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ELC Performance Measures Detail Guide

Division of Infectious Disease Readiness and Innovation
Epidemiology and Laboratory Capacity and Informatics Branch

CDC-RFA-CK-24-0002
CDC EPIDEMIOLOGY AND LABORATORY CAPACITY COOPERATIVE AGREEMENT

Acknowledgements

We would like to express our heartfelt appreciation to everyone who contributed to the development of performance measures for The Epidemiology and Laboratory Capacity (ELC) Program. Special thanks to ELC staff, evaluation subject matter experts, program partners, and recipients, each of whom played a vital role in shaping this guidance. This collective effort embodies the spirit of collaboration and commitment that defines our work in ELC. Together, we are enhancing the capabilities of the nation's health departments to effectively detect, prevent, and respond to infectious diseases.

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Introduction and Purpose

The goal of the Epidemiology and Laboratory Capacity for Prevention and Control of Emerging Infectious Diseases (ELC) Cooperative Agreement is to provide capacity building support and technical assistance, helping to reduce morbidity and mortality caused by a wide range of infectious disease threats. The ELC provides annual funding, strategic direction, and technical assistance to state, local, and territorial jurisdictions to strengthen core capacities in epidemiology, laboratory, and health information systems (HIS) activities. In addition to strengthening core infectious disease capacities nationwide, this cooperative agreement also supports numerous specific infectious disease programs and projects.

Performance measures help assess the progress of a program or project in implementing key activities and achieving associated outcomes. Within the ELC Cooperative Agreement, performance measures are utilized by the Centers for Disease Control and Prevention (CDC) and recipients to:

- Support monitoring efforts
- Assess if funded activities are having the desired impact
- Demonstrate accountability to stakeholders (e.g., funders, public, recipients) by showing how ELC funds are being spent and the impact of this funding (e.g., achievement of logic model outcomes)

The ELC recognizes there are often limitations to using performance measures to evaluate a program or project. For example, measures do not always fully represent how strongly or poorly a program/project or recipient is doing, and often cannot consider contextual factors. Therefore, it is important to have other ways of collecting program/project information to help demonstrate performance (i.e., work plan updates, quarterly progress calls, success stories, alternate data sources). The ELC will rely on a combination of these sources of information to gauge successes and challenges faced by recipients.

Additionally, ELC recognizes the burden associated with collecting, maintaining, and reporting performance measure data to ELC. In preparation for CK-24-0002 project period, ELC worked with its funding partners to assess all measures with the goal of reducing recipient burden and having measures that meet high standards (i.e., measures are meaningful, feasible, will be used by program, etc.). This assessment resulted in a substantial decrease of approximately 40% of the number of measures and associated data elements that were a part of the CK-19-1902 cooperative agreement in the previous project period.

This guidance provides information on performance measures used by ELC partners to monitor progress and demonstrate performance. Two types of performance measures are described in this guidance: ‘Active’ measures and ‘Passive’ indicators.

‘Active’ measures are performance measures that recipients will report on annually or biannually as indicated in the guidance. ‘Passive’ indicators will be abstracted by CDC from other CDC data sources or systems (e.g., National Outbreak Reporting System [NORS], National Notifiable Diseases Surveillance System [NNDSS]), alleviating the recipient’s reporting requirements. While ELC and its funding partners may use the ’Passive’ indicators to assess outcome progress, they do not need to be reported by recipients, as part of the annual performance measure reporting. The ‘Passive’ indicators are only listed in the guidance for recipient awareness since ELC, and its partners will be looking at in addition to the ‘Active’ measures.

Organization of Guidance

Measures and indicators in this document are arranged by the ELC funded program or project. Points of contact for each program/project are provided in the program heading. Individual measures are described by the following components:

- ***Performance Measure Number & Name*:*** Number and name of measure
- ***Type*:** Outcome or Process measures that are 'Actively' reported by recipients into the performance measure reporting portals, annually/biannually, or 'Passive' indicators the program uses but the recipient does not submit to the ELC.
- ***Associated Outcome(s)*:** The anticipated or desired public health or organizational impacts associated with completing activities for the performance measure or passive indicator.
- ***Associated Strategy(s)*:** The specific strategy(ies) as identified in the ELC Notice of Funding Opportunity Announcement Guidance that are associated with the active performance measure or passive indicator
- ***Rationale:*** Description of why the measure is important
- ***Data Elements:*** The specific data that will be reported by the recipient for the measure
- ***Additional Guidance:*** Additional information to help understand the measure such as definitions for specific terms, inclusion/exclusion criteria, and other applicable information
- ***Performance Target:*** A recommended accomplishment goal or level of completion recipients should aim to achieve, where applicable
- ***Recommended Data Source:*** Data source(s) from which recipients may implement or use to retrieve the requested data elements
- ***Reporting Portal:*** Description of where (i.e., which system) the recipient will report the data for the measure
- ***Reporting Frequency:*** Description of how often the measure will be reported

*Note: Within this field, the relevant Tier may be provided (if applicable to the program or project).

Intended Use of Guidance

This guidance document should be reviewed and shared with staff members in your jurisdiction who are involved in the implementation of ELC program/project activities. Ensure that you and your staff members understand each of the measures and how they apply to your jurisdiction. The details described in this guidance correspond to the 'titles' of the performance measures that are found in the "Evaluation and Performance Measure" section of each program and project in the ELC Notice of Funding Opportunity Announcement Guidance. ELC recommends that you develop a plan for how you will collect, organize, and synthesize this information for reporting.

Please note that some measures may also evolve or change during the five-year project period. These changes will be noted in the Performance Measure Guidance that is updated and published each year. While ELC aims to keep changes to minimum, some changes may be necessary to accommodate shifts in priorities and efforts to monitor performance and progress more effectively.

For general questions, please email elcevaluation@cdc.gov, you can reach out to ELC Cooperative Agreement Management Platform (ELC CAMP) administrators at elc@cdc.gov for ELC CAMP-specific questions or issues. If you have any additional program or project specific questions related to performance measures, please refer to the point of contact listed for each program or project.

Section I: Cross-Cutting Emerging Infectious Disease Capacity, Systems, and Leadership

A. Cross-Cutting Epidemiology and Laboratory Capacity

Point of Contact: ELC Evaluation Team elcevaluation@cdc.gov

List of Performance Measures and Passive Indicators

PM.1 Number of outbreaks investigated by ELC-funded personnel

PI.1 Workforce competency improvements (Project A – Cross-Cutting Laboratory and Epidemiology, Health Information Systems (HIS) and Leadership and Management)

