

Local Public Health Institute of Massachusetts

Competency Report

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LOCAL PUBLIC HEALTH
INSTITUTE OF MASSACHUSETTS

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I. Introduction

Local public health agencies in Massachusetts and throughout the U.S. provide a wide range of services to protect the public's health. To ensure more consistency across local public health agencies, in March 2006, the Local Public Health Institute of Massachusetts' Advisory Council established a subcommittee to develop a competency model and set of competencies. Additional support was provided by the Health Resources and Services Administration via the New England Alliance for Public Health Workforce Development and Boston University School of Public Health.

We needed to identify 1) the work that is done by local public health entities across Massachusetts, 2) those individuals who are doing the work, and 3) the legal and regulatory climate in which they were operating.

The subcommittee drafted a model for local public health competencies, based on specific programs within local public health agencies as well as a set of cross-cutting competencies. These competencies pertain to the following positions:

1. Environmental Health Professionals
2. Governing Bodies
3. Heads of Local Health Agencies
4. Public Health Nurses

For each of these four positions, subcommittee members reviewed and selected competency sets for the position that they represented. In some cases, they modified competencies or created new ones to make them relevant to the Massachusetts public health system.

The subcommittee established two levels of competency for this model:

- Awareness level (basic information), and
- Performance level (intermediate level of mastery, often involves applying a skill)

The draft competency model and sets were reviewed by a number of representatives from various agencies, organizations, and associations for further review (See Appendix A for a detailed description of the process). The subcommittee also developed recommended qualifications for the four main positions in the local public health workforce (See Appendix B).

This document represents the final product of the subcommittee's work, which includes descriptions of 1) nine, interdisciplinary, **cross-cutting** competencies and 2) eighteen **program area** competencies. These competencies will be used to assist with developing and delivering comprehensive training programs for the local public health workforce. The Local Public Health Institute of Massachusetts will identify training programs that address these competencies and work to fill any identified training gaps. The lack of standardized field training for many of the program areas has been identified as a major concern and should be a priority for new course development.

A Manual of Laws and Regulations Relating to Boards of Health, January 2010, is now available on the MA Department of Public Health website:

http://www.mass.gov/Eeohhs2/docs/dph/emergency_prep/board_of_health_manual.pdf.

Cross-Cutting Competencies for the Public Health Workforce

This section identifies the interdisciplinary, **cross-cutting** competencies that the local public health workforce in Massachusetts needs in order to effectively fulfill their mission of providing the three core functions and ten essential services of public health.¹ These cross-cutting competencies are organized into ten separate domains. All newly developed online modules will incorporate these whenever possible.

The cross-cutting competency domains for the local public health workforce include:

1. Advocacy
2. Analysis, Problem Solving, and Risk Management
3. Communication
4. Community/Public Health Assessment
5. Cultural Competency
6. Emergency Preparedness
7. Health Education
8. Leadership
9. Legal Issues
10. Project Development, Planning, and Management

Definition of Competency

“A cluster of related knowledge, skills and attitudes that affect a major part of one’s job, that can be measured against some accepted standards, and that can be improved via training and development.”²

Each cross-cutting competency has two levels: awareness and performance. Recognizing that some of this work is done by volunteer Board members in Massachusetts, each level builds on the other so that it is clear that the expectation is that the person doing the job must have all of the knowledge listed under both awareness and performance.

Levels of Competency

- **Awareness** (What an individual knows): These attributes represent a basic level of knowledge and understanding. When training is complete, the individual should be able to describe, explain, identify, or recognize public health concepts.

Environmental Health Professionals, Governing Bodies, and Public Health Nurses should be at an awareness level for cross-cutting competencies.

- **Performance** (What an individual can do): These attributes reflect a higher level of skill or ability. When training is complete, the individual should be able to demonstrate, develop, generate, implement or initiate to effectively contribute to the solution of public health problems. Certain program areas may require field training to ensure minimal levels of performance.

Heads of Local Health Agencies should be at a performance level for cross-cutting competencies. Depending on the current community public health structure, environmental health professionals, governing bodies and public health nurses may need to be at a performance level.

¹ See <http://www.cdc.gov/od/ocphp/nphpsp/EssentialPHServices.htm>

² Parry, S.R. “Quest for Competencies.” Training, July 1996, p. 50.

1. ADVOCACY

General Description: Public health advocacy at the local level involves fostering public participation in programs, policy and goal setting; negotiating relevant services on behalf of individuals and communities; helping individuals and communities gain access to needed resources; identifying barriers to the well-being of individuals and vulnerable groups and identifying potential allies for confronting these barriers; developing and carrying out an initial plan of action; and using legal, political and social systems to affect change.

Awareness Level

- Identify a wide range of stakeholders who influence public health policy.
- Compare and contrast the roles and relationships of groups involved in the public policy development and implementation process, including the executive, legislative, and judicial branches of government at all levels and interest groups.
- Describe appropriate methods for informing and educating policymakers about the needs of community groups and impacts of current policies on them.

Performance Level

- Frame problems based on relevant data, including economic, political, and social trends that affect community groups.
- Analyze the potential impact of public policies on the health of diverse populations.
- Apply appropriate evaluative criteria to the analysis of alternative policies.
- Use data, levels of evidence, and evaluative criteria in proposing public policy change.
- Formulate strategies to balance the interests of diverse stakeholders, consistent with desired public policy change.
- Present information and evidence to legislative and governing bodies, key decision makers, stakeholders, or the general public.

