



Informatics

- NURSING INFORMATICS
- PUBLIC HEALTH INFORMATICS
- CRISIS (DISASTER) INFORMATICS

HHS Strategic Goals

U.S. PUBLIC HEALTH SERVICE
NURSING



“We received feedback from hundreds of organizations and healthcare providers on this new burden-reduction strategy, and the input made clear that there are plenty of steps still necessary to make IT more usable for providers and maximize the promise of electronic health records.”



ALEX AZAR
Secretary
Department of Health
and Human Services

Strategic Goal 1: Reform, Strengthen, and Modernize the Nation's Healthcare System

Strategic Objective 1.1: Promote affordable healthcare, while balancing spending on premiums, deductibles, and out-of-pocket costs

Strategic Objective 1.2: Expand safe, high-quality healthcare options, and encourage innovation and competition

Strategic Objective 1.3: Improve Americans' access to healthcare and expand choices of care and service options

Strategic Objective 1.4: Strengthen and expand the healthcare workforce to meet America's diverse needs



Federal Nursing Service Council

U.S. PUBLIC HEALTH SERVICE
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2017-2020 STRATEGIC GOALS:

Strengthen nursing leadership to drive positive change in health and health policy.

Improve access, quality, and safety to health and healthcare. ★

Enhance partnerships to support readiness, skill sustainment, and inter/intra professional collaboration.

<https://dcp.psc.gov/OSG/Nurse/federal-nursing-service-council.aspx>

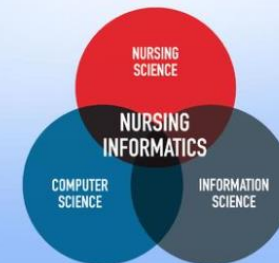
Nursing Informatics



- ▶ Utilizing nursing science, computer science and information science, Chief Nursing Informatics Officers (CNIOs) **manage and communicate data, information, and knowledge in nursing practice**. Nursing informatics itself facilitates the **integration of data, information, and knowledge** to support patients, nurses, and other providers and medical staff in their decision making in all roles and settings. This support is accomplished through the use of information structures, information processes, and information technology. The **goal of nursing informatics is to improve the health of populations, communities, families, and individuals by optimizing information management and communication**. This includes the use of information and technology in the direct provision of care, establishing effective administrative systems, managing and delivering educational experiences, supporting lifelong learning, and supporting nursing research.

Roles: Project Manager, Consultant, Educator, Researcher
Product Developer, Decision Support, Outcomes Manager
Advocate, Policy Developer, Clinical Analyst

A combination of computer science, information science and nursing science designed to assist in the management and processing of nursing data, information and knowledge to support the practice of nursing and the delivery of nursing care.



Public Health Informatics

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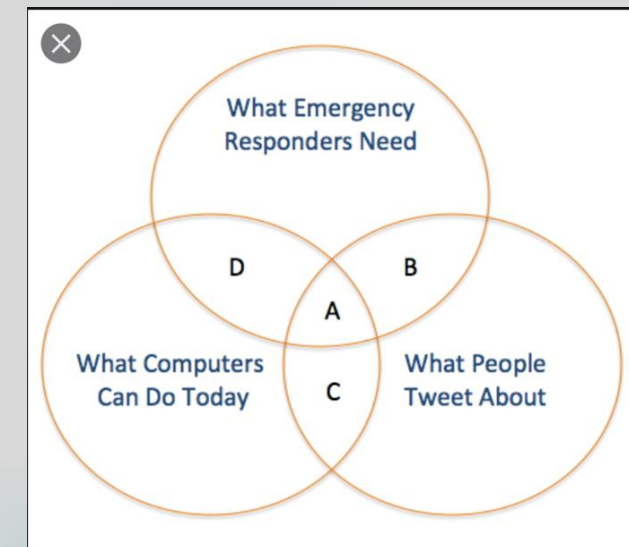


- ▶ **Public Health Informatics** is the application of informatics in areas of public health, including surveillance, prevention, preparedness, and health promotion. Public health informatics and the related population informatics, work on information and technology issues from the perspective of groups of individuals. Public health is extremely broad and can even touch on the environment, work and living places and more. Generally, AMIA focuses on those aspects of public health that enable the development and use of interoperable information systems for public health functions such as biosurveillance, outbreak management, electronic laboratory reporting and prevention
- ▶ Reference: <https://www.amia.org/applications-informatics/public-health-informatics>
- ▶ Public Health: <https://healthinformatics.uic.edu/blog/three-ways-health-informatics-impacts-the-healthcare-industry/>

