Epidemiologist (GS 0601)

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# GS 7/8/9

| Competency Name | Definition & Key Behaviors |
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| Community Assessment Knowledge | *Participates in the development of community partnerships to support epidemiologic investigations.*   * Supplies information from health status assessments to aid in the design, interpretation, and conduct of epidemiologic studies. * Assists in providing epidemiologic input into an assessment of the public health system to aid in state, tribal, local, or territorial public health planning. * Contributes to community-specific participation strategies to engage the public in the planning, implementation, and evaluation of epidemiologic investigations when indicated. * Clarifies the roles of partners and stakeholders in the epidemiologic investigation. * Participates in the development of epidemiologic studies, including incorporating input from task forces and other target audiences. |
| Cultural Competence | *Demonstrates an understanding of cultural and demographic aspects of a population and appropriately utilizes this information in conducting epidemiologic work.*   * Identifies special populations in the community that may be significant in addressing public health problems. * Uses knowledge of specific sociocultural factors in the population. * Identifies cultural factors that may have influenced outcome of investigation. |
| Data Management, Analysis, and Interpretation | *Conducts data analyses and summarizes results to draw conclusions from epidemiologic investigations or studies.*   * Maintains databases. * Implements a data analysis plan. * Conducts analyses (such as, measures of frequency such as incidence, prevalence, and other descriptive statistics) of data from epidemiologic investigations or studies. * Documents database management and cleaning code. * Identifies key findings from epidemiologic investigations or studies. |
| Emergency Response | *Applies emergency management doctrine and policy frameworks to preparedness, prevention, mitigation, response and recovery activities.*   * Adheres to agency Incident Management System guidance. * Follows exercises and/or drills relevant to emergency response. |
| Epidemiological Knowledge | *Uses current knowledge of causes of disease to guide epidemiologic practice.*   * Relates basic epidemiologic and etiologic processes for human diseases to subject matter areas of interest (such as, infectious diseases, chronic diseases). * Incorporates etiologic and epidemiologic principles into the development of disease prevention and control strategies. * Applies an understanding of human and environmental biology and behavioral sciences and principles to determine potential biological mechanisms of disease. * Applies the epidemiologic principles of the host/agent/environment model to disease causation, prevention, and control. * I have brought attention to the role and influence of sociobehavioral factors (including community, political, social, family, and individual behavioral factors) in health risks and health status. |
| Informatics | *Uses information systems to improve the effectiveness of surveillance, investigation, and other epidemiologic practices.*   * Suggests improvements to information technologies and communication tools necessary to support epidemiologic investigations and surveillance. * Uses software tools (such as, SAS, R, STATA) that support public health data acquisition, entry, abstraction, analysis, and reporting. * Applies policies and procedures and technical means (such as, security) to ensure the integrity and protection of confidential information in electronic files and computer systems. |
| Laboratory Resources | *Uses laboratory resources to support epidemiologic activities.*   * Uses identified specimen collection, storage, and transportation measures. * Coordinates laboratory and epidemiologic activities, including test selection, communication, and reporting results in the field. |
| Professional Communications | *Practices appropriate and effective communication with agency personnel, colleagues, and the public.*   * Communicates epidemiologic work to agency staff through written reports and oral presentations. * Responds to public or U.S. government agency queries about basic epidemiologic or surveillance data. * Demonstrates the ability to explain basic epidemiologic principles to non-epidemiologists and lower-level epidemiologists. * Provides epidemiologic information to support the development of risk communication messages. * Participates in the development of the design and content of Web-based communication. * Uses policies that address security, privacy, and legal considerations when communicating epidemiologic information through e-mail, health alert networks, or other potentially public documents. |
| Program Evaluation | *Evaluates epidemiology program effectiveness.*   * Collects surveillance and other data for use in tracking program objectives and outcomes. * Assists in tracking progress toward program objectives and outcomes. * Communicates information about progress toward program objectives and outcomes to program managers. * Contributes to the implementation and monitoring of organizational performance measures that demonstrate program effectiveness. |
| Project Management | *Demonstrates and understanding of the administration and oversight of related projects and activities to meet program goals and achieve agency objectives.*   * Constructs a timeline for carrying out the tasks. * Lists resources necessary to carry out tasks in the operational plan, including personnel, equipment, supplies, and travel costs. * Compares progress to expectations established in plan. * Supports collaborative relationships with key personnel of other agencies relevant to the particular epidemiologic activity. |
