

Public Health Workforce Development Implementation Plan

*A Global Life-Long Learning System: Building a Stronger Frontline Against
Health Threats, Phase I*

June, 2000

EXECUTIVE SUMMARY

“There has probably been no time in the history of this country, when trained, competent, and efficient health officers were needed so much as they are now. It is unfortunate that in the absence of epidemics and pestilence, too little attention is paid to...those whose duties require them to guard the public health.”

JAMA editorial from 1893

PURPOSE

The global and national implementation plan for public health workforce development describes action steps that Centers for Disease Control and Prevention (CDC), the Agency for Toxic Substances and Disease Registry (ATSDR), and its partners can take in the next three to five years to launch the creation of an innovative learning enterprise for public health workers. This plan will ensure that public health workers have access to the knowledge and skills required for competent practice and a stronger frontline against health threats. While the vision and broad strategies of the implementation plan remain constant, the plan itself is a dynamic tool designed to stimulate change and momentum towards achieving mutual goals. Ultimately, an extensive learning network using technology-supported learning strategies will foster a sustainable, systems approach to assuring core competencies in the public health workforce nationally, as well as globally.

BACKGROUND

The health of our communities depends upon the competence of the national public health workforce – an estimated 448,254 physicians, nurses, environmental health scientists, laboratorians, health educators, epidemiologists, managers and support staff – working at the frontlines of public health throughout the country. This workforce is unevenly prepared to perform the essential functions deemed most critical to the public’s health – preventing epidemics and injuries, protecting against exposures to environmental hazards, responding to disasters, promoting healthy behaviors and assuring access to quality health services. Many of the nation’s frontline public health workers lack formal training in public health (1). Of primary concern is data suggesting that 78% of the 3,000 public health officials in leadership positions nationwide lack graduate degrees in public health (2). It is also significant that nearly 52% of public health nurses lack baccalaureate-nursing education, which provides some foundation in community health. Only an estimated 23% of environmental health training needs are being addressed (3, 4). A recent enumeration of the public health workforce indicates a decreased ratio of public health workers per population served (5). Considering the new and emerging health threats, this change represents a substantial erosion and fragmentation of public health capacity. Despite more than

a decade of dialogue in the United States on the critical needs and challenges in public health workforce development, progress remains slow in implementing recommended actions.

The need for an integrated system to assure a stronger public health workforce was addressed in the 1997 report, *Public Health Workforce: An Agenda for the 21st Century*, which identified five areas for action: national leadership, state and local leadership, workforce composition, curriculum development, and distance learning (6). Then, for the first time, *Healthy People 2010* identified objectives to bolster the nation's public health infrastructure (7). Prominently included are the following three objectives that provide direction for national public health workforce development: 1) incorporate specific competencies in the essential public health services into local, state, federal and tribal agency personnel systems; 2) integrate specific content on the essential public health services into the schools and programs of public health curriculum; and 3) provide continuing education on essential services to public health workers.

Presently, there are significant obstacles to overcome in formulating a national plan:

- Data on the composition and distribution of the workforce is inconsistently gathered.
- Agreement on basic and crosscutting public health competencies required for frontline preparedness remains elusive.
- Technology-supported learning systems are not integrated; there is no universally accessible, interoperable infrastructure; systems lack uniform operational strategy, and are unable to be technically integrated and are not user-friendly.
- Incentives for participation in life-long learning are inadequate; there is no uniform framework for certification and credentialing in public health as a profession.
- Research and evaluation data on workforce issues are limited.
- Financing is hampered by an absence of a coherent policy framework and strategies for funding workforce development.