2. ANALYSIS, PROBLEM-SOLVING, AND RISK MANAGEMENT

General Description: Analysis and problem-solving of local public health issues includes breaking down the problems into their component parts, organizing and evaluating components in a systematic way; knowing when to apply common sense and when to apply analytic thinking; and using quantitative and qualitative data to illuminate ethical, political, scientific, economic, and overall public health issues.

Awareness Level

- Define a public health problem by selecting and defining variables and identifying appropriate sources of data and information.
- Identify patterns in data/information and make relevant inferences.
- Consider cause and effect in decision-making.
- Synthesize information to form the "big picture."
- Describe appropriate measures to resolve a problem and/or present a range of solutions.
- Identify resources and key partners to resolve public health problems.

Performance Level

- Using resources and key partners, identify and work to resolve community public health problems.
- Perform systematic program and facilities analysis and evaluation of technical and non-technical operations.
- Analyze complex information or problems in an objective and comprehensive manner and derive logical conclusions to provide a sound basis for establishing priorities.
- Demonstrate flexibility in thinking about and framing issues.
- Explain both short-term and long-term implications of decisions.
- Demonstrate strategic planning, analytical and program evaluation skills to effectively provide sound recommendations; continually examine systems and develop or revise to accommodate change requirements.

3. COMMUNICATION

General Description: The local public health workforce uses communication skills in all of its functions, including developing and delivering effective key messages to the public and other audiences as part of a public health intervention and during public health emergencies; empowering people by effectively soliciting and obtaining input from individuals and organizations; and encouraging and preparing individuals and organizations to participate in group meetings and hearings.

Awareness Level

- Identify the audience for communications, including the type of information that is important to them, and effective strategies for communicating with them.
- Demonstrate active listening.
- Communicate in basic terms and make sure that the listener understands.
- Demonstrate how to give and receive constructive feedback.
- Choose the appropriate medium for the message and the distribution of the target population.
- Use strong interpersonal and communication skills to:
 - Clearly and effectively interact with diverse groups and individuals,
 - Secure and/or provide information to clarify situations,
 - Resolve problems,
 - Negotiate services and/or agreements and memorandums of understanding (MOUs) with other departments or external agencies.
- Demonstrate a basic understanding of risk communication.

Performance Level

- Demonstrate skills for effective basic written communications.
- Effectively present accurate demographic, statistical, programmatic and scientific information for professional and lay audiences.
- Utilize public relations skills to promote communication among internal and external individuals and organizations.
- Use the media, advanced technologies and community networks to communicate information and risk.
- Demonstrate ability to prepare and deliver messages that effectively explain levels of risk in any public health issue.
- Demonstrate the ability to evaluate the effectiveness of communications.

4. COMMUNITY/PUBLIC HEALTH ASSESSMENT

General Description: Assessment of community and public health involves identifying sources of accurate information regarding the health status, economics, environmental factors, and demographics of the jurisdiction; compiling information; and identifying models and tools for assessment.

Awareness Level

- Identify the three core functions of public health, their purpose and their relationship to the ten essential public health services.
- Describe the purpose, scope and current approaches and tools of community health assessment in public health.
- Describe the roles of community partners in a collaborative assessment process.
- Explain key concepts used to describe communities: social capital, community capacity, community assets, public health organizational and system performance.

Performance Level

- Identify relevant data and information sources for public health improvement activities, including data and information on population health status, determinants of health and illness, factors contributing to health promotion and disease prevention, and factors influencing the use of health services.
- Interpret ethical, political, scientific, socio-cultural and economic issues related to public health problems.
- Identify critical stakeholders for the planning, implementation and evaluations of public health programs, policies and interventions.
- Apply strategies and tools to describe and measure community capacity.

5. CULTURAL COMPETENCY

General Description: Cultural competency in local public health activities includes developing and adapting approaches to problems that take into account cultural differences; designing interventions within public health systems that are sensitive, effective and professional for persons from diverse cultural, socioeconomic, educational, racial, ethnic and professional backgrounds, and for persons of all ages and lifestyle preferences; and contributing to the development of a diverse public health workforce.

Awareness Level

- Explain the influence of personal biases and assumptions on individual and organizational behavior.
- Explain how cultural, ethnic, and socioeconomic factors influence access to health care services.
- Describe the impact of culturally competent health care practices on individuals' access to health services, participation in health promotion and prevention programs, adherence to treatment plans, and overall health outcomes.

Performance Level

- Conduct personal and organizational self-assessments regarding cultural competence.
- Assess strengths of individuals and communities and respond appropriately to their needs based on sensitivity to and respect for their diverse cultural and ethnic backgrounds and socioeconomic status.
- Identify how to modify health services to meet the specific needs of a group or family, community, and/or population.
- Employ strategies to assure culturally-sensitive public health and health service delivery systems.
- Integrate cultural competency into programs, research, scholarship, and policies.

6. EMERGENCY PREPAREDNESS

General Description: Being prepared for emergencies is a continuous process of improving the public health system's capacity to detect, respond to, recover from, and mitigate consequences of disasters and emergencies, whether natural or man-made. An all-hazards approach to planning and program coordination is essential to build an integrated emergency response system to protect all residents of the Commonwealth.

