

**The Local Public Health Institute of Massachusetts
2010 Year End Report**

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April 2011

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Table of Contents

	Page:
Executive summary	3
Introduction	5
Methodology	5
Problem 1	6
Problem 2	8
Problem 3	9
Problem 4	9
Problem 5	10
Problem 6	12
Intermediate and longer-term outcomes	13
Conclusions and Next Steps	14
Appendix A: LPHI Logic Model	16

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Executive Summary

Introduction: In January of 2010, the Boston University School of Public Health (BUSPH) was awarded the contract for the Local Public Health Institute (LPHI) of Massachusetts. With support from the Massachusetts Department of Public Health, 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.* The full report describes the six problems addressed by the LPHI and progress made in 2010 in addressing the problems and their associated objectives. Below is a description of the LPHI evaluation methodology used to inform the progress report, as well as a summary of the major accomplishments of the LPHI in 2010 and recommended next steps.

Methodology: The LPHI evaluator and LPHI management team devised several data collection and tracking mechanisms to measure progress toward LPHI objectives and desired outcomes, including: (1) A training priorities survey with LPHI Advisory Committee members; (2) Standardized training evaluation forms; (3) A Foundations Course Instructor evaluation survey; (4) A year-end survey of LPHI Advisory Committee Members; and (5) Administrative tracking by the LPHI Program Manager.

Accomplishments and Next Steps: Year one was a very productive year with significant progress made toward all program objectives, including:

- The LPHI Advisory Committee was rebuilt with representation from all MDPH EP regions, six public health associations, and two academic institutions and a set of operating principles was adopted.
- An inventory of trainings and a gap analysis were completed and priorities for training were established.
- The LPHI capacity for distance learning was enhanced following research on available technologies and the decision to obtain a license for Adobe Connect.
- The vast majority of planning for a marketing and communications plan for the LPHI was completed.
- The Foundations Course was re-launched and trained graduates in 12 of 17 program area and 7 of 10 cross cutting competencies at the awareness level. Evaluation results show that students feel better prepared to perform course learning objectives as a result of training, the course content will be useful in their jobs, and that statistically significant changes in knowledge took place in several sessions.

- The Orientation to Local Public Health module was developed and made available on-line and on CD.
- Collaborative planning with LPHI partners took place and will expand LPHI offerings in year two, including at least seven additional on-line modules which are, or will be, in development and completed in 2011.
- The LPHI evaluation strategy has allowed for the tracking of progress toward LPHI objectives and the identification of next steps for the year ahead.

The recommend next steps for year two:

- Increase the number of academic institutions on the LPHI Advisory Committee, develop a list of responsibilities associated with each of the LPHI staff, and allow for Advisory Committee meetings outside the quarterly schedule if needed.
- Deliver and evaluate the planned classroom sessions and the next iteration of the Foundations Course.
- Engage new partners and continue collaborative planning with partners and launch planned trainings. Activate the capability to track numbers of trainees who complete on-line courses and their demographic data.
- Complete the communications and marketing plan and implement products to increase awareness of LPHI offerings, including newsletters and training calendars.
- Continue discussions about incentives for training, including a possible fellowship program.
- Continue to evaluate LPHI progress toward objectives and plan for evaluation of the secondary/ long-term outcome - *Improved agency performance in areas related to competencies in which agency personnel have been trained by the LPHI.*

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Introduction: In January of 2010, the Boston University School of Public Health (BUSPH) was awarded the contract for the Local Public Health Institute (LPHI) of Massachusetts. With support from the Massachusetts Department of Public Health, 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.* The LPHI Advisory Committee identified six potential problems that pose barriers to achieving the LPHI mission, including resources of which the LPHI has not taken full advantage. An objective was established to address each of the identified problems and advance the LPHI toward its mission. This report is organized around the six problems and provides a report of the progress made in 2010¹, our baseline year, to address the problems and advance toward the objectives. A logic model was drafted to depict the relationship of the mission, problems, objectives, outputs and outcomes (See Appendix A). For information about any of the educational offerings or documents referenced in this report, contact Jennifer Tsoi, LPHI Project Manager at jtsoi@bu.edu or (617)638-4825.

