National Assessment of Epidemiologic Capacity in Public Health

2004

Council of State and Territorial Epidemiologists

BACKGROUND:

INSTRUCTIONS:

This assessment is comprised of three parts. Part I consists of 12 questions and focuses on the health department's (HD) overall core capacity in epidemiology. Part II consists of 8 questions and focuses on training and recruitment capacity within the State HD. Finally, Part III consists of X sections and focuses on program specific capacity within the State HD.

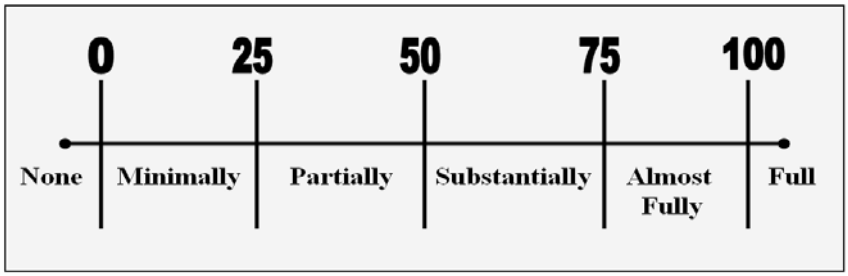
Answer every question by checking off the choice that is the best match of your HD's situation. All questions refer to your **STATE** HD unless otherwise indicated. Please refer to the definitions/FAQs section of this survey for **STATE** and **LOCAL** definitions or click **here**. When completing the assessment, please:

- Enter additional text to explain your answers when indicated (i.e. if you select "Other," please specify your response in the space provided).
- Select only one response UNLESS otherwise indicated.
- Describe half-time employees as ½ (i.e. 0.5).
- Enter '0' If your response to a question is 0 (Zero)--Please do not leave the field blank.

Questionnaire respondents may include the State Epidemiologist and/or delegate(s), in addition to other HD epidemiologists when appropriate (i.e. program specific questions). Questionnaire completion date is on or before **April 23, 2004**.

Some questions use a multi-point scale to assess the overall extent to which the HD meets the specific standards. Response choices include:

Not at all, None	None of the activity, knowledge or resources described within the question are met.
Minimally	Less than 25 percent (but greater than 0 percent) of the activity, knowledge or resources described within the question are met.
Partially	25 percent or greater (but less than 50 percent) of the activity, knowledge or resources described within the question are met.
Substantially	50 percent or greater (but less than 75 percent) of the activity, knowledge or resources described within the question are met.
Almost Fully	75 percent or greater (but less than 100 percent) of the activity, knowledge or resources described within the question are met.
Full	100 percent of the activity, knowledge or resources described within the question are met



For more information or questions, please contact:
Jennifer Lemmings (jlemmings@cste.org)
Ph: (770) 458-3811

DEFINITIONS/FAQs

Epidemiologist

According to Last (*A Dictionary of Epidemiology, 4th Ed., 2001*), an Epidemiologist is defined as "an investigator who studies the occurrence of disease or other health related conditions or events in defined populations. The control of disease in populations is often also considered to be a task for the epidemiologist." The discipline of Epidemiology is defined as the "study of the distribution and determinants of health related states or events in specified populations, and the application of this study to control of health problems." "Study" includes surveillance, observation, hypothesis testing, analytic research, and experiments. "Distribution" refers to analysis by time, place, and classes of persons affected. "Determinants" are all the physical, biological, social, cultural, and behavioral factors that influence health. "Health related states and events" include diseases, causes of death, behaviors such as use of tobacco, reactions to preventative regimens, and provisions and use of health services. "Specified populations" are those with identifiable characteristics such as precisely defined numbers. "Applications to control…" makes explicit the aims of epidemiology—to promote, protect, and restore health."

Who should be counted as an Epidemiologist?

Epidemiologists in state and territorial health departments are any person(s) who perform functions consistent with the above definition. When considering who should be counted as an epidemiologist, focus on the functions performed by the individual rather than the job title.

Who should be counted as a STATE Health Department (HD) Epidemiologist?

- Epidemiologists employed or contracted by the STATE HD (i.e. receive their wages and salary from the STATE HD)
- For example, epidemiologists who work at the LOCAL or STATE level that are employed by the state are considered STATE epidemiologists

Who should be counted as a LOCAL Health Department (HD) Epidemiologist?

- Epidemiologists who work for the LOCAL HD and are employed or contracted by the LOCAL HD (i.e. receive their wages and salary from the LOCAL HD)

Primary respondent's contact information:	
First name	
Last name	
Degree(s)	
Title	
Health Department	
Address	
Address	
City	
State	
Zip	
Telephone	
Fax	
Email	

PARTS I and II - Core questionnaire *(include names and program titles of other contributing respondents below)*	
Name	**Program Title**
PART III *(include names and program titles of other contributing respondents below)*	
Name	**Program Title**

PART I – Core questionnaire - PRINT CLEARLY
Important – Please consult other HD program epidemiologists for questions pertaining to domains not under your area of responsibility. All questions refer to your STATE Health Department UNLESS otherwise indicated. STATE Health Department refers to employees of your STATE Health Department. Please click here for a definition of a STATE epidemiologist. If you have any questions, please contact Jennifer Lemmings at jlemmings@cste.org.

