

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
<i>I. Skill Domain – Assessment and Analysis</i>	<i>I. Skill Domain – Assessment and Analysis</i>	<i>I. Skill Domain – Assessment and Analysis</i>	<i>I. Skill Domain – Assessment and Analysis</i>
<p><i>1. Recognize public health problems pertinent to the population.</i></p> <p>i. Recognize the existence of a public health problem</p> <p>a. List relevant and appropriate data and information sources within and outside the public health system</p> <p>b. Seek assistance synthesizing existing data and information into a determination of expected and observed numbers of cases or outcomes in a population</p> <p>c. Seek assistance in determining threshold values (e.g., baseline disease burden, prevalence of risk behaviors, etc.) for public health action</p> <p>d. N/A</p> <p>e. N/A</p> <p>f. N/A</p>	<p><i>1. Identify public health problems pertinent to the population</i></p> <p>i. Use critical thinking to determine whether a public health problem exists</p> <p>a. Identify relevant and appropriate data and information sources within and outside the public health system</p> <p>b. Synthesize existing data and information into a determination of expected and observed numbers of cases or outcomes in a population</p> <p>c. Determine threshold values (e.g., baseline disease burden, prevalence of risk behaviors, etc.) for public health action</p> <p>d. Conduct a thorough search of the scientific literature and public health databases, using search engines and methods relevant to specific problems</p> <p>e. Quantify population-based health risks</p> <p>f. N/A</p>	<p><i>1. Assure identification of public health problems pertinent to the population</i></p> <p>i. Assure that critical thinking is used to determine whether a public health problem exists</p> <p>a. Validate the relevance and appropriateness of data and information sources within and outside the public health system</p> <p>b. Verify the accuracy of expected and observed numbers of cases or outcomes in a population</p> <p>c. Assure the accuracy of determined threshold values (e.g., baseline disease burden, prevalence of risk behaviors, etc.) for public health action</p> <p>d. Verify the completeness and accuracy of searches of literature and public health databases.</p> <p>e. Verify population-based health risks</p> <p>f. Decide whether to obtain expertise outside the agency in order assist in decision-making</p>	<p><i>1. Validate identification of public health problems pertinent to the population</i></p> <p>i. Synthesize key findings from the critical thinking process to determine whether a public health problem exists</p> <p>a. Utilize relevant and appropriate data and information sources within and outside the public health system</p> <p>b. Synthesize existing data and information into a determination of expected and observed numbers of cases or outcomes in a population</p> <p>c. Validate the calculated threshold values (e.g., baseline disease burden, prevalence of risk behaviors, etc.) for public health action</p> <p>d. Synthesize results of searches of the scientific literature and public health databases</p> <p>e. Verify population-based health risks</p> <p>f. Determine whether additional outside expertise is needed to assist in decision-making</p>

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ii. N/A iii. Collaborate with others, inside and outside the agency, to identify the problem	ii. Articulate the need for further investigation or other public health action, based on results of literature review and assessment of current data iii. Collaborate with others, inside and outside the agency, to identify the problem and form recommendations	ii. Decide whether to conduct further investigation or other public health action, based on results of literature review and assessment of current data iii. Lead collaborations with others, inside and outside the agency, to identify the problem and form recommendations	ii. Evaluate need for further investigation or other public health action, based on results of literature review and assessment of current data iii. Lead collaborations with others, inside and outside the agency, to identify the problem and form recommendations
<i>2. Conduct surveillance</i>	<i>2. Conduct surveillance</i>	<i>2. Oversee surveillance activities</i>	<i>2. Organize surveillance</i>
ii. N/A a. N/A b. N/A c. N/A d. N/A ii. N/A a. Create case definition(s), based on person, place and time	i. Design surveillance for the particular public health issue under consideration a. Identify types of surveillance methods for specific public health problems b. Recommend types of surveillance systems suitable to specific public health problems c. N/A d. Identify additional burden to public health system and reporting entity anticipated to result from the proposed surveillance system ii. Identify surveillance data needs a. Create case definition(s), based on person, place, and time	i. Approve surveillance for the particular public health issue under consideration a. Examine potential surveillance methods for specific public health problems b. Decide on appropriate types of surveillance systems for specific public health problems c. Review anticipated cost/benefit of initiating a new surveillance system d. Decide whether to impose the additional burden to public health system and reporting entity that is anticipated to result from the proposed surveillance system ii. Decide on surveillance data needs a. Verify case definition(s), based on person, place, and time	i. Evaluate appropriateness of conducting surveillance for the particular public health issue under consideration a. Examine types of surveillance methods for specific public health problems b. Determine optimal type of surveillance systems for specific public health problems c. N/A d. Evaluate additional burden to public health system and reporting entity anticipated to result from the proposed surveillance system ii. Evaluate surveillance data needs a. Evaluate case definition(s), based on person, place, and time

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<p>b. N/A</p> <p>c. N/A</p> <p>d. N/A</p> <p>e. N/A</p> <p>f. Recognize potential uses of data to inform surveillance system</p> <p>iii. Implement new or revise existing surveillance systems</p> <p>a. Define objectives and uses of surveillance system</p> <p>b. Test data collection and analytical methods as directed</p> <p>c. Assist in creating working surveillance system</p> <p>d. Collect data for verification of the defined surveillance system parameters (timeliness, frequency, etc.)</p>	<p>b. Describe sources, quality, and limitations of surveillance data</p> <p>c. Identify mechanisms to transfer data from source to public health agency</p> <p>d. Define timeliness required for data collection</p> <p>e. Determine appropriate frequency of reporting</p> <p>f. Describe potential uses of data to inform surveillance system design</p> <p>iii. Implement new or revise existing surveillance systems</p> <p>a. Define objectives and uses of surveillance system</p> <p>c. Test data collection and analytical methods</p> <p>c. Create working surveillance system</p> <p>d. Verify that data collection occurs according to the defined surveillance system parameters (timeliness, frequency, etc.)</p>	<p>b. Decide on sources of surveillance data</p> <p>c. Decide on mechanisms to transfer data from source to public health agency</p> <p>d. Decide on acceptable timeliness for data collection and frequency for reporting</p> <p>e. N/A</p> <p>f. Decide on surveillance system design</p> <p>iii. Supervise or manage implementation of new or revision of existing surveillance systems</p> <p>a. Approve objectives and uses of surveillance system</p> <p>b. Validate data collection and analytical methods</p> <p>c. N/A</p> <p>d. Verify that data collection occurs according to the defined surveillance system parameters (timeliness, frequency, etc.)</p>	<p>b. Evaluate sources, quality, and limitations of surveillance data</p> <p>c. Assess mechanisms to transfer data from source to public health agency</p> <p>d. Evaluate timeliness requirements for data collection</p> <p>e. Assess appropriate frequency of reporting</p> <p>f. Create appropriate surveillance system design based on potential uses of data</p> <p>iii. Implement new or revise existing surveillance systems</p> <p>a. Develop guidelines for objectives and uses of surveillance systems</p> <p>b. Validate data collection and analytical methods</p> <p>c. Create working surveillance system</p> <p>d. Assess performance of data collection systems against the defined surveillance system parameters (timeliness, frequency, etc.)</p>

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<p>e. Maintain good working relationships with reporting entities</p> <p>f. Provide feedback as appropriate to reporting entities and other organizations or individuals who need to know about the data or system</p> <p>iv. Report key findings from the surveillance system</p> <p>a. Provide system results to senior epidemiologists</p> <p>b. Recognize implications to public health programs</p> <p>c. Assist in developing conclusions from the surveillance data</p> <p>d. Communicate results to senior staff</p> <p>v. Support evaluation of surveillance systems</p>	<p>e. Create good working relationships with reporting entities</p> <p>f. Provide feedback as appropriate to reporting entities and other organizations or individuals who need to know about the data or system</p> <p>iv. Identify key findings from the surveillance system</p> <p>a. Examine system’s results in the context of current scientific knowledge</p> <p>b. Identify implications to public health programs</p> <p>c. Develop conclusions from the surveillance data</p> <p>d. Communicate results to agency managers and to reporters of surveillance data (see Communication competencies)</p> <p>v. Conduct evaluation of surveillance systems</p>	<p>e. Assure good working relationships with reporting entities</p> <p>f. Assure provision of feedback as appropriate to reporting entities and other organizations or individuals who need to know about the data or system</p> <p>iv. Synthesize key findings from the surveillance system and other pertinent information for use by decision-makers</p> <p>a. Interpret system’s results in the context of current scientific knowledge and other available information</p> <p>b. Examine any implications to public health programs</p> <p>c. Determine relative priority of each conclusion from the surveillance data, prior to making recommendations to decision-makers</p> <p>d. Communicate synthesized information to decision-makers and the public as appropriate</p> <p>v. Assure evaluation of surveillance systems</p>	<p>e. Create good working relationships with reporting entities</p> <p>f. Synthesize information about surveillance system for communicating as appropriate to reporting entities and other organizations or individuals who need to know about the data or system</p> <p>iv. Synthesize key findings from the surveillance system and other pertinent information for use by decision-makers</p> <p>a. Intrepret system’s results in the context of current scientific knowledge</p> <p>b. Examine any implications to public health programs</p> <p>c. Determine relative priority of each conclusion from the surveillance data, prior to making recommendations to decision-makers</p> <p>d. Communicate synthesized information to decision-makers and the public as appropriate</p> <p>v. Design and conduct evaluation of surveillance systems</p>

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<p>a. Collect data necessary for evaluation of surveillance systems using national guidance and methods (RR German and the Guidelines Working Group. 2001. Updated Guidelines for Evaluating Public Health Surveillance Systems. MMWR 50(RR13):1-35)</p> <p>b. Assist in preparing recommendations for modifications to surveillance systems based on evaluation</p> <p>c. N/A</p> <p><i>3. Identify acute and chronic conditions or other adverse outcomes in the population</i></p> <p>i. Assist in conducting a community health status assessment</p> <p>ii. N/A</p> <p>iii. Characterize investigative processes</p> <p>a. Recognize different principles of investigation for endemic/sporadic illness versus</p>	<p>a. Evaluate surveillance systems using national guidance and methods (RR German and the Guidelines Working Group. 2001. Updated Guidelines for Evaluating Public Health Surveillance Systems. MMWR 50(RR13):1-35)</p> <p>b. Propose recommendations for modifications to surveillance systems based on evaluation</p> <p>c. N/A</p> <p><i>3. Investigate acute and chronic conditions or other adverse outcomes in the population</i></p> <p>i. Conduct a community health status assessment</p> <p>ii. Recommend priorities of potential public health problems to be addressed</p> <p>iii. Select investigative processes</p> <p>a. Apply principles of investigation for endemic/sporadic illness versus acute outbreaks</p>	<p>a. Assure evaluation of surveillance systems using national guidance and methods (RR German and the Guidelines Working Group. 2001. Updated Guidelines for Evaluating Public Health Surveillance Systems. MMWR 50(RR13):1-35)</p> <p>b. Appraise recommendations for modifications to surveillance systems based on evaluation</p> <p>c. Decide whether to modify surveillance systems based on recommendations</p> <p><i>3. Assure investigation of acute and chronic conditions or other adverse outcomes in the population</i></p> <p>i. Oversee a community health status assessment</p> <p>ii. Decide on priority of public health problems to be addressed</p> <p>iii. Assure selection of appropriate investigative processes</p> <p>a. Determine whether to use investigative methods for endemic/sporadic illness versus acute</p>	<p>a. Evaluate surveillance systems using national guidance and methods (RR German and the Guidelines Working Group. 2001. Updated Guidelines for Evaluating Public Health Surveillance Systems. MMWR 50(RR13):1-35)</p> <p>b. Develop and/or review recommendations for modifications to surveillance systems based on evaluation</p> <p>c. Decide whether to modify surveillance systems based on recommendations</p> <p><i>3. Design investigation of acute and chronic conditions or other adverse outcomes in the population</i></p> <p>i. Design a community health status assessment</p> <p>ii. Recommend priorities of potential public health problems to be addressed</p> <p>ii. Determine investigative processes</p> <p>a. Determine whether to use investigative methods for endemic/sporadic illness versus acute</p>

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<p>acute outbreaks</p> <p>b. Recognize different principles of investigation for disease clusters versus endemic conditions</p> <p>c. List the major epidemiologic study designs, including the strengths and weaknesses of each</p> <p>iv. Create hypotheses (see competencies from Skill domain I.1.i and Basic Public Health Sciences)</p> <p>v. Assist in design of investigation (e.g. disease investigations, studies or screening programs)</p> <p>a. Identify target population for investigation</p> <p>b. N/A</p> <p>c. N/A</p> <p>d. Create case definition(s)</p> <p>e. N/A</p> <p>f. N/A</p>	<p>b. Apply principles of investigation for disease clusters versus endemic conditions</p> <p>c. Describe the major epidemiologic study designs, including the strengths and weaknesses of each</p> <p>iv. Create hypotheses (see competencies from Skill Domain I.1.i and Basic Public Health Sciences)</p> <p>v. Assist in design of investigation (e.g., disease investigations, studies, or screening programs)</p> <p>a. Identify target population for investigation</p> <p>b. Perform power calculations if necessary</p> <p>c. Identify individuals or groups eligible to be in the study</p> <p>d. Create case definition(s) by defining the outcomes of interest</p> <p>e. Identify optimal timeframe for investigation</p> <p>f. Select optimal investigation design under existing constraints</p>	<p>outbreaks</p> <p>b. Determine whether investigation involves disease clusters versus endemic conditions</p> <p>c. Decide which epidemiologic study design to use for the public health problem to be investigated</p> <p>iv. Verify hypotheses</p> <p>v. Oversee design of investigations (e.g., disease investigations, studies, or screening programs)</p> <p>a. Validate selection of target population for investigation</p> <p>b. Approve power calculations</p> <p>c. Approve inclusion of individuals or groups in the study</p> <p>d. Approve case definition(s)</p> <p>e. Approve timeframe for investigation</p> <p>f. Approve investigation design that will be most effective under existing</p>	<p>outbreaks</p> <p>b. Determine whether investigation involves disease clusters versus endemic conditions</p> <p>c. Integrate knowledge about epidemiologic study designs into appropriate study design for the public health problem to be investigated</p> <p>iv. Verify hypotheses</p> <p>v. Design investigations (e.g., disease investigations, studies, or screening programs)</p> <p>a. Identify target population for investigation</p> <p>b. Evaluate results of power calculations</p> <p>c. Verify individuals or groups for inclusion in the study</p> <p>d. Create case definition(s) by defining the outcomes of interest</p> <p>e. Verify optimal timeframe for investigation</p> <p>f. Justify optimal investigation design under existing constraints</p>

