

Kansas Local Health Department Workforce Needs Assessment, 2005

**Prepared by the Heartland Centers for Public Health and Community
Capacity Development at the Saint Louis University School of Public
Health**

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**Funded by:
The Centers for Disease Control and Prevention funded Heartland
Center for Public Health Preparedness
And
The Health Resources and Service Administration funded Heartland
Public Health Education and Training Center**

April, 2006

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Executive Summary

This report summarizes findings from the Kansas Local Health Department (LHD) workforce needs assessment conducted in Winter 2005. Findings are reported for all Kansas LHD employees who completed the survey and provide a breakdown of employees responses by two job groups. Group 1 employees are clerical, technical or support personnel. Group 2 employees are administrators, professionals, or medical personnel. These groups were identified by local public health agency directors and leaders who were able to define the types of job categories that are recognized within the Kansas LHD. The following bullets highlight key findings related to the core public health competencies among each of these groups. Additionally, descriptive data on interest in training as well as motivators and barriers to training are provided.

Response rate:

- ◆ The assessment process yielded a 76% (overall) response rate, with 476 respondents in Group 1 and 665 respondents in Group 2.

Competencies:

- ◆ Just over 40% of Group 1 respondents indicated a need for training in emergency preparedness.
- ◆ Among Group 2 respondents, the greatest training need was reported for emergency preparedness (59%), followed by basic public health science skills (52%) and community dimensions of practice (52%).

Training:

- ◆ Respondents in both groups reported a preference for receiving training through programs that provide continuing education credits and are non-degree and non-certificate.
- ◆ The desire for personal satisfaction and increased competency were the primary motivators for training programs for both groups.
- ◆ The key barriers to training for both groups were finding time during the workday, family commitments and paying for the course. Paying for the course was the most important barrier among Group 1 respondents, while finding time was most important among Group 2 employees.
- ◆ Both groups indicated that the preferred mode of training is CD-ROM. Group 1 respondents indicated that on-line courses were the next preferred mode, while Group 2 employees reported interactive videoconferencing was the next most preferred mode.
- ◆ Both groups reported fairly great access to computers, the Internet and e-mail. However, Group 2 employees reported greater access to all three.

Utilizing the Findings:

- ◆ Offer training programs that address the most important domains and focus on competencies that are highly ranked within each domain.
- ◆ Incorporate the motivators for training into marketing and training efforts.
- ◆ Work with sponsoring organization and supervisors to reduce barriers to training.
- ◆ Develop programs that utilize the preferred modes of training and that are consistent with the preferred types of programs.

BACKGROUND

The purpose of this assessment was to determine the perception of employees of the Kansas Local Health Department (LHD) regarding their level of competency about basic public health functions as well as the importance of competencies in performing their current jobs. This project also assessed training interests, as well as motivators and barriers to participate in training. This information may be used in planning for training activities within the KANSAS LHD and in conjunction with the Heartland Center for Public Health and Community Capacity Development and the Kansas Department of Health and Environment.

METHODS

Study Population:

All employees who work at one of the 105 local public health agencies in Kansas were invited to complete the assessment.

Survey Design:

In the Fall of 2001, the assessment working group of the Heartland Center for Public Health and Community Capacity Development (composed of representatives from Saint Louis University School of Public Health, Kansas Department of Health and Environment (KDHE), University of Kansas School of Public Health, Missouri Department of Health and Environment, Missouri Center for Local Public Health Services, and Kansas Association of Local Health Departments [KALHD]) convened to determine the best method to assess the workforce needs among public health practitioners in both Missouri and Kansas. After considerable consultation with other training centers and reviews of the existing literature, the consensus of the group was to utilize the Council on Linkages Between Academia and Practice (COL) set of core public health competencies to form the basis of the survey. These 77 competencies are divided into eight domains that reflect public health skills that are necessary to perform the Essential Public Health Services. Because the COL competency set was developed prior to 9-11 and does not address emergency preparedness, the group decided that the Columbia University School of Nursing emergency preparedness competencies would form the basis for assessment in that area.

During the planning process for the implementation of the assessment, some of the local public health leaders in Kansas expressed concern about the survey (that was used at the state level) in terms of its length and complexity. In particular, concerns were expressed about its appropriateness for non-professional staff as it covers competencies that many may not have been trained and or expected to perform. Additionally, the local leaders felt that since the emphasis of the local health departments was on Essential Services 2, 4 and 6, they should only assess the competencies that relate to those Essential Services. Therefore, the entire COL competency set was not used in the final survey. In fact, two surveys were utilized. The first (Group 1) assessed competencies related to emergency preparedness only and was administered to employees with jobs in the following categories:

- Clerical/secretarial

- Clerk, e.g., Accounting/Audit/Fiscal
- Healthy Start Home Visitor
- Laboratory Technician
- Paraprofessional
- Support staff, e.g., Driver/Janitor/Cleaner
- Technicians, e.g., Public Health / Home Health Aide
- Other