Crisis or Disaster Informatics



- ▶ **Disaster Informatics** or **crisis informatics** is the study of the use of information and technology in the preparation, mitigation, response and recovery phases of disasters and other emergencies. It began to emerge as a field after the successful use of a variety of technologies in disasters including the Asian tsunami, September 11th, and Hurricane Katrina.
- ▶ Disaster informatics may involve incorporating social media content generated by people in disaster zones into humanitarian response plans based on satellite imagery and official emergency services procedures. Disaster informatics may involve crowdsourcing, participatory mapping, or citizen science, with members of the public as 'everyday analysts'.
- ▶ Reference: https://en.wikipedia.org/wiki/Disaster_informatics



Professional Organizations

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- ▶ **American Nursing Informatics Association (ANIA)**
 - ▶ <https://www.ania.org/news>
- ▶ **Healthcare Information and Management Systems Society (HIMSS)**
 - ▶ <https://www.himss.org/>
 - ▶ <https://www.himss.org/membership-participation/nursing-informatics>
- ▶ **American Medical Informatics Association (AMIA)**
 - ▶ <https://www.amia.org/about-amia>
 - ▶ <https://www.amia.org/applications-informatics/public-health-informatics>
- ▶ **American Telehealth Association**
 - ▶ <https://www.americantelemed.org/>
- ▶ **Alliance for Nursing Informatics**
 - ▶ <https://www.allianceni.org/>

Conferences



▶ **Summer Institute of Nursing Informatics**

- ▶ Nurses may receive up to 7.5 contact hours upon successful completion of this continuing nursing education (CE) activity
- ▶ <https://www.nursing.umaryland.edu/sini/>

▶ **HIMSS**

- ▶ The maximum number of hours awarded for this Continuing Nursing Education activity is 21 contact hours
- ▶ <https://www.himssconference.org/>

▶ **ANIA**

- ▶ <https://www.ania.org/events/2020-ania-annual-conference>

▶ **American Telehealth Association**

- ▶ <https://www.americantelemed.org/>

▶ **Public Health Informatics**

- ▶ <https://www.naccho.org/programs/public-health-infrastructure/health-it>

On Line Training

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- ▶ **CDC Public Health Informatics**

- ▶ <https://www.cdc.gov/publichealth101/informatics.html>

- ▶ **Carnegie Mellon University**

- ▶ <https://oli.cmu.edu/courses/health-information-technology-foundations-open-free/>

- ▶ **ANIA**

- ▶ <https://www.ania.org/ania-events/webinars>

- ▶ **Public Health Informatics**

- ▶ <https://www.amia.org/programs/working-groups/public-health-informatics>

- ▶ **AMIA 10x10**

- ▶ <https://www.amia.org/amia10x10>

Certifications

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- ▶ **American Nursing Credentialing Center (ANCC) Informatics Board Certified**

- ▶ <https://www.nursingworld.org/our-certifications/informatics-nurse/>

- ▶ **Certified Associate in Healthcare Information and Management Systems (CAHIMS) & Certified Professional in Healthcare Information and Management Systems (CPHIMS)**

- ▶ <https://www.himss.org/resources-certification/overview>

Additional References



▶ COVID-19

- ▶ <https://www.mobihealthnews.com/news/roundup-techs-role-tracking-testing-treating-covid-19>
- ▶ <https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/guidance-hcf.html>

▶ Hurricane Harvey

- ▶ <https://kinder.rice.edu/research/lessons-harvey-crisis-informatics-urban-resilience>

▶ Disaster Response

- ▶ <https://www.healthit.gov/buzz-blog/health-it/reflections-health-perspective-disaster-response>
- ▶ <https://jsis.washington.edu/news/crisis-management-and-informatics-discussion-from-the-final-cybersecurity-and-technology-futures-event/>

▶ Disaster Planning

- ▶ <https://healthinformatics.uic.edu/blog/the-role-of-him-in-disaster-response/>

▶ Crisis Informatics

- ▶ <https://science.sciencemag.org/content/353/6296/224>