A. Cross-Cutting Epidemiology and Laboratory Capacity	
Performance Measure Number & Name	PM.1 Number of outbreaks investigated by ELC-funded personnel
Type	Outcome (Active)
Associated Outcome(s)	Accurate, complete, and timely surveillance data that is disseminated to stakeholders
Associated Strategy(s)	Enhance investigation and outbreak response
Rationale	ELC funds epidemiology personnel to support the nation's capacity to conduct and respond to outbreak investigations for emerging and re-emerging infectious disease threats. Data collected will describe the extent of ELC's contributions towards nationwide and jurisdictional level outbreak detection and response, including the relative importance of ELC resources to recipients' outbreak investigations. Additionally, ELC and/or recipients may use these data to highlight successes or challenges in outbreak detection and response associated with ELC-funded epidemiologic staff.
Data Elements	1. Percent of outbreak investigations involving ELC-funded staff a. Denominator: Total number of outbreaks investigated in your jurisdiction b. Numerator: For outbreaks investigated, total number that involved ELC-funded staff Outbreaks investigated should be reported in the following categories: 1. Enteric: i. Waterborne ii. Enteric foodborne iii. Enteric person-to-person iv. Enteric animal contact-associated disease, enteric environmental exposure v. Enteric outbreak of unknown transmission (Other) 2. Respiratory:

	i. Influenza

	ii. COVID-19 iii. RSV iv. Other respiratory outbreak 3. Selected Vaccine-preventable diseases: i. Diphtheria ii. *haemophilis influenza*, type B (Hib), measles, mumps, rubella iii. Meningococcal meningitis iv. Pertussis 4. Other outbreaks investigated 5. Selected Healthcare-associated infections that involve novel or target multi-drug resistant organisms (nMDROs)* * The Healthcare-associated infection category **does not need to be reported by recipients,** Program H:HAI/AR will provide these data
Additional Guidance	**Definitions** **Outbreak:** While there may be no universally accepted definition of 'outbreak,' for the purpose of this measure, a disease outbreak is the occurrence of cases of disease in excess of what would normally be expected in a defined community, geographical area or season. A single case of a communicable disease long absent from a population or caused by an agent (e.g., bacterium or virus) not previously recognized in that community or area, or the emergence of a previously unknown disease, may also constitute a single outbreak. Cases of public health importance which may not occur as outbreaks but as single cases (e.g., botulism, plague, hantavirus) or unusual cases of disease should also be considered a single outbreak. ELC understands that disease clusters represent a significant workload, but these should not be reported here. **Outbreaks investigated:** Outbreaks recipients have identified within their jurisdiction through existing processes and procedures and involved investigation by any staff (including ELC-funded staff). Outbreak investigations may be completed directly by the recipient or a local health department, academic/student volunteers, or other entity (designee). ELC understands that investigations can include a wide scope of activities and efforts (e.g., interviews, site visits, phone calls) **ELC-funded staff:** Epidemiology staff whose salaries and benefits are fully or partially supported by ELC (including direct recipients, sub recipients and contractors). This measure is NOT intended to cover laboratory staff performing core diagnostic functions. However, this measure may include personnel not classified as epidemiologists that are performing epidemiology functions (e.g., a laboratory/epidemiology liaison). **Outbreaks that involved ELC-funded staff:** Any outbreak where ELC-funded staff (defined above) were involved in the investigation regardless of their role in the investigation. This definition includes providing support in any capacity, including guidance, oversight, technical assistance, or consultation to a local health department (LHD) or other agency (including CDC). ELC-funded staff does not refer to routine involvement by a public health laboratory in support of a local investigation or to aid in establishing a diagnosis (e.g., to conduct rule out or confirmation testing). It may, however, refer to involvement by an ELC-funded staff member serving as an epidemiology and laboratory liaison that has contributed substantially to an investigation.

Performance Target	N/A
Recommended Data Source	Integrated Surveillance System(s), Laboratory Information Management System(s) (LIMS)
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

A. Cross-Cutting Epidemiology and Laboratory Capacity	
Passive Indicator Number & Name	PI.1 Workforce competency improvements (Project A – Cross-cutting Laboratory and Epidemiology, Health Information Systems (HIS) and Leadership and Management)
Type	Outcome (Passive)
Associated Outcome(s)	Better skilled and experienced epidemiology and laboratory workforce
Associated Strategy(s)	Enhance Workforce Capacity
Rationale	Because supporting the public health workforce is an important focus of the ELC Cooperative Agreement, recipients are required to conduct annual needs assessments to identify workforce gaps and/or training needs. The *ELC Workforce Assessment is* a required assessment that asks recipients to reflect on their health department's relative **priority level** and **ability** to perform core public health functions related to 5 domains: Leadership and Management, Laboratory, Bioinformatics, Epidemiology, and Health Information Systems. The assessment combines the selected priority and ability levels to generate results that rank the functions in a training prioritization matrix. This matrix categorizes the functions as a low, medium, high, or critical training priority. Recipients are then asked to develop a training plan to address the trainings gaps identified in the assessment. This passive indicator aims to leverage the information from the *ELC Workforce Assessment* to describe training priorities and how they change over time as recipients implement their training plans to address gaps identified, or as workforce needs evolve throughout a given year. In general, a shift away from critical and high Training Priority Levels toward low or medium Training Priority Levels may indicate improved workforce capacity. ELC plans to use data from this passive indicator to describe the relative importance of ELC resources to recipient workforce training priorities and activities. Additionally, the data may be used to identify significant workforce trends, strengths, or gaps over time, as well as potential strategies to leverage strengths and lessons learned and identify solutions to address consistent challenges or training gaps. **Domains, Priority levels, and ability levels may be subject to modifications in the new Notice of Funding Opportunity (NOFO)*

Data Elements	The calculated Training Priority Level will be analyzed to identify workforce training gaps and improvements over time (e.g., BP1 vs BP2 results). Additional analyses may look at changes in the function priority level and ability levels individually to contextualize the understanding of the overall Training Priority Level changes. **1. Training Priority Level:** Calculated score to assess trainings gaps based on the recipients' selected Ability Level *and* Priority Level; Training priority levels include: low, medium, high, and critical. **1a. Function Priority:** Low, Medium, High, Critical **1b. Function Ability:** No ability, Limited ability, Moderate ability, Significant ability, Full ability
Additional Guidance	The ELC Workforce Assessment requests the recipient's relative priority level and ability to perform core public health functions within 5 domains. The priority and ability level results are then utilized to calculate an overall score to indicate if the function is a low, medium, high, or critical training priority. This calculated score, or Training Priority Level, will be analyzed to identify workforce training gaps and improvements over time. Additional analyses may look at changes in the function priority level and ability levels individually to contextualize understanding of the overall Training Priority Level changes.
Performance Target	N/A
Recommended Data Source	ELC Workforce Capacity Assessment
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

B. ELC Leadership, Management, and Administration

Point of Contact: ELC Evaluation Team elcevaluation@cdc.gov

List of Passive Indicators

PI.1	Percentage of milestones on-track

B. ELC Leadership, Management and Administration	
Passive Indicator Number & Name	PI.1 Percentage of milestones on-track
Type	Outcome (Passive)
Associated Outcome(s)	Improved programmatic and fiscal management of ELC portfolio (e.g., accurate reporting of financials, work plan progress, performance measures, etc.)
Associated Strategy(s)	All ELC logic model strategies

Rationale	ELC funds public health personnel to support the nation's capacity to respond to emerging and re-emerging infectious disease threats. Data collected will describe the extent of *Project B* funding's contributions towards recipients' programmatic management of ELC-funded programs.
Data Elements	For each recipient that has been provided resources for *Project B Leadership*: a. Total number of milestones in work plans for all ELC-funded programs b. Total number of milestones in work plans on track for all ELC-funded programs
Additional Guidance	On-track: Milestones are defined as on-track if the 'Achieve by Date' has been met. Data elements from the five ELC-funded programs will be included: •Program A. *Cross-Cutting: Epidemiology and Laboratory Capacity* •Program G. *Foodborne, Waterborne, and Environmental Diseases Program* •Program H. *Healthcare-associated Infections and Antibiotic Resistance Program* • •Program I. *Enhanced Surveillance for Vaccine-Preventable and Respiratory Diseases* •Program K. *Vector-borne Disease Program*
Performance Target	By the end of each budget period, all recipients should have completed 85% of their milestones.
Recommended Data Source	ELC CAMP
Reporting Portal	Program and work plan monitoring reports via ELC CAMP
Reporting Frequency	Passive indicator (calculated from quarterly work plan milestone progress)

