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Maine Public Health Workforce Development Plan  
Updated - May 2016
Executive Summary

The Maine Public Health Workforce Development Plan is the result of a multi-year, multi-stakeholder planning process that is now focused on the implementation and sustainability phase. Initially, in the fall of 2011, the Maine CDC and the Hanley Center for Health Leadership joined into a collaborative partnership to lead a planning process focused on improving the capacity and performance of Maine’s current and future public health workforce. Key partners representing public health organizations, educational institutions and health care organizations joined the collaborative team. These agencies have long and rich histories of working together to impact and influence workforce development for Maine’s public health and healthcare personnel.

Aware of the rapid changes underway resulting from the many external drivers; including the Affordable Care Act, health information technology, emergency preparedness, and emerging infections, workforce improvement and capacity development were needed. Additionally, the Maine CDC was in the process of applying for national accreditation and the need for workforce planning and improvements was revealed. The collaborative developed strategic objectives to focus the public health workforce planning process over a three (3) year time period.

Strategic Objectives:

- Develop a Maine Public Health Workforce Collaborative; a structure to enhance the capacity of Maine’s public health workforce and ultimately the performance of Maine’s public health system at all levels.

- Identify Maine’s public health training needs relative to core public health practice and emerging competencies; stakeholder engagement; data use and translation; performance management and quality improvement techniques/processes.

- Define the evolving role of public health leadership and the application of public health science, in health system transformation design and outcomes.

- Develop a Public Health Workforce Plan that includes consideration of transformations occurring in the healthcare delivery system.

- Develop a public health workforce with leading edge skills required to succeed in accomplishing Maine’s public health agenda. Effective data systems and a competent workforce provide the foundation for a successful and well integrated performance improvement system.

- Build a highly engaged and competent public health workforce, with exceptional leadership skills to lead change across the health system.

Project Planning Stages

The Maine public health workforce planning project was launched in the fall of 2011.

The goal of this collaboration was to establish a multi-phase pre-planning, and planning process to address public health workforce development.

Project Phases:

- Preplanning and Planning
- Stakeholder engagement and data gathering
- Development and documentation of the workforce development plan
Guided by this step-wise approach, all three phases were completed by late May 2013.

Infrastructure for Plan Development

The project infrastructure was created by an executive oversight team who developed the workforce plan. Project infrastructure consisted of an Executive Committee composed of senior leaders from both the Maine CDC and the Hanley Center. A steering committee composed of ~15 members was appointed by the Executive Committee, this committee oversaw the entire planning process. The steering committee appointed a data committee to oversee the workforce survey design, data collection and analysis. The structure allowed for several stakeholder sessions, one statewide forum and two regional sessions over the time period. All aspects of the planning project were committed to the following:

Guiding Principles:
- Collaboration and partnership is the method of addressing the strategic objectives and consensus planning goals.
- The process of plan implementation is in phases to allow for a focus of necessary resources to adequately support the three planning phases.
- The process of plan implementation relies on strong evidence that is widely accepted nationally and is recognized as standards of practice by public health practitioners.
- Evaluation processes will stay true to standards of evaluation practice and will be free from bias and political influence.
- Stakeholder engagement is primary in staying in touch with the needs of all consumers, keeping the project timely and to deliver products that are valued.
- Principles of quality improvement will be applied throughout the implementation. Feedback loops, evaluation findings, learner experience, employer satisfaction and improved organizational performance will all inform the implementation and evaluation of this work plan.

Maine Public Health Workforce Survey – Data Gathering Process and Findings

In late 2011, the project steering committee identified a Data Committee whose charge was to develop a survey of the current public health workforce.

Survey Goals:
- Describe the composition of the current public health workforce in Maine
- Understand who they are and what competencies they currently hold
- Identify training needs among respondents
- Identify access issues to training/professional development among the respondents

The Data Committee designed and piloted a survey tool that focused on demographics, training preferences, self-identified needs and self-reported competencies developed by the Council on Linkages between Academia and Public Health Practice. The survey target population was Maine’s public health workforce and public health leadership. Sampling strategy identified public health workers in Maine from a variety of work sites both, public and not for profit. Over 700 surveys were sent to the target population and the response rate within 3 weeks was a 57%. One reminder was sent after two weeks.
Respondent decisions points were made by competency tiers defined by the Council on Linkages between Academia and Public Health Practice.