| Public Health Advocacy | *Demonstrates ability to advocate for epidemiologic work in engaging policymakers at all levels.*   * Supports strategic planning. * Supports epidemiology roles in programs or plans that derive from public health policies. |
| Public Health Intervention | *Identifies public health problems and designs corresponding interventions.*   * Recognizes the existence of a public health problem pertinent to the population. * Uses literature review and assesses current data to suggest areas for further investigation or other public health action. * Collaborates with others inside the agency/organization to identify the public health problem. * Considers the cultural/social/political framework for recommendations or interventions. |
| Research | *Investigates acute and chronic conditions or other adverse outcomes in the population.*   * Assists in conducting a community health status assessment or other program evaluation. * Characterizes the investigative processes. * Assists in generating hypotheses for research and epidemiologic investigations. * Conducts investigations as directed under close supervision. |
| Research Ethics | *Applies principles of good ethical/legal practice as they relate to study design and data collection, dissemination, and use.*   * Applies relevant laws to data collection, management, dissemination, and use of data and information. * Describes human subjects research to others. * Applies Institutional Review Board (IRB) processes as directed. * Applies knowledge of privacy laws to protect confidentiality, including Health Insurance Portability and Accountability Act and applicable state and local privacy laws. |
| Surveillance Systems | *Defines surveillance data needs and limitations, and designs, implements, and evaluates surveillance systems.*   * Recognizes potential uses of data that make up surveillance systems. * Defines objectives and uses of a surveillance system. * Assists in designing and maintaining a working surveillance system. * Describes the importance of collecting data systematically. * Reports key findings from a surveillance system to senior staff. * Collects data needed for the evaluation of surveillance systems using established guidance and methods. |

# GS 10/11

| Competency Name | Definition & Key Behaviors |
| --- | --- |
| Community Assessment Knowledge | *Participates in the development of community partnerships to support epidemiologic investigations.*   * Uses information from the community and from health status assessments to aid in the design, interpretation, and conduct of epidemiologic studies. * Provides epidemiologic input into an assessment of the local public health system to aid in state, local, or tribal public health planning. * Identifies partners and stakeholders necessary for epidemiologic investigation. * Uses community-specific participation strategies in the planning, implementation, and evaluation of epidemiologic investigations when indicated. |
| Cultural Competence | *Demonstrates an understanding of cultural and demographic aspects of a population and appropriately utilizes this information in conducting epidemiologic work.*   * Studies the populations’ histories and past treatment by the public health system. * Develops mechanisms to receive input from groups of special concern into the design and conduct of epidemiologic practice. * Works with the community as necessary to develop new categories if standard categories are unavailable. * Designs data collection tools to capture information needed to assess health disparities. * Designs a sampling plan to ensure a sample size large enough to provide stable estimates in populations of interest. * Avoids potential adverse impacts of data collection on special populations. * Ensures that data collection tools and sampling plans capture information needed to assess health disparities. * Evaluates cultural factors that may have influenced the outcome of an investigation. |
| Data Management, Analysis, and Interpretation | *Conducts data analyses and summarizes results to draw conclusions from epidemiologic investigations or studies.*   * Manages databases. * Creates data analysis plan. * Conducts analyses (such as, sensitivity, specificity, positive and negative predictive value, and unadjusted/univariate measures of association) of data from epidemiologic investigations or studies. * Applies knowledge of epidemiologic principles and methods to make recommendations regarding the validity of epidemiologic data. * Applies univariate (such as, frequencies, descriptive statistics, measures of association) and multivariate analysis of data from epidemiologic investigations or studies. * Assesses the need for special analyses, including survival analyses, cost-effectiveness/cost benefit/cost utility analyses. |
| Emergency Response | *Applies emergency management doctrine and policy frameworks to preparedness, prevention, mitigation, response and recovery activities.*   * Participates in emergency response planning for epidemiology unit. * Responds to public health emergencies. |
| Epidemiological Knowledge | *Uses current knowledge of causes of disease to guide epidemiologic practice.*   * Applies principles of the host/agent/environment model to disease causation, prevention, and control. * Describes the role and influence of sociobehavioral factors (including community, political, social, family, and individual behavioral factors) in health risks and health status. * Incorporates etiologic and epidemiologic principles and social behavioral factors into the development of disease prevention and control strategies. |
