Ira M. Longini, Jr.

CURRICULUM VITAE

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Address: Ira M. Longini, Jr., Ph.D.
Department of Biostatistics
Colleges of Public Health and Health Professions, and Medicine
P.O. Box 117450
22 Buckman Drive
University of Florida
Gainesville, FL 32611

Phone: 352-294-1938
Cell: 404-275-5156

e-mail: ilongini@ufl.edu

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).

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Epidemiology of dengue and other arboviruses in a cohort of school children and their families in Yucatan, Mexico: Baseline and first year follow-up, *PLoS Neglected Tropical Diseases.* Published: November 21, 2018 https://doi.org/10.1371/journal.pntd.0006847 . PMCID: PMC6248893

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Manuscripts Submitted or in Preparation (partial list)

1. Henao-Restrepo AM, Longini IM, et al. High efficacy of rVSV-ZEBOV-GP Ebola vaccine using the ring vaccination strategy in the control of an Ebola outbreak in the Democratic Republic of Congo: An example of integration of research into epidemic response. (Under review).
2. Ajelli M, Litvinova M, Merler S, (add authors at different places), Gsell PS, Halloran ME, Henao-Restrepo AM, Vespignani A, Longini IM. Estimating Ebola transmission and ring vaccination impact in the 2018-2019 outbreak in the Democratic Republic of Congo. (In preparation).
3. Dean NE, Gsell P, Brookmeyer R, Crawford F, Donnelly CA, Ellenberg S, Fleming T, Halloran ME, Horby P, Jaki T, Krause P, Longini IM, Nason M, Smith P, Wang R, Henao-Restrepo AM, De Gruttola V. Accumulating evidence from randomized clinical trials across outbreaks. (Submitted).
4. Dean NE, Halloran ME, Longini IM: Per protocol and intention to treat in vaccine efficacy trials in outbreak settings. (In preparation).
5. Ajelli M, Chinazzi M, Gsell, Pierre-Stéphane, Merler S, Camacho, Anton, Eggo, Rosalind M., et al. Guiding vaccine efficacy trial design during emergencies: a computational platform for exploring transmission models and vaccine trial design simulations. (Submitted).
6. Black S, Moncla LH, Laiton-Donato K, Pardo L, Tovar C, Rojas DP, Longini IM, Halloran ME, Peláez-Carvajal D, Ramírez JD, Mercado-Reyes M, Bedford T. Genomic epidemiology supports multiple introductions and cryptic transmission of Zika virus in Colombia. (Submitted).
7. Hladish TJ, Pearson CAB, Toh BK, Rojas DP, Manrique-Saide P, Gomez-Dantes H, Vazquez-Prokopec GM, Halloran ME, Longini IM: Designing effective control of dengue with combined interventions. Under review.

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).

Erdös number: 4

Monographs, Book Chapters, Commentaries, Non-per-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.

Named UF Research Foundation Professor for excellence in research, 2017-2020.

Altmetic Top 100 Scientific Papers of 2017: Rank #9 for Henao-Restrepo A-M, Camacho A, Longini IM, *et al.*: 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).
https://www.altmetric.com/top100/2017/#list&article=14949611

Named UF College of Medicine's Term Professor for leadership in his discipline 2018-2021.

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

Some Recent Seminars and Talks

"Bringing Zika vaccines to licensure" invited talk at the *World Health Organization Meeting on Zika Vaccine Trial Design*, June 1-2, 2017, Geneva, Switzerland

"Bringing Zika vaccines to licensure" invited talk at the *World Health Organization Meeting on Zika Vaccine Trial Design*, June 1-2, 2017, Geneva, Switzerland

"Public health management of future outbreaks – Lessons learned from previous outbreaks. Which tools are we missing?" invited talk at the *Coalition for Epidemic Preparedness Innovations (CEPI) Meeting*, September 12-13, 2017, Malmo, Sweden

"Phase IIb and III Zika vaccine trial designs" *Meeting of the World Health Organization R &D Blueprint for Action to Prevent Epidemics*, October 30-31, 2017, Boston, MA

"How can we design trials for prophylactic use of therapeutics in outbreaks" invited talk at the *World Health Organization Meeting on evaluating therapeutics during Public Health Emergencies*, December 11-12m 2017, Utrecht, Netherlands.

"The future of Zika transmission" invited talk at the *World Health Organization Meeting on Zika Virus: Looking Ahead*, February 13-14, 2018, Geneva, Switzerland.

"Lassa and Ebola trials" invited talk at the *World Health Organization Meeting on Combing Information across Outbreak,* March 27-28, 2018, Boston, MA

"Modelling for dangerous pathogens and estimating vaccine efficacy" invited talk at the *World Vaccine Congress*, April 2-5, 2018, Washington, DC

"How can vaccines and vector control be integrated and used synergistically in a control program," invited talk at the *World Vaccine Congress*, April 2-5, 2018, Washington, DC

"The design, analysis and modeling for the control of emerging infectious disease threats" invited talk at the *Annual Model for Infectious Disease Agent Study (MIDAS) Meeting*, April 3-6, 2018, Bethesda, MD

"The design and analysis of vaccine and therapeutic trials for Lassa fever and plague" invited talk at the *World Health Organization Meeting on Lassa Fever and Plague*, April 23-25, 2018, Paris, Fr

"Public health management of future outbreaks – Lessons learned from previous outbreaks. Which tools are we missing?" invited talk at the *Coalition for Epidemic Preparedness Innovations (CEPI) Meeting*, September 12-13, 2017, Malmo, Sweden

"Phase IIb and III Zika vaccine trial designs" *Meeting of the World Health Organization R &D Blueprint for Action to Prevent Epidemics*, October 30-31, 2017, Boston, MA

"How can we design trials for prophylactic use of therapeutics in outbreaks" invited talk at the *World Health Organization Meeting on evaluating therapeutics during Public Health Emergencies*, December 11-12m 2017, Utrecht, Netherlands.

"The future of Zika transmission" invited talk at the *World Health Organization Meeting on Zika Virus: Looking Ahead*, February 13-14, 2018, Geneva, Switzerland.

"Lassa and Ebola trials" invited talk at the *World Health Organization Meeting on Combing Information across Outbreak,* March 27-28, 2018, Boston, MA

"Modelling for dangerous pathogens and estimating vaccine efficacy" invited talk at the *World Vaccine Congress*, April 2-5, 2018, Washington, DC

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"The design, analysis and modeling for the control of emerging infectious disease threats" invited talk at the *Annual Model for Infectious Disease Agent Study (MIDAS) Meeting*, April 3-6, 2018, Bethesda, MD

"The design and analysis of vaccine and therapeutic trials for Lassa fever and plague" invited talk at the *World Health Organization Meeting on Lassa Fever and Plague*, April 23-25, 2018, Paris, Fr

"Potential study designs for additional Ebola vaccines" invited talk at the WHO Strategic Advisory Group of Experts (SAGE) Working Group meeting on Ebola Vaccines, June 4-5, 2018, Geneva, Switzerland

"Model Estimates and projections for the 2018 EVD outbreak in the Democratic Republic of Congo" invited talk at the WHO Strategic Advisory Group of Experts (SAGE) Working Group meeting on Ebola Vaccines, June 4-5, 2018, Geneva, Switzerland