C. Health Information Systems (HIS) Capacity

Project C collects certain Performance Measures across the Public Health Infrastructure Grant (PHIG) A3 & laboratory data exchange (LDX) components to reduce reporting burden and streamline data processes. Please refer to the guidance documentation shared via the ELC HIS team and the PHIG team for additional information regarding the coordination across these Performance Measures. If you have any questions, please reach out to edx@cdc.gov.
Point of Contact: edx@cdc.gov

List of Performance Measures and Passive Indicators

PM.1 **(PHIG A3.5)** Percent of lab report volume received through electronic laboratory reporting (ELR) (self-report)*

PM.2 Percentage of all ELR records automatically processed into downstream system(s) without manual intervention

PM.3 Percentage of emergency departments (EDs) sending HL7 promoting interoperability compliant syndromic surveillances messages to health department and BioSense platform

PM.4 **(PHIG A3.6)** Number of submitters with established electronic test ordering and results (ETOR) with the Public Health Lab using system integration (direct or indirect) or a web-portal for any laboratory section/program/division*

PM.5 **(PHIG A3.2)** Established workforce, data, and health information system capabilities, needs and opportunities*

PM.6 **(PHIG A3.3)** Enhanced workforce capacities and capabilities to accelerate data and health information

system modernization*

PM.7 **(PHIG A3.4)** Demonstrated use of shared services to enhance existing system or data exchange*
PM.8 Number of healthcare organizations (HCOs) engaged to implement electronic case reporting (eCR)
PM.9 Number of conditions published to production and test in Reportable Conditions Knowledge Management System (RCKMS)
PM.10 Proportion of reportable cases with at least one associated electronic initial case report (eICR)
PM.11 Demonstration of automatic processing of electronic initial case reports (eICRs) in the jurisdiction integrated surveillance system(s)
PM.12 **(PHIG A3.7)** Proportion of test orders and results processed through Electronic Test Orders and Result Reporting (ETOR) at the Public Health Lab*
PM.13 **(PHIG A3.8)** Systems or programs at the Public Health Lab with Electronic Test Orders and Results (ETOR) interfaces*
PI.1 Implementation of new/replacement information systems
PI.2 Integrated surveillance information systems
PI.3 Percent of conditions that are state and nationally notifiable submitted to CDC in a modernized approved format
PI.4 Percent of records reported to the National Center for Health Statistics within ten days
PI.5 Participation in Connectathon(s) or other interoperability testing event
PI.6 Demonstration of capacity to receive data using application programming interfaces (APIs) and Fast Healthcare Interoperability Resources (FHIR) messages
PI.7 Demonstration of capacity to send data using APIs and FHIR messages

*Performance measures indicated with an asterisk (*) are collected in collaboration with the Public Health Infrastructure Grant and data will be shared across CDC programs to reduce burden and streamline data collection processes.

C. Health Information Systems (HIS) Capacity	
Performance Measure Number & Name	PM.1 (PHIG A3.5) Percent of lab report volume received through ELR (self-report)
Type	Outcome (Active)
Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting
Associated Strategy(s)	Sustain and Enhance Public Health Data (PHD) Electronic Data Exchange: Electronic Laboratory Reporting (ELR)
Rationale	This measure tracks overall volumes and progress in electronic laboratory reporting and is used in annual ELC HIS update presentations and policy requests to demonstrate recipient s capacity in working with electronic messaging formats (e.g., HL7)
Data Elements	1. Numerator: # of lab reports received via electronic method 2. Denominator: # of lab reports received by the health department

Additional Guidance	This performance measure represents a collaboration between ELC Health Information Systems and the Public Health Infrastructure Grant. Data collected for this performance measure will be shared across CDC programs to reduce recipient reporting burden and streamline data collection processes.
Performance Target	Greater than 75%
Recommended Data Source	Electronic Laboratory Reports
Reporting Portal	ELC CAMP
Reporting Frequency	Bi-annually

C. Health Information Systems (HIS) Capacity	
Performance Measure Number & Name	PM.2 Percentage of all ELR records automatically processed into downstream system(s) without manual intervention*
Type	Process (Active)
Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting
Associated Strategy(s)	Sustain and Enhance PHD Integrated Disease Surveillance System(s)
Rationale	Replaces previous C1.5 that was disease-specific This measure tracks the capacity to automatically ingest and process electronic laboratory reports, increasing timeliness and reducing burden of human review. Data is used in annual ELC HIS update presentations and policy requests to demonstrate recipients capacity in working with electronic messaging formats (e.g., HL7)
Data Elements	1. Numerator: # of Electronic Laboratory Reports automatically processed without manual intervention 2. Denominator: # of all electronic laboratory reports received
Additional Guidance	*Without manual intervention: the files do not require human review or initiation for processing; no data entry is required for ELR data to be processed into the system
Performance Target	100% of ELR

Recommended Data Source	Electronic Laboratory Reporting System, Manual Review Queue, Integrated Disease Surveillance System(s)
Reporting Portal	ELC CAMP
Reporting Frequency	Bi-annually

C. Health Information Systems (HIS) Capacity	
Performance Measure Number & Name	PM.3 Percentage of emergency departments (EDs) sending HL7 promoting interoperability compliant syndromic surveillances messages to health department and BioSense platform
Type	Process (Active)
Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting • More rapid detection of cases and outbreaks • Improved use of data
Associated Strategy(s)	Sustain and Enhance PHD Electronic Data Exchange: National Syndromic Surveillance
Rationale	Emergency department's ability to collect and send syndromic surveillance messages to health departments and the BioSense platform increases the ability to detect, monitor and analyze harmful effects of exposures to diseases and hazardous conditions.
Data Elements	1. Numerator: Number of emergency departments able to send syndromic surveillance messages to the health department and BioSense Platform 2. Denominator: Total number of emergency departments
Additional Guidance	N/A
Performance Target	100% coverage of emergency departments
Recommended Data Source	National Syndromic Surveillance Program (NSSP) facilities
Reporting Portal	ELC CAMP (transition from REDCap, ELC HIS Quarterly Monitoring Portal)
Reporting Frequency	Bi-annually

C. Health Information Systems (HIS) Capacity	
Performance Measure Number & Name	PM.4 (PHIG A3.6) Number of submitters with established electronic test ordering and results (ETOR) with the Public Health Lab using system integration (direct or indirect) or a web-portal for any laboratory section/program/division.
Type	Process (Active)
Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting • More rapid detection of cases and outbreaks • Improved use of data
Associated Strategy(s)	Public Health Lab (PHL) Electronic Data Exchange: Electronic Test Orders and Results
Rationale	Enhancing the PHL's capacity to engage in electronic data exchange will reduce manual processes, decrease reporting burdens, and enhance the timeliness and accuracy of laboratory data.
Data Elements	Total number of submitters sending orders and receiving results using: a. web-portal only b. direct integration only c. indirect integration only d. multiple ETOR options
Additional Guidance	Data will be collected for each ETOR methodology: direct integration, indirect integration, and web portal and will be broken down by submitters sending orders only, submitters receiving results only, and submitters sending and receiving both orders and results. This measure should include all data at the Public Health Lab (e.g., Infectious Disease, Environmental, Newborn Screening) This performance measure represents a collaboration between ELC Health Information Systems and the Public Health Infrastructure Grant. Data collected for this performance measure will be shared across CDC programs to reduce recipient reporting burden and streamline data collection processes.
Performance Target	80%
Recommended Data Source	ETOR Web Portal, Laboratory Information Management System (LIMS), ETOR Integration Engine(s)
Reporting Portal	ELC CAMP
Reporting Frequency	Bi-annually