1. **What are the funding sources for all epidemiology activities within the STATE HD?** *Check all that apply.*

☐ Federal funds Specify percentage? _____ +
☐ State funds Specify percentage? _____ +
☐ Other ☐ Specify percentage? _____ =
100% (total should equal 100%)

2. How is Epidemiology organized within your STATE HD?

☐ Organized as a bureau, division, office, section or unit (i.e. all epidemiologists are located together in one organized epidemiology unit).

☐ Individual epidemiologists are located within specific programs (i.e. chronic disease epidemiologists are located within the chronic disease program area).

☐ A combination of the above choices (i.e. epidemiology has a separate unit, however, some epidemiologists are located within program specific areas). *If yes, please see question 2a*.

2a. If a combination organization was selected, what is the percentage of epidemiologists within each division?

☐% of epidemiologists located within the epidemiology bureau, division, office, section, or unit?

☐% of epidemiologists located within specific programs?

3. What is the extent of the epidemiology and surveillance capacity in the following program areas in your STATE HD? *See below for a definition of the scale used in the following question.*

Bioterrorism/ Emergency Response	Chronic Disease	Environmental Health	Infectious Disease
☐ None*	☐ None*	☐ None*	☐ None*
☐ Minimal	☐ Minimal	☐ Minimal	☐ Minimal
☐ Partial	☐ Partial	☐ Partial	☐ Partial
☐ Substantial	☐ Substantial	☐ Substantial	☐ Substantial
☐ Almost Fully	☐ Almost Fully	☐ Almost Fully	☐ Almost Fully
☐ Full	☐ Full	☐ Full	☐ Full
*If none, are you currently developing a program or have plans to implement one? ☐Yes ☐ No	*If none, are you currently developing a program or have plans to implement one? ☐Yes ☐ No	*If none, are you currently developing a program or have plans to implement one? ☐Yes ☐ No	*If none, are you currently developing a program or have plans to implement one? ☐Yes ☐ No
Injury	**Maternal and Child Health**	**Occupational Health**	**Oral Health**
☐ None*	☐ None*	☐ None*	☐ None*
☐ Minimal	☐ Minimal	☐ Minimal	☐ Minimal
☐ Partial	☐ Partial	☐ Partial	☐ Partial
☐ Substantial	☐ Substantial	☐ Substantial	☐ Substantial
☐ Almost Fully	☐ Almost Fully	☐ Almost Fully	☐ Almost Fully
☐ Full	☐ Full	☐ Full	☐ Full
*If none, are you currently developing a program or have plans to implement one? ☐Yes ☐ No	*If none, are you currently developing a program or have plans to implement one? ☐Yes ☐ No	*If none, are you currently developing a program or have plans to implement one? ☐Yes ☐ No	*If none, are you currently developing a program or have plans to implement one? ☐Yes ☐ No

Not at all, None	None of the activity, knowledge or resources described within the question are met.
Minimally	Less than 25 percent (but greater than 0 percent) of the activity, knowledge or resources described within the question are met.
Partially	25 percent or greater (but less than 50 percent) of the activity, knowledge or resources described within the question are met.
Substantially	50 percent or greater (but less than 75 percent) of the activity, knowledge or resources described within the question are met**.**
Almost Fully	75 percent or greater (but less than 100 percent) of the activity, knowledge or resources described within the question are met.
Full	100 percent of the activity, knowledge or resources described within the question are met

4. Describe the number of individuals currently working as epidemiologists in the following areas in your STATE HD (in the left box) as well as your estimate of the number of epidemiologists needed in each subject area to address essential services (in the right box). Please click here for a list of the essential public health services. *Questions 5-7 refer to the answers you provide below.*

If an epidemiologist has responsibilities divided over more than one program area, please count the epidemiologist in the program specific area that the individual has **greatest responsibility** (i.e. spends most of his/her time). **Please click here to see who should be counted as an epidemiologist.**

• Enter 0 for none • Describe half-time employees as ½ • List by highest Degree	**Bioterrorism / Emergency Response**		**Chronic disease** *Please click here to see who should be counted as a Chronic Disease Epidemiologist.*		**Environmental health**		**Infectious disease**	
Degree	Current	Estimate of Need	Current	Estimate of Need	Current	Estimate of Need	Current	Estimate of Need
MD, DO								
DDS								
DVM								
PhD, DrPH, other doctoral								
MPH, MSPH, other master								
BA, BS, BSN, other bachelor								
Associate or no post high school degree								
• Enter 0 for none • Describe half-time employees as ½ • List by highest Degree	**Injury**		**Maternal and child health**		**Occupational health**		**Oral health**	
Degree	Current	Estimate of Need	Current	Estimate of Need	Current	Estimate of Need	Current	Estimate of Need
MD, DO								
DDS								
DVM								
PhD, DrPH, other doctoral								
MPH, MSPH, other master								
BA, BS, BSN, other bachelor								
Associate or no post high school degree								

Number of current epidemiologists in other epidemiology and surveillance programs that are not listed in question 4? ☐

What program areas are these epidemiologists located? ☐ ***Please list all program areas that apply***

5. Referring to question 4, how many of the listed STATE HD epidemiologists are contract employees? *Enter 0 for none. Describe half-time employees as ½.* ☐

6. Referring to question 4, how many of the listed STATE HD epidemiologists have been working in your health department for:

• Enter 0 for none • Describe half-time employees as ½ **Years Employed**	**Number of Epidemiologists**
0 – 2 years	☐
3 – 5 years	☐
6 – 10 years	☐
11 + years	☐

7. Referring to question 4, how many of the listed STATE HD epidemiologists *currently* employed have formal academic training in epidemiology?