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 in 2010.

- ***Training priorities survey:*** In September/October of 2010 and following the inventory of available trainings and gap analysis, 13 LPHI Advisory Committee members participated in an on-line survey to prioritize trainings for the LPHI to develop over subsequent months.
- ***Standardized training evaluation forms:*** All LPHI-supported trainings must include an evaluation component. Whenever possible, such evaluations will include pre/post quiz questions to assess the extent to which students acquired knowledge or skills as a result of training. The evaluator worked closely with the LPHI management team to develop standardized training evaluation forms. For the Foundations Course, each of the 18 sessions began and concluded with an assessment of student preparedness to perform session learning objectives and quiz questions assessing knowledge about the training content. Students also provided data for use in quality improvement, including information about what worked well and what could be improved. At the conclusion of the course, students completed an overall course evaluation to provide data useful in quality improvement. A standardized evaluation form was also created for training sessions when a pre/post test is not

¹ Formerly, the LPHI was managed by another vendor. When this report makes reference to “year one” or “the first year” of the LPHI, we mean the first year under the management of the BUSPH, which began in January 2010.

feasible. The form is administered at the conclusion of a training session and asks students to rate how their ability to perform the learning objectives changed as a result of training. It further request data that for use in quality improvement.

- **Foundations Course Instructor evaluation survey:** To gain additional insight about how the Foundations Course can be improved in its next iteration, 19 of 21 (90.4%) instructors completed an on-line survey in March 2011 to provide information about what worked well and what could be improved, as well as to assess instructor interest in proposed changes for the 2011.
- **Year-end survey of LPHI Advisory Committee Members:** An on-line survey was conducted in March/April 2011 to assess LPHI Advisory Committee member perspectives about the LPHI’s progress toward rebuilding and convening a highly functioning advisory committee and to understand the LPHI Advisory Committee’s perspective about the 2010 accomplishments and areas in need of improvement. Fifteen people completed the survey, including 11 (73%) of the Advisory Committee members who represent a public health association (n=4), a MDPH Emergency Preparedness region (n=3), or an academic institution (n=4). Four additional respondents described themselves as “other” and specified their role as representing MDPH, a CDC fellow, MA DEP representative, and as a district health officers and liaison between local boards of health and MDPH.
- **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 and training calendars disseminated.

Typically quantitative analyses for the LPHI are conducted using SPSS and qualitative analyses are analyzed for common and divergent themes. For more detail on any of the data sources described above or related evaluation documents, contact Hope Kenefick, the LPHI evaluator at hopewk@comcast.net.

Problem #1: 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) about how to most effectively achieve the LPHI mission. To address the problem, the Institute will accomplish the following objective: *To rebuild and convene a highly functioning Advisory Committee.* The figure below shows progress made toward the objective in 2010.

# of associations represented	6 public health associations are represented, including: MA Association of Health Boards, MA Health Officers Association, Western MA Public Health
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	Association, MA Environmental Health Association, MA Public Health Association
# of regions represented	All emergency preparedness regions are represented on the LPHI Advisory Committee, including Regions 1, 2, 3, 4a, 4b, 4c, and 5
# of academic partners represented	3 academic partners are on the Committee: Harvard and Boston Universities and University of MA Amherst
# of meetings	4 in person meetings and one teleconference
Production/adoption of operating principles	Operating principles were reviewed and adopted by the LPHI Advisory Committee at its first meeting in 2010. The principles detail the desired size and composition of Committee and the roles and responsibilities of the Advisory Committee and LPHI management staff.

