School of Public Health

Degrees Offered

MASTER
- Master of Public Health (MPH):
  - Biostatistics
  - Epidemiology
  - Health Policy
  - Occupational and Environmental Health Sciences
  - Social and Behavioral Sciences
- Master of Science (MS) Degree:
  - MS in Biostatistics

DOCTORAL
- Doctor of Philosophy (Ph.D.) in Public Health Sciences
  - Epidemiology
  - Occupational and Environmental Health Sciences
  - Social and Behavioral Sciences

General Information

West Virginia University’s School of Public Health has well-established faculty and successful programs that focus on education, research, and service.

West Virginia University and its academic programs are accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools. The School of Public Health is further accredited by the Council on Education in Public Health (CEPH). MPH Students from throughout the world who choose West Virginia University begin making a difference even before graduation. We truly believe in learning by doing. Students remain engaged in community health throughout their training and complete practicum/internship experiences in diverse settings. The Doctor of Philosophy in Public Health Sciences prepares graduates for future careers in academia and research in a variety of settings.

School of Public Health faculty and staff involve students in their active research programs. Research efforts at the School often focus on the health of rural communities, consistent with our West Virginia roots. Students publish in leading peer-reviewed journals and present at national scientific conferences with their faculty mentors.

The mission of the West Virginia University School of Public Health is to improve the health of West Virginians through innovation and leadership in education, research, and service.

We achieve this by:
- Implementing educational programs that produce highly qualified practitioners, educators, and researchers
- Promoting interdisciplinary research to understand and solve complex health problems with local impact and global significance
- Engaging communities, businesses and government partners in accomplishing our shared mission

The vision of the School of Public Health is to be internationally recognized for demonstrating how academic public health can transform lives.

The School of Public Health is guided by the following values:
- Community Engagement: we are proud of the communities we serve and recognize the importance of bidirectional participatory activities.
- Collaboration: we collaborate with partners who join us in improving the public’s health.
- Equity: we promote equity and social justice in defining health and eliminating health disparities.
- Integrity: we adhere to the highest ethical standards of honesty and fairness and we recognize that integrity and ethical behavior are essential elements of our professions.
- Respect: we respect diverse points of view and the cultural heritage and traditions of all people.
- Accountability: we hold ourselves accountable to one another and to the many stakeholders who support the School of Public Health.
ADMINISTRATION

DEAN
• Jeffrey Coben - MD (University of Pittsburgh)
  Professor, Department of Health Policy, Management and Leadership

SENIOR ASSOCIATE DEAN FOR ACADEMIC, STUDENT, AND FACULTY AFFAIRS
• Linda Alexander - EdD (University of Virginia)
  Professor, Department of Social and Behavioral Sciences

SENIOR ASSOCIATE DEAN FOR ADMINISTRATION
• Sarah Woodrum - DrPH (University of Illinois, Chicago)
  Assistant Professor, Department of Health Policy, Management, and Leadership

ASSOCIATE DEAN FOR PROFESSIONAL PROGRAMS
• Erik Carlton - DrPH (University of Kentucky)
  Associate Professor, Department of Health Policy, Management and Leadership

ASSISTANT DEAN FOR UNDERGRADUATE STUDIES
• Janet B. Hunt - MPH (University of Tennessee)
  Teaching Assistant Professor, Department of Social and Behavioral Sciences

DIRECTOR OF DOCTORIAL PROGRAMS
• Alfgeir Kristjansson - PhD (Karolinska Institute, Stockholm, Sweeden)
  Associate Professor, Department of Social and Behavioral Sciences

DIRECTOR OF PUBLIC HEALTH PRACTICE AND SERVICE LEARNING
• Audra Hamrick - MA (West Virginia University)
  Assistant Professor, Department of Social and Behavioral Sciences

CHAIRS
• Nicholas Castle - PhD (Pennsylvania State University)
  Professor, Department of Health Policy, Management and Leadership
• Weimin Gao - PhD (University of Pittsburgh)
  Professor, Department of Occupational and Environmental Health Sciences
• Thomas Hulsey - ScD (Johns Hopkins University)
  Professor, Department of Epidemiology
• Snehalata Huzurbazar - PhD (Colorad State University)
  Professor, Department of Biostatistics
• Keith Zullig - PhD (University of South Carolina)
  Professor, Department of Social and Behavioral Sciences

Accreditation
The WVU School of Public Health is fully accredited (http://publichealth.wvu.edu/about/accreditation/) by the Council on Education for Public Health (https://ceph.org/). The only accredited public health program in the state, the School is home to undergraduate and graduate programs in various public health disciplines at the BS, MPH, MS and PhD levels.