| Informatics | *Uses information systems to improve the effectiveness of surveillance, investigation, and other epidemiologic practices.*   * Uses software tools (such as, SAS, R, STATA) that support online searching, public health data acquisition, entry, abstraction, management, analysis, planning, mapping, and reporting. * Participates in the development of data models to ensure representation of epidemiologic needs in associated databases and information systems. * Designs improvements to information technologies and communication tools necessary to support epidemiologic investigations and surveillance. * Participates in the development of confidentiality and privacy policies for the enterprise and security systems to support the implementation of those policies. |
| Laboratory Resources | *Uses laboratory resources to support epidemiologic activities.*   * Interprets laboratory data, accounting for factors that influence the results of screening and diagnostic tests. * Implements necessary specimen collection, storage, and transportation measures. |
| Professional Communications | *Practices appropriate and effective communication with agency personnel, colleagues, and the public.*   * Identifies audience, methods, and content for communication of epidemiologic findings. * Communicates epidemiologic work to professional audiences and agency staff through written reports and oral presentations. * Creates written reports and oral presentations that communicate epidemiologic and surveillance work to professional audiences (such as, peer-reviewed journals) and agency staff. * Responds to public or U.S. government or partner agency queries about epidemiologic or surveillance data or related issues. * Demonstrates the ability to teach basic epidemiologic principles to non-epidemiologists and lower-level epidemiologists. * Uses effective educational and behavioral techniques and technological tools to promote public health (such as, through community education, behavior modification, collaborative policy development, issue advocacy, and community mobilization). |
| Program Evaluation | *Evaluates epidemiology program effectiveness.*   * Assists in the development of measurable and program-relevant goals and objectives. * Assists in the development of program logic models and theories of action. * Identifies surveillance and other data for use in tracking program objectives and outcomes. * Records the progress toward program objectives and outcomes. * Communicates information about progress toward program objectives and outcomes to program managers and staff for use in program planning and modification. * Contributes to the development, implementation, and monitoring of organizational performance measures that demonstrate program effectiveness. |
| Project Management | *Demonstrates and understanding of the administration and oversight of related projects and activities to meet program goals and achieve agency objectives.*   * Sets goals and objectives for the epidemiology program. * Formulates tasks to meet goals and objectives. * Describes personnel, staffing, travel, and other needs for epidemiologic activities * Assesses the financial rules of the agency and available resources to establish boundaries for the budget. * Estimates resources necessary to carry out tasks in the operational plan, including personnel, equipment, supplies, and travel costs. * Estimates expenditures that may arise from unexpected epidemiologic activities, such as rapid investigations and emergency response. * Prepares proposals, in whole or in part, to obtain funding for epidemiologic activities. * Builds collaborative relationships with key personnel of other agencies relevant to the particular epidemiologic activity. |
| Public Health Advocacy | *Demonstrates ability to advocate for epidemiologic work in engaging policymakers at all levels.*   * Assists in strategic planning. * Demonstrates an understanding of public health policies and policy development from an epidemiologic perspective. * Supports the development of policies relating to epidemiologic activities. * Participates in the translation of public health policies into epidemiology roles in programs or plans. * Examines public health policies and policy development from an epidemiologic perspective. * Describes how policy decisions are made within the agency. * Uses designated channels to influence policy decisions made by entities other than the public health agency (such as, elected officials or their staffs). |
| Public Health Intervention | *Identifies public health problems and designs corresponding interventions.*   * Uses critical thinking to determine whether a public health problem that is pertinent to the population exists. * Articulates the need for further investigation or other public health action on the basis of results of literature review and assessment of current data. * Collaborates with others inside and outside the agency/organization to identify the public health problem and form recommendations. * Incorporates systematic knowledge of the cultural/social/political framework into recommendations or interventions. * Uses scientific evidence in preparing recommendations for action or interventions. |
| Research | *Investigates acute and chronic conditions or other adverse outcomes in the population.*   * Conducts a community health status assessment or other program evaluation. * Performs basic epidemiologic research. * Recommends priorities of potential public health problems to be addressed. * Researches an investigative processes. * Assists in the design of epidemiologic research and investigations. * Uses investigation techniques consistent with the public health problem. |
