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CURRICULUM VITAE

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Education

University of Minnesota, Minneapolis, Minnesota: Ph.D., Biometry/Biomathematics- 1977

University of Florida, Gainesville, Florida: M.S., Statistics/Operations Research- 1973

University of Florida, Gainesville, Florida: B.S., Engineering/Operations Research- 1971

Research and/or Professional Experience

- 7/11- present Full Professor, Department of Biostatistics, Colleges of Public Health and Health Professions, and Medicine, University of Florida, Gainesville, FL
- 7/11- present Director, Center for Statistics and Quantitative Infectious Diseases (CSQUID), Emerging Pathogens Institute, University of Florida, Gainesville, FL
- 1/06- 6/11 Full Member, Vaccine and Infectious Disease Division, Fred Hutchinson Cancer Research Center, Seattle, WA.;
Full Professor of Biostatistics, Department of Biostatistics, School of Public Health, University of Washington, Seattle, WA.
- 1/06 – 6/11 Director, Mathematical Modeling for HIV/STD Research, Center for AIDS Research, University of Washington, Seattle, WA.
- 7/06 – 7/07 Ross Prentice Professor of Biostatistics, Department of Biostatistics, School of Public Health and Community Medicine, University of Washington, Seattle, WA.
- 9/88- 12/05 Full Professor of Biostatistics (9/92- 12/05), Associate Professor (9/88- 8/92), Department of Biostatistics, Rollins School of Public Health, Emory University, Atlanta, Georgia

1/93- 7/93	Visiting Fellow, Isaac Newton Institute for Mathematical Sciences, University of Cambridge, Cambridge, England
8/84- 8/88	Assistant Professor of Biometry, Department of Statistics and Biometry, Emory University, Atlanta, Georgia
9/82- 7/84	Assistant Research Scientist in Epidemiology, Department of Epidemiology, University of Michigan, Ann Arbor, Michigan
9/82- 6/83	Visiting Assistant Professor of Statistics, Department of Statistics, University of Michigan, Ann Arbor, Michigan
1/80- 06/82	Postdoctoral Research Scholar in Biometry and Epidemiology, Department of Epidemiology, University of Michigan, Ann Arbor, Michigan
8/77- 12/79	Assistant Professor of Statistics, Department of Information and Systems, Universidad del Valle, Cali, Colombia, South America
8/77- 12/79	Postdoctoral Associate, International Center for Medical Research and Training, Cali, Colombia, South America

Principal Areas of Interest

Biostatistics, stochastic processes, infectious disease epidemiology

Publications in Peer Review Literature

1. Hodgson, T.J., K.E. Kilpatrick, and I.M. Longini: An integer quadratic programming approach to scheduling multispecialty clinics," *AIIE Transactions*, **9**, 69-74 (1977).
2. Longini, I.M., Ackerman, E. and Elveback, L.R.: An optimization model for influenza A epidemics. *Mathematical Biosciences* **38**,141-157 (1978).
3. Longini, I.M.: A chain binomial model of endemicity. *Mathematical Biosciences* **50**, 85-93 (1980).
4. Longini, I.M. and Koopman, J.S.: Household and community transmission parameters from final distributions of infections in households. *Biometrics* **38**, 115-126 (1982).
5. Longini, I.M., Koopman, J., Monto, A.S. and Fox, J.P.: Estimating household and community transmission parameters for influenza. *American Journal of Epidemiology* **115**, 736-751 (1982).
6. Longini, I.M., Koopman, J. and Monto, A.S.: Estimation procedures for transmission parameters from influenza epidemics: Use of serological data. *Voprosy Virusologii*, **No. 2**, 176-181 (1983). (In Russian.)
7. Longini, I.M.: Models of epidemics and endemicity in genetically variable host populations. *Journal of Mathematical Biology* **17**, 289-304 (1983).
8. Monto, A.S., Koopman, J.S., Longini, I.M. and Isaacson, R.E.: The Tecumseh Study. XII. Enteric agents in the community. *Journal of Infectious Diseases* **148**, 284-291 (1983).

9. Longini, I.M., Monto, A.S. and Koopman, J.S.: Statistical procedures for estimating the community probability of illness in family studies: Rhinovirus and influenza. *International Journal of Epidemiology* **13**, 99-106 (1984).
10. Longini, I.M., Higgins, M.W., Hinton, P.C., Moll, P.P. and Keller, J.R.: Environmental and genetic sources of aggregation of blood pressure in Tecumseh, Michigan. *American Journal of Epidemiology* **120**, 131-144 (1984).
11. Higgins, M.W. and Longini, I.M.: Discussion: The Tecumseh Community Health Study, in *Genetic Epidemiology of Coronary Heart Disease* (eds. D.C. Rao, R.C. Elston, L.H. Kuller, M. Feinleib, C. Carter, R. Havlik) Alan Liss, NY, 43-45 (1984).
12. Longini, I.M., Seaholm, S.K., Ackerman, E., Koopman, J.S. and Monto, A.S.: Simulation studies of influenza epidemics: Assessment of parameter estimation and sensitivity. *International Journal of Epidemiology* **13**, 496-501 (1984).
13. Longini, I.M., Higgins, M.W., Hinton, P.C., Moll, P.P. and Keller, J.R.: Genetic and environmental sources of aggregation of body mass in Tecumseh, Michigan. *Human Biology* **56**, 733-757 (1984).
14. Longini, I.M.: Models of the interaction of host genotypes and infectious disease. *Lecture Notes in Biomathematics* **57** (ed. V. Capasso). Springer-Verlag, New York, 158-163 (1985).
15. Monto, A.S., Koopman, J.S. and Longini, I.M.: The Tecumseh study of illness. XII. Influenza infection and disease, 1976-1981. *American Journal of Epidemiology* **121**, 811-822 (1985).
16. Rvachev, L.A. and Longini, I.M.: A mathematical model for the global spread of influenza. *Mathematical Biosciences*, 75:3 22 (1985).
17. Longini, I.M.: Modeling influenza epidemics, in *Options for the Control of Influenza, UCLA Symposia on Molecular and Cellular Biology, New Series, Volume 36* (eds. A.P. Kendal and P.A. Patriarca) Alan Liss, NY, 89-105 (1986).
18. Longini, I.M., Fine P.E.M. and Thacker, S.B.: Predicting the global spread of new infectious agents. *American Journal of Epidemiology* **123**, 383-391 (1986).
19. Longini, I.M.: The discrete-time general epidemic model: a synthesis. *Mathematical Biosciences* **81**, 19-41 (1986).
20. Vasil'eva, V.I., Rvachev, L.A., Belova, G.A., Mironav, G.A., Rvachev, L.L., Shashkov, V.A., Donovan, D., Fine, P., Longini, I. and Fraser, D.: Fundamentals of software support for an automatic control system for fast-spreading pandemics. *Programmirovaniye* **3**, 57-70 (1987). (In Russian.)
21. Gomez, H., Koopman, J.S., Addy, C.L., Zarate, M.L., Vaca, M.A., Longini, I.M., *et al.*: Dengue epidemics on the pacific coast of Mexico. *International Journal of Epidemiology* **17**, 178-186 (1988).
22. Haber, M., Longini, I.M. and Cotsonis, G.A.: Statistical analysis of infectious disease data. *Biometrics* **44**, 163-173 (1988).
23. Longini, I.M.: A mathematical model for predicting the geographic spread of new infectious agents. *Mathematical Biosciences* **90**, 367-383 (1988).

