

Master of Public Health (MPH) - Epidemiology (EPID) Concentration
Competencies and Learning Outcomes
Department of Biostatistics and Epidemiology

MPH - EPID C1

Descriptive Epidemiology - Describe a public health issue in terms of magnitude, person, time, place, ecological factors and lifespan considerations.

LO.1.1: Use appropriate measures (rates, ratios and proportions) to describe mortality, morbidity, and health determinants in populations, with respect to person, place and time.

LO. 1.2: Apply the social ecological model to describe how interpersonal, organizational, community, and public policy, factors influence health and healthy behaviors.

LO. 1.3: Explain the temporal nature of health, including how early life risk factors influence later health, and may contribute to adult health inequalities.

MPH - EPID C2

Evidence-Based Public Health - Identify and use sources of epidemiologic data, information and knowledge as the basis for research and evidence-based program and policy development.

LO.2.1: Identify key sources and limitations of data for epidemiologic purposes.

LO.2.2: Explain how evidence-based public health is essential to effective planning, programming and policy-making.

LO.2.3: Apply epidemiologic principles of scientific reasoning, systematic use of data and information, and behavioral theory as a foundation for disease prevention and health promotion planning and evaluation.

MPH - EPID C3

Critical Analysis - Critically review epidemiologic studies, demonstrating understanding of sound research design, causality and the impact of confounding variables and bias.

LO.3.1: Evaluate research protocols and published research by applying knowledge of strong study designs, measures of association and impact, sources of bias and criteria for establishing causal association.

LO.3.2: Evaluate evidence from epidemiologic studies in terms of public health impact and actions.

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MPH-EPID C4

Analytic Epidemiology - Demonstrate proficiency in epidemiologic study design, measurement, analysis, statistical software and technological tools.

LO.4.1: Identify, develop and apply appropriate epidemiologic study designs.

LO.4.2: Identify, develop and apply data collection strategies appropriate to the epidemiologic research method.

LO.4.3: Use descriptive, graphical and analytic methods of data analysis in the conduct of epidemiologic studies.

MPH - EPID C5

Epidemiological Communication - Effectively communicate epidemiologic information in a linguistically and culturally appropriate manner to the general public, professionals, policy makers, across social sectors and academic disciplines.

LO.5.1: Organize and manage information effectively to address public health issues through oral and written communications to diverse professionals and lay audiences.

LO.5.2: Use web, social media and other media to receive, evaluate for information sharing and knowledge transfer.

MPH - EPID C6

Ethics-Comprehend basic ethical principles pertaining to the collection, maintenance, use and dissemination of epidemiologic data.

LO.6.1: Apply ethical principles to the practice of epidemiologic research and practice, including Belmont Report and CITI certification.

LO.6.2: Know and follow the ethics guidelines of the American College of Epidemiology.