Awareness Level

- Identify the principles of emergency planning
- Differentiate between disasters and emergencies
- Define core emergency preparedness competencies for the public health workforce³
- Name and interpret applicable laws, regulations, plans, and core system capacities necessary to respond to emergencies
- Explain emergency enforcement activities, due process procedures and privacy provisions
- Name relevant tools and equipment necessary to conduct inspections, investigations, or surveillance activities
- Describe under what circumstances the LHA needs to interface with the MA Department of Public Health and MA Emergency Management Agency

Performance Level

- Enforce applicable laws and regulations
- Become certified in incident command (ICS) and incident management (NIMS)
- Participate on the Local Emergency Planning Committee (LEPC)
- Maintain records and ensure privacy and due process
- Use proper inspection, investigation, and sampling equipment and tools
- Documenting inspection, investigation, and disease surveillance results
- Contribute to local emergency response plans
- Conduct research, assessing, and analyzing information and data
- Establish and maintain effective working relationships with co-workers, the public, municipal officials, community partners, and other governmental agencies

³ Public health preparedness and response competency sets are developed by CDC and ASPH and are available at <http://www.asph.org/document.cfm?page=1081>

7. HEALTH EDUCATION

General Description: Health education at the local level involves the design, delivery and evaluation of community health education programs.

Awareness Level

- Translate health-related information about social and cultural environments (including community needs and interests and societal value systems), for use in population-based, scientifically sound public health education programs.
- Identify and explain how factors including learning styles, literacy, learning environment, and barriers influence learning about health behaviors.
- Facilitate public health education for agency staff, administrators, volunteers, community groups and other interested personnel.

Performance Level

- Advocate for public health education programs and/or integration of public health components into education programs and school curricula for both youth and adults.
- Utilize social marketing to develop a plan for incorporating emerging topics (e.g., genomics) into health education programs by working with community organizations and other resource people for support and assistance in program planning.
- Demonstrate techniques to overcome social and cultural barriers in order to disseminate health and wellness information.
- Provide a critical analysis of current and future community public health education needs.

8. LEADERSHIP

General Description: The local public health workforce provides leadership in the delivery of the essential public health services by contributing to the development, implementation and monitoring of organizational performance standards.

Awareness Level

- Identify and actively support organizational mission and goals.
- Understand the need for forging relationships with appropriate community organizations, other departments, State partners and residents.
- Convey personal credibility.
- Support the organization's commitment to multiculturalism and diversity.

Performance Level

- Gain support and commitment from others and mobilize them to take action.
- Seek and meet challenging goals with measurable results and empower others to do the same.
- Identify and institute more effective and efficient ways of doing things and utilize technology to maximize leadership opportunities.
- Effectively manage transitions within the organization.
- Measure performance and encourage discussion of expectations and standards.
- Evaluate and align personal and managerial actions and priorities to achieve long-term organizational decisions.
- Strategically position the organization to most effectively support and develop healthy communities.
- Develop a vision for the organization and plan a future into which the organization can grow.
- Maximize the impact of leadership style and team leadership through processes of self-monitoring and self-reflection.

9. LEGAL ISSUES

General Description: The local public health workforce uses the legal system of federal, state and local governments to promote and protect the health of the public within the context of delivering essential public health services and responding to emergencies.

Awareness Level

- Describe the roles of federal, state and local governments in promoting and protecting the health of the public.
- Identify the direct sources of federal and state public health laws
- Describe authority and options for organizing, rule-making, issuing permits and setting fees.
- Identify legal enforcement options and situations when appropriate to seek legal advice.
- Identify and interrelate the ethical responsibilities of local public health practitioners.

Performance Level

- Know open meeting, public records, and other important public health laws.
- Explain enforcement options, including due process and equal protection procedures and emergency powers.
- Properly apply emergency powers and other enforcement tools.
- Prepare evidence for hearings and court cases including photographs, audio/video recordings and written reports.
- Properly store, disseminate and/or destroy public records.

10. PROJECT DEVELOPMENT, PLANNING, AND MANAGEMENT

General Description: To accomplish their mission, local public health organizations need to develop, plan, and manage projects and personnel.

Awareness Level

- Develop written plans for all significant undertakings that include goals, objectives, action steps, timelines, and fiscally responsible budgets, including expenditures, revenues, and external funding opportunities.
- Document and distribute the project plan.
- Update and revise the project plan as needed.

Performance Level

- Develop clear, complete statements of both product and project scope.
- Identify all community stakeholders who impact or are impacted by the proposed plan.
- Use available planning tools effectively to determine what the project will cost and how long it will take.
- Negotiate and develop contracts and other documents for public health services, including opportunities for external funding.
- Effectively recruit, retain and involve qualified public health staff to plan and implement projects.
- Monitor and evaluate programs for their effectiveness and quality.
- Engage in collective bargaining and tactical management practices.

Program Area Competencies for the Public Health Workforce

This section identifies the program area competencies that the local public health workforce in Massachusetts needs in order to effectively fulfill their mission of providing the three core functions and ten essential services of public health.⁴ This document can be used to assist with developing and delivering comprehensive training programs for the local public health workforce.⁵

The program areas included in this competency set, either mandated by state laws or regulations or commonly provided by local health agencies (LHA), include:

1. Air Quality
2. Animal Control
3. Body Art
4. Disease Case Management
5. Disease Surveillance, Investigation and Follow-up
6. Drinking Water
7. Food Protection
8. Hazardous and Medical/Biologic Waste
9. Health Promotion and Disease Prevention
10. Housing
11. Nuisance Control and Noisome Trades
12. Recreational Camps for Children
13. Recreational Waters
14. Solid Waste
15. Tanning Establishments
16. Vaccine Management
17. Wastewater

This section includes:

- Competencies required for each program area (distinguished at the Awareness and Performance level with designation by LHA position). Any training curriculum should ensure that these competencies are addressed for each specific program area.
- General description of each program area, and primary responsibilities (Table 1).
- Additional learning objectives specific to individual program areas that can assist with the identification of existing training programs and training gaps, and the development of a comprehensive training curriculum.

