

2016

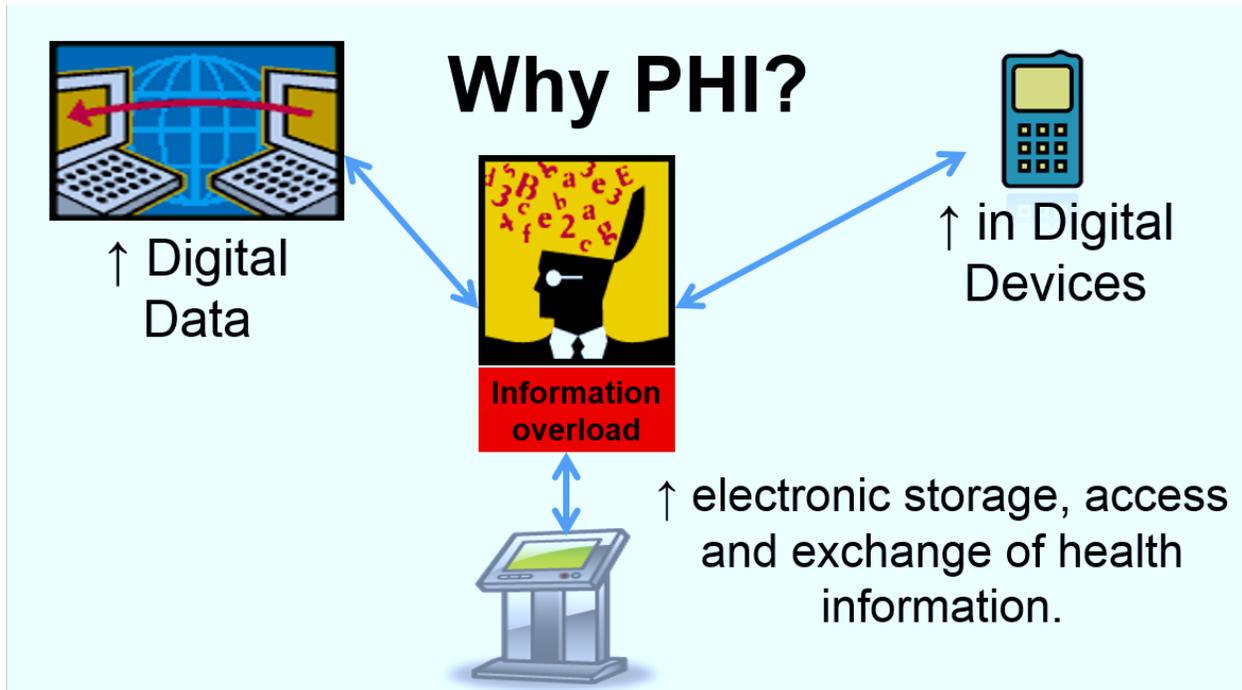
# CUNY SCHOOL OF PUBLIC HEALTH

*Online Certificate  
Program in  
Population Health  
Informatics*

PROGRAM BROCHURE

THE CITY UNIVERSITY OF NEW YORK | 55W 125th Street, New York, NY 10027

## POPULATION HEALTH INFORMATICS: Program Overview



**Program Summary:** Population Health Informatics is the application of informatics in areas of public health, including surveillance, prevention, preparedness, and health promotion.

The purpose of the non-credit online certificate program is to prepare individuals with an opportunity to gain an in-depth understanding of Informatics and its various domains. Individuals gain understanding about relationships between data, information, and knowledge and data standards. Further the program examines the various tools and technologies that can be utilized as electronic means of data collection, and applying visual analytics to make the information meaningful for diverse stakeholders.

The program also provides skills and knowledge to design and evaluate consumer health information interventions in both clinical and community settings. The program provides information about the emerging role of mobile based technologies to address health disparities, disease prevention, health promotion and surveillance. The program will also discuss ways to address health literacy, tailoring of health interventions when utilizing multifaceted technology enabled platforms. The program will also discuss various approaches of Health Technology Assessment including accessibility, heuristics and usability and population health outcomes. Individuals will acquire knowledge, skills, and expertise regarding the applications of informatics in various settings across diverse users.

**Program Duration:** The 28 week online program is modular, flexible, and self-paced and will include interactive discussions, case study examples, reading material, assessments and hands on experience with existing technologies.