The second survey assessed emergency preparedness and core competencies related to Essential Services 2, 4 and 6. The Group 2 survey was administered to employees with jobs in the following categories:

- Administrator, not Health Officer
- Administrator/Health Officer
- Bioterrorism Coordinator
- Child Care License Worker
- Environmental Specialist/ Sanitarian/Engineer
- Epidemiology Specialist
- Financial Administrator
- Health Educator
- Health Officer, not Administrator or Director
- Laboratory Technologist/Supervisor Manager
- Licensed Practical Nurse
- Medical Consultant
- Nurse Practitioner
- Pharmacy Consultant
- Program Manager/Supervisor
- Registered Dietician
- Registered Nurse, Public Health
- Registered Nurse, Home Health
- Social Worker
- Other

Both surveys assessed factors that influence training, e.g., training types and format, barriers, and motivators using items from existing workforce assessments and others developed by the assessment team. Finally, select demographic information was assessed to describe the responding employees (See survey instruments in Appendix A.)

Recruitment and Response Rate:

Originally, the assessment-working group planned to conduct the KANSAS LHD assessment in the fall of 2004. This timing was appropriate because the agencies had completed a training needs assessment in 2002/3 and it was believed that a two-year period between assessing the workforce was an appropriate time frame. However, several organizational issues prevented the administration of the survey until the Fall 2005. In preparation for the survey administration, several strategies occurred to prepare the staff. For example, LHD directors and bioterrorism coordinators were invited to participate in *Webinars* that explained the purpose of the survey and provided information about the public health core functions and essential services. In addition, LHD directors and bioterrorism coordinators were recruited to help educate and encourage local employees to participate in the survey.

Each local public health agency director was asked to submit the number of employees in their department that fell into Group 1 and Group 2 job categories. The appropriate number of paper surveys was sent to each department. A deadline of three weeks was given to complete the survey. The final response rate was 76% (n=1141; Group 1 n=476; Group 2 n=665.) Table 1 lists the number (and response rate) of employees who completed the survey (and responded to this question) by bioterrorism region for each of the two job groups.

Table 1 Final Response by Bioterrorism Region

Bioterrorism Region	n survey	Response Survey	n Survey	Response Survey
	A	A	B	B
Northwest BT Region	21	61.8%	12	32.4%
Western Pyramid	23	76.7%	17	58.6%
Southwest Kansas Health Initiative	17	53.1%	8	36.4%
Southwest Surveillance	9	45.0%	5	27.8%
West Central PH Initiative	9	52.9%	7	63.6%
North Central Kansas PH Initiative	55	73.3%	44	74.6%
Central Kansas Region	45	64.3%	37	78.7%
South Central Coalition	31	100.0%	19	100.0%
Northeast Corner Regional Initiative	133	100.0%	84	100.0%
Wildcat Region	14	25.0%	7	16.3%
East Central Coalition	27	62.8%	25	49.0%
Kansas South Central Metro	38	25.3%	27	22.5%
Kansas City Metro Region	41	21.2%	13	20.6%
Southeast Kansas Multi-County	15	100.0%	17	100.0%
Lower 8 of Southeast Kansas	35	64.8%	29	65.9%
Do Not Belong to a Region (Ellis)	2	50.0%	2	50.0%
Unknown	100		72	
Missing	50		51	
Total	665		476	

*denominator data for response rate is number of assessments ordered

Participants were asked to indicate their current job using the occupational categories identified during the development of the survey. The response rates by these job categories are listed in Table 2.

Table 2 Final Responses by Occupational Categories

Group 1 Job Categories	% (number)	Group 2 Job Categories	% (number)
Clerical/secretarial	217 (45.6)	Administrator, not Health Officer	53 (8.0)
Clerk, e.g., Accounting/Audit/Fiscal	49 (10.3)	Administrator/Health Officer	32 (4.8)
Healthy Start Home Visitor	51 (10.7)	Bioterrorism Coordinator	12 (1.8)
Laboratory Technician	1 (0.2)	Child Care License Worker	16 (2.4)
Paraprofessional	0 (0.0%)	Environmental Specialist/ Sanitarian/Engineer	36 (5.4)
Support staff, e.g., Driver/Janitor/Cleaner	10 (2.1)	Epidemiology Specialist	7 (1.1)
Technicians, e.g., Public Health / Home Health Aide	89 (18.7)	Financial Administrator	10 (1.5)
Other	0 (0.0%)	Health Educator	10 (1.5)
		Health Officer, not Administrator or Director	4 (0.6)
		Laboratory Technologist/Supervisor Manager	8 (1.2)
		Licensed Practical Nurse	36 (5.4)
		Medical Consultant	2 (0.3)
		Nurse Practitioner	22 (3.3)
		Pharmacy Consultant	2 (0.3)
		Program Manager/Supervisor	42 (6.3)
		Registered Dietician	42 (6.3)
		Registered Nurse, Public Health	207 (31.1)
		Registered Nurse, Home Health	40 (6.0)
		Social Worker	20 (3.0)
		Other	1 (0.2)
Total Identified	418 (87.8)		602 (90.5)
Missing	59 (12.4)		63 (9.5)
Grand Total	476 (100)		665 (100)