| Research Ethics | *Applies principles of good ethical/legal practice as they relate to study design and data collection, dissemination, and use.*   * Describes differences between public health practice and public health research. * Applies Institutional Review Board (IRB) processes as necessary. * Manages conflicts of interest as necessary. * Brings potential conflicts of interest to the attention of senior epidemiologists. * Brings potential violations of ethical principles in preparing and submitting publications to the attention of senior epidemiologists. * Follows ethics guidelines and principles when planning studies, conducting research, and collecting, disseminating, and using data. |
| Surveillance Systems | *Defines surveillance data needs and limitations, and designs, implements, and evaluates surveillance systems.*   * Recommends types of surveillance systems for specific public health issues. * Describes sources, quality, and limitations of surveillance data. * Describes the potential uses of data to inform surveillance system design. * Defines the functional requirements of the supporting information system. * Designs and maintains a working surveillance system. * Develops conclusions from the surveillance data. * Evaluates surveillance systems using established guidance and methods. |

# GS 12/13

| Competency Name | Definition & Key Behaviors |
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| Community Assessment Knowledge | *Participates in the development of community partnerships to support epidemiologic investigations.*   * Synthesizes information from the community and from health status assessments to aid in the design, conduct, and interpretation of epidemiologic studies. * Leads the epidemiologic portion of an assessment of the local public health system to aid in state, local, or tribal public health planning. * Sustains and establishes relationships with partners and stakeholders necessary for epidemiologic investigation. * Ensures the use of community-specific participation strategies in the planning, implementation, and evaluation of epidemiologic investigations when indicated. |
| Cultural Competence | *Demonstrates an understanding of cultural and demographic aspects of a population and appropriately utilizes this information in conducting epidemiologic work.*   * Evaluate populations’ histories and past treatment by public health system * Formulates communication strategies for special populations on the basis of knowledge of historical treatment. * Organizes outreach efforts to special populations. * Ensures that input from groups of special concern is used in the design and conduct of epidemiologic practice. * Ensures that investigative methods will accommodate special needs of the population. * Synthesizes knowledge into an investigation strategy. * Assesses the impact of investigation findings on the population. |
| Data Management, Analysis, and Interpretation | *Conducts data analyses and summarizes results to draw conclusions from epidemiologic investigations or studies.*   * Approves the analysis plan for analyzing the data. * Conducts analyses (such as, adjusted measures of association via multivariable or regression techniques) of data from epidemiologic investigations or studies. * Verifies the results and interpretations of the data analyses. * Serves as a consultant and advisor to internal partners regarding how to conduct epidemiologic analysis for relevant investigations and studies. * Assesses the validity of the epidemiologic data, taking into consideration bias and other study limitations. * Validates key findings from epidemiologic investigations or studies. |
| Emergency Response | *Applies emergency management doctrine and policy frameworks to preparedness, prevention, mitigation, response and recovery activities.*   * Leads emergency response planning for a medical unit. * Leads epidemiologic response to public health emergencies. |
| Epidemiological Knowledge | *Uses current knowledge of causes of disease to guide epidemiologic practice.*   * Ensures that basic etiologic processes for human diseases are related to subject matter areas of interest (such as, infectious diseases, chronic diseases). * Ensures the application of understanding of human and environmental factors and behavioral sciences and principles to determine potential biological mechanisms of disease. * Ensures the application of the epidemiologic principles of the host/agent/environment model to disease causation, prevention, and control. * Ensures that the role and influence of sociobehavioral factors (including community, political, social, family, and individual behavioral factors) are incorporated into understanding health risks and health status. |
| Informatics | *Uses information systems to improve the effectiveness of surveillance, investigation, and other epidemiologic practices.*   * Provides access to information technologies and communication tools necessary to support epidemiologic investigations and surveillance. * Provides access to software tools that support online searching, public health data acquisition, entry, abstraction, management, analysis, planning, mapping, and reporting. * Assures that policies and procedures and technical means (such as, security) are used to ensure the integrity and protection of confidential information in electronic files and computer systems. * Engages and consults with information technology professionals with necessary expertise for developing information systems to support epidemiology programs. * Articulates the needs of the epidemiology program to the information technology specialists. * Ensures that all members of systems development teams, including epidemiologists and information technology specialists, fill roles consistent with their expertise. * Leads the development of integrated, cost-effective public health information systems that are consistent with a larger (such as, enterprise-level) information architecture. * Implements improvements to information technologies and communication tools necessary to support epidemiologic investigations and surveillance. * Ensures that information systems developed for epidemiology programs fully support the objectives, functions, and business processes of the public health system. |
