

## Executive Summary

**Introduction:** Since January of 2010, the Boston University School of Public Health (BUSPH) has held the contract for and managed the Local Public Health Institute (LPHI) of Massachusetts (MA). With support from the MA Department of Public Health (MDPH), the LPHI staff works with the LPHI Advisory Committee to pursue the LPHI mission: *To provide and ensure a competent workforce by strengthening and sustaining the capacity of local boards of health to prepare for and respond to public health issues and emergencies and to promote the health of residents of the Commonwealth.* This report describes the LPHI's progress during fiscal year (FY) 2017 (July 1, 2016-June 30, 2017). Below is the description of the LPHI evaluation methodology used to inform the annual report, as well as a summary of the major accomplishments of the LPHI during the reporting period and recommended next steps. This report focuses primarily on data-driven areas of training provided, as this is one of the primary areas of effort of the LPHI in strengthening and sustaining the capacity of local boards of health, but is not exhaustive in its reporting of all of the efforts by the LPHI to increase this capacity.

**Methodology:** The LPHI evaluator and LPHI management team devised several data collection and tracking mechanisms to measure progress toward LPHI objectives, including: (1) standardized training evaluations in paper and web-based formats; (2) administrative tracking by the LPHI Program Manager; (3) web-based tracking of online module utilization; and (4) brief qualitative interviews with training completers to assess the impact of LPHI training on workplace/job performance.

**FY17 Accomplishments:** The LPHI had a productive year and was successful in advancing work on its program objectives through its partnerships, needs assessment, training, and marketing and communications. Highlights of the FY17 accomplishments include:

- **Partnerships:** Successful collaboration with the Local State Advisory Committee, Boston Public Health Commission, Bureau of Environmental Health at the Massachusetts Department of Public Health (DPH), the DelValle Institute, the New England Public Health Training Center (NEPHTC), the Coalition for Local Public Health (CLPH), and the LPHI's existing and new Fellows helped the LPHI to advance its understanding of training needs among local health practitioners and to deliver multiple trainings.
- **Needs Assessment:** An assessment conducted with the LSAC and its education subcommittee provided feedback on areas in which the LPHI is excelling (e.g., reaching its target audience, accessibility/responsiveness to users, value to the local public health workforce, and project management) and offered assessment information that will be useful to the LPHI's FY18 planning.
- **Training:** LPHI training reached over 900 unduplicated users and addressed all 17 program areas, 10 cross-cutting, and four emergency preparedness competencies. Across all trainings, the LPHI engaged practitioners from all the Health and Medical Coordinating Coalition regions and all types of professionals within its target audience. Specific training successes include the following:
  - The *On Your Time Trainings*<sup>1</sup> were completed by 887 individuals, a 7.25% increase over FY16. In all, 2,170 trainings were completed using *On Your Time trainings*, a 21.2% increase over FY16. Additionally, there were 8,211 hits to the online trainings (a 32.9% increase over FY16), which indicates increased use of the trainings as reference materials. Thirty-three individuals earned a certificate for completing all 11 trainings that make up the Public Health Core Certificate. Two new trainings (Food Code Overview and Food Code Summary of Standards) were developed from the existing "Food Protection for Regulators" training and added to the *On Your Time* series. Twenty-four modules underwent comprehensive review to ensure their content (e.g., regulations, best practices) is up-to-date, to update them to a new template,

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create “Job Aids” (2 page take-aways that highlight the most relevant information from the training), and to make them Americans with Disabilities Act/508 compliant.

- The 37 graduates of the *Foundations Course*<sup>1</sup> were satisfied with the course and feel their understanding of the subject matter increased as a result of the training. The course has had a positive impact on their job performance as well, including increasing their confidence in their knowledge and skills and preparing them to perform various aspects of their work better, including responding to the needs of a range of stakeholders.
- 32 practitioners completed the classroom training portion of the *Massachusetts Public Health Inspection Training Housing Certificate Program (MAPHIT Housing)*.<sup>1</sup> Evaluation results indicate that trainees were satisfied with various aspects of the training and the training increased their knowledge about the subject matter.
- Fifty trainees completed the *Managing Effectively in Today’s Public Health Environment Training (Management Course)*<sup>1</sup> and were satisfied with various aspects of the course and the course overall. Evaluation data also showed significant increases in trainee knowledge as a result of the training. The course was awarded the 2017 Network Member Impact Award from the National Network of Public Health Institutes.
- The LPHI collaborated with DelValle to deliver three *Emergency Risk Communication in Practice* trainings to 51 individuals. LPHI was responsible for administering and evaluating one of the sessions in which 15 trainees indicated that they were satisfied with the training, their knowledge improved as a result of training, and they had identified actions for applying what they learned to their work.
- The LPHI organized three sessions for the *Annual MHOA conference*. The 68 people who participated in a session on Managing Challenging Behaviors and 80 in the Active Shooter Incidents session rated the trainings as satisfying and having influenced their knowledge. The third session, America’s Prep Plans, was attended by 49 people whose session ratings were lower and indicate a need for quality improvement should this session be offered again.
- The LPHI, in conjunction with the Office of Preparedness and Emergency Management (OPEM) of the Massachusetts Department of Public Health, created and produced a second training certificate for the local public health workforce: The Emergency Preparedness Training Certificate. The Emergency Preparedness Certificate was developed for staff and volunteers from municipal or state agencies across Massachusetts who are responsible for public health emergency preparedness and response activities. It involves successfully completing 16 self-paced trainings totaling 36 hours of study and a final, culminating exam to receive a training certificate.
- **Communications and Marketing:** The LPHI utilized e-newsletters, informational email marketing, training flyers, tailored training information cards, and an online training calendar and downloadable event calendar to promote LPHI’s offerings. LPHI staff also attended four annual conferences and several partner meetings to share information on the LPHI and its work, and disseminated reports and updates to DPH.

**Recommendations:** The LPHI should build upon its successful partnerships, needs assessment, training, and communications and marketing efforts and: (1) Review recommendations offered via the needs assessment with LSAC and in the evaluation reports for the Foundations Course, MAPHIT, and the Management Course and consider whether and how to address them in FY18 and beyond; and (2) Pursue plans to market the *On Your Time* trainings to Boards of Health (as planned for FY18) and conduct additional marketing to Region 1 practitioners.

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<sup>1</sup> For more detail on evaluation findings related to these trainings, see individual training evaluation reports.