The excellent response rate is due to the diligent and persistent work of the staff of the KDHE, in conjunction with the bioterrorism coordinators and LHD directors. Three factors contribute to the excellent response rate. First, the leaders of the project recognized the importance of conducting a well designed and implemented training needs assessment that could be utilized appropriately. Second, the leaders understood that employees might have some concerns related to potential repercussions of completing the survey, i.e., how will the information be used and will the information affect job performance reviews. Therefore, several training sessions occurred prior to and during implementation so that these and other questions and misperceptions could be addressed. Finally, the survey design and implementation occurred through a collaborative approach with the KDHE, KALHD, local public health agency leaders, and the Heartland Center for Public Health and Community Capacity Development. This collaboration resulted in a survey that was appropriate for this set of agencies and an implementation plan that assured an excellent response.

FINDINGS

Description of respondents:

Table 3 describes selected demographic characteristics of survey respondents by job groups. Overall, the majority of survey respondents were female (92.8%), white (87.9%), and 36 years and older (80.2%.) Group 1 and Group 2 respondents varied by gender, race and education. A larger proportion of Group 1 respondents were female (97.0%) when compared to Group 2 respondents (89.8%). There was a larger proportion of Hispanic employee participants in Group 1 (19.6%) compared to Group 2 (4.7%), and a greater proportion of white employees (92.8%) in Group 1 compared to Group 2 (79.4%.) Overall, the racial breakdown of employees in this sample is similar to state census data, i.e., the overall state population. The larger proportion of white employees in Group 2 (or "professional" positions) is consistent with national trends. There was a higher degree of education among Group 2 respondents (96.6% with at least an associate degree) compared to Group 1 (32.5% with at least an associates degree). The difference in education between job categories reflects the type of training and education required to perform job related duties.

Table 3 Demographic Characteristics of Responding Employees

	Total Respondents %(n)	Group 1 Respondents %(n)	Group 2 Respondents %(n)
Gender			
Male	81 (7.2)	14 (3.0)	67 (10.2)
Female	1046 (92.8)	456 (97.0)	590 (89.8)
Race			
Black (non-Hispanic)	8 (1.0)	2 (0.7)	6 (1.2)
Hispanic	78 (10.1)	55 (19.6)	23 (4.7)
White (non-Hispanic)	673 (87.9)	223 (79.4)	450 (92.8)
Other	7 (1.0)	1 (0.4)	6 (1.2)
Age			
18-35	223 (19.8)	98 (20.8)	125 (19.1)
36-49	392 (34.8)	167 (35.4)	225 (34.4)
50 and older	511 (45.4)	207 (43.9)	304 (46.5)
Education			
Some high school	10 (0.9)	9 (1.9)	1 (0.2)
High school diploma or GED	325 (29.3)	304 (65.4)	21 (3.3)
Associate / junior college degree or diploma	337 (30.4)	99 (21.3)	238 (36.8)
Bachelors degree	310 (27.9)	41 (8.8)	269 (41.6)
Graduate degree	127 (11.5)	11 (2.4)	116 (18.0)

Competencies:

The figures and tables that follow reflect the findings from the workforce needs assessment by competencies that include: 1) the Council on Linkages set of core public health competencies related to Essential Services 2, 4 and 6 (n=65), clustered within eight domains; and 2) the Columbia School of Nursing Emergency Preparedness competencies (n=13) as the 9th domain. (Employees in Group 1 only assessed their emergency preparedness competence.) Employees were asked to assess each competency in terms of their perceived "personal ability" and "importance to their current job." Each was rated on a four-point scale where one was the lowest and 4 was the highest. On face value and considered separately, "personal ability" and "importance to job" do not demonstrate the most important training needs. Therefore, a "needs" score was constructed that reflects the difference between the ability and importance scores. The "needs" score is calculated by subtracting the importance score from the ability score. The "needs" score can, therefore, range from -3 to +3, with a negative score suggesting a possible "need" for training. The average ability and importance scores, as well as the percentage of total respondents that had a negative "needs" score is presented for each competency. Summary scores for "ability", "importance" and "needs" are also presented.