Examples:

- An MD with a MPH or higher degree (e.g. DrPh) in epidemiology should be classified as **#2.**
- An MD with no MPH but some formal training in epidemiology should be classified as **#5**. However, if the individual has no background in epidemiology other than on the job training, the individual should be classified as **#7**.
- An individual with no degree and some coursework in epidemiology should be classified as **#6**.
- An individual with a MPH or higher degree in a public health field other than epidemiology (e.g. Maternal and Child Health, Biostatistics, etc.) should NOT be classified as **#3**.
- An individual with no coursework in epidemiology with on the job training in epidemiology should be classified as **#7**.
- An individual with no training in epidemiology should be classified as **#8**.

• Enter 0 for none • Describe half-time employees as ½ • Please count each epidemiologist only once **Epidemiology Training Level Across ALL Program Areas*** (see below for specific examples)	**Number of Epidemiologists**
1. PhD, DrPh, other doctoral degree in *Epidemiology*	☐
2. Professional background (e.g. MD, DO, DVM, DDS, etc.) with a dual degree in *Epidemiology*	☐
3. MPH, MSPH, other master degree in *Epidemiology*	☐
4. BA, BS, other bachelor degree in *Epidemiology*	☐
5. Completed formal training program in *Epidemiology* (e.g. EIS)	☐
6. Completed some coursework in *Epidemiology*	☐
7. Received on the job training in *Epidemiology*	☐
8. No formal training in *Epidemiology (i.e. epidemiologist does not fit into any of the above categories)*	☐

8. Describe the official annual salary range for epidemiologists working in your STATE HD *by degree*.

Example:

- **If an entry level epidemiologist with an MD makes $75,000 to $100,000 and a senior level epidemiologist with an MD makes $125,000 to $150,000 the salary scale is:**

  From **$75,000** to **$150,000**

Training	**Salary Scale (*no* minimum or maximum)**
MD, DO	From $ To $
DDS	From $ To $
DVM	From $ To $
PhD, DrPH, other doctoral	From $ To $
MPH, MSPH, other Master	From $ To $
BA, BS, BSN, other bachelor	From $ To $
Associate or no post high school degree	From $ To $

9. If *applicable*, describe the annual STATE HD salary scale for the varying levels of epidemiologist positions listed below. *Please see the previous question for an example on how to complete the table below.*

Career Level	**Salary Scale (*no* minimum or maximum)**
State Epidemiologist	From $ To $
Deputy State Epidemiologist	From $ To $
Senior Level Epidemiologist	From $ To $
Mid Level Epidemiologist	From $ To $
Entry Level Epidemiologist	From $ To $

10. Does your STATE HD have adequate epidemiologic capacity to provide the following four essential public health services? Please click here for a list of the essential public health services. *See below for a definition of the scale used in the following question.*

Monitoring health status to identify and solve community health problems	Diagnosing and investigating health problems and health hazards in the community	Evaluating effectiveness, accessibility, and quality of personal and population-based health services	Researching for new insights and innovative solutions to health problems
☐ Not at all	☐ Not at all	☐ Not at all	☐ Not at all
☐ Minimally	☐ Minimally	☐ Minimally	☐ Minimally
☐ Partially	☐ Partially	☐ Partially	☐ Partially
☐ Substantially	☐ Substantially	☐ Substantially	☐ Substantially
☐ Almost Fully	☐ Almost Fully	☐ Almost Fully	☐ Almost Fully
☐ Full	☐ Full	☐ Full	☐ Full

Not at all, None	None of the activity, knowledge or resources described within the question are met.
Minimally	Less than 25 percent (but greater than 0 percent) of the activity, knowledge or resources described within the question are met.
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Full	100 percent of the activity, knowledge or resources described within the question are met

Please note that questions 11 and 12 of this section request information of epidemiology at the LOCAL level.

11. Provide the number of the following of:

• Enter 0 for none	Number
EIS **Officers** in ***training*** assigned to your **STATE** HD	
EIS **Officers** in ***training*** assigned to **LOCAL** HDs within your state	
EIS **Graduates** employed in your **STATE** HD	
EIS **Graduates** employed in **LOCAL** HDs within your state	
EIS **Graduates** assigned to your **STATE** by CDC	

Who should be counted as a LOCAL Epidemiologist?
- Epidemiologists who work for the LOCAL HD and are employed or contracted by the LOCAL HD (i.e. receive their wages and salary from the LOCAL HD)

12. Describe the number of individuals working as epidemiologists at LOCAL HDs within your state. Please refer to the definitions/FAQs section of this survey for STATE and LOCAL definitions or click here.