Degree Designation Learning Outcomes
MASTER OF PUBLIC HEALTH (MPH)

MPH Common/Core Competencies
• Explain and assess the basic concepts of probability and statistical inference. (BIOS)
• Summarize public health data using descriptive biostatistical methods. (BIOS)
• Distinguish the appropriate basic inferential statistical analyses and summarize their results. (BIOS)
• Derive and assess basic epidemiologic frequencies and associations. (EPID)
• Compare and contrast epidemiologic study designs. (EPID)
• Explain health care and public health services within the context of the U.S. policy system. (HPML)
• Propose policy strategies for improving the health status of populations. (HPML)
• Assess specific health outcomes for individuals and selected populations. (OEHS)
• Summarize the ethical perspectives and conflicts which arise with respect to human health and the environment. (OEHS)
• Analyze the results of environmental health research and formal risk assessments, and be able to evaluate the validity of the methods used and the conclusions drawn. (OEHS)
• Compile the management principles necessary to manage public health functions in an environmental disaster. (OEHS)
• Summarize sound public health research methodology used in the social and behavioral sciences. (SBHS)
• Evaluate public health research data using inferential statistical techniques. (SBHS)
• Distinguish key factors to be considered when determining appropriate sampling techniques to assess community needs and health issues. (SBHS)
• Illustrate an understanding of key factors related to question construction and interview techniques. (SBHS)
• Summarize key factors and strategies to develop successful health interventions in communities. (SBHS)
• Summarize social and behavioral models or theories that are used to guide successful community health interventions. (SBHS)
• Summarize the key components of the PRECEDE/PROCEED model in the planning and delivery of public health program evaluations. (SBHS)
• Summarize the three principal types of experimental designs in program evaluation. (SBHS)
• Apply MPH core competencies in a practice-based experience. (Practicum)
• Integrate and synthesize MPH core competencies in the context of a culminating experience. (Culminating Experience)

MASTER OF SCIENCE (MS)

MS Biostatistics Program Competencies

• Assess foundational concepts of probability and statistical inference.
• Analyze clinical and public health data using descriptive biostatistical methods.
• Distinguish appropriate basic inferential statistical analyses and summarize their results.
• Manage standard statistical software to efficiently manage data structures.
• Summarize the central concepts of statistical theory and inference.
• Develop appropriate plans to analyze standard continuous data in order to make valid inferences.
• Develop appropriate plans to analyze standard categorical data in order to make valid inferences.
• Communicate effectively, in writing and verbally, with substantive investigators and members of the community when assisting in the design of research studies as well as the results of statistical analyses.
• Weigh a public health problem in terms of magnitude, person, time, and place.
• Explain each of the five core disciplines in public health and illustrate the ways each of the core disciplines have contributed to the historical evolution of public health.

DOCTOR OF PHILOSOPHY (PH.D.)

Program Competencies

• Develop effective strategies for teaching in higher education
• Review and synthesize pertinent literature and formulate focused research questions that address identified knowledge gaps
• Design and conduct original research that uniquely contributes to the public health scientific knowledge
• Disseminate research findings through appropriate peer-reviewed publications and presentations, and to other public health community audiences

Major-specific competencies can be found under each major's Learning Goals tab.

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Master of Public Health (MPH)

Welcome to the West Virginia University School of Public Health. Our mission is to improve the health of West Virginians through innovation and leadership in education, research, and service. Each day, the affiliates and centers within the School of Public Health conduct research on today's pressing public health issues. Diabetes, obesity, substance abuse, and tobacco use top the list of health disparities faced by West Virginians. Public health strategies are typically focused on broad, societal, and population levels; for example, environmental regulations, water quality control, immunization programs, and health education initiatives.

The Master of Public Health program seeks students with a strong, genuine commitment to a career in public health. This degree is appropriate for health professionals, as well as individuals with bachelors' degrees from a wide range of disciplines, who have a strong interest in community/population
health and preventive medicine. Our faculty and staff look forward to your decision to become a public health practitioner, researcher, and educator by enrolling in one of our master degree programs. Each department and major can be explored by visiting our website http://publichealth.hsc.wvu.edu.