C. Health Information Systems (HIS) Capacity	
Performance Measure Number & Name	PM.5 (PHIG A3.2) Established workforce, data, and health information system capabilities, needs and opportunities
Type	Process (Active)
Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting • More rapid detection of cases and outbreaks • Improved use of data
Associated Strategy(s)	Implement and maintain sustainable enterprise infrastructure
Rationale	Enhanced workforce capacities and capabilities to accelerate data and health information system modernization
Data Elements	1. Data Modernization Assessment Completion (Yes/No) 2. Data Modernization Plan Completion (Yes/No) 3. Date of completion or most recent update
Additional Guidance	This performance measure represents a collaboration between ELC Health Information Systems and the Public Health Infrastructure Grant. Data collected for this performance measure will be shared across CDC programs to reduce recipient reporting burden and streamline data collection processes.
Performance Target	N/A
Recommended Data Source	Data Modernization Assessments and Executive Summary, Data Modernization Plan, Data Modernization Workforce Development Plan
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

C. Health Information Systems (HIS) Capacity	
Performance Measure Number & Name	PM.6 (PHIG A3.3) Enhanced workforce capacities and capabilities to accelerate data and health information system modernization
Type	Process (Active)

Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting • More rapid detection of cases and outbreaks • Improved use of data
Associated Strategy(s)	Implement and maintain sustainable enterprise infrastructure
Rationale	Enhanced workforce capacities and capabilities to accelerate data and health information system modernization
Data Elements	Trainings attended or hosted including other workforce activities (e.g., peer to peer learning, workforce enhancement through fellows, technical assistance, or shared consultative services)
Additional Guidance	This performance measure represents a collaboration between ELC Health Information Systems and the Public Health Infrastructure Grant. Data collected for this performance measure will be shared across CDC programs to reduce recipient reporting burden and streamline data collection processes.
Performance Target	N/A
Recommended Data Source	Data Modernization Workforce Development Plans, Training Logs or Rosters, Reports and Presentations provided by staff involved in data modernization activities
Reporting Portal	ELC CAMP
Reporting Frequency	Bi-Annually

C. Health Information Systems (HIS) Capacity	
Performance Measure Number & Name	PM.7 (PHIG A3.4) Demonstrated use of shared services to enhance existing system or data exchange
Type	Process (Active)
Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting • More rapid detection of cases and outbreaks • Improved use of data

Associated Strategy(s)	Implement and maintain sustainable enterprise infrastructure
Rationale	Implementation of shared services will improve systems/tools, increase electronic data exchange and may decrease costs.
Data Elements	1. Utilization of shared services to support data exchange or information system functionality (Yes/No): a. Additional description needed for Yes or No response 2. List of shared services currently implemented. For each shared service currently implemented: □ Host (e.g., jurisdiction, external to jurisdiction) □ Functional area supported □ How it is being used □ Specific issue or problem addressed □ Impact observed to date
Additional Guidance	This performance measure represents a collaboration between ELC Health Information Systems and the Public Health Infrastructure Grant. Data collected for this performance measure will be shared across CDC programs to reduce recipient reporting burden and streamline data collection processes.
Performance Target	N/A
Recommended Data Source	Enterprise inventory of systems and tools, description of functionality.
Reporting Portal	ELC CAMP
Reporting Frequency	Bi-Annually

C. Health Information Systems (HIS) Capacity	
Performance Measure Number & Name	PM.8 Number of healthcare organizations (HCOs) engaged to implement electronic case reporting (eCR)
Type	Process (Active)
Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting • More rapid detection of cases and outbreaks • Improved use of data

Associated Strategy(s)	Sustain and Enhance PHD Electronic Data Exchange: Electronic Case Reporting
Rationale	Recipient s must demonstrate that they are making electronic case reporting implementation with healthcare organizations a priority focus area through this funding. Recipients are expected to recruit and work with healthcare organizations in their jurisdictions that submit reportable condition reports to implement electronic case reporting. The intent of this measure is to monitor the extent to which the number of healthcare organizations submitting electronic case reports to the recipient increases over time, which will decrease burden on healthcare providers and public health associated with legacy/manual reporting methods. From a jurisdictional and national perspective, full coverage of healthcare organizations ensures that all cases of reportable conditions are identified for public health action. Data is used to respond to policy requests and presentations to monitor progress and demonstrate ability to onboard eCR.
Data Elements	1. HCO recruitment/engagement activities 2. List of HCOs not yet onboarding that are targeted for engagement 3. Engagement status for onboarding or live HCOs 4. Number in-jurisdiction facilities reporting via eCR only (approved to discontinue manual reporting for at least one condition) (passive, calculated from engagement status information provided by recipients) 5. Conditions approved for discontinued manual reporting (for at least one HCO), and reportable conditions where provider reporting is not required for individual cases (e.g., COVID)
Additional Guidance	Some HCO engagement questions will be reported using the spreadsheet template available for download in ELC CAMP. Recipients should use the Excel spreadsheet template uploaded by the CDC for HCO engagement questions and update both the list and status each quarter of reporting. Healthcare organizations may change status over time, but recipients should submit the list even if there have been no changes.
Performance Target	100% of in-jurisdiction HCOs with an electronic health record (EHR)/HIT product in General Availability engaged in onboarding or live for eCR. By end of each year, 10% of in-jurisdiction healthcare facilities in production approved to discontinue manual reporting and 50% are actively engaged with Public Health Agency(s) (PHAs) for data validation for 5 conditions (or 2 condition groups) each year.
Recommended Data Source	Electronic Initial Case Reports (eICRs), In-jurisdiction Facility and Healthcare Organization Information, eCR Onboarding Tracking Activities. CDC has technical assistance available to help jurisdictions identify healthcare organizations that are onboarding or have gone live, as well as assistance to identify recruitment priorities.
Reporting Portal	ELC CAMP, including eCR HCO Engagement spreadsheet template uploaded by CDC Team.

Reporting Frequency	Bi-Annually

C. Health Information Systems (HIS) Capacity	
Performance Measure Number & Name	PM.9 Number of conditions published to production and test in Reportable Conditions Knowledge Management System (RCKMS)
Type	Outcome (Active)
Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting • More rapid detection of cases and outbreaks • Improved use of data
Associated Strategy(s)	Sustain and Enhance PHD Electronic Data Exchange: Electronic Case Reporting
Rationale	Using RCKMS allows public health recipient s to define reporting criteria and helps healthcare organizations using electronic case reporting send the appropriate initial case reports to respective public health agencies. The intent of this measure is to monitor the extent to which the public health recipient is preparing for the expansion of eCR by authoring the jurisdictional reporting rules for all applicable reportable conditions in RCKMS and the progress towards transitioning conditions from test to production as jurisdictional eCR capacity increases. Increasing the number of reportable conditions published to production in RCKMS ensures efficient and timely disease surveillance, ultimately leading to more timely identification of cases, clusters, or outbreaks of disease and resulting in more rapid public health response.
Data Elements	1. Denominator: Number conditions available in RCKMS that are reportable in the jurisdiction 2. Number conditions authored within RCKMS in total (passive) 3. Number conditions currently published to production in RCKMS (passive) 4. Number conditions currently published to test in RCKMS (passive)
Additional Guidance	To calculate the requested denominator, please review the list of conditions available in RCKMS (https://www.rckms.org/conditions-available-in-rckms/) and identify which of those conditions are reportable in your jurisdiction. Recipients may want to consider calculating this metric by first identifying and counting the number of conditions in RCKMS that are NOT reportable in your jurisdiction and then subtracting that value from the total number of conditions available in RCKMS.