Who should be counted as a LOCAL Epidemiologist?
- Epidemiologists who work for the LOCAL HD and are employed or contracted by the LOCAL HD (i.e. receive their wages and salary from the LOCAL HD)

• Enter 0 for none • Describe half-time employees as ½ • List by highest degree	Number of Epidemiologists within the LOCAL HD
MD, DO	
DDS	
DVM	
PhD, DrPH, other doctoral	
MPH, MSPH, other master	
BA, BS, BSN, other bachelor	
Associate or no post high school degree	

PART II – Training & Recruitment - PRINT CLEARLY

Important – Please consult other HD program epidemiologists for questions pertaining to domains not under your area of responsibility. All questions refer to your STATE Health Department UNLESS otherwise indicated. STATE Health Department refers to employees of your STATE Health Department. Please click here for a definition of a STATE epidemiologist. If you have any questions, please contact Jennifer Lemmings at jlemmings@cste.org.

1. In the past twelve months, has the STATE HD supported training or education for epidemiologists to enhance competencies in the essential public health services? Please click here for a list of the essential public health services.

- ☐ Yes
- ☐ No
- ☐ Don't Know

1a. If question 1 is YES, through what mechanism(s) does the STATE HD support training or education for epidemiologists to enhance competencies in the essential public health services? *Check all that apply*

Education	Yes	No
On site learning courses?	☐ Yes	☐ No
Distance learning or internet/web-based courses (e.g. the *Public Health Training Network*)?	☐ Yes	☐ No
Off-site workshops, conferences or seminars?	☐ Yes	☐ No
Tuition reimbursement (i.e., for academic courses or courses leading to certification)?	☐ Yes	☐ No
Self-directed learning?	☐ Yes	☐ No
Other ☐	☐ Yes	☐ No

1b. If question 1 is YES, what percentage of all STATE HD epidemiologists participated in training or education for epidemiologists to enhance competencies in the essential public health services during Calendar year 2003?

- ☐ 0-25%
- ☐ 26-50%
- ☐ 51-75%
- ☐ 76-100%

2. Please choose the response that best describes the availability and need for training to STATE HD epidemiologists in the following areas:

Training in Epidemiology	Adequate training is available for our State Health Department epidemiology staff for this function		Additional training is needed by our State Health Department epidemiology staff for this function	
	YES	NO	YES	NO
Designing and evaluating surveillance systems	☐	☐	☐	☐
Interpretation of surveillance data	☐	☐	☐	☐
Disease screening methods	☐	☐	☐	☐
Case investigation methods	☐	☐	☐	☐
Outbreak investigation methods	☐	☐	☐	☐
Designing epidemiologic studies	☐	☐	☐	☐
Designing data collection tools to address a health problem (e.g. surveys, questionnaires)	☐	☐	☐	☐
Data collection methods (e.g. case interviews, medical records, vital statistics, laboratory findings, pathology reports, etc.)	☐	☐	☐	☐
Creating databases	☐	☐	☐	☐
Data management and data cleaning	☐	☐	☐	☐
Analyzing and characterizing epidemiologic data with statistical software	☐	☐	☐	☐
Writing field investigation reports	☐	☐	☐	☐
Communication of epidemiologic findings to the lay public	☐	☐	☐	☐
Recommending control measures, prevention programs, or other public health interventions based on epidemiologic findings	☐	☐	☐	☐
Evaluation of public health interventions	☐	☐	☐	☐

2a. What are the barriers epidemiologists face at your STATE HD to obtain training?
Check all that apply.

- ☐ **Limited or no access to training**
- ☐ **Limited or no time available to train epidemiologists**
- ☐ **STATE HD does not support training in the above areas**
- ☐ **Other:** ____

3. Does your STATE HD collaborate with other organizations to provide training to HD epidemiologists?

- ☐ Yes
- ☐ No (If NO or DON'T KNOW, please skip to the next question)
- ☐ Don't Know (If NO or DON'T KNOW, please skip to the next question)

3a. If question 3 is YES, which partners does your STATE HD have formal agreements with to provide training to HD epidemiologists? *Check all that apply*

- ☐ Centers for Disease Control and Prevention (CDC)
- ☐ Schools of public health
- ☐ Schools of medicine
- ☐ Schools of veterinary medicine
- ☐ Public safety/First responders
- ☐ Other academic institutions
- ☐ Other healthcare organizations
- ☐ Other healthcare providers
- ☐ Other federal/government agencies
- ☐ Other ☐

4. Does your STATE HD provide training to epidemiologists and disease investigators at the LOCAL level?

- ☐ Yes
- ☐ No
- ☐ Don't Know

5. Describe the ways that epidemiologists have been recruited successfully in your STATE HD: *(Check all that apply)*

- ☐ Universities/schools of public health
- ☐ Recruitment job fairs
- ☐ Professional organizations (CSTE, APHA, ASPH, ACE, etc.)
- ☐ Federal programs (EIS, PHPS, CEFO)
- ☐ Other health agencies within the state
- ☐ Through local media
- ☐ Epi Monitor or periodic epidemiology newsletter
- ☐ State HD's employment website
- ☐ Other websites (e.g. Public Health Employment Connection)
- ☐ Word of mouth
- ☐ Do not recruit
- ☐ Other ☐