The desired short-term outcome of our work to address problem #1 is: *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 figure below shows results from the survey with Advisory Committee members, in which members were asked to indicate their level of agreement with a number of statements using a Likert scale of 1 (strongly disagree) to 5 (strongly agree). Overall, mean ratings indicate that the group finds the purpose of the Advisory Committee and the roles of the LPHI staff at BUSPH to be clear, although one person suggested that it would be helpful to have information about the duties of each of the LPHI staff. Results also showed that the Advisory Committee has the necessary workforce and geographic representation and that the group is capable of providing the LPHI staff with the guidance it needs to carry out the LPHI mission. Respondents also believe the Advisory Committee influences the educational offerings of the LPHI and plays an important role in ensuring that the trainings offered by the LPHI are those most needed by the local public health workforce. In general, those responding to the survey find the Advisory Committee meetings to be informative and productive and find the frequency (quarterly) to be sufficient. One respondent feels meetings should be more open and that an option should exist for holding meetings outside the quarterly schedule on an “as needed” basis.

Statement:	Mean	Range
The role of the LPHI Advisory Committee is clear to me.	4.4	3 to 5
The role of the LPHI staff at BUSPH is clear to me.	4.1	3 to 5
The LPHI Advisory Committee is representative of the various segments of the public health workforce and geographic areas of the Commonwealth.	4.3	3 to 5
As a group, the LPHI Advisory Committee is capable of advising the LPHI staff at Boston University about how to most effectively achieve the LPHI mission.	4.1	3 to 5
The LPHI Advisory Committee plays an important role in ensuring that the LPHI offers the training that is most needed by the LPH workforce.	4.3	3 to 5
The Advisory Committee is influencing the types of educational offerings provided through the LPHI.	4.2	3 to 5
I find the LPHI Advisory Committee meetings informative.	4.3	2 to 5
I find the LPHI Advisory Committee meetings productive.	4.4	2 to 5
It is sufficient to hold meetings of the LPHI Advisory Committee on a quarterly basis. If quarterly is not sufficient, please indicate your preferred frequency in the space below.	4.6	3 to 5

Problem #2: 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. To address problem #2, the LPHI will accomplish the following objective: *Provide training courses and education programs on Public Health and Emergency Preparedness competencies.* The figure below shows progress made toward the objective in 2010.

<p># of trainings and programs</p>	<p>The 18 session Foundations Course ran from September through December of 2010. An Orientation to Local Public Health on-line module was launched in October 2010. An Emergency Preparedness module was initiated and will be completed in 2011.</p> <p>Six new online modules were prioritized for development in 2011: Disease Surveillance, Food, Health Education (using Lyme Disease as an example), Housing, Legal and Wastewater. As additional opportunities arise and content experts are available with module material, these online offerings will also be developed (such as MAVEN, Tanning, Swimming Pools)</p>
<p># of competencies covered in trainings/programs</p>	<p>The Orientation to Local Public Health on-line module provides a basic overview of public health and does not address particular competencies in any depth.</p> <p>The Foundations Course addressed the 12/17 program area and 7/10 cross cutting competencies at the awareness level.</p>
<p># of registrants and # of participants (total, by region and role)</p>	<p>Forty-six students registered for the Fall/Winter 2010 Foundations Course and 32 students (69.5% of those originally registered) completed all sessions. The Foundations Course successfully engaged students from a broad geographic area and those who serve in a range of public health roles. Although all five Massachusetts Emergency Preparedness Regions were represented among course graduates, most came from Region 5 (43.8%) and Region 1 (28.1%). The graduates work in/represent 22 different Massachusetts communities. Over 56% of graduates are on a board of health, whereas the others are employed in a health department at the local, district or state level. Course graduates serve in a range of public health roles, including: BOH chair/member (21.9%); Health agent (18.8%); Health director/manager (15.6%); Inspector/sanitarian (15.6%); public health nurse (12.5%); environmental services staff (6.3%); Other health dept. staff (6.3%); epidemiology/data services staff (3.1%).</p> <p>To date, we are unable to report on the number of students utilizing the Orientation to Local Public Health and their demographics. In year two, the certificate of completion function will be activated and these data will become available for future reports. We expect that, for most, the Orientation module will be used as an online reference manual. We will be able to track the number of hits to the website, therefore only limited information will be available about its utilization in this way</p>