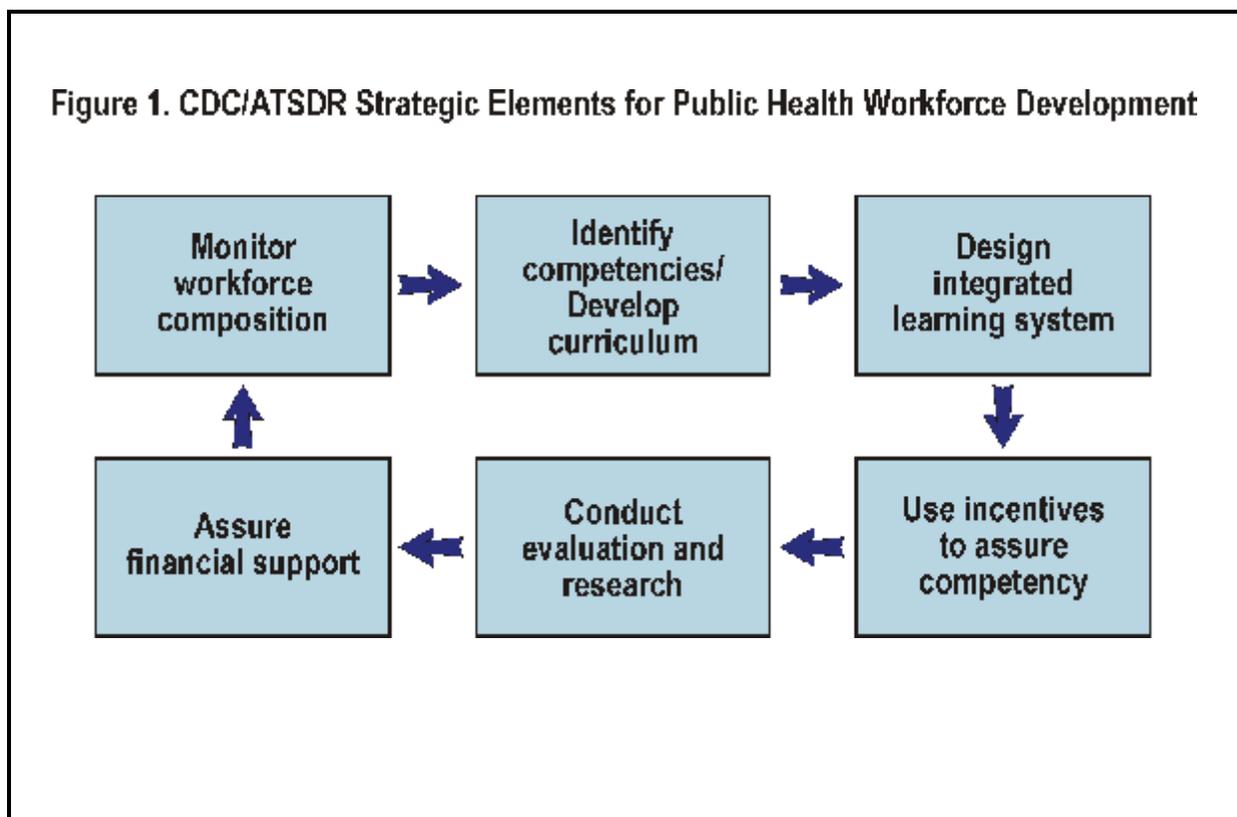
BUILDING MOMENTUM FOR ACTION

Over the past two years, CDC/ATSDR spearheaded efforts to stimulate the development of a national plan for public health workforce development which would build on partner efforts, support *Healthy People 2010* objectives and facilitate alignment of CDC/ATSDR training/continuing education programs targeted to frontline worker preparedness. In 1999, a 40-member Taskforce composed of both Center/Institute/Office (CIO) representatives and external partners developed the *CDC/ATSDR Strategic Plan for Public Health Workforce Development*. Later, an *Expert Panel Workshop on Public Health Workforce Development* was convened on November 1 – 2, 2000, to provide guidance on issues of science, policy and public health practice (8, 9). Over 140 national experts and public health leaders gathered at Callaway Gardens in Pine Mountain, Georgia, to provide consultation on key areas of public health workforce development (Appendix C). Work groups were asked to evaluate urgent needs and promising approaches and to identify priorities for action that could be

achieved in the next three years. These priorities would then be expanded to a broader more global perspective in the next five years.

IMPLEMENTING A GLOBAL AND NATIONAL PLAN

Partnership is a critical success factor for any plan to address workforce development issues. The *Global and National Implementation Plan for Workforce Development* integrates recommendations from the Taskforce and the expert panel reports, as well as other partner efforts. The plan uses six strategic elements as organizing principles, which depict a systems approach for assuring a competent workforce prepared to deliver essential services (Figure 1). An overview of the implementation plan is depicted in Table 1. The vision, guiding principles and strategic elements remain constant. The objectives and related action items will change based on workforce needs and trends. The plan is currently designed to incorporate the Health Resources and Services Administration (HRSA) and CDC/ATSDR Memorandum of Understanding (9/16/00); complement the congressional intent of the “Frist-Kennedy Infrastructure Law” (11/13/00); and reflect the growing urgency for action articulated by many involved in addressing workforce development issues. (Public Health Workforce Development Collaborative coordinated by the Association for State and Territorial Health Officials [ASTHO] and the Public Health Leadership Society [PHLS] - Enumeration Project.)