	Recipients should only author in RCKMS for conditions that are reportable in their jurisdiction to reflect state and local law. Recipients will only receive electronic initial case reports (eICRs) and reportability responses (RRs) from RCKMS for conditions "published to production." All conditions "published to test" or "published to production" should include specification of Reporting Preference criteria (e.g., preferences should not be blank, at least one should be "yes"). After each RCKMS Content Release, recipients should plan to author and have any new or updated reportable conditions "published to production" within 60 days.
Performance Target	All conditions that are reportable in the recipient's jurisdiction "published to production" or "published to test" in RCKMS within 30 days. Move the authored conditions to "published to production", targeting at least 25% of the reportable conditions transitioned each year.
Recommended Data Source	Integrated Surveillance System(s), Public Health Agency Program Epidemiologists and Jurisdictional Reporting Laws and Regulations, RCKMS
Reporting Portal	ELC CAMP for Question 1. Questions 2-4 are Passive: CDC will provide based on the information outlined in the recommended data sources and provide to recipients for validation.
Reporting Frequency	Bi-Annually

C. Health Information Systems (HIS) Capacity	
Performance Measure Number & Name	PM.10 Proportion of reportable cases with at least one associated electronic initial case report (eICR)
Type	Process (Active)
Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting • More rapid detection of cases and outbreaks • Improved use of data
Associated Strategy(s)	Sustain and Enhance PHD Electronic Data Exchange: Electronic Case Reporting

Rationale	Recipients are expected to work with healthcare organizations in their jurisdictions that submit reportable condition reports to increase the number submitting reports electronically. The intent of this measure is to monitor the extent to which cases in the jurisdiction have associated electronic case reports – whether a case was started by an eICR, an eICR was received and helped define the case status, or an eICR received provided additional data to support the case. From a jurisdictional and national perspective, submission of electronic reports that are timely and complete will allow for more efficient and speedy public health action. Data is used to respond to policy requests and presentations to monitor progress and demonstrate ability to associate eCR data with reportable condition cases.
Data Elements	1. Numerator: number reportable cases (i.e., confirmed and/or probable) with at least one associated electronic initial case report during timeframe 2. Denominator: Total number of reportable cases (i.e., confirmed and/or probable) known by the recipient from all reporting mechanisms for all reportable conditions during timeframe 3. Calculated: % reportable cases (i.e., confirmed and/or probable) with at least one associated electronic initial case report (eICR) during the last 6 months
Additional Guidance	Numerator: This is not the number of electronic initial case reports (eICRs) received, but the unique number of reportable condition cases that have one or more eICRs associated with them (i.e., "deduplicated" eICRs – consolidated eICR updates for the same encounter). Denominator: This total number of cases should be calculated using all reporting mechanisms, including both eCR and non-eCR (e.g., traditional/manual reporting methods, ELR), for all reportable conditions. Recipients must maintain production connection with APHL Informatics Messaging Service (AIMS) and have conditions published to production in RCKMS to receive eICRs.
Performance Target	N/A
Recommended Data Source	Integrated Surveillance System(s), eCR Data Ingestion and Linkage Monitoring Activities
Reporting Portal	ELC CAMP
Reporting Frequency	Bi-Annually

C. Health Information Systems (HIS) Capacity	
Performance Measure Number & Name	PM.11 Demonstration of automatic processing of electronic initial case reports (eICRs) in the recipients' integrated surveillance system(s)
Type	Process (Active)

Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting • More rapid detection of cases and outbreaks • Improved use of data
Associated Strategy(s)	Sustain and Enhance PHD Electronic Data Exchange: Electronic Case Reporting
Rationale	Recipients are expected to ensure that their surveillance systems have capability to accept, process, and present the data in electronic initial case reports (eICRs) and reportability responses (RRs) for use by users of the surveillance system. The intent of this measure is to monitor the ability of the surveillance system(s) to fully process the electronic case report data. Increased capacity to process electronic data improves public health's ability to identify and respond to health events and affected population groups and geographic areas. Data is used to respond to policy requests and presentations to monitor progress and demonstrate ability to process eCR data.
Data Elements	1. Indicate surveillance systems that are used to manage cases of reportable conditions a. Indicate if eICRs received are automatically populated into each applicable system without manual intervention in the test or production environment 2. Number of eICRs automatically populated into each system without manual intervention in the production environment 3. Number of eICRs automatically populated into each system without manual intervention in the testing environment 4. Denominator: Total number of eICRs received by the recipient 5. Calculated: Percent eICRs received by the recipient and automatically populated into the system without manual intervention in the production environment 6. Calculated: Percent eICRs received by the recipient and automatically populated into the system without manual intervention in the test environment 7. Start and end dates for the metric 8. Additional qualitative information about recipient's progress on processing eICRs into surveillance system(s)

Additional Guidance	*Without manual intervention – the eICR documents do not require human review or initiation for processing; no data entry is required for eCR data to be processed into the system Recipients must maintain production connection with AIMS and have conditions published to production in RCKMS to receive eICRs.

	For most recipients, data from Reportability Responses (RRs) are needed to process eICRs. Report measure for each surveillance system being used for managing reportable conditions. Conditions may vary by jurisdictions. The recipient's methods used to process eICRs and RRs may impact how these metrics are determined (e.g., all eICR updates are processed versus only the most recent eICR for an encounter). Recipients should note any caveats that impact how this is calculated.
Performance Target	Processing of > 50% of eICRs by the surveillance system
Recommended Data Source	Integrated Surveillance System(s), eCR Data Processing and Ingestion Monitoring Activities
Reporting Portal	ELC CAMP
Reporting Frequency	Bi-Annually

C. Health Information Systems (HIS) Capacity	
Performance Measure Number & Name	PM.12 (PHIG A3.7) Proportion of test orders and results processed through Electronic Test Orders and Result Reporting (ETOR) at the Public Health Lab
Type	Process (Active)
Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting • More rapid detection of cases and outbreaks • Improved use of data
Associated Strategy(s)	Sustain and Enhance PHL Data Exchange: Electronic Test Orders and Results (ETOR)
Rationale	Increase capacity to submit and receive ETOR order and results through web-portal and direct/indirect integration, decreasing time for orders to be received and test results to be sent at the Public Health Lab (PHL).
Data Elements	By program area: a. Total number of test orders and results processed through the PHL b. Total number of orders and results processed through web-portal c. Total number of orders and results processed through direct integration d. Total number of orders and results processed through indirect integration

Additional Guidance	This measure should include all data at the Public Health Lab (e.g., Infectious Disease, Environmental, Newborn Screening) This performance measure represents a collaboration between ELC Health Information Systems and the Public Health Infrastructure Grant. Data collected for this performance measure will be shared across CDC programs to reduce recipient reporting burden and streamline data collection processes.
Performance Target	80% of test orders and test results submitted through ETOR web-portal or system integration
Recommended Data Source	Laboratory Information Management System(s) (LIMS), ETOR web portal, ETOR integration engine
Reporting Portal	ELC CAMP
Reporting Frequency	Bi-Annually

