

A Profile of Nurses Working in Connecticut's Health Departments

Barbara Dingfelder, APRN-BC, BSN, MPH, CHES
Local Public Health Nurse Liaison
Local Health Administration Branch
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Keeping Connecticut Healthy

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A PROFILE OF NURSES WORKING IN CONNECTICUT'S HEALTH DEPARTMENTS

Nurses have been recognized for their contributions to public health's accomplishments and continue to be critical for the health and well being of communities across the nation.¹ Public health nurses work with a diverse multi-disciplinary group applying their knowledge of health and social sciences to plan, facilitate and assure interventions promote quality of services for individuals, communities, and populations through programs, policy development, and advocacy.² Although public/community settings remain the second largest employment category for registered nurses (2004),³ there persists a vague understanding of the nurses' roles in non-traditional settings such as in Connecticut's health departments. Yet, nationwide, nurses comprise the largest group of professionals in health departments, at both state and local levels.⁴

This report is a preliminary step for analyzing the capacity and providing a profile of nurses in Connecticut's health departments. One of the primary indicators of organization performance is the capacity of the workforce to perform and evaluating how this contributes in ways to improve the health of communities.⁵ The value of nurses' work in health departments (State and locally) will not be recognized or fully considered until more about their function and contributions are realized. This assessment is intended to provide context for strategic planning to enhance a statewide public health nursing network. The report encompasses:

- ❑ *What are the roles of nurses working in public health systems?*
- ❑ *Where are nurses integrated into the public health systems?*
- ❑ *Who are the nurses in Connecticut's health departments?*
- ❑ *What roles do nurses fill in the state and local health departments?*
- ❑ *Are the scope and standards of public health nursing integrated into practice in Connecticut's health departments?*
- ❑ *What are recommendations to enhance a statewide public health nursing network in Connecticut?*

Rationale

Public health is an essential service guaranteed to all residents nationwide and encompasses sophisticated, science-based systems for identifying and dealing with real or potential health threats. Protecting the public's health, promoting health, and preventing disease and injury are missions mutual to public health and nursing. Public health nursing is a unique area of practice "defined by scope of practice and not by the setting."⁶ It is "the practice of promoting and protecting the health of populations using knowledge from nursing, social, and public health sciences."⁷

Although no one entity or professional group is the sole contributor to health improvement in a population, evidence of public health infrastructure or systems to carry out the core functions and

¹ Association of State and Territorial Health Officials (ASTHO) (2005). Issue Brief: Public Health Workforce Shortage: Public Health Nurses.

² Greiner (2005). APHA, Nursing Section. The Role of Public Health Nurses.

³ U.S. Department of Health and Human Services Health Resources and Services Administration (2006). Preliminary Findings: 2004 National Sample Survey of Registered Nurses, p. 8-9.

⁴ ASTHO (2005). Issue Brief: Public Health Workforce Shortage: Public Health Nurses.

⁵ Berkowitz et al. (2001). Public Health Leadership. *A Guide for Managing the Core Functions*. American Nurses Association

⁶ Quad Council of Public Health Nurses, (1999). APHA, Nursing Section.

⁷ APHA, (1996) PHN Section

essential services is a critical performance indicator.⁸ This analysis provides essential information for the assessment of one component of Connecticut's public health workforce and supports efforts to demonstrate the state's capacity, which is the key step in the national move towards accreditation of health departments.

Further, strengthening the public health nursing capacity is the focus nationally with ongoing efforts sponsored by the federal Centers of Disease Control and Prevention (CDC), the American Public Health Association (APHA), Association of Community Health Nurse Educators (ACHNE), the Association State and Territorial Directors of Nurses (ASTDN), the American Nurses Association (ANA) Congress on Nursing Practice and Economics, as well as other state organizations. These public health and professional nursing entities recognize the transitional shift of nursing practice from direct nursing care for individuals to models encompassing population-based care. Population based practice can be defined in part by interventions that shape the over-all health profile of a group of people. These interventions focus on prevention and protection in contrast to primarily treatment.⁹

This analysis includes information to provide context for the assessment and it is a first step for an initiative focused on recognizing, identifying, and building on the strengths of nurses working in Connecticut's health departments. Recognized challenges include the need to develop the capacity of these nurses in a manner that builds on their strengths, and provide a forum to promote their professional development so that they become an effective force for dealing with contemporary and emerging issues within a rapidly changing society. This project is based on the premise that organizational growth can be achieved through change from the inside through the discovery, nurturing, and mapping of assets; and the creation of critical consciousness, all toward the end of building a stronger and more responsive public health nursing group to support Connecticut's residents.¹⁰

Methodology

Strategies used to complete this assessment include:

- A literature review for the profile of public health nurses recognized nationally.
- Review the Scope and Standards of Public Health Nurses.
- Review the Connecticut General Statutes and Public Health Codes.
- Analysis of data collected from the FY 2005 Local Health Departments/Districts Annual Report.
- Analysis of the DPH's personnel data.

BACKGROUND

To better understand the link between nursing and public health, highlights of historical influences are summarized to provide a foundation for understanding the varied roles of nurses working in public health systems. "The past is the prologue to the present and provides us with a professional identity."¹¹ Highlights of instrumental nursing leaders and the fundamental reforms instituted as result of their efforts include:

⁸ CDC (1994). National Public Health Performance Standards. Essential Service 8 and 9.

⁹ Berkowitz et. al (2001). *Public Health Nursing Leadership. A guide to Managing the Core Functions*, p. 2.

¹⁰ Minkler & Wallerstein (2002). A Health Education Perspective, *Community Organizing and Community Building for Health*, p.48

¹¹ As cited by Erickson (1985/p.4). Nowak(1985). All from the same handiwork. *Advances in Nursing Science*. 1(2), XIII-IX.

- As early as the 1850's, **Florence Nightingale** founded nursing practice on public health concepts that recognized modifying the environment (i.e., ventilation, food, lighting, and cleanliness) were important to enhancing health. She showed graphically through the collection of epidemiological surveillance and data collection that “wherever her nurses were, far fewer died, and wherever they were not, far more died”.¹² In addition, she distinguished a difference in nurses caring for the “sick” and those working to promote the “health” of the clients.¹³
- **Lillian Wald** was the first to coin the term of public health nurses to describe efforts she organized in 1915 that brought nursing care into the poor neighborhoods with the Henry Street Settlement in New York City. She promoted health education by working with families and communities to address environmental conditions, and dramatically reduced the mortality rates of those living in this area. Further, her efforts brought nurses into elementary schools to promote infection control and health screening to improve the health of children.¹⁴
- During the 1910's, **Margaret Sanger** was another leader and advocate for health promotion activities in communities. She advocated and was responsible for social change efforts that resulted in making birth control information available to women and she is recognized as the founder of Planned Parenthood. In addition, she influenced legislation regarding child labor laws.

