Public Health Department Rotation & Outbreak Experience

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SECTION 1

Title of Practicum:

Public Health Department Rotation & Outbreak Experience

Faculty Leads:

Dr. Rachel Rubin & Dr. Kiran Joshi, Senior Medical Officers at the Cook County Department of Public Health (CCDPH)

Practicum Support Team:

Name	Notes
Dr. Darcie Moeller	CCDPH Medical Director
Dr. Jackie Korpics	Northwestern Applied Practice Experience (APEx)

Last Date Updated: 10/17/24

Overview:

This rotation affords trainees awareness of health department organizational structure and key functions, while exposing them to the duties and responsibilities of a public health officer through project work and hands on outbreak surveillance experience.

Readings & Resources:

Online Outbreak Modules	Link/Access
Northwest Center for Public Health Practice	Introduction to Outbreak Investigation | Northwest Center for Public Health PracticeJou (nwcphp.org)
CDC: Solve the Outbreak	Solve the Outbreak (cdc.gov)
CDC: Investigating an Outbreak	Principles of Epidemiology: Lesson 6, Section 2|Self-Study Course SS1978|CDC
Journals/Articles	
Institute of Medicine. The Future of the Public's Health in the 21st Century. The National Academies Press, Washington D.C., 2002	The Future of the Public's Health in the 21st Century - NCBI Bookshelf (nih.gov)
Heyman, D. L. "Control of Communicable Diseases Manual. American Public Health Association." Washington, DC (2014).	What drives disease flows between locations? - PMC (nih.gov)
Institute of Medicine. Primary Care and Public Health: Exploring Integrations to Improve Population Health. The National Academies Press, Washington D.C., 2012	Primary Care and Public Health: Exploring Integration to Improve Population Health - PubMed (nih.gov)
Textbook Readings	
Turnock BJ. Public Health: What It Is and How it Works. Chapter 5, *Core Functions and Public Health Practice.* Jones and Bartlett, Salisbury MA, 2012, p217-281	

SECTION 2

Key Activities - Public Health Work:

1. **Total of 320 hours of experience with CCDPH**
   a. Includes 160 hours required for Northwestern APEx
2. **Two project deliverables** (presented as Northwestern APEx)
   a. Projects will involve one or more elements of applied epidemiology, public health administration, and communication with multi-disciplinary public health staff, health professionals from other agencies, and/or community members.
   b. Projects will be structured to meet the training requirements (milestones) and interests of the individual trainees to advance their skill development.
   c. Given the flexible nature of the projects, the trainees will be asked to work with their supervisor to determine the specific aims and key steps for the project.
   d. These deliverables must be presented as part of the Northwestern APEx and may be presented in the Preventive Medicine Section Meeting, a CCDPH meeting, and/or external stakeholder meeting.
3. **Outbreak experience**
   a. Trainees will spend approximately 2-4 weeks working with health department staff to investigate an outbreak of a communicable disease, with a focus on data collection, analysis, surveillance, and reporting.
      i. During this time, faculty will work with trainees to scale back other activities so that they can participate fully.
      ii. Continued participation extending beyond this time is allowed but must be scheduled around clinical and project activities that must resume.
   b. The outbreak should be a local outbreak but may occur as part of a national or international outbreak.
   c. A presentation of the work accomplished (in CCDPH meeting and/or Preventive Medicine Section Meeting and/or external stakeholder meeting) and experience in the outbreak is required, ideally within 4-6 weeks of completion.
4. **Meetings with CCDPH leadership to learn about roles and explore project work**
   a. Key faculty will orient trainees to the structure, function, and jurisdiction of the health department.
   b. Key faculty will facilitate meetings with CCDPH leadership and staff in different units (e.g. Communicable Disease, Emergency Preparedness, Community Health, Public Health Nursing) so trainees can better understand the complexity of the public health department and explore potential projects.

Optional: Opportunities for additional engagement with the Illinois Department of Public Health (IDPH) and the Chicago Department of Public Health (CDPH)

Plan for assessment of trainee performance:

Key faculty will meet at least monthly with trainees to review their progress in the rotation. Formal assessment by key faculty will be given and submitted in New Innovations. Trainees will receive feedback and be assessed on their Northwestern APEx proposal, APEx project deliverables, and APEx

presentation.