C. Health Information Systems (HIS) Capacity	
Performance Measure Number & Name	PM.13 (PHIG A3.8) Systems or programs at the Public Health Lab with Electronic Test Orders and Results (ETOR) interfaces
Type	Outcome (Active)
Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting • More rapid detection of cases and outbreaks • Improved use of data
Associated Strategy(s)	Sustain and Enhance PHL Data Exchange: Electronic Test Orders and Results (ETOR)
Rationale	Public Health Lab (PHL) systems or programs with ETOR interfaces will reduce time, decrease costs and result in faster public health actions.
Data Elements	ETOR solutions by laboratory information management system or PHL program area: 1. Total number of systems 2. Number of systems with ETOR interface 3. Number of programs with ETOR interface

Additional Guidance	PHL program area refers to individual sections or divisions within the laboratory setting (i.e., Microbiology, Virology, Serology, Chemistry, Environmental, Newborn Screening) that may have implemented electronic test orders and results (ETOR) interfaces Multiple LIMS instances would count as individual systems This performance measure represents a collaboration between ELC Health Information Systems and the Public Health Infrastructure Grant. Data collected for this performance measure will be shared across CDC programs to reduce recipient reporting burden and streamline data collection processes.
Performance Target	N/A
Recommended Data Source	Laboratory Information Management System(s) (LIMS), ETOR web portal, ETOR integration engine
Reporting Portal	ELC HIS Monitoring Portal
Reporting Frequency	Bi-Annually

C. Health Information Systems (HIS) Capacity	
Passive Indicator Number & Name	PI.1 Implementation of new/replacement information systems
Type	Process (Passive)
Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting • More rapid detection of cases and outbreaks • Improved use of data
Associated Strategy(s)	Sustain and Enhance PHD Integrated Disease Surveillance System(s)
Rationale	Information will be used to assist with subject matter expert (SME) consultations, policy requests, and dashboards, and to facilitate peer-to-peer learning and collaboration.
Data Elements	Surveillance systems, tools, and other enterprise infrastructure (e.g., data lake/warehouse, cloud hosting)
Additional Guidance	N/A

Performance Target	N/A

Recommended Data Source	Surveillance Information Systems
Reporting Portal	N/A
Reporting Frequency	Annually

C. Health Information Systems (HIS) Capacity	
Passive Indicator Number & Name	PI.2 Integrated surveillance information systems
Type	Process (Passive)
Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting • More rapid detection of cases and outbreaks • Improved use of data
Associated Strategy(s)	Sustain and Enhance PHD Integrated Disease Surveillance System(s)
Rationale	Information will be used to assist with SME consultations, policy requests, and dashboards, and to facilitate peer-to-peer learning and collaboration.
Data Elements	Surveillance systems, tools, and other enterprise infrastructure (e.g., data lake/warehouse, cloud hosting)
Additional Guidance	N/A
Performance Target	N/A
Recommended Data Source	Surveillance Information Systems Information
Reporting Portal	N/A
Reporting Frequency	Annually

. Health Information Systems (HIS) Capacity	
Passive Indicator Number & Name	PI.3 Percent of conditions that are state and nationally notifiable submitted to CDC in a modernized approved format.
Type	Process (Passive)
Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting • More rapid detection of cases and outbreaks • Improved use of data
Associated Strategy(s)	Sustain and Enhance Electronic Data Exchange: Collect and Transmit Standardized Surveillance Data
Rationale	This measure tracks the ability to send data needed to determine public health actions and decreases the need for data to be sent to multiple locations. The information provided is used for policy requests, presentations, and to monitor the ability to send high-quality, standardized case data especially during a public health event or emergency.
Data Elements	1. Numerator: Number of State Reportable and Nationally Notifiable Conditions in production using Gen v2 based content 2. Denominator: Number of State Reportable and Nationally Notifiable Conditions eligible to be sent using Gen v2 based content excluding conditions not reportable in a state based on the reporting exceptions for NNDSS.
Additional Guidance	Message Validation, Processing, and Provisioning System (MVPS) data will use the current year National Notifiable Diseases Surveillance System Event Code List for onboarded conditions and the Reporting Exceptions Checklist to calculate percentage of data send to CDC an approved Gen v2 based format.
Performance Target	100%
Recommended Data Source	Calculations will be made using the MVPS State Reportable Conditions Checklist, Reporting Exceptions Checklist and conditions in production to send notification messages received by MVPS based on Gen v2 based content.
Reporting Portal	ELC CAMP Passive Measure: CDC will calculate percentage based on the information outlined in the recommended data sources and provide to recipients for validation.
Reporting Frequency	Bi-Annually

C. Health Information Systems (HIS) Capacity	
Passive Indicator Number & Name	PI.4 Percent of records reported to the National Center for Health Statistics within ten days
Type	Outcome (Passive)
Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting • Improved use of data
Associated Strategy(s)	Sustain and Enhance PHD Electronic Data Exchange: Vital Statistics
Rationale	Develop and maintain technical capacity and systems for Fast Healthcare Interoperability Resources (FHIR) based interoperability with National Center for Health Statistics (NCHS) to improve timeliness of reporting birth, fetal death, and death data.
Data Elements	1. Numerator: Number of records reporting to NCHS within 10 days by record type and date (birth, death, and fetal death) 2. Denominator: Total number of records reported to NCHS by record type (birth, death, and fetal death)
Additional Guidance	Data will be provided by NCHS and verified by recipients
Performance Target	All records reported to National Center for Health Statistics within 10 days.
Recommended Data Source	Performance data will be provided to recipients by NCHS for validation.
Reporting Portal	Passive Measure: CDC will provide data to recipients who will validate the information.
Reporting Frequency	Bi-Annually

C. Health Information Systems (HIS) Capacity	
Passive Indicator Number & Name	PI.5 Participation in Connectathon(s) or other interoperability testing event
Type	Process (Passive)
Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient

	• Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting • Improved use of data
Associated Strategy(s)	Sustain and Enhance PHD Electronic Data Exchange: Vital Statistics
Rationale	Develop and maintain staff technical capacity by participating in Connectathon(s) or other interoperability testing events.
Data Elements	Number of staff and events (Connectathons or interoperability testing events attended)
Additional Guidance	N/A
Performance Target	N/A
Recommended Data Source	Performance data will be provided to recipients by NCHS for validation.
Reporting Portal	Passive Measure: CDC will provide data to recipients who will validate the information.
Reporting Frequency	Bi-Annually

C. Health Information Systems (HIS) Capacity	
Passive Indicator Number & Name	PI.6 Demonstration of capacity to receive data using application programming interfaces (APIs) and FHIR messages.
Type	Outcome (Passive)
Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting • Improved use of data
Associated Strategy(s)	Sustain and Enhance PHD Electronic Data Exchange: Vital Statistics
Rationale	Demonstration of capacity to send data using APIs and FHIR messages
Data Elements	Confirmation of data received recipient from CDC via APIs and FHIR messages (Yes/No)
Additional	Data will be provided by NCHS and verified by recipients

Guidance	

Performance Target	100%
Recommended Data Source	Performance data will be provided to recipients by NCHS for validation
Reporting Portal	Passive Measure: CDC will provide data to recipients who will validate the information.
Reporting Frequency	Quarterly