The desired short-term outcome of our work to address problem #2 is: *Increased numbers of Local Public Health workforce members trained on cross-cutting, program area and emergency preparedness competencies.* In year one, only data on the Foundations Course students are available. In this baseline year, 32 students were trained on 12 of 17 program area and 7 of 10 cross cutting competencies at the awareness level. We expect to report higher numbers of students trained on the competencies in year two as more courses are offered and our capacity to capture data on students improves.

Problem #3: In order to use the available resources effectively and provide the Local Public Health 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. To address problem #3, the LPHI will accomplish the following objective: *Assess workforce competencies and training needs.* The figure below shows progress made toward the objective in 2010.

Completed first draft of competency report	The first full draft of the competency report was completed in February of 2010.
Completed gap analysis and inventory of available trainings	The inventory of trainings and gap analysis were completed in July of 2010.

The desired short-term outcome of our work to address problem #3 is: *Improved understanding of the training needs of Local Public Health and the trainings that exist and those that are needed.* After a catalog of existing training resources was created and the gap analysis was completed, the LPHI Advisory Committee had a clear understanding of which trainings were available to address the competencies needed by the local public health workforce in Massachusetts and the types of trainings that needed to be developed. In the fall of 2010, the Advisory Committee completed an on-line survey to prioritize the trainings that LPHI would develop in 2010-2011. In addition to offering the Foundations Course and the Orientation to Local Public Health module available on-line and on CD, the Advisory Committee decided to prioritize the offering of or four annual classroom trainings: Risk communications (basic and possibly advanced); Isolation and Quarantine (Parts I and II), Personal Protective Equipment, and Food and Water in Disasters. Additionally, the LPHI will complete the Emergency Preparedness module and develop six new on-line modules: housing; health promotion; food protection; disease surveillance; wastewater; and legal issues) and address other training needs identified when the CDC Emergency Preparedness competency set is complete.

Problem #4: To maximize resources, we should collaborate with others who have a vested interest in strengthening the Local Public Health workforce. To address problem #4, the LPHI will accomplish the following objective: *To build partnerships.* The figure below shows progress made toward the objective in 2010.

# of partners and collaborative projects	In addition to partnerships with the six public health associations, the LPHI formed a number of other partnerships and began work on several
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	<p>collaborative projects, including:</p> <ol style="list-style-type: none"> (1) The DelValle Institute and Harvard School of Public Health are represented on the LPHI Advisory Committee with whom the LPHI staff discussed collaborative trainings to offer in year two. (2) University of Massachusetts at Amherst was a close partner in offering the Fall/Winter 2010 Foundations Course in western Massachusetts. (3) The MDPH Bureau of Infectious Disease was an instrumental partner in planning and delivering modules for the 2010 Foundations Course. (4) The MDPH Bureau of Environmental Health and the LPHI staff made plans to offer the Food and Water Safety classroom training in year two. (5) UMass Medical Center engaged in discussions with the LPHI and the DelValle Institute about developing educational offerings on risk communications planning. (6) BUSPH students worked under the guidance of faculty and state or local content experts to develop the Orientation to Local Public Health module and for some modules, will be part of development teams for additional modules which are due to go live in year two.
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The desired short-term outcome of our work to address problem #4 is: *Increased educational offerings and collaborative projects*. Thanks in great part to the LPHI partnerships with UMass Amherst and the MDPH Bureau of Infectious Disease, the 2010 Foundations Course was a tremendous success and provided education to 32 local public health staff. The ability to engage students and faculty at BUSPH led to the successful launch of the Orientations to Local Public Health module on the web and CD and led to planning in year one that will ultimately result in further expansion of LPHI on-line offerings in Year two.