The Massachusetts Association of Health Boards Guidebook⁶ provides a detailed list of the responsibilities of LHAs. The Coalition for Local Public Health Toolkit⁷ contains documents and materials that highlight the official role local public health plays in maintaining safe and healthy communities, required duties, and related legal authority. The December 2009 *Manual of Laws and Regulations Relating to Boards of Health*⁸ describes the range of critical duties and activities related to the protection of public health and includes legal authority references.

⁴ <http://www.cdc.gov/od/ocphp/nphsp/EssentialPHServices.htm>

⁵ Certain program areas require **field training** to ensure minimal levels of performance, such as: Body Art, Food, Housing, Recreational Camps for Children, Recreational Waters, Tanning, and Wastewater.

⁶ Available to members at <http://www.mahb.org>

⁷ Available at <http://www.mhoa.com/clph/toolkit.htm>

⁸ http://www.mass.gov/Eeohhs2/docs/dph/emergency_prep/board_of_health_manual.pdf

Levels of Competency

- **Awareness** (What an individual knows): These attributes represent a basic level of knowledge and understanding. When training is complete, the individual should be able to describe, explain, identify, or recognize public health concepts.

Governing Bodies, and Heads of Local Health agencies should have an awareness competency level for each program area.

For each program area, AWARENESS level includes:

- Explaining the science, disease mechanisms, and public and environmental health control measures relevant to the specific program area
 - Identifying and interpreting applicable laws, regulations, and procedures
 - Explaining enforcement activities and due process procedures (licenses, permits, inspections, investigations, reinspections, correction orders, hearings, fines and penalties, emergency actions such as isolation and quarantine, court options)
 - Identifying appropriate inspection or investigation methods, frequencies and processes
 - Naming relevant tools and equipment necessary to conduct inspections, investigations, or surveillance activities
 - Recognizing agency staff performance standards (i.e. minimum education or credentials to perform the work)
 - Describing confidentiality and privacy rights of clients and patients
- **Performance** (What an individual can do): These attributes reflect a higher level of skill or ability. When training is complete, the individual should be able to demonstrate, develop, generate, implement or initiate to effectively contribute to the solution of public health problems.

Environmental Health Professionals and Public Health Nurses should have a performance level of competency if responsible for the specific program area; otherwise, they should have at least an awareness competency level.

For each program area, PERFORMANCE level includes:

- Enforcing applicable laws and regulations
- Maintaining records
- Using proper inspection, investigation, and sampling equipment and tools
- Documenting inspection, investigation, and disease surveillance results
- Providing due process until compliance is achieved
- Conducting research, assessing, and analyzing information and data
- Drafting local policies, regulations, and by-laws
- Developing, managing and evaluating all programs
- Establishing and maintaining effective working relationships with co-workers, the public, municipal officials, community partners, and other governmental agencies

Table 1 Description of Local Public Health Program Areas and Responsibilities		
Program Area	General Description	Primary Responsibilities
Air Quality	Protect the public and the natural and built environment from health risks and nuisance conditions resulting from air pollution sources	<ul style="list-style-type: none"> • Asbestos • Ice rinks (indoor) • Indoor air • Nuisance • Outdoor air
Animal Control	Prevent disease transmission from animals to humans and protect the environment from nuisance animals	<ul style="list-style-type: none"> • Animal Inspector nomination • Beavers • Rabies prevention • Stable (Keeping Animal) Regulations • Vector control • Wildlife control
Body Art	Protect the public's health by preventing diseases, specifically including, but not limited to transmission of hepatitis B and/or human immunodeficiency virus (AIDS)	<ul style="list-style-type: none"> • Tattoo establishments • Body piercing establishments
Disease Case Management	Assessment, planning, implementation and evaluation of patients to manage disease	<ul style="list-style-type: none"> • Tuberculosis control
Disease Surveillance, Investigation & Follow-up	Regular collection, monitoring, analysis and follow-up of data for control and prevention of disease	<ul style="list-style-type: none"> • Burial permits • Case Report Forms • Disease investigations • Isolation & quarantine
Drinking Water	Ensure safe and adequate water supplies are available and protect against potential water supply contaminants	<ul style="list-style-type: none"> • Aquifer and wellhead protection regulations • Floor drain regulations • Private well drilling • Private well regulations • Public water supplies
Food Protection	Protect the public from foodborne illness through prevention, intervention, rapid response and coordination with federal, state, and local stakeholders in the food safety system	<ul style="list-style-type: none"> • Foodborne illness investigations • Food establishment inspections and investigations • Permit issuance • Plan review (construction, HACCP),
Hazardous & Medical/Biological Waste	Protect the public and the environment from potential health and safety threats that may occur from exposure to hazardous medical, or biological wastes	<ul style="list-style-type: none"> • Hazardous materials regulations • Household hazardous waste collection • Right to Know • Sharps collection
Health Promotion and Disease Prevention	Promote healthy behaviors and administer programs to reduce risks, improve health, and increase the well-being of individuals, families, organizations, and communities	<ul style="list-style-type: none"> • Cancer education • Environmental tobacco smoke • Mosquito control • Obesity prevention • School Health • Youth access to tobacco
Housing	Protect the health, safety and well-being of the occupants of housing and of the general public, facilitate the use of legal	<ul style="list-style-type: none"> • Campgrounds • Dwellings (minimum