Among the three tiers of practice, clearly defined in the survey tool,
• 47% of the respondents identified as being in tier 1
• 42% of the respondents identified as being in tier 2
• 11% identified as being in tier 3

Those with less than 5 years of public health experience mainly came from Tier 1 and Tier 2
Those with over 10 years of public health experience more often selected their practice in Tier 2 or Tier 3.

An In-depth analysis of the survey outcomes was included as a part of the original plan.

The workforce survey findings were integral to the recommendations for development and implementation of the final work plan.

Intelligence Gathering and Findings

Pertinent information on workforce development was collected from several partners at the national, regional, and state level. The US CDC Scientific Education and Professional Practice Program Office declared their priority to develop a focus to modernize and transform the public health workforce. Supporting these recommendations was an extensive literature search and three stakeholder engagement sessions over the project period.

Findings Summary:

• Developing and leveraging policy
• Broadening the public health provider base through the creation of ‘new’ public health workers who deliver a competency based practiced
• Expect the need will be greater for more generalists than specialists
• Thorough understanding of the impact of Affordable Care Act
• Prepare for emerging threats from infectious disease, bioterrorism and environmental change
• Data sharing and application of health technology
• New models of community engagement
• Collaborations and partnerships
• Application of clear communication through social networks
• Engaging in and influencing the necessary balance between public health practice and health care delivery system resulting from the health reform

Barriers to implementation of Findings:

• There is a greater emphasis on clinical health and health care professionals as compared to public health.
• Resources to support “population health” have been predominantly directed to the health care delivery systems.
• Though the public health sector has been delivering population health since the identification and inception of public health as a discipline, the recent focus on population health by the healthcare sector as a whole does not always include public health.

• Implementation of the health care system’s move to practice a scientific driven discipline, aka population health, moved forward without much prior training or common language or definition.

• Few human resource procurement policies require public health specific skills, education and competencies that are tied to performance and evaluation. Public health hiring practice is not well connected to public health competencies.

Outcomes Generated from the Planning Process
Four overarching outcomes emerged from the planning process.

• As of May 2013, there is a Maine Public Health Work plan document to drive improvements in practice, capacity, and competencies of Maine’s current and future public health workforce

• A work plan implementation infrastructure has been developed and implemented as of 7/1/13.

• All findings from various data sources have resulted in a set of recommendations to move the work plan implementation project forward.

The project obtained input from over 100 interested stakeholders who expressed a desire to stay engaged and move the plan forward.

Project Infrastructure
The infrastructure for work plan implementation involves three committees that are interrelated. Accurate and timely communication will be ongoing.

1. The Project Oversight Committee has responsibility for overall project performance, communication and timeliness. This committee is responsible for building a sustainable training infrastructure to assure that appropriate attention and direction of public health education and training is high quality, evidence-based, forward focused, collaborative and applies principles of quality improvement.

2. The Curriculum Committee has responsibility for designing and delivery of curriculum that improves the knowledge, skills and abilities of the current and future public health workforce. Foundational to this work are the 10 Essential Public Health Services, the 8 Competencies defined by the Council on Linkages between Academia and Public Health Practice and the findings from data gathered during the planning phase of this project.

3. The Evaluation Committee has responsibility for the development of the evaluation process, tools and detail of measurement for all aspects of the project. This committee will work in close consultation with the other committees in metric development, tracking data and vetting findings. By year 4 of this project, this committee will have responsibility for another survey of the public health workforce to determine the improvements in the practice of public health workforce.
Final Recommendations for the Five Year Work Plan:

- Academic providers, in mutual partnership, customize a scalable skill based curriculum that ensures improvement in the eight public health competency areas for public health workers with emphasis on those whose practice lies in tier one and tier two.

- Engage education and training providers to collaborate on the design of a public health awareness and engagement track for pre-high school learners through all levels of collegiate learning and training schools such as nursing, radiology, and dental hygiene

- Employers and training/education providers develop clear pathways to attract new workers with a variety of skill sets to join the “new” public health workforce.

- Providers of continuing education/training programs develop a population health interdisciplinary learning session.