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<p>g. N/A</p> <p>h. N/A</p> <p>i. N/A</p> <p>j. N/A</p> <p>vi. Conduct investigation as directed</p> <p>a. Contact data sources</p> <p>b. Employ case finding methods suitable to the investigation</p> <p>c. Employ data collection instruments that have been constructed for the investigation</p> <p>d. Employ identified sampling methods</p> <p>e. Support necessary coordination between all groups involved in investigation</p>	<p>g. Identify possible sources of bias</p> <p>h. Identify methods to minimize or estimate effects of possible sources of bias</p> <p>i. Identify potential confounders</p> <p>j. Design strategies to control potential confounders</p> <p>vi. Employ investigation techniques suitable to the public health problem</p> <p>a. Identify sources of data for investigation</p> <p>b. Identify case finding methods suitable to the investigation</p> <p>c. Construct data collection instruments</p> <p>d. Identify optimal sampling methods given the context of the situation</p> <p>e. Organize necessary coordination between all groups involved in investigation</p>	<p>constraints</p> <p>g. N/A</p> <p>h. Approve methods to minimize or estimate effects of possible sources of bias</p> <p>i. N/A</p> <p>j. Approve strategies to control potential confounders</p> <p>vi. Assure use of investigation techniques suitable to the public health problem</p> <p>a. Approve data sources for investigation</p> <p>b. Approve case finding methods</p> <p>c. Approve data collection instruments</p> <p>d. Approve sampling methods given the context of the situation</p> <p>e. Assure coordination between all groups involved in investigation</p>	<p>g. Evaluate possible sources of bias</p> <p>h. Formulate study design to minimize or estimate effects of possible sources of bias</p> <p>i. Evaluate potential confounders</p> <p>j. Design or modify strategies to control potential confounders</p> <p>vi. Design investigation techniques suitable to the public health problem</p> <p>a. Verify selection of data sources for investigation</p> <p>b. Verify selection of case finding methods</p> <p>c. Evaluate data collection instruments</p> <p>d. Evaluate optimal sampling methods given the context of the situation</p> <p>e. Organize necessary coordination between all groups involved in investigation</p>
<i>4. Apply principles of good ethical/legal practice as they relate to study design and data collection, dissemination, and use</i>	<i>4. Apply principles of good ethical/legal practice as they relate to study design and data collection, dissemination, and use</i>	<i>4. Assure study design and data collection, dissemination, and use follow appropriate ethical/legal principles</i>	<i>4. Synthesize principles of good ethical/legal practice for application to study design and data collection, dissemination, and use</i>

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<p>i. Follow ethics guidelines and principles when planning studies, conducting research, and collecting, disseminating and using data</p> <ul style="list-style-type: none"> a. Collect and use public health data, including individual identifiers, only with clearly identified justification b. Balance respect for persons and individual privacy with the risk of the threat to the community c. Apply public health code of ethics to collection, management, dissemination, and use of data and information, including principles of justice, timeliness, and transparency of purpose (www.apha.org/codeofethics) <p>ii. Apply appropriate laws to data collection, management, dissemination, and use of data and information</p> <p>iii. N/A</p> <p>iv. Describe human subjects research</p>	<p>i. Follow ethics guidelines and principles when planning studies, conducting research, and collecting, disseminating and using data</p> <ul style="list-style-type: none"> a. Collect and use public health data, including individual identifiers, only with clearly identified justification b. Balance respect for persons and individual privacy with the risk of the threat to the community c. Apply public health code of ethics to collection, management, dissemination, and use of data and information, including principles of justice, timeliness, and transparency of purpose (www.apha.org/codeofethics) <p>ii. Apply appropriate laws to data collection, management, dissemination, and use of data and information</p> <p>iii. Describe differences between public health practice and public health research</p> <p>iv. Describe human subjects research</p>	<p>i. Examine ethics guidelines and principles when planning studies, conducting research, and collecting, disseminating and using data</p> <ul style="list-style-type: none"> a. Assure that public health data, including individual identifiers, are collected and used only with clearly identified justification b. Balance respect for persons and individual privacy with the risk of the threat to the community c. Assure that public health code of ethics is applied to collection, management, dissemination, and use of data and information, including principles of justice, timeliness, and transparency of purpose (www.apha.org/codeofethics) <p>ii. Communicate to staff legal expectations, limitations and implications of collection, management, dissemination, and use of data and information</p> <p>iii. Obtain decision on whether investigation involves public health practice or public health research</p> <p>iv. Assure legal and ethical conduct of human subjects research</p>	<p>i. Integrate ethics guidelines and principles when planning studies, conducting research, and collecting, disseminating, and using data</p> <ul style="list-style-type: none"> a. Collect and use public health data, including individual identifiers, only with clearly identified justification b. Balance respect for persons and individual privacy with the risk of the threat to the community c. Apply public health code of ethics to collection, management, dissemination, and use of data and information, including principles of justice, timeliness, and transparency of purpose (www.apha.org/codeofethics) <p>ii. Design data collection, management, dissemination and use of data and information to comply with appropriate laws</p> <p>iii. Verify conclusions that have been reached regarding distinction between public health practice and public health research</p> <p>iv. Assure legal and ethical conduct of human subjects research</p>

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<ul style="list-style-type: none"> v. Apply Institutional Review Board processes as directed vi. Bring potential conflicts of interest to attention of senior epidemiologists vii. Apply knowledge of privacy laws to protect confidentiality, including Health Insurance Portability and Accountability Act (HIPAA) and applicable state and local privacy laws viii. Know agency procedures for dealing with Freedom of Information Act (FOIA) requests ix. Bring potential violations of ethical principles in preparing and submitting publications to attention of senior epidemiologists 	<ul style="list-style-type: none"> v. Apply Institutional Review Board processes as necessary vi. Manage conflict of interest as necessary vii. Apply knowledge of privacy laws to protect confidentiality, including Health Insurance Portability and Accountability Act (HIPAA) and applicable state and local privacy laws viii. Know agency procedures for dealing with Freedom of Information Act (FOIA) requests ix. Apply ethical principles in preparing and submitting publications 	<ul style="list-style-type: none"> v. Assure application of necessary Institutional Review Board processes vi. Assure that conflicts of interest do not interfere with research or investigations vii. Assure application of privacy laws to protect confidentiality, including Health Insurance Portability and Accountability Act (HIPAA) and applicable state and local privacy laws viii. Know agency procedures for dealing with Freedom of Information Act (FOIA) requests ix. Assure application of ethical principles in preparing and submitting publications 	<ul style="list-style-type: none"> v. Assure application of Institutional Review Board processes vi. Assure that conflicts of interest do not interfere with research or investigations vii. Incorporate privacy laws into study design to protect confidentiality, including Health Insurance Portability and Accountability Act (HIPAA) and applicable state and local privacy laws viii. Know agency procedures for dealing with Freedom of Information Act (FOIA) requests ix. Apply ethical principles in preparing and submitting publications
<p><i>5. Organize data from surveillance, investigations, or other sources</i></p> <ul style="list-style-type: none"> i. Assist in creation of database, if indicated <ul style="list-style-type: none"> a. N/A b. Employ optimal coding for variables as directed (e.g., assigning numeric codes to text response options for a variable) to ensure accuracy and ease of analysis 	<p><i>5. Manage data from surveillance, investigations, or other sources</i></p> <ul style="list-style-type: none"> i. Create database, if indicated <ul style="list-style-type: none"> a. Design database with necessary variables and data dictionary b. Employ optimal coding for variables (e.g., assigning numeric codes to text response options for a variable) to ensure accuracy and ease of analysis 	<p><i>5. Assure appropriate management of data from surveillance, investigations, or other sources</i></p> <ul style="list-style-type: none"> i. Approve selection of data management methods <ul style="list-style-type: none"> a. N/A b. Verify appropriate use of variables and coding in databases 	<p><i>5. Manage data from surveillance, investigations, or other sources</i></p> <ul style="list-style-type: none"> i. Create database, if indicated <ul style="list-style-type: none"> a. Design database with necessary variables and metadata b. Verify choice of coding for variables (e.g., assigning numeric codes to text response options for a variable) to ensure and balance accuracy and ease of analysis

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<ul style="list-style-type: none"> c. Employ data entry techniques that ensure accuracy and reliability d. Conduct data entry validation e. Perform data cleaning and error correction f. N/A <ul style="list-style-type: none"> ii. Maintain databases <ul style="list-style-type: none"> a. N/A b. N/A c. N/A d. N/A e. Document all changes to database f. Apply practices for secure (restricted access) and stable (routine back-ups, database 	<ul style="list-style-type: none"> c. Design data entry techniques that ensure accuracy and reliability d. Conduct data entry validation e. Perform data cleaning and error correction f. Communicate results of data error correction to data providers <ul style="list-style-type: none"> ii. Manage databases <ul style="list-style-type: none"> a. Maintain original data, but transform data as needed for specific analyses b. Create new variables as necessary to support analysis of data c. Perform merging and splitting of databases d. Change format of data from one software application to another if necessary (e.g. from ASCII to SAS) e. Document all data transformations f. Apply practices for secure (restricted access) and stable (routine back-ups, database redundancy) data storage 	<ul style="list-style-type: none"> c. Verify data entry techniques to ensure accuracy and reliability d. N/A e. Verify that valid data cleaning has occurred f. Communicate results of data error correction to data providers <ul style="list-style-type: none"> ii. Assure appropriate database management <ul style="list-style-type: none"> a. Assure that data are maintained and transformed as needed for specific analyses b. N/A c. N/A d. N/A e. Assure that all data transformations are documented f. Insure secure (restricted access) and stable (routine back-ups, database redundancy) data storage 	<ul style="list-style-type: none"> c. Evaluate accuracy and reliability of data entry techniques d. Approve data entry validation processes e. Approve data cleaning and error correction processes f. Communicate results of data error correction to data providers <ul style="list-style-type: none"> ii. Manage databases <ul style="list-style-type: none"> a. Maintain original data, but transform data as needed for specific analyses b. Evaluate need for creation of new variables as necessary to support analysis of data c. Evaluate need for and perform merging and splitting of databases d. Provide technical expertise in changing format of data from one software application to another if necessary (e.g. from ASCII to SAS) e. Create processes for documenting data transformations f. Insure secure (restricted access) and stable (routine back-ups, database redundancy) data

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redundancy) data storage			storage
<p><i>6. Analyze data from an epidemiologic investigation or study</i></p> <p>i. Utilize analysis plan for data</p> <p>a. N/A</p> <p>b. N/A</p> <p>c. N/A</p> <p>d. Recognize and describe the assumptions to be used in interpreting results</p> <p>e. N/A</p> <p>f. N/A</p> <p>ii. Conduct analysis of data</p> <p>a. Compute frequencies and descriptive statistics</p> <p>b. Perform analyses for rates and age adjustment as directed</p>	<p><i>6. Analyze data from an epidemiologic investigation or study</i></p> <p>i. Create analysis plan for data</p> <p>a. Define analysis plan to insure that public health objectives are met</p> <p>b. Identify appropriate statistical techniques given the data, study design, sample size, hypotheses, and other relevant factors</p> <p>c. Specify the parameters to estimate</p> <p>d. Specify the assumptions to be used in interpreting results</p> <p>e. Create table shells</p> <p>f. Select software suitable for analyzing and managing data</p> <p>ii. Conduct analysis of data</p> <p>a. Compute frequencies and descriptive statistics</p> <p>b. Determine if rates and age adjustments are needed and perform analyses as necessary</p>	<p><i>6. Evaluate analysis of data from an epidemiologic investigation or study</i></p> <p>i. Approve analysis plan for data</p> <p>a. Assure that analysis plan will meet the public health objectives</p> <p>b. Validate the selected statistical techniques given the data, study design, sample size, hypotheses, and other relevant factors</p> <p>c. N/A</p> <p>d. N/A</p> <p>e. N/A</p> <p>f. N/A</p> <p>ii. Approve data analysis</p> <p>a. N/A</p> <p>b. N/A</p>	<p><i>6. Evaluate data from an epidemiologic investigation or study</i></p> <p>i. Create analysis plan for data</p> <p>a. Formulate analysis plan to insure that public health objectives are met</p> <p>b. Formulate appropriate statistical techniques given the data, study design, sample size, hypotheses, and other relevant factors</p> <p>c. Verify the parameters selected for estimation</p> <p>d. Verify the assumptions to be used in interpreting results</p> <p>e. Approve the selection of table shells</p> <p>f. Approve the selection of the software to be used for analyzing and managing data</p> <p>ii. Evaluate data</p> <p>a. Compute frequencies and descriptive statistics</p> <p>b. Determine if rates and age adjustments are needed and perform analyses as necessary</p>

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
<i>I. Skill Domain – Assessment and Analysis</i>	<i>I. Skill Domain – Assessment and Analysis</i>	<i>I. Skill Domain – Assessment and Analysis</i>	<i>I. Skill Domain – Assessment and Analysis</i>
c. Compute sensitivity, specificity, positive predictive value, Type 1 and Type 2 errors, incidence, prevalence, and attributable fraction as directed	c. Determine which standard epidemiologic measures are indicated (e.g., sensitivity, specificity, positive predictive value, Type 1 and Type 2 errors, incidence, prevalence, and attributable fraction) and compute as needed	c. N/A	c. Formulate a synopsis of the data using standard epidemiologic measures, including sensitivity, specificity, positive predictive value, Type 1 and Type 2 errors, incidence, prevalence and attributable fraction
d. N/A	d. Perform trend analyses	d. N/A	d. Determine best methodology for and perform trend analyses
e. Perform analyses as directed for appropriate measures of association (e.g., Relative Risks and Odds Ratios), confidence intervals and p-values	e. Determine appropriate measures of association (e.g., Relative Risks and Odds Ratios), confidence intervals, and p-values and perform analysis as needed	e. N/A	e. Analyze and interpret using appropriate measures of association (e.g., Relative Risks and Odds Ratios), confidence intervals, and p-values
f. N/A	f. Interpret measures of association, confidence intervals, and p-values	f. N/A	f. Interpret measures of association, confidence intervals, and p-values
g. N/A	g. Assess need for multivariable analyses	g. N/A	g. Evaluate using multivariate, and/or regression analyses as necessary
h. N/A	h. Perform multivariable and/or regression analyses as necessary	h. N/A	h. Perform multivariable and/or regression analyses as necessary
i. N/A	i. N/A	i. Verify results of data analysis	i. Verify results of data analysis
j. N/A	j. Assess the effect of potential confounders	j. N/A	j. Assess the effect of potential confounders
k. N/A	k. Assess whether effect modification is present	k. N/A	k. Assess whether effect modification is present