Each of these nursing leaders made significant improvements to the delivery of care and health care systems. They recognized the power of nursing and clearly demonstrated the need for and impact of nurses working in community settings applying public health concepts. These leaders illustrated the value of and importance of consistent record keeping, data collection, evaluating the effectiveness of interventions, and political astuteness. They were advocates for vulnerable populations and illustrated the effectiveness of providing health education to populations to prevent the spread of infectious diseases and injuries. A legacy they left that continues to be vital for public health nurses today was their ability to influence social reforms to improve conditions affecting communities they worked with by identifying health issues and using the political process to change policies to assure health promotion activities to better serve the people.¹⁵

The role of public health nurses has continued to evolve over the past 100 years as advances in technology, health issues, and the community needs changed. The APHA recognized the public health nursing field as a specialized and unique field of practice nationally in 1981.¹⁶ They recognize that “it is not the location of care but the focus of care that distinguishes public health nursing from other specialty areas.”¹⁷

However other external factors were affecting public health nursing and health department services. By 1965 the health care delivery system was a complex, rapidly changing mix of public and private health programs, which resulted in an increased demand for specialization in nursing care for the ill.¹⁸ Sweeping political reforms of the 1970's in both Medicare and Medicaid were instituted to increase accountability of institutional and community agencies.¹⁹ The reforms resulted in many of the community health services for health promotion activities being no longer reimbursable.

¹² As cited by Fralic, M.F. 2000. What is leadership? *Journal of Nursing Administration*, 30[7/8], 340-341

¹³ Nightingale (1859), *Notes on Nursing: What It Is and What It Is Not* p. 455.

¹⁴ As cited by Dolan, 1978, *History of Nursing*.

¹⁵ ASTDN (2000). *Public Health Nursing A Partner for Health Populations*. p. 4.

¹⁶ As cited by the American Public Health Association, *Public Health Nursing Section*, 1996

¹⁷ Quad Council of Public Health Nursing Organizations (1999). *Scope and Standards of Public Health Nursing Practice*. P. 6.

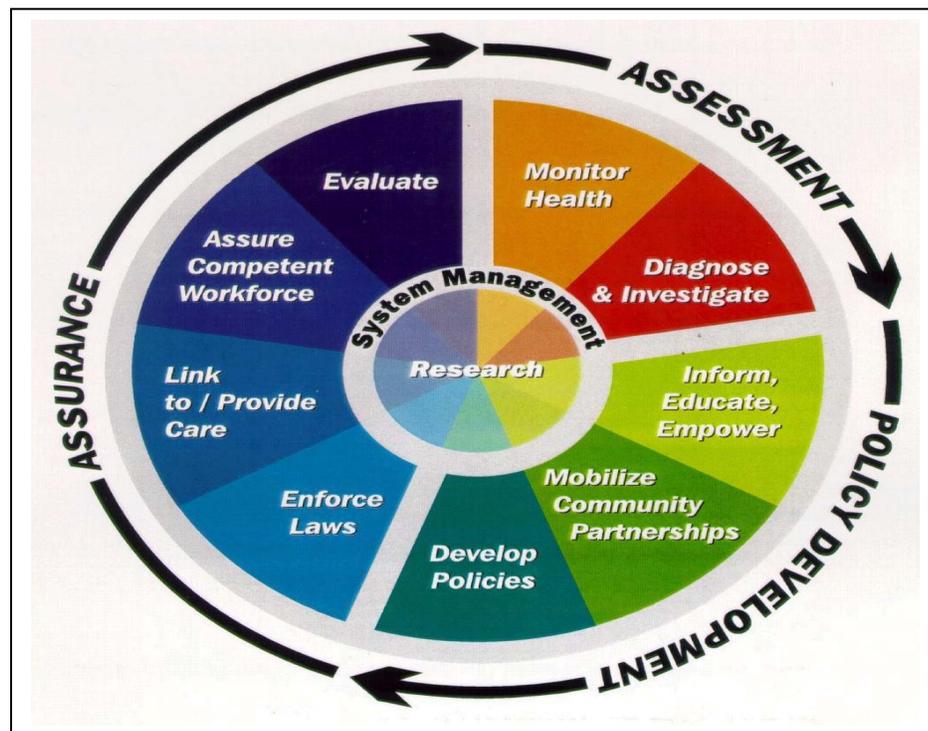
¹⁸ As cited by Erickson (1985/p. 29). Kalish & Kalish (1978). *The advance of American Nursing*.

¹⁹ Kalish & Kalish (1978). *The advance of American Nursing*. (as cited by Erickson [1985], p. 32.

In addition, debates over defining the roles of public health continued through the century, as has the debate of the responsibility of government to provide health care to the public in the United States. Conflicting views ranged from incorporating medical and nursing care as part of the essential service to confining efforts to epidemiology, environmental sanitation and recordkeeping with nursing for case finding and preventive health education.²⁰

The release of the Institute of Medicine report, *The Future of Public Health* (1988), significantly influenced the transformations in the organization of public health throughout the United States. Gaps identified in the report led to discussions on the need for core competencies for public health professionals and expanded over time with the delineation of the ten essential services defined within the three core functions of public health: *assessment, policy development and assurance*.²¹ Subsequently, a framework was developed (1994) to illustrate how the 10 public health essential services work together and provided as diagram 1.

Diagram 1: The 10 Public Health Essential Services



National Public Health Performance Standards (2005)

In conjunction to the discussions to improve accountability of health departments, public health nurse leaders came together to convene the Quad Council of Public Health Nursing Organizations, comprised of representatives from the American Nurses Association Council for Community, Primary and Long-Term Care Nursing Practice; the APHA Public Health Nursing Section; the ACHNE, and the ASTDN. Collaboratively, they defined the goal of public health nursing as “the prevention of disease and disability

²⁰ As cited by Erickson, G (1985/p. 20-21). Silver (1978). A century of health progress: organizational issues in public health services delivery. Connecticut Health Bulletin, 92(2), 36-41.