## I. Introduction:

Since January of 2010, the Boston University School of Public Health (BUSPH) has held the contract for and managed the Local Public Health Institute (LPHI) of Massachusetts (MA). With support from the MA Department of Public Health (MDPH), the LPHI staff work with the LPHI Advisory Committee to pursue the LPHI mission: *To provide and ensure a competent workforce by strengthening and sustaining the capacity of local boards of health to prepare for and respond to public health issues and emergencies and to promote the health of residents of the Commonwealth.* In order to achieve the LPHI's six program objectives (See logic model in Appendix A), the LPHI carries out work in four areas: (1) Partnerships, (2) Needs Assessment, (3) Training, and (4) Communications and Marketing. To simplify the reporting process and increase utility for quality improvement, this report is organized around those areas of work rather than the six problems addressed by the LPHI (i.e., the format used in previous annual reports). The report covers the period of July 1, 2016 through June 30, 2016 (i.e., FY17). For more information about any of the educational offerings or documents referenced in this report, contact the LPHI Project Manager at [lpbi@bu.edu](mailto:lpbi@bu.edu) or (617) 638-8920.

## II. Methodology:

The LPHI evaluator and LPHI management team devised several data collection and tracking mechanisms to measure progress toward LPHI objectives and desired outcomes. Below are descriptions of those utilized to inform this report.

- **Standardized training evaluation forms:** All LPHI-supported trainings must include an evaluation component. Whenever possible, such evaluations include pre/post quiz questions to assess the extent to which students acquired knowledge as a result of training. The evaluations also assess trainee satisfaction with several aspects of training. Evaluations are self-administered with trainees either completing them on paper or online.
- **Administrative tracking:** The project manager routinely tracks data related to the size and composition of the Advisory Committee and its meetings, the number and types of trainings and demographics of training participants, the number and types of collaborating partners, the number of trainings with a distance education component, and the status of the communications and marketing plan, including the number of newsletters.
- **Online training evaluations:** Google Analytics is used to track unique and returning hits to the *On Your Time Training's* webpage. Trainees who wish to obtain a certificate of completion and contact hours for use of the online trainings may do so online as well.
- **Key informant interviews:** Brief telephone interviews and a survey were conducted with completers of the Foundations Course to assess the impact of the training on workplace/job performance.

Quantitative analyses are conducted using SPSS or Excel and thematic analysis is conducted with qualitative data. For more detail on any of the data sources described above or related evaluation documents, contact the LPHI evaluator at [hopewk@comcast.net](mailto:hopewk@comcast.net).

### III. Findings:

#### A. Partnerships

Partnerships with public health partners are essential to achieving two important LPHI outcomes: (1) *Ensuring that the LPHI trainings and programs are aligned with the learning priorities of the LPH workforce and are of high quality*; and (2) *increasing educational offerings and collaborative projects*. These partnerships are critical to strengthening the capacity of the current local public health (LPH) workforce, building the capability and skills of the future workforce, and enabling the LPHI multiply both its reach and impact. Additionally, the LPHI Fellows Program recognizes the important contributions of public health practitioners to the field and encourages their support of the LPHI and its educational offerings.

##### 1. Organizational partners

The LPHI's primary FY17 partners are described below, including how their partnership with LPHI contributed to the LPHI's progress.

##### **The Activist Lab at Boston University School of Public Health**

Housed within the Activist Lab, the LPHI enjoys the unique benefits associated with being part of an Academic institution. Longstanding partnerships with LPH practitioners, instructors, and thought leaders are in large part responsible for the high quality of the trainings the LPHI develops and delivers. Additionally, the Activist lab sponsors two students to be Fellows (not to be confused with LPHI Fellows), who worked in areas of importance to local public health in Massachusetts: one was placed with the Office of Local and Regional Health working on their regionalization/shared services project, the second addressing the issue of gun violence and organizing focused discussions and panels, and other work around this topic. The Activist Lab also holds a yearly event titled "Pathways to Governmental Public Health". This event brings together experienced practitioners in public health in Massachusetts from the local, city and state level to engage with Master of Public Health students about their work in governmental public health and their path to that work. This is especially critical as a large proportion of the public health workforce in Massachusetts is set to retire in the next few years.

**The Local State Advisory Committee (LSAC)** is an advisory body to the Commissioner of the Massachusetts Department of Public Health (MDPH) on public health emergency preparedness. Since 2013, the 30-member LSAC has served as the Advisory Committee for the LPHI. In FY17, the LPHI staff met with LSAC twice (September 2016 and January 2017) to report on LPHI progress and submitted eight program updates. The LPHI works closely with LSAC's Education Subcommittee to inform its program planning. In 2017, the LPHI had five meetings with the Education Subcommittee, all via teleconference. Finally, in March of 2017, the LPHI conducted an assessment to understand LSAC members' views about the LPHI's reach, accessibility and responsiveness, value, management, Fellows Program, and future offerings. The findings from this assessment are described under *Needs Assessment* (See section IIIB).

**The Boston Public Health Commission (BPHC)**, an independent public agency providing a wide range of health services and programs to the City of Boston, has a mission to protect, preserve, and promote the health and well-being of all Boston residents, particularly those who are most vulnerable. In FY17, the BPHC partnered with the LPHI in the delivery of the Managing Effectively in Today's Public Health Environment course. Two BPHC instructors participated in delivering course content. Additionally, BPHC

engaged 30 of its staff in the course, organized group webinar viewings for the BPHC course participants, and held hour-long group discussions following each session to identify how the content applied to their work at the BPHC. Evaluation data for the Management course is offered under *Training* (see section IIIC).

**The Bureau of Environmental Health (BEH), MDPH**, has a broad mission of protecting the public health from a variety of environmental exposures. The BEH responds to environmental health concerns and provides communities with epidemiologic and toxicological health assessments. In FY17, the BEH partnered with the LPHI in the delivery of the Massachusetts Public Health Inspector Training (MAPHIT) Housing Certificate Program. BEH staff served as subject matter experts and instructors in the course. Evaluation data for the MAPHIT Housing course is provided in the *Training* section of this report (See IIIC).

**The Coalition of Local Public Health (CLPH)** consists of public health organizations dedicated to advocating for the resources needed to promote healthy communities in Massachusetts through strong Boards of Health and Health Departments. Its organizations represent over 3,000 citizens and professionals interested in supporting the Commonwealth's local health infrastructure. The five member organizations are:

- Massachusetts Association of Health Boards (MAHB)
- Massachusetts Association of Public Health Nurses (MAPHN)
- Massachusetts Environmental Health Association (MEHA)
- Massachusetts Health Officers Association (MHOA)
- Massachusetts Public Health Association (MPHA)

In FY17, the LPHI worked with all of these different organizations in ways related to their areas of expertise or interests to their members. Examples of this cooperation include: working with the Executive Committee and outreach to the Chapters of MAPHN to increase knowledge and utilization of our educational programs and interfacing with the MHOA to coordinate the delivery of blended courses including Management, Foundations and MA PHIT Housing. Additionally, several of these organizations provided financial support to the LPHI, allowing us to deliver blended training courses for lower costs to local health practitioners. These costs have previously been identified as a barrier to local public health in being able to take trainings as many local health departments do not have a budget which could allow for this. Lastly, all member organizations of the CLPH were involved in dissemination of the LPHI newsletters and event emails, and their education programs of value to the local public health workforce were represented in both the online and 'at a glance' calendars maintained by the LPHI.

