persistence, Drugs, and Rock'n'Roll. *Trends Ecol Evol*. 1992;7:212-214.
16. Longini IM, **Halloran ME**, Haber MJ, Chen, RT. Measuring Vaccine Efficacy from Epidemics of Acute Infectious Agents: Study Designs and Estimation Methods. *Stats in Med*. 1993;12:249-263.
17. Brunet R, Struchiner CJ, and **Halloran ME**. On the distribution of vaccine protection under heterogeneous response. *Math Biosci*, 1993;116:111-125.
18. Longini IM, **Halloran ME**, and Haber MJ. Estimation of vaccine efficacy from epidemics of acute infectious agents under vaccine-related heterogeneity. *Math Biosci*. 1993;117:271-281.
19. **Halloran, ME**. Salmonella enteritidis infection in France and the United States: causes versus causal models. *Am J Pub Health*. 1993;83:1667-1669.
20. Lieu TA, Cochi SL, Black S, **Halloran ME**, Shinefield HR, Holmes SR, Wharton M, and Washington AE. Cost-Effectiveness of a routine varicella vaccination program for US children. *J Am Med Assoc*. 1994;271:375-381.
21. **Halloran, ME**. Mycobacterium tuberculosis: just desserts for an ungrateful luncheon guest. *Trends Ecol Evol*, 1994;9:72-74.
22. **Halloran ME**, Longini IM, Struchiner CJ, Haber MJ, Brunet R. Exposure efficacy and change in contact rates in evaluating HIV vaccines in the field. *Stats in Med*. 1994;13:357-377.
23. **Halloran ME**, Struchiner CJ, and Watelet, L. Epidemiologic effects of vaccines with complex direct effects in an age-structured population. *Math Biosci*. 1994;121:193-225.
24. **Halloran ME**, Cochi SL, Lieu TA, Wharton M, Fehrs L. Epidemiologic and morbidity effects of routine varicella immunization of preschool children in the United States. *Am J Epidemiol*. 1994;140:81-104.
25. Devine OJ, Louis TA, **Halloran ME**. Empirical Bayes methods for stabilizing incidence rates before mapping. *Epidemiology*. 1994;5:622-630.
26. Devine OJ, Louis TA, **Halloran ME**. Empirical Bayes estimators for spatially correlated incidence rates, *Environmetrics*, 1994;381-398.
27. Longini, IM, **Halloran ME**, Haber MJ. Some current trends in estimating vaccine efficacy, in *Epidemic Models: Their Structure and Relation to Data*. 1995;pp. 394-403, ed. D. Mollison, Cambridge Univ Press, Cambridge.
28. **Halloran ME**, Longini IM, Struchiner CJ, Haber MJ. Feasibility of prophylactic HIV vaccine trials: some statistical issues. in *Models for Infectious Human Disease*. 1995;pp. 76-82, ed. V.S. Isham and G. Medley, Cambridge Univ Press, Cambridge.
29. Haber M, **Halloran ME**, Longini IM, Watelet L. Estimation of vaccine efficacy in non-randomly mixing populations. *Biometrics J*. 1995;37:1, 25-38.
30. **Halloran ME** and Struchiner CJ. Causal inference for infectious diseases. *Epidemiology*. 1995;6:142-151. PMID: 7742400
31. Struchiner CJ, **Halloran ME**, Brunet R, Ribeiro JMC, Massad E. Malaria vaccines: lessons from the field. *Cadernos do Saude Publica*. 1995;10(supplement 2):310-326.
32. Longini IM and **Halloran ME**. AIDS: Modeling Epidemic Control. letter to Science. 1995;267:1250-1251.

33. Haber MJ, Orenstein WA, **Halloran ME**, Longini IM, and Watelet, L. The effect of disease prior to an outbreak on estimates of vaccine efficacy. *Am J Epidemiol.* 1995;141:980-990.
34. Norohna, CP, Struchiner CJ, **Halloran ME**. Assessment of the direct effectiveness of BC meningococcal vaccine in Rio de Janeiro, Brazil: a case-control study. *Int J Epidemiol.* 1995;24(5):1050-1057.
35. Haber MJ, Watelet L, and **Halloran ME**. On individual and population effectiveness of vaccination. *Int J Epidemiol.* 1995;24:1249-1260.
36. Struchiner CJ, Brunet R, **Halloran ME**, Massad E, Azevedo-Neto RS. On the use of state-space models for the evaluation of health interventions. *J Biol Systems.* 1995;3:851-865.
37. Longini IM and **Halloran ME**. A frailty mixture model for estimating vaccine efficacy. *Appl Stats.* 1996;45:165-173.
38. Devine OJ, Louis TA, **Halloran ME**. Identifying areas with high rates in mapping using empirical Bayes methods. *Geograp Anal.* July 1996;28: 187-199.
39. Antia R. and **Halloran ME**. Recent developments in theories of pathogenesis of AIDS. *Trends Microbiol.* 1996;4:282-285.
40. **Halloran, ME**, Longini, IM and Struchiner, CJ. Estimability and interpretation of vaccine efficacy using frailty mixing models. *Am J Epidemiol.* 1996;144:83-97.
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f. ABSTRACTS

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