²¹ Institute of Medicine (1988). *The Future of Public Health*.

for all people through the creation of conditions in which people can be healthy.²² The **Scope and Standards of Public Health Nursing Practice** (1999) were defined through the efforts of this professional alliance. The knowledgeable response to the external forces exemplify the ingenuity and expertise of public health nurses' ability to adapt to changing health care needs and shifts in political environments, while retaining the essence and uniqueness of public health nursing practice.²³

In addition, efforts lead by the Minnesota Department of Health, Public Health Nursing Section and supported by the Department of Human and Health Services, HRSA grant, delineated the cornerstones of public health nursing practice as:

Public Health Nursing Practice

- *Focuses on entire populations.*
- *Reflects community priorities and needs.*
- *Establishes caring relationships with communities, families, individuals, and systems that comprise the population the public health nurse serves.*
- *Grounded in social justice, compassion, sensitivity to diversity, and respect for the worth of all people, especially the vulnerable.*
- *Encompasses mental, physical, emotional, social, spiritual and environmental aspects of health.*
- *Promotes health through strategies driven by epidemiological evidence.*
- *Collaborates with community resources to achieve those strategies, but can and will work alone if necessary.*
- *Derives its authority for independent action from the Nurse Practice Act.*

The alliance of the Quad Council of Public Health Nursing Organization worked under the leadership of CDC to develop a set of national public health nursing competencies that integrate the ten essential public health services (2003).²⁴ The Quad Council utilized an approach that linked academia and public health practice. They worked with the intention of using these core competencies as a guide for agencies that employ public health nurses and academic settings to facilitate education, orientation, training and life long learning using an interdisciplinary model.²⁵ Further, the Quad Council has continued collaborations updating and rewriting the practice guidelines to integrate the 10 Public Health Essential Services with implications for nurses published January 2007.²⁶

The competencies link the varying roles of public health nurses for each of the domains and represent the set of skills, knowledge and attitudes necessary for the broad practice of public health. Two levels of practice have been differentiated:

- Basic level
- Generalist

²² Quad Council of Public Health Nursing Organizations (1999). *Scope and Standards of Public Health Nursing Practice*. p. 2

²³ Erickson et al.

²⁴ King & Erickson (2006). *Development of Public Health Nursing Competencies: An Oral History*. *Public Health Nursing*, Volume 23.

²⁵ ASTDN Publication (2003). *Quad Council PHN Competencies*, p. 1

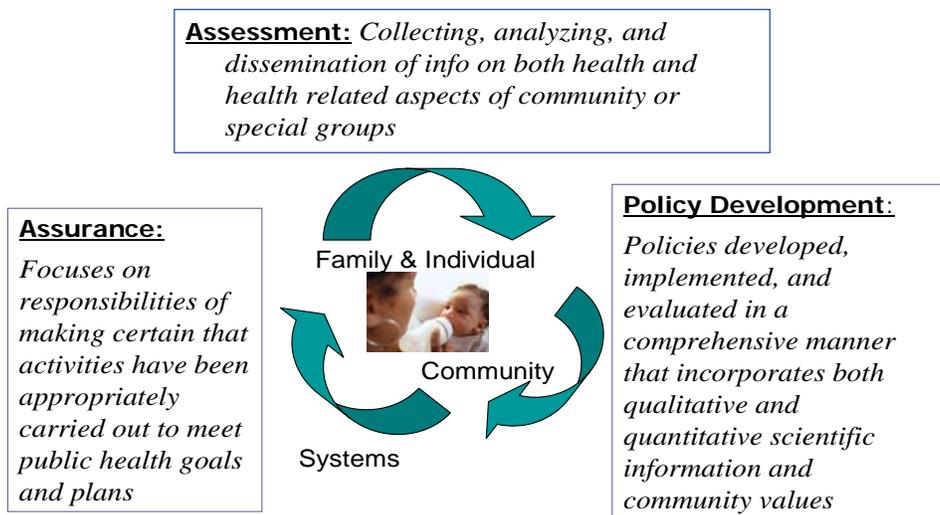
²⁶ ANA (2007). *Scope and Standards of Public Health Nursing Practice*.

- Staff public health nurses
- Advanced Practice
 - Manager
 - Clinical Nurse Specialist
 - Consultant
 - Program Specialist
 - Executive

Further, the Quad council recognizes one of the unique contributions of public health nurse is the ability to apply principles at the individual and family level within the context of population-focused practice. Models to illustrate the application of how public health nurses perform the core functions of assessment, policy development and assurance at individual/family, community, and system levels have been developed by the ASTDN, Washington Department of Health (Public Health Nursing Section), and the Minnesota Department of Health. Each of these models use a framework that defines the scope of public health nursing practice by the type of intervention and level of practice, rather than by the more traditional “site” for service (i.e., acute care, long term care, school nurse, etc). Further, these models reflect the scope of practice used by other public health disciplines and are not exclusive to public health nurses. Diagram 2 illustrates the basic framework used by each of these organizations is provided:

Diagram 2: *Public Health Interventions Common Framework*

Core Functions of Public Health



Adapted from: Berkowitz, et al. (2001). "Public Health Nursing Leadership. A Guide to Managing the Core Functions"

One model - **The Intervention Wheel** - integrates these three distinct and equally important components reflecting the relationship of public health nursing interventions for population-based services.²⁷ Refer to Appendix B for further information on this model and the integration of the functions with public health nursing practice.

²⁷ Minnesota Department of Health, Public Health Nursing Section (2001). Public Health Interventions Applications for Public Health Nursing Practice.

WHERE ARE NURSES INTEGRATED INTO THE PUBLIC HEALTH SYSTEMS?

Public health systems include many organizations and collaborations encompassing local, state, and federal governmental entities, public and private. However, governmental agencies are the recognized “backbone” of the public health system responsible for the development of policy, assuring the provision of services, and assessing and diagnosing real and potential threats to the health of populations. A set of standards have been developed to define the scope of services provided by health departments through the efforts of the CDC, the National Association of City and County Health Officials (NACCHO), and collaborations of other professional organizations. However, research found that our local health departments vary greatly in capacity, authority, and resources.²⁸ Further, local health departments use a variety of strategies, arrangements and funding sources to meet these standards. Although the mission of governmental public health entities (state and local) remains the same, they vary in organizational infrastructure, what services are provided, and how the services are delivered. These differences illustrate the difficulty in defining whom the staff or disciplinary teams working in the health departments or clear expectations of services provided.²⁹

The DHHS conducted research to enumerate the public health workforce and reported (2005) that the public health workforce was not easily defined or measured and varied within the different agencies.³⁰ However, DHHS and studies conducted by ASTHO found that nurses make up the largest professional group in public health workforce and reported that public health nurses played a number of different roles that varied by work setting and location. These included:

- Direct patient services
- Population based health services
- Program management

In addition, findings of the DHHS study (2005) indicated that the majority of the states varied on the minimum qualifications required for public health nurses with only New York and California requiring at least a Bachelors of Science degree and specific curriculum including public health.³¹

To gain a better understanding of the nursing functions in the health departments, job descriptions and performance plans of duties of the state public health nursing leaders were examined to determine the functions and responsibilities in a study supported by the Association of State and Territorial Health Officials (2003). Each identified duty was linked to the core functions and compared to findings of an earlier study completed in 1991³²: A summary of the report findings pertaining to the public health nurse leader’s roles, duties and responsibilities is provided in Table I.