**Eligibility:** Eligible individuals include Graduates/Undergraduates from all disciplines such as medicine, public health, allied health sciences, information systems, computer science, engineering, management, hospital administration to name a few.

**Minimum Requirements:** Include having an internet connection, computer, Microphone and a webcam (optional).

**Program Fees:** The total program cost is \$2,500 with options to pay in installments.

# Applications of Population Health Informatics

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- ✚ Make Data Meaningful
- ✚ Design, develop, and implement Human Centered, technology enabled interventions e.g. *m-Health, Information therapy, Personalized Health Records, Population based Decision Support Systems, and Community-based surveillance*
- ✚ Monitor and evaluate the impact of informatics to enhance population health outcomes.
- ✚ Disseminate health information using interactive visualization tools and technologies
- ✚ Translate research into practice using innovative, entrepreneurial and sustainable Population Health Informatics Solutions

# Program Modules and Objectives

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The entire program has 4 modules including:

- ✚ Introduction to Population Health Informatics
- ✚ Introduction to Consumer Health Informatics
- ✚ Application of Population Health Informatics
- ✚ Research seminar in Population Health Informatics

## **Module1. Introduction to Population Health Informatics**

- ✚ Identify and list the concepts of Informatics and its domains.
- ✚ Explain and apply the data, information and knowledge models
- ✚ Distinguish the various components of computers and their application in public health
- ✚ Explain the role of data standards in population health

## **Module2. Introduction to Consumer Health Informatics**

- ✚ Identify and demonstrate the potential use of the internet in public health
- ✚ Define various e-health approaches and tailored health information techniques to modify health behaviors and outcomes
- ✚ Discuss and design M-Health technologies to enhance disease prevention and management
- ✚ Design and evaluate consumer health technologies

### **Module3. Applications of Population Health Informatics**

- ✚ Distinguish the various electronic means of public health data collection and management
- ✚ Explain the similarities and differences in Telehealth, Electronic Health Record, Personal Health Record and Hospital Management Information System.
- ✚ Illustrate and apply toolkits to design and develop population health information systems in various settings
- ✚ Comprehend the various ethical issues relevant to the use of information and communication technologies in public health
- ✚ Identify current gaps and opportunities in the area of population health informatics

### **Module4. Research Seminar in Population Health Informatics**

- ✚ Explain and apply principles of population health informatics to the project proposed
- ✚ Analyze the case studies discussed the guest lectures
- ✚ Demonstrate the skills to submit population health informatics project.

*The students will have an opportunity to engage in research projects and present their research findings in National/International Conferences or publish in Peer Reviewed Journals.*

# Application Requirements

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1. [SOPHAS](https://sophasexpress.liaisoncas.com) Express online application, which can be found at <https://sophasexpress.liaisoncas.com>
2. Application fee of \$50, payable through the SOPHAS express website
3. Official transcripts from all institutions attended
4. Personal statement / statement of purpose (500 words) (Describing why you are interested in the Certificate in Population Health Informatics Program).
5. Two letters of recommendation
6. Resume/CV

The requirements (items 3-6) can be uploaded via the SOPHAS express website link provided.

# About the Program Director



Dr. Ashish Joshi, MD, MPH, PhD, is an applied researcher and an innovator who develops technology enabled interventions that bring social impact in diverse settings. He is currently the Associate Dean of Student Affairs, and an Associate Professor, City University of New York Graduate School of Public Health and Health Policy. His research focuses on designing and developing innovative, accessible and affordable health technologies such as the Internet, cell phones, and electronic health kiosks to enhance population health outcomes. Dr. Joshi has published more than 100 papers in Peer Reviewed Scientific Journals, presented at several National and International Conferences and has conducted several population health informatics research projects in the US, India, Nigeria and Brazil funded by various Federal and International Agencies. Dr. Joshi developed the online program in Population health Informatics. A snapshot of his PHI related research projects in diverse settings is provided below.

Dr. Joshi can be reached at [ashish.joshi@sph.cuny.edu](mailto:ashish.joshi@sph.cuny.edu).

## Human Centered Technology enabled Approaches to Population Health Interventions

**A Touch screen computer-based bilingual Breast feeding educational program**

**PHIK: A health kiosk which facilitates blood glucose, BMI and blood sugar monitoring**

**Public Health Informatics products in global settings**

**SANAVIZ: A Geographic Visualization tool**

**ISS: An interactive surveillance system for disease monitoring**