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
<i>I. Skill Domain – Assessment and Analysis</i>	<i>I. Skill Domain – Assessment and Analysis</i>	<i>I. Skill Domain – Assessment and Analysis</i>	<i>I. Skill Domain – Assessment and Analysis</i>
<p>l. N/A</p> <p>m. N/A</p> <p>n. Create standard epidemiology report and necessary components including tables, graphs, and charts</p> <p>o. N/A</p>	<p>l. Assess need for special analyses, including survival analyses, cost effectiveness/cost benefit/cost utility analyses</p> <p>m. N/A</p> <p>n. Create standard epidemiology report and necessary components including tables, graphs, and charts</p> <p>o. N/A</p>	<p>l. Determine whether to conduct special analyses, including survival analyses, cost effectiveness/cost benefit/cost utility analyses</p> <p>m. N/A</p> <p>n. N/A</p> <p>o. Review resulting epidemiology reports</p>	<p>l. Assess need for special analyses, including survival analyses, cost effectiveness/cost benefit/cost utility analyses</p> <p>m. Formulate special analyses as necessary, including survival analyses, cost effectiveness/cost benefit/cost utility analyses</p> <p>n. Create standard epidemiology report and necessary components including tables, graphs, and charts</p> <p>o. N/A</p>
<i>7.. Summarize results of the analysis and draw conclusions</i>	<i>7. Summarize results of the analysis and draw conclusions</i>	<i>7. Evaluate conclusions and interpretations from investigation</i>	<i>7. Evaluate results of the analysis and interpret conclusions</i>
<p>i. N/A</p> <p>a. N/A</p> <p>b. N/A</p> <p>c. N/A</p>	<p>i. Apply knowledge of epidemiologic principles and methods to make recommendations regarding the validity of epidemiologic data</p> <p>a. Determine likely sources of bias</p> <p>b. Assess validity and reliability of data collection instruments and methods</p> <p>c. Determine other limitations in study design, sample selection, data collection, analysis, and other features</p>	<p>i. Assess the validity of the epidemiologic data, taking into consideration bias, and other study limitations</p> <p>a. N/A</p> <p>b. N/A</p> <p>c. N/A</p>	<p>i. Assess the validity of the epidemiologic data, taking into consideration bias, and other study limitations</p> <p>a. Confirm likely sources of bias and likely effects on results</p> <p>b. Verify the selection of data collection instruments and methods based on their validity and reliability</p> <p>c. Confirm other limitations in study design, sample selection, data collection, analysis and other</p>

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
<i>I. Skill Domain – Assessment and Analysis</i>	<i>I. Skill Domain – Assessment and Analysis</i>	<i>I. Skill Domain – Assessment and Analysis</i>	<i>I. Skill Domain – Assessment and Analysis</i>
<p>d. N/A</p> <p>e. N/A</p> <p>iii. N/A</p> <p>a. N/A</p> <p>b. Distinguish between a statistical association and a causal effect</p> <p>iv. Identify key findings from the study</p> <p>a. Relate study findings to current scientific knowledge</p> <p>b. N/A</p> <p>c. N/A</p>	<p>d. Recognize the limitations of significance testing</p> <p>e. Make causal inferences based on principles of causation (e.g., strength, consistency, biological plausibility, dose-response, and temporal relationship)</p> <p>iii. Assess the impact of the limitations on the study's results</p> <p>a. Examine the influence of power and confidence limits on the interpretation of the study's data</p> <p>b. Distinguish between a statistical association and a causal effect</p> <p>iv. Identify key findings from the study</p> <p>a. Interpret study's results in the context of current scientific knowledge</p> <p>b. Estimate measures of effect and potential impact based on study's findings</p> <p>c. Identify any implications to public health programs</p>	<p>d. N/A</p> <p>e. Evaluate causal inferences based on principles of causation (e.g. strength, consistency, biological plausibility, dose-response, and temporal relationship)</p> <p>iii. Evaluate the impact of the limitations on the study's results</p> <p>a. N/A</p> <p>b. Approve methods to distinguish between statistical association and causal effect</p> <p>iv. Validate key findings from the study</p> <p>a. N/A</p> <p>b. N/A</p> <p>c. Determine the importance of implications to public health programs</p>	<p>features</p> <p>d. Explain the limitations of significance testing</p> <p>e. Evaluate causal inferences based on principles of causation (e.g., strength, consistency, biological plausibility, dose-response, and temporal relationship)</p> <p>iii. Evaluate the impact of the limitations on the study's results</p> <p>a. Explain the influence of power and confidence limits on the interpretation of the study's data</p> <p>b. Determine the impact of any statistical association or causal effect</p> <p>iv. Synthesize key findings from the study</p> <p>a. Evaluate study's results in the context of current scientific knowledge</p> <p>b. Verify measures of effect and conclusions regarding potential impact based on study's findings</p> <p>c. Verify any implications to public health programs</p>

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
<i>I. Skill Domain – Assessment and Analysis</i>	<i>I. Skill Domain – Assessment and Analysis</i>	<i>I. Skill Domain – Assessment and Analysis</i>	<i>I. Skill Domain – Assessment and Analysis</i>
<p>d. N/A</p> <p>e. N/A</p> <p>8. Assist in developing recommended interventions and control measures in response to epidemiologic findings</p> <p>i. Define cultural/social/political framework for recommended interventions</p> <p>a. Describe study data in a way that makes the rationale for the recommendations clear</p> <p>b. N/A</p> <p>ii. N/A</p> <p>a. N/A</p>	<p>d. Develop inference and conclusions from the study</p> <p>e. Communicate results</p> <p>8. Recommend interventions and control measures in response to epidemiologic findings</p> <p>i. Establish cultural/social/political framework for recommendations or interventions</p> <p>a. Describe study data in a way that makes the rationale for the recommendations clear</p> <p>b. Relate study findings to existing policies, regulations, and laws as well as environmental factors (e.g., societal, cultural, or other factors that may affect the recommendations or interventions)</p> <p>ii. Utilize scientific evidence in preparing recommendations for action or interventions</p> <p>a. Synthesize scientific evidence and knowledge for use in preparing recommendations</p>	<p>d. N/A</p> <p>e. Synthesize results for communication to decision-makers and the public</p> <p>8. Determine optimal interventions and control measures in response to epidemiologic findings</p> <p>i. Approve interventions based on understanding of cultural/social/political framework for consideration</p> <p>a. N/A</p> <p>b. Interpret study findings in the context of existing policies, regulations, and laws as well as environmental factors (e.g., societal, cultural, or other factors that may affect the recommendations or interventions)</p> <p>ii. Assure that scientific evidence is used in preparing recommendations for action or interventions</p> <p>a. N/A</p>	<p>d. Evaluate inference and conclusions from the study</p> <p>e. Synthesize results for communication to decision-makers and the public</p> <p>8. Formulate new interventions and control measures in response to epidemiologic findings</p> <p>i. Examine cultural/social/political framework to develop recommendations or interventions</p> <p>a. Describe study data in a way that makes the rationale for the recommendations clear</p> <p>b. Evaluate study findings in relation to existing policies, regulations, and laws as well as environmental factors (e.g., societal, cultural, or other factors that may affect the recommendations or interventions)</p> <p>ii. Formulate recommendations using scientific evidence or interventions</p> <p>a. Synthesize scientific evidence and knowledge for use in preparing recommendations</p>

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
I. Skill Domain – Assessment and Analysis	I. Skill Domain – Assessment and Analysis	I. Skill Domain – Assessment and Analysis	I. Skill Domain – Assessment and Analysis
<p>b. N/A</p> <p>c. N/A</p> <p>d. N/A</p> <p>e. N/A</p> <p>f. N/A</p>	<p>b. Identify the key types of intervention for problem from models of causation (e.g., host-agent-environment, ecological models, Haddon’s strategies, etc).</p> <p>c. Develop assessment of the potential impact on the public’s health from alternative interventions</p> <p>d. Propose new recommendations or modifications to existing interventions as necessary based on study findings</p> <p>e. Prioritize potential public health interventions</p> <p>f. Link any recommended behavioral interventions with appropriate risk communication and risk reduction methods</p>	<p>b. N/A</p> <p>c. Approve assessment of the potential impact on the public’s health from alternative interventions</p> <p>d. Select appropriate new recommendations or modifications to existing interventions as necessary based on study findings</p> <p>e. Approve prioritization of potential public health interventions</p> <p>f. Assure that any recommended behavioral interventions are linked with appropriate risk communication and risk reduction methods</p>	<p>b. Evaluate the key types of intervention for problem from models of causation (e.g., host-agent-environment, ecological models, Haddon’s strategies, etc).</p> <p>c. Evaluate the potential impact on the public’s health from alternative interventions</p> <p>b. Formulate new recommendations or modifications to existing interventions as necessary based on study findings</p> <p>e. Prioritize potential public health interventions</p> <p>f. Link any recommended behavioral interventions with appropriate risk communication and risk reduction methods</p>
<p>9. Assist in evaluation of programs</p> <p>i. N/A</p> <p>ii. N/A</p> <p>iii. Collect surveillance and other data for use in tracking program objectives and outcomes</p> <p>iv. Assist in tracking progress toward program objectives and outcomes</p>	<p>9. Evaluate programs</p> <p>i. Assist in development of measurable and program-relevant goals and objectives</p> <p>ii. Assist in development of program logic models and theories of action</p> <p>iii. Identify surveillance and other data for use in tracking program objectives and outcomes</p> <p>iv. Record progress toward program objectives and outcomes</p>	<p>9. Assure evaluation of programs</p> <p>i. Approve measurable and program-relevant goals and objectives</p> <p>ii. Decide on program logic models and theories of action</p> <p>iii. Approve surveillance and other data for use in tracking program objectives and outcomes</p> <p>iv. Monitor progress toward program objectives and outcomes</p>	<p>9. Evaluate programs</p> <p>i. Develop measurable and program-relevant goals and objectives in collaboration with program staff</p> <p>ii. Develop program logic models and theories of action in collaboration with program staff</p> <p>iii. Synthesize surveillance and other data to allow tracking program objectives and outcomes</p> <p>iv. Critique progress toward program objectives and outcomes</p>

<i>Tier 1</i>	<i>Tier 2</i>	<i>Tier 3 Supervisor/Manager</i>	<i>Tier 3 Senior Scientist</i>
<i>I. Skill Domain – Assessment and Analysis</i>	<i>I. Skill Domain – Assessment and Analysis</i>	<i>I. Skill Domain – Assessment and Analysis</i>	<i>I. Skill Domain – Assessment and Analysis</i>
v. Communicate information on progress toward program objectives and outcomes to program managers	v. Communicate information on progress toward program objectives and outcomes to program managers and staff for use in program planning and modification	v. Incorporate information on progress toward program objectives and outcomes in decisions on program planning and modification	v. Evaluate progress toward program objectives and outcomes for program managers and staff, to aid in program planning and modification

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
II. Skill Domain – Basic Public Health Sciences	II. Skill Domain – Basic Public Health Sciences	II. Skill Domain – Basic Public Health Sciences	II. Skill Domain – Basic Public Health Sciences
<p><i>1. Know how causes of disease affect epidemiologic practice</i></p> <p>i. Relate basic etiologic processes for human diseases to subject matter areas of interest (e.g., infectious diseases, chronic diseases)</p> <p>ii. Apply understanding of human and environmental biology and behavioral sciences and principles to determine potential biological mechanisms of disease</p> <p>iii. N/A</p> <p>iv. Apply principles of the host/agent/environment model to disease causation, prevention, and control</p> <p>v. N/A</p> <p>vi. N/A</p>	<p><i>1. Use knowledge of causes of disease to guide epidemiologic practice</i></p> <p>i. Relate basic etiologic processes for human diseases to subject matter areas of interest (e.g., infectious diseases, chronic diseases)</p> <p>ii. Apply understanding of human and environmental biology and behavioral sciences and principles to determine potential biological mechanisms of disease</p> <p>iii. Explain how genetics and genomics effect disease processes and public health policy and practice</p> <p>iv. Apply principles of the host/agent/environment model to disease causation, prevention, and control</p> <p>v. Describe the role and influence of socio-behavioral factors (including community, political, social, family, and individual behavioral factors) in health risks and health status</p> <p>vi. Incorporate etiologic principles into development of disease prevention and control strategies</p>	<p><i>1. Use knowledge of causes of disease to guide epidemiologic practice</i></p> <p>i. Assure that basic etiologic processes for human diseases are related to subject matter areas of interest (e.g., infectious diseases, chronic diseases)</p> <p>ii. Assure the application of understanding of human and environmental biology and behavioral sciences and principles to determine potential biological mechanisms of disease</p> <p>iii. Assure that the role of genetics and genomics on disease processes are considered when developing public health policy and practice</p> <p>iv. Assure the application of principles of the host/agent/environment model to disease causation, prevention and control</p> <p>v. Assure that the role and influence of socio-behavioral factors (including community, political, social, family, and individual behavioral factors) are incorporated into understanding health risks and health status</p> <p>vi. Incorporate etiologic principles into development of disease prevention and control strategies</p>	<p><i>1. Use knowledge of causes of disease to guide epidemiologic practice</i></p> <p>i. Assure that basic etiologic processes for human diseases are related to subject matter areas of interest (e.g., infectious diseases, chronic diseases)</p> <p>ii. Assure the application of understanding of human and environmental biology and behavioral sciences and principles to determine potential biological mechanisms of disease</p> <p>iii. Synthesize knowledge about the effect of genetics and genomics on disease processes and public health policy and practice</p> <p>iv. Assure the application of principles of the host/agent/environment model to disease causation, prevention and control</p> <p>v. Synthesize knowledge about the role and influence of socio-behavioral factors (including community, political, social, family, and individual behavioral factors) in health risks and health status</p> <p>vi. Incorporate etiologic principles into development of disease prevention and control strategies</p>
<p><i>2. Recognize the role of laboratory resources in epidemiologic activities</i></p> <p>i. Identify the roles and capabilities of public health laboratories and other laboratories, and how they are used in</p>	<p><i>2. Use laboratory resources to support epidemiologic activities</i></p> <p>i. Identify the roles and capabilities of public health laboratories and other laboratories, and how they are used in epidemiology</p>	<p><i>2. Assure the use of laboratory resources to support epidemiologic activities</i></p> <p>i. Examine the roles and capabilities of public health laboratories and other laboratories, and how they are used in epidemiology</p>	<p><i>2. Develop processes for using laboratory resources to support epidemiologic activities</i></p> <p>i. Synthesize the roles and capabilities of public health laboratories in epidemiology</p>