Table I: *Top Public Health Nurse Roles/Duties/Responsibilities*

Functions	1991 Proportion of Results by	2003 Proportion of Result by
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²⁸ NACCHO (1995). U.S. Department of Health and Human Services (US, DHHS) /Health Resources and Services Administration (HRSA) (2000) and (2005).

²⁹ US, DHHS/HRSA (2005). Public Health Workforce

³⁰ Public Health Workforce Report (US, DHHS, HRSA, Jan. 2005)

³¹ Public Health Workforce Report (US, DHHS, HRSA, Jan. 2005)

³² Brown, A. (2003). Public Health Nursing Leadership, Responsibilities and Issues in State Health Departments. Results of an ASTDN Survey.

	Percentage	Percentages
Assessment		
Consultation with local/state health departments	81	69
General public health role	--	66
Role of continuing education programs	61	48
Testimony/reporting to legislature	--	38
Workforce issues	61	72
Policy		
General public health role	--	66
Involved in policy	81	72
Only public health nursing policy	46	59
Personnel issues	--	72
Procedure development	65	48
Representation in professional organizations, committees, and boards (not including ASTDN)	73	79
Testimony/reporting to legislature	--	38
Assurance		
Creation of budgets	54	38
Evaluation	--	59
General public health role	--	66
Interpretation of nursing practice	73	52
Leadership	46	62
Licensure/regulations of home health	23	4
Quality assurance	73	52
Research	19	10
Leadership		
Bioterrorism	--	24
Direct supervision	58	86
Personnel issues	--	72
Setting direction for public health nursing	65	69

Table adapted from report: Brown, A. (2003). Public Health Nursing Leadership, Responsibilities and Issues in State Health Departments. Results of an ASTDN Survey. p. 8

Table Key: *Percentages are results from ASTDN mailed survey administered in 1991,
 “—“ indicates that data were not collected on this duty at that time.

Further investigation regarding the roles and functions of public health nursing leaders is underway. In the fall (2006), the ASTDN received CDC funding through an ASTHO Cooperative Agreement to develop a model template identifying the functions, knowledge, skills, and abilities of state public health nursing leaders; complete a report describing the contributions of public health nurses, and an inventory of existing resources for evidence-based best practices for public health nursing.³³ These efforts are underway to clarify roles, recognize contributions, and identify the public health nurses associated with health departments, nation-wide.

³³ American Public Health Association Abstract 139372 (2006). Enhancing the capacity of public health nursing through partnerships. Linda Olson Keller, MS, BSN, APRN, BC

OVERVIEW OF CONNECTICUT'S PUBLIC HEALTH INFRASTRUCTURE

The Connecticut public health system was established in 1878 and encompasses only two tiers, the state and local level. In contrast to many other states, Connecticut has no regional or county governmental system. The State DPH's mission "is to protect the health and safety of the people of Connecticut and actively work to prevent disease and promote wellness through education and programs" (2006).³⁴ As other New England states, Connecticut has a long history of preferring local governmental control and the public health system is decentralized. The statutory responsibility of DPH has been to serve as the State's lead in public health policy and advocacy. DPH has an administrative, regulatory and partnering role with the local health agencies. The state provides "advocacy, training and certification, technical assistance and consultation, and specialty services such as risk assessment which is not available at the local level".³⁵ The local health departments are autonomous and under the jurisdiction of the towns/municipality or health district served and operate independently of each other and of the state and federal public health agencies.

Connecticut **Public Health Code 19a-76-2** defines the basic local health program and corresponds with the Desirable Minimum Functions of Local Health Departments established by the APHA in 1934³⁶ and includes the expanded functions recognized in 1951.³⁷ "Public health nursing was not singled out; it was considered a component of each function."³⁸

Public Health Code 19a-76-2 directs that every municipality and town must be served by a governmental entity to ensure the provision of basic public health program. Excerpts from this health code outline the provision of services and define the basic health programs to be provided.

19a-76-2. BASIC LOCAL HEALTH PROGRAM	
(a)	<i>. . . .The health department may ensure the provision of a program by directly providing the service, contracting with another health department or community agency or coordinating public health services with other community or regional resources providing specialized services. Nothing in these regulations shall prohibit any health department from providing health services in addition to the basic services described in subsection (b) below.</i>
(b)	<i>The basic health program to be provided shall include the following services that prevent disease or reduce conditions that have an adverse effect on health:</i>
(1)	<i>Public health statistics.</i>
(2)	<i>Health education.</i>
(3)	<i>Nutritional services.</i>
(4)	<i>Maternal and child health.</i>
(5)	<i>Communicable and chronic disease control.</i>
(6)	<i>Environmental services.</i>
(7)	<i>Community nursing services.</i>
(8)	<i>Emergency medical services.</i>
<i>(effective December 15, 1983; Amended April 29, 1999)</i>	

The Commissioner of DPH has authority over the directors of local health agencies and responsibility for administering all laws under the jurisdiction of the DPH and the Public Health Code. Connecticut

³⁴ DPH (2006). Connecticut DPH Program Directory, p. 6.

³⁵ Connecticut DPH (2006). Program Directory, p. 4

³⁶ APHA (1934). An official declaration of attitude of the American Public Health Association on desirable standard minimum functions and suitable organization of health activities. *American Journal of Public Health*. 24(2), p. 6-11.

³⁷ APHA (1951). The local department-services and responsibilities. *American Journal of Public Health*. 41(3), p. 302-307.

³⁸ As cited Erickson et al, p. 21. APHA (1934).

General Statutes Section 19a-2a, Power and Duties, provide the scope of authority and describes the duties of the DPH Commissioner regarding public health systems. The Commissioner has responsibility to:

“...employ the most efficient and practical means for the prevention and suppression of disease and shall administer all laws under the jurisdiction of the Department of Public Health and the Public Health Code. He shall have responsibility for the overall operation and administration of the Department of Public Health...”

In addition, “Whenever he determines that any provision of the general statutes or regulation of the Public Health Code is not being enforced effectively by a local health department, he shall forthwith take such measures, including the performance of any act required of the local health department, to ensure enforcement of such statute or regulation and shall inform the local health department of such measures. In September of each year he shall certify to the Secretary of the Office of Policy and Management the population of each municipality.”

Currently, local health agencies in Connecticut vary in composition, size, and provision of services. Communities may be served by health departments that operate on a part-time or full-time schedule. Health departments may provide services to individual towns or groups of towns that collectively and voluntarily comprise health districts. As of July 2006 there are 82 local health departments (LHDs) serving the 169 towns and approximately a 3.5 million population (2004 census). There are 49 full-time and 33 part-time local health agencies. The full-time departments include 30 individual municipal health departments and 19 health district departments (containing from two to 18 towns). Table 2 provides a breakdown of the population and town distributions served by operational type of local health department.