24. Longini, I.M. and Monto, A.S.: Efficacy of virucidal nasal tissue in interrupting familial transmission of respiratory agents: a field trial in Tecumseh, Michigan. *American Journal of Epidemiology* **128**, 639-644 (1988).
25. Longini, I.M., Koopman, J.S., Haber, M. and Cotsonis, G.A.: Statistical inference on risk-specific household and community transmission parameters for infectious diseases. *American Journal of Epidemiology* **128**, 845-859 (1988).
26. Longini, I.M., Clark, W.S., Byers, R.H., Lemp, G.F., Ward, J.W., Darrow, W.W., and Hethcote, H.W.: Statistical analysis of the stages of HIV infection using a Markov model. *Statistics in Medicine* **8**, 831-843 (1989).
27. Horsburgh, C.R., Ou, C.H., Jason, J., Holmberg, S.D., Longini, I.M., et al.: Duration of human immunodeficiency virus infection before detection of antibody. *Lancet* **II**, 637-640 (1989).
28. Longini, I.M., Clark, W.S., Haber, M. and Horsburgh, R.: The stages of HIV infection: Waiting times and infection transmission probabilities. In *Mathematical and Statistical Approaches to AIDS Epidemiology, Lecture Notes in Biomathematics, Volume 83* (ed. C. Castillo-Chavez) Springer-Verlag, NY, 112-137 (1989).
29. Koopman, J.S., Monto, A.S. and Longini, I.M.: The Tecumseh study XVI. Family and community sources of rotavirus infection. *American Journal of Epidemiology* **130**, 760-768 (1989).
30. Longini, I.M., Haber, M., Koopman, J.S.: Re: Use of modeling in infectious disease epidemiology. Letter to the editor. *American Journal of Epidemiology* **130**, 619-620 (1989).
31. Ackerman, E., Longini, I.M., Seaholm, S.K., and Hedin, A.S.: Simulation of mechanisms of viral interference in influenza. *International Journal of Epidemiology* **19**, 444-454 (1990).
32. Flanders, W.D. and Longini, I.M.: Estimating benefits of screening from observational studies. *Statistics in Medicine* **9**, 969-980 (1990).
33. Longini, I.M.: Modeling the decline of CD⁺4 T-lymphocyte counts in HIV-infected individuals. Letter to the Editor. *Journal of Acquired Immune Deficiency Syndromes* **9**, 930-931 (1990).
34. Longini, I.M., Haber, M.J. and Halloran, M.E.: Direct and indirect effects of vaccines: A note on the estimation of vaccine efficacy from outbreaks of acute infectious agents. *Boletin Medico Del Hospital Infantil de Mexico* **47**, 516-519 (1990). (In Spanish.)
35. Halloran, M.E., Haber, M., Longini, I.M.: Direct and indirect effects in vaccine efficacy and effectiveness. *American Journal of Epidemiology* **133**, 323-331 (1991).
36. Haber, M.J., Longini, I.M. and Halloran, M.E.: Measures of the effect of vaccination in a randomly mixing population. *International Journal of Epidemiology* **20**, 300-310 (1991).
37. Koopman, J.S., Longini, I.M., Jacquez, J., et al.: Assessing risk factors for transmission of infection. *American Journal of Epidemiology* **133**, 1199-1209 (1991).
38. Koopman, J.S., Prevots, R., Vaca, M.A., Gomez, H., Zarate, M.L., Longini, I.M. and Sepulveda, J.: Determinants and Predictors of dengue infection in Mexico. *American Journal of Epidemiology* **133**, 1168-1178 (1991).

39. Hethcote, H.W., Van Ark, J.W. and Longini, I.M.: A simulation model of AIDS in San Francisco: I. Model formulation and parameter estimation. *Mathematical Biosciences* **106**, 203-222 (1991).
40. Addy, C.L., Longini, I.M. and Haber, M.S.: A generalized stochastic model for the analysis of infectious disease final size data. *Biometrics* **47**, 961-974 (1991).
41. Longini, I.M., Clark, W.S., Gardner, L.I. and Brundage, J.F.: The dynamics of CD4+ T-lymphocyte decline in HIV-infected individuals: A Markov modeling approach. *Journal of Acquired Immune Deficiency Syndromes* **4**, 1141-1147 (1991).
42. Haber, M., Longini, I.M. and Halloran, M.E.: Estimation of vaccine efficacy in outbreaks of acute infectious disease. *Statistics in Medicine* **10**, 1573-1584 (1991).
43. Rampey, A.H., Longini, I.M., Haber, M.J. and Monto, A.S.: A discrete-time model for the statistical analysis of infectious disease data. *Biometrics* **48**, 117-128 (1992).
44. Longini, I.M., Byers, R.H., Hessol, N.A., and Tan, W.Y.: Estimating the stage-specific numbers of HIV infection using a Markov model and back-calculation. *Statistics in Medicine* **11**, 831-843 (1992).
45. Halloran, M.E., Haber, M. and Longini, I.M.: Interpretation and estimation of vaccine efficacy under heterogeneity. *American Journal of Epidemiology* **136**, 328-343 (1992).
46. Longini, I.M., Halloran, M.E., Haber, M. and Chen, R.T.: Methods for estimating vaccine efficacy from outbreaks of acute infectious agents. *Statistics in Medicine* **12**, 249-263 (1993).
47. Longini, I.M., Clark, W.S. and Karon, J.: The effect of routine use of therapy on the clinical course of human immunodeficiency virus (HIV) infection in a population-based cohort. *American Journal of Epidemiology* **137**, 1229-1240 (1993).
48. Longini, I.M., Halloran, M.E. and Haber, M.: Estimation of vaccine efficacy from epidemics of acute infectious agents under vaccine-related heterogeneity. *Mathematical Biosciences* **117**, 271-281 (1993).
49. Sullivan, K.M., Monto, A.S. and Longini, I.M.: Estimation of the US health impact of influenza. *American Journal of Public Health* **83**, 1712-1716 (1993).
50. Mastro, T.D., Satten, G.A., Nopkesorn, T., Sangkharomya, S. and Longini, I.M.: Probability of female-to-male transmission of HIV-1 in Thailand. *Lancet* **343**, 204-207 (1994).
51. Halloran, M.E., Longini, I.M., Struchiner, C.J., Haber, M.J. and Brunet, R.C.: Exposure efficacy and change in contact rates in evaluating HIV vaccines in the field. *Statistics in Medicine* **13**, 357-377 (1994).
52. Koopman, J.S. and Longini, I.M.: Ecological effects of individual exposures and non-linear disease dynamics in populations. *American Journal of Public Health* **84**, 836-842 (1994).
53. Longini, I.M.: Discussion of paper of Mollison D., Isham, V. and Grenfell, B. Epidemics: models and data. *Journal of the Royal Statistical Society A* **157**, 134-135 (1994).
54. Satten, G.A. and Longini, I.M.: Estimation of incidence of HIV infection using cross-sectional marker surveys. *Biometrics* **50**, 675-688 (1994).