| Laboratory Resources | *Uses laboratory resources to support epidemiologic activities.*   * Examines the roles and capabilities of public health laboratories and other laboratories and how they are used in epidemiologic investigations. * Develops methods for the interpretation of laboratory data accounting for factors that influence the results of screening and diagnostic tests. * Develops methods for necessary specimen collection, storage, and transportation measures. |
| Professional Communications | *Practices appropriate and effective communication with agency personnel, colleagues, and the public.*   * Determines the selection of audience, methods, and content for communication of epidemiologic findings. * Oversees the creation and completion of written reports and oral presentations that communicate epidemiologic and surveillance work to professional audiences (such as, peer-reviewed journals) and agency staff. * Creates processes to guide the preparation of documents or oral presentations that communicate epidemiologic or surveillance information to the general public, U.S. government or partner agencies, and news media. * Determines surveillance information content and periodicity of dissemination for specific audiences and their uses. * Develops responses to public queries about epidemiologic data or related issues. * Develops risk communication messages that convey epidemiologic information to particular public health problems. * Determines the design and content of Web-based communication. * Enforces policies that address security, privacy, and legal considerations when communicating epidemiologic information through e-mail, health alert networks, or other potentially public documents. |
| Program Evaluation | *Evaluates epidemiology program effectiveness.*   * Develops measurable and program-relevant goals and objectives. * Develops program logic models and theories of action. * Approves surveillance and other data for use in tracking program objectives and outcomes. * Monitors progress toward program objectives and outcomes. * Incorporates information about progress toward program objectives and outcomes in decisions on program planning and modification. * Develops, implements, and monitors organizational performance measures that demonstrate program effectiveness. |
| Project Management | *Demonstrates and understanding of the administration and oversight of related projects and activities to meet program goals and achieve agency objectives.*   * Justifies resources necessary to carry out tasks in the operational plan, including personnel, equipment, supplies, and travel costs. * Evaluates fiscal expenditures against the financial plan. * Evaluates funding opportunities to support epidemiologic activities. * Creates scientifically sound proposals that will support epidemiologic activities and meet the requirements of the funding agency. * Communicates roles/responsibility expectations clearly to all staff. * Establishes roles and responsibilities of all participants in epidemiologic activities. * Assesses performance of all staff as they carry out their responsibilities. * Coaches all staff as needed in the performance of their responsibilities. * Ensures the development of collaborative relationships with key personnel of other programs and agencies relevant to the particular epidemiologic activity. |
| Public Health Advocacy | *Demonstrates ability to advocate for epidemiologic work in engaging policymakers at all levels.*   * Develops a strategic plan. * Leads the development of policies relating to epidemiologic activities. * Translates public health policies into epidemiology roles in programs or plans. * Demonstrates the ability to use designated channels to influence policy decisions made by entities other than the public health agency (such as, elected officials or their staffs). * Adheres to rules and laws applying to government employees and funding sources regarding lobbying. |
| Public Health Intervention | *Identifies public health problems and designs corresponding interventions.*   * Ensures that critical thinking is used to determine whether a public health problem that is pertinent to the population exists. * Decides whether to conduct further investigation or other public health action on the basis of results of literature review and assessment of current data. * Leads collaborations with others inside and outside the agency/organization to identify the public health problem and form recommendations. * Approves recommendations or interventions on the basis of understanding the cultural/social/political framework. * Ensures that scientific evidence is used in preparing recommendations for action or interventions. |
| Research | *Investigates acute and chronic conditions or other adverse outcomes in the population.*   * Designs and implements a community health status assessment or program evaluation. * Recommends the priority level of public health problems to be addressed. * Determines the investigative processes. * I have designed an epidemiologic research approach to a problem. * Designs and implements investigation techniques that are consistent with the public health problem. |
| Research Ethics | *Applies principles of good ethical/legal practice as they relate to study design and data collection, dissemination, and use.*   * Examines ethics guidelines and principles when planning studies, conducting research, and collecting, disseminating, and using data. * Communicates to staff legal expectations, limitations, and implications of collection, management, dissemination, and use of data and information. * Obtains decision on whether an investigation involves public health practice or public health research. * Ensures the legal and ethical conduct of human subjects research. * Applies necessary Institutional Review Board (IRB) processes. * Ensures that conflicts of interest do not interfere with research or investigations. * Designs data collection, management, and dissemination and use of data and information to comply with relevant laws. * Incorporates privacy laws into the study design to protect confidentiality, including Health Insurance Portability and Accountability Act and applicable state and local privacy laws. * Applies ethical principles in preparing and submitting publications. |