**TABLE 1. A GLOBAL AND NATIONAL IMPLEMENTATION PLAN
FOR PUBLIC HEALTH WORKFORCE DEVELOPMENT - AT A GLANCE**

VISION	GOAL	GUIDING PRINCIPLES	KEY PLANNING ASSUMPTIONS:	DEFINITIONS		
<p>A global learning enterprise for public health practitioners: -founded in sound science -provides access to master teachers -facilitated by learner-oriented information technology -integrated into existing learning and practice settings</p>	<p>-frontline public health workers prepared to respond to current and emerging health threats</p>	<p>-builds on existing resources -focuses on needs of frontline -enhances collaboration and partnerships -science-based -strengthens competency, certification and credentialing systems</p>	<p>-new competencies are required for 21st century practice -diverse, multi sector, geographically dispersed workforce -essential services defines work of public health -increased access to/use of technology</p>	<p>Public health workforce- perform one or more of the essential public health services regardless of practice setting. Context-plan addresses CDC/ATSDR role in collaboration with partners in addressing needs of public health workforce</p>		
Monitor workforce composition /project needs	Identify competencies / develop curriculum	Design an integrated learning system	Use incentives to assure competency	Conduct evaluation and research	Assure financial support	Establish coordination and accountability
<p>1A-Develop action plan to enumerate public health workforce periodically</p>	<p>2A-Establish a national system of Centers for Public Health Preparedness</p>	<p>3A-Build capacity for technology-based learning at federal, State and local levels</p>	<p>4A-Develop a multiple pathway framework for certification and credentialing in public health</p>	<p>5A-Develop research agenda and methods to address workforce development issues</p>	<p>6A-Secure a funding base for federal, state and local workforce development activities</p>	<p>Establish governance structure for implementation of global/national plan</p>
<p>1B-Promote consistent use of public health workforce terminology in data collection</p>	<p>2B-Develop and disseminate curriculum models and learning resources based on core public health competencies</p>	<p>3B-Establish standards, guidelines, and governance structure to enhance integrated global/national operations</p>	<p>4B-Develop strategies which promote life-long learning behaviors and eliminate obstacles.</p>	<p>5B-Integrate evaluation strategies in key workforce activities, (e.g. Public Health Training Network and Centers for Public Health Preparedness)</p>	<p>6B-Implement the CDC/HRSA Memorandum of Understanding on PH Workforce Development</p>	<p>Establish evaluation and system performance monitoring at each level: -individual learning; -programmatic; -public health outcome</p>

<p>1C-Analyze available data sources for trends and developmental needs</p>	<p>2C-Identify factors which support adoption/use of competency-based curricula in public health agencies</p>	<p>3C-Develop communications and marketing strategy to accelerate use (global & nat'l)of technology-supported learning in public health</p>	<p>4C-Identify factors which promote linkages between workforce competency and organizational performance</p>	<p>5C-Promote development and evaluation of practice-focused curricula in Schools of Public Health and related academic programs</p>	<p>6C-Link workforce development strategies with implementation of “Frist-Kennedy Infrastructure Law”</p>	<p>Develop/implement communications and dissemination strategy</p>
---	---	---	---	--	---	--

The implementation plan is a phased strategy to operationalize a vision of a global learning enterprise for public health practitioners. A well designed plan must be iterative in nature and guided by current and emerging public health threats facing communities, significant changes in workforce composition and the diversity of the public health partners. The proposed three-phase approach outlined below provides an opportunity to address these important determining factors:

- Phase I - Broadly outlines CDC/ATSDR-specific responsibilities and builds on existing infrastructure including the Public Health Training Network (PHTN) and the recently funded Centers for Public Health Preparedness (CDC/ATSDR) (Appendix E) and HRSA Public Health Training Centers.
- Phase II - Will focus on working with key partners to build workforce development capacity at state and local levels.
- Phase III - Will further expand the partnerships and foster greater integration of activities needed for national and global implementation.

ANTICIPATED OUTCOMES

Although the Expert Panel Workshop was not designed to achieve consensus, the following key areas of convergence are emerging as a result of that rich dialogue:

- (1) Basic & Crosscutting Public Health Competencies: Despite a variety of well-designed efforts in competency development, consensus on a uniform set of core competencies for frontline public health practitioners remained elusive until recently. The expert panel recommended designating the competencies under development through the Council on Linkages between Academia and Public Health Practice as a starting point with the intent of collaborating with other organizations that are working on competency definition (e.g., environmental health competencies). The CDC/ATSDR-funded Centers for Public Health Preparedness and HRSA-supported Public Health Training Centers will collaborate in designing a public health practice-focused curriculum model based on these competencies. The curriculum model can be adapted for various target audiences and delivery modalities. Availability of both the competencies and related model curriculum is anticipated within one year.
- (2) Certification and Credentialing in Public Health: The national plan envisions a framework with agreement on three levels of certification: basic, discipline-specific, and integrator/leader. The basic (or orientation) level would be available for every public health practitioner based on completion of the core curriculum; the discipline-specific certification would result from strengthening public health competencies within existing certification systems (i.e., medical specialty boards, and discipline-specific licensing bodies); and the integrator level would address the unique competencies required of public health system leaders. A preliminary review of existing resources

indicates that only the integrator level certification might require a new certification and credentialing entity. Significant progress in discussing the first two certification levels is anticipated within six months. Clearly any action on this important issue must reflect extensive dialogue among stakeholders and must represent thorough analysis of intended and unintended consequences.