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
II. Skill Domain – Basic Public Health Sciences	II. Skill Domain – Basic Public Health Sciences	II. Skill Domain – Basic Public Health Sciences	II. Skill Domain – Basic Public Health Sciences
<p>epidemiology investigations</p> <p>ii. N/A</p> <p>iii. N/A</p> <p>iv. Utilize identified specimen collection, storage and transportation measures</p>	<p>investigations</p> <p>ii. Coordinate laboratory and epidemiology activities including test selection, communication, and reporting results in the field</p> <p>iii. Interpret laboratory data accounting for factors that influence the results of screening and diagnostic tests</p> <p>iv. Implement necessary specimen collection, storage, and transportation measures</p>	<p>investigations</p> <p>ii. Assure the coordination of laboratory and epidemiology activities including test selection, communication, and reporting results in the field</p> <p>iii. Evaluate the interpretation of laboratory data accounting for factors that influence the results of screening and diagnostic tests</p> <p>iv. Oversee necessary specimen collection, storage, and transportation measures</p>	<p>investigations</p> <p>ii. Determine laboratory and epidemiology activities including test selection, communication, and reporting results in the field</p> <p>iii. Develop methods for the interpretation of laboratory data accounting for factors that influence the results of screening and diagnostic tests</p> <p>iv. Develop methods for specimen collection, storage, and transportation measures</p>
<p><i>3. Utilize identified informatics tools in support of epidemiologic investigations</i></p> <p>i. Use full range of information technologies and communication tools necessary to support epidemiologic investigations and surveillance</p> <p>ii. Utilize software tools that adequately support public health data acquisition, entry, abstraction, analysis, and reporting</p> <p>iii. Apply all relevant procedures (policies) and technical means (security) to ensure the integrity and protection of confidential information in electronic files and computer systems</p> <p>iv. Combine data and information from</p>	<p><i>3. Apply principles of informatics, including data collection, processing, and analysis, in support of epidemiologic investigations</i></p> <p>i. Use full range of information technologies and communication tools necessary to support epidemiologic investigations and surveillance</p> <p>ii. Utilize software tools that adequately support on-line searching, public health data acquisition, entry, abstraction, management, analysis, planning, mapping, and reporting</p> <p>iii. Apply all relevant procedures (policies) and technical means (security) to ensure the integrity and protection of confidential information in electronic files and computer systems</p> <p>iv. Combine data and information from</p>	<p><i>3. Assure application of principles of informatics, including data collection, processing, and analysis, in support of epidemiologic investigations</i></p> <p>i. Provide access to full range of information technologies and communication tools necessary to support epidemiologic investigations and surveillance</p> <p>ii. Provide access to software tools that adequately support on-line searching, public health data acquisition, entry, abstraction, management, analysis, planning, mapping, and reporting</p> <p>iii. Assure that all relevant procedures (policies) and technical means (security) are used to ensure the integrity and protection of confidential information in electronic files and computer systems</p> <p>iv. Utilize data and information from multiple</p>	<p><i>3. Apply principles of informatics, including data collection, processing, and analysis, in support of epidemiologic investigations</i></p> <p>i. Use full range of information technologies and communication tools necessary to support epidemiologic investigations and surveillance</p> <p>ii. Utilize software tools that adequately support on-line searching, public health data acquisition, entry, abstraction, management, analysis, planning, mapping, and reporting</p> <p>iii. Apply all relevant procedures (policies) and technical means (security) to ensure the integrity and protection of confidential information in electronic files and computer systems</p> <p>iv. Synthesize data and information from</p>

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
II. Skill Domain – Basic Public Health Sciences	II. Skill Domain – Basic Public Health Sciences	II. Skill Domain – Basic Public Health Sciences	II. Skill Domain – Basic Public Health Sciences
<p>multiple sources, to create new information to support public health decision-making</p> <p>a. Suggest limitations of current data collection that might determine the need for new data collection</p> <p>b. N/A</p> <p>c. N/A</p> <p>d. N/A</p>	<p>multiple sources, to create new information to support public health decision-making</p> <p>a. Determine whether new data collection is needed or existing data sets or systems can be mined</p> <p>b. Participate in the development of new or enhancement of existing databases to support epidemiologic investigations, surveillance, etc.</p> <p>c. Utilize interoperable data standards as needed for storage and transmission, and be able to find the relevant standards specifications as needed</p> <p>d. Maintain electronic documents (guidelines, datasets) including with documented versions, dissemination methods, and relevant standards specifications</p>	<p>sources, to create new information to support public health decision-making.</p> <p>a. Decide whether to create new data collection systems or to mine existing data sets or systems.</p> <p>b. Oversee the development of new or enhancement of existing data bases to support epidemiologic investigations, surveillance, etc.</p> <p>c. Assure the utilization of interoperable data standards for storage and transmission, and be able to find the relevant standards specifications as needed</p> <p>d. Assure the maintenance of electronic documents (guidelines, datasets) including with documented versions, dissemination methods, and relevant standards specifications</p>	<p>multiple sources, to create new information to support public health decision-making</p> <p>a. Decide whether to create new data collection systems or to mine existing data sets or systems</p> <p>b. Develop new or enhance existing databases to support epidemiologic investigations, surveillance, etc.</p> <p>c. Assure the utilization of interoperable data standards for storage and transmission, and be able to find the relevant standards specifications as needed</p> <p>d. Create processes for maintenance of electronic documents (guidelines, datasets) including with documented versions, dissemination methods, and relevant standards specifications</p>
<p>3. N/A</p> <p>i. N/A</p>	<p>3. N/A</p> <p>i. N/A</p>	<p><i>3. Develop and manage information systems to improve effectiveness of surveillance, investigation and other epidemiology practices)</i></p> <p>i. Compose and manage systems development teams in a manner that demonstrates a recognition of the appropriate roles and domains for computer scientists, epidemiologists, policy makers and programmers and other IT specialists in information systems development</p>	<p><i>3. Develop and manage information systems to improve effectiveness of surveillance, investigation, and other epidemiology practices)</i></p> <p>i. Compose and manage systems development teams in a manner that demonstrates a recognition of the appropriate roles and domains for computer scientists, epidemiologists, policy makers and programmers and other IT specialists in information systems</p>

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
II. Skill Domain – Basic Public Health Sciences	II. Skill Domain – Basic Public Health Sciences	II. Skill Domain – Basic Public Health Sciences	II. Skill Domain – Basic Public Health Sciences
ii. N/A	ii. N/A	ii. Lead and advocate for, or otherwise actively participate in, the development of integrated, cost-effective public health information systems within the public health enterprise, ensuring that new applications and information systems are built in conformance with a larger (enterprise-level) information architecture	development ii. Lead and advocate for, or otherwise actively participate in, the development of integrated, cost-effective public health information systems within the public health enterprise, ensuring that new applications and information systems are built in conformance with a larger (enterprise-level) information architecture
iii. N/A	iii. N/A	iii. Apply accepted models and processes for developing information systems and for managing information resources	iii. Apply accepted models and processes for developing information systems and for managing information resources
iv. N/A	iv. N/A	iv. Actively and effectively communicate with information technology specialists as well as public health colleagues regarding proven information technologies and their potential application to public health practice	iv. Actively and effectively communicate with information technology specialists as well as public health colleagues regarding proven information technologies and their potential application to public health practice
v. N/A	v. N/A	v. Participate in developing confidentiality and privacy policies for the enterprise, and ensure the development of adequate security systems to support the implementation of those policies.	v. Participate in developing confidentiality and privacy policies for the enterprise, and ensure the development of adequate security systems to support the implementation of those policies
vi. N/A	vi. N/A	vi. Assure that the information system fully supports the objectives, functions, and business processes of the public health system	vi. Assure that the information system fully supports the objectives, functions, and business processes of the public health system

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
III. Skill Domain – Communication	III. Skill Domain – Communication	III. Skill Domain – Communication	III. Skill Domain – Communication
<p><i>1. Prepare written and oral reports and presentations that communicate necessary information to agency staff</i></p> <p>i. Identify methods and content for communication of epidemiologic findings</p> <p>a. N/A</p> <p>b. Identify relevant data to report</p> <p>c. Assess needs and interests of target audience for materials that are used in communication</p> <p>d. Utilize appropriate methods for communicating to target audience, as directed</p> <p>ii. Communicate epidemiologic work to agency staff through written reports and oral presentations</p>	<p><i>1. Prepare written and oral reports and presentations that communicate necessary information to professional audiences, policy makers, and the general public</i></p> <p>i. Identify audience, methods, and content for communication of epidemiologic findings</p> <p>a. Identify target audience for communication</p> <p>b. Identify relevant data to report</p> <p>c. Assess needs and interests of target audience for materials that are used in communication</p> <p>d. Identify optimal methods of communication for target audience</p> <p>ii. Communicate epidemiologic work to professional audiences through written reports and oral presentations</p>	<p><i>1. Assure preparation of written and oral reports and presentations that communicate necessary information to professional audiences, policy makers, and the general public</i></p> <p>i. Approve selection of audience, methods, and content for communication of epidemiologic findings</p> <p>a. N/A</p> <p>b. N/A</p> <p>c. N/A</p> <p>d. N/A</p> <p>ii. Review written reports and oral presentations to assure that content is appropriate for communicating epidemiologic work to professional audiences</p>	<p><i>1. Organize preparation of written and oral reports and presentations that communicate necessary information to professional audiences, policy makers, and the general public</i></p> <p>i. Verify selection of audience, methods, and content for communication of epidemiologic findings</p> <p>a. Decide on target audience for communication</p> <p>b. Determine relevance of data to report</p> <p>c. Review assessment of needs and interests of target audience for materials that are used in communication</p> <p>d. Verify methods of communication to target audience</p> <p>ii. Create written reports and oral presentations that communicate epidemiologic work to professional audiences</p>
<p>a. N/A</p> <p>b. N/A</p> <p>c. Prepare summary reports and memoranda for use within the agency</p>	<p>a. Prepare abstracts either for publication or for presentation at scientific meetings</p> <p>b. Prepare manuscripts for scientific publication</p> <p>c. Prepare summary reports and memoranda for use within the agency</p>	<p>a. N/A</p> <p>b. N/A</p> <p>c. N/A</p>	<p>a. Prepare abstracts either for publication or for presentation at scientific meetings</p> <p>b. Prepare manuscripts for scientific publication</p> <p>c. Prepare summary reports and memoranda for use within the agency</p>

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
III. Skill Domain – Communication	III. Skill Domain – Communication	III. Skill Domain – Communication	III. Skill Domain – Communication
<p>d. N/A</p> <p>e. Use current audio-visual tools to maximize communication</p> <p>f. Create charts, tables, and figures that communicate to the targeted audience</p> <p>iii. N/A</p> <p>a. N/A</p> <p>b. N/A</p> <p>c. N/A</p> <p>iv. N/A</p> <p>v. Respond to public queries about epidemiologic data</p> <p>vi. N/A</p>	<p>d. N/A</p> <p>e. Use current audio-visual tools to maximize communication</p> <p>f. Create charts, tables, and figures that communicate to the targeted audience</p> <p>iii. Communicate epidemiologic information to the general public, the press and/or to policy makers through giving oral presentations or contributing to development of written documents</p> <p>a. Contribute to press releases for the general public</p> <p>b. Participate in the development of disease prevention/health promotion materials for lay audiences</p> <p>c. Communicate scientific findings in a language tailored to the needs of decision-makers, press, and other target audiences</p> <p>iv. Tailor surveillance information content and periodicity of dissemination for specific audiences and their uses</p> <p>v. Respond to public queries about epidemiologic data or related issues</p> <p>vi. Demonstrate ability to explain or teach basic epidemiologic principles to non-epidemiologists</p>	<p>d. N/A</p> <p>e. N/A</p> <p>f. N/A</p> <p>iii. Create processes to guide preparation of documents or oral presentations that communicate epidemiologic information to the general public, press and/or policymakers</p> <p>a. Approve press releases on an as-needed basis</p> <p>b. N/A</p> <p>c. Create documents that communicate scientific findings in language tailored to the needs of decision-makers, press, and other target audiences</p> <p>iv. Approve surveillance information content and periodicity of dissemination for specific audiences and their uses</p> <p>v. Oversee responses to public queries about epidemiologic data or related issues</p> <p>vi. Demonstrate ability to explain or teach basic epidemiologic principles to non-epidemiologists</p>	<p>d. Critique reports, manuscripts, and other documents that have been prepared by others</p> <p>e. Use current audio-visual tools to maximize communications</p> <p>f. Create charts, tables, and figures that communicate to the targeted audience</p> <p>iii. Create documents (briefs, press releases, Web pages) that communicate epidemiologic information to the general public, press and/or to policy makers</p> <p>a. Contribute to or develop press releases for the general public</p> <p>b. Develop disease prevention/health promotion materials for lay audiences</p> <p>c. Create documents that communicate scientific findings in language tailored to the needs of decision-makers, press, and other target audiences</p> <p>vi. Determine content for surveillance information and periodicity of dissemination for specific audiences and their uses</p> <p>v. Create key messages for responding to public queries about epidemiologic data or related issues</p> <p>vi. Demonstrate ability to explain or teach basic and advanced epidemiologic principles to non-epidemiologists</p>