**The DelValle Institute for Emergency Preparedness**, founded in 2003, is a training institute with a mission to enhance community resilience in order to prepare for, respond to, and recover from emergencies that impact health and access to healthcare. The DelValle Institute links the latest research and guidance with best practices in the field to deliver high-quality, skills-based preparedness and response education for healthcare and public health practitioners and their public safety partners. In FY16, the LPHI Program Manager and a DelValle staff member attended a risk communications training at the Centers for Disease Control and Prevention. In FY17, the LPHI and DelValle worked together to update the existing LPHI Emergency Risk Communications in Practice (ERCIP) training and co-taught the course three times during FY17. Evaluation data for the ERCIP course is provided in the *Training* section of this report (see 3C).

**The New England Public Health Training Center (NEPHTC)** is funded by the Health Resources and Services Administration and has a mission to strengthen the technical, scientific, managerial, and

leadership competencies of the current and future public health workforce in New England to ensure regional capacity to deliver high quality essential public health services. Like the LPHI, the NEPHTC is managed by the Boston University School of Public Health (BUSPH). With both public health training centers located under one roof, the LPHI and NEPHTC are able to leverage resources to meet the training needs of the local public health workforce. In FY17, the LPHI and NEPHTC developed a train the trainers (ToT) program for public health organizations to provide management training to their staff in-house. The ToT program provides a series of recorded webinars and background materials that can be adapted by organizations to meet the needs of their staff and organization.

## 2. The LPHI Fellows Program

The LPHI Fellows Program allows the LPHI to bring established and respected individuals within the MA State and local public health workforce to support the mission and goals of the LPHI by giving them opportunities to further engage in training opportunities, acting as instructors or Subject Matter Experts in the varied programs hosted by the LPHI, and to further interact with current public health students. LPHI Fellows agree to ‘adopt’ one or more *On Your Time* trainings of which they have subject matter expertise. They then perform yearly reviews on the material contained and updating any necessary parts in collaboration with the LPHI and its Instructional Designers. Each year since 2012, the LPHI has inducted new members into the LPHI Fellows Program, which currently has 29 members.

In FY17, at the Management Program graduation, three new Fellows were inducted into the program. They are:

- Rae Dick, BS, Health Agent, Westford Health Department
- Sue Rosa, RN, BSN, Deputy Director/Manager of Healthcare Services, Chelmsford Board of Health
- Sam Wong, PhD, REHS/RS, Director of Public and Community Health Services, Hudson Health Department

## B. Needs Assessment

LPHI trainings are designed to improve the 17-program area and 10 cross-cutting competencies identified by the Council on Linkages as critical for public health practice. Additionally, LPHI trainings address four emergency preparedness competencies. A first full draft of an LPHI competency report was completed in February of 2010 and an inventory of existing trainings and a gap analysis were completed in July 2010. Since then, LPHI staff have been cross-walking LPHI offerings with the competencies to ensure that LPHI resources are being used to address the competencies needed by the LPHI workforce. The trainings provided by the LPHI in FY17 covered all 31 competencies. Although all of the competencies are addressed through the LPHI’s current offerings, the LPHI continues to assess the training needs of the local public health workforce to achieve the outcome of *improved understanding of the training needs of local public health, as well as the training that exist and those that are needed*. To that end, trainees are routinely asked to provide information about desired training topics for future trainings on their session evaluation form. In this way, the LPHI is able to track the needs and interests of those engaged in training.

In FY17, the LPHI completed an assessment with LSAC members, who are charged with advising the LPHI, to assess the LPHI’s reach, accessibility/responsiveness, value, and program management. The assessment also sought feedback on the LPHI Fellows Program and recommendations for training quality improvement. The LPHI evaluator interviewed the LSAC Chairman and five of the six members of



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LSAC's Education Subcommittee and conducted an online survey to which 20 of LSAC's 30 members responded (a 66.6% response). The *Assessment of the Local Public Health Institute: Report of Local State Advisory Committee Feedback* provides detailed assessment findings, including the demographics of the participants. In summary, the assessment found the following:

- **Reach:** The LPHI reaches its target audience of the range of local public health practitioners in each Health and Medical Coordinating Coalition (HMCC) region of Massachusetts, as well as people who are newer to public health and senior practitioners who use the LPHI to “refresh” their knowledge.
- **Accessibility/responsiveness:** The LPHI's online trainings are easy to access and are “user-friendly.” The blended trainings, which are in high-demand and fill quickly, are more challenging to access because the classroom components are scheduled and require travel. Although the LPHI trainings are responsive to the training needs of local public health, there was a call to ensure existing and new trainings are as applicable to small towns as they are to larger communities.
- **LPHI Value:** The LPHI is considered a “one stop shop” for public health trainings that are specific to MA regulations. The LPHI lifts a significant burden for training off the resource-constrained local health departments and arms new practitioners with what they need to know. The LPHI's variety of on-demand training is useful for board of health members who are looking for knowledge about what their agents enforce and regulate in local communities. LPHI's emergency preparedness trainings are considered comprehensive and accessible. The LPHI has been an important partner in realizing the National Association of City and County Health Officials' and MDPH's and focus on workforce development.
- **Fellows Program:** The LPHI Fellows program is an honor and valuable way of recognizing the contributions of local public health practitioners, but the program requirement that training be completed within three years is considered onerous. Thus, there was a call to review the purpose of the program and to modify the requirements and application accordingly and this has been incorporated as part of the FY'18 work stream.
- **Management:** The LPHI is well-managed by BUSPH, is responsive to the training needs in the field, and does a good job of coordinating and communicating with LSAC, providing technological support to trainees, and engaging subject matter experts in creating trainings and ensuring trainings are up-to-date. BUSPH's productivity was described as especially impressive given the limited resources available.
- **Future initiatives:** If additional resources were available, recommended future LPHI initiatives might include such things as serving as a resource center for curated tools and resources for local health practitioners; offering training and job aids to address communication challenges, cultural barriers, and mental health issues; additional performance level training for managers; training on emerging diseases, water quality, private water supplies, customer service/effective communication; more emergency preparedness and Incident Command training; and a mentoring program.

Based on the FY17 assessment, the evaluator provided the LPHI with a range of recommendations which the LPHI Program Manager is reviewing and addressing at part of the LPHI's FY18 planning.