| Surveillance Systems | *Defines surveillance data needs and limitations, and designs, implements, and evaluates surveillance systems.*   * Researches and evaluates information system(s) to support surveillance systems. * Identifies and implements the type of surveillance system for a particular health issue. * Validates the data collection, data storage, and analytical methods associated with the surveillance system. * Verifies that data collection occurs according to the defined surveillance system parameters (such as, timeliness, frequency). * Implements quality control and improvement measures for working surveillance systems. * Interprets the surveillance system's results in the context of current scientific knowledge and other available information. * Determines the relative priority of each conclusion from the surveillance data before making recommendations to decision-makers. * Appraises modifications to surveillance systems on the basis of an independent evaluation. |

# GS 14/15

| Competency Name | Definition & Key Behaviors |
| --- | --- |
| Community Assessment Knowledge | *Participates in the development of community partnerships to support epidemiologic investigations.*   * Solicits partners and stakeholders necessary for epidemiologic investigation. * Develops community-specific participation strategies in the planning, implementation, and evaluation of epidemiologic investigations when indicated. |
| Cultural Competence | *Demonstrates an understanding of cultural and demographic aspects of a population and appropriately utilizes this information in conducting epidemiologic work.*   * Evaluates the historical context of the populations’ histories and past treatment by public health system. * Works with the community as necessary to develop new categories if standard categories are unavailable. * Verifies that data collection tools will capture information needed to assess health disparities. * Leads the collaboration with the community as necessary to develop new categories if standard categories are unavailable. * Identifies mechanisms for contact and communication with population. * Evaluates a sampling plan to ensure sample size large enough to provide stable estimates in populations of interest. |
| Data Management, Analysis, and Interpretation | *Conducts data analyses and summarizes results to draw conclusions from epidemiologic investigations or studies.*   * Defines database requirements. * Serves as a consultant and advisor to external partners/organizations regarding how to conduct epidemiologic analysis for relevant investigations and studies. * Formulates valid statistical techniques given the data, study design, sample size, hypotheses, and other relevant factors. * Approves the selection of datasets to be used to analyze data. * Serves as a resource to others in learning how to conduct more sophisticated epidemiologic investigations and analyses. * Assesses the need for special analyses, including methods that adjust for correlated or time-variant data. * Synthesizes key findings from epidemiologic investigations or studies. |
| Emergency Response | *Applies emergency management doctrine and policy frameworks to preparedness, prevention, mitigation, response and recovery activities.*   * Oversees the presentation of public health perspective in the development of agency emergency response plan. * Oversees the communication of public health information to all emergency response partners. |
| Epidemiological Knowledge | *Uses current knowledge of causes of disease to guide epidemiologic practice.*   * Identifies opportunities to expand current knowledge related to epidemiologic practice. * Synthesizes knowledge about the role of human and environmental biology and behavioral sciences, and principles to suggest potential biological mechanisms of disease. * Synthesizes knowledge about the role and influence of sociobehavioral factors (including community, political, social, family, and individual behavioral factors) in health risks and health status. |
| Informatics | *Uses information systems to improve the effectiveness of surveillance, investigation, and other epidemiologic practices.*   * Synthesizes data and information from multiple sources to create new information to support public health decision-making. * Composes and manages systems development teams in a manner that demonstrates recognition of the appropriate roles and domains for computer scientists, epidemiologists, policy makers, and programmers and other information technology specialists in information systems development. * Leads and advocates for, or otherwise actively participates 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 (such as, enterprise-level) information architecture. * Leads and coordinates the development of confidentiality and privacy policies for the enterprise, and ensures the development of security systems to support the implementation of those policies. |
| Laboratory Resources | *Uses laboratory resources to support epidemiologic activities.*   * Synthesizes the roles and capabilities of public health laboratories in epidemiologic investigations. * Determines laboratory and epidemiologic activities including test selection, communication, and reporting results in the field. * Evaluates methods for the interpretation of laboratory data, accounting for factors that influence the results of screening and diagnostic tests. * Determines capacity of laboratory resources. * Oversees necessary methods for specimen collection, storage, and transportation measures. |