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
III. Skill Domain – Communication	III. Skill Domain – Communication	III. Skill Domain – Communication	III. Skill Domain – Communication
<p><i>2. Recognize the basic principles of risk communication</i></p> <p>i. Provide epidemiologic information to support the development of risk communication messages</p> <p style="padding-left: 40px;">a. N/A</p> <p style="padding-left: 40px;">b. Provide content to the public information officer and other relevant agency staff</p> <p style="padding-left: 40px;">c. N/A</p> <p>ii. Use basic risk communication principles to communicate epidemiologic messages to agency staff</p>	<p><i>2. Demonstrate the basic principles of risk communication</i></p> <p>i. Participate in developing risk communication messages that adequately convey epidemiologic information to particular public health problems</p> <p style="padding-left: 40px;">a. N/A</p> <p style="padding-left: 40px;">b. Provide content to the public information officer and other relevant agency staff</p> <p style="padding-left: 40px;">c. Review risk communication messages for scientific accuracy and clarity</p> <p>ii. Use basic risk communication principles to communicate epidemiologic messages</p>	<p><i>2. Assure that the basic principles of risk communication are followed in all communication of epidemiologic findings</i></p> <p>i. Develop risk communication messages that adequately convey epidemiologic information to particular public health problems</p> <p style="padding-left: 40px;">a. Create content for risk communication messages</p> <p style="padding-left: 40px;">b. Review the content provided to the public information officer and other relevant agency staff</p> <p style="padding-left: 40px;">c. Review risk communication messages for scientific accuracy and clarity</p> <p>ii. Oversee communication of epidemiologic messages</p>	<p><i>2. Create messages that follow the principles of risk communication</i></p> <p>i. Develop risk communication messages that adequately convey epidemiologic information to particular public health problems</p> <p style="padding-left: 40px;">a. Create content for risk communication messages</p> <p style="padding-left: 40px;">b. Review and provide content to the public information officer and other relevant agency staff</p> <p style="padding-left: 40px;">c. Review risk communication messages for scientific accuracy and clarity</p> <p>ii. Model risk communication principles when communicating epidemiologic messages</p>

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
III. Skill Domain – Communication	III. Skill Domain – Communication	III. Skill Domain – Communication	III. Skill Domain – Communication
<ul style="list-style-type: none"> a. Refer media inquiries to the correct spokespersons for the agency b. N/A c. N/A d. Adhere to the agency risk communication strategy 	<ul style="list-style-type: none"> a. Refer media inquiries to the correct spokespersons for the agency b. N/A c. Respond to media inquiries as requested by the public health agency d. Adhere to the agency risk communication strategy 	<ul style="list-style-type: none"> a. Assure that staff refer media inquiries to the appropriate spokespersons for the agency b. Serve as agency spokesperson when necessary c. Respond to media inquiries d. Adhere to the agency risk communication strategy 	<ul style="list-style-type: none"> a. Refer media inquiries to the correct spokespersons for the agency b. Serve as agency spokesperson when necessary c. Respond to media inquiries d. Adhere to the agency risk communication strategy
<p><i>3. Incorporate interpersonal skills in communication with agency personnel, colleagues, and the public in resolving conflict</i></p> <ul style="list-style-type: none"> i. Demonstrate ability to listen effectively when epidemiologic findings are being presented or discussed ii. Demonstrate appropriate interpersonal, interdisciplinary, transdisciplinary, and multidisciplinary communication <ul style="list-style-type: none"> a. Participate in discussions and in group settings b. Show respect for others and promote diverse opinions c. Demonstrate ability to solicit input from individuals and groups d. Demonstrate ability to communicate epidemiologic findings, methodology, and principles when part of a multidisciplinary team 	<p><i>3. Incorporate interpersonal skills in communication with agency personnel, colleagues, and the public in resolving conflict</i></p> <ul style="list-style-type: none"> i. Demonstrate ability to listen effectively when epidemiologic findings are being presented or discussed ii. Demonstrate appropriate interpersonal, interdisciplinary, transdisciplinary, and multidisciplinary communication <ul style="list-style-type: none"> a. Lead discussions and participate in group settings b. Show respect for others and promote diverse opinions c. Demonstrate ability to solicit input from individuals and groups d. Demonstrate ability to communicate epidemiologic findings, methodology, and principles when part of a multidisciplinary team 	<p><i>3. Model interpersonal skills in communication with agency personnel, colleagues, and the public in resolving conflict</i></p> <ul style="list-style-type: none"> i. Demonstrate ability to listen effectively when epidemiologic findings are being presented or discussed ii. Model appropriate interpersonal, interdisciplinary, transdisciplinary, and multidisciplinary communication <ul style="list-style-type: none"> a. Promote group discussions and lead such discussions when necessary b. Show respect for others and promote diverse opinions c. Solicit input from individuals and groups d. Create messages to communicate epidemiologic findings, methodology, and principles to multidisciplinary teams 	<p><i>3. Model interpersonal skills in communication with agency personnel, colleagues, and the public in resolving conflict</i></p> <ul style="list-style-type: none"> i. Demonstrate ability to listen effectively when epidemiologic findings are being presented or discussed ii. Demonstrate appropriate interpersonal, interdisciplinary, transdisciplinary, and multidisciplinary communication <ul style="list-style-type: none"> a. Lead discussions and participate in group settings b. Show respect for others and promote diverse opinions c. Demonstrate ability to solicit input from individuals and groups d. Create messages to communicate epidemiologic findings, methodology, and principles to multidisciplinary teams

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
III. Skill Domain – Communication	III. Skill Domain – Communication	III. Skill Domain – Communication	III. Skill Domain – Communication
<p><i>4. Employ available and appropriate communication technologies</i></p> <ul style="list-style-type: none"> i. Support the development of the design and content of Web-based communication ii. Utilize policies that address security, privacy, and legal considerations when communicating epidemiologic information via email, health alert networks, or other potentially public documents iii. N/A 	<p><i>4. Employ available and appropriate communication technologies</i></p> <ul style="list-style-type: none"> i. Participate in the development of the design and content of Web-based communication ii. Utilize policies that address security, privacy, and legal considerations when communicating epidemiologic information via email, health alert networks, or other potentially public documents iii. Utilize effective educational and behavioral techniques and technological tools to promote public health (e.g., through community education, behavior modification, collaborative policy development, issue advocacy, and community mobilization) 	<p><i>4. Assure utilization of available and appropriate communication technologies</i></p> <ul style="list-style-type: none"> i. Approve the design and content of Web-based communication ii. Enforce policies that address security, privacy, and legal considerations when communicating epidemiologic information via email, health alert networks, or other potentially public documents iii. Utilize effective educational and behavioral techniques and technological tools to promote public health (e.g., through community education, behavior modification, collaborative policy development, issue advocacy, and community mobilization) 	<p><i>4. Employ available and appropriate communication technologies</i></p> <ul style="list-style-type: none"> i. Create content for Web-based communication ii. Develop as needed policies that address security, privacy, and legal considerations when communicating epidemiologic information via email, health alert networks, or other potentially public documents iii. Utilize effective educational and behavioral techniques and technological tools to promote public health (e.g., through community education, behavior modification, collaborative policy development, issue advocacy, and community mobilization)

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
IV. Skill Domain – Community Dimensions of Practice	IV. Skill Domain – Community Dimensions of Practice	IV. Skill Domain – Community Dimensions of Practice	IV. Skill Domain – Community Dimensions of Practice
<p><i>1. Provide epidemiologic input into epidemiologic studies and community public health planning processes at the state or local level</i></p> <p>i. Supply information from health status assessments to aid in the design, interpretation, and conduct of epidemiologic studies</p> <p>a. N/A</p> <p>b. N/A</p> <p>c. Provide communities with data as directed to aid in identifying health priorities for study</p> <p>d. Provide technical assistance as directed to communities and outside partners with respect to surveillance, epidemiological data, and evaluation</p> <p>e. Recognize potential positive and negative outcomes for communities regarding epidemiologic data collection, analysis and use, and suggest recommendations for mitigation</p> <p>ii. Assist in providing epidemiologic input</p>	<p><i>1. Provide epidemiologic input into epidemiologic studies and community public health planning processes at the state or local level</i></p> <p>i. Use information from the community and from health status assessments to aid in the design, interpretation, and conduct of epidemiologic studies</p> <p>a. Utilize strategies for engaging communities in dialogue on health issues requiring study</p> <p>b. Utilize strategies for reaching populations and individuals that traditionally may not have had the opportunity to participate in priority setting processes</p> <p>c. Assist communities in identifying health priorities for study</p> <p>d. Provide technical assistance to communities and outside partners with respect to surveillance, epidemiological data, and evaluation</p> <p>e. Maximize positive outcomes of using epidemiologic data within communities and mitigate negative outcomes as much as possible</p> <p>ii. Provide epidemiologic input into an</p>	<p><i>1. Lead epidemiologic studies and community public health planning processes at the state or local level</i></p> <p>i. Synthesize information from the community and from health status assessments to aid in the design, interpretation, and conduct of epidemiologic studies</p> <p>a. Engage communities in dialogue on health issues requiring study</p> <p>b. Assure outreach to populations and individuals that traditionally may not have had the opportunity to participate in priority setting processes</p> <p>c. Provide leadership to communities in identifying health priorities for study</p> <p>d. Provide technical assistance to communities and outside partners with respect to surveillance, epidemiological data, and evaluation</p> <p>e. Assure that positive outcomes of using epidemiologic data are maximized within communities and negative outcomes are minimized</p> <p>ii. Lead epidemiologic portion of assessment</p>	<p><i>1. Lead epidemiologic studies and community public health planning processes at the state or local level</i></p> <p>i. Synthesize information from the community and from health status assessments to aid in the design, interpretation, and conduct of epidemiologic studies</p> <p>a. Engage communities in dialogue on health issues requiring study</p> <p>b. Assure outreach populations and individuals that traditionally may not have had the opportunity to participate in priority setting processes</p> <p>c. Provide leadership to communities in identifying health priorities for study</p> <p>d. Provide technical assistance to communities and outside partners with respect to surveillance, epidemiological data, and evaluation</p> <p>e. Assure that positive outcomes of using epidemiologic data are maximized within communities and negative outcomes are minimized</p> <p>ii. Lead epidemiologic portion of</p>

<i>Tier 1</i>	<i>Tier 2</i>	<i>Tier 3 Supervisor/Manager</i>	<i>Tier 3 Senior Scientist</i>
IV. Skill Domain – Community Dimensions of Practice	IV. Skill Domain – Community Dimensions of Practice	IV. Skill Domain – Community Dimensions of Practice	IV. Skill Domain – Community Dimensions of Practice
<p>into an assessment of the local public health system to aid in state and local public health planning</p> <p>a. N/A</p> <p>b. N/A</p>	<p>assessment of the local public health system to aid in state and local public health planning</p> <p>a. Map out the different levels of governmental public health (local, state, and federal) and their roles and responsibilities in the community</p> <p>b. Characterize the interactions between different levels of government in relation to community public health programs</p>	<p>of the local public health system to aid in state and local public health planning</p> <p>a. Assure that the different levels of governmental public health (local, state, and federal) and their roles and responsibilities are mapped out in the community</p> <p>b. Assure that the interactions between different levels of government in relation to community public health programs are characterized</p>	<p>assessment of the local public health system to aid in state and local public health planning</p> <p>a. Map out the different levels of governmental public health (local, state, and federal) and their roles and responsibilities in the community</p> <p>b. Characterize the interactions between different levels of government in relation to community public health programs</p>
<p>c. N/A</p> <p>d. Assist in identifying the specific populations within the community or region that each public health program seeks to reach</p> <p>e. Assist in identifying the epidemiology data collection and analysis needs of each program</p> <p>f. N/A</p>	<p>c. Assess the funding streams for public health and epidemiology programs that affect the communityN/A</p> <p>d. Identify the specific populations within the community or region that each public health program seeks to reach</p> <p>e. Identify the epidemiology data collection and analysis needs of each program</p> <p>f. N/A</p>	<p>c. Assess the funding streams for public health and epidemiology programs that affect the community</p> <p>d. Assure that the specific populations within the community or region that each public health program seeks to reach are identified</p> <p>e. Assure that the epidemiology data collection and analysis needs of each program are identified</p> <p>f. Identify community themes and strengths</p>	<p>c. Assess the funding streams for public health and epidemiology programs that affect the community</p> <p>d. Identify the specific populations within the community or region that each public health program seeks to reach</p> <p>e. Identify the epidemiology data collection and analysis needs of each program</p> <p>f. Identify community themes and strengths</p>

<i>Tier 1</i>	<i>Tier 2</i>	<i>Tier 3 Supervisor/Manager</i>	<i>Tier 3 Senior Scientist</i>
IV. Skill Domain – Community Dimensions of Practice	IV. Skill Domain – Community Dimensions of Practice	IV. Skill Domain – Community Dimensions of Practice	IV. Skill Domain – Community Dimensions of Practice
g. N/A	g. Map out the community medical care delivery system, including financing and structure and major policy issues affecting medical care	g. Assure that the community medical care delivery system is mapped out, including financing and structure and major policy issues affecting medical care	g. Map out the community medical care delivery system, including financing and structure and major policy issues affecting medical care
h. N/A	h. Characterize relationships among public and private organizations within the community	h. Assure that relationships among public and private organizations within the community are characterized	h. Characterize relationships among public and private organizations within the community
i. N/A	i. Identify environmental, social, and cultural factors that affect the community's health	i. Assure that environmental, social, and cultural factors that affect the community's health are analyzed	i. Evaluate environmental, social, and cultural factors that affect the community's health
j. N/A	j. Document changes that are occurring or are expected to occur that affect the community's health or the local public health system (i.e., a MAPP forces of change assessment)	j. Examine changes that are occurring or are expected to occur that affect the community's health or the local public health system (i.e., a MAPP forces of change assessment)	j. Examine changes that are occurring or are expected to occur that affect the community's health or the local public health system (i.e., a MAPP forces of change assessment)
k. N/A	k. Identify threats and opportunities that arise from these changesN/A	k. Evaluate threats and opportunities that arise from these changes	k. Evaluate threats and opportunities that arise from these changes