- Create a curriculum that is evidence-driven and population-based for current and future clinical providers, physicians, allied health, nursing, public health practitioners and others. This curriculum should provide a mutual learning opportunity across the divide between clinical care providers and community and public health practitioners. Emphasis not only needs to be on population-based sciences, such as epidemiology, preventive health/medicine, clear language and community engagement; curriculum needs to also address health financing, health delivery systems, and health reform.

- In partnership with national/regional education providers, design a customized curriculum that will address workforce education and training needs resulting from the Affordable Care Act.

- Work with employers of public health workers to integrate applicable public health

- Include competencies into employee performance goals, evaluations and job descriptions.

- Institute mentoring programs for workers to ensure that occurs along with the attainment of new knowledge.

- Develop a track or program in public health for undergraduate students

- Work with the public library system in Maine to insure access to professional publications for public health workers who do not have access to academic libraries

Since the planning process inception, much has been accomplished. A project infrastructure with oversight and advisors was established, this team guided the planning process throughout. Data was collected from a variety of sources including key informant interviews, literature searches, stakeholder engagements and a statewide public health workforce survey published in May 2012. The findings from all data gathered has served as foundational in the development of the work plan.

The work plan has been designed around three phases of work. Each successive phase builds upon the previous. All work will be done through the collaborative partnership of the Maine CDC, Hanley Center, and multiple key partners representing academia, workforce training programs, public health practitioners, health care systems and employers with a vested interest in improving the practice of the public health workforce.

**PHASE ONE 7/1/13 – 12/31/14**

<table>
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<tr>
<th>TASK</th>
<th>OUTCOME</th>
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<tr>
<td><strong>Operationalize</strong> Maine Public Health Work Plan Implementation Infrastructure. Recruit for members and convene meetings of each of the three working committees: oversight, curriculum and evaluation.</td>
<td>Each committee has active memberships that are representative of all partners focus areas including public health, healthcare, and academia. Each committee meets at least quarterly; all meeting notes are available for review.</td>
</tr>
<tr>
<td><strong>Implement</strong> skill building related to the practice of the 10 Essential Public Health Services through accessible learning modules / mentoring.</td>
<td>A collection of on-line trainings are available at the project website: <a href="http://www.maine.gov/PHT">www.maine.gov/PHT</a>. As of the date of the update, seven modules are available. This website is also used to notify interested parties of in-person trainings relevant to the 10 Essential Public Health Services.</td>
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<tr>
<td><strong>Raise Awareness</strong> of pertinent training with accessible programming and employer support for engagement. Focus the awareness for workers in tier 1 and 2, employed by the Maine CDC, as a pilot, over the first twelve months.</td>
<td>A robust project/training promotion campaign has been designed and implemented, including the enhanced website noted above and targeted outreach to city public health departments, educational institutions, and healthcare systems. In addition, creation of a Resource Guide is in process which will gather and share various public health leadership training opportunities, particularly in areas identified as priority by the 2015 Public Health Leadership Summit.</td>
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<tr>
<td><strong>Increase Knowledge</strong> through a strategic relationship with the Maine Statewide AHEC system and the New England Workforce Alliance to access evidence-based learning modules. Learning modules will be developed under the leadership of the Hanley Center for the target population of tier 1 and tier 2 Maine CDC workers. Further, explore a relationship with national partners to develop a curriculum designed to integrate population health training into primary care and public health practice.</td>
<td>Varying training modalities have been employed to increase knowledge of the public health workforce including online training modules, in-person trainings and webinars. The Maine Area Health Education Center(AHEC) at the University of New England and the New England Public Health Training Center (NEPHTC) are principal partners and crucial to the success of the project. Through this partnership, training modules have been developed and available to the project. Additional modules are under development at the current time with anticipated launching via the Maine.gov/PHT by June 2016, including new modules on cultural competence, numeracy, grant writing, and marketing. In addition a blended learning training including both in-person and online components focused on public health management will begin in the fall, 2016.</td>
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Trainings have been very successfully utilized by Maine CDC central office and district staff as well as local/municipal public health staff. Project partners representing varying disciplines have also successfully utilized trainings with their staff.

**Increase Resources** through collaborative partnerships with training and education providers in Maine and out of state. Develop an inventory of competency based training with low access barriers for workers in tier 1, tier 2 and tier 3. Post a resource guide and training inventory on the Maine CDC website accessible to the public. Provide statewide access to professional publications for public health practitioners, without access to academic libraries, through the statewide public library system.