Findings by Domains

Figures 1,2 and 3 that follow provide a graphical representation of the average domain scores for ability, importance and needs for the COL domains and the emergency preparedness domain by job category groups. The following bullets highlight the overall findings:

- Group 1 participants indicated fair ability and some importance to their job related to emergency preparedness. Just over 40% of respondents expressed need for training in emergency preparedness.
- Group 2 participants rated their ability in communication and cultural competency higher than other domains. Group 2 also rated communication and cultural competency as more important to their jobs than other domains.
- Group 2 expressed the greatest training needs in the area of emergency preparedness (approximately 60%.)

Figure 1: Ability Summary Scores By Domain

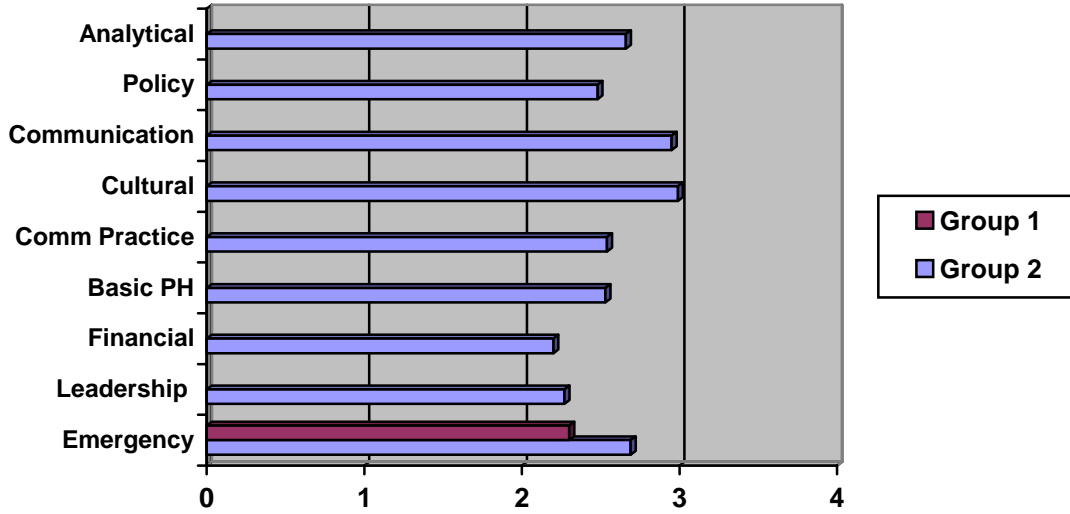


Figure 2: Importance Summary Scores By Domain

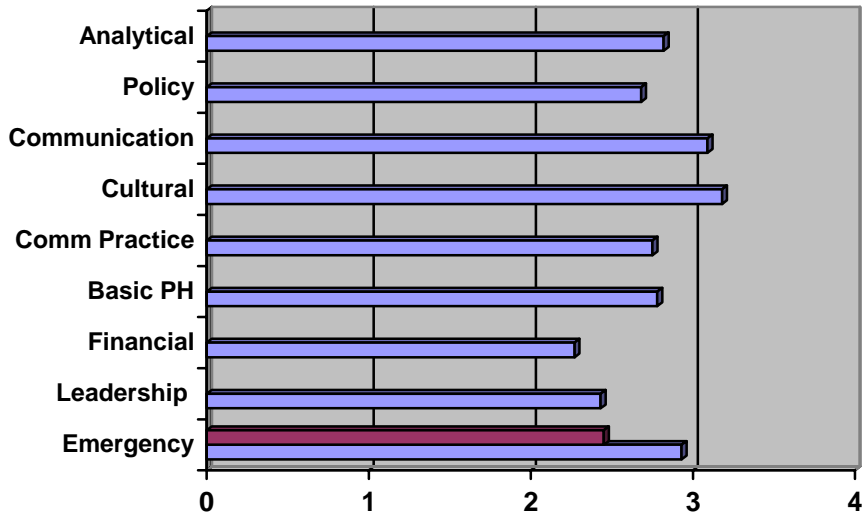


Figure 3: Percent of Staff With Negative Need Score

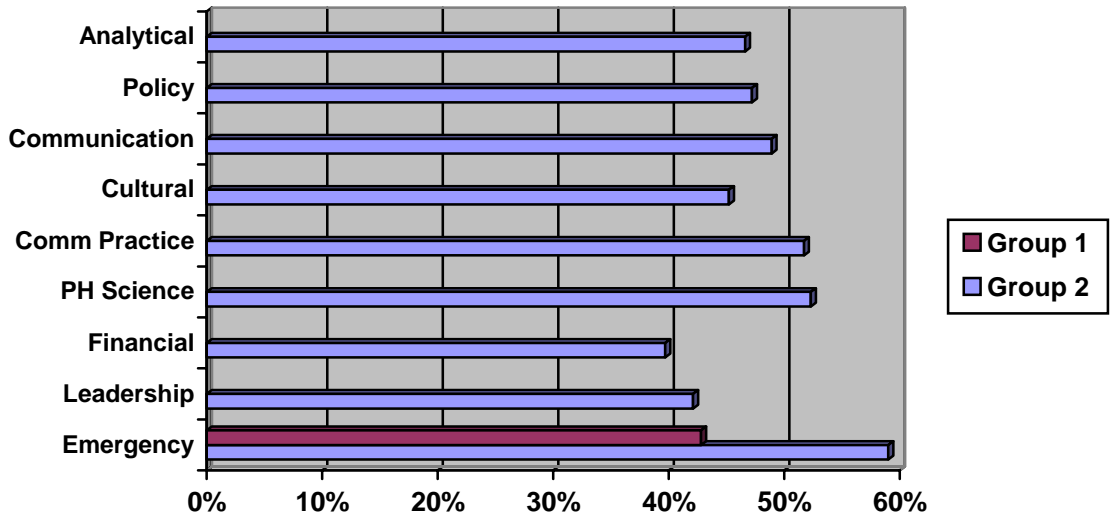


Table 4 Group 2 Competency Domains Ranked by Training Needs

Domain	Domain Needs Score
Emergency preparedness	59.0
Basic public health science skills	52.3
Community dimensions of practice	51.7
Communication skills	48.9
Policy development and program skills	47.2
Analytic skills	46.6
Cultural competency	45.2
Leadership and systems thinking skills	42.1
Financial planning and management skills	39.7

Findings by Competencies

Table 5 list the findings for emergency preparedness competencies for Group 1 participants and Tables 6-14 list Group 2 competencies and findings. The values in the first column represent the mean ability score, while the values in the second column are the mean importance scores for each competency. The final column represents the need scores and lists the proportion of employees who report, for a given competency, low ability and high importance to complete their job, i.e., highest training needs. The three highest competency need scores within each domain are bolded and numbered. For Group 2, the domains are presented in order from the highest to lowest training needs based on the domain needs scores.

GROUP 1 COMPETENCIES

Table 5 Emergency Preparedness Skills (Group 1)

	Ability Score	Importance Score	% With Negative Need Score
Describe the role of public health in a range of emergencies that might arise (e.g., "This department provides surveillance, investigation and public information in disease outbreaks and collaborates with other agencies in biological, environmental and weather emergencies)	2.12	2.36	27.9²
Describe the chain of command in emergency response	2.29	2.50	29.6¹
Identify and locate the agency emergency response plan (or the pertinent portions of the plan)	2.24	2.43	26.6
Describe your functional role(s) and responsibilities in an emergency response	2.37	2.57	27.5³