Problem #5: 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. To address problem #5, the LPHI will accomplish the following objective: *Increase capacity for distance education*. The figure below shows progress made toward the objective in 2010.

<p># of trainings or programs with a distance education component</p>	<p>In year one, the Office for Teaching, Learning and Technology at BU explored options for web-based training to identify one that would be flexible and cost-effective, could handle multi-media trainings, and would allow the LPHI to have some control over the technology. Ultimately, BU site-licensed the Adobe Connect product and made individual licenses available to departments, giving the LPHI greater flexibility in scheduling and delivering web conferences. More importantly, the software is easier to use for both participants and presenters. It has seamless integration with an audio bridge and allows for</p>
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	<p>audio to be transmitted via the internet (VOIP) as well. It supports group breakouts, has polling capabilities, allows for sharing a wide variety of documents and applications, and because it is based on Flash, a pervasive web utility, it handles video well. It has few system requirements and is easy for individuals and agencies with little computer capability to fully participate. Meetings can be recorded and delivered off line giving the LPHI further control and flexibility with the meetings which have already taken place. The functionality combined with university support and reasonable associated costs made this an excellent choice for the LPHI.</p> <p>In year one, 13 of 18 Foundations Course sessions were delivered via webinar. Several students commented on evaluation forms that webinars (as opposed to travel for classroom training) made participation in the course feasible.</p> <p>The Orientation to Local Public Health is an on-line session and is also available on CD for those without internet/high-speed access. The online modules currently in development will also be available via the internet. Each module will have a facilitator’s guide allowing users to deliver module content in a classroom setting. Additionally, Softchalk, a software package, will allow for the creation of interactive web pages for eLearning courses.</p>
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The desired short-term outcome of our work to address problem #5 is: *Increased participation in LPHI offerings across all regions.* As this is our first year, 2010 will serve as the baseline by which we measure progress related to this outcome. The idea is that distance learning capacity will enable individuals from across the Commonwealth to access LPHI offerings who, due to distance and schedule, may not be able to otherwise. At this time, we are only able to report data on the students who completed the Foundations Course. We are not yet able to capture data on those who access the Orientation to Local Public Health module on line, although we expect to activate the certificate of completion function in year two, which will allow us to report on those who complete the module on-line. We will also be able to capture data on those who complete the additional on-line modules that will be completed and activated in year two. We will also have data on those who complete classroom trainings and will, over time, be able to look at trends in the utilization of classroom and web-based offerings. With the additional on-line offerings and improved capacity to capture data on those who complete the on-line offerings, we are certain we will see an increase in participation in LPHI offerings across all regions of Massachusetts in future years. Our baseline data show that 32 students total completed the Foundations course. The figure below shows the regions represented by course graduates.

MA EP Region:	#	%
1	9	28.1%
2	1	3.1%
3	1	3.1%
4*	6	18.8%
5	14	43.8%
Other**	1	3.1%
TOTAL:	32	100.0%

*4a= 4 and 4b=2 **Other = one person who represents both Regions 1 and 2

Problem #6: 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. To address problem #6, the LPHI will accomplish the following objective: *Have an effective communications and marketing plan.* The figure below shows progress made toward the objective in 2010.

A developed plan for marketing the LPHI and its offerings	The LPHI engaged in the planning of an integrated communications plan for the Office of Public Health Practice at BUSPH. The majority of planning occurred in 2010 with completion occurring early in 2011. The plan contains target audiences, tactics for branding and messaging, and metrics for measuring reach.
Explore incentives for training	All graduates of the Foundations Course received a certificate of completion and nurses, sanitarians and health officers who completed all pre/post-tests were awarded contact hours that are applicable toward their continuing education credits. The Advisory Committee had preliminary discussions about incentives including a fellowship program option. Discussion will continue in 2011.
# of newsletters and calendars	One newsletter was issued in year one and an initial training calendar was developed for internal use only, although the training calendars are planned for use in marketing LPHI offerings beginning in Year two.