6. Does your STATE HD have any barriers to recruitment?

☐ Yes
☐ No (If NO, please skip to the next question)
☐ Don't Know (If DON'T KNOW, please skip to the next question)

6a. If question 6 is YES, what are these barriers? *Check all that apply*

☐ No nearby academic institutions (Universities/Schools of Public Health)
☐ Cannot offer competitive salary
☐ Cannot offer competitive benefits
☐ Hiring process at the STATE HD is too cumbersome
☐ Geographically undesirable location
☐ Are not aware of recruitment tools available to the STATE HD
☐ Too time consuming
☐ Other ☐

7. Are sufficient STATE HD epidemiologists available to mentor students, trainees and new hires performing epidemiology work in the following program specific areas?

Program Specific Area	Yes or NO?	Program Specific Area	Yes or NO?
Bioterrorism/Emergency Response	☐ YES ☐ NO ☐ DON'T KNOW	Injury	☐ YES ☐ NO ☐ DON'T KNOW
Environmental health	☐ YES ☐ NO ☐ DON'T KNOW	Maternal and child health	☐ YES ☐ NO ☐ DON'T KNOW
Chronic disease	☐ YES ☐ NO ☐ DON'T KNOW	Occupational health	☐ YES ☐ NO ☐ DON'T KNOW
Infectious disease	☐ YES ☐ NO ☐ DON'T KNOW	Oral health	☐ YES ☐ NO ☐ DON'T KNOW
HIV/AIDS	☐ YES ☐ NO ☐ DON'T KNOW	Birth defects and developmental disabilities	☐ YES ☐ NO ☐ DON'T KNOW

8. How many students/trainees performing epidemiology functions have rotated through the STATE HD during the past calendar year? ☐ *Enter 0 for none*

PART III – Program specific questionnaire - PRINT CLEARLY
Important – Please consult other HD program epidemiologists for questions pertaining to domains not under your area of responsibility. All questions refer to your STATE Health Department UNLESS otherwise indicated. STATE Health Department refers to employees of your STATE Health Department. Please click here for a definition of a STATE epidemiologist. If you have any questions, please contact Jennifer Lemmings at jlemmings@cste.org.

Program Specific Questions: Indicators

1. CSTE has developed a set of Health Indicators for the disciplines of Chronic Disease, Injury, Environmental Health and Occupational Health. Have your STATE HD programs utilized any of these indicators?

☐ Yes (please refer to questions 1a, 1b and 1 c and do NOT answer question 2)
☐ No (please refer to question 2)

1a. If question 1 is YES, in which disciplines: *(Check all that apply)*

	Disciplines
☐	Chronic Disease
☐	Injury
☐	Environmental Health
☐	Occupational Health

1b. If question 1 is YES, how have you utilized these indicators? *Check all that apply*

	Type of Utilization
☐	As part of a CDC grant activity such as Environmental Health Tracking, Asthma etc. Please specify grants ☐
☐	As part of an annual State Public Health report
☐	To evaluate programmatic progress
☐	In support of state program or grant application justification
☐	Other: ☐

1c. If question 1 is YES, how could CSTE make the Indicators more useful? ☐

2. If question 1 is NO, are you familiar with the CSTE indicators?

☐ Yes (please refer to question 2a)
☐ No (please skip to the next question)

2a. If question 2 is YES, why have you not utilized them? *Check all that apply*

	Reasons
☐	We have our own set of indicators, different from CSTE
☐	Insufficient staff to utilize indicators
☐	State does not have necessary data
☐	We have not found CSTE Indicators to be relevant or useful to our programs
☐	Other: ☐

Program Specific Questions: Occupational Health

1. How many STATE HD full-time epidemiology staff are dedicated to surveillance of occupational health injuries or illnesses? ☐ *Enter 0 for none.*

2. What is the STATE HD's in-house trained capacity for coding industry and occupational information in public health data sets?

☐ **Not at all, None**	None of the activity, knowledge or resources described within the question are met.
☐ **Minimally**	Less than 25 percent (but greater than 0 percent) of the activity, knowledge or resources described within the question are met.
☐ **Partially**	25 percent or greater (but less than 50 percent) of the activity, knowledge or resources described within the question are met.
☐ **Substantially**	50 percent or greater (but less than 75 percent) of the activity, knowledge or resources described within the question are met**.**
☐ **Almost Fully**	75 percent or greater (but less than 100 percent) of the activity, knowledge or resources described within the question are met.
☐ **Full**	100 percent of the activity, knowledge or resources described within the question are met.