Demonstrate your functional role(s) in regular drills	2.35	2.49	23.7
Demonstrate correct use of all communication equipment used for emergency communication (phone, fax, radio, etc.)	2.81	2.86	20.5
Describe communication role(s) in emergency response within the agency, using established communication systems.	2.30	2.51	26.9
Describe communication role(s) in emergency response with the media.	1.80	1.96	21.3
Describe communication role(s) in emergency response with the general public.	2.04	2.23	23.5
Describe communication role(s) in emergency response with family or neighbors.	2.40	2.43	21.1
Identify limits to your knowledge/skill/authority and identify key system resources for referring matters that exceed these limits.	2.32	2.47	21.8
Recognize unusual events that might indicate an emergency and describe appropriate action (e.g., communicate clearly within the chain of command.)	2.53	2.59	21.2
Apply creative problem solving and flexible thinking to unusual challenges within your functional responsibilities and evaluate effectiveness of all actions taken.	2.48	2.61	23.0
Emergency Preparedness Summary Score	2.30	2.45	42.8

GROUP 2 COMPETENCIES

Table 6 Emergency Preparedness Skills (Group 2)

	Ability Score	Importance Score	% With Negative Need Score
Describe the role of public health in a range of emergencies that might arise (e.g., “This department provides surveillance, investigation and public information in disease outbreaks and collaborates with other agencies in biological, environmental and weather emergencies)	2.65	2.91	37.0¹
Describe the chain of command in emergency response	2.80	3.00	31.7
Identify and locate the agency emergency response plan (or the pertinent portions of the plan)	2.73	2.95	28.7
Describe your functional role(s) and responsibilities in an emergency response	2.72	3.05	36.1²
Demonstrate your functional role(s) in regular drills	2.66	2.98	35.9³
Demonstrate correct use of all communication equipment used for emergency communication (phone, fax, radio, etc.)	2.86	3.03	30.3
Describe communication role(s) in emergency response within the agency, using established communication systems.	2.61	2.87	33.9
Describe communication role(s) in emergency response with the media.	2.26	2.45	29.3
Describe communication role(s) in emergency response with the general public.	2.44	2.70	32.4
Describe communication role(s) in emergency response with family or neighbors.	2.71	2.76	24.1
Identify limits to your knowledge/skill/authority and identify key system resources for referring matters that exceed these limits.	2.85	2.97	25.3
Recognize unusual events that might indicate an emergency and describe appropriate action (e.g., communicate clearly within the chain of command.)	2.80	3.07	33.0
Apply creative problem solving and flexible thinking to unusual challenges within your functional responsibilities and evaluate effectiveness of all actions taken.	2.85	3.10	34.0
Emergency Preparedness Summary Score	2.69	2.92	59.0