Table 1 Description of Local Public Health Program Areas and Responsibilities		
Program Area	General Description	Primary Responsibilities
	remedies available to occupants of substandard housing, assist boards of health in their enforcement of this code and provide a method of notifying interested parties of violations of conditions which require immediate attention	standards) <ul style="list-style-type: none"> • Hotels, motels • Lead paint • Mobile home parks • Subdivision control
Nuisance Control & Noisome Trades	Examine all nuisance, sources of filth and causes of sickness which may be injurious to the public health and conduct appropriate enforcement actions to eliminate the nuisance	<ul style="list-style-type: none"> • Investigations • Mosquito control
Recreational Camps for Children	Ensure the minimum housing, health, safety and sanitary protection for children in the care of recreational camps	<ul style="list-style-type: none"> • Inspections • Permit issuance
Recreational Waters	Protect the public health of those using beaches and swimming pools by establishing health, water quality, and safety standards	<ul style="list-style-type: none"> • Beach water quality testing and posting • Swimming pool inspections and investigations
Solid Waste	Provide for the protection of public health, safety, welfare, and the environment by requiring the proper siting, and maintenance of landfills and transfer stations and promoting composting and recycling	<ul style="list-style-type: none"> • Composting • Landfills • Recycling • Transfer Stations • Trash contracts
Tanning Establishments	Protect the public health and safety of customers and employees of tanning facilities that use ultraviolet radiation by establishing licensure procedures and requirements for maintenance and operations	<ul style="list-style-type: none"> • Inspections • Permit issuance
Vaccine Management	Protect the public by administering vaccinations and maintaining a vaccine distribution station (proper handling, storage, disposal, and record keeping)	<ul style="list-style-type: none"> • Maintain vaccine depot • Provide vaccines
Wastewater	Provide for the protection of public health, safety, welfare, and the environment by requiring the proper siting, construction, upgrade, and maintenance of on-site sewage disposal systems, the appropriate means for the transport and disposal of septage, and the proper operation of centralized sewer collection systems	<ul style="list-style-type: none"> • Inspections • Plan review • Soil evaluation

Additional Learning Objectives

1. AIR QUALITY

Awareness Level

- List sources of indoor and outdoor air pollution.
- Identify factors and conditions affecting indoor and outdoor air.
- Name health risks related to the source and type of pollution.
- Identify abatement measures and relevant authorities.

Performance Level

- Determine source, location, and extent of air pollutants.
- Conduct sampling and testing for air quality measures.
- Develop an emergency plan for communication during episodes of air pollution.
- Participate on municipal or district committees organized to monitor air quality or advise regulators on air pollution control policy.

2. ANIMAL CONTROL

Awareness Level

- Describe the behaviors, signs and symptoms of illness in domestic and wild animals.
- Identify governmental agencies available to address animal control issues.
- Explain the referral process to access those agencies.
- Refer to licensing and permitting requirements for domestic, farm and wild animals.

Performance Level

- Contribute to the study and understanding of zoonotic diseases by collecting animal specimens and documenting cases of disease.
- Summarize what constitutes a threat to human health and safety to alleviate threats caused by beaver and muskrat-related flooding.
- Initiate proper isolation and quarantine orders for suspected rabies cases in animals.
- Respond to complaints concerning rodent infestations in the community; work with pest control to alleviate same.
- Respond to resident complaints concerning wildlife issues; educate residents on peaceful co-existence.

3. BODY ART

Awareness Level

- Explain the mechanisms through which body art practices can contribute to disease transmission, illness, and injury.
- Identify qualifications of body art practitioners.
- Describe minimum sanitation and sterilization procedures.

Performance Level

- Assess compliance with blood-borne pathogen standards and proper infection control procedures.
- Evaluate proper use of equipment, supplies and body art techniques.
- Describe industry practices (i.e. use of inks and dyes) and equipment.

4. DISEASE CASE MANAGEMENT

Awareness Level

- Identify standards for Integrated Case Management.
- Define outcome measures.
- Identify standards and procedures for routine and timely reviews of case management plans
- Identify environmental factors that might contribute to disease and disease clusters.

Performance Level

- Identify standards and procedures for identifying pertinent data for inclusion in case records and reports.
- Identify protocols for conducting community-specific environmental health assessments.
- Design clear, concise action/service plans that address outcomes and incorporate measurable activities.
- Write summaries of assessment, case plan and other supporting data for the case record in a timely manner.
- Coordinate implementation of services.
- Evaluate effectiveness of services to meet desired outcomes.
- Modify case management plans as necessary.
- Identify criteria and procedures for effectively terminating a case.

5. DISEASE SURVEILLANCE, INVESTIGATION AND FOLLOW-UP

Awareness Level

- Define surveillance and case investigation.
- List the basic steps for surveillance and health event investigation including Massachusetts Virtual Epidemiologic Network (MAVEN).
- Name the different types of surveillance systems.
- Describe the flow of infectious disease surveillance data in Massachusetts and local responsibilities within the system.
- Differentiate between surveillance, monitoring and screening.

Performance Level

- Collect, monitor and analyze surveillance data.
- Determine what criteria are used to define a case.
- Institute appropriate disease control and prevention measures, including isolation and quarantine measures.

6. DRINKING WATER

Awareness Level

- Identify water quality-related nuisances or causes of sickness related to contaminated drinking water supplies.
- Distinguish between private and public water supplies.
- Describe the different types of wells.
- Describe key disinfection principles and methods.

Performance Level

- Identify, inventory and/or map all public and private water supplies in the community.
- Review plans for new development in water supply protection areas to ensure adequate environmental and public health safeguards.
- Identify methods to address contamination threats (such as floor drain regulations, programs to address illegal dumping).
- Develop emergency response plans to address both intentional and accidental water supply contamination.