Table 2: *Population and Town Distribution Served by Type of Local Health Department*

	Number of Towns	*Population	Proportion (% of pop.)
Full-Time	130	3,214,770	92%
Municipal	29	1,648,581	47%
Districts (20)	107	1,566,189	45%
Part Time	33	288,834	8%
Total	169	3,503,604	100%

**2004 Population Estimates (Last updated July 2006)*

Through contracts local health departments/districts are connected to DPH and create the action arm of Connecticut’s public health system. The DPH receives funds from CDC and other federal agencies and a portion from the State’s general revenue, which is distributed to the local public health agencies to help support the delivery of public health services in communities statewide. Under Connecticut **General Statutes Sections 19a-245** and **202**, local public health agencies can apply for Per Capita Grants in Aid. In addition, the local health departments and districts receive revenues earned thru revenues such as environmental health permits and licenses, and vital record fees. Local health budgets may also contain funds from other state affiliated agencies such as the Department of Social Services for

substance abuse treatment or vaccinations, the Department of Emergency Management and Homeland Security for public health preparedness, etc. or other nationally sponsored grants.

Efforts are underway to further strengthen the state's public health infrastructure and assure residents statewide have access to full time operational health departments. In the past two years these efforts have lead to changes in Connecticut's public health infrastructure with an increase in the number of towns being served by full-time health departments/districts and a consolidation of local health departments moving from 102 to the current total of 82.

WHERE ARE NURSES INTEGRATED IN CONNECTICUT'S PUBLIC HEALTH SYSTEM?

To assess where nursing positions are assigned and what nursing positions are filled in Connecticut's health departments an analysis of available data was undertaken. Data regarding staffing units and program affiliation was collected. However, upon review of the data it became apparent that the information was incomplete and inconsistent.

Nursing staff are integrated into a broad range of programs and nurses fill many different roles at the various agencies. More extensive research would be necessary to provide a more conclusive or comprehensive analysis. However, the limited data does provide a starting point and preliminary view to start a profile of nurses in Connecticut's health departments. A summary of the data has been separated by functioning entity, state and local.

State Department of Public Health

The DPH personnel department provided information regarding what positions are listed under nursing and available during the fiscal year 2005 (ending July) and where the positions were within the organization. Preliminary analysis of this data indicated that nursing staff composed at least 11% of the total agency's employees (based on 825-850 staff). DPH nursing staff are affiliated with a section of the New England Health Care Employees Union District 1199. DPH utilizes general classifications for nurses and two functional levels:

- Staff
 - Clinical Nurse I
 - Nurse Consultant
 - Utilization Review Nurse Coordinator
- Supervisor
 - Supervising Nurse Consultant

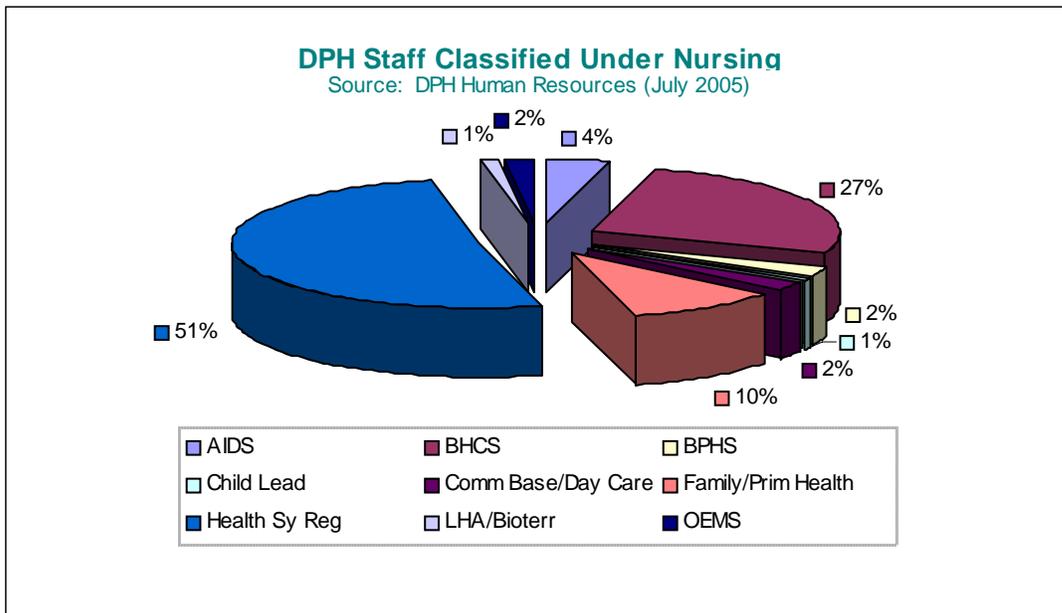
Nursing positions are integrated into various programs, sections and branches of the DPH. The proportion of nursing staff within these sections varies by function of program. Based on the organizational structure at the time of the data collection, the programs and sections included:

- Bureau of Community Health
 - AIDS and Chronic Diseases (AIDS)
 - Division of Health Systems and Reporting (Infect Dis)
 - Family Health Division (Family/Primary Health)
 - Division of Childhood Surveillance (Child Lead)
- Bureau of Health Care Systems (BHCS)
 - Office of Practitioner Licensing and Certification

- Division of Health Care Systems Regulation (Health Sy Reg)
- Legal Office
- Bureau of Regulatory Services
 - Division of Community Based Regulation (Comm Base/Day Care)
 - Division of Environmental Health
 - Drinking Water Division
- Office of Emergency Medical Services (OEMS)
 - Public Health Preparedness
 - Emergency Medical Services
- Office of Local Health Administration (LHA/Bioterr)

To gain a better understanding of the integration of the nursing staff a visual view of the distribution is beneficial. Figure 1 illustrates the distribution of nursing staff within the different sections making up the agency.

Figure 1: DPH Staff Classified Under Nursing



Although nursing positions are distributed across the agency in various sections and branches, more than 75% of the nursing positions are with the regulatory services to include the Healthcare Systems Branch, Regulatory Services, Community Based Regulations/Day Care and Child Lead Program. The DPH is responsible for the licensure and oversight of all types of healthcare facilities (1,291 facilities). Since the 1970's when the Public Health Code was strengthened to provide greater regulation of nursing homes, the Department has maintained an inspection workforce primarily composed of registered nurses. Many states utilize a mix of nurses and "generalist" inspectors (trained, non-licensed personnel). Connecticut's commitment to quality in healthcare and patient protection is demonstrated by its continuous use of registered nurses (most with baccalaureate and many with Master's degrees) to carry out the critical public health function of "assurance".