3. Are surveillance systems utilized in your HD for the following occupational health conditions?

Surveillance System	Yes or NO?	Surveillance System	Yes or NO?
Adult Lead Poisoning	☐ YES ☐ NO	TBA	☐ YES ☐ NO
Work-related Asthma	☐ YES ☐ NO	TBA	☐ YES ☐ NO
TBA	☐ YES ☐ NO	TBA	☐ YES ☐ NO

4. Does your HD have access to the following databases?

Database	Yes or NO?	Database	Yes or NO?
Worker's Compensation Data	☐ YES ☐ NO	TBA	☐ YES ☐ NO
TBA	☐ YES ☐ NO	TBA	☐ YES ☐ NO

5. Does your STATE HD have adequate Occupational Health Epidemiology capacity to provide the following essential public health services? Please click here for a list of the essential public health services. *See below for a definition of the scale used in the following question.*

Monitoring health status to identify and solve community health problems	Diagnosing and investigating health problems and health hazards in the community	Evaluating effectiveness, accessibility, and quality of personal and population-based health services	Researching for new insights and innovative solutions to health problems
☐ Not at all	☐ Not at all	☐ Not at all	☐ Not at all
☐ Minimally	☐ Minimally	☐ Minimally	☐ Minimally
☐ Partially	☐ Partially	☐ Partially	☐ Partially
☐ Substantially	☐ Substantially	☐ Substantially	☐ Substantially
☐ Almost Fully	☐ Almost Fully	☐ Almost Fully	☐ Almost Fully
☐ Full	☐ Full	☐ Full	☐ Full

Not at all, None	None of the activity, knowledge or resources described within the question are met.
Minimally	Less than 25 percent (but greater than 0 percent) of the activity, knowledge or resources described within the question are met.
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Almost Fully	75 percent or greater (but less than 100 percent) of the activity, knowledge or resources described within the question are met.
Full	100 percent of the activity, knowledge or resources described within the question are met

Program Specific Questions: **Chronic Disease**

Chronic Disease Epidemiology – Please read the guidance below on who should be counted as a state Chronic Disease Epidemiologist:

WHO SHOULD BE COUNTED AS A CHRONIC DISEASE EPIDEMIOLOGIST?

Chronic disease epidemiologists (CDE) *in state and territorial health departments are persons who analyze and interpret data related to chronic diseases or risk factors for chronic diseases.* At the very least, CDEs combine data from different sources, such as vital statistics and population estimates, to calculate rates. Commonly they calculate rates at one or across several points in time for groups of persons (e.g. rates by sex, rates by health district). Depending upon their duties and skills, BRFSS coordinators, cancer registry workers, people in data analyst positions, and others may be considered CDEs. If they calculate and interpret rates, they may be counted as CDEs.

Do not include chronic disease epidemiologists who work under contract with the health department but sit elsewhere, such as at a university.

For this survey, chronic disease epidemiologists are classified as persons who:

- Work at least 50% of their time at the health department doing health department related chronic disease epidemiologic work, and
- Work in the health department even if they receive their paycheck from another organization (e.g. an academic institution).

If you are not sure whom to count, please contact Jennifer Lemmings at *jlemmings@cste.org* or 770-458-3811

1. Does your STATE HD have adequate Chronic Disease Epidemiology capacity to provide the following essential public health services? Please click here for a list of the essential public health services. *See below for a definition of the scale used in the following question.*

Monitoring health status to identify and solve community health problems	Diagnosing and investigating health problems and health hazards in the community	Evaluating effectiveness, accessibility, and quality of personal and population-based health services	Researching for new insights and innovative solutions to health problems
☐ Not at all	☐ Not at all	☐ Not at all	☐ Not at all
☐ Minimally	☐ Minimally	☐ Minimally	☐ Minimally
☐ Partially	☐ Partially	☐ Partially	☐ Partially
☐ Substantially	☐ Substantially	☐ Substantially	☐ Substantially
☐ Almost Fully	☐ Almost Fully	☐ Almost Fully	☐ Almost Fully
☐ Full	☐ Full	☐ Full	☐ Full

Not at all, None	None of the activity, knowledge or resources described within the question are met.
Minimally	Less than 25 percent (but greater than 0 percent) of the activity, knowledge or resources described within the question are met.
Partially	25 percent or greater (but less than 50 percent) of the activity, knowledge or resources described within the question are met.
Substantially	50 percent or greater (but less than 75 percent) of the activity, knowledge or resources described within the question are met**.**
Almost Fully	75 percent or greater (but less than 100 percent) of the activity, knowledge or resources described within the question are met.
Full	100 percent of the activity, knowledge or resources described within the question are met

2. In the past 12 months, approximately how many annual reports, *ad hoc* reports, articles in the state epidemiology newsletter, or other similar publications have been prepared by STATE HD Chronic Disease Epidemiologists, cleared by any necessary state clearance process, and placed on the state public health web site, printed, or published? ☐ *Enter 0 for none.*

3. In the past 12 months, approximately how many scientific presentations or posters at state or national meetings requiring abstract submission have been given by STATE HD Chronic Disease Epidemiologists? ☐ *Enter 0 for none.*

4. Where are the majority of Chronic Disease Epidemiologists (CDEs) located within the STATE HD?
Only check ONE response below

- ☐ CDEs are located together in one organized epidemiology unit (i.e. all CDEs in a chronic disease epidemiology unit or a broader epidemiology unit)
- ☐ Individual CDEs are located within specific chronic disease programs (i.e. diabetes epidemiologist located within diabetes program, cancer epidemiologist located within cancer program)
- ☐ A combination of the above choices (i.e. some CDEs are located in an epidemiology unit, some CDEs are located in a specific chronic disease program)

Program Specific Questions: Maternal and Child Health

Maternal and child Health Epidemiology – Please read the guidance below on who should be counted as a state Maternal and Child Health Epidemiologist:

WHO SHOULD BE COUNTED AS A MATERNAL AND CHILD HEALTH EPIDEMIOLOGIST?

