Milken Institute School of Public Health THE GEORGE WASHINGTON UNIVERSITY	**Milken Institute School of Public Health** **MPH@GW** **Master of Public Health** **Health Informatics & Analytics Concentration** **2025-2026**

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Concentration Mission Statement
The Health Informatics & Analytics (HIA) concentration will prepare students with the values, knowledge, and skills to obtain, analyze, manage and use health information to achieve optimal health care delivery and administration through sound clinical and business, operational, and strategic decisions.

Concentration Description
This distance education MPH program combines core MPH skills with an emphasis on interdisciplinary teaching and core competencies/skills by using cases/other materials from both the U.S. and abroad

with a Health Informatics concentration that contains courses and skills to set students up for what lies ahead in the use of data and information to improve health. The pedagogy allows students to tailor their education to local, national, or global levels emphasizing interdisciplinary public health competencies including: biostatistics and epidemiology; cultural competency; health communication; leadership; professionalism; planning, implementation and evaluation methods; public health biology; and systems thinking.

Course Requirements

All Milken Institute School of Public Health (GWSPH) MPH students who select the HIA concentration in the MPH@GW program enroll in core courses (17 credits), MPH@GW program-specific courses (10 credits), HIA concentration courses (11credits), and electives (5 credits). The total 45 credit degree program also includes a Culminating Experience (2 credits).

The MPH@GW program is taught over four 10-week quarters throughout the calendar year. Each course is designed to be delivered to meet the required workload per credit hour within the 10-week quarter.

As an accredited School of Public Health, students in all GWSPH MPH programs are required to fulfill both an interprofessional team experience and an applied practice experience (APEx). GWSPH has incorporated these 0-credit course requirements into the curriculum as follows:

PUBH 6023: Interprofessional Education (IPE) Experience

- Following completion of the MPH Core Classes, students will be required to select an IPE experience from a host of options provided throughout your enrollment as an MPH student to participate in a one- time, case-based or activity-based learning experience. The IPE experience is a way to experience working with people from other professions/programs outside of public health. Students will have many opportunities to register for this zero-credit (no fee) IPE 'course' (PUBH 6023 Interprofessional Education Experience) and will receive credit upon successful completion.

PUBH 6000: Applied Practice Experience (APEx)

- The Applied Practice Experience (APEx) may be satisfied with either a practicum or, for experienced public health professionals, through an expedited portfolio review (EPR).
- The practicum is a planned, supervised, and evaluated practice experience that aims to provide students with an opportunity to synthesize, integrate, and apply practical skills, knowledge, and training learned through courses, to gain applied experience in a professional public health work environment, and to work on public health practice projects that are of particular interest to you. Information about the Practicum will be introduced through school-wide Practicum Information Sessions held by the Office of Applied Public Health and through meetings with your department practicum staff and faculty. During the practicum, you will work at least 120 hours in the field under the supervision of the site preceptor who has agreed to directly supervise the work you are conducting. Students are required to fulfill all requirements of the 120-hour practicum to receive credit for PUBH 6000.
- If you have had prior work experience, then you will find that the practicum provides the

opportunity to hone skills or to gain new experience in a different area. However, if you have substantial public health experience relevant to your department/track, including 5+ years of full-time public health work for students after receiving your undergraduate degree, or 3+ years of full-time work for students who already have a graduate degree prior to beginning the MPH, then you may be able to satisfy the APEx requirement through an EPR instead of doing the practicum, with advanced approval by your program's practicum team.

- **Please note that PUBH 6000 is a co-requisite course for PUBH 6060 Culminating Experience 1.**

Course Sequence

Students will start the program by enrolling in MPH core courses. Full-time students should plan to take PUBH 6021 and PUBH 6003 in their first quarter and complete all core courses within the first three quarters. Part- time students should consult with their academic advisor to select an appropriate sequence of courses.

Following completion of the MPH core courses, students should complete the MPH@GW program specific courses, and finish with their elective courses. Courses offered in the online format can be found on the GW Schedule of Classes under Online and are designated with a "U" in the section number.