The desired short-term outcomes of our work to address problem #6 are described below.

Increased awareness of the LPHI and its programs: This, the first year of the LPHI, will provide baseline data for comparing awareness over time. The re-launch of the Institute was advertised in the BU Insider publication and a link to the article was put on the LPHI website. A flyer was created for dissemination by each local public health association to their members and an announcement was made at Local and State Advisory (LSAC) meetings. Also in year one, the newsletter was disseminated to all LPHI Advisory Committee members and to all local health departments. Additionally, MDPH health educators forwarded the newsletter to their constituents and the MA public health associations forwarded it to their membership. The Foundations Course was advertised via emails from MDPH to all health departments, through the public health associations to their respective memberships, and to regional coalitions across the Commonwealth. The Orientation to Local Public Health module was advertised through LPHI Advisory Committee members and MDPH health educators. Flyers describing the module and the CD version were disseminated at the BUSPH booth at the annual MHOA conference. The LPHI website was relocated to the BU server, as there are no costs associated with hosting it internally versus with the previous outside vendor. Website content was updated and went live in December. Quality improvement efforts are still underway.

Those who responded to the survey of the Local Public Health Advisory Committee offered information about the LPHI monthly updates distributed to LPHI Advisory Committee members and the LPHI newsletter through a series of true/false statements. Thirteen (86.6%) reported that they read the LPHI

monthly updates and 8 (53.3%) said they forwarded the updates to others. Nine (60%) said they read the June LPHI newsletter and 3 (20%) forwarded it to others.

Identify and utilize incentives when feasible: The LPHI Advisory Committee discussed the issue of whether to charge for the Foundations Course to provide an incentive for participants to complete the course (as opposed to starting the course and dropping out before completion). Ultimately, the group concluded that a fee may serve as a deterrent for some who may be otherwise interested in the course. Both the Foundations Course and the Orientation to Local Public Health were offered free of charge to participants so that all who are interested are able to participate regardless of their individual financial circumstances. Additionally, all who completed the pre and post-tests for all sessions of the Foundations Course received a certificate of completion and were granted contact hours applicable to continuing education credits. A certificate of completion function was developed for the Orientation module and is due to be activated in year two for all modules.

Increased registrations for LPHI trainings: As this is our first year, 2010 will serve as the baseline by which we measure progress related to this outcome. At this time, we are only able to report data on registrations for the Foundations Course (46 total). We expect the number of registrations for LPHI trainings to increase in year two as our capability for capturing data related to on-line learning improves and as we offer additional on-line, blended, and classroom offerings for which individuals must register to participate.

Intermediate and longer-term outcomes:

As the LPHI progresses toward its objectives over time, we expect to achieve one intermediate and one longer-term outcome. The nature of the longer-term outcome is that we must make progress toward our objectives and achieve short- and intermediate-term outcomes before we are able to see evidence that our longer-term outcome is coming to fruition. We did not expect to see such evidence in year one, but will report on our ability to achieve the longer-term objectives in subsequent annual reports.

The intermediate outcome is: *Improved cross-cutting, program area and emergency preparedness competencies among the local public health workforce who have received training from the LPHI.* It is a “primary level outcome,” which means that we should see improved competencies among our primary target (i.e., members of the local public health workforce who participate in LPHI trainings). This year, the data related to this outcome comes from the Foundations Course evaluation report. The 18 sessions of the course cover 12 of 17 program area and 7 of 10 cross cutting competencies at the awareness level. The evaluation yielded the following results:

- Likert scale ratings related to 106 course learning objectives showed that students perceived that they were more capable of performing the learning objectives associated with each of the sessions after training than before each session.
- In 17 of the 18 sessions, students completed five quiz questions before training and again at the completion of the session. The evaluation found that statistically significant improvements in knowledge took place from pre- to post-test in 11 of 17 (64.7%) sessions and in relation to 23 of the 85 (27%) total quiz questions.