Maternal and child health epidemiologists (MCHE) *in state and territorial health departments are persons who analyze and interpret data related to maternal and child health outcomes and risk factors / risk markers for MCH outcomes.* MCHEs combine data from different sources such as vital statistics, survey data, and program data, and calculate statistics for groups of persons (e.g. by age, health district, and time). MCHEs also typically contribute to activities related to the Title V Block Grant such as needs assessment, performance measurement, and program evaluation. Depending upon their duties and skills, PRAMS coordinators, birth defects registry workers, and people in data analyst positions may be considered MCHEs.

For this survey, maternal and child health epidemiologists are classified as persons who:

- Work at least 50% of their time at the health department doing health department related MCH epidemiologic work, and
- Work in the health department even if they receive their paycheck from another organization (e.g. an academic institution).

If you are not sure whom to count, please contact Jennifer Lemmings at jlemmings@cste.org or 770-458-3811

1. **Referring again to question 4, section I, how many of the STATE HD epidemiologists listed under "Maternal and Child Health" have formal academic training in epidemiology?**

Examples:

- An MD with a MPH or higher degree (e.g. DrPh) in epidemiology should be classified as **#2.**
- An MD with no MPH but some formal training in epidemiology should be classified as **#5**. However, if the individual has no background in epidemiology other than on the job training, the individual should be classified as **#7**.
- An individual with no degree and some coursework in epidemiology should be classified as **#6**.
- An individual with a MPH or higher degree in a public health field other than epidemiology (e.g. Maternal and Child Health, Biostatistics, etc.) should NOT be classified as **#3**.
- An individual with no coursework in epidemiology with on the job training in epidemiology should be classified as **#7**.
- An individual with no training in epidemiology should be classified as **#8**.

• **Enter 0 for none** • **Describe half-time employees as ½** **Epidemiology Training Level Across ALL Program Areas*** **(see below for specific examples)**	**Number of MCH Epidemiologists**
1. PhD, DrPh, other doctoral degree in *Epidemiology*	
2. Professional background (e.g. MD, DO, DVM, DDS, etc.) with a dual degree in *Epidemiology*	
3. MPH, MSPH, other master degree in *Epidemiology*	
4. BA, BS, other bachelor degree in *Epidemiology*	
5. Completed formal training program in *Epidemiology* (e.g. EIS)	
6. Completed some coursework in *Epidemiology*	
7. Received on the job training in *Epidemiology*	
8. No formal training in *Epidemiology (i.e. epidemiologist does not fit into any of the above categories)*	

For questions 2, 3, and 4 use the following scale, presented earlier in the Core Questions:

Not at all, None	None of the activity, knowledge or resources described within the question are met.
Minimally	Less than 25 percent (but greater than 0 percent) of the activity, knowledge or resources described within the question are met.
Partially	25 percent or greater (but less than 50 percent) of the activity, knowledge or resources described within the question are met.
Substantially	50 percent or greater (but less than 75 percent) of the activity, knowledge or resources described within the question are met**.**
Almost Fully	75 percent or greater (but less than 100 percent) of the activity, knowledge or resources described within the question are met.
Full	100 percent of the activity, knowledge or resources described within the question are met

2. Does your STATE HD have adequate Maternal and Child Health Epidemiology capacity to provide the following essential public health services and related activities? Please click here for a list of the essential public health services.

Monitoring health status to identify and solve community health problems	**Diagnosing and investigating health problems and health hazards in the community**	**Evaluating effectiveness, accessibility, and quality of personal and population-based health services**	**Researching for new insights and innovative solutions to health problems**
☐ Not at all	☐ Not at all	☐ Not at all	☐ Not at all
☐ Minimally	☐ Minimally	☐ Minimally	☐ Minimally
☐ Partially	☐ Partially	☐ Partially	☐ Partially
☐ Substantially	☐ Substantially	☐ Substantially	☐ Substantially
☐ Almost Fully	☐ Almost Fully	☐ Almost Fully	☐ Almost Fully
☐ Full	☐ Full	☐ Full	☐ Full
Monitoring health services utilization	**Generating analyses that inform program planning**	**Generating analyses that inform policy development**	**Providing epidemiologic consultation and support to communities**
☐ Not at all	☐ Not at all	☐ Not at all	☐ Not at all
☐ Minimally	☐ Minimally	☐ Minimally	☐ Minimally
☐ Partially	☐ Partially	☐ Partially	☐ Partially
☐ Substantially	☐ Substantially	☐ Substantially	☐ Substantially
☐ Almost Fully	☐ Almost Fully	☐ Almost Fully	☐ Almost Fully
☐ Full	☐ Full	☐ Full	☐ Full