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
IV. Skill Domain – Community Dimensions of Practice	IV. Skill Domain – Community Dimensions of Practice	IV. Skill Domain – Community Dimensions of Practice	IV. Skill Domain – Community Dimensions of Practice
<p>2. N/A</p> <p>i. N/A</p> <p>ii. N/A</p> <p>iii. N/A</p> <p>iv. N/A</p> <p>3. N/A</p>	<p>2. Participate in development of community partnerships to support epidemiologic investigations</p> <p>i. Identify partners and stakeholders appropriate to an epidemiologic investigation</p> <p>ii. Contribute to community-specific participation strategies to engage the public in the planning, implementation, and evaluation of epidemiologic investigations when indicated</p> <p>iii. Clarify the roles of partners and stakeholders in the epidemiologic investigation</p> <p>iv. Participate in the development of epidemiologic studies, including incorporating input from task forces and other target audiences</p> <p>3. Engage the public in the public health work and decision making of the Health Department when needed using mechanisms suitable to the circumstances.</p>	<p>2. Develop community partnerships to support epidemiologic investigations</p> <p>i. Sustain relationships with partners and stakeholders appropriate to an epidemiologic investigation</p> <p>ii. Assure the use of community-specific participation strategies to engage the public in the planning, implementation, and evaluation of epidemiologic investigations when indicated</p> <p>iii. Clarify the roles of partners and stakeholders in the epidemiologic investigation</p> <p>iv. Lead the development of epidemiologic studies, including incorporating input from task forces and other target audiences</p> <p>3. Engage the public in the public health work and decision making of the Health Department when needed using mechanisms suitable to the circumstances</p>	<p>2. Develop community partnerships to support epidemiologic investigations</p> <p>i. Solicit partners and stakeholders appropriate to an epidemiologic investigation</p> <p>ii. Develop community-specific participation strategies to engage the public in the planning, implementation, and evaluation of epidemiologic investigations when indicated</p> <p>iii. Clarify the roles of partners and stakeholders in the epidemiologic investigation</p> <p>iv. Lead the development of epidemiologic studies, including incorporating input from task forces and other target audiences</p> <p>3. Engage the public in the public health work and decision making of the Health Department when needed using mechanisms suitable to the circumstances</p>

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
V. Skill Domain – Cultural Competency	V. Skill Domain – Cultural Competency	V. Skill Domain – Cultural Competency	V. Skill Domain – Cultural Competency
<p><i>1. Describe population by race, ethnicity, culture, socio, educational, and professional backgrounds, age, gender, religion, and sexual orientation</i></p> <p>i. N/A</p>	<p><i>1. Describe population by race, ethnicity, culture, socio, educational, and professional backgrounds, age, gender, religion, and sexual orientation</i></p> <p>i. N/A</p>	<p><i>1. Differentiate special populations by race, ethnicity, culture, socio, educational, and professional backgrounds, age, gender, religion, and sexual orientation</i></p> <p>i. Characterize each special population by size, location, and other factors that may be significant in addressing public health problems</p>	<p><i>1. Differentiate special populations by race, ethnicity, culture, socio, educational, and professional backgrounds, age, gender, religion, and sexual orientation</i></p> <p>i. Characterize each special population by size, location, and other factors that may be significant in addressing public health problems</p>
<p><i>2. N/A</i></p> <p>i. N/A</p> <p>ii. N/A</p> <p>iii. N/A</p> <p>iv. N/A</p>	<p><i>2. Establish relationships with groups of special concern (e.g., disadvantaged or minority groups, groups subject to health disparities, historically underrepresented groups)</i></p> <p>i. Study populations' history and past treatment by public health system</p> <p>ii. N/A</p> <p>iii. N/A</p> <p>iv. Develop mechanisms to receive input from groups of special concern into the design and conduct of epidemiologic practice</p>	<p><i>2. Establish relationships with groups of special concern (e.g., disadvantaged or minority groups, groups subject to health disparities, historically underrepresented groups)</i></p> <p>i. Evaluate populations' history and past treatment by public health system</p> <p>ii. Formulate communication strategies for special populations based on knowledge of historical treatment</p> <p>iii. Organize outreach efforts to special populations</p> <p>iv. Assure that input from groups of special concern is used in the design and conduct of epidemiologic practice</p>	<p><i>2. Establish relationships with groups of special concern (e.g., disadvantaged or minority groups, groups subject to health disparities, historically underrepresented groups)</i></p> <p>i. Evaluate historical context of populations' history and past treatment by public health system</p> <p>ii. Formulate communications strategies for special populations based on knowledge of historical treatment</p> <p>iii. Organize outreach efforts to special populations</p> <p>iv. Assure that input from groups of special concern is used in the design and conduct of epidemiologic practice</p>
<p><i>3. Characterize surveillance systems that include health disparities or other potentially under-represented groups. (using standard categories where available)</i></p> <p>i. Know standard used to define special populations</p>	<p><i>3. Design surveillance systems to include health disparities or other potentially under-represented groups (using standard categories where available)</i></p> <p>i. Know standard used to define special populations</p>	<p><i>3. Assure that surveillance systems are designed to include health disparities or other potentially under-represented groups (using standard categories where available)</i></p> <p>i. Verify that appropriate standards are used to define special populations, taking into account historical, social, and political</p>	<p><i>3. Assure that surveillance systems are designed to include health disparities or other potentially under-represented groups (using standard categories where available)</i></p> <p>i. Select standards used to define special populations</p>

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
V. Skill Domain – Cultural Competency	V. Skill Domain – Cultural Competency	V. Skill Domain – Cultural Competency	V. Skill Domain – Cultural Competency
<ul style="list-style-type: none"> ii. Know historical, social, and political contexts of standard categories iii. Know limitations of standard categories iv. N/A v. N/A vi. N/A vii. Avoid potential adverse impacts of data collection on special populations 	<ul style="list-style-type: none"> ii. Know historical, social, and political contexts of standard categories iii. Know limitations of standard categories iv. Work with community as necessary to develop new categories if standard categories are unavailable v. Design data collection tools to capture information needed to assess health disparities vi. Design sampling plan to ensure sample size large enough to provide stable estimates in populations of interest vii. Avoid potential adverse impacts of data collection on special populations 	<ul style="list-style-type: none"> contexts of standard categories ii. N/A iii. N/A iv. Lead collaboration with community as necessary to develop new categories if standard categories are unavailable v. Assure that data collection tools and sampling plan capture information needed to assess health disparities and provide stable estimates in populations of interest vi. N/A vii. Assure that data collection does not adversely impact special populations 	<ul style="list-style-type: none"> ii. Examine historical, social, and political contexts of standard categories iii. Explain limitations of standard categories iv. Work with community as necessary to develop new categories if standard categories are unavailable v. Verify that data collection tools will capture information needed to assess health disparities vi. Evaluate sampling plan to ensure sample size large enough to provide stable estimates in populations of interest vii. Avoid potential adverse impacts of data collection on special populations.
<p><i>4. Conduct investigations using languages and approaches tailored to population</i></p> <ul style="list-style-type: none"> i. Identify primary language of population ii. Utilize knowledge of specific socio-cultural factors in the population iii. N/A iv. N/A v. N/A 	<p><i>4. Conduct investigations using languages and approaches tailored to population</i></p> <ul style="list-style-type: none"> i. Identify primary language of population ii. Utilize knowledge of specific socio-cultural factors in the population iii. N/A iv. N/A v. N/A 	<p><i>4. Assure that investigations use languages and approaches tailored to population</i></p> <ul style="list-style-type: none"> i. Identify primary language of population ii. Utilize knowledge of specific socio-cultural factors in the population iii. Identify appropriate mechanisms for contact and communication with population iv. Identify investigative methods that will accommodate special needs of the population v. Synthesize this knowledge into an 	<p><i>4. Organize investigations that use languages and approaches tailored to population</i></p> <ul style="list-style-type: none"> i. Identify primary language of population ii. Utilize knowledge of specific socio-cultural factors in the population iii. Identify appropriate mechanisms for contact and communication with population iv. Identify investigative methods that will accommodate special needs of the population v. Synthesize this knowledge into an

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
V. Skill Domain – Cultural Competency	V. Skill Domain – Cultural Competency	V. Skill Domain – Cultural Competency	V. Skill Domain – Cultural Competency
vi. N/A <i>5. Use standard population categories or subcategories when performing data analysis</i>	vi. N/A <i>5. Use standard population categories or subcategories when performing data analysis</i>	appropriate investigation strategy vi. Facilitate staff access to identified support or mechanisms needed to communicate with population. <i>5. Assure that standard population categories or subcategories are used for data analysis</i>	appropriate investigation strategy vi. N/A <i>5. Assure that standard population categories or subcategories are used for data analyses</i>
6. N/A i. N/A ii. N/A	<i>6. Utilize knowledge of specific socio-cultural factors in the population to interpret findings</i> i. N/A ii. N/A	<i>6. Utilize knowledge of specific socio-cultural factors in the population to interpret findings</i> i. Evaluate cultural factors that may have influenced outcome of investigation ii. Assess impact of investigation findings on the population	<i>6. Utilize knowledge of specific socio-cultural factors in the population to interpret findings s</i> i. Evaluate cultural factors that may have influenced outcome of investigation ii. Assess impact of investigation findings on the population
7. N/A i. N/A ii. N/A iii. N/A	<i>7. Recommend public health actions that would be relevant to the affected community</i> i. N/A ii. N/A iii. N/A	<i>7. Formulate actions that will be relevant to the affected community</i> i. Evaluate alternative actions that have been shown to be effective in similar populations ii. Create action strategies that will address the issues identified in the investigation while meeting the needs of the community iii. Validate the choice of action strategy through consultation with the affected community	<i>7. Formulate actions that will be relevant to the affected community</i> i. Evaluate alternative actions that have been shown to be effective in similar populations ii. Create action strategies that will address the issues identified in the investigation while meeting the needs of the community iii. Validate the choice of action strategy through consultation with the affected community
<i>8. Support communication of findings to affected community using mechanisms that are tailored to that community/special population</i> i. N/A	<i>8. Communicate findings to affected community using mechanisms that are tailored to that community/special population</i> i. N/A	<i>8. Create messages that communicate findings to affected community using mechanisms that are tailored to that community/special population</i> i. Synthesize knowledge about the history, language, and traditional communication	<i>8. Create messages that communicate findings to affected community using mechanisms that are tailored to that community/special population</i> i. Synthesize knowledge about the history, language, and traditional communication

<i>Tier 1</i>	<i>Tier 2</i>	<i>Tier 3 Supervisor/Manager</i>	<i>Tier 3 Senior Scientist</i>
V. Skill Domain – Cultural Competency	V. Skill Domain – Cultural Competency	V. Skill Domain – Cultural Competency	V. Skill Domain – Cultural Competency
ii. N/A iii. N/A	ii. N/A iii. N/A	mechanisms of the community ii. Design messaging strategies that are consistent with the community’s preferred communication mechanisms iii. Create message content and delivery mechanisms in consultation with community leaders	mechanisms of the community ii. Design messaging strategies that are consistent with the community’s preferred communication mechanisms iii. Create message content and delivery mechanisms in consultation with community leaders

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
VI. Skill Domain – Financial and Operational Planning and Management (Operational planning, financial planning, and management skills)	VI. Skill Domain – Financial and Operational Planning and Management (Operational planning, financial planning, and management skills)	VI. Skill Domain – Financial and Operational Planning and Management (Operational planning, financial planning, and management skills)	VI. Skill Domain – Financial and Operational Planning and Management (Operational planning, financial planning, and management skills)
<p>1. <i>Conduct epidemiologic activity in a manner that is aligned with financial and operational plan of the agency</i></p> <ul style="list-style-type: none"> i. N/A ii. N/A iii. N/A iv. Conduct epidemiologic activity, including travel, within specified budget v. Maintain accurate records 	<p>1. <i>Conduct epidemiologic activity in a manner that is aligned with financial and operational plan of the agency</i></p> <ul style="list-style-type: none"> i. N/A ii. N/A iii. N/A iv. Describe personnel, staffing, travels, and other needs for epidemiologic activity v. Maintain accurate records 	<p>1. <i>Create operational and financial plans for future epidemiologic activities</i></p> <ul style="list-style-type: none"> i. Set goals and objectives for epidemiology program ii. Formulate tasks to meet goals and objectives iii. Construct a timeline for carrying out the tasks iv. N/A v. N/A 	<p>1. <i>Conduct epidemiologic activity in a manner that is aligned with financial and operational plan of the agency</i></p> <ul style="list-style-type: none"> i. Provide input into goals and objectives for epidemiology program ii. Formulate tasks to meet goals and objectives iii. Construct a timeline for carrying out the tasks iv. Describe personnel, staffing, travels, and other needs for epidemiologic activity v. Maintain accurate records
<p>2. N/A</p> <ul style="list-style-type: none"> i. N/A ii. N/A iii. N/A 	<p>2. N/A</p> <ul style="list-style-type: none"> i. N/A ii. N/A iii. N/A 	<p>2. <i>Formulate a fiscally-sound budget that will support the activities defined in the operational plan and is consistent with the financial rules of the agency</i></p> <ul style="list-style-type: none"> i. Assess the financial rules of the agency and available resources to establish boundaries for the budget ii. Identify resources necessary to carry out tasks in the operational plan, including personnel, equipment, supplies, and travel costs iii. Estimate expenditures that may arise from unexpected epidemiologic activities, such as rapid investigations and emergency 	<p>2. N/A</p> <ul style="list-style-type: none"> i. N/A ii. N/A iii. N/A

