For more than 30 years Dr. Collins has been a leader in the development and application of innovative quantitative methods in health behavior research, particularly the area of drug abuse prevention. She is the primary developer of the multiphase optimization strategy (MOST). MOST, which integrates perspectives from the behavioral sciences and engineering, is a new framework for development, optimization, and evaluation of behavioral and biobehavioral interventions. MOST is used to build an intervention to meet a specific optimization criterion, for example, to build a highly effective intervention that can be implemented within a certain dollar limit. This approach employs efficient experimental designs to accomplish this without exceeding budget levels that are typical for intervention research. Advantages of MOST include increasing knowledge about the performance of individual intervention components and how components affect each other; the possibility of engineering an intervention to achieve a specified level of cost-effectiveness; and an emphasis on achieving scalability without sacrificing effectiveness. She has given more than 100 invited presentations in the US and abroad on MOST, including a presentation in the NIH Office of Disease Prevention’s Mind the Gap lecture series and a TED talk.