Following completion of the core MPH courses, students who elect the HIA concentration will take four MPH@GW required courses (PUBH 6442, 6500, 6503 and 6552), and four required HIA concentration courses (PUBH 6703, 6704, 6705, and 6706). The HIA concentration also provides room for five elective credits that can be used for any MPH@GW elective course. Suggested HIA courses are listed. Electives may be taken in the residential program provided pre-requisites have been met.

Program Elective Courses

The following are examples of electives that are currently offered online. New courses are added frequently. Up to 15 credits may be taken on campus in residential courses provided pre-requisites have been met. The list of MPH@GW electives will be updated as new courses become available.

- PUBH 6054, Community Engagement & Advocacy (2 credits)
- PUBH 6058, Researching Violence Against Women and Girls (2 credits)
- PUBH 6128, Global Environmental and Occupational Health (2 credits)
- PUBH 6130, Sustainable Energy and the Environment (2 Credits)
- PUBH 6132, Water, Sanitation, & Hygiene (WASH) in Low-Income Countries (2 credits)
- PUBH 6133, Social Dimensions in Climate Change & Change (3 credits)
- PUBH 6135, Researching Climate Change & Human Health (3 credits)
- PUBH 6136, Introduction to Environmental and Occupational Epidemiology (3 credits)
- PUBH 6140, Global Climate Change and Air Pollution (2 credits)
- PUBH 6146, Microbiomes and Microbial Ecology in Public Health (2 credits)
- PUBH 6335, Public Health and Law (3 credits)
- PUBH 6368, Law, Medicine, and Ethics (3 credits)
- PUBH 6390, Prescription Drugs, Policy and Public Health (3 credits)
- PUBH 6400, Global Health Frameworks (2 credits)

- PUBH 6450, Global Health Diplomacy (2 credits)
- PUBH 6451, Sexual and Reproductive Health Monitoring (2 credits)
- PUBH 6452, Social and Behavior Change Communication in Middle-to Low-Income Countries (2 credits)
- PUBH 6455, Global Vaccinology (3 credits)
- PUBH 6480, Public Health in Humanitarian Settings (2 credits)
- PUBH 6486, Global Health Programs and Approaches to the Control of Infectious Diseases (2 credits)
- PUBH 6489, Evaluation of Nutrition Program (1 credit)
- PUBH 6508, Cost Effectiveness Analysis of Health Promotion Interventions (3 credits)
- PUBH 6514, Preventing Health Disparities (2 credits)
- PUBH 6530, Qualitative Methods in Health Promotion (2 credits)
- PUBH 6550, Maternal and Child Health I (3 credits)
- PUBH 6552, Women's Health (2 credits)
- PUBH 6563, Global Child Health (2 credits)
- PUBH 6571, Social Marketing (3 credits)
- PUBH 6572, Marketing and Research for Public Health (3 credits)
- PUBH 6612, Food Systems in Public Health (2 credits)
- PUBH 6619, Fundamentals of Nutrition Science (3 credits)
- PUBH 6703, Health Care Delivery and Health IT (2 credits)
- PUBH 6704, Health IT, Informatics, and Decision Making (3 credits)
- PUBH 6705, Health Law and Health IT (3 credits)
- PUBH 6706, Population and Community Health Analytics (3 credits)
- PUBH 6717, Predictive Analytics (3 credits)
- PUBH 6894, Research Analytics (3 credits)

Additional Graduation Requirements

In addition to completing the 45-credit requirement, PUBH 6000, and PUBH 6023 students must also complete CITI Training, Academic Integrity Quiz, and Professional Enhancement Hours. A detailed description of these requirements can be found in Appendix I of this document.

Competencies

MPH Core Competencies

Upon completion of the program, students should possess the following competencies:

- Apply epidemiological methods to settings and situations in public health practice (PUBH 6003)
- Select quantitative and qualitative data collection methods appropriate for a given public health context (PUBH 6002, PUBH 6003, PUBH 6009)
- Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate (PUBH 6002, PUBH 6009)
- Interpret results of data analysis for public health research, policy or practice (PUBH 6002, PUBH 6003, PUBH 6009)
- Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings (PUBH 6012)

- Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and systemic levels (PUBH 6007)
- Assess population needs, assets, and capacities that affect communities' health (PUBH 6003, PUBH 6007)
- Apply awareness of cultural values and practices to the design, implementation or critique of public health policies or programs (PUBH 6007, PUBH 6021, PUBH 6022)
- Design a population-based policy, program, project or intervention (PUBH 6007)
- Explain basic principles and tools of budget and resource management (PUBH 6022)
- Select methods to evaluate public health programs (PUBH 6009)
- Discuss the policy-making process, including the roles of ethics and evidence (PUBH 6011, PUBH 6012)
- Propose strategies to identify relevant communities and individuals and build coalitions and partnerships for influencing public health outcomes (PUBH 6022)
- Advocate for political, social or economic policies and programs that will improve health in diverse populations (PUBH 6022)
- Evaluate policies for their impact on public health and health equity (PUBH 6012)
- Apply leadership and/or management principles to address a relevant issue (PUBH 6021, PUBH 6022)
- Apply negotiation and mediation skills to address organizational or community challenges (PUBH 6021, PUBH 6022)
- Select communication strategies for different audiences and sectors (PUBH 6007, PUBH 6021, PUBH 6022)
- Communicate audience-appropriate public health content, both in writing and through oral presentation to a non-academic, non-peer audience with attention to factors such as literacy and health literacy (PUBH 6012, PUBH 6021, PUBH 6022)
- Describe the importance of cultural humility in communicating public health content (PUBH 6021, PUBH 6022)
- Integrate perspectives from other sectors and/or professions to promote and advance population health (PUBH 6021, PUBH 6023)
- Apply a systems thinking tool to visually represent a public health issue in a format other than standard narrative (PUBH 6007, PUBH 6011, PUBH 6022)

MPH@GW Program Competencies

Upon completion of the program, students should possess the following competencies:

- Develop a programmatic implementation and evaluation plan for a health promotion intervention (PUBH 6500)
- Assess the functions, capacities, management and governance of governmental, international and non-state organizations that comprise health systems (PUBH 6442)
- Apply appropriate theories toward the development, implementation, and evaluation of public health interventions to address health risks at the individual, interpersonal, community, and/or population levels and mitigate population health impact (PUBH 6500)
- Apply commonly employed data management techniques using appropriate software tools

(PUBH 6052)
- Describe how health systems performance is affected by various approaches to health care organization, health law, health workforce development and health care financing (PUBH 6442)
- Develop communication campaigns and strategies to disseminate health promotion information through media channels (PUBH 6503)
- Investigate a public health issue through evidence-based methods, including a review of scientific literature (PUBH 6500)

Health Informatics & Analytics Concentration Competencies

Upon completion of the MPH Program in HIA, students should possess the following competencies.
- Use appropriate health information technology (IT), informatics and data terms (PUBH 6704)
- Demonstrate strategies that apply data and health IT structures, policies and processes (PUBH 6705)
- Consult with stakeholders to identify health IT solutions and present results (PUBH 6703)
- Apply concepts of health informatics to areas of population health (PUBH 6706)
- Solve healthcare issues through the optimization of health IT, related data, and business processes (PUBH 6705)
- Assess the implications of health information technology and related data and processes (PUBH 6704)

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Master of Public Health MPH@GW
Health Informatics & Analytics
Concentration
Program-at-a-Glance
2025-2026