7. FOOD PROTECTION

Awareness Level⁹

- Discuss the elements of an effective Food Protection Program.
- Describe the relationship and major food protection responsibilities of the three levels of government (federal, state and local).
- Summarize the relationship between the Massachusetts Food Code and the Food and Drug Administration (FDA) Model Food Code.
- Identify causes and prevention of foodborne illness.
- Compare and contrast Hazard Analysis and Critical Control Point (HACCP) and HACCP-based inspections.
- Describe when and how to collect food samples.
- Define Food Emergency Preparedness, Assessment and Response.

Performance Level⁹

- Describe the difference between risk factors and good retail practices.
- Explain the major hazards that contribute to foodborne illness and the difference between infections and intoxications.
- Interpret results of samples.
- Promote increased active managerial control of foodborne illness risk factors through education, science-based risk assessments, effective risk communication and performance-based standards for retail food programs.
- Conduct plan and operational reviews of new, remodeled and modified food operations.
- Conduct food safety risk and vulnerability assessments to identify contamination, both unintentional and intentional, and appropriate preventive and corrective measures.
- Conduct risk-based food inspections, sampling and surveillance to verify compliance with laws and regulations.
- Rapidly respond to imminent health hazard violations and conditions, when detected, to control and prevent foodborne illness/injury and the distribution of adulterated and/or misbranded food.

⁹ Additional competencies can be found in the FDA National Retail Food Regulatory Program Standards 2 – <http://www.fda.gov/Food/FoodSafety/RetailFoodProtection/ProgramStandards/ucm125038.htm> and in the National Environmental Health Association Job Task Analysis for the Certified Professional Food Safety credential -- http://www.neha.org/credential/CFSP_JA_Update.shtml

8. HAZARDOUS AND MEDICAL/BIOLOGICAL WASTE

Awareness Level

- Define hazardous, medical and biologic wastes.
- Describe exposure pathways and general health concerns for different types of hazardous waste.
- Identify key issues related to medical waste, household hazardous waste, and sharps and their disposal including transmission of disease, injury from chemical and physical hazards, and disposal issues.
- Identify all Sharps Collection Centers (including kiosks) within local jurisdiction.
- Define possible ramifications of the storage, use and transportation of hazardous materials in a community.

Performance Level

- Review state agency and utility company applications of pesticides to highways, utility easements, and near watersheds.
- Conduct site plan reviews to collect and establish chemical inventories of local facilities.
- Coordinate a Household Hazardous Waste Collection program.
- Conduct initial one-time inspection of identified Sharps Collection Center within jurisdiction to ensure that these Sharps Collection Centers maintain policies and procedures (including record-keeping) for the proper storage and transport of sharps for off-site treatment.
- Conduct inspections, if local regulations require, of locations where hazardous materials are stored and/or used.

9. HEALTH PROMOTION AND DISEASE PREVENTION

Awareness Level

- Explain mass communication theories related to health promotion planning, implementation and research.
- Explain the health system and broader systems that impact on health.
- Identify means for building capacity in health and other sectors.
- Discuss national and international developments in the health promotion field.
- Identify source data on the health needs of individuals, communities and populations.
- Identify behavioral, environmental and organizational factors that promote or compromise health.

Performance Level

- Determine priorities for health promotion from available evidence using regional, state and national data.
- Plan appropriate health promotion interventions based on theory and evidence.
- Formulate appropriate and measurable objectives.
- Involve community members and stakeholders in assessment, program planning and evaluation.
- Manage health promotion interventions.
- Evaluate and improve health promotion interventions.
- Communicate findings.

10. HOUSING

Awareness Level

- Describe specific health and safety threats within the home environment, at campgrounds and in mobile home parks.
- Identify key routes of exposure and their relationship to housing hazards.
- Identify populations at higher risk for housing-related disease and injury.
- Differentiate between lead inspections and lead determinations.
- Differentiate between deleading and renovation.
- Define integrated pest management.
- Describe the functioning of basic systems in a house.
- Name seven steps to a healthier home.

Performance Level

- Correctly cite responsible parties when necessary (such as property owners and/or occupants).
- Identify key points for the condemnation process.
- Monitor deleading work for proper handling and disposal of lead abatement wastes.
- Review subdivision plans.

11. NUISANCE CONTROL AND NOISOME TRADES

Awareness Level

- Describe the role and importance of local health in nuisance determination and control.
- Define and distinguish between a public nuisance and a private nuisance.
- Explain the importance of developing community-wide nuisance prevention and control strategies with a focus on education and voluntary compliance.

Performance Level

- Implement abatement strategies for effective nuisance control.

12. RECREATIONAL CAMPS FOR CHILDREN

Awareness Level

- Distinguish between children's programs that require permits and those that do not.
- List possible camp programs and applicable regulations (such as swimming pools and 105 CMR 435.000).
- Describe specific health and safety threats within the camp environment.
- Identify key routes of exposure and their relationship to camping hazards.

Performance Level

- Collaborate with other professionals necessary for camp health and safety inspections (e.g., building inspection, fire department, Criminal Offender Record Information (CORI) and Sex Offender Registry Information (SORI) Boards).
- Review injury surveillance and environmental data.

13. RECREATIONAL WATERS

Awareness Level

- Describe health and safety issues pertaining to swimming pools and bathing beaches.
- Explain the reasons why a swimming pool would be closed or a bathing beach posted "No Swimming Allowed."
- Define a beach posting and its limits regarding swimmers.

Performance Level

- Collect and transport water samples.
- Analyze water quality results.
- Conduct pool chemistry tests.
- Evaluate the swimming pool water circulation, disinfection, and filtration system.
- Calculate bather load and pool volume.
- Evaluate pool management and lifeguard qualifications.