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
VI. Skill Domain – Financial and Operational Planning and Management (Operational planning, financial planning, and management skills)	VI. Skill Domain – Financial and Operational Planning and Management (Operational planning, financial planning, and management skills)	VI. Skill Domain – Financial and Operational Planning and Management (Operational planning, financial planning, and management skills)	VI. Skill Domain – Financial and Operational Planning and Management (Operational planning, financial planning, and management skills)
		response	
3. N/A i. N/A ii. N/A iii. N/A iv. N/A v. N/A vi. N/A	3. N/A i. N/A ii. N/A iii. N/A iv. N/A v. N/A vi. N/A	3. <i>Oversee implementation of operational and financial plans</i> i. Assign tasks to appropriate staff members ii. Routinely compare progress to expectations established in plan iii. Evaluate fiscal expenditures against financial plan iv. Adjust activities as necessary to stay within defined budget v. Seek additional resources as necessary to support unexpected activities vi. Follow chain of command	3. Implement operational and financial plans for assigned projects i. N/A ii. Routinely compare progress to expectations established in plan iii. Evaluate fiscal expenditures against financial plan iv. Adjust activities as necessary to stay within defined budget v. N/A vi. Follow chain of command
4. N/A i. N/A ii. N/A iii. N/A	4. <i>Assist in preparation of proposals for extramural funding</i> i. Identify funding needs for epidemiology activity ii. Identify funding opportunities for epidemiology activity iii. Prepare proposals, in whole or in part, to obtain funding for epidemiology activity	4. <i>Develop Requests for Proposals for extramural funding to support additional epidemiologic activities and special projects</i> i. Identify epidemiologic activities that are appropriate for extramural funding ii. Evaluate funding opportunities to support epidemiology activities iii. Create scientifically-sound proposals that will support epidemiologic activities and meet the requirements of the funding agency	4. <i>Prepare proposals for extramural funding, for review and input from managers</i> i. Identify funding needs for epidemiology activity ii. Identify funding opportunities for epidemiology activity iii. Prepare proposals, in whole or in part, to obtain funding for epidemiology activity

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
VI. Skill Domain – Financial and Operational Planning and Management (Operational planning, financial planning, and management skills)	VI. Skill Domain – Financial and Operational Planning and Management (Operational planning, financial planning, and management skills)	VI. Skill Domain – Financial and Operational Planning and Management (Operational planning, financial planning, and management skills)	VI. Skill Domain – Financial and Operational Planning and Management (Operational planning, financial planning, and management skills)
<p>5. Adhere to financial rules of agency</p> <ul style="list-style-type: none"> i. Describe financial rules of agency ii. Follow financial rules of agency iii. N/A iv. Follow chain of command 	<p>5. Adhere to financial rules of agency</p> <ul style="list-style-type: none"> i. Describe financial rules of agency ii. Follow financial rules of agency iii. N/A iv. Follow chain of command 	<p>5. Adhere to financial rules of agency</p> <ul style="list-style-type: none"> i. Describe financial rules of agency ii. Follow financial rules of agency iii. Assure that staff follow financial rules of agency iv. Follow chain of command 	<p>5. Adhere to financial rules of agency</p> <ul style="list-style-type: none"> i. Describe financial rules of agency ii. Follow financial rules of agency iii. N/A iv. Follow chain of command
<p>6. N/A</p> <ul style="list-style-type: none"> i. N/A ii. N/A iii. N/A iv. N/A 	<p>6. N/A</p> <ul style="list-style-type: none"> i. N/A ii. N/A iii. N/A iv. N/A 	<p>6. Employ management skills</p> <ul style="list-style-type: none"> i. Establish roles and responsibilities of all participants in epidemiologic activities ii. Communicate role/responsibility expectations clearly to all staff iii. Assess performance of team members as they carry out their responsibilities iv. Coach team members as needed in the performance of their responsibilities 	<p>6. N/A</p> <ul style="list-style-type: none"> i. N/A ii. N/A iii. N/A iv. N/A
<p>7. Use skills that foster collaborations, strong partnerships, and team building to accomplish epidemiology program objectives</p> <ul style="list-style-type: none"> i. Support collaborative relationships with key personnel of other agencies relevant to the particular epidemiology activity ii. Work well with other epidemiology project team members of varied backgrounds and education 	<p>7. Use skills that foster collaborations, strong partnerships, and team building to accomplish epidemiology program objectives</p> <ul style="list-style-type: none"> i. Build collaborative relationships with key personnel of other agencies relevant to the particular epidemiology activity ii. Work well with other epidemiology project team members of varied backgrounds and education 	<p>7. Promote collaborations, strong partnerships, and team building to accomplish epidemiology program objectives</p> <ul style="list-style-type: none"> i. Assure development of collaborative relationships with key personnel of other agencies relevant to the particular epidemiology activity ii. Lead epidemiology project team members of varied backgrounds and education in working collaboratively and 	<p>7. Use skills that foster collaborations, strong partnerships, and team building to accomplish epidemiology program objectives</p> <ul style="list-style-type: none"> i. Build collaborative relationships with key personnel of other agencies relevant to the particular epidemiology activity ii. Work well with other epidemiology project team members of varied backgrounds and education

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
VI. Skill Domain – Financial and Operational Planning and Management (Operational planning, financial planning, and management skills)	VI. Skill Domain – Financial and Operational Planning and Management (Operational planning, financial planning, and management skills)	VI. Skill Domain – Financial and Operational Planning and Management (Operational planning, financial planning, and management skills)	VI. Skill Domain – Financial and Operational Planning and Management (Operational planning, financial planning, and management skills)
iii. N/A	iii. Clarify roles and responsibilities of all participants in epidemiologic activities	effectively together iii. Oversee development of clear roles and responsibilities of all participants in epidemiologic activities	iii. Clarify roles and responsibilities of all participants in epidemiologic activities

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking
<p><i>1. Support shared vision to drive action</i></p> <p>i. Support strategic plan</p> <p>a. N/A</p> <p>b. N/A</p> <p>c. N/A</p> <p>d. N/A</p> <p>e. N/A</p> <p>ii. Support change</p> <p>a. Demonstrate individual skills necessary to implement change, including ability to support change during times of chaos</p> <p>b. Demonstrate ability to function as member of a team during change</p>	<p><i>1. Promote shared vision to drive action</i></p> <p>i. Assist in strategic planning</p> <p>a. Describe process for organizational strategic planning</p> <p>b. Identify internal and external issues that may impact delivery of essential public health services (competency from Council on Linkages)</p> <p>c. Facilitate collaboration with internal and external groups to ensure participation of key stakeholders (competency from Council on Linkages)</p> <p>d. Participate in the development of strategic priorities and associated action plans</p> <p>e. N/A</p> <p><i>ii. Implement change</i></p> <p>a. Demonstrate individual skills necessary to implement change, including ability to support change during times of chaos</p> <p>b. Demonstrate ability to function as member of a team during change</p>	<p><i>1. Lead the creation of shared vision to drive action</i></p> <p>i. Develop strategic plan</p> <p>a. Develop process for epidemiological strategic planning within agency vision</p> <p>b. Evaluate internal and external issues that may impact delivery of essential public health services</p> <p>c. Direct collaboration with internal and external groups to ensure participation of key stakeholders</p> <p>d. Develop strategic priorities and associated action plans</p> <p>e. Assure that research agenda is consistent with budget resources and with strategic plan</p> <p><i>ii. Implement change</i></p> <p>a. Demonstrate individual skills necessary to implement change, including ability to support change during times of chaos</p> <p>b. Demonstrate ability to lead teams during change processes</p>	<p><i>1. Promote shared vision to drive action</i></p> <p>i. Assist in strategic planning</p> <p>a. Describe process for organizational strategic planning</p> <p>b. Identify internal and external issues that may impact delivery of essential public health services (competency from Council on Linkages)</p> <p>c. Facilitate collaboration with internal and external groups to ensure participation of key stakeholders (competency from Council on Linkages)</p> <p>d. Participate in the development of strategic priorities and associated action plans</p> <p>e. Create research agenda for program areas of responsibility for incorporation into strategic plan</p> <p><i>ii. Implement change</i></p> <p>a. Demonstrate individual skills necessary to implement change, including ability to support change during times of chaos</p> <p>b. Demonstrate ability to function as member of a team during</p>

<i>Tier 1</i>	<i>Tier 2</i>	<i>Tier 3 Supervisor/Manager</i>	<i>Tier 3 Senior Scientist</i>
VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking
processes c. N/A	processes c. Participate in monitoring and sustaining organizational change	c. Monitor and sustain organizational change	change processes c. Participate in monitoring and sustaining organizational change
<i>2. Conduct performance driven work</i> i. Contribute to implementation and monitoring of organizational performance measures that demonstrate program effectiveness a. Demonstrate knowledge of performance measures b. N/A c. N/A d. Adopt and implement performance measures e. N/A f. Take action to improve program performance	<i>2. Conduct performance driven work</i> i. Contribute to development, implementation, and monitoring of organizational performance measures that demonstrate program effectiveness a. Demonstrate knowledge of performance measures b. N/A c. N/A d. Adopt and implement performance measures e. N/A f. Take action to improve program performance	<i>2. Conduct performance driven work</i> i. Develop, implement, and monitor organizational performance measures that demonstrate program effectiveness a. Systematize existing organizational performance measures b. Lead process to develop new performance measures if necessary c. Create plan for implementing performance measures d. Lead team in implementing performance measures e. Evaluate results of performance measures’ implementation f. Take action to improve program performance	<i>2. Conduct performance driven work</i> i. Contribute to development, implementation, and monitoring of organizational performance measures that demonstrate program effectiveness a. Demonstrate knowledge of performance measures b. N/A c. N/A d. Adopt and implement performance measures e. N/A f. Take action to improve program performance
<i>3. Promote ethical conduct</i> i. Demonstrate ethical conduct in personal behavior ii. Promote ethical conduct in organization’s policies and practices including emphasis on addressing health disparities	<i>3. Promote ethical conduct</i> i. Demonstrate ethical conduct in personal behavior ii. Promote ethical conduct in organization’s policies and practices including emphasis on addressing health disparities	<i>3. Promote ethical conduct</i> i. Demonstrate ethical conduct in personal behavior ii. Promote ethical conduct in organization’s policies and practices including emphasis on addressing health disparities	<i>3. Promote ethical conduct</i> i. Demonstrate ethical conduct in personal behavior ii. Promote ethical conduct in organization’s policies and practices including emphasis on addressing health

<i>Tier 1</i>	<i>Tier 2</i>	<i>Tier 3 Supervisor/Manager</i>	<i>Tier 3 Senior Scientist</i>
VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking
iii. N/A iv. N/A v. Follow organization's policies and practices related to ethical conduct	iii. Make expectations of ethical conduct clear to team members iv. Monitor ethical conduct on the part of team members v. Follow organization's policies and practices related to ethical conduct	iii. Make expectations of ethical conduct clear to team members iv. Monitor ethical conduct on the part of team members v. Enforce organization's policies and practices related to ethical conduct	disparities iii. Make expectations of ethical conduct clear to team members iv. Monitor ethical conduct on the part of team members v. N/A
<i>4. Practice professional development</i>	<i>4. Promote workforce development</i>	<i>4. Assure professional development of epidemiology workforce</i>	<i>4. Promote workforce development</i>
i. N/A a. N/A b. N/A c. N/A d. N/A ii. N/A	i. Promote ongoing team learning a. Periodically assess the proficiency of team members' skills against standard competency sets b. Identify professional development opportunities for team members c. N/A d. Encourage team members take advantage of development opportunities ii. Demonstrate knowledge of workforce, workplace, and other issues that impact recruitment and retention	i. Enable ongoing team learning a. Periodically assess the proficiency of team members' skills against standard competency sets b. Identify professional development opportunities for team members c. Adjust workload of team members as necessary to enable participation in professional development opportunities d. Assure that team members take advantage of development opportunities ii. Conduct effective recruitment into the epidemiology workforce	i. Promote ongoing team learning a. Periodically assess the proficiency of team members' skills against standard competency sets b. Identify professional development opportunities for team members c. N/A d. Encourage team members take advantage of development opportunities ii. Demonstrate knowledge of workforce, workplace, and other issues that impact recruitment and retention

<i>Tier 1</i>	<i>Tier 2</i>	<i>Tier 3 Supervisor/Manager</i>	<i>Tier 3 Senior Scientist</i>
VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking
a. N/A	a. N/A	a. Assess skills needed in existing epidemiology workforce	a. N/A
b. N/A	b. N/A	b. Assess potential sources of new epidemiology staff	b. N/A
c. N/A	c. N/A	c. Assess workforce, workplace, and other issues that impact recruitment	c. N/A
d. N/A	d. N/A	d. Develop recruitment plans that address identified issues	d. N/A
e. N/A	e. N/A	e. Employ recruitment tactics that are consistent with agency policies	e. N/A
iii. N/A	iii. N/A	iii. Assure that teams with necessary skills to conduct a range of epidemiologic functions are incorporated into work plans and the workforce	iii. Organize team with skills necessary to conduct high-level epidemiology analyses
a. N/A	a. N/A	a. Assess skills and abilities needed to perform epidemiology analyses	a. Assess skills and abilities needed to perform high-level epidemiology analyses
b. N/A	b. N/A	b. Evaluate current agency staff to determine whether individuals with needed skills and abilities are present	b. Evaluate current agency staff to determine whether individuals with needed skills and abilities are present
c. N/A	c. N/A	c. Coordinate with agency management to recruit individuals with needed skills, if necessary	c. Coordinate with agency management to recruit individuals with needed skills, if necessary
d. N/A	d. N/A	d. Collaborate with external organizations to obtain assistance with needed analytical support if	d. Collaborate with external organizations to obtain assistance with needed analytical support if