### C. Training

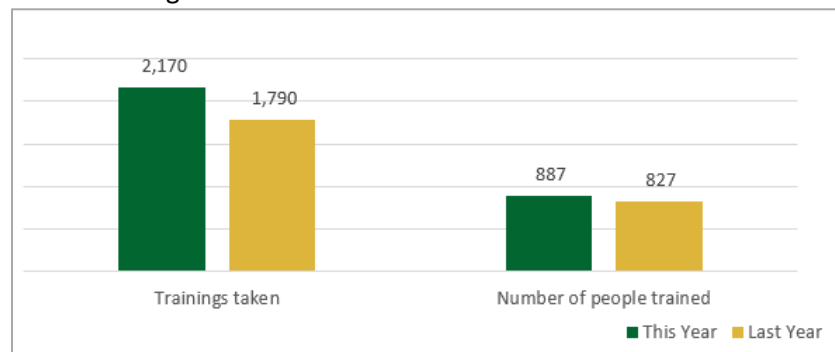
The LPHI provides a range of training programs to achieve the outcome of *an increase in the number of local public health workforce members trained on cross-cutting, program area, and emergency preparedness competencies*. Additionally, the LPHI has focused on distance education to achieve an

*increase in participation in LPHI offerings across all regions.* In FY17, the LPHI delivered training to 908<sup>2</sup> unduplicated individuals through four blended (online and classroom) trainings and through 46 *On Your Time* online, self-paced trainings. The FY17 trainings cover all 17 program area competencies and 10 cross-cutting competencies, as well as the four emergency preparedness competencies. Below, the utilization and outcomes data associated with the *On Your Time* trainings and the blended trainings are detailed.

### 1. *On Your Time* Trainings

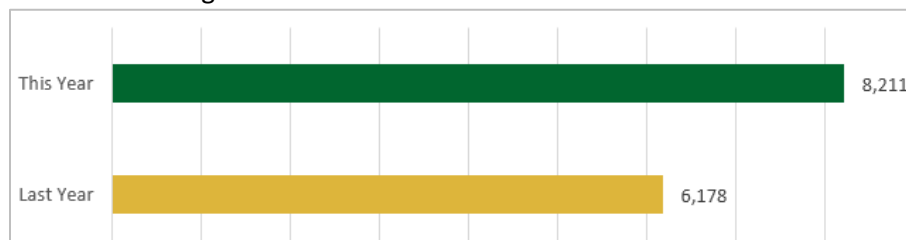
In FY17, 887 individuals completed 2,170 trainings through the *On Your Time* trainings, a 7.25% increase in the number of individuals trained and a 21.2% increase in online trainings utilized in FY17 vs. FY16 (See Figure 1).

**Figure 1.** FY17 vs. FY16 Training numbers



In addition to their value as trainings, the online trainings can also be used by public health practitioners for reference purposes. For example, rather than completing an entire online training module and the evaluation components, a practitioner may log in to find specific information he/she needs. As shown in Figure 2, in FY17, there were 8,211 such “hits” to the online trainings compared to 6,178 in FY16 (a 32.9% increase).

**Figure 2.** *On Your Time* Trainings Accessed FY17 vs. FY16



Just under 88% of *all* of those who completed the trainings self-identified as working in one of the Commonwealth’s HMCC regions. The other 12.2% are those with no HMCC affiliation (e.g., students, state employees) or who are outside of Massachusetts (See Figure 3).

<sup>2</sup> 36 individuals engaged in two DelValle-led ERCIP sessions and the LPHI chaired sessions at MHOA. Because names of trainees are not available, they cannot be included in the unduplicated count. The actual count may be higher than offered here.

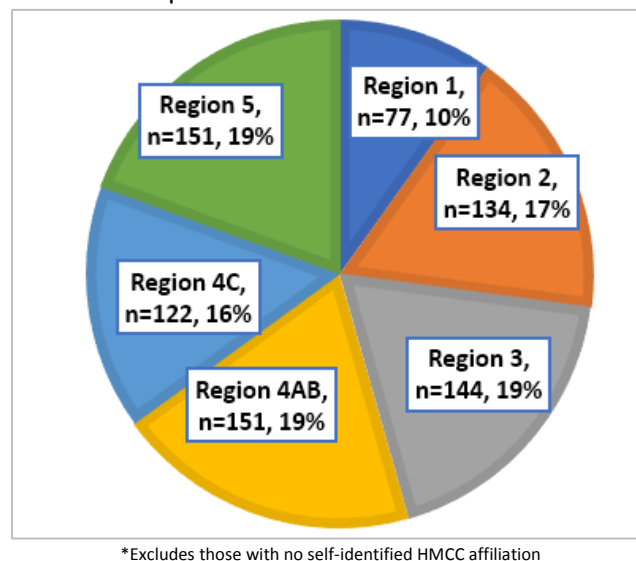


**Figure 3.** Regional representation of module completers (n=887)

Region:	#	%
Region 1: Western	77	8.7%
Region 2: Central	134	15.1%
Region 3: Northeastern	144	16.2%
Region 4AB: Greater Boston and MetroWest	151	17.0%
Region 4C: City of Boston	122	13.8%
Region 5: Southeastern & Cape Cod	151	17.0%
Other	108	12.2%

Utilization *among those with an HMCC self-identification* (i.e., not including “others”) shows that, in FY17, practitioners from all regions of Massachusetts completed online trainings. As shown in Figure 4, the use was fairly equivalent (between 16% and 19%) in regions 2 through 5. The lowest utilization was in Region 1, the western most part of the state. The LPHI may want to consider additional marketing of the trainings to practitioners in HMCC Region 1 and, as part of future needs assessment efforts, ensure that the constellation of trainings meet the needs of practitioners in the region.

**Figure 4:** HMCC region of Module Completers



As shown in Figure 5, range of practitioners completed *On Your Time* trainings in FY17 (See appendix B for more in-depth description of these categories). Utilization of the trainings for training was highest among private industry (35.4%) and lowest among Board of Health members (.23%).

The assessment conducted with LSAC members (see IIB) suggested that the LPHI’s variety of on-demand training has utility for board of health members so they can understand what their agents enforce and regulate in local communities. In FY18, the LPHI will include information about LPHI trainings in “welcome packets” that DPH will disseminate to new Board of Health members and staff across the Commonwealth.

**Figure 5. Professional roles of On Your Time training completers (n=887)**

Roles:	#	%	Roles	#	%
Admin Assistant	7	0.8%	Private Industry	314	35.4%
Administrator/Clerk	21	2.4%	Program Managers	42	4.7%
BOH Member	2	0.2%	Public Health Coordinators	31	3.5%
Local Health Director/Agent	44	5.0%	Public Health Nurse	45	5.1%
EH Inspector/Specialists/Sanitarians	75	8.5%	Public Safety	3	0.3%
Healthcare	36	4.1%	School Nurse	18	2.0%
Inspectional Services & other depts.	18	2.0%	Social Services	5	0.6%
MDPH	13	1.5%	Students	190	21.4%
Other	23	2.6%			

Individuals from private industry made up just over 35% of those who completed On Your Time trainings in FY17. Although these trainees are not employed in governmental public health, the LPHI's primary target audience, providing high quality training to these groups contributes significantly to furthering the goals and objectives of the LPHI. From registration information and lists of courses taken, it is apparent that a large number of trainees from private industry are working as public health consultants, contracted inspectional service providers, and engineers involved with Title 5/sanitary systems, whereas others are operating and/or providing customer support for tanning salons or booths. Increasing the skills and knowledge of these "allied" professionals enables them to support the public health of residents in towns and cities across the Commonwealth and may also reduce the burden of inspections and/or enforcement work on an already over-extended public health workforce.