14. SOLID WASTE

Awareness Level

- Evaluate the potential for adverse impacts from old dump sites based on size, location, age and type of materials disposed including the potential for hazardous materials disposal.
- Describe what action may be necessary to protect the public from further risk.
- Name public and environmental health tracking tools.

Performance Level

- Review plans for solid waste (landfill and transfer station) site assignment.
- Review contracts for solid waste and recyclable collection and disposal.
- Identify the locations of all old dumps and landfill sites, both public and private.
- Access and analyze public and environmental tracking tools.
- Assess the community's existing solid waste disposal, recycling, and composting arrangements and future needs.
- Develop long-term plans and alternatives for solid waste disposal, composting, and recycling.

15. TANNING ESTABLISHMENTS

Awareness Level

- Define tanning device.
- Describe health and safety issues pertaining to ultraviolet radiation.

Performance Level

- Review injury surveillance and environmental data.
- Review customer records and injury reports.

16. VACCINE MANAGEMENT

Awareness Level

- Explain how vaccination affects the process of immunity.
- Differentiate between the classification of vaccines.
- Explain how classification affects vaccine administration (live vs. inactivated).
- Describe the spectrum of adverse reactions that can occur after vaccination.
- List steps for response if an adverse event occurs.

Performance Level

- Manage vaccine depot including inventory, ordering processes and proper documentation, vaccine storage and handling.
- Utilize the Vaccine Management Business Improvement Plan (VMBIP).
- Operate vaccine and mass dispensing site clinics.
- Administer Standing Orders.

17. WASTEWATER

Awareness Level

- Differentiate between on-site and centralized sewer collection systems.
- Evaluate the potential for adverse impacts from failing on-site or municipal sewage disposal or collection systems.
- Name basic components of on-site sewage disposal (septic) systems.
- Describe conditions when innovative or alternative technology may be necessary for on-site sewage disposal systems.

Performance Level

- Witness and record deep observation hole and percolation test results.
- Evaluate estimated seasonal high groundwater elevation and soil type and characteristics.
- Determine suitability for the proposed sewage disposal system.
- Ascertain if the system design is consistent with state and local regulations.
- Review design, abandonment, and as-built plans.
- Issue Local Upgrade approvals.
- Approve or deny variance requests.

Appendix A

Process for Development of a Set of Local Public Health Competencies in Massachusetts

Local public health agencies in Massachusetts and throughout the U.S. provide a wide range of services to protect the public's health. To ensure more consistency across local public health agencies, in March 2006, the Local Public Health Institute of Massachusetts' Advisory Council established a subcommittee to develop a competency model and set of competencies. Additional support was provided by the Health Resources and Services Administration via the New England Alliance for Public Health Workforce Development and Boston University School of Public Health.

The subcommittee initially consisted of eight representatives of state and local health departments (Directors, Public Health Nurses, and Sanitarians), academia, and Institute vendor staff (Policy Studies Inc.). Membership in the subcommittee shifted over the years and five people remained active throughout the entire process. Many others contributed to the review process and are listed at the beginning of this report.

The first task of the subcommittee was to identify 1) the work that is done by local public health entities across Massachusetts, 2) those individuals who are doing the work, and 3) the legal and regulatory climate in which they were operating.

The next task was to gather information on existing competency sets and models that might pertain to local public health. These competency sets/models or sources of information included:

Association of Schools of Public Health Education Committee and Competency Development Project	http://www.asph.org/document.cfm?page=1083
Massachusetts Emergency Preparedness Competencies	http://www.masslocalinstitute.org/pages.aspx?p=32&c=14
Center for Law and the Public's Health	http://www.publichealthlaw.net/Training/TrainingPDFs/PHLCompetencies.pdf
Columbia University School of Nursing Center for Health Policy <i>Core Public Health Worker Competencies for Emergency Preparedness and Response</i>	http://www.phf.org/link/competenciesinformation.htm
Council of State and Territorial Epidemiologists Applied Epidemiology Competencies	http://www.cste.org/dnn/ProgramsandActivities/WorkforceDevelopment/Competencies/tabid/174/Default.aspx
Council on Linkages Core Competencies for Public Health Professionals	http://www.phf.org/link/competenciesinformation.htm
Environmental Health Competency Project	http://www.apha.org/programs/standards/healthcompproject/default.htm
Environmental Health Readiness Guide	http://ehopac.org/EHOREadinessGuide-final.pdf
Institute of Medicine: <u>The Future of Public Health</u>	http://www.iom.edu/en/Reports/2003/The-Future-of-Public-Health.aspx
Massachusetts Association of Health Boards Guidebook	http://www.mahb.org
National Association of Local Boards of Health	http://www.nalboh.org
Massachusetts Association of Public Health Nurses Leadership Guide	http://www.mapnh.org/index.php?option=com_docman&Itemid=78
National Commission for Health Education Credentialing Competencies for Health Educators	http://www.nchec.org/
Public Health in America Public Health Functions Project	http://www.health.gov/phfunctions/Default.htm

After review of these documents and reports, the subcommittee drafted a model for local public health competencies, based on specific programs within local public health agencies as well as a set of cross-cutting competencies. These competencies pertain to all of the following positions (defined in Appendix B):

1. Environmental Health Professionals
2. Governing Bodies
3. Heads of Local Health Agencies
4. Public Health Nurses

For each of these four positions, subcommittee members reviewed and selected competency sets for the position that they represented. In some cases, they modified competencies or created new ones to make them relevant to the Massachusetts public health system. The subcommittee established two levels of competency for this model:

- Awareness level (basic information), and
- Performance level (intermediate level of mastery, often involves applying a skill)

The draft competency model and sets were then compiled into one overall document, with some edits and revisions by the group. It was then sent to a number of representatives from various agencies, organizations, and associations for further review. This group included the Local Public Health Institute of Massachusetts' Advisory Council, Massachusetts Department of Environmental Health, Massachusetts Department of Public Health, Coalition for Local Public Health member organizations (MAHB, MAPHN, MEHA, MHOA, MPHA), Boston University School of Public Health, Harvard School of Public Health, and University of Massachusetts Lowell. Representatives from these groups provided feedback on the overall model and specific competencies, and identified key competencies that were missing. Feedback from this group was incorporated into an updated document.

