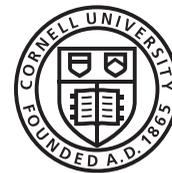


# Global and Public Health Sciences



## Population-level solutions to health issues

**Highlights:** Biological aspects of public health | Environmental health | Health policy and management | Social and behavioral health

## Overview

Sustained improvement of the health of communities requires a multidisciplinary approach that involves the biomedical, social, behavioral, political and environmental sciences, and consideration of the cultural context. The Global and Public Health Sciences (GPHS) major applies this comprehensive perspective to public health research, problems, and solutions. The population-level work of public health professionals is distinct from that of clinical professionals who typically treat individuals after they have become sick or injured. Public health actions often involve educational and/or governmental approaches that influence many people simultaneously to address issues such as obesity and chronic disease; food insecurity; health disparities; HIV/AIDS and other infectious diseases; and access to health care.

The GPHS major is offered by the College of Human Ecology (CHE) and the College of Agriculture and Life Sciences (CALS). In the College of Human Ecology, topics in microbiology, nutrition and disease, nutrition and global health, social inequalities in physical and mental health, the U.S. healthcare system, reproductive health, and risk analysis and management are addressed in the context of focus areas including Social and Behavioral Health, Biological Aspects of Public Health, Environmental Health, and Health Policy and Management. CALS students combine their work in public health with coursework in food systems, agriculture, and the broader life sciences.

CHE students complete coursework in the biological and social sciences, humanities, writing, and math. The major also requires depth in general chemistry, organic chemistry, biochemistry, and physiology, which is complemented by coursework in epidemiology and biostatistics.

## Sample Courses

**Introduction to Public Health (NS 1600)** provides the basic principles, practices, and policies of public health, including an introduction to the infrastructure and organization of public health; methods of data collection and surveillance; disease promotion and prevention; health disparities; and achievements, challenges, and controversies in the field.

**Introduction to Global Health (NS 2600)** explores contemporary global health topics, issues, and controversies. The global burden of disease is introduced and students examine complex social, economic, political, environmental, and biological factors that structure the origins and consequences of global health problems and potential solutions. The core modules of this course focus on HIV/AIDS, maternal mortality, and water/sanitation and hygiene.

**Epidemiology (NS 3600)** uses didactic lectures, classroom discussions, applied projects, and in-depth case studies to explore epidemiologic research, including disease occurrence, measures of association, causal inference in quantitative research, and applications of epidemiologic methods to global and public health research. Epidemiologic principles in the design, conduct, and interpretation of findings from observational and experimental studies will be explored.

**Nutrition and Global Health (NS 3060)** introduces students to nutritional problems in the global community through evaluation of the scientific literature and exploration of epidemiological, biological, demographic, and social factors that affect nutritional status. Students will think critically about the major challenges to improve nutrition with applications to infectious diseases, maternal and child health, and non-communicable diseases.

**OFFICE OF ADMISSIONS**  
College of Human Ecology

[human.cornell.edu/admissions](http://human.cornell.edu/admissions)  
[humec\\_admissions@cornell.edu](mailto:humec_admissions@cornell.edu)  
[human.cornell.edu/dns](http://human.cornell.edu/dns)

**College of Human Ecology:** Examining human life from a scientific, social and design perspective

## Research

Program research interests range in scale from molecular to population levels and draw on the chemical, biological, and social sciences to understand the complex relationships among human health, nutritional status, food and lifestyle patterns, and social and institutional environments.

Undergraduates play a critical role in the development, implementation, and analysis of research inquiries as participants on faculty research teams, as well as independent research projects.

## Experiential Opportunities

GPHS students are required to complete an experiential component in a research or community setting where students are challenged to engage with the content of their courses. Students gain a deeper understanding of public health issues and problems, and have the opportunity to enhance research, writing, and critical thinking by applying knowledge and skills learned in the classroom in a greater context.

## Professional Pathways

Opportunities in public health are growing given an anticipated gap in public health professionals. Career tracks include health education, international health, infectious disease, environmental health, health policy management, epidemiology or biostatistics.

In addition, students can pursue public service, research, social entrepreneurship, and other health-related careers domestically and globally. The major is particularly appropriate for those interested in leadership positions in organizations that deal directly with current and emerging health concerns.

## Research examples

- Evaluating adherence to Vitamin D supplementation guidelines in hospitalized Baffin Island infants
- Studying the relationships between dengue fever and anthropometric measures in coastal Ecuador
- Examining factors associated with pica behavior among pregnant and postpartum women in western Kenya

## Honors program

The Honors Program is designed to challenge academically talented students who have a strong interest in research. During their junior year, each student in the Program participates in a course on professional research in the health sciences and plans an independent research project under the direction of a faculty member. Each student completes a thesis and presents a seminar on the research problem at the end of their senior year.

## Supervised experiential learning locations and capstone course

Students choose from a portfolio of approved experiences in the local community and on/off-campus academic settings (e.g. Practicing Medicine in New York City, Cornell in Washington), or in an international setting (e.g., Tanzania, and Zambia) to satisfy this requirement.

The “Global and Public Health Capstone” course is pursued upon completion of the experiential learning component. Students demonstrate their ability to collaborate, develop a holistic understanding of a public health problem, and design practical, effective, and ethical solutions through the integration of knowledge and experience gained.

## Internship examples

**Nutrition and Education Intern**, Cornell Cooperative Extension

**Partnerships Intern**, Partnership for a Healthier America

**Research Assistant**, Cornell University

**Research Intern**, Food and Drug Administration

## Graduate/Professional school

Students will be prepared to pursue advanced professional graduate education in medicine, public health, allied health sciences (e.g., dentistry, nursing), law, and business. Additional graduate work possibilities include Masters programs in Biomedical Sciences and Global Health Economics, as well as Masters of Public Health programs or programs such as the 4+1 Masters in Health Administration offered through the College of Human Ecology’s Sloan Program, and PhD programs.

## Sample career paths

**Analyst**, ClearView Healthcare Partners

**Clinical Research Analyst**, Northwell Health

**Hospital Reimbursement Analyst**, Managed Care Revenue Consulting Group

**Implementation Project Manager**, Epic

**Intake Coordinator**, America Works of New York

**Program Coordinator**, Mt. Sinai Health System

**Public Health Fellow**, Skorton Center for Health Initiatives at Cornell Health

**Research and Evaluation Intern**, Planned Parenthood Federation of America

**US Market Access Strategy Consulting Associate**, IQVIA