Students also comprise a large segment of On Your Time training completers. The category includes public health students (at both graduate and undergraduate levels), Nursing students (Public Health and healthcare) and Interns working at local public health agencies. As a result of completing these trainings, the students have an increased awareness of public health concepts and goals, improved knowledge and skills (that may not otherwise be taught in their curriculum), and increased preparedness for the local public health workforce upon graduation. Preparing a next generation of local health practitioners is of particular import as a large proportion of the existing workforce in Massachusetts will retire over the next few years.

In FY16, the LPHI launched a bundled certificate program titled the Public Health Core Certificate, which offers core content to new governmental public health staff or board members, those with no formal public health education, or those who want a refresher course. The Public Health Core Certificate consists of 11 *On Your Time* trainings: the Orientation to Local Public Health in MA, Public Health Law and Legal Issues in MA, Emergency Preparedness in MA; three environmental health trainings (Food Protection for Regulators, Housing, and Nuisance Control and Abatement) and five population health trainings (Affordable Care Act and Local Public Health, Disease Case Management, Health Promotion and Disease Prevention, Immunization, and Surveillance of Infectious Diseases). In FY17, 33 individuals completed the Public Health Core Certificate.

In FY17, the LPHI, in conjunction with the Office of Preparedness and Emergency Management of the Massachusetts Department of Public Health, created and produced a second training certificate for the local public health workforce: The Emergency Preparedness Training Certificate. The Emergency

Preparedness Certificate was developed for staff and volunteers from municipal or state agencies across Massachusetts who are responsible for public health emergency preparedness and response activities. It involves successfully completing 16 self-paced trainings totaling 36 hours of study and a final, culminating exam to receive a training certificate.

In FY17, two new trainings (Food Code Overview and Food Code Summary of Standards) were developed from the existing “Food Protection for Regulators”. Also in FY17, 24 trainings underwent comprehensive review to ensure their content (e.g., regulations, best practices) is up-to-date, to update them to a new template, create “job Aids” (2 page take-aways that highlight the most relevant information from the training), and to make them Americans with Disabilities Act/508 compliant. Additionally, each year a sub-set of trainings are reviewed by the LPHI evaluator to assess user satisfaction and their impact on user knowledge. In July/August of 2017, the evaluator will review three trainings and produce a report of evaluation findings that include an analysis of pre/post quiz data and common metrics related to user satisfaction.

## *2. Foundation Course*

The goal of the Foundations Course is for Massachusetts public health practitioners who carry out routine and emergency environmental and population-focused health functions to provide the ten essential public health services according to the local and state laws, regulations, and policies. Participants may be new to the field of public health or those with experience and interest in advancing their knowledge and skills. The course work involves 60 hours of work, including three days of classroom training; two webinars; 16 self-paced online trainings; and additional work (e.g., pre-work, preparing questions for instructors and panelists). The 2016 iteration of the course crossed over FY16 and FY17. It took place over 21 weeks, beginning on April 27 and concluding on September 14, and included a mix of classroom training, webinars, self-paced trainings, and out-of-class preparation.

Although all sessions of the Foundations Course were evaluated, the report for the FY16/17 iteration only discusses findings related to the first day of the course, the Environmental Health webinar, Real World Environmental Health Day, the Public Health Nursing webinar, and the final day of the course. The other sessions involved online trainings, which are also utilized by trainees outside of the Foundations Course and are evaluated separately based on data provided by all module users.

The evaluation findings indicate that the Foundations Course was successful in several ways, including its engagement of participants from all regions of Massachusetts and a range of public health practitioners. In total, 39 people began the Foundations Course and 37<sup>3</sup> graduated (a 94.8% completion rate). The participants represent all of the regions of Massachusetts with the greatest representations from regions 2 and 4AB (See Figure 6).

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<sup>3</sup> Throughout the report, the reported “n” differs slightly due to a small number of people who did not provide data for some measures or the provision of data by those who ultimately did not complete the course.

**Figure 6.** Regional representation of Foundations Course participants (n=35)

Region:	#	%
Region 1: Western	3	7.9%
Region 2: Central	11	28.9%
Region 3: Northeastern	5	13.2%
Region 4AB: Greater Boston and MetroWest	9	23.7%
Region 4C: City of Boston	2	5.3%
Region 5: Southeastern & Cape Cod	4	10.5%
State	1	10.5%

As shown in Figure 7, the course attracted environmental health professionals, health agents/directors, a programs manager and a few public health nurses. Nearly half of participants are in environmental health roles and nearly 40% are agents/directors.

**Figure 7.** Professional roles of Foundations Course participants (n=38)

Roles:	#	%
Environmental Health Inspector/Sanitarian	18	47.4%
Health Director/Agent	15	39.5%
Program Manager	1	2.6%
Public Health Nurse	4	10.5%

Across the five sessions covered in the evaluation report and the course overall, participants were satisfied, felt their knowledge increased as a result of training, and envisioned using what they learned in their jobs. They felt the information was presented in a clear and understandable way and that the learning objectives for each session were met. They also believe the panel on Real World Environmental Health day provided them with useful information.

Overall, the participants' experience in the Foundations Course was positive. As a result of participating in the course, they feel better prepared for their work in public health and indicated that they will recommend the course to others, including those new to the field and those who want to broaden their knowledge. Participants feel Adobe Connect was helpful, the mix of classroom, online, and webinar learning was a good structure for the course, and the handouts will be useful in their jobs. Participant comments highlighted other positive aspects of the course, including the speakers and location of classroom sessions. Three-quarters of participants will apply the training to a state or national certification. The ratings also indicate that the instructors were well-prepared, knowledgeable, enthusiastic, easily understood, and that they encouraged questions and class participation.

In March 2017, the LPHI/NEPHTC evaluator conducted a round of interviews with 10 graduates of the 2016 Foundations Course (six months after the course concluded) and compared the evaluation themes to those from interviews conducted with in 2016. Using the common findings from both interview projects, the evaluator developed a set of close-ended survey questions so that Level Three evaluation of the Foundations Course could be streamlined and standardized for future use. In April of 2017, the evaluator piloted a survey with the 37 members of the course's 2016 cohort. Twenty-one people responded to the survey (a 56.8% response rate). The full report of findings details the evaluation results. In summary, the 2016 Foundations Course had a positive impact on graduates and their job performance. The participants have a better understanding of the breadth of public health, more confidence in their knowledge and skills, and are better prepared to respond to and assist a range of

stakeholders (e.g., the media, public officials, the public, public health colleague and staff). The majority also find the tools and resources and networking contacts gained during the course of value in their work. With regard to the 18 content areas covered in the course, the participants believe they perform these aspects of their work better as a result of the course. They described the course as valuable and as offering information essential to public health practice. Some also noted how accessible the course is thanks to the distance education components.