C. Health Information Systems (HIS) Capacity	
Passive Indicator Number & Name	PI.7 Demonstration of capacity to send data using APIs and FHIR messages.
Type	Outcome (Active)
Associated Outcome(s)	• Improved surveillance • Acquisition, management, and use of data are automated and efficient • Electronic mechanisms for data exchange are in place • More efficient and accurate public health reporting • Improved use of data
Associated Strategy(s)	Sustain and Enhance PHD Electronic Data Exchange: Vital Statistics
Rationale	Demonstration of capacity to send data using APIs and FHIR messages
Data Elements	Confirmation of data sent to CDC via API and FHIR messages (Yes/No)
Additional Guidance	Data will be provided by NCHS and verified by recipients
Performance Target	100%
Recommended Data Source	Performance data will be provided to recipients by NCHS for validation
Reporting Portal	Passive Measure: CDC will provide data to recipients who will validate the information.
Reporting Frequency	Quarterly

D. Advanced Molecular Detection (AMD)

Point of Contact: SAGE-OAMD@cdc.gov

List of Performance Measures and Passive Indicators

PM.1 Number of trainings offered by training leads

PM.2 Training participants will report the number and percent of AMD staff who completed at least one AMD-related training

PM.3 Number of in-person and virtual consultations completed by Bioinformatics Regional Resources (BRR)

D. Advanced Molecular Detection (AMD)	
Performance Measure Number & Name	PM.1 Number of trainings offered by training leads
Type	Process measure (Active)
Associated Outcome(s)	• Public health workforce that is effective in detecting, responding, and preventing infectious disease threats. • Establishing and/or enhancing workforce competencies and capabilities in genomic and metagenomic sequencing, bioinformatics, and molecular epidemiology. • Increased bioinformatics and genomic epidemiology analytic capacity in state, local health, and territorial departments.
Associated Strategy(s)	Enhance Workforce Capacity
Rationale	We intend to learn how many trainings are offered each year as well as the types of courses. The data collected from these measures will be used to determine training needs and to assess additional opportunities for collaboration. Training Leads develop training plans and lead AMD Regional Workforce Development trainings. Training Leads accomplish their activities by working with Training Participants within their defined AMD region, other regional Training Leads, and Bioinformatics Regional Resource Leads (BRRs) to develop discrete regional or broader training plans. Collaboration with universities or other public or private institutions with next-generation sequencing (NGS) and bioinformatics capacity to develop trainings is encouraged.
Data Elements	Number and type of trainings offered by training leads
Additional Guidance	Training Lead will report the number of trainings by course type: • Basic NGS and bioinformatics course • Intermediate NGS and bioinformatics course • Advanced NGS and bioinformatics course • Genomic epidemiology course • Other courses (please specify)
Performance Target	N/A

Recommended Data Source	Training Leads will track the number and types of trainings that they offer each year.
Reporting Portal	ELC CAMP.
Reporting Frequency	Annually (All ACTIVE measures will be reported by the end of March following the calendar year from when they were collected.)

D. Advanced Molecular Detection (AMD)	
Performance Measure Number & Name	PM.2 Training participants will report the number and percent of AMD staff who completed at least one AMD-related training.
Type	Process measure (Active)
Associated Outcome(s)	Establishing and/or enhancing workforce competencies and capabilities in genomic and metagenomic sequencing, bioinformatics, and molecular epidemiology.
Associated Strategy(s)	Enhance workforce capacity
Rationale	We intend to learn how many AMD staff complete training and are trained in bioinformatics/NGS. The data collected from these measures will be used to determine regional training needs and to assess additional opportunities for cross-regional collaboration.
Data Elements	Number and type of trainings completed
Additional Guidance	Training Participants will report the number and percentage of AMD staff: Who completed at least one AMD-related training To calculate percentage: • Numerator will be number of Training Participants completing at least one AMD-related training • Denominator will be total number of Training Participants
Recommended Data Source	Training Participants will track the number and percent of AMD staff who complete at least one AMD-related training and track the number of AMD staff trained to perform bioinformatics/NGS data analysis techniques.
Performance Target	N/A
Reporting Portal	ELC CAMP.
Reporting Frequency	Annually

D. Advanced Molecular Detection (AMD)	
Performance Measure Number & Name	PM.3 Number of in-person and virtual consultations completed by Bioinformatics Regional Resources (BRR)
Type	Process measure (Active)
Associated Outcome(s)	Enhanced collaborations between epidemiology/laboratory and regional/local public health departments to expand the knowledge base for AMD technologies and pathogen genomics.
Associated Strategy(s)	Enhance workforce capacity
Rationale	We intend to learn how many consultations are completed by BRRs. The data collected from these measures will be used to determine regional training needs and to assess additional opportunities for cross-regional collaboration.
Data Elements	Number and type of consultation completed by BRRs
Additional Guidance	BRRs will report the number of regional bioinformatics and technical support consultations involving workforce development and/or training specified by: • In-person • Virtual
Recommended Data Source	BRRs will track the number of in-person consultations
Performance Target	N/A
Reporting Portal	ELC CAMP.
Reporting Frequency	Annually (All active measures will be reported by the end of March following the calendar year from when they were collected.)

E. National Wastewater Surveillance System

Project E does not have any Performance Measures in BP1.

F. Emerging Issues

Project F does not have any Performance Measures in BP1.

Section II: Emerging Infectious Disease Programs

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention

Points of Contact: Frances Tilashalski, moi0@cdc.gov; Anna Newton, ivz9@cdc.gov

List of Performance Measures and Passive Indicators

PM.1 Total number of isolates and isolate-yielding specimens received in the public health lab (PHL)

PM.2 Culture-independent diagnostic tests (CIDT) measures for *Campylobacter*, *Salmonella*, *Shigella*, and STEC

PM.3 Number and percent of outbreaks (≥ 2 specimens) tested for norovirus

PM.4 Number and percent of outbreaks (≥ 2 specimens) sequenced for norovirus

PM.5 Frequency (e.g., weekly, monthly, quarterly) of meetings between epidemiology and laboratory staff on norovirus outbreaks

PM.6 Has your jurisdiction instituted any changes to food safety regulations/statutes in the last calendar year (Y/N)? If yes, describe briefly.

PM.7 Number of clinical laboratories reporting norovirus, rotavirus, and adenovirus 40/41 test data into National Respiratory and Enteric Virus Surveillance System (NREVSS)

PM.8 Number of clinical laboratories submitting norovirus positive specimens and/or rotavirus positive specimens for further confirmation and genotyping

PM.9 Number of norovirus positive specimens submitted to the state laboratory for genotyping and/or rotavirus positive specimens submitted to the state laboratory for forwarding to CDC

PM.10 Number of individuals trained by the PulseNet Area Lab from other laboratories in the area for whole genome sequencing (WGS) wet lab and/or data analysis

PM.11 Number of isolates for which WGS testing was done for other laboratories by the PulseNet Area Lab

PM.12 Number of harmful algal bloom (HAB) events and associated illnesses investigated

PM.13 Number of HAB-associated outbreaks reported to both one health harmful algal bloom system (OHHABS) and NORS

PM.14 Webpages or other resources made available to support public health surveillance, response, or mitigation of HAB impacts

PI.1 Proportion of clinical isolates in multistate outbreaks with epidemiologic data submitted

PI.2 Median time (in days) from date of notification to completion using an outbreak-specific questionnaire disseminated by CDC

PI.3 Proportion of clinical isolates in multistate outbreaks with race and ethnicity data submitted to CDC