Required Core Courses (17 credits)		**Credits**	**Quarter**
PUBH 6000	Applied Practice Experience (APEx)	0	All
PUBH 6002	Biostatistical Applications for Public Health	3	All
PUBH 6003	Principles & Practice of Epidemiology	3	All
PUBH 6007	Social & Behavioral Approaches to Public Health	2	All
PUBH 6009	Fundamentals of Program Evaluation	2	
PUBH 6011	Environmental & Biological Foundations of Public Health	3	All
PUBH 6012	Fundamentals of Health Policy	2	All
PUBH 6021	Essentials of Public Health Leadership & Practice 1	1	All
PUBH 6022	Essentials of Public Health Leadership & Practice 2	1	All
PUBH 6023	Interprofessional Education Experience (IPE)	0	All
Required MPH@GW Program-Specific Courses (10 credits)		**Credits**	**Quarter**
PUBH 6052	Practical Data Management & Analysis for Public Health	2	All
PUBH 6442	Comparative Global Health Systems	2	All
PUBH 6500	Planning & Implementation of Health Promotion Programs	3	All
PUBH 6503	Introduction to Public Health Communications & Marketing	3	All
Required Health Informatics & Analytics Concentration Courses (11 credits)		**Credits**	**Quarter**
PUBH 6703	Health Care Delivery and Health IT	2	F, Sp II
PUBH 6704	Health IT, Informatics, & Decision Making	3	Sp I, Su
PUBH 6705	Health Law & Health IT	3	Sp I, Su
PUBH 6706	Population Health Analytics	3	F, Sp II
Electives (5 credits)		**Credits**	**Quarter**
Any PUBH 6XXX	MPH@GW electives or on-campus^ electives where applicable. Examples include: • PUBH 6730 Health System & Health IT Applied Analysis Immersion (strongly advised) • PUBH 6717 Predictive Analytics: Applying the Concepts to Predictive Modeling • PUBH 6894 Research Analytics: Applying the Concepts to Analytics	5	Varies
MPH@GW Culminating Experience Courses (2 credits)		**Credits**	**Quarter**

PUBH 6060	MPH@GW Culminating Experience 1	1	All
PUBH 6061	MPH@GW Culminating Experience 2	1	All
Course Distribution		**Credits**	
Public Health Core Courses		17	
Required MPH@GW Program-Specific Courses		10	
Required Health Informatics & Analytics Concentration Courses		11	
Electives		5	
Culminating Experience		2	
Total Degree Credits		**45**	

^ MPH@GW students may take up to 15 credits on-campus.

Appendix I.
Milken Institute School of Public Health MPH Graduation Requirements

1. Graduate Credits: 45 graduate credits are required, two of which are the student's Culminating Experience courses, PUBH 6060 and PUBH 60601, to be taken in a student's last two consecutive terms in the MPH@GW Program.

2. Courses: Successful completion of the Core Courses and the Program-Specific Courses are required.

3. Applied Practice Experience: Students are required to fulfill all requirements of the Applied Practice Experience (APEx) to receive credit for PUBH 6000. PUBH 6000 is a co-requisite for enrolling in PUBH 6060 Culminating Experience I.

4. Interprofessional Education Experience (IPE): Students are required to enroll, participate and complete an authorized IPE activity (PUBH 6023).

5. Grade Point Average: A 3.0 (B average) program grade point average is required.

6. Time Limit: The degree must be completed within five years.

7. Transfer Credit Policy: Up to 12 graduate credits that have not been applied to a previous degree may be transferred to the MPH upon approval. Credits must have been earned from an accredited institution in the last 3 years with a grade of B or better (grade point of 3.0 and higher).

8. CITI Training : All students are required to complete training regarding human subject protection regulation and the Health Insurance Portability and Accountability Act of 1996 (HIPAA). To fulfill this requirement, you must complete the Collaborative IRB Training Initiative (CITI) Course in The Protection of Human Research Subjects.

9. Academic Integrity Quiz: All students are required to review the George Washington University Code of Academic Integrity and take the quiz within their first semester of study. The Code of Integrity and step- by-step instructions can be found here: http://publichealth.gwu.edu/integrity.

10. Professional Enhancement Hours: Students must participate in 8 hours per degree program of Public Health-related lectures, seminars, and symposia related to your field of study. Professional Enhancement activities supplement the academic curriculum and help prepare students to participate actively in the professional community. Opportunities for professional enhancement are regularly published via the Milken Institute SPH Listserv and through your department or advisor. Students must submit documentation of Professional Enhancement activities to the Office of Student Records. Find the Professional Enhancement submission form here and include a description of the program agenda and proof of attendance.

11. Applying for Graduation. Upon completing degree requirements students are to apply for graduation. The table below outlines which is the correct term to apply for graduation as well as the respective commencement week to attend.

Final Term	Apply for	Commencement Week to Attend
Spring 1	Spring Graduation	May of current year
Spring 2	Summer Graduation	May of current year
Summer	Fall Graduation	May of next year
Fall	Fall Graduation	May of next year

Course Descriptions and Registration information can be found in the University Bulletin here.