Trainings have been very successfully utilized by Maine CDC central office and district staff as well as local/municipal public health staff. Project partners representing varying disciplines have also successfully utilized trainings with their staff.

Through the strong partnership with Maine AHEC at the University of New England and the New England Public Health Training Center, multiple trainings have been developed and made available to the project. Additional modules are currently under development with anticipated launching via the Maine.gov/PHT are outlined above. Since 2010 Maine CDC staff have had access to a digital library that provides access to journals and e-books to promote evidence based practice. As a component of this project, a Resource Guide is under development. This is intended to identify public health related training resources potentially available to public health, healthcare and educational leaders in areas identified as priority at the 2015 Public Health Leadership Summit.

**Continuing Education and Training** will be ongoing. Course topics are identified by the workforce survey and previously described intelligence gathering activities. Develop courses for all levels of public health practice that address public health science, cultural competency and public health leadership.

Through the defined collaborative project team serving as the Oversight Committee, course development and implementation remains a leading and ongoing priority of the project.

**Evaluation process** initiated under the leadership of the evaluation committee. Evaluation expertise will be available to structure the process, build the evaluation logic model and develop tools etc., with the committee.

An Evaluation Committee representing all associate disciplines has been established and implemented. This team reviews usage and student feedback of all trainings, organizes and reports descriptive data and makes recommendations for improvement.

### PHASE TWO 1/1/15 – 12/31/16

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<th>TASK</th>
<th>OUTCOME</th>
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<tr>
<td><strong>Policy Recommendations</strong> are developed for employers of public health practitioners to incorporate competencies in the performance evaluations, work goals and job descriptions.</td>
<td>Required completion of specific project online training modules has been established for local health officers and City of Portland public health staff.</td>
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<tr>
<td><strong>Health System Integration</strong> will result in collaborative and joint education and training of their clinical care and public health workers. Continue collaborative leadership training across Maine’s health system with a special focus on integrating public health leadership curriculum into the dialogue. Develop a public health leadership curriculum</td>
<td>Beginning in July 2016, the leadership and implementation of the Maine Public Health Leadership Development Project will become the responsibility of the collaborative partnership, primarily the Oversight Committee. This opportunity will allow all partner agencies together to define the most appropriate and effective strategies to continue public health education and leadership development.</td>
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leadership program, based on the core competencies with emphasis on collaboration.

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<tr>
<th><strong>Increase Competencies</strong> by continual improvements in curriculum offerings and platforms along with the addition of new learning modules.</th>
<th>statewide focusing on the priorities identified at the 2015 Public Health Leadership Summit.</th>
</tr>
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<tbody>
<tr>
<td><strong>Evaluation Process</strong> underway with engagement of key stakeholders, consensus metrics and preliminary data gathered and findings presented.</td>
<td>As outlined above, additional training modules, both on-line and in person, are under development.</td>
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<tr>
<td>An Evaluation Committee representing all associate disciplines has been established and implemented. This team reviews usage and student feedback of all trainings, organizes and reports descriptive data and makes recommendations for improvement. This remains a project priority activity.</td>
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### PHASE THREE  1/1/17 – 6/31/18

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<th>TASK</th>
<th>OUTCOME</th>
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<tr>
<td>Work from phase one and two carry over into this phase along with the following activities.</td>
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<td><strong>Resurvey Public Health Workforce</strong> in July 2017, and every four years thereafter</td>
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<td><strong>Increased Knowledge, Skills and Abilities</strong> will increase in three Competency areas over the first 4-year period of the project.</td>
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<tr>
<td><strong>Evaluate Project Success Outcomes</strong> against the training goals policy successes, sustained partnerships and workforce competency improvements.</td>
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Conclusion

Creating an open and living implementation five year work plan document and action plan is the only reasonable approach to this work. The rapid change that is faced daily within any sector of the health industry makes it impossible to be anything but fluid. This also allows the plan to be revised and edited as the circumstances change for public health work force improvement. Through continuous quality improvement, leveraging new and current partnerships, tracking new trends and challenges to the public health workforce, this work plan will evolve. Sustainability for the work plan has begun to ensure that public health workforce development remains a priority and is not neglected. The work has been inspired by the lessons of the past.