- For each session, students were asked to use a Likert scale (1=strongly disagree) to (5=strongly agree) to rate their agreement with the following statement: *The content will be useful to me in my work.* The ratings for the 18 sessions ranged between a low of 3.22 and a high of 4.72.

In the survey of Advisory Committee members, one respondent indicated the LPHI training content prepares the younger generation of potential public health workforce employees and, therefore, contributes to *“the pipeline for the next generation of local public health officials.”*

The longer-term outcome is: *Improved agency performance in areas related to competencies in which agency personnel have been trained by the LPHI.* It is a “secondary level outcome,” which means that an expected result of LPHI training is that agencies will benefit from the increased competencies of their staff that have been trained by the LPHI and that, consequently, agency performance related to those competencies should improve. We expect to measure this outcome in future years of the LPHI.

Conclusions and Next Steps: Year one was a very productive year with significant progress made toward all six program objectives. Below, the major accomplishments for year one are summarized and are followed by a list of recommended next steps for year two.

Summary of year one accomplishments:

- The LPHI Advisory Committee was rebuilt with representation from all MDPH EP regions, six public health associations, and three academic institutions and a set of operating principles was adopted.
- The inventory of trainings and gap analysis were completed and priorities for training were established.
- The LPHI capacity for distance learning was enhanced following research on available technologies and the decision to obtain a license for Adobe Connect and Softchalk.
- The vast majority of planning for a marketing and communications plan for the LPHI was completed.
- The Foundations Course was re-launched and trained graduates in 12 of 17 program area and 7 of 10 cross cutting competencies at the awareness level. Evaluation results show that students feel better prepared to perform course learning objectives as a result of training, the course content will be useful in their jobs, and that statistically significant changes in knowledge took place in several sessions.
- The Orientation to Local Public Health module was developed and made available on-line and on CD. This, and all future modules, will include Facilitator’s Guides so classroom based teaching is an option.
- Collaborative planning with LPHI partners took place and will expand LPHI offerings in year two, including additional on-line modules which are in development The LPHI evaluation strategy has allowed for the tracking of progress toward LPHI objectives and the identification of next steps for the year ahead.

Recommend next steps for year two:

- Increase the number of academic institutions on the LPHI Advisory Committee, develop a list of responsibilities associated with each of the LPHI staff, and allow for Advisory Committee meetings outside the quarterly schedule if needed.
- Deliver and evaluate the planned classroom sessions and the next iteration of the Foundations Course.
- Improve Foundations course; plan for addressing all program area and cross cutting competencies at the awareness level
- Engage new partners and continue collaborative planning with partners and launch planned trainings, including the on-line modules
- Activate the capability to track numbers of trainees who complete on-line courses and their demographic data.
- Complete the communications and marketing plan and implement products to increase awareness of LPHI offerings, including newsletters and training calendars.
- Continue discussions about incentives for training, including a possible fellowship program.
- Continue to evaluate LPHI progress toward objectives and plan for evaluation of the secondary/ long-term outcome - *Improved agency performance in areas related to competencies in which agency personnel have been trained by the LPHI.*

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

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) about how to most effectively achieve the LPHI mission.	Rebuild and convene a highly functioning Advisory Committee	<ul style="list-style-type: none"> ✓ # of associations represented ✓ # of regions represented ✓ # of academic partners represented ✓ # of meetings ✓ Production/adoption of operating principles 	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"> ✓ # of trainings and programs ✓ # of competencies covered in trainings/programs ✓ # of registrants and # of participants (total, by region, role) 	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"> ✓ Completed first draft of competency report ✓ Completed gap analysis and inventory of available trainings 	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"> ✓ # of partners and collaborative projects 	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"> ✓ # of trainings or programs with a distance education component 	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"> ✓ A developed plan for marketing the LPHI and its offerings ✓ Explore incentives for training ✓ # of newsletters and calendars 	<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.