55. Jacquez, J.A., Koopman, J.S., Simon, C.P. and Longini, I.M.: The role of primary infection in the epidemics of HIV infection in gay cohorts. *Journal of Acquired Immune Deficiency Syndromes* **7**, 1169-1184 (1994).
56. Satten, G.A., Mastro, T.D. and Longini, I.M.: Estimating the heterosexual transmission probability of HIV-1 in Thailand. *Statistics in Medicine* **13**, 2097-2106 (1994).
57. Longini, I.M. and Halloran, M.E.: AIDS: Modeling epidemic control. *Science* **267**, 1250 -1251 (1995).
58. Haber, M., Halloran, M.E., Longini, I.M. and Watelet, L.: Estimation of vaccine efficacy in a non-randomly mixing population. *Biometrical Journal* **37**, 25-38 (1995).
59. Longini, I.M., Halloran, M.E. and Haber, M.: Some current trends in estimating infectious disease vaccine efficacy. *Epidemic Models: Their Structure and Relation to Data* (ed. D. Mollison) Cambridge University Press, 394-403 (1995).
60. Longini, I.M., Clark, W.S., Satten, G.A., Byers, R.H. and Karon, J.: Staged Markov models based on CD4+ T-lymphocytes for the natural history of HIV infection. *Models for Infectious Human Diseases: Their Structure and Relation to Data* (eds. V. Isham, G. Medley) Cambridge University Press , 429-449 (1995).
61. Halloran, M.E., Longini, I.M., Struchiner, C.J., Haber, M.J.: The feasibility of prophylactic HIV vaccine trials: some statistical issues. *Models for Infectious Human Diseases: Their Structure and Relation to Data* (eds. V. Isham, G. Medley) Cambridge University Press , 76-82 (1995).
62. Jacquez, J.A., Koopman, J.S., Simon, C.P. and Longini, I.M.: Modeling progression of HIV infection: Staging and the Chicago MACS cohort. *Models for Infectious Human Diseases: Their Structure and Relation to Data* (eds. V. Isham, G. Medley) Cambridge University Press, 196-198 (1995).
63. Haber, M., Orenstein, W.A., Halloran, M.E. and Longini, I.M.: The effect of measles prior to an outbreak on estimates of vaccine efficacy following the outbreak. *American Journal of Epidemiology* **141**, 980-990 (1995).
64. Hendriks, J.C.M., Satten, G.A., Longini, I.M., van Druten, H.A.M., Schellekens, P.T.A., Coutinho, R.A. and van Griensven, G.J.P.: Use of immunological markers and continuous-time Markov models to estimate progression of HIV infection among homosexual men in Amsterdam. *Acquired Immune Deficiency Syndromes* **10**, 649-656 (1996).
65. Longini, I.M. and Halloran, M.E.: A frailty mixture model for estimating vaccine efficacy. *Applied Statistics* **45**, 165-173 (1996).
66. Satten, G.A. and Longini, I.M.: Markov chains with measurement error: estimating the "true" course of a marker of HIV disease progression (with discussion). *Applied Statistics* **45**, 275-309 (1996).
67. Halloran, M.E., Longini, I.M. and Struchiner, C.J.: Estimability and interpretation of vaccine efficacy using frailty mixing models. *American Journal of Epidemiology* **144**, 83-97 (1996).
68. Rhodes, P.H., Halloran, M.E. and Longini, I.M.: Counting process models for infectious disease data: Distinguishing exposure to infection from susceptibility. *Journal of the Royal Statistical Society B* **58**, 751-762 (1996).

69. Longini, I.M., Datta, S. and Halloran, M.E.: Measuring vaccine efficacy for both susceptibility to infection and reduction in infectiousness for prophylactic HIV-1 vaccines. *Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology* **13**, 440-447 (1996).
70. Halloran, M.E., Struchiner, C.J. and Longini, I.M.: Study designs for different efficacy and effectiveness aspects of vaccination. *American Journal of Epidemiology* **146**, 789-803 (1997).
71. Datta, S., Halloran, M.E. and Longini, I.M.: Augmented HIV vaccine trial designs for estimating reduction in infectiousness and protective efficacy. *Statistics in Medicine* **17**, 185-200 (1998).
72. Longini, I.M., Sagatelian, K., Rida, W.N. and Halloran, M.E.: Optimal vaccine trial design when estimating vaccine efficacy for susceptibility and infectiousness from multiple populations. *Statistics in Medicine* **17**, 1121-1136 (1998).
73. Durham, L.K., Longini, I.M., Halloran, M.E., Clemens, J.D., Nizam, A. and Rao, M.: Estimation of vaccine efficacy in the presence of waning: Application to cholera vaccines. *American Journal of Epidemiology* **147**, 948-959 (1998).
74. Golm, G.T., Halloran, M.E. and Longini, I.M.: Semiparametric models for mismeasured exposure information in vaccine trials. *Statistics in Medicine* **17**, 2335-2352 (1998).
75. Longini, I.M., Hudgens, M.G., Halloran, M.E. and Sagatelian, K.: A Markov model for measuring vaccine efficacy for both susceptibility to infection and reduction in infectiousness for prophylactic HIV vaccines. *Statistics in Medicine* **18**, 53-68 (1999).
76. Golm, G.T., Halloran, M.E. and Longini, I.M.: Semiparametric methods for multiple exposure and a bivariate outcome in HIV vaccine trials. *Biometrics* **55**, 94 -101 (1999).
77. Datta, S., Halloran, M.E. and Longini, I.M.: Randomization by individual or by household in vaccine studies. *Biometrics* **55**, 792-798 (1999).
78. Durham, L.K., Halloran, M.E., Longini, I.M. and Manatunga, A.K.: Comparing two smoothing methods for exploring waning vaccine effects. *Applied Statistics* **48**, 395-407 (1999).
79. Halloran, M.E., Longini, I.M. and Struchiner, C.J.: Design and interpretation of vaccine field studies. *Epidemiologic Reviews* **21**, 73- 88 (1999).
80. Longini, I.M., Halloran, M.E., Nizam A., Wolff, M., Mendelman, P.M., Fast, P., Belshe, R.B.: Estimation of the efficacy of live, attenuated influenza vaccine from a two-year, multi-center vaccine trial: Implications for influenza epidemic control. *Vaccine* **18**, 1902-1999 (2000).
81. Guihenneuc-Jauyaux, C., Richardson, S. and Longini, I.M.: Modelling markers of disease progression by a hidden Markov process: Application to characterizing CD4 cell decline. *Biometrics* **56**, 733-741 (2000).
82. Hudgens, M.G., Longini, I.M., Halloran, M.E., Choopanya, K., Vanichseni, S., Kitayaporn, D., Mastro, T.D. and Mock, P.A.: Estimating the HIV transmission probability in injecting drug users in Thailand. *Applied Statistics* **50**, 1-14 (2001).