The Maine CDC and the Hanley Center for Health Leadership and the Maine Area Health Education Center recognize and acknowledge with deep gratitude the numerous partners, stakeholders and other contributors to the success of the public health workforce planning project. The accomplishments of this process remain a testimony to the value of collaboration among partners and collaborative leadership. Building on this platform will assure success during the plan implementation, as we move together in reaching our shared vision. A high performing public health workforce drives organizational success and together contributes to significant improvement in health outcomes.
Steps in the Maine Public Health Workforce Plan Evaluation Process

I. Logic Model has been developed and will require the committee to further develop, revise, and refine as the project moves along.

II. Engage stakeholders to form evaluation committee, set goals and timelines for the overall project and within the three phases and develop evaluation questions.

III. Focus the Evaluation Process based upon the work plan and the logic model.

IV. Gather credible evidence that will inform and define indicators, identify sources and resources, determine quality of indicators, identify logistics needed for oversight and assure continuous quality improvement. Revise logic model as needed.

V. Design data collection process, relying on credible approaches.

VI. Analyze and interpret data and provide data review and oversight.

VII. Justify conclusions and take to interested parties, get consensus and stay transparent.
# Maine Public Health Workforce Development Project

## Logic Model

<table>
<thead>
<tr>
<th>Inputs (Drivers)</th>
<th>Outputs</th>
<th>Outcomes -- Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Activities (what we do)</td>
<td>Participation (who we reach)</td>
</tr>
<tr>
<td>1. Available Resources</td>
<td>Workforce planning participants</td>
<td>* Steering Sub-committee</td>
</tr>
<tr>
<td>2. Accreditation</td>
<td>* Data Sub-committee</td>
<td>* Policies in Place: HR Changes</td>
</tr>
<tr>
<td>3. Aging Workforce</td>
<td>* Maine Health Workforce Council Staff</td>
<td>* Establish Public Health Competencies in staff</td>
</tr>
<tr>
<td>4. Council on Linkages</td>
<td>* Representatives from Maine’s 4 Largest Health Systems</td>
<td>Performance goals, Evaluations, and Job Descriptions</td>
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<tr>
<td>5. Population Medicine vs. Population Health</td>
<td>Regional/ Federal Partners</td>
<td>* Integrate 10 Essential Public Health Services</td>
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<tr>
<td>6. Healthcare Reform</td>
<td>* CMMI</td>
<td>Raise awareness</td>
</tr>
<tr>
<td>7. Affordable Care Act</td>
<td>* Maine CDC</td>
<td>* Display Available Training</td>
</tr>
<tr>
<td>8. 3 Core Functions</td>
<td>* New England Workforce Alliance</td>
<td>* Present Project Activities</td>
</tr>
<tr>
<td>9. 10 Essential Public Health Services</td>
<td>State Partners</td>
<td>* Inform Tier 1 &amp; 2 Workers</td>
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<tr>
<td>10. Health IT</td>
<td>* Maine CDC</td>
<td>• Utilize PHT e-newsletter to increase awareness of available trainings</td>
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<tr>
<td>11. Maine CDC Performance Improvement</td>
<td>* Hanley Center</td>
<td>Increase Knowledge</td>
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<tr>
<td>13. Budget/ Funding</td>
<td>* Maine AHEC</td>
<td>Increase Resources</td>
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<tr>
<td>14. Education</td>
<td>Work plan Implementation Oversight Committee</td>
<td>* Convene Oversight Comm</td>
</tr>
<tr>
<td>15. KSA (Knowledge, Skills, Abilities) of Workforce</td>
<td>Training Infrastructure; Curriculum and Evaluation Committees</td>
<td>* Provide Access to Professional Publications</td>
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<td>Continuing Education</td>
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<td></td>
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<td>* Work with Academic Partners</td>
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<td>* Introduce Public Health at All Levels</td>
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<td>* Evaluate of Work plan</td>
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<td>* Goal: Increased self-reported Competency Level in 3 of 8 Areas of Practice</td>
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<td></td>
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<td>* Five Academic Institutions offer Public Health Science Courses</td>
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<tr>
<td></td>
<td></td>
<td>* Pathway Established to Raise Public Health Awareness</td>
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<td></td>
<td></td>
<td>* Continued focus on Public Health Competencies in staff Performance goals, Evaluations, and Job Descriptions to improve competencies</td>
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