Dr. Longini received his Ph.D. in Biometry and Biomathematics at the University of Minnesota in 1977.

He began his career with the International Center for Medical Research and Training and the Universidad del Valle in Cali, Colombia. Following that, he was a professor biostatistics at the University of Michigan, Emory University and the University of Washington.

He currently is a professor of biostatistics at the University of Florida. His research interests are in the area of stochastic processes applied to epidemiological problems. He has specialized in the mathematical and statistical theory of epidemics—a process that involves constructing and analyzing mathematical models of disease transmission, disease progression and the analysis of infectious disease data based on these models. He works extensively in the design and analysis of vaccine and infectious disease prevention trials and observational studies.

Dr. Longini has worked on the analysis of epidemics of Ebola, influenza, HIV, Lassa fever, MERS, tuberculosis, cholera, dengue fever, Zika and other infectious agents. Dr. Longini is also currently working with the World Health Organization on the statistical and mathematical methods for the control of international infectious disease threats.

He is a fellow of the American Statistical Association and a fellow of the American Association for the Advancement of Science.