SECTION 3

Patient Care Milestones	Activity/Competency Examples
● Emergency Preparedness and Response – Apply Skills in Emergency Preparedness and Response	- inform and educate populations about health threats and risks - plan and evaluate the medical portion of emergency preparedness programs and training exercises - identify examples of public health threats that might warrant an emergency response - evaluate an emergency preparedness event (actual or simulated)
● Policies and Plans – Develop Policies and Plans to Support Individual and Community Health Efforts	- develop plans to reduce the exposure to risk factors for an illness or condition in a population - recognize and respond to a disease outbreak, involving individual patients and populations - evaluate policies and plans for disease prevention and health promotion that have been applied to individuals and/or communities
● Clinical and Community Preventive Services	- select appropriate, evidence-based, clinical preventive services for individuals and populations - diagnose and treat medical problems and chronic conditions for both individuals and populations - apply primary, secondary, and tertiary preventive approaches to individual and population-based disease prevention and health promotion - evaluate the effectiveness of clinical preventive services for both individuals and populations - recognize distinctions between population and individual health services

Medical Knowledge Milestones	Activity/Competency Examples
● Environmental Health	- identify common illnesses that may be caused or influenced by exposure to environmental hazards - recommend methods for reducing or eliminating exposure to

		environmental hazards - conduct a population-level environmental risk assessment (actual or simulated)
●	Epidemiology	- describes the natural history of disease and relevance to primary, secondary, and tertiary prevention - participate in epidemiological research, including evaluating and interpreting results
●	Public Health Regulations	- identify examples of public health regulatory agencies - develop or modify a public health policy based upon regulatory requirements or public health laws (actual or simulated)
●	Infectious Diseases of Public Health Significance	- describe common methods for preventing the transmission of infectious diseases - apply knowledge of the epidemiology, risk factors, prevention strategies, diagnosis, and treatment for infectious diseases of public health significance to the individual or population level

Systems-Based Practice Milestones	Activity/Competency Examples
● System Navigation for Patient- and Population-Centered Care	- recognize population and community health needs and inequities - model effective coordination of patient- and population-centered care among different disciplines and specialties/settings
● Physician Leadership in Health Care and Community Health Systems	- identify key agencies involved in community health efforts - participate in a community needs assessment to identify and improve the overall health of a community (actual or simulated)

Practice-Based Learning & Improvement Milestones	Activity/Competency Examples
● Evidence-Based and Informed Practice	- critically appraise and apply evidence, even in the face of uncertainty and conflicting evidence, to guide care tailored to an individual or population
● Reflective Practice and Commitment to Personal Growth	- establish goals for personal and professional development - identify strengths, deficiencies, and limits in one's knowledge and expertise - set learning and improvement goals

●	Disease Outbreak and Surveillance Systems	- discuss common causes of disease clusters and outbreaks - recognize the need to report selected diseases to public health authorities and describe the need for surveillance systems in a variety of settings - participate in the planning and implementation of a cluster/outbreak investigation (actual or simulated)

Professionalism Milestones	Activity/Competency Examples
● Professional Behavior and Ethical Principles	- identify potential triggers for reporting of professionalism lapses - define the ethical principles underlying informed consent, surrogate decision- making, advance directives, privacy and confidentiality, error disclosure, stewardship of limited resources, and related topics
● Accountability/ Conscientiousness	- recognize situations that may impact one's own ability to complete tasks and take responsibility - recognize situations that may impact others' ability to complete tasks and responsibilities in an accurate and timely manner
● Self-Awareness and Help-Seeking Behaviors	- ability to recognize and develop a plan for one's own personal and professional well-being

Interpersonal & Communication Skills Milestones	Activity/Competency Examples
● Community- and Population-Centered Communication and Shared Decision-Making	- identify common barriers to effective communication while accurately communicating one's own role and responsibilities within the health system - use shared decision-making to align community/population values, goals, and preferences with preventive services
● Interprofessional Team Communication	- use language that values all members of an interprofessional team - facilitate interprofessional team and community group communication using multiple communication strategies

SECTION 4

Potential projects:

See shared Excel document to be shared by key faculty