### *3. MA PHIT Housing*

MAPHIT Housing is designed to train public health and housing officials to comprehensively and uniformly enforce housing-related laws and regulations, including State Sanitary Codes (SSC) 105 CMR 400.000: General Administrative Procedures (400) and 410.000: Minimum Standards of Fitness for Human Habitation (410). Intended trainees are from municipal and state agencies charged with enforcement of these laws and regulations as well as attorneys, court personnel, and others who work on housing related matters. This course is taught in a blended format and generally takes six to twelve months to complete, with a two year maximum.

The program includes prerequisite four *On Your Time* trainings totaling eight hours of training, three days of classroom training, and then a virtual house inspection to demonstrate the comprehensive nature of a housing inspection. Following five supervised field training inspections, the students complete an online final assessment of three graded scenarios organized into: receiving a complaint, conducting an inspection, and enforcement and next steps. Those who successfully complete classroom training earn continuing education credits and those who successfully complete all components of the program are issued a certificate. Although a cohort of trainees begins the program at the same time, individuals may complete the field inspection and assessment portions of the program on different timelines. Therefore, the trainees within a given cohort may not all complete the program at the same time.

In the iteration of the MA PHIT Housing course that began in FY17 (May, 2017), 32 practitioners participated in the three days of classroom training and 31 trainees<sup>4</sup> completed and evaluated it. (See Figure 8). These practitioners represented all of the HMCC regions with the majority coming from Region 5.

**Figure. 8** Regional representation of MA PHIT Housing participants (n=32)

Region:	#	%
Region 1: Western	3	9.4%
Region 2: Central	2	6.3%
Region 3: Northeastern	6	18.8%
Region 4AB: Greater Boston and MetroWest	7	21.9%
Region 4C: City of Boston	4	12.5%
Region 5: Southeastern & Cape Cod	9	28.1%
State	1	3.1%

<sup>4</sup> One student had to withdraw due to a medical issue and planned to continue with the Dec. 2017 cohort.

In addition to the data provided by May 2017 cohort, throughout the year:

- Five trainees provided data on their field training experiences;
- Fourteen trainees completed an online final assessment and evaluation of the program overall
- Five field trainers provided data about their experiences as field trainers.

As shown in Figure 9, the majority of training participants are Environmental health inspectors/Specialists/Sanitarians (59.4%) or came from inspectional services (31.3%).

**Figure 9. Professional roles of MA PHIT Housing participants (n=32)**

Roles:	#	%
EH Inspector/Specialists/ Sanitarians	19	59.4%
Inspectional Services & other depts.	10	31.3%
Public Health Nurse	2	6.3%
Massachusetts Department of Public Health	1	3.1%
Total:	32	100.00%

A full report of findings is available for the 2016 calendar year (previously shared with MDPH) and in January 2018, a full report of 2017 calendar year will be available. These reports detail evaluation results related to trainee satisfaction/their reaction to training (Level 1) and changes in their knowledge and skills (Level 2). In summary, the Level 1 findings indicate that trainees were satisfied with the classroom training and instructors, field inspections and field trainers, and the final assessment and program overall. Likewise, field trainers were satisfied with their experience as trainers. The Level 2 findings (i.e., perceptions of increased understanding, pass rate and scores on the exam and final assessment, quiz scores from pre-test to post-test, ratings of perceived ability to perform learning objectives before and after training) indicate that the classroom training and program overall were effective at increasing trainee knowledge and skills. The LPHI Program Director and Manager considered recommendations that resulted from the data by (1) adding course content and updating the three days of classroom materials (2) identifying a more centralized location for the May 2017 training (3) identifying and training new field trainers (4) working with existing field trainers to identify the ideal number of inspections and (5) modifying the virtual housing inspection and online final assessment.

#### *4. Managing Effectively in Today's Public Health Environment*

The FY17 iteration of the Managing Effectively in Today's Public Health Environment course (herein called the Management Course) began on November 29, 2016 and concluded on March 28, 2017. The course took place over 18 weeks and was comprised of 15 sessions (10 live webinars, three self-paced online sessions, and two classroom sessions). For each session, pre-work was required to prepare students for the upcoming session. Following each session, post-assignments required students to utilize the information covered in the previous session. Each student was assigned to a group and provided a mentor with whom he/she communicated throughout the course. Fifty-three students began the course in November. At the time of the evaluation, 50<sup>5</sup> had completed all requirements and graduated (a 94.3% completion rate).

<sup>5</sup> 4 of the 50 students were unable to attend the last day of the course but have completed all evaluation requirements and are in the process of completing a final assignment for the course.



Region and professional role data are available for 52 of the course participants (See Figure 10). The trainees represent each of the HMCC regions. However, given the partnership with the Boston Public Health Commission (See IIIA), it is understandable that the majority of course participants were from HMCC Region 4C (Boston).

**Figure 10.** Regional representation of Management Course participants (n=52)

Region:	#	%
Region 1: Western	4	7.70%
Region 2: Central	8	15.40%
Region 3: Northeastern	2	3.80%
Region 4AB: Greater Boston and MetroWest	2	3.80%
Region 4C: City of Boston	31	59.60%
Region 5: Southeastern & Cape Cod	4	7.70%
Other	1	1.90%

Although participants hold six different professional roles (See Figure 11), the majority of participants in the Management Course are Public Health Coordinators (46.2%) and Local Health Directors/Agents (19.2%)

**Figure 11.** Professional role of Management Course participants (n=52)

Roles:	#	%
Admin Assistant	6	11.54%
Local Health Director/Agent	10	19.23%
EH Inspector/Specialists/ Sanitarians	5	9.62%
MDPH	1	1.92%
Program Managers	1	1.92%
Public Health Coordinators	24	46.15%
Public Safety	2	3.85%
Social Services	3	5.77%
Total:	52	100.00%

Detailed findings related to the evaluation of the 2017 iteration of the management course are available in the full report of findings. In summary, the evaluation findings showed that the majority of trainees were satisfied with the course overall, as well as with specific aspects of the course, including how the information was presented, individual sessions or content areas covered, the instructors and guest speakers, the opportunity to network with others, and the tools and resources provided. Most trainees spent roughly one or two hours a week on out-of-class work and a small subset of trainees will apply the training to a state or national certification. Most trainees identified actions to apply information to their jobs, which indicates the course content is relevant to their work. The majority of trainees believe the training improved their understanding of the course's subject matter. The pre/post-test results also shows that trainee knowledge improved as a result of training. The LPHI and NEPHTC Program Managers are considering a number of recommendations that resulted from the 2017 course evaluation, including trainee suggestions related to course timing, format, technical and team-related issues; ways of better

integrating and ensuring participation of mentors in the course; how three sessions can be improved to increase user satisfaction; and ongoing quality improvement related to pre/post test quiz questions

The LPHI and NEPHTC were awarded the 2017 Network Member Impact Award from the National Network of Public Health Institutes (NNPHI) in recognition of the management program and associated evaluation, marketing, and outreach efforts; the flexibility of the course for adaptability and application in multiple settings; and the contribution of the course toward increasing efficiency for the public health system.