3. **To what extent are the Maternal and Child Health Epidemiologists in your STATE HD called upon to contribute their expertise to the following processes?**

Design of format and functionality for new/existing MCH databases	Selection and definition of data elements to be included in new/existing MCH databases	Development of linkage protocols for new/existing MCH databases	Development of routine reports for new/existing MCH databases
☐ Not at all	☐ Not at all	☐ Not at all	☐ Not at all
☐ Minimally	☐ Minimally	☐ Minimally	☐ Minimally
☐ Partially	☐ Partially	☐ Partially	☐ Partially
☐ Substantially	☐ Substantially	☐ Substantially	☐ Substantially
☐ Almost Fully	☐ Almost Fully	☐ Almost Fully	☐ Almost Fully
☐ Full	☐ Full	☐ Full	☐ Full

4. **To what extent are the reports and analyses produced by the Maternal and Child Health Epidemiologists in your STATE HD used in the following areas of decision-making for MCH programs?**

Needs Assessment	Priority Setting	Program Planning
☐ Not at all	☐ Not at all	☐ Not at all
☐ Minimally	☐ Minimally	☐ Minimally
☐ Partially	☐ Partially	☐ Partially
☐ Substantially	☐ Substantially	☐ Substantially
☐ Almost Fully	☐ Almost Fully	☐ Almost Fully
☐ Full	☐ Full	☐ Full
Performance Measurement	**Program Evaluation**	**Policy Development**
☐ Not at all	☐ Not at all	☐ Not at all
☐ Minimally	☐ Minimally	☐ Minimally
☐ Partially	☐ Partially	☐ Partially
☐ Substantially	☐ Substantially	☐ Substantially
☐ Almost Fully	☐ Almost Fully	☐ Almost Fully
☐ Full	☐ Full	☐ Full

5. **In the past 12 months, approximately how many publications and presentations have been given by STATE HD Maternal and Child Health Epidemiologists?**

Reports or articles in the state epidemiology newsletter, or other similar publications	Scientific presentations or posters at state or national meetings requiring abstract submission
☐ *Enter 0 for none.*	☐ *Enter 0 for none.*

Program Specific Questions: Food Safety

1. Currently, does your STATE HD epidemiology office have the ability to receive electronic laboratory reporting of enteric diseases?

- ☐ Yes
- ☐ No
- ☐ Don't Know

2. Of outbreaks that are "not" investigated, which of the following factors most limits your ability to investigate them? *Check all that apply.*

- ☐ Expertise
- ☐ Laboratory capacity
- ☐ Statistical support
- ☐ Limited staff
- ☐ Ability to pay overtime
- ☐ Travel policy constraints
- ☐ Delayed notification
- ☐ Lack of apparent importance
- ☐ Political consideration
- ☐ Jurisdictional issues
- ☐ Other ☐

3. Do you feel that there are barriers for conducting more active case surveillance in your STATE HD?

- ☐ Yes
- ☐ No
- ☐ Don't Know

3a. If question 3 is Yes, what are these barriers. *Check all that apply*.

- ☐ Lack of staff
- ☐ Low priority
- ☐ Lack of expertise
- ☐ Too time consuming
- ☐ Other ☐

4. Does your STATE HD have adequate capacity to conduct an analytic epidemiologic investigation (i.e. case control or cohort studies)?

- ☐ Yes
- ☐ No
- ☐ Don't Know

5. Does your STATE HD have a protocol to guarantee chain of custody for food environmental specimens?

- ☐ Yes
- ☐ No
- ☐ Don't Know

Essential Public Health Services

The Essential Services framework was developed in 1994 as a method for better identifying and describing the core processes used in public health to promote health and prevent disease. All public health responsibilities (whether conducted by the local public health department or another organization within the community) can be categorized into one of the services.

1. Monitor health status to identify and solve community health problems.
2. Diagnose and Investigate health problems and health hazards in the community.
3. Inform, educate, and empower people about health issues.
4. Mobilize community partnerships and action to identify and solve health problems.
5. Develop policies and plans that support individual and community health efforts.
6. Enforce laws and regulations that protect health and ensure safety.
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
8. Assure competent public and personal health care workforce.
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
10. Research for new insights and innovative solutions to health problems.

Thank you for completing this questionnaire. The information submitted by your state will be used to sketch out regional and national trends in epidemiology capacity, and findings will be shared with all participating agencies. However**,** CSTE will not release state-specific information in any reports unless otherwise approved by the state(s).

Please provide your comments in the following box. What topics should or should not be covered? Did you have difficulty estimating or understanding specific questions contained in this survey? Any other suggestions?

If completing a paper version of this survey, please return one fully completed questionnaire for your state or territory by email, fax, or regular mail to:

Jennifer Lemmings
Attn: ECA Survey
2872 Woodcock Boulevard, Suite 303
Atlanta, GA 30341-4015
Email: jlemmings@cste.org
Fax: 770-458-8516

If you are completing the online version of this questionnaire, a paper copy does not need to be emailed, faxed, or mailed to the above address.

If you have any questions, please contact Jennifer Lemmings (jlemmings@cste.org) by email or 770-458-3811