

POPULATION HEALTH, PHD

The Department of Population Health Sciences, part of the School of Medicine and Public Health, strives to provide leadership in the emerging, integrative field of population health. Its mission is to create, integrate, disseminate, and apply knowledge promoting the most efficient, equitable, and effective possible use of resources to maintain and improve the health of populations.

The department offers two graduate degree programs: an MS and PhD in population health and an MS and PhD in epidemiology. The MS and PhD in Population Health can be taken with either a named option in Epidemiology (<http://guide.wisc.edu/graduate/population-health-sciences/population-health-phd/population-health-epidemiology-phd/#text>) or a named option in Population Health (<http://guide.wisc.edu/graduate/population-health-sciences/population-health-phd/population-health-population-health-phd/>).

The research-oriented degree programs are designed to provide rigorous, interdisciplinary training to develop students' abilities to synthesize knowledge and skills needed to address today's health-related problems. Methodological and analytical training is grounded in biostatistics, epidemiology, and health services research, but also emphasizes methods employed in the social sciences and econometrics that contribute to the study of health in populations. While the program is based on a sequence of core courses, students, in consultation with their major professor, have the flexibility to design advanced study and research that best prepares them for their chosen area of interest.

Individuals choose this program because of its innovative approach, strong research focus, and personal attention to students. It is an ideal option for those considering a broad array of fields including epidemiology, public health, health policy, health economics, health services research, environmental health, industrial engineering, demography, and more. UW-Madison ranks as one of the most prolific research universities in the world, consistently placing in the top five among American public universities for research expenditures. The program's interdisciplinary focus allows students the flexibility to work with a wide array of research/faculty on campus. For instance, program faculty include members from a number of other departments such as business, family medicine, industrial engineering, law, medical history and bioethics, medicine, nursing, ophthalmology, public affairs, sociology, and veterinary medicine. The multidisciplinary faculty coupled with the diverse backgrounds of the students provides a rich and stimulating training environment.

Faculty, staff, and students in the Department of Population Health Sciences engage in a wide variety of world-class epidemiological and health services research projects to understand determinants of health and health problems in populations, analyze public and clinical health policies, and improve the effectiveness and efficiency of healthcare. Research topics may include (but are not limited to) chronic, infectious, and environmental disease epidemiology; public health; studies of medical outcomes; health economics; maternal and childhood health; the determinants and measurement of population health status; and health administration and policy. These multidisciplinary research programs may include (but are not limited to) the study of the effects and interactions of genetic traits; biologic and metabolic processes; pathogens; pollutants; lifestyles; behaviors; economic social and physical environments; and public health and health care systems on the health of populations.

Methods employed involve developing and maintaining long-term cohort studies, disease registries, population surveys, and retrospective analyses of large observational databases. Researchers in the department also work to advance methodology in health economics, population health evaluation, and statistical analyses.

For more information, see the graduate program Academic Guide (<https://pophealth.wisc.edu/degree-programs/academic-guide/>).