83. Hudgens, M.G., Satten, G.A. and Longini, I.M.: Nonparametric maximum likelihood estimation for competing risks survival data subject to interval censoring and truncation. *Biometrics* **57**, 74-80 (2001).
84. Halloran, M.E. and Longini, I.M.: Using validation sets for outcomes and exposure to infection in vaccine field studies. *American Journal of Epidemiology* **154**, 391-398 (2001).
85. Hudgens, M.G., Longini, I.M., Vanichseni, S., Hu, D.J., Kitayaporn, D., Mock, P.A., Halloran, M.E., Satten, G.A., Choopanya, K. and Mastro, T.D.: Subtype-specific transmission probabilities for Human Immunodeficiency virus type 1 among injecting drug users in Bangkok, Thailand. *American Journal of Epidemiology* **155**, 159-168 (2002).
86. Longini, I.M., Halloran, M.E., Nizam A.: Model-based estimation of vaccine effects from community vaccine trials. *Statistics in Medicine* **21**, 481-495 (2002).
87. Longini, I.M., Hudgens, M.G. and Halloran, M.E.: Estimation of vaccine efficacy for both susceptibility to infection and reduction in infectiousness for prophylactic HIV vaccines with partner augmentation. In *The Quantitative Evaluation of HIV Prevention Programs* (Eds. Kaplan, E. and Brookmeyer, R.), Yale University Press, New Haven, 241- 259 (2002).
88. Longini, I.M., Yunus, M., Zaman, K., Siddique, A.K., Sack, R.B. and Nizam, A.: Epidemic and endemic cholera trends over thirty-three years in Bangladesh. *Journal of Infectious Diseases* **186**, 246-251 (2002).
89. Halloran, M.E., Longini, I.M., Cowart, D.M. and Nizam A.: Community trials of vaccination and the epidemic prevention potential. *Vaccine* **20**, 3254-3262 (2002).
90. Hill, A.N. and Longini, I.M.: The critical vaccination fraction for heterogeneous epidemic models. *Mathematical Biosciences* **181**, 85-106 (2002).
91. Halloran, M.E., Longini, I.M., Nizam A. and Yang, Y.: Containing bioterrorist smallpox. *Science* **298**, 1428-1432 (2002).
92. Sack, R.B., Siddique, K., Longini, I.M., *et al.*: A four year study of the epidemiology of *Vibrio cholerae* in four rural areas in Bangladesh. *Journal of Infectious Diseases* **187**, 96-101 (2003).
93. Halloran, M.E., Longini, I.M., Gaglani, M., Piedra, P.A., Chu, H., Herschler, G.B. and Glezen, W.P.: Estimating efficacy of trivalent, cold-adapted, influenza virus vaccine (CAIV-T) against influenza A (H1N1) and B using surveillance cultures. *American Journal of Epidemiology* **158**, 305-311 (2003).
94. Gaglani, M. J., Piedra, P.A., Herschler, G.B., Griffith, M.E., Kozinetz, C.A., Riggs, M.W., Fewlass, C., Halloran, M.E., Longini, I.M., Glezen W.P.: Direct effectiveness of the intranasal, live-attenuated, trivalent, cold-adapted, influenza virus vaccine (CAIV-T) against the 2000-2001 influenza A (H1N1) and B epidemic in healthy children. *Arch Pediatr Adolesc Med.* **158**, 65-73 (2004). PubMed PMID: 14706961
95. Longini, I.M., Halloran, M.E., Nizam A. and Yang, Y.: Containing pandemic influenza with antiviral agents. *American Journal of Epidemiology* **159**, 623-633 (2004). PubMed PMID: 15033640

96. Weycker, D., Edelsberg, J., Halloran, M.E., Longini, I.M., Nizam A., Ciuryla, V. and Oster, G.: Population-wide benefits of routinely vaccinating children against influenza. *Vaccine* **23**, 1284-1293 (2005). PubMed PMID: 15652671
97. Patel, R., Longini, I.M., Halloran, M.E.: Finding optimal vaccination strategies for pandemic influenza using genetic algorithms. *Journal of Theoretical Biology* **234**, 201-212 (2005). PubMed PMID: 15757679
98. Longini, I.M., Halloran, M.E.: Strategy for Influenza Vaccine in High Risk Groups and Children. *American Journal of Epidemiology* **161**, 303-306 (2005). PubMed PMID: 15692073
99. Huq, A., Sack, R.B., Nizam, A., Longini, I.M., *et al.*: Critical factors influencing the occurrence of *Vibrio cholerae* in the environment of Bangladesh. *Applied and Environmental Microbiology* **71**, 4645-4654 (2005). PMCID: PMC1183289
100. Regoes, R.R., Longini, I.M., Feinberg, M.B., Staprans, S.I.: Assessment of AIDS vaccination success by repeated low-dose challenges. *Public Library of Science (PloS)* **2**, 1-10 (2005). PMCID: PMC1176242
101. Longini, I.M., Nizam, A., Xu, S., Ungchusak, K., Hanshaoworakul, W., Cummings, D., Halloran, M.E.: Containing pandemic influenza at the source. *Science* **309**, 1083-1087 (2005). PubMed PMID: 16079251
102. Longini, I.M. and Halloran, M.E.: Preparing for the worst-case scenario: RE: Containing pandemic influenza at the source, *Science* **310**, 1117-1118 (2005). PubMed PMID: 16079251
103. Halloran, M.E. and Longini, I.M.: Community studies for vaccinating school children against influenza. *Science* **311**, 615-616 (2006). PubMed PMID: 16456066
104. Yang, Y., Longini, I.M. and Halloran, M.E.: Design and evaluation of prophylactic interventions using infectious disease incidence data from close contact groups. *Applied Statistics* **55**, 317-330 (2006). NIHMS: 361599
105. Germann, T.C., Kadau, K., Longini I.M. and Macken C.A.: Mitigation strategies for pandemic influenza in the United States. *Proceedings of the National Academy of Sciences* **103**, 5935-5940 (2006). PubMed PMID: 16585506
106. Halloran, M.E., Hayden, F., Yang Y., Longini, I.M. and Monto, A: Antiviral effects on influenza viral transmission and pathogenicity: Observations from household-based trials. *American Journal of Epidemiology* **165**, 212-221 (2007). PubMed PMID: 17088311
107. Handel, A., Longini, I.M. and Antia, R: What is the best intervention strategy for pandemic influenza? *Proceeding of the Royal Society, B.* **274**, 833-837 (2007). PMCID: PMC2093965
108. Halloran, M.E., Piedra, P.A., Longini, I.M., Gaglani, M., Schmotzer, B., Fewlass, C., Herschler, G.B. and Glezen, W.P.: Efficacy of trivalent, cold-adapted, influenza virus vaccine (CAIV-T) against influenza A (Fujian) during 2003-2004 using surveillance cultures. *Vaccine* **25**, 4038-4045 (2007). PubMed PMID: 17395338
109. Yang, Y., Longini, I.M. and Halloran, M.E.: A resampling-based test to detect person-to-person transmission of infectious disease, *Annals of Applied Statistics* **1**, 211-28 (2007). PMCID: PMC2680309

110. Yang, Y. and Longini, I.M. and Halloran, M.E.: A data-augmentation method for infectious disease incidence data from close contact groups, *Computational Statistics and Data Analysis* **51**, 6582-6595 (2007). PMID: PMC2131714
111. Abu-Raddad, L.J., Boily, M-C., Self, S. and Longini, I.M.: The impact of an imperfect prophylactic HIV vaccine at the population level: qualitative insights from a mathematical model, *Journal of AIDS* **45**, 454-467 (2007). PubMed PMID: 17554215
112. Yang, Y., Halloran, M.E., Sugimoto, J. and Longini, I.M.: Detecting human-to-human transmission of avian A (H5N1) influenza, *Emerging Infectious Diseases* **9**, 1348-1353 (2007). PubMed PMID: 18252106
113. Longini, I.M., Nizam, A., Ali, M., Yunus, M., Shenvi, N. and Clemens, J.D.: Controlling endemic cholera with oral vaccines. *Public Library of Science (PloS), Medicine* **4** (11) 2007: e336 [doi:10.1371/journal.pmed.0040336](https://doi.org/10.1371/journal.pmed.0040336). PMID: PMC2082648
114. Handel, A., Longini, I.M. and Antia, R.: Neuraminidase inhibitors resistance in influenza: Assessing the danger of its generation and spread. *PLoS Computational Biology* **3**, e240 [doi:10.1371/journal.pcbi.0030240](https://doi.org/10.1371/journal.pcbi.0030240) (2007). PMID: PMC2134965
115. Longini, I.M., Halloran, M.E., Nizam A., Yang, Y., Xu, S, Burke, DS, Cummings, DA, Epstein, JM: Containing a large bioterrorist smallpox attack: A computer simulation approach. *International Journal of Infectious Diseases* **11**, 98-108 (2007). PubMed PMID: 16899383
116. Abu-Raddad, L.J. and Longini, I.M.: No HIV stage is dominant in driving the HIV epidemic in sub-Saharan Africa, *AIDS* **22**, 1055-61, (2008). PubMed PMID: 18520349
117. Halloran, M.E., Ferguson, N.M., Eubank, S., Longini, I.M., *et al.* : Modeling targeted layered containment of an influenza pandemic in the United States. *Proceedings of the National Academy of Sciences* **105**, 4639-4644 (2008). PubMed PMID: 2290797
118. Abu-Raddad, L.J., Meier, A.S., Celum, C., Wald, A., Morris, M., Longini, I.M., Self, S.G. and Corey, L: Genital herpes has fueled the differential spread of HIV/AIDS in Sub-Saharan Africa. *PloS One* **3**, e2212, (2008). PMID: PMC2377333
119. Basta, N., Halloran, M.E., Matrajt, L. and Longini, I.M.: Estimating influenza vaccine efficacy from challenge and community-based study data. *American Journal of Epidemiology* **168**, 1343-1352 (2008). PMID: PMC2638553
120. Yang, Y., Gilbert, P., Longini, I.M. and Halloran, M.E.: Estimating vaccine efficacy per infectious contact: A Bayesian framework with adjustment for measurement error. *Annals of Applied Statistics* **2**, 1409-1431 (2008 - http://www.imstat.org/aoas/next_issue.html). PMID: PMC2630256
121. Handel, A., Longini, I.M. and Antia, R.: Antiviral resistance and the control of pandemic influenza: The roles of stochasticity, evolution and model details. *Journal of Theoretical Biology* **256**, 117-25 (2009). PMID: PMC2624577
122. Sander, B., Nizam, A., Postma, M., Garrison, L.P., Halloran, M.E., and Longini, I.M.: Economic evaluation of influenza pandemic mitigation strategies in the US using a stochastic microsimulation model, *Value in Health* **12**, 226-233 (2009). PMID: PMC3710126