### *5. Emergency Risk Communications in Practice*

The LPHI and DelValle co-taught three sessions on emergency risk communications in practice (ERCIP). The LPHI was responsible for organizing and evaluating one of the three sessions, whereas DelValle was responsible for the other two. Fifteen people attended the LPHI-organized session and provided evaluation data. An additional 36 people were trained on ERCIP through the DelValle-organized sessions, although evaluation measures are not available for this report. Because a detailed report of findings was not created for this training, all of the available evaluation findings are provided below.

In the LPHI-organized session, all HMCC regions were represented except for Region 5. Two thirds of the attendees were local health directors/agents and public health coordinators (See Figure 12).

**Figure 12.** Regional representation of ERCIP Participants (n=15)

Region:	#	%
Region 1: Western	3	20.0%
Region 2: Central	4	26.7%
Region 3: Northeastern	2	13.3%
Region 4AB: Greater Boston and MetroWest	4	26.7%
Region 4C: City of Boston	2	13.3%
Region 5: Southeastern & Cape Cod	0	0.0%
Other	0	0.0%

**Figure 13.** Professional role of ERCIP participants (n=15)

Roles:	#	%
Administrator/Clerk	2	13.33%
Local Health Director/Agent	5	33.33%
EH Inspector/Specialists/ Sanitarians	1	6.67%
Program Managers	2	13.33%
Public Health Coordinators	5	33.33%

All (100%) of participants who completed the evaluation agreed or strongly agreed that their understanding of the subject matter improved as a result of training, they identified actions to apply what they learned to their work, the information was presented clearly, and they were satisfied with the training.

**Figure 14.** Participant agreement (agree/strongly agree) with statements about ERCIP

Common metrics for one ERCIP training	#	%
My understanding of the subject matter has improved as a result of having participated in this training.	14	100%
I have identified actions I will take to apply information I learned from this training in my work.	14	100%
The information was presented in ways I could clearly understand.	14	100%
I was satisfied with this training/course overall.	14	100%

#### 6. MHOA Sessions<sup>6</sup>

The LPHI was responsible for organizing three sessions at the annual MHOA conference. The session names and number of participants were as follows: Managing Challenging Behaviors in Emergency Settings (n=68), Active Shooter Incidents (n=80), and America's Preparedness Plans Began 396 Years Ago (n=49). A fourth session scheduled, Service Animals in Disaster Response, had to be cancelled at the last moment as the speaker was ill. A sub-set of participants completed evaluation forms for the sessions to provide data on their professional roles, level of agreement with a series of statements about the sessions, and whether they will apply the data to certification. Because a detailed report of findings was not created for this training, the evaluation details are provided below.

More local health directors/agents were in attendance in the three sessions than those in other professional roles (48% to 65.6%).

**Figure 15.** Professional roles of MHOA session participants

	Managing Challenging Behaviors (n=38)		Active Shooter Incidents (n=50)		America's Preparedness Plan (n=32)	
Professional Roles	#	%	#	%	#	%
Administrative Assistant	1	2.6%	2	4.0%	1	3.1%
BOH Member	3	7.9%	3	6.0%	1	3.1%
Local Health Director/Agent	20	52.6%	24	48.0%	21	65.6%
Environmental Health Inspector/Specialists/Sanitararians	2	5.3%	4	8.0%	5	15.6%
Inspectional Services & other depts.	0	0.0%	2	4.0%	0	0.0%
MDPH	1	2.6%	0	0.0%	0	0.0%
Other	3	7.9%	2	4.0%	0	0.0%
Private Industry	0	0.0%	1	2.0%	0	0.0%
Program Managers	2	5.3%	2	4.0%	0	0.0%
Public Health Nurse	6	15.8%	8	16.0%	4	12.5%
Public Safety	0	0.0%	2	4.0%	0	0.0%

<sup>6</sup> These sessions, which are not standard LPHI offerings, are not included in the competency table nor are the number of participants in unduplicated user counts for the LPHI for FY17.

The majority of participants in the Managing Challenging Behaviors and Active Shooter Incidents agreed or strongly agreed that their understanding of the subject matter improved as a result of training, they identified actions to apply what they learned to their work, the information was presented clearly, and they were satisfied with the training (See Figure 16). Low levels of agreement with the four statements for the America's Preparedness Plan session indicate a need for quality improvement should this session be offered again.

**Figure 16.** Agreement (agree/strongly agree) with statements about MHOA sessions

	Managing Challenging Behaviors (n=37)		Active Shooter Incidents (n=50)		America's Prep Plan (n=32)	
	#	%	#	%	#	%
Common metrics						
My understanding of the subject matter has improved as a result of having participated in this training.	33	100%	48	96.0%	11	34.4%
I have identified actions I will take to apply information I learned from this training in my work.	27	100%	46	92.0%	10	31.3%
The information was presented in ways I could clearly understand.	28	100%	48	96.0%	11	34.4%
I was satisfied with this training/course overall.	28	100%	48	96.0%	8	25.0%

As shown in Figure 17, a portion of each session's audience will apply the training to a state or national certification.

**Figure 17.** MHOA participants who will apply training to certification

	Managing Challenging Behaviors (n=38)		Active Shooter Incidents (n=50)		America's Prep Plan (n=32)	
	#	%	#	%	#	%
I will apply this training to a state or national certification	16	42.1%	23	46.0%	18	56.2%

## **D. Communications and Marketing**

The LPHI developed a marketing and communications plan to achieve the outcomes of: (1) *Increased awareness of the LPHI and its programs*; and (2) *Increased registration for LPHI trainings*. In FY17, the LPHI issued two e-newsletters (in December and June) to nearly 1,000 people; including LSAC and the Coalition for Local Public Health members as well as a 900+ person distribution list that the LPHI maintains. The newsletters described LPHI progress in the previous six months. The same audience received two informational email marketing through Mail Chimp® that described what the LPHI offers and announcements about upcoming LPHI trainings. The LPHI produced and disseminated flyers for

each of its trainings, as well as tailored training cards to showcase trainings for particular types of public health practitioners (see example of Population Health Card).

The LPHI attended four annual conferences in FY17, including those associated with the MA Health Officers Association (MHOA), New England Rural Health Roundtable, MA Public Health Association (MPHA), and the MA Association of Public Health Nurses (MAPHN). At these events, the LPHI staffed an information table and distributed LPHI marketing materials.

In FY17, the LPHI maintained its online calendar of trainings and developed a new downloadable year-at-a-glance calendar of LPHI events and other Massachusetts and national events.