As part of the iterative review process, in March 2008 the subcommittee began working jointly with Rob Schadt, Ed.D., Director of the Office for Teaching, Learning, and Technology at Boston University School of Public Health, to refine the model and competency sets. The subcommittee also developed **recommended** qualifications for the four main positions in the local public health workforce whose primary focus is to promote health and prevent disease for entire population groups (see Appendix B).

The final product of the subcommittee's work is a consolidated list of:

Nine interdisciplinary, Cross-Cutting Competencies:

- | | |
|---|--|
| 1. Advocacy | 6. Health Education |
| 2. Analysis, Problem Solving, and Risk Management | 7. Leadership |
| 3. Communication | 8. Legal Issues |
| 4. Community/Public Health Assessment | 9. Project Development, Planning, and Management |
| 5. Cultural Competence | |

Eighteen specific Program Area Competencies

- | | |
|--|---|
| 1. Air Quality | 10. Health Promotion and Disease Prevention |
| 2. Animal Control | 11. Housing |
| 3. Body Art | 12. Nuisance Control and Noisome Trades |
| 4. Disease Case Management | 13. Recreational Camps for Children |
| 5. Disease Surveillance, Investigation & Follow-up | 14. Recreational Waters |
| 6. Emergency Preparedness | 15. Solid Waste |
| 7. Drinking | 16. Tanning Establishments |
| 8. Food Protection | 17. Vaccine Management |
| 9. Hazardous and Medical/Biologic Waste | 18. Wastewater |

In 2010, the competency model and sets were finalized and presented to the newly formed Local Public Health Institute of Massachusetts' Advisory Committee to begin identifying training programs (and gaps in training) that address these competencies. The lack of standardized field training for many of the program areas has been identified as a major concern and should be a priority for new course development. After discussion with the Advisory Committee, the competency sets were

revised in October 2010 and again in 2010 to reflect the current version with 10 cross cutting competencies and 17 Program Areas.

Appendix B

Recommended Qualifications for the Four Main Positions in the Local Public Health Workforce in Massachusetts

This document identifies **recommended** qualifications for the four main positions in the local public health workforce (in alphabetical order).

1. Environmental Health Professionals
2. Governing Bodies
3. Heads of Local Health Agencies
4. Public Health Nurses

1. ENVIRONMENTAL HEALTH PROFESSIONALS

Defined as: health inspectors, sanitarians, code enforcement officers, compliance officers, and environmental health specialists

Recommended Qualifications

- Bachelor's degree with a science concentration **AND**
 - Registered Sanitarian/Registered Environmental Health Specialist (RS/REHS) credential
- OR**
- Associate's or Bachelor's degree with science concentration **AND**
 - Registered Environmental Health Technician (REHT) credential

Note: Additional certifications and/or credentials may be required, based on job responsibilities and regulations (Certified Food Safety Professional (CFSP), Certified Food Manager, Certified Pool Operator (CPO), Healthy Homes Specialist (HHS), Lead Determination Inspector, Lead Inspector, Septic System Inspector, Soil Evaluator)

2. GOVERNING BODY

Defined as: elected and appointed Board of Health members, health commissioners, or legally designated health authorities

Recommended Qualifications (also check City or Town Charter)

- Two to three years relevant work experience **AND**
- Training in legal issues and roles and responsibilities (such as MAHB Orientation course, MAHB Advanced courses, or Foundations for Local Public Health Practice course)

Preferred: College degree with a science, environmental or public health concentration

Note: Other advanced degrees (i.e. DVM, MD, MPH, MS, MSN) could be substituted for relevant work experience

3. HEAD OF THE LOCAL HEALTH AGENCY (LHA)

Defined as: directors, health agents, health officers, or other administrative heads designated by the governing body

Recommended Qualifications

- Bachelor's degree with a science, environmental or public health concentration **AND**
- Five years of public health or other relevant experience **AND**
- Registered Sanitarian/Registered Environmental Health Specialist (RS/REHS) credential

Preferred: Professional Certification in leadership, management, or administration (such as MA Certified Health Officer (CHO), National Certified Public Health Administrator, Public Health or Environmental Health Leadership Institute)

Note: Other advanced degree (i.e. DVM, MD, MPH, MS, MSN) could be substituted for two years of relevant work experience

4. PUBLIC HEALTH NURSE

Defined as: a nursing professional with educational preparation in public health and nursing science with a focus on population-level outcomes

Recommended Qualifications

- Graduation from an accredited school of nursing; BSN required **AND**
- Current Registered Nursing License active and in good standing **AND**
- Three to five years public health and/or community health experience

Preferred: American Nurses Credentialing Center (ANCC) certification or certification in Public Health (CPH)

Notes: Other advanced degree (i.e. MS, MSN, MPH) could be substituted for two years of relevant work experience.