Program Description

Public Health is shaped by our nation’s public health agencies via health assessment, policy development, and public health services. The WVU School of Public Health addresses the core functions of public health by offering the MPH in the discipline-specific majors of:

- Biostatistics
- Epidemiology
- Health Policy
- Occupational and Environmental Health Sciences
- Social and Behavioral Science

All MPH programs are accredited by the National Council for Education for Public Health (CEPH). For more information about the MPH program, please contact:

Office of Student Services
West Virginia University
School of Public Health
P.O. Box 9190
64 Medical Center Drive
Morgantown, WV 26505-9190
Phone (304) 293-2502

Master of Science (MS) Biostatistics

The Master of Science (MS) Program in Biostatistics is meant for college graduates with interest and background in mathematics and statistics who wish to learn both the methodology and the application of biostatistics in the health sciences. The goals of this program are similar to the current MPH in Biostatistics Program in learning objectives; however, MS students will receive a more extensive methodological foundation as well as be expected to take additional statistical courses instead of the “core” public health courses required for any MPH.

A typical student who graduates with an MS in Biostatistics from WVU would be qualified to work as a biostatistician or research coordinator in research organizations such as a pharmaceutical company, contract research organization (CRO), a university, or a health department. MS graduates also will be prepared to pursue doctoral education in biostatistics or similar disciplines.

Doctor of Philosophy (Ph.D.) in Public Health Sciences

The mission of the Ph.D. program in Public Health Sciences is to provide high-quality doctoral education to motivated students who desire to positively impact the public’s health. We aim to train these students in a research-intensive curriculum that is guided by a distinguished faculty at the leading edge of effective public health science. The degree emphasizes both evidence-based primary prevention of disease and injury, and health promotion research and practice.

The Ph.D. program in Public Health Sciences is a degree for scientist-practitioners focused on prevention of premature mortality, morbidity, and disability from disease and injury. The Ph.D. program offers three discipline-specific majors of:

- Epidemiology
- Occupational and Environmental Health Sciences
- Social and Behavioral Sciences

Goals of the Ph.D. Program

- Educate and train the next generation of public health leaders who will help shape public health education, practice, and policy.
- Identify and address public health disparities.
- Improve the health of West Virginians and improve their access to quality health care.
- Provide trans-disciplinary teaching and research experience that prepares graduates for jobs in academia, research, and high-level practice settings.

Program Description

The early years of the program emphasize research and statistical methods complemented by theoretical and process-oriented coursework relevant to the student’s selected area of specialty. During the later years of the program, students are engaged in their dissertation research while given the freedom to further diversify their training by choosing electives.

Qualifying Examination
Once students complete the majority of their coursework, they are required to pass a comprehensive qualifying examination. This comprehensive exam is based on core public health and discipline-specific material and administered within the student’s home department.

**Doctoral Dissertation**

Upon passing the Qualifying Exam, the student begins the dissertation work, which includes:

- a written research proposal
- a defense of the research proposal
- original dissertation research
- a defense of the dissertation research

**Dissertation Proposal**

The dissertation proposal should include the following sections:

- **Specific Aims.** In this section, you will lay out the goals of your research.
- **Significance.** In this section, you will locate your research aims within the relevant literature to demonstrate the need for your proposed study.
- **Approach.** In this section, you will lay out your proposed research design and methods used to achieve your specific aims.
- **Literature Cited.** Here you will include a bibliography of the works cited in the proposal.
- **Human Subjects.** If the proposal involves human subjects you must include this section. Here you will summarize the measures you propose to protect the human subjects involved in your research project.

The proposal must be defended by the student in a forum that includes the student's complete Dissertation Committee.

**Dissertation Research**

The program will culminate in a research dissertation on a public health topic of interest to the student. The dissertation format can be either a traditional book format or the Journal Article Format (JAF) which consists of a series of three publishable papers on the students' dissertation research.

The Ph.D. program emphasizes peer-reviewed research publications as the dissertation product because of its positive impact on the student's skills and their post-graduation success.

**Dissertation Defense**

The dissertation will be defended in a forum that includes all Dissertation Committee members, who must sign the dissertation approval form in order for the dissertation to be complete.

The defense must be announced to the entire School of Public Health and the University, and students are required to post fliers that announce the details of the defense.

The written dissertation must be submitted in accordance with the WVU policy regulating the electronic submission of theses and dissertations. [https://etd.lib.wvu.edu/](https://etd.lib.wvu.edu/)

**Program Delivery**

Most courses in the program will be taught using the face-to-face, on-campus, small, or large group format. A small number of core courses and some electives may be delivered by web-based technology.

**For more information contact:**

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West Virginia University  
School of Public Health  
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