In addition to the LSAC meetings in which the LPHI participated in FY17 (see IIIA), LPHI staff attended two meetings with the MDPH Office of Preparedness and Emergency Management (OPEM) and sent 21 updates via email to keep OPEM apprised of LPHI progress. LPHI attended a MDPH Bureau Directors' meeting to describe the LPHI's work and get their input on the prioritization of the *On Your Time* training audits for FY17. The LPHI also participated in several calls with MDPH Office of Local and Regional Health to report on progress. Because public health nurses have lower utilization of the LPHI's online trainings, LPHI staff had four meetings with MAPHN, including its executive committee and three of its chapters, to describe LPHI programs and learning opportunities and to get feedback on ways to engage more public health nurses across the Commonwealth.



*Example of tailored training card*

## **IV. Conclusions and Recommendations**

FY17 was a productive year for the LPHI. The LPHI engaged in productive partnerships with five organizations that resulted in additional training and needs assessment information. Three new fellows were inducted into the LPHI Fellows Program. A detailed needs assessment with LSAC illustrated the value and effectiveness of the LPHI while also providing useful guidance for future planning. The LPHI trained over 900 unduplicated users and is reaching its intended target audience of local public health practitioners across Massachusetts. Utilization of the *On Your Time* trainings increased and trainees found the LPHI's blended (classroom/online) trainings to be satisfying and effective at increasing their knowledge. LPHI produced and disseminated several marketing tools and attended a number of conferences and meetings to publicize the LPHI and its offerings. To build upon its successes in FY17, the LPHI should pursue the following recommendations.

- Review recommendations offered via the needs assessment with LSAC and in the detailed evaluation reports for the Foundations Course, MAPHIT, and the Management Course and consider how to address them in FY18 and beyond.
- Increase marketing of the *On Your Time* trainings to Boards of Health (as already planned for FY18) and Region 1 practitioners.



# The Local Public Health Institute of Massachusetts

## FY2017 Annual Report

### Appendix A: Local Public Health Institute (LPHI) of Massachusetts Logic Model

#### LOCAL PUBLIC HEALTH

Mission: "To provide and ensure a competent workforce by strengthening and sustaining the capacity of local boards of health to prepare for and respond to public health issues and emergencies and to promote the health of residents of the Commonwealth."

Problems/resources	LPHI objectives	Outputs	Short-term outcomes
A group of individuals that understands the needs of local public health and that represents various segments of the workforce and geographic areas of the Commonwealth is needed to advise MDPH and others (e.g., DEP, MEMA, CLPH) about how to most effectively achieve the LPHI mission.	Rebuild and convene a highly functioning Advisory Committee	<ul style="list-style-type: none"> <li>✓ # of associations represented</li> <li>✓ # of regions represented</li> <li>✓ # of academic partners represented</li> <li>✓ # of meetings</li> <li>✓ Production/adoption of operating principles</li> </ul>	Strengthened partnerships among public health and academic partners to ensure that LPHI trainings and programs are aligned with the learning priorities of the LPH workforce and are of high quality.
The LPH workforce may not possess the capabilities needed to prepare for and respond to emerging public health issues and emergencies. Training is needed to ensure the LPH workforce has the competencies necessary to protect the health of MA residents.	Provide training courses and education programs on PH and EP competencies	<ul style="list-style-type: none"> <li>✓ # of trainings and programs</li> <li>✓ # of competencies covered in trainings/programs</li> <li>✓ # of registrants and # of participants (total, by region, role)</li> </ul>	Increased numbers of LPH workforce members trained on cross-cutting, program area and emergency preparedness competencies
In order to use the available resources effectively and provide the LPH workforce with needed training, we must understand their training needs, assess which trainings are available to meet their needs, and develop training to address the gaps.	Assess workforce competencies and training needs	<ul style="list-style-type: none"> <li>✓ Completed first draft of competency report</li> <li>✓ Completed gap analysis and inventory of available trainings</li> </ul>	Improved understanding of the trainings needs of LPH and the trainings that exist and those that are needed.
To maximize resources we should collaborate with others who have a vested interest in strengthening the LPH workforce	Build partnerships	<ul style="list-style-type: none"> <li>✓ # of partners and collaborative projects</li> </ul>	Increased educational offerings and collaborative projects
Geographic distances, staffing shortages at the local level, and scheduling challenges present significant obstacles when it comes to accessing classroom training. Tremendous technological resources exist that will enable the LPHI to address these obstacles by offering a more convenient avenue for training using web-based technology. The LPHI should determine appropriate uses for distance education and increase its use accordingly.	Increase capacity for distance education	<ul style="list-style-type: none"> <li>✓ # of trainings or programs with a distance education component</li> </ul>	Increased participation in LPHI offerings across all regions
Although the LPHI offers tremendous opportunities for improving the skills and knowledge of the LPH workforce, too few people know about the LPHI or its offerings. The LPHI needs an effective communications and marketing plan to address this problem.	Have an effective communications and marketing plan	<ul style="list-style-type: none"> <li>✓ A developed plan for marketing the LPHI and its offerings</li> <li>✓ Explore incentives for training</li> <li>✓ # of newsletters and calendars</li> </ul>	<p>Increased awareness of the LPHI and its programs</p> <p>Identify and utilize incentives when feasible</p> <p>Increased registrations for LPHI trainings</p>

#### Primary level Outcome:

Improved cross-cutting, program area and emergency preparedness competencies among the local public health workforce who have received training from the LPHI.

#### Secondary Level Outcome:

Improved agency performance in areas related to competencies in which agency personnel have been trained by the LPHI.



## Description of listed professional roles

Professional Role	Included Positions
Administrative Assistant	Administrative staff of LBOH
Administrator/Clerk	BOH Administrators and clerks, Grants Administrators, Health Administrators
BOH Member	BOH Member and Chairs
Environmental Health Inspector/Specialists/Sanitarians	Health inspectors, Sanitarians, Code Enforcement, EH Officers, Tobacco Control
Healthcare	Non-PH Nurses, Techs, Pharmacists, Nutritionists, Clinical staff
Inspectional Services	Housing Specialists and Engineers:
Local Health Director/Agent	Directors, Agents of towns and cities
Massachusetts Department of Public Health	From within the Bureaus and Offices of the Department
Other	State Employees (not inspectors), Federal Employees, Childcare Providers, Unreported or Unclassified
Private Industry	Wide range of businesses including: Gyms, Tanning Salons, Engineering Firms, Septic and Sewer Companies
Program Managers	From Health Departments, Schools and Care Facilities
Public Health Coordinators	Public health specialists, community health coordinators, public health coordinators and educators, emergency preparedness coordinators.
Public Health Nurse	Public health nurse & nurse supervisors
Public Safety	Police, Fire, EMS
School Nurse	Nurses employed within schools or school districts
Social Services	Social workers, Community Health (non-clinical) Workers
Students	Graduate, Undergraduate, and Nursing students