Table 7 Basic Public Health Science Skills (Group 2)

	Ability Score	Importance Score	% With Negative Need Score
Define and assess health status of populations	2.38	2.66	32.2
Understand determinants of health and illness, factors contributing to health promotion and disease prevention, and factors influencing the use of health services	2.77	2.96	27.8
Apply the basic public health sciences including:			
• behavioral and social sciences	2.62	2.82	27.8
• biostatistics	1.99	2.34	35.1²
• epidemiology	2.37	2.73	34.9³
• environmental public health	2.33	2.71	36.5¹
• prevention of chronic disease	2.79	2.97	27.2
• prevention of infectious disease	2.87	3.09	28.4
• prevention of injuries	2.81	2.95	28.0
Identify and retrieve current relevant scientific evidence	2.24	2.48	30.7
Basic Public Health Science Summary Scores	2.52	2.77	52.3

Table 8 Community Dimensions of Practice (Group 2)

	Ability Score	Importance Score	% With Negative Need Score
Accomplish effective community engagements	2.64	2.77	26.8
Identify community assets and available resources	2.82	3.05	31.2³
Develop, implement, and evaluate a community public health assessment	2.16	2.45	34.3¹
Establish and maintain linkages with key stakeholders	2.36	2.57	26.6
Collaborate with community partners to promote the health of the population	2.82	2.98	26.9
Identify how public and private organizations operate within a community	2.57	2.77	29.0
Utilize leadership and team building skills to build community partnerships	2.57	2.76	31.0
Utilize negotiation and conflict resolution skills to build community partnerships	2.42	2.67	32.1²
Describe the role of government in the delivery of community health services	2.48	2.70	31.2³
Community Dimensions Summary Score	2.54	2.75	51.7

Table 9 Communication Skills (Group 2)

	Ability Score	Importance Score	% With Negative Need Score
Communicate effectively both in writing and orally, or in other ways	3.32	3.62	31.4¹
Lead and participate in groups to address specific issues	3.06	3.18	26.2
Use the media and advanced technologies to communicate information	2.49	2.67	30.2²
Use community networks to communicate information	2.73	2.86	23.8
Effectively present accurate demographic, statistical, programmatic, and scientific information for professional and lay audiences	2.51	2.67	30.1³
Listen to others in an unbiased manner, respect the points of view of others, and promote the expression of diverse opinions and perspectives	3.33	3.43	21.6
Solicit input from individuals and organizations	3.01	3.03	20.2
Advocate for public health programs and resources	3.06	3.16	22.9
Communication Skills Summary Scores	2.94	3.08	48.9

Table 10 Policy Development and Program Skills (Group 2)

	Ability Score	Importance Score	% With Negative Need Score
Collect, summarize, and interpret information relevant to an issue	2.91	3.00	23.4
Decide on the appropriate courses of action	2.93	3.05	26.7
Identify, interpret, and implement public health laws, regulations, and policies related to specific programs	2.57	2.89	33.8¹
State policy options and write clear and concise policy statements	2.29	2.54	31.2³
Articulate the health, fiscal, administrative, legal, social, and political implications of each policy option	2.08	2.35	32.2²
State the feasibility and expected outcomes of each policy option	2.18	2.37	27.6
Develop mechanisms to monitor and evaluate programs for their effectiveness and quality	2.35	2.56	29.5
Policy Development Summary Scores	2.47	2.68	47.2

Table 11 Analytic Skills (Group 2)

	Ability Score	Importance Score	% With Negative Need Score
Define a problem	3.27	3.43	23.7
Recognize how the data illuminates ethical, political, scientific, economic, and overall public health issues	2.69	2.88	27.7
Partner with communities to attach meaning to collected data	2.51	2.68	28.0³
Obtain and interpret information regarding risks and benefits to the community	2.63	2.82	28.9¹
Determine appropriate uses and limitations of data	2.52	2.68	26.3
Identify relevant and appropriate data information sources	2.65	2.76	24.4
Select and define variables relevant to public health problems	2.53	2.73	28.1²
Make relevant inferences from data	2.58	2.71	23.7
Apply ethical principles to the collection, maintenance, use, and dissemination of data and information	2.74	2.81	19.9
Evaluate the integrity and comparability of data and identify gaps in data sources	2.36	2.55	26.1
Analytical Skills Summary Score	2.65	2.81	46.6

Table 12 Cultural Competency Skills (Group 2)