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VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking
<p>e. N/A</p> <p>iv. N/A</p> <p>a. N/A</p> <p>b. N/A</p> <p>c. N/A</p> <p>v. Practice professional development</p> <p>a. Assess own skills and abilities against current and projected future job needs</p> <p>b. Obtain necessary education and training to meet required skills and abilities</p>	<p>e. N/A</p> <p>iv. N/A</p> <p>a. N/A</p> <p>b. N/A</p> <p>c. N/A</p> <p>v. Practice professional development</p> <p>a. Assess own skills and abilities against current and projected future job needs</p> <p>b. Obtain necessary education and training to meet required skills and abilities</p>	<p>necessary</p> <p>e. Provide coaching to staff performing epidemiologic analyses</p> <p>iv. Retain epidemiology staff</p> <p>a. Assess issues affecting workforce retention</p> <p>b. Evaluate strategies to improve workforce retention</p> <p>c. Develop strategies to retain staff consistent with agency human resource retention strategies</p> <p>v. Practice professional development</p> <p>a. Assess own skills and abilities against current and projected future job needs</p> <p>b. Obtain necessary education and training to meet required skills and abilities</p>	<p>necessary</p> <p>e. Provide coaching to staff performing high-level epidemiologic analyses</p> <p>iv. N/A</p> <p>a. N/A</p> <p>b. N/A</p> <p>c. N/A</p> <p>v. Practice professional development</p> <p>a. Assess own skills and abilities against current and projected future job needs</p> <p>b. Obtain necessary education and training to meet required skills and abilities</p>
<p><i>6. Prepare for emergency response (from Columbia University Bioterrorism and Emergency Readiness competencies – for Public Health Leaders and Public Health Professionals)</i></p> <p>i. N/A</p> <p>a. N/A</p>	<p><i>6. Prepare for emergency response (from Columbia University Bioterrorism and Emergency Readiness competencies – for Public Health Leaders and Public Health Professionals)</i></p> <p>i. Participate in emergency response planning for epidemiology unit</p> <p>a. Participate in creation of epidemiology section of</p>	<p><i>6. Lead epidemiology unit in preparing for emergency response (from Columbia University Bioterrorism and Emergency Readiness competencies – for Public Health Leaders and Public Health Professionals)</i></p> <p>i. Lead emergency response planning for epidemiology unit</p> <p>a. Create epidemiology section of</p>	<p><i>6. Prepare for emergency response (from Columbia University Bioterrorism and Emergency Readiness competencies – for Public Health Leaders and Public Health Professionals)</i></p> <p>i. Participate in emergency response planning for epidemiology unit</p> <p>a. Participate in creation of epidemiology section of</p>

<i>Tier 1</i>	<i>Tier 2</i>	<i>Tier 3 Supervisor/Manager</i>	<i>Tier 3 Senior Scientist</i>
VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking
<p>b. N/A</p> <p>c. N/A</p> <p>d. Be familiar with the epidemiology section of emergency response plan</p> <p>e. Participate in regular exercises and/or drills of all parts of emergency response</p> <p>f. N/A</p>	<p>emergency response plan</p> <p>b. Communicate epidemiology information, roles, capacities, and legal authority to all emergency response partners — such as other public health agencies, other health agencies, other government agencies — during planning, drills, and actual emergencies</p> <p>c. Maintain regular communication with emergency response partners</p> <p>d. Participate in the development of a written, regularly updated epidemiology section in the agency’s or agency unit’s emergency response plan for major categories of emergencies that provides for continuity of agency operations</p> <p>e. Participate in regular exercises and/or drills of all parts of emergency response</p> <p>f. Participate in the evaluation of emergency response exercises/drills (or actual response) to identify needed internal and external improvements in epidemiologic</p>	<p>emergency response plan</p> <p>b. Assure communication of epidemiology information, roles, capacities, and legal authority to all emergency response partners — such as other public health agencies, other health agencies, other government agencies — during planning, drills, and actual emergencies</p> <p>c. Assure regular communication with emergency response partners</p> <p>d. Assure that the agency (or agency unit) has a written, regularly updated epidemiology section of emergency response plan for major categories of emergencies that provides for continuity of agency operations</p> <p>e. Lead epidemiology unit’s participation in regular exercises and/or drills of all parts of emergency response</p> <p>f. Evaluate the participation of the epidemiology unit in emergency response exercises/drills (or actual response) to identify needed internal and external improvements in epidemiologic</p>	<p>emergency response plan</p> <p>b. Communicate epidemiology information, roles, capacities, and legal authority to all emergency response partners — such as other public health agencies, other health agencies, other government agencies — during planning, drills and actual emergencies</p> <p>c. Maintain regular communication with emergency response partners</p> <p>d. Participate in the developmt of a written, regularly updated epidemiology section in the agency’s or agency unit’s emergency response plan for major categories of emergencies that provides for continuity of agency operations.</p> <p>e. Participate in regular exercises and/or drills of all parts of emergency response.</p> <p>f. Participate in the evaluation of emergency response exercises/drills (or actual response) to identify needed internal and external improvements in epidemiologic</p>

<i>Tier 1</i>	<i>Tier 2</i>	<i>Tier 3 Supervisor/Manager</i>	<i>Tier 3 Senior Scientist</i>
VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking
<p>g. N/A</p> <p>h. N/A</p> <p>i. Participate in continuing education to maintain up-to-date knowledge in areas relevant to emergency response (e.g. emerging infectious diseases, hazardous materials, and diagnostic tests)</p> <p>ii. Respond to public health emergencies</p> <p>a. N/A</p> <p>b. Describe the epidemiology role in emergency response in a range of emergencies that might arise</p> <p>c. Describe the chain of command and management system (“incident management system” or similar protocol) for emergency</p>	<p>preparedness and response capacity</p> <p>g. Address knowledge and skill gaps identified through emergency response planning, exercises, drills, and evaluation</p> <p>h. N/A</p> <p>i. Participate in continuing education to maintain up-to-date knowledge in areas relevant to emergency response. (e.g., emerging infectious diseases, hazardous materials, and diagnostic tests)</p> <p>ii. Respond to public health emergencies</p> <p>a. Use community resources for emergency response</p> <p>b. Describe the epidemiology role in emergency response in a range of emergencies that might arise</p> <p>c. Describe the chain of command and management system (“incident management system” or similar protocol) for emergency</p>	<p>preparedness and response capacity</p> <p>g. Assure that knowledge and skill gaps identified through emergency response planning, exercises, drills, and evaluation are addressed.</p> <p>h. Assure that staff receive necessary continuing education to adequately respond to emergencies</p> <p>i. Participate in continuing education to maintain up-to-date knowledge in areas relevant to emergency response. (e.g., emerging infectious diseases, hazardous materials, and diagnostic tests)</p> <p>ii. Lead epidemiology response to public health emergencies</p> <p>a. Organize community resources for use in emergency response</p> <p>b. Lead the epidemiology response to a range of emergencies that might arise</p> <p>c. Participate in the chain of command and management system (“incident management system” or similar protocol) for</p>	<p>preparedness and response capacity</p> <p>g. Address knowledge and skill gaps identified through emergency response planning, exercises, drills, and evaluation</p> <p>h. N/A</p> <p>i. Participate in continuing education to maintain up-to-date knowledge in areas relevant to emergency response. (e.g., emerging infectious diseases, hazardous materials, and diagnostic tests)</p> <p>ii. Respond to public health emergencies</p> <p>a. Use community resources for emergency response</p> <p>b. Describe the epidemiology role in emergency response in a range of emergencies that might arise</p> <p>c. Describe the chain of command and management system (“incident management system” or similar protocol) for emergency</p>

<i>Tier 1</i>	<i>Tier 2</i>	<i>Tier 3 Supervisor/Manager</i>	<i>Tier 3 Senior Scientist</i>
VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking	VII. Skill Domain – Leadership and Systems Thinking
<p>response in the jurisdiction</p> <p>d. Describe one’s own role within the jurisdiction’s chain of command and management structure</p> <p>e. Adhere to individual’s role in incident command and incident management</p> <p>f. Maintain regular communication with partner professionals in other agencies involved in emergency response</p>	<p>response in the jurisdiction</p> <p>d. Describe one’s own role within the jurisdiction’s chain of command and management structure</p> <p>e. Adhere to individual’s role in incident command and incident management</p> <p>f. Maintain regular communication with partner professionals in other agencies involved in emergency response</p>	<p>emergency response in the jurisdiction</p> <p>d. Describe one’s own role and the role of key epidemiology staff within the jurisdiction’s chain of command and management structure</p> <p>e. Assure that epidemiology staff adhere to their roles in incident command and incident management</p> <p>f. Assure that regular communication is maintained with partner professionals in other agencies involved in emergency response</p>	<p>response in the jurisdiction</p> <p>d. Describe one’s own role within the jurisdiction’s chain of command and management structure</p> <p>e. Adhere to individual’s role in incident command and incident management</p> <p>f. Maintain regular communication with partner professionals in other agencies involved in emergency response</p>

Tier 1	Tier 2	Tier 3 Supervisor/Manager	Tier 3 Senior Scientist
VIII. Skill Domain – Policy Development	VIII. Skill Domain – Policy Development	VIII. Skill Domain – Policy Development	VIII. Skill Domain – Policy Development
<p>1. Support development and analysis of public health policies</p> <ul style="list-style-type: none"> i. N/A <ul style="list-style-type: none"> a. N/A b. N/A ii. Provide epidemiologic data for use in policy development <ul style="list-style-type: none"> a. N/A b. Provide epidemiologic and evidence-based information and data in the development of new policies, including data that demonstrate the need for change in existing policies c. N/A d. Assist in creating decision memos that outline policy alternatives and facilitate scientifically sound decision-making iii. Support epidemiology roles in programs or 	<p>1. Participate in development and analysis of public health policies</p> <ul style="list-style-type: none"> i. Demonstrate understanding of how policy decisions are made at the local, state, and national level <ul style="list-style-type: none"> a. Describe breadth and limitations of existing regulations and laws at agency, local, state, and federal level that affect epidemiology activities b. N/A ii. Provide epidemiologic rationale for policy development <ul style="list-style-type: none"> a. Demonstrate to decision-makers the value of epidemiology and other evidence in developing policy b. Provide epidemiologic and evidence-based information and data in the development of new policies, including data that demonstrate the need for change in existing policies c. N/A d. Participate in creating decision memos that outline policy alternatives and facilitate scientifically sound decision-making iii. Participate in translation of public health 	<p>1. Develop and analyse public health policies relating to epidemiology activities</p> <ul style="list-style-type: none"> i. Evaluate the issues that affect public health policy development <ul style="list-style-type: none"> a. Examine the breadth and limitations of existing regulations and laws at agency, local, state, and federal level that affect epidemiology activities b. Assess current cultural and social issues to determine their impact on epidemiology activities ii. Lead development of policies relating to epidemiology activities <ul style="list-style-type: none"> a. Justify the use of epidemiology and other evidence in developing policy b. Synthesize epidemiologic and evidence-based information and data for presentation to policy makers c. Create draft policy language to support necessary epidemiologic actions and activities d. Create decision memos that outline policy alternatives and facilitate scientifically sound decision-making iii. Translate public health policies into 	<p>1. Participate in development and analysis of public health policies</p> <ul style="list-style-type: none"> i. Demonstrate understanding of how policy decisions are made at the local, state, and national level <ul style="list-style-type: none"> a. Describe breadth and limitations of existing regulations and laws at agency, local, state, and federal level that affect epidemiology activities b. N/A ii. Provide epidemiologic rationale for policy development <ul style="list-style-type: none"> a. Demonstrate to decision-makers the value of epidemiology and other evidence in developing policy b. Provide epidemiologic and evidence-based information and data in the development of new policies, including data that demonstrate the need for change in existing policies c. N/A d. Participate in creating decision memos that outline policy alternatives and facilitate scientifically sound decision-making iii. Participate in translation of public health

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VIII. Skill Domain – Policy Development	VIII. Skill Domain – Policy Development	VIII. Skill Domain – Policy Development	VIII. Skill Domain – Policy Development
<p>plans that derive from public health policies</p> <p>iv. N/A</p> <p>v. Adhere to rules and laws applying to government employees and funding sources regarding lobbying</p>	<p>policies into epidemiology roles in programs or plans</p> <p>iv. Demonstrate ability to use designated channels to influence policy decisions made by entities other than the public health agency (such as dealing with elected officials or their staff)</p> <p>v. Adhere to rules and laws applying to government employees and funding sources regarding lobbying</p>	<p>epidemiology roles in programs or plans</p> <p>iv. Use designated channels to influence policy decisions made by entities other than the public health agency (such as dealing with elected officials or their staff)</p> <p>v. Adhere to rules and laws applying to government employees and funding sources regarding lobbying</p>	<p>policies into epidemiology roles in programs or plans</p> <p>iv. Demonstrate ability to use designated channels to influence policy decisions made by entities other than the public health agency (such as dealing with elected officials or their staff)</p> <p>v. Adhere to rules and laws applying to government employees and funding sources regarding lobbying</p>
<p><i>2. Support evaluation of policies affecting epidemiology programs</i></p> <p>i. N/A</p> <p>a. N/A</p> <p>b. N/A</p> <p>ii. Provide epidemiologic data on program performance to inform public health policy</p> <p>a. Collect epidemiologic data to monitor the implementation of policies</p> <p>b. N/A</p>	<p><i>2. Participate as a team member in evaluating policies affecting epidemiology programs</i></p> <p>i. Examine the impact of policies on achieving epidemiology program goals and objectives</p> <p>a. Develop an evaluation plan to assess program performance</p> <p>b. N/A</p> <p>ii. Provide epidemiologic information on program performance to inform public health policy</p> <p>a. Collect epidemiologic information to monitor the implementation of policies</p> <p>b. Develop the evidence base to allow assessment of policy effectiveness</p>	<p><i>2. Evaluate policies affecting epidemiology programs</i></p> <p>i. Evaluate the impact of policies on achieving epidemiology program goals and objectives</p> <p>a. Develop an evaluation plan to assess program performance</p> <p>b. Examine epidemiologic information collected during the implementation of policies</p> <p>ii. Synthesize epidemiologic information on program performance to inform public health policy</p> <p>a. N/A</p> <p>b. Develop the evidence base to allow assessment of policy effectiveness</p>	<p><i>2. Participate as a team member in evaluating policies affecting epidemiology programs</i></p> <p>i. Examine the impact of policies on achieving epidemiology program goals and objectives</p> <p>a. Develop an evaluation plan to assess program performance</p> <p>b. N/A</p> <p>ii. Provide epidemiologic information on program performance to inform public health policy</p> <p>a. Collect epidemiologic information to monitor the implementation of policies</p> <p>b. Develop the evidence base to allow assessment of policy effectiveness</p>