123. Yang, Y., Longini, I.M. and Halloran, M.E.: A Bayesian model for evaluating influenza antiviral efficacy in household studies with asymptomatic infections. *Biostatistics* **10**, 390-403 (2009). PMID: PMC2733175
124. Bhattacharya, S., Black, R., Bourgeois L., Clemens, J., Cravioto, A., Deen, J. L., Dougan, G., Glass, R., Grais, R.F. ,Greco, M., Gust, I., Holmgren, J., Kariuki, S., Lambert, P.-H., Liu, M.A., Longini, I.M., *et al.*: The cholera crisis in Africa, *Science* **325**, 885 (2009).
125. Abu-Raddad, L.J., Sabatelli, L., Achterberg, J.T., Sugimoto, J.D., Longini, I.M., C Dye, C., Halloran, M.E.: Epidemiological benefits of more effective tuberculosis vaccines, drugs, and diagnostics. *Proceedings of the National Academy of Sciences* **106**, 13980-15 (2009). PMID: PMC2720405
126. Basta, N., Chao D.L., Halloran, M.E., Matrajt, L. and Longini, I.M.: Strategies for pandemic and seasonal influenza vaccination of school children in the US. *American Journal of Epidemiology* **170**, 679–686 (2009). PMID: PMC2737588
127. Alsallaq, RA, Cash, B, Weiss, HA, Longini, IM, *et al.*: Quantitative assessment of the role of male circumcision in HIV epidemiology at the population level. *Epidemics* **1**, 139-152 (2009). PubMed PMID: 21352761
128. Siddique, AK, Nair, GB, Alam, M, Sack, DA, Anwar Huq, A, Nizam, A, Longini, IM, *et al.*: El Tor cholera with Classical Toxin causing more severe disease: a new threat to Asia and beyond. *Epidemiology and Infection* **138**, 347-52 (2010). PubMed PMID: 19678971
129. Yang, Y., Sugimoto, JD, Halloran, ME, Basta, NE, Chao, DL, Matrajt, L, Potter, G, Kenah, E, Longini, IM: The transmissibility and control of pandemic influenza A (H1N1) virus. *Science* **326**, 729-33 (2009). PMID: PMC2880578
130. Handel, A., Longini, I.M. and Antia, R.: Control strategies for an influenza pandemic taking into account bacterial coinfection. *Epidemics* **1**, 185-195 (2009). PMID: PMC2796779
131. Handel, A., Longini, I.M. and Antia, R.: Towards a quantitative understanding of the within-host dynamics of influenza A infections. *Journal of the Royal Society Interface* **7**, 35-47 (2010). PMID: PMC2839376
132. Chao, D.L., Halloran, M.E., Obenchain, V.J., Longini, I.M.: FluTE, a publicly available stochastic influenza epidemic simulation model. *PLoS Computational Biology* doi:10.1371/journal.pcbi.1000656 (2010). PMID: PMC28113259
133. Alsallaq, R.A., Schiffer, J.T., Longini, I.M. and Abu-Raddad, L.J.: Population level impact of an imperfect prophylactic HSV-2 vaccine. *Sexually Transmitted Diseases*. **37**, 290-297 (2010). PMID: PMC2860045
134. Yang, Y., Halloran, M.E., Daniels, M.J., Longini, I.M., Cumming, D.A.T. and Burke, D.S.: Modeling competing infectious pathogens from a Bayesian perspective: with application to influenza studies with incomplete laboratory results. *Journal American Statistical Association* **105**, 1310-22 (2010). PMID: PMC3070363
135. Chao, D.L., Halloran, M.E., Longini, I.M.: School opening dates predict pandemic influenza A (H1N1) epidemics in the USA. *Journal of Infectious Diseases* **202**, 877-880 (2010). PMID: PMC2939723

136. Van Kerkhove MDV, Asikainen T, Becker NG, Bjorge S, Desenclos JC, dos Santos T, Christophe Fraser C, Leung GM, Lipsitch M, Longini IM, McBryde ES, Roth CE, Shay DK, Smith DJ, Wallinga J, White PJ, Ferguson NM, Riley S. Studies needed to address public health challenges of the 2009 H1N1 influenza pandemic: insights from modeling. *PLoS Medicine*. dx.doi.org/10.1371/journal.pmed.1000275 (2010). PMID: PMC2879409
137. Matrajt, L. and Longini I.M.: Optimizing vaccine allocation at different points in time during an epidemic. *PLoS One* 10.1371/journal.pone.0013767 (2010). PMID: PMC2978681
138. Sugimoto, J.D., Borse, N.N., Ta, M.L., Stockman, L.J., Fischer, G.E., Yang, Y., Halloran, ME, Longini, I.M. and Duchin, J.S.: The effect of age on transmission of 2009 pandemic influenza A (H1N1) in a camp and associated households. *Epidemiology* **22**, 180-187 (2011). PMID: PMC3755879
139. Chao, D.L., Basta, N., Dean, B., Matrajt, L., Halloran, M.E. and Longini, I.M.: Planning for control of pandemic influenza H1N1 in Los Angeles County and the US. *American Journal of Epidemiology* **173**, 1121-1130 (2011). PMID: PMC3121321
140. Chao, D.L., Halloran, M.E., Longini, I.M.: Vaccination strategies for epidemic cholera in Haiti with implications for the developing world. *Proceedings of the National Academy of Sciences* **108**, 7081-85 (2011). PMID: PMC3084143
141. Potter, G.E., Handcock, M.S., Halloran, M.E., and Longini, I.M.: Estimating within-household contact networks from ego-centric data. *Annals of Applied Statistics* **5**, 1816–1838 (2011). PMID: PMC3306235.
142. Kenah, E., Chao, D.L., Halloran, M.E., Matrajt, L., Longini, I.M.: The global transmission and control of influenza. *PLoS One* 10.1371/journal.pone.0019515 (2011). PMID: PMC3089626
143. Wang, Y., Feng, Z., Yang, Y., Self, S., Gao, Y., Longini, I.M., et al.: Hand, foot and mouth disease in China: Patterns of spread and transmissibility during 2008-2009. *Epidemiology* **22**, 781-792 (2011). PMID: PMC3246273.
144. Chao, D.L., Bloom, J.D., Kochin, B.F., Antia, R. and Longini, I.M.: The global spread of drug-resistant influenza. *Journal of the Royal Society Interface* **9**, 648–656 (2012). PubMed PMID: 21865253; PMID: PMC3284134
145. Potter, G.E., Handcock, M.S., Longini, I.M. and Halloran, M.E.: Estimating within-school contact networks to understand influenza transmission. *Annals of Applied Statistics* **6**, 1-26 (2012). PMID: PMC3359895.
146. Matrajt, L. and Longini, I.M.: Critical immune and vaccinated fractions for determining multiple epidemic waves. *Epidemics* **4**, 22-32 (2012). PMID: PMC3703471.
147. Longini, I.M.: A theoretic framework to consider the effect of immunizing schoolchildren against influenza: Implications for research. *Pediatrics Supplement* **129**, S63-S67 (2012).
148. Yang, Y, Longini, I.M., Halloran, M.E., Obenchain, V: A Hybrid EM and Monte Carlo EM Algorithm and Its Application to Analysis of Transmission of Infectious Diseases. *Biometrics* **68**, 1238–49 (2012). PMID: PMC3402623.
149. Chao, D.L., Halstead, S.B., Halloran, M.E., Longini, I.M.: Controlling dengue with vaccines in Thailand. *PLoS Negl Trop Dis*. 2012; 6(10): e1876.doi:10.1371/journal.pntd.0001876