Further investigation identified a range of roles and functions filled by the DPH nurses and found that nurses may have more than one functional role. However, except for the specific clinical functions, the roles were not exclusive to the nursing staff. These include:

- Administrator of program
- Case investigations and managers
- Consultants
- Contract managers
- Health care or facility inspectors
- Health educators (professional and public)
- Emergency preparedness coordinators
- Epidemiologists
- Evaluators
- Grant writers
- Ombudsman
- Policy and program planners
- Quality assurance

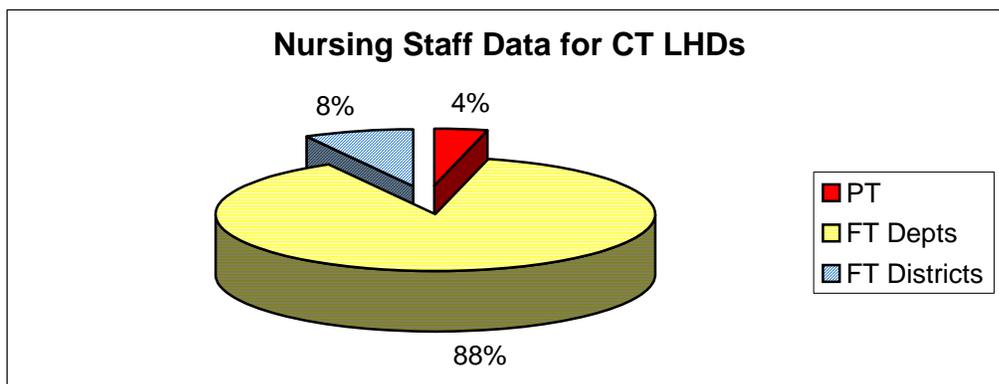
Although the personnel information is helpful for developing the profile of DPH nurses, it lacks sufficient detail to fully evaluate the number of nurses employed by DPH. This data does not include or recognize any nurses that may be identified in another staffing or job category to include management, epidemiologists, or health program associate. In addition, there was no information regarding academic preparation, recognition of advanced degrees or certifications, affiliation with professional organizations, or functions of these nurses.

Local Health Departments/Districts

As in other states, public health nursing jobs and roles in the local health agencies vary from each community, health department or district. Some health departments have no nursing staff, while others contract with home health agencies for services. Funding sources and the local health department's integration into their community's services directly impact the nursing positions and services provided, and the roles they fill. Nurses are hired based on their professional credentials (i.e., Licensed Practical Nurse, RN, Nurse Practitioner, Clinical Specialist) and not their academic accomplishments. Further, there are no requirements for specific public health training or education. DPH provides opportunities for some training and consultative services specific to a program such as the Breast and Cervical Cancer Early Detection Program or the Adult Immunizations Program.

Limited data has been collected through the Local Health Administration (LHA) Annual Report and illustrates the types of positions and ranges of nursing personnel working at local health departments / districts. During the 2005 fiscal year a total of 397 nursing personnel were identified as employed by the 91 health departments in service during the reporting period (change in number of health departments is part of the transition project and reflects the move to full-time departments serving a larger portion of the state). Figure 2 provides a view of the distribution of nursing staff in contrast to the operational type of local health department.

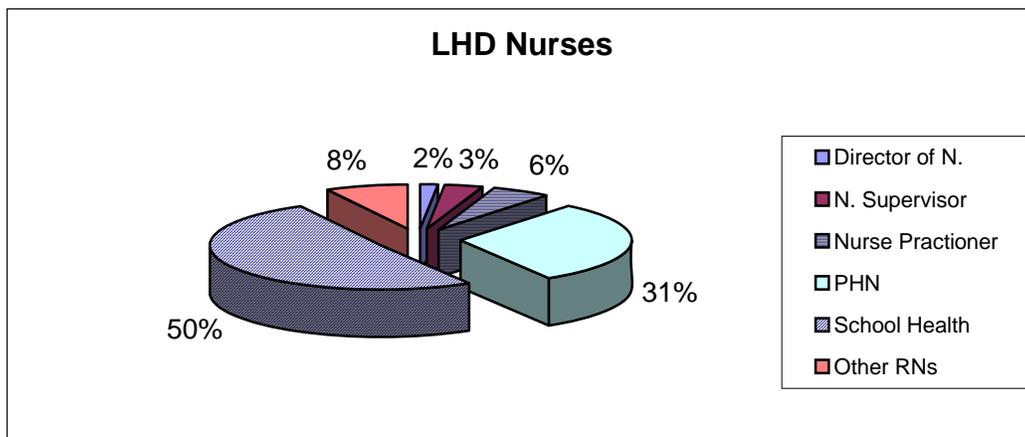
Figure 2: *Nursing Staff Data for CT Local Health Departments and Districts*



In contrast to health districts, full-time municipal health department employ a significantly larger portion (88% vs. 8%) of the nurses identified on the LHA annual report. As would be anticipated, part-time health departments have the smallest proportion of nursing staff. In addition, data collected in the LHA annual report identifies the staff position of the nurses employed. Figure 3 provides a view of the distinctions of the six positions, which include:

- Director of Nurses
- Nurse Supervisor
- Nurse Practitioner
- Public Health Nurse (a category added for 2005 report)
- School Health Nurse
- Other RNs

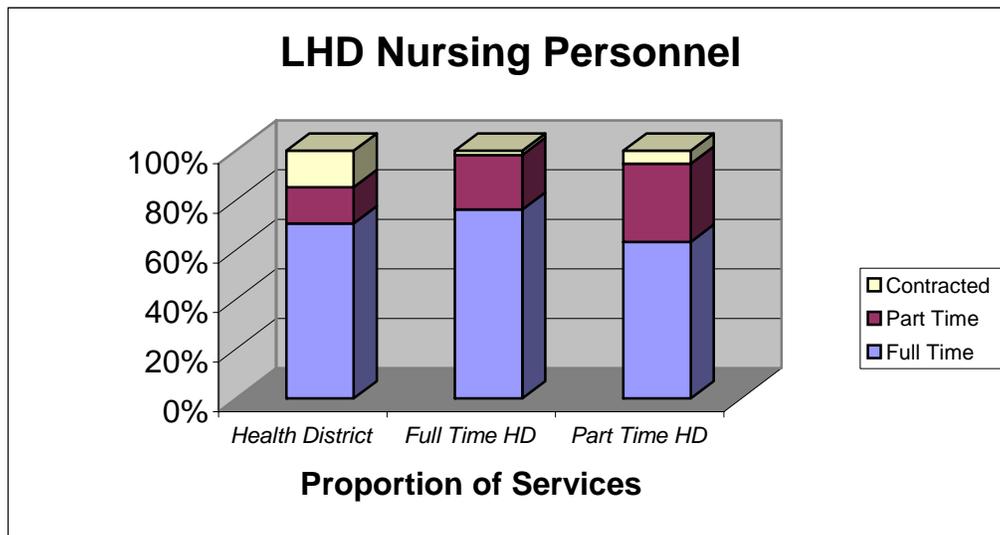
Figure 3: Local Health Nursing Positions



However, it is necessary to include a qualifier regarding the distribution of nursing positions. Although 50% of the nursing staff affiliated with local health departments are employed for “school health”, this actually affects a small portion of communities. These health department nurses provide services to only an estimated 10% of communities statewide. The other 90% of communities employ nurses affiliated with and under the jurisdiction of the Department of Education.