	Ability Score	Importance Score	% With Negative Need Score
Understand the dynamic forces contributing to cultural diversity	2.88	3.09	30.6 ³
Utilizes appropriate methods for interacting sensitively, effectively, and professionally with persons from diverse cultural, socioeconomic, educational, racial, ethnic and professional backgrounds, and persons of all ages and lifestyle preferences	3.09	3.34	31.2 ²
Understand the importance of a diverse public health workforce	3.21	3.21	18.2
Identify the role of cultural, social, and behavioral factors in determining the delivery of public health services	2.93	3.16	28.5
Develop and adapt approaches to problems that take into account cultural differences	2.80	3.08	32.7 ¹
Cultural Competency Summary Scores	2.99	3.17	45.2

Table 13 Leadership and Systems Thinking Skills (Group 2)

	Ability Score	Importance Score	% With Negative Need Score
Create a culture of ethical standards within organizations and communities	2.38	2.51	26.5
Identify internal and external issues that may impact delivery of essential public health services (i.e. strategic planning)	2.37	2.52	27.3 ³
Use the legal and political system to effect change	2.02	2.29	33.4 ¹
Apply the theory of organizational structures to professional practice	2.19	2.37	27.2
Help create key values and shared vision and use these principles to guide action	2.34	2.47	26.9
Facilitate collaboration with internal and external groups to ensure participation of key stakeholders	2.23	2.38	25.3
Contribute to development, implementation, and monitoring of organizational performance standards	2.31	2.47	27.5 ²
Leadership Summary Scores	2.26	2.43	42.1

Table 14 Financial Planning and Management Skills (Group 2)

	Ability Score	Importance Score	% With Negative Need Score
Develop and present a budget	2.14	2.13	21.3
Manage programs within budget constraints	2.39	2.39	22.5
Apply budget processes	2.18	2.24	23.6
Develop strategies for determining budget priorities	2.18	2.19	22.7
Monitor program performance	2.45	2.52	24.0³
Prepare proposals for funding from external sources	1.95	2.06	23.3
Apply basic human relations skills to the management of organizations, motivation of personnel, and resolution of conflicts	2.54	2.63	27.2¹
Negotiate and develop contracts and other documents for the provision of population-based services	1.88	1.95	21.0
Manage information systems for collection, retrieval, and use of data for decision-making	2.07	2.27	26.9²
Financial Planning/Management Summary Scores	2.20	2.26	39.7

Factors that impact training:

The following tables reflect the respondent’s interest, motivators and barriers to receiving training programs for each of the job groups. In addition, access to technology for training is described. Indicators with the three largest proportions of participant responses are bolded and numbered.

Table 15 lists the proportion of respondents that indicated interest in various training programs for each of the job groups. Participants in both groups expressed greatest interest in the following forms of training: continuing education courses that are non-degree, non-certificate and provide continuing education credits, certificate programs that cover the core public health areas, and computer-based programs that lead to a master’s degree in public health. A larger proportion of Group 2 participants expressed interest in most types of training programs compared to Group 1 participants.

Table 15 Training Programs of Interest

	% Somewhat or Very Interested Group 1	% Somewhat or Very Interested Group 2
Kansas Public Health Leadership Institute	27.0	38.1
Certificate programs that cover core public health areas (epidemiology, biostatistics, health education, health policy, or environmental health sciences)	49.4²	56.5²
Program that leads to a master’s degree in public health:		
• Traditional format	28.9	30.7
• On-line format or other distance learning format	34.6	40.1
• Computer based (e.g., CD-ROM)	38.8³	41.4³
Courses that can be applied toward a bachelor’s program	31.2	29.8
Program that leads to a master’s degree (other than public health)	18.1	32.7
Continuing education courses that are non-degree, non-certificate but provide professional CE credits	51.7¹	81.4¹

Table 16 lists the factors that motivate employees to participate in training events by the job groups. Both groups indicated they were most motivated to take training by a sense of increased competency and personal satisfaction. Respondents in Group 1 indicated that an important factor in their motivation to participate in training was a better job/higher pay, while Group 2 respondents indicated receiving CE credits was an important factor.

Table 16 Factors that Motivate Training

	% Important or Very important Group 1	% Important or Very important Group 2
Receiving university credit	24.5	24.0
Receiving CE units	21.6	74.2³
Personal satisfaction	73.1²	88.3²
Time away form work	21.6	30.9
Face to face interaction with other professionals	43.3	65.1
Ability to expand professional network	51.8	72.3
Better job/higher pay	60.7³	55.2
Increased competency	74.6¹	93.0¹
Opportunity to meet other people outside region	49.1	56.1
Licensure/certification requirement	30.7	70.1
Within agency promotion	41.6	36.8
Opportunities for web-based or other electronic programs	30.1	34.6

Table 17 lists the barriers to taking training courses that were cited by participants in each of the job groups. Barriers to training were similar for each group. Both groups indicated that paying for the course, finding time during their work schedule, and family commitments were the most important barriers to participating in training. However, paying for the course was the primary barrier for Group 1 participants, while finding time during the work schedule was the primary barrier for Group 2 participants.