- (3) Public Health Workforce Research: While it is logical to assume that a competent workforce able to perform essential services contributes to organizational capacity to achieve health outcomes, evidence of the effects of workforce quantity (staffing levels and mix) and quality (professional education /credentialing) on performance of core functions is limited. Further, evidence from other areas of workforce research suggests that the effect of the workforce will be substantially modified by characteristics of the agencies in which individuals work. However, the science base to predict the nature and extent of such effects is substantially lacking. Finally, the research base needs strengthening to link improved performance and organizational productivity to improved health outcomes. Public health workforce development should be considered an integral part of a national public health systems research agenda. Research is integral to the sustainability of a life-long learning system as it provides the evidence base for decisions. Development of an integrated evaluation framework is considered a high priority. Refinement of a national workforce research agenda, including a specific definition of research priorities, is anticipated within the next six months.
- (4) Technology-Supported Learning Systems in Public Health: Achieving a competent public health frontline depends on the extent to which a *learner-oriented*, technology-supported delivery system is adopted. Technology is a moving target and system design must be flexible in a field where two years represent “light years” of change. The national implementation plan supports action in two key areas: (a) developing the systems’ building blocks, and (b) facilitating implementation. The Expert Panel Work Group agreed on the following critical success factors to yield this effective system:
- S Improving the ability of faculty to use this approach.
 - S Preparing a cadre of health educators/developers cross-trained in public health education and learning technologies.
 - S Expanding and modernizing the infrastructure that permits access to training at the frontline.
 - S Adopting a national system for guidelines for governance and uniform principles for operation.

In order for such a system to be operated in the most effective and efficient way, technology-supported learning must be governed by a broad array of partnerships, must deliver a wide range of

competency-based learning experiences to all segments of the workforce, must be supported by a sound framework of evaluation and a system for monitoring performance, and finally, must be marketed as a cost-effective strategy to achieve workforce competence in public health. Critical milestones will be identified by the Senior Policy Committee. (The committee is referenced in the “Coordination and Accountability” section.)

COORDINATION AND ACCOUNTABILITY

Keeping track of progress and aligning activities towards mutual goals will remain a challenge for the broad array of partners working on the implementation plan. To ensure continuity and quality in accomplishing this strategic effort, the following issues must be addressed:

- (5) Governance - An inclusive governance structure to provide coordination, advice and oversight is an integral component of the implementation plan.
 - S Senior Policy Committee - includes public health leaders and senior CDC/ATSDR representatives to advise on integrating the implementation plan for public health workforce development with state, local and federal public health priorities and CDC/ATSDR's global and national priorities. In addition, the Senior Policy Committee will be instrumental to developing strategies for establishing stable funding/support for public health workforce development.
 - S National Implementation Plan Coordination -
 - i. Steering Committee - consists of chairpersons from expert panels; provides oversight and guidance on issues of science, policy and public health practice related to implementing the action plan.
 - ii. CDC/ATSDR CIO Work Group - provides a forum for developing operational plans to implement CDC/ATSDR's role in the global/national plan for workforce development; facilitates CDC/ATSDR-wide communications/participation.
- (6) Evaluation - A framework for evaluation and system performance monitoring will allow for a systematic and continuous assessment at three levels:
 - S Individual learner.
 - S Programmatic quality and content.
 - S Public health outcomes.
- (7) Communication - Successful implementation requires a communications strategy to:
 - S Develop/sustain a common vision by all partners.
 - S Promote collaboration and efficient use of resources among partners.
 - S Assure comprehensive dissemination of products and services.
 - S Components of the strategy include:
 - i. Ongoing dialogue facilitated by the governance structure;
 - ii. Information dissemination through the ASTHO-led Public Health Workforce Development Collaborative; and
 - iii. Annual review of progress (i.e., Callaway 2 - Fall, 2001).
 - iv. Funding - A comprehensive funding strategy must be developed, adopted and implemented for the global and national implementation plan involving:

- a. Governmental partners (federal, state and local).
- b. Private partnerships.

The implementation plan is ambitious. A breadth of partners must form alliances to create a life-long learning system to assure a competent public health workforce nationally and globally.