Information is key to effective public health administration. Surveillance systems provide information on infectious disease tracking, disease clusters, food-borne outbreaks, and injuries. Environmental monitoring systems provide information on health risks such as toxic chemicals or airborne pollutants. Registries contain information on vital statistics such as birth, death, and immunization. e-Public Health integrates information from electronic health records to use in improving population health.

Students pursuing the MPH in Public Health Informatics learn how to manage public health information systems, including vital statistics systems, online analytical processing tools, immunization registries, population health surveillance, community health information networks, and more.

The MPH in Public Health Informatics (MPH-PHI) program will prepare you to:

- Manage information systems within an organization or network of organizations
- Conceive, design, develop, implement, and use IT by applying informatics skills to population health
- Create state-of-the-art solutions at the intersection of informatics and global public health

The goals of the MPH-PHI are to train individuals who:

- Able to conceive, design, develop, implement, and use IT by applying informatics skills in the public health domain
- Have the systems design and analysis skills necessary to lead the development of public health information systems
- Possess key technical and leadership skills necessary to manage information systems within an organization, or organizational networks such as community health information networks or health information exchanges

The MPH-PHI was designed to fit with the Applied Public Health Informatics Curriculum (APHIC) and offers an excellent choice for those interested in improving the efficiency and effectiveness of public health data and systems.

This 43-credit program is appropriate for recently graduated baccalaureate students and those with advanced degrees can be completed in-person or through distance learning. The curriculum consists of three parts:

**Program Curriculum**

**Public Health Core (15 credits)**

Students must satisfy competency requirements in the six core areas of public health — administration, behavioral science, biostatistics, environmental health, epidemiology, and ethics by completing one of the following courses in each core area:

**Administration**
- Principles of Management in Health Services Organizations (PubH 6751, 2 cr)

**Behavioral Science**
- Fundamentals of Social and Behavioral Science (PubH 6020, 3 cr)

**Biostatistics**
- Biostatistics I (PubH 6450, 4 cr)

**Environmental Health**
- Environmental Health (PubH 6101, 2 cr)
- Issues in Environmental and Occupational Health (PubH 6102, 2 cr)

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Epidemiology *
- Fundamentals of Epidemiology (PubH 6320, 3 cr)
- Epidemiologic Methods I (PubH 6341, 3 cr)

Ethics *
- Ethics in Public Health: Professional Practice and Policy (PubH 6741, 1 cr)
- Ethics in Public Health: Research and Policy (PubH 6742, 1 cr)

* Select one course from each core area with an asterisk.

Public Health Informatics required courses (21 credits):
- Health Informatics I (HINF 5430, 3 cr)
- Introduction to Public Health Informatics (PubH 6880, 2 cr)
- Advanced Public Health Informatics Applications (HINF 5560, 2 cr)
- Managing Electronic Health Information (PubH 6813, 2 cr)
- Data and Information for Population Health Management (PubH 6814, 2 cr)
- Public Health Systems Analysis and Development (PubH 6876, 2 cr)
- Public Health Systems Analysis and Development Practicum (PubH 6877, 2 cr)
- Principles of Public Health Research (PubH 6806, 2 cr)
- Public Health Systems Development Project Course I and II - 4 credits total. (This is a year-long team based project in which students develop a public health related informatics systems for a client. This pair of courses will reinforce what students have learned about systems development in PHSAD, about teamwork in Project Management and Health Leadership, and will provide an opportunity to link to the public health community and will serve as the Masters Project for MPH-PHI students. These types of project courses integrate course work with practice, and provide an avenue to employment.)

Electives (7 credits)
Students select the remaining credits from other 5xxx, 6xxx, 7xxx, and 8xxx level courses. Courses can be taken outside of SPH as long as they begin with 5xxx or above, and with prior approval from program director. Students are strongly encouraged to take the following elective course as most work related to PHI are projects.
- Project Management for Health Professionals (PubH 6805, 2 cr)

Admission Preferences and Prerequisites
Applicants must possess a bachelor’s degree or higher from an accredited college or university. Preference is given to applicants with excellent quantitative and analytic abilities. All applications are reviewed holistically.

All application materials are submitted directly to SOPHAS:
- Statement of Purpose and Objectives: Provide an essay describing your past education, experience, and current professional career objectives. You are encouraged to comment on any or all of the following: plans you have to use your education and training; the needs and/or challenges you perceive as important in your field of study; and any personal qualities, characteristics, and skills you believe will enable you to be successful in your chosen field of study.
- Resume or CV
- Official post-secondary transcripts from all U.S. institutions attended (must be sent directly from the institutions to SOPHAS). This includes previous study at the University of Minnesota.
- Three letters of recommendation from persons qualified to assess your academic work; clinical, public health, or professional experiences; or leadership potential in public health.
- GRE score of 300 combined verbal and quantitative, and 3.5 analytic writing assessment. (Use the University of Minnesota SPH Institution Code 6891. Through our arrangement with ETS, your scores will be electronically forwarded directly to SOPHAS.)
- Note: Other academic test scores or a waiver of test requirements may be substituted depending on the program.

Applicants whose native language is not English or whose academic study was done exclusively at non-English speaking institutions, must prove English proficiency by providing either official Test of English as a Foreign Language (TOEFL) score of 600 on paper test or 250 on the computer-based test. Official report of the scores should be sent directly to SOPHAS using designation code 5688 for the TOEFL or designation code SOPHAS for the IELTS. Scores must be under two years old.

Application Deadlines for Fall Admission
- Priority: Preceding December 1
- Final: April 15

Admission Decisions
Complete application packets are reviewed beginning in mid-January by an admissions committee. Applicants are notified in writing by mail of the admissions decision.

For application information, go to: http://sph.umn.edu/students/prospective/admissions/

Career Outlook
A public health informatician is a professional who works in either practice, research, or academia and whose primary work function is to use informatics to improve population health. A person in this role has more expertise in informatics than a highly functional public health professional who assists with informatics-related challenges or supports organizational productivity with IT. They also have greater expertise in public and population health organizations, institutions, and processes than a computer scientist.

There are many job opportunities for individuals earning an MPH-PHI. Public health professionals skilled in PHI are in high demand and are predicted to remain in high demand. Starting at the federal level, the Department of Health and Human Services (DHHS), Centers for Disease Control and Prevention (CDC), Office of Surveillance, Epidemiology and Laboratory Services (OSELS), National Center for Health Statistics (NCHS), and Classification and Public Health Data Standards Staff (CPHDSS) have job openings for Public Health Informatics Specialist positions.

Many health systems also need individuals skilled in both health and systems engineering to assist with their electronic health records and other health IT.

Updated 9-12-2014