- (2012). PMID: PMC3493390
150. Abu-Raddad, LJ, Barnabas, RV, Janes, H, Kublin, JG, Longini, IM and Wasserheit, JN: Have the explosive HIV epidemics in sub-Saharan Africa been driven by higher community viral load? *AIDS*. 2013 March 27; 27(6): 981-989. doi: 10.1097/QAD.0b013e32835cb927 PMID: PMC3725236.
 151. Matrajt, L., Halloran, ME, Longini I.M: Optimal vaccine allocation for the early mitigation of pandemic influenza. *PLoS Comp Biol* 9(3):e1002964. doi:10.1371/journal.pcbi.1002964 (2013). PMID: PMC3605056.
 152. Chao, D.L., Halloran, M.E., Longini, I.M.: The effects of vector movement and distribution in a dengue transmission model. *PLoS One* 8(10): e76044. doi:10.1371/journal.pone.0076044 (2013). PMID: PMC3804532
 153. Rashed, S., Azman, A., Alum, M. Li, S., Sack, D., Morris, J.G., Longini, I.M., et al.: Genetic Variation of *Vibrio cholerae* during Outbreaks, Bangladesh, 2010-2011. *Emerging Infectious Dis*. 2014 January; 20(1):54-60, <http://dx.doi.org/10.3201/eid2001.130796>. PMID: PMC3884724
 154. Chao, D.L., Longini, I.M. and Morris, J.G.: Modeling cholera outbreaks. *Curr Top Microbiol Immunol* 379, 195-209 (2014). PMID: PMC4238032
 155. Gomes MFC, Pastore y Piontti A, Rossi L, Chao DL, Longini IM, Halloran ME, Vespignani A: Assessing the international spreading risk associated with the 2014 West African Ebola outbreak. *PLOS Currents Outbreaks*. 2014 Sep 2. Edition 1. doi: 0.1371/currents.outbreaks.cd818f63d40e24aef769dda7df9e0da5. PMID: PMC4169359
 156. Halloran ME, Longini IM: Emerging, evolving, and established infectious diseases and interventions. *Science* 12 1292-4 (2014). PMID: PMC4408765.
 157. Sugimoto JD, Allen AL, Kenah EE, Halloran ME, Chowdhury F, Khan AI, LaRocque RC, Yang Y, Ryan ET, Qadri F, Calderwood SB, Harris JB, Longini IM : Household transmission of *Vibrio cholerae* in Bangladesh. *PLoS Negl Trop Dis*. DOI: 10.1371/journal.pntd.0003314 (2014). PMID: PMC4238997
 158. Dimitrov DT, Troeger C, Halloran ME, Longini IM, Chao DL. Comparative effectiveness of different strategies of oral cholera vaccination in Bangladesh: A modeling study. *PLoS Negl Trop Dis*. DOI: 10.1371/journal.pntd.0003343 (2014). PMID: PMC4256212
 159. Tran CH, Sugimoto JD, Pulliam JRC, Ryan KA, Myers PD, Hughes P, Castleman JB, Doty R, Johnson J, Stringfellow J, Kovacevich N, Brew J, Cheung LL, Caron B, Alexander C, Lincicome S, Longini IM, Halloran ME, Morris JG, Small PA: Targeting School-age Children with Influenza Vaccination Provides Community-level Protection in Alachua County, Florida. *PLoS One*, 2014. DOI: 10.1371/journal.pone.0114479 (2014). PMID: PMC4260868
 160. Poletto C, Gomes MFC, Pastore y Piontti A, Rossi L, Bioglio L, Chao D, Longini IM, Halloran ME, Colizza V, Vespignani A: Assessing the impact of travel restrictions on international spread of the 2014 West Africa Ebola epidemic. *Eurosurveill*. 2014 19, <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=20936>. PMID: PMC4415609
 161. Halloran ME, Vespignani A, Bharti N, Feldstein LR, Alexander KA, Ferrari M, Shaman J,

- Drake JM, Porco T, Eisenberg JNS, Del Valle SY, Lofgren E, Scarpino SV, Eisenberg MC, Gao D, Hyman JM, Eubank S, Longini IM: Ebola: Mobility data, *Science*, 2014 October 24, **346**(6208), 433. DOI: 10.1126/science.346.6208.433-a. PMID: 25342792 [PubMed – indexed for Medline]. PMID: PMC4408607
162. Merler S, Ajelli M, Fumanelli L, Gomes MFC, Pastore y Piontti A, Rossi L, Chao D, Longini IM, Halloran ME, Vespignani A: Spatio-temporal spread of the 2014 outbreak of Ebola in Liberia and the effectiveness of non-pharmaceutical interventions: a computational modelling analysis *Lancet Infectious Diseases* [http://dx.doi.org/10.1016/S1473-3099\(14\)71074-6](http://dx.doi.org/10.1016/S1473-3099(14)71074-6) (2015). PMID: PMC4409131.
163. Yang Y, Kenah E, Fang L, Zhang Y, Halloran ME, Ma M, Liu K, Li X, Liang S, Britton T, Cao W, Feng Z, Longini IM: Household transmissibility of Avian influenza A (H7N9) virus. *Eurosurveillance*, **20**, Issue 10, 12 March 2015. <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=21056> PMID: PMC4404303
164. Lipsitch M, Nir E, Halloran ME, Hernán MA, Longini IM, Perencevich EN, Grais RF: Ebola and beyond: Recent experiences in confronting the Ebola epidemic suggest principles for vaccine efficacy trials in challenging environments. *Science*, **348**, 46-48 (2015). PMID: PMC4408019.
165. Alam MT, Weppelmann TA, Longini IM, Rochars M, Morris JG , Ali A: Increased isolation frequency of toxigenic *Vibrio cholerae* O1 from environmental monitoring sites in Haiti. *PLoS One* 10(4): e0124098. doi:10.1371/journal.pone.0124098 (2015). PMID: PMC4390201
166. Chao DL, Park JK, Marks F, Ochiai RL, Longini IM, Halloran ME: The contribution of neighbors to an individual's risk of typhoid outcome. *Epidemiology and Infection* **143**, 3520-7 (2015). PMID: PMC4619120
167. Matrajt L, Britton T, Halloran ME, Longini IM: One versus two doses: What is the best use of vaccine in an influenza pandemic? *Epidemics* **13**, 17–27 (2015). PMID: PMC4664891
168. Schwartz LM, Halloran ME, Durbin AP, Longini IM: The dengue vaccine pipeline: Implications for the future of dengue control. *Vaccine* **33**, 3293–3298 (2015) PMID: 25989449. PMID: PMC4470297
169. Longini IM coauthor from The Guinée Arrêt Ebola trialists. Ring vaccination for Ebola: A novel approach to evaluate vaccine efficacy and effectiveness during an outbreak. *British Medical Journal* **351** doi: <http://dx.doi.org/10.1136/bmj.h3740> (Published 27 July 2015). PMID: PMC4516343
170. Henao-Restrepo A-M, Longini IM, Egger M, Dean NE, Edmunds WJ, Camacho A, Carroll MW, Doumbia M, Duraffour S, Enwere G, Grais R, Gunther S, Hossmann S, Kondé MK, Kone S, Kuisma E, Levine M, Mandal S, Norheim G, Riveros X, Soumah A, Trelle S, Vicari AS, Watson CH, Draguez B, Kéïta S, Røttingen J-A, Kieny M-P: Efficacy of a recombinant live VSV-vectored vaccine expressing Ebola surface glycoprotein: Interim results from the Guinea ring vaccination cluster-randomized trial. *The Lancet*, **38**, 857–866 (2015). PMID: 26248676

