Applied Public Health Informatics Curriculum

Kathy Miner, PhD, MPH; Melissa Alperin, MPH, CHES; Claudia W. Brogan, MSEd; Niki Buchanan, MEd; Bill Brand, MPH, CPHIE

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APPLIED PUBLIC HEALTH INFORMATICS CURRICULUM

PRINCIPAL DEVELOPERS

Rollins School of Public Health, Emory University
Kathy Miner, PhD, MPH
Melissa Alperin, MPH, CHES

Public Health Informatics Institute
Claudia W. Brogan, MSEd, Training Manager
Niki Buchanan, MEd, Project Manager
Bill Brand, MPH, CPHIE, Director of Programs

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About Public Health Informatics Institute
The Public Health Informatics Institute is a program of the Task Force for Global Health, a 501(c)(3) non-profit organization. Our staff is comprised of professionals in the areas of public health, healthcare information systems and communications—all well-versed in the current and emerging issues facing public health. The Institute is known for its expertise as a neutral convener of public health professionals and their stakeholders, transforming health practitioners’ ability to apply information effectively in order to improve health outcomes worldwide.

For More Information
The Public Health Informatics Institute
325 Swanton Way
Decatur, GA 30030

Claudia W. Brogan: 404-592-1445
Email: cbrogan@phii.org

Niki Buchanan: 404-687-5638
Email: nbuchanan@phii.org
Applied Public Health Informatics Curriculum Workgroup Members

Edward Baker, Jr, MD  
The University of North Carolina at Chapel Hill,  
North Carolina Institute for Public Health

Bill Brand, MPH, CPHIE  
Public Health Informatics Institute

J. Mark Conde, BA  
Association of Public Health Laboratories

Pammie R. Crawford, MPhil, SM  
The Johns Hopkins University, The Johns Hopkins Bloomberg School of Public Health

Lisa (Dwyer) Ferland, MPH  
Council for State and Territorial Epidemiologists

Kristi Eckerson, MSPH  
Emory University, Research and Health Sciences Information Technology

Laura Franzke, PhD, MPH  
Centers for Disease Control and Prevention

Sherrilynne Fuller, PhD  
University of Washington

Alana Knudson, PhD  
National Opinion Research Center

Denise Koo, MD, MPH  
Centers for Disease Control and Prevention

Cecil Lynch, MD, MS  
University of California, Davis

Barbara Massoudi, PhD, MPH  
Research Triangle Institute International

Marc Overcash, BA  
Emory University, Research and Health Sciences Information Technology

Jamie Pina, MSPH  
University of Washington

Laverne Snow, MPA  
University of Utah

Paula Soper, MS, MPH, PMP  
University of Chicago, National Opinion Research Center

Herman Tolentino, MD  
Centers for Disease Control and Prevention

David N. Westfall, MD, MPH, CPE  
Georgia Department of Community Health

Bonnie L. Westra, PhD, RN, FAAN  
University of Minnesota, School of Nursing

Participant

Emma J.I. Apatu  
Emory University, Rollins School of Public Health

External Reviewers

Kathy Cook, BSN  
Nebraska State Division of Public Health

Art Davidson, MD  
Denver Health

Roland Gamache, PhD, MBA  
Regenstrief Institute

William Hersh, MD  
Oregon Health & Science University

Martin LaVenture, PhD, MPH  
Minnesota Department of Health
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The Applied Public Health Informatics Curriculum is a result of the vision, considerable experience, and generous contributions among public health practitioners and academicians. Collaborations among faculty of Emory University’s Rollins School of Public Health, the Public Health Informatics Institute, and informatics leaders has yielded a product that is offered to Schools of Public Health, community colleges, and other centers of learning.

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Applied Public Health Informatics Curriculum

The Public Health Informatics Institute (the Institute) is offering the Applied Public Health Informatics Curriculum to support academic institutions in creating or enhancing a public health informatics curriculum that is competency-based and provides the knowledge and skills needed in local and state health departments today.

About the Curriculum

In 2008, the Institute received funding from The Robert Wood Johnson Foundation for the development of a competency-based curriculum framework that educational institutions can deliver to public health practitioners to learn about the practice of informatics. After receiving initial documentation from Emory University’s Rollins School of Public Health, the Institute convened a workgroup comprised of experts in the field of informatics. Participants worked together to develop a curriculum framework that aligned nationally-recognized public health informatics competencies with course titles, descriptions, learning objectives, and recommended portfolio projects. The curriculum framework also includes suggested resources and instructor notes.

The curriculum framework is to be released to schools of public health, universities, community colleges, and other educational bodies for use as part of a degree or certificate program. Institutions may elect to use the entire curriculum or select modules. The Institute welcomes feedback and suggestions for enhancements.

Target Audience

The ultimate audience for this curriculum framework is staff members in state and local health agencies who manage and influence the determination of information transfer, collection, storage, and integration across departments. Other audiences may vary based on the institution that delivers the curriculum.

Representative Objectives

The following is a representative list of the range of learning objectives presented in the curriculum framework:

- Assess uses and value of different types of data to answer public health questions.
- Apply user-centered design techniques to determine information needs.
- Assess the usability and user satisfaction of an information system or application, and its utility, including effectiveness and efficiency.
- Present public health informatics information to lay and scientific audiences.
- Monitor the use of data security management concepts and principles.
Pre-Requisites

While the Institute recommends that individuals taking these modules have a background in public health, it’s expected that each institution delivering the curriculum will determine its own educational pre-requisites.

List of Modules

I. Introduction to Public Health Informatics
II. Overview of Data Sources, Standards and Information Systems
III. Interpersonal and Organizational Communication for the Public Health Informatician
IV. Project Management and System Lifecycle
V. Data Management and Enterprise Architecture
VI. Business Aspects of Public Health Informatics
VII. Information Security and Privacy; Legal and Ethical Issues
VIII. Applied Public Health Informatics Evaluation and Research
IX. Information for Public Health Decision Making
X. Informatics in Support of Public Health Leadership and Management
## APHIC Competency Alignment

<table>
<thead>
<tr>
<th>Competencies for Public Health Informaticians</th>
<th>Modules</th>
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<tbody>
<tr>
<td>1. Supports development of strategic direction for public health informatics within the enterprise</td>
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<td>2. Participates in development of knowledge management tools for the enterprise</td>
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<td>3. Uses informatics standards</td>
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<td>4. Ensures that knowledge, information, and data needs of a project or program users and stakeholders are met</td>
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<td>5. Supports information system development, procurement, and implementation that meet public health program needs</td>
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<td>6A. Manages IT operations related to project or program (for public health agencies with internal IT operations)</td>
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<td>6B. Monitors IT operations managed by external organizations</td>
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<td>7. Communicates with cross-disciplinary leaders and team members</td>
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<td>8. Evaluates information systems and applications</td>
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<td>9. Participates in applied public health informatics research for new insights and innovative solutions to health problems</td>
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<td>10. Contributes to development of public health information systems that are interoperable with other relevant information systems</td>
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<td>11. Supports use of informatics to integrate clinical health, environmental risk, and population health</td>
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<td>12. Implements solutions that ensure confidentiality, security, and integrity while maximizing availability of information for public health</td>
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<td>13. Conducts education and training in public health informatics</td>
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