Data collected with the LHA annual report provides a view of how the health departments employ (i.e., part-time or full-time staff) or contract nursing staff for the various types of agencies. Figure 4 provides a comparison the type of local health department and distribution of the nursing staff by functional level of agency.

Figure 4: Unit Type of Nursing Positions with the Local Health Departments



However, the annual report does not include data regarding the total staff employed by the local agency or sufficient information to compare the proportion of nursing staff within these departments. Nor does the report include information regarding the roles or functions the nurses fill. Yet, further investigation and discussions with multiple health directors identified some of the different roles nurse were involved with. These included:

- Case investigations and managers
- Clinical Practitioner
- Epidemiologists
- Facility inspectors
- Health education (Public)
- Health screenings
- Grant writers
- Local emergency preparedness coordinators
- Program evaluators
- Program planners
- Quality assurance
- Volunteer recruitment

Information is lacking regarding academic preparation, public health affiliation or training, programs nurses are affiliated with or the roles/functions of the nurses. Further, the report does not include data regarding nurses that may be identified under different positions such as health director, assistant director, epidemiologist, health educator, or emergency preparedness coordinator. In addition, nurses may be hired for specific short-term grant funded positions, for a portion of the year only, and might not be included in these figures.

In summary, nurses working in either the state or local health departments have varied roles and functions and work in a broad range of public health programs and initiatives. The nurses identified are integrated into the multi-interdisciplinary mix of professionals that may include others with limited expertise with social sciences, health, nursing or medical care. The nurses frequently fill multiple roles and demonstrate flexibility, yet other professional staff may carry out some of the non-clinical functions. Data is incomplete and further investigation is need to identify all nurses affiliated with the state or local health departments or to clearly distinguish the nurses' roles or contributions to caring out the public health mission.

ARE THE SCOPE AND STANDARDS OF PUBLIC HEALTH NURSING INTEGRATED INTO PRACTICE IN CONNECTICUT?

All practicing nurses are required to follow and compile with Connecticut licensure regulations. Yet, there are no specific regulations or requirements for training or experience in public health to work in health departments at the state or local level in Connecticut. In addition, there is no public health orientation specific for nurses new to Connecticut's health departments (state or locally) beyond the general employee orientation for the hiring agency. Nor are there any incentives for nurses to pursue additional education or certification.

With the increased focus on emergency preparedness since 9/11, both state and local public health workers are required to complete some general course work. All workers have been required to complete the *Public Health Emergency Preparedness 101*, a two-part program that provides participants with the opportunity to learn the public health emergency preparedness competencies, and then demonstrate the application of this knowledge to their current work to enhance their effectiveness as member of their agency's response team. Part I is an online module available on TRAINConnecticut, a learning management system for the public health workforce. Part II is the competency demonstration that learner's complete with their supervisors.

The public health emergency preparedness training was funded by DPH through a CDC Public Health Workforce Development, with input from key stakeholders. The course was adapted from *Basic Emergency Preparedness for All Public Health Workers*, an online course developed by the Center for Public Health Preparedness at Columbia University Mailman School of Public Health. Demonstration of the competencies is also necessary for *Public Health Ready*, a national project spearheaded by the CDC and NACCHO to certify local health departments in emergency preparedness and response. The Connecticut Partnership for Public Health Workforce Development, with input from the DPH and Connecticut Association of Directors of Health, adapted the course for use in Connecticut.³⁹

Additional education efforts have been initiated through the Connecticut Partnership for Public Health Workforce Development, a member of the New England Alliance for Public Health Workforce Development, funded through a HRSA grant. This partnership includes public health officials, academic institutions, and state and local public health agencies. This alliance provides training for local and state public health nurses in the New England region (New England Public Health Workforce Development Alliance, 2004).

Further, DPH provided funding from CDC for other public health nursing courses to be developed by the Partnership who spearheaded this effort. This includes, *Basic Epidemiology for Public Health Nurses*, piloted twice with more than 30 nurses from the state and local health agencies and it is in the process of being converted to a self-study on-line course with multiple modules. A second course, *Emergency Preparedness for Public Health Nurses*, was provided during the FY 2005 year. State and local health nurses completed this 14-week course, 27 from DPH, 8 staff from LHD, and 1 from health care. Through a different funding source, the Partnership modified the Emergency Preparedness course for school health nurses and promoted the training through the Connecticut Department of Education (data regarding numbers of completions was unavailable for this assessment).

In conjunction with these activities, other training has occurred with local health departments/districts as a result of public health emergency preparedness efforts through drills and exercises to test and implement the Public Health Emergency Response Plans. The bioterrorism response and mass

³⁹ Yale School of Public Health, 2006

vaccinating plans regarding small pox have been the most complex training over the past three years. With input from full time local health departments, Connecticut Association of Directors of Health and the University of Connecticut, the State has developed a database of volunteers and professional staff recruited to assist public health during these types of operations. Although the role and responsibilities of public health nurses in these plans have not been defined, nurses have been identified to fill multiple roles including:

- Clinic Flow/Quality Assurance Reviewer/Form Helpers
- Clinic Manager
- Emergency Medical Services
- Exit Review Personnel
- Float Staff
- Greeters-Forms/Info Packet Distribution
- Medical Screeners
- Traffic Flow
- Triage and Contact Evaluation
- Vaccinators/Vaccine Preparation and Supply
- Video Orientation
- Witnesses, Surge Personnel

In addition, leaders in nursing education, the DPH, bioterrorism and emergency preparedness and the State Board of Examiners for Nursing in Connecticut joined forces to coordinate a systematic approach to preparing new registered nurses with the knowledge, skills and attitudes/abilities needed to deal with all hazards or emergencies. In contrast to numerous states that use a regulatory process related to emergency preparedness, these leaders in nursing education in Connecticut came together through voluntary collaboration and fostered significant enthusiasm, support and commitment. This group's efforts have resulted in 100% of the generic nursing (RN) programs including significant portions of the recommended curriculum to their course work.⁴⁰

CONCLUSIONS

In conclusion, public health nursing and health departments (state and local) in Connecticut have paralleled national developments since the turn of the last two centuries. Shifts in political priorities, changes in health care systems and community needs, and the general lack of clear and common understanding of what services are provided by the public health systems have affected both. As predicted, "role confusion and fragmentation of services have diminished the nurse's role in local health care delivery."⁴¹ Knowledge of current practice scope and standards, the nurse's roles, and varied functions is the initial step in the path toward recognizing and distinguishing the contributions nurses working in Connecticut's public health systems.