171. Kirpich A, Weppelmann TA, Yang Y, Ali A, Morris JG, Longini IM: Cholera transmission in the Ouest region of Haiti: Dynamic modeling and prediction. *PLoS Neglected Tropical Diseases* DOI: 10.1371/journal.pntd.0004153 (2015). PMID: PMC4619523
172. Koepke AA, Longini IM, Halloran ME, Wakefield J, Minin VN: Predictive modeling of cholera outbreaks in Bangladesh. *Annals of Applied Statistics* **10**, 575–595 (2016). PMID: PMC5061460
173. Fang LQ, Yang Y, Jiang JF, Yao HW, Kargbo D, Li XL, Jiang BG, Kargbo B, Tong YG, Wang YW, Liu K, Kamara A, Dfafe F, Kanu A, Jiang RR, Sun Y, Sun RX, Chen WJ, Ma MJ, Dean NE, Thomas H, Longini IM, Halloran ME, Cao WC. Transmission Dynamics of Ebola Virus Disease and Intervention Effectiveness in Sierra Leone. *PNAS* pii: 201518587. [Epub ahead of print]. PMID: 27035948 (2016).
174. Dean NE, Halloran ME, Yang Y, Longini IM: The transmissibility and pathogenicity of Ebola virus: a systematic review and meta-analysis of household secondary attack rate and asymptomatic infection. *Clinical Infectious Diseases* **62**, 1277-86 (2016). PMID: PMC4845791
175. Reiner RC, Achee N, Barrera R, Burkot TR, Dav Chadee DD, Devine , Endy T, Gubler D, Hombach J, Kleinschmidt I, Lenhart A, Lindsay SW, Longini IM, Mondy M, Morrison AC, Perkins TA, Vazquez-Prokopec G, Reiter P, Ritchie S, Smith DL, Strickman D, Scott TW: Quantifying the epidemiological impact of vector control on dengue. *PLoS Neglected Tropical Diseases* Published: May 26, 2016 <http://dx.doi.org/10.1371/journal.pntd.0004588> PMID: PMC4881945
176. Hladish TJ, Pearson CAB, Chao DL, Rojas DP, Recchia GL, Gomez HG, Halloran ME, Pulliam JR, Longini IM: Projected impact of dengue vaccination in Yucatan, Mexico. *PLoS Neglected Tropical Diseases* Published: May 26, 2016 <http://dx.doi.org/10.1371/journal.pntd.0004661> PMID: PMC4882069
177. Kenah AE, Britton T, Halloran ME, Longini IM: Algorithms linking phylogenetic and transmission trees for molecular infectious disease epidemiology. *PLoS Computational Biology* 12(4): e1004869. doi:10.1371/journal.pcbi.1004869 (2016) PMID: PMC4829193
178. Feldstein LR, Matrajt L, Halloran ME, Keitele WA, Longini IM: Extrapolating efficacy of inactivated influenza A/H5N1 virus vaccine from human immunogenicity studies. *Vaccine* **34**, 3796–02 (2016). PMID: 27268778
179. Merler S, Ajelli M, Fumanelli L, Pastore y Piontti A, Rossi L, Dean NE, Putoto G, Carraro D, Longini IM, Halloran ME, Vespignani A: Containing Ebola at the source with ring vaccination. *PLOS Neglected Tropical Diseases* <http://dx.doi.org/10.1371/journal.pntd.0005093> (2016).
180. Ajelli M, Merler S, Fumanelli L, Pastore y Piontti A, Dean NE, Longini IM, Halloran ME,

Vespignani A. Spatio-temporal dynamics of the Ebola epidemic in Guinea and implications for vaccination and disease elimination: a computational modeling analysis. *BMC Medicine* 14:130 DOI: 10.1186/s12916-016-0678-3 (2016).

181. Rojas DP, Dean NE, Yang Y, Kenah E, Quintero J, Tomasi S, Ramirez EL, Kelly Y, Castro C, Carrasquilla G, Halloran ME, Longini IM: The epidemiology and transmissibility of Zika virus in Girardot and San Andres Island, Colombia, from September 2015 to January 2016. *Eurosurveillance* 2016;21(28):pii=30283. DOI: <http://dx.doi.org/10.2807/1560-7917.ES.2016.21.28.30283> (2016).
182. Flasche S, Jit M, Rodríguez-Barrquer I, Coudeville L, Recker M, Koelle K, Milne G, Hladish T, Perkins A, Dorigatti I, Cummings D, España G, Kelso J, Longini IM, Lourenco J, Pearson CAB, Reiner RC, Vannice K, Ferguson N: The long-term safety, public health impact, and cost-effectiveness of routine vaccination with a recombinant, live-attenuated dengue vaccine (Dengvaxia): A model comparison study. *PLoS Medicine*. <http://dx.doi.org/10.1371/journal.pmed.1002181> (2016).
183. Henao-Restrepo A-M, Camacho A, Longini IM, Watson CH, Edmunds WJ, Egger M, NE, Carroll, Dean MW, Diatta, I, Doumbia M, Draguez B, Duraffour S, Enwere G, Grais R, Gunther S, Gsell P-S, Hossmann S, Watle SV, Kondé MK, Kieta S, Kone S, Kuisma, E, Levine M, Mandal S, Mauget T, Norheim G, Riveros X, Soumah A, Trelle S, Vicari AS, Røttingen J-A, Kieny M-P: Efficacy and effectiveness of an rVSV-vectored vaccine in preventing Ebola virus disease: final results from the Guinea ring vaccination, open-label, cluster-randomised trial (Ebola Ça Suffit!). *The Lancet* **389**, 505-18 (2017).
184. Kirpich A, Weppelmann TA, Yang Y, Morris JG, Longini IM: Controlling Cholera in the Ouest Department of Haiti Using Oral Vaccines. *PLoS Neglected Tropical Diseases* <https://doi.org/10.1371/journal.pntd.0005482> (2017).
185. Zhang Q, Sun K, Chinazzi M, Pastore-Piontti A, Dean NE, Rojas DP, Merler S, Mistry D, Poletti P, Rossi L, Bray M, Halloran ME, Longini IM, Vespignani A.: Projected spread of Zika virus in the Americas. *PNAS*. doi: 10.1073/pnas.1620161114 (2017).
186. Wilder-Smith A, Longini IM, Zuber PL, Bärnighausen T, Edmunds WJ, Dean N, Masserey Spicher V, Benissa M, Gessner BD: Public health value of vaccines beyond efficacy: methods, measures and outcomes. *BMC Medicine* (In print).