Table 17 Barriers to Training

	% Important or Very important Group 1	% Important or Very important Group 2
Finding time during work schedule	63.5²	75.7¹
Family commitments	62.3³	64.4³
Traveling away from work to take a course	45.6	55.1
Paying for the course	67.2¹	66.6²
Length of time since being enrolled in school	39.3	25.6
Lack of agency support for time off	40.8	36.7
Lack of supervisor support for time off	37.4	32.8
Lack of agency support for course fee	44.7	41.2
Topic I desire is not available	42.9	43.5

Table 18 lists the modes of training that respondents in both groups indicated they would be interested in using. Both groups indicated CD-ROM and interactive video conferencing were the most preferable modes to receive training. Group 1 respondents also reported internet or online courses to be a preferred mode of training, while Group 2 respondents reported that classroom based or workshop programs were preferred.

Table 18 Modes of Training

	Would like to see employed Group 1	Would like to see employed Group 2
Telephone conferencing	22.3	22.3
Audiotapes	16.9	10.4
Videotapes	19.3	21.1
Internet (on-line courses)	37.5³	35.5
Classroom based or workshop program	23.3	36.9³
Self-study books	23.8	22.5
Interactive videoconferencing (live video conferences during which you can communicate with the presenter)	37.7²	37.3²
Video satellite (one-way communication from presenter; able to e-mail or fax questions during the live broadcast)	32.5	31.2
Video streaming (computer-based viewing that requires special media playing software, e.g., Realtime, Windows Media Player, etc.)	34.9	31.1
CD-ROM (computer-based program performed at own pace)	38.8¹	38.1¹

Table 19 lists the proportion of employees who reported access to computers and selected software packages at work. These proportions represent the technology access *for those individuals who responded to the question*. Response rates for each question are given in columns 3 and 5 of Table 19. Responding employees in Groups 1 and 2 reported fairly equivalent access to a computer, the Internet, e-mail, and word processing and database software.

Table 19 Technology Access

	% yes at work Group 1	% Responding to question Group 1	% yes at work Group 2	% Responding to question Group 2
A computer	92.9¹	97.5	98.5¹	98.2
Internet	86.8³	96.8	97.7²	98.0
Word processing	84.5	94.7	92.1	96.7
Database/spreadsheet	74.8	91.0	82.5	95.6
E-mail	87.4²	95.2	96.9³	97.1
Statistical analysis software	5.0	67.0	8.1	85.1

Utilizing the Findings

These data suggest that for both groups of employees, training efforts should focus on bioterrorism preparedness. For Group 2 employees, programs should also provide training in basic public health science skills and community dimensions of practice. Over 50% of employees indicated training needs in each of these domains. Training in other domains should follow in order of need, with financial planning and management skills being the least reported need. However, supervisors and managers should recognize this as a very important and necessary skill for them to complete their work. Therefore, some domains may outrank others based on job category. In addition, training needs for the core competencies among Group 1 employees are unknown because they were not assessed.

When developing programs, trainers should recognize and incorporate the specific core competencies within each domain that were reported as being high need. The three highest competencies are bolded and ranked within each domain.

Trainers should recognize the primary motivators for employees training (increased competency and personal satisfaction) and incorporate these concepts into their marketing efforts. In addition, trainers can describe and demonstrate (during programs) ways in which employee competence is improved by attending courses and workshops.

The primary barriers to training are time and money and should be addressed in order to gain as full participation in programs as possible. Sponsoring organizations should consider ways in which courses and workshops can be supported either by the KDHE, local health departments, KALHD, and/or outside sources (grants, etc.) In addition, sponsoring organizations should consider the calendars of local health departments and plan programs during times that may allow fuller participation by staff. Supervisors should allow staff to attend as many programs as deemed necessary to increase competency.

Trainers should consider the use of CD-ROM and interactive videoconference technology when developing courses or workshops. CD-ROM technology appears to be an appropriate route as most employees have access to a computer and it was the most preferred mode of training by both groups.

Finally, trainers should recognize that employees are most interested in improving skills in specific areas through continuing education programs. Although certificate programs are of interest to employees, the most preferred type of programs are those that are non-degree and non-certificate.

Summary

This report describes the results of the 2005 Kansas LHD training needs assessment. It presents the findings from all respondents based on job groupings. The domain competency findings are ordered from most necessary for training to least necessary for training. Additionally, competencies found to have the greatest training needs are bolded and numbered. Findings from training motivators, barriers, modes of preference and access are also bolded and numbered. As described above, this information may be used to guide the training efforts of the Kansas LHD for the two job groupings.