"The mission of public health and nursing are rooted in the promotion of health and the prevention of disease, injury, and disability."⁴² "Because nurses are so familiar with normal patterns of health and illness in the communities and organizations they serve, they are well positioned to recognize deviations

⁴⁰ Roberto et. al (2006). Executive Summary: Bioterrorism Curriculum Development Grant HRSA Ference #1To1HP06398-01-01. Emergency Prepared for Nursing Levels and Allied Health Professionals.

⁴¹ Erickson (1985). Public Health Nursing In Municipal and District Health Departments – A Historical Perspective on Clinical Practice. p. 1.

⁴² Association of State and Territorial Directors of Nursing (2000). *Public Health Nursing. A Partner for Healthy Populations*. P.3.

in them.⁴³ The practice of public health nursing has reflected the varying social, political, economic, and cultural environments as well as the changing needs of people⁴⁴. This responsiveness has required public health nursing to be an ever-changing profession. Examples of how these roles have evolved include:

Individual nursing practice	—————>	Member of multidisciplinary team or community coalition
Implement policy	—————>	Develop policy
Individual assessment	—————>	Community assessment
Individual and family-based services	—————>	Population-based services
Assure delivery of services	—————>	Assure quality of services

Adapted from Berkowitz et. al (2001). Public Health Nursing Leadership: A Guide to Managing the Core Functions, p. 22
Strengths nurses bring to health departments include:

- Clinical wisdom developed through the application of nursing practice and human response to care
- Real-life anecdotes to policymaking and program planning
- Skilled in nursing process of assessing, outcome expectations, planning, implementation and evaluation
- Enhanced skills with working in multi-disciplinary teams
- Strong organizational skills with a “*wholistic*” view
- Interconnectedness between and across settings and among multiple constituencies
- Roles are fluid and they are goal oriented
- Understanding the population health and:
 - Environment implications
 - Social Determinates for Health
 - Government Public Health Infrastructure

The potential for public health practice to assure healthy communities depends to a great extent on the skills and abilities of the public health workforce. As change in health care delivery in the United States continues at a rapid rate, public health nursing needs to strengthen its capacity for population health services. This is a critical time with escalating health care costs, concerns for the growing nursing shortage as the demand for nurses increases, the increased demands on public health to respond to issues such as emergency preparedness, new emerging infections, and significant increase in chronic illnesses.

As a result of insight, flexibility, and inclusiveness, public health nurses are well prepared to be part of the core of the public health workforce that will move health departments forward and be accountable in preserving and protecting the health of the public.⁴⁵ Based on this preliminary assessment of Connecticut’s health departments challenges identified as affecting the nursing staff include:

- Lack of understanding of skills and knowledge nurses bring to the public health agencies.

⁴³ Quote by Kristine M. Gebbie as cited by the Association of State and Territorial Health Officials (2005). Issue Brief: Public Health Workforce Shortage. P. 2.

⁴⁴ Berkowitz et. Al (2001). Public Health Nursing Leadership. A guide to Managing the Core Functions.

⁴⁵ Berkowitz, et al. 2001, Public Health Nursing Leadership, A Guide to Managing Core Functions, p. 24

- Limited number of nurses with public health training joining the health department staff.
- Lack of clearly defined roles for nurses working in the health departments.
- The lack of an orientation to include the integration basic core competencies for all new nursing staff.
- The need to provide models and descriptions for how nurses can be used in public health.
- Lack of a developed peer support network for nurses in health departments, both state and local.
- Nurses themselves have limited their roles related to a reluctance to move into broader public health issues, difficulty-envisioning nursing role, and limited understanding of the scope of functions of health departments.
- Unions have limited possibilities for nurses working in public health with positions based on medical model and health care settings.
- Lack of incentives (i.e., neither financial, advancement, or recognition) for nurses to pursue continued or advance academic preparation or certification.

Documenting and providing evidence of the viable contributions of nurses caring out public health services in relation to financial impact and cost-savings will be the next challenge in the business management models. Recognizing, distinguishing and providing evidence of the implications of the nursing services in relation to financial impact (monies saved) will be difficult, but necessary for sustaining a public health nursing workforce.

RECOMMENDATIONS TO ENHANCE CONNECTICUT'S HEALTH DEPARTMENT PUBLIC HEALTH NURSING NETWORK

- ❑ Completed an assessment and identify all nurses that makeup CT's public health workforce and identifying distinguishing contributions in support of CT's public health systems for baseline
- ❑ Define role of DPH
 - Form a core workgroup from across the DPH agency to advise, strategize and lead the public health initiative
 - Develop a focal point for public health nurses to link across programs, roles, and functions
 - Conduct assessment on workforce and its needs
 - Promote education and training for Public Health Nurses
 - Facilitate the use of evidence-based public health nursing practice models
- ❑ Develop a state coordinated public health nursing system through collaborations and partnering with community partners
 - Define group's purpose, expectations, and build consensus for prioritizing projects to be met with defined timelines
 - Develop a collaborating advisory board to include public health nursing expertise from academia, professional associations, local and state health departments
 - Develop an oversight council with linkage to the Public Health Foundation
 - Conduct focus groups to identify priorities and needs of nursing staff from the state and local health departments
- ❑ Assure a competent public health nursing workforce

- Integrate the core basic public health competencies and Public Health Nursing Scope and Standards of Practice measures into orientation
 - Develop an orientation for nurses new to the public health systems adapted from programs/models used in other states
 - Identify capacity of the nursing staff and develop education opportunities to enhance their skills regarding population based practice
 - Facilitate the use of evidence based public health nursing practice models
- Enhance the visibility of the network of public health nurses between the state and local health departments
- Identify the range of programs and activities nurses are involved with and in the health departments
 - Identify “best practice” models
 - Increase the visibility of public health nurses contributions by recognizing their involvement in projects
 - Promote peer support, mentoring opportunities, and bi-annual conferences to provide clinical updates, continuing education, and networking opportunities