Manuscripts Submitted or in Preparation (partial list)

1. Pavia-Ruz N, Rojas DP, Villanueva S, Granja P, Balam-May A, Longini IM, Halloran ME, Manrique-Saide, P, Gómez-Dantés H: Seroprevalence of antibodies against dengue virus in three urban settings in Yucatan. *American Journal of Tropical Medicine and Hygiene* (submitted).
2. Gomez-Dantes H, Rojas, Manrique-Saide P, Che-Mendoza A, Feldstein L, Halloran ME,

Longini IM, Pavia N, Barrera M: Design methodology for evaluating dengue control interventions: Baseline field studies in Yucatan, Mexico. (In preparation).

3. Dean NE, Halloran ME, Longini IM: Design of vaccine trials during outbreaks with and without a delayed vaccination comparator. *Annals of Applied Statistics* (Under revision).
4. Dean NE, Halloran ME, Longini IM: Per protocol and intention to treat in vaccine efficacy trials in outbreak settings. (In preparation).
5. Yang Y, Meng Y, M. Halloran ME, Longini IM: Dependency of vaccine efficacy on pre-exposure and age: A closer look at a tetravalent dengue vaccine. *BMC Medicine* (submitted).
6. Zarnitsyna VI, Bulusheva I, Handel A, Longini IM, Halloran ME, Antia R: Intermediate levels of vaccination coverage may minimize seasonal influenza outbreaks. *J Royal Soc Interface* (Submitted).

Books

Halloran, M.E., Longini, I.M. and Struchiner, C.J.: *The Design and Analysis of Vaccine Studies*. Springer, New York, 387 pp. (2009).

Longini, I.M.: *Stochastic Processes for Biostatistics* (in process).

Monographs, Book Chapters, Commentaries, Non-peer-review Articles

Longini, I.M. and Cuervo de Mesa, A.S.: "Lectures on Applied Stochastic Processes", Cali: Universidad del Valle (1978) pp. 175. (In Spanish.)

Longini, I.M.: "Notes on Time Series Analysis", Cali: Universidad del Valle (1979) pp. 47. (In Spanish and English.)

Longini, I.M. and Addy, C.: Report to the Global Epidemic Intelligence Service: "Analysis of Dengue Transmission in Mexico" (1987) pp. 56.

Longini, I.M.: Chain Binomial Models in *The Encyclopedia of Biostatistics*, **Volume 1**, (eds. P. Armitage and T. Colton), Wiley, NY, 593- 597 (1998).

Longini, I.M.: Invited commentary on C. P. Farrington, M. N. Kanaan and H. J. Gay: "Estimation of the basic reproductive number for infectious diseases from age-stratified serological survey data." *Appl. Statist.* **50**: 288-289 (2001).

Longini, I.M. (one of 28 signatories) : Ebola vaccine trial in Guinea. *Lancet* (letter) (2014) <http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2815%2960656-0/fulltext>

Longini IM, Egger M, Dean NE, Edmunds WJ, Henao-Restrepo AM: Ebola vaccination – Authors' reply. *Lancet* **386**: 2480 (2015).

Perspective: Eliminating Cholera Transmission in Haiti. *New England Journal of Medicine*. DOI: 10.1056/NEJMp1614104 (2016).

Book Reviews

Spatial Aspects of Influenza Epidemics. Cliff, A.D., Hagget, R. and Ord, J.K., Pion Limited, London, 1986: in *Mathematical Biosciences* **89**, 237-239 (1988).

AIDS Epidemiology: A Quantitative Approach. Brookmeyer, R. and Gail, M.H., Oxford University Press, New York, 1994: in *Science* **265**, 1602-1603 (1994).

Service

Member of the Data Safety Monitoring Board for an open label post licensure trial to evaluate the safety and immunogenicity of indigenously manufactured killed bivalent (O1 and O139) whole cell oral cholera vaccine (Shanchol™), International Vaccine Institute.

Awards and Honors

CDC Statistical Science Award "Best Theoretical Paper" published in 1994. Satten, G.A. and Longini, I.M.: Estimation of incidence of HIV infection using cross-sectional marker surveys. *Biometrics* **50**, 675-688 (1994).

CDC James H. Nakano Citation "for an outstanding scientific paper published in 1994." Mastro, T.D., Satten, G.A., Nopkesorn, T., Sangkharomya, S. and Longini, I.M.: Probability of female-to-male transmission of HIV-1 in Thailand. *Lancet* **343**, 204-207 (1994).

Howard M. Temin Award in Epidemiology for Scientific Excellence in the Fight Against HIV/AIDS (1995) for the article: Jacquez, J.A., Koopman, J.S., Simon, C.P. and Longini, I.M.: The role of primary infection in the epidemics of HIV infection in gay cohorts. *Journal of AIDS* **7**, 1169-1184 (1994).

Elected Fellow of the American Statistical Association, 1995

CDC Statistical Science Award "Best Applied Paper" published in 1996. Satten, G.A. and Longini, I.M.: "Markov chains with measurement error: estimating the "true" course of a marker of HIV disease progression (with discussion)". *Applied Statistics* **45**, 275-309 (1996).

Elected Fellow of the American Association for the Advancement of Science (AAAS), 2012

International Society for Vaccines: "Paper of the Year 2015." Henao-Restrepo, A-M, Longini IM, Egger M, Dean NE *et al.*: Efficacy of a recombinant live VSV-vectored vaccine expressing Ebola surface glycoprotein: Interim results from the Guinea ring vaccination cluster-randomized trial. *The Lancet*, **38**, 857–866 (2015). <http://www.isv-online.org/menu-annual-congress/previos-papers/2015-paper-of-the-months/171-paper-of-the-year-2015>

Science Magazine, one of the top 10 "Breakthrough of the Year" for 2015. Guinea Ebola ring vaccination trail: <http://www.sciencemag.org/news/2015/12/and-science-s-breakthrough-year>

Aspen Institute Italia Award for scientific research and collaboration between Italy and the United States, 2016. For outstanding research on Ebola transmission and control.

Ph. D. Students and Post-Docs

Chaired Ph.D. Committee for 21 successful candidates
Chaired M.S. Committee for 3 successful masters candidates
Advised 14 Post Docs

Current Funding

R37, NIH: *Methods for Evaluating Vaccine Efficacy*, Investigator.

U54 (Center), NIH: *Modeling of Infectious Disease Agent Study Centers for Excellence Center for Statistics and Quantitative Infectious Diseases*, Investigator and Lead of Modeling and Spatial Statistics Project.

R01, NIH: *Quantifying the Balance Between Vaccine-induced T Cell Protection and Pathology*, Investigator.

R01, NIH: *Regression, Phylogenetics, and Study Design in Infectious Disease Epidemiology*, Investigator.

R01, NIH: *Dynamics of Influenza Transmission in Nicaraguan Households*. Investigator

R21 NIH: *Spatiotemporal Modeling for Surveillance Data of Multiple Pathogens*, Investigator.

World Health Organization Contract: *Statistical Analysis of Emerging Pathogens*, Principal Investigator.