| Professional Communications | *Practices appropriate and effective communication with agency personnel, colleagues, and the public.*   * Approves and verifies the selection of audience, methods, and content for communication of epidemiologic findings. * Refines and approves documents created by others (such as, briefs, press releases, Web pages) that communicate epidemiologic and surveillance information to professional audiences (such as, peer-reviewed journals), agency staff, the general public, U.S. government or partner agencies, news media policy makers. * Approves the content for surveillance information and periodicity of dissemination for specific audiences and their uses. * Creates key messages for responding to public queries about epidemiologic data or related issues. * Approves content for Web-based communication. * Creates processes to guide the preparation of documents or oral presentations that communicate epidemiologic or surveillance information to the general public, U.S. government or partner agencies, and news media. * Develops as-needed policies that address security, privacy, and legal considerations when communicating epidemiologic information through e-mail, health alert networks, or other potentially public documents. |
| Program Evaluation | *Evaluates epidemiology program effectiveness.*   * Approves measurable and program-relevant goals and objectives in collaboration with program staff. * Approves program logic models and theories of action in collaboration with program staff. * Synthesizes surveillance and other data to allow tracking of program objectives and outcomes. * Critiques progress toward program objectives and outcomes. * Evaluates progress toward program objectives and outcomes for program managers and staff to aid in program planning and modification. |
| Project Management | *Demonstrates and understanding of the administration and oversight of related projects and activities to meet program goals and achieve agency objectives.*   * Defines the goals and objectives for an epidemiology program. * Oversees the adjustment of activities to stay within defined budget independently. * Ensures that staff adhere to the communicated roles and responsibilities involved in epidemiologic activities. * Oversees the preparation of proposals to obtain funding for epidemiologic activities (such as, healthimpact.net). |
| Public Health Advocacy | *Demonstrates ability to advocate for epidemiologic work in engaging policymakers at all levels.*   * Oversees others in translating scientific information for public health decision making. * Oversees others in informing and engaging community leaders and political officials at multiple levels of government. * Oversees the development of the strategic plan. * Makes decisions based on understanding of legal boundaries and the legislative process. |
| Public Health Intervention | *Identifies public health problems and designs corresponding interventions.*   * Synthesizes key findings to determine whether a public health problem pertinent to the population exists. * Evaluates the need for further investigation or other public health action on the basis of results of literature review and assessment of current data. * Ensures that the cultural/social/political framework is considered in the development and approval of recommendations or interventions. * Designs recommendations for action or interventions based on the best current scientific evidence. |
| Research | *Investigates acute and chronic conditions or other adverse outcomes in the population.*   * Oversees a community health status assessment or program evaluation. * Decides on the priority of potential public health problems to be addressed. * Approves the selection of an investigative processes. * Approves the design of epidemiologic research and investigations. * Ensures the use of investigation techniques are consistent with the public health problem. |
| Research Ethics | *Applies principles of good ethical/legal practice as they relate to study design and data collection, dissemination, and use.*   * Integrates ethics guidelines and principles when planning studies, conducting research, and collecting, disseminating, and using data. * Verifies the conclusions that have been reached regarding the distinction between public health practices and public health research. * Ensures the application of Institutional Review Board (IRB) processes. * Ensures the application of privacy laws to protect confidentiality, including Health Insurance Portability and Accountability Act and applicable state and local privacy laws. * Ensures the application of ethical principles in preparing and submitting publications. |
| Surveillance Systems | *Defines surveillance data needs and limitations, and designs, implements, and evaluates surveillance systems.*   * Approves information system(s) to support surveillance systems. * Oversees the creation of new surveillance systems. * Approves the type of surveillance system for a particular health issue. * Evaluates the validity of conducting surveillance for a particular health issue. * Assesses the adequacy of the surveillance system data elements to be collected or reported. * Assesses the performance of data collection systems against the defined surveillance system parameters (such as, timeliness, frequency). * Synthesizes information about surveillance systems for communicating to reporting entities and other organizations/individuals needing to know about the data or system. * Recommends and implements modifications to surveillance systems on the basis of an independent evaluation. |