PI.4 Timeliness and completeness of data reported to CDC surveillance systems for cases of botulism, cholera and vibriosis (COVIS), cryptosporidiosis, listeriosis (*Listeria* Initiative), and *Salmonella* Typhi and Paratyphi infection (National Typhoid and Paratyphoid Fever Surveillance -NTPFS)

PI.5 Number of outbreak-associated (including zoonotic links/animal involvement) and sporadic *Cryptosporidium* specimens or molecular data submitted to CDC for typing

PI.6 Number of and percent of CDC submitted specimens with completed CryptoNet forms submitted to CDC CryptoNet

PI.7 Whole genome sequencing (WGS) measures for *E. coli* O157:H7, Non-O157 STEC, *Listeria*, *Salmonella*, *Cronobacter*, *Campylobacter*, *Shigella*, *Vibrio cholerae*, Non-cholerae *Vibrio*

PI.8 Proportion and timeliness of isolates submitted to CDC for National Antimicrobial Resistance Monitoring System for Enteric Bacteria (NARMS) antimicrobial susceptibility testing, with sampling targets based on

established guidelines

PI.9 Timeliness and completeness of data reported to One Health Harmful Algal Bloom System (OHHABS)

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Performance Measure Number & Name	PM.1 Total number of isolates and isolate-yielding specimens received in the public health lab (PHL)
Type	Process (Active)
Associated Outcome(s)	Utilize modern laboratory techniques for surveillance, detection, and response
Associated Strategy(s)	Tier 1: Strengthen laboratory testing for surveillance, detection, preparedness, and response
Rationale	This measure will be used to evaluate the overall burden of isolate submission at the PHL over time. These data are used as the denominators for multiple program evaluation calculations (e.g., PulseNet, National Antimicrobial Resistance Monitoring System (NARMS), and other evaluations of completeness and timeliness).
Data Elements	Total number of isolates and isolate-yielding specimens received in the public health lab For pathogens: a. *E. coli* O157 b. Non-O157 Shiga toxin producing *E. coli* (STEC) c. *Listeria* d. *Salmonella* (including all subtypes) 1. Nontyphoidal *Salmonella* only (including ser. Paratyphi B and any untyped *Salmonella)* 2. *Salmonella* ser. Typhi only 3. *Salmonella* ser. Paratyphi A only 4. *Salmonella* ser. Paratyphi C only e. *Shigella* f. *Campylobacter* g. *Vibrio cholerae* h. Non-cholerae *Vibrio* j. *Cronobacter*
Additional Guidance	For *Salmonella*, d. should be the total number of all *Salmonella* (all subtypes and any untyped) and should be fully inclusive of the sub-bullets/specified types; the sub-bullets should total to the value in d. Isolate and isolate-yielding specimens will include all isolates (clinical/human and non-clinical/food, environmental, and other isolates etc.) submitted to PHL and isolates recovered from specimens submitted to the PHL. Data will be reported separately for clinical/human and all non-clinical/other sources (e.g., two categories).
Recommended Data Source	BioNumerics/LIMS/PulseNet database (recipient dependent)

Performance Target	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Performance Measure Number & Name	PM.2 Culture-independent diagnostic tests (CIDT) measures for *Campylobacter*, *Salmonella*, *Shigella*, and STEC
Type	Process (Active)
Associated Outcome(s)	Utilize modern laboratory techniques for surveillance, detection, and response
Associated Strategy(s)	Tier 1: Strengthen laboratory testing for surveillance, detection, preparedness, and response
Rationale	This measure will be used to evaluate burden of CIDT and pathogen isolation at the public health lab (PHL). These data indicate the volume of additional testing at PHLs and the percent positivity yield from those activities.
Data Elements	1. Total number of preliminary positive clinical specimens or samples (including, but not limited to CIDT) received in the public health lab (regardless of if isolate-yielding or not) For pathogens: a. *Campylobacter* b. *Salmonella* c. *Shigella* d. STEC 2. Number and percent of clinical specimens or samples that yielded isolates For pathogens: a. *Campylobacter* b. *Salmonella* c. *Shigella* d. STEC
Additional Guidance	N/A

Recommended Data Source	BioNumerics/LIMS/PulseNet database (recipient dependent)
Performance Target	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Performance Measure Number & Name	PM.3 Number and percent of outbreaks (≥ 2 specimens) tested for norovirus
Type	Process (Active)
Associated Outcome(s)	Utilize modern laboratory techniques for surveillance, detection, and response
Associated Strategy(s)	Tier 1: Strengthen laboratory testing for surveillance, detection, preparedness, and response
Rationale	This measure will be used to evaluate the overall burden of norovirus specimen submission and testing at the public health lab (PHL). These data will be used to determine the proportion of norovirus outbreaks with likely foodborne transmission.
Data Elements	1. Total number of outbreaks tested for norovirus 2. Number of tested norovirus outbreaks with likely foodborne transmission 3. Percentage of tested norovirus outbreaks with likely foodborne transmission a. *Denominator:* Total number of outbreaks tested for norovirus (use #1 as denominator) b. *Numerator:* Number of outbreaks tested for norovirus with likely foodborne transmission (use #2 as numerator)
Additional Guidance	Outbreaks are defined as 2 or more specimens.
Recommended Data Source	Surveillance system/BioNumerics/LIMS/CaliciNet database (recipient dependent)
Performance Target	N/A

Reporting Portal	ELC CAMP

Reporting Frequency	Annually

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Performance Measure Number & Name	PM.4 Number and percent of outbreaks (≥ 2 specimens) sequenced for norovirus
Type	Process (Active)
Associated Outcome(s)	Utilize modern laboratory techniques for surveillance, detection, and response
Associated Strategy(s)	Tier 1: Strengthen laboratory testing for surveillance, detection, preparedness, and response
Rationale	This measure will be used to evaluate the overall burden of norovirus specimen subtyping at the PHL. These data will be used to determine the proportion of norovirus outbreaks with sequencing data that had likely foodborne transmission.
Data Elements	1. Total number of outbreaks sequenced for norovirus 2. Number of outbreaks sequenced for norovirus with likely foodborne transmission 3. Percentage of outbreaks sequenced for norovirus with likely foodborne transmission a. *Denominator:* total number of outbreaks sequenced for norovirus (use #1 for denominator) b. *Numerator:* Number of outbreaks sequenced for norovirus with likely foodborne transmission (use #2 for the numerator)
Additional Guidance	Outbreaks are defined as 2 or more specimens.
Recommended Data Source	Surveillance system/BioNumerics/LIMS/CaliciNet database (recipient dependent)
Performance Target	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Performance Measure Number & Name	PM.5 Frequency (e.g., weekly, monthly, quarterly) of meetings between epidemiology and laboratory staff on norovirus outbreaks
Type	Process (Active)
Associated Outcome(s)	More effective and integrated public health workforce better prepared to respond to infectious disease threats
Associated Strategy(s)	• Tier 1: Improve surveillance, reporting, investigation, preparedness, and response • Tier 1: Strengthen laboratory testing for surveillance, detection, preparedness, and response
Rationale	This measure will be used to evaluate collaboration between epidemiology and laboratory staff. This will ensure data are shared efficiently and timely between epidemiology and laboratory staff in order to complete norovirus outbreak investigations.
Data Elements	Select the frequency of meetings between epidemiology and laboratory staff on norovirus outbreaks: a. Weekly b. Monthly c. Quarterly d. Other (specify)
Additional Guidance	This measure only applies to recipients funded for CaliciNet.
Recommended Data Source	Site-specific work plan
Performance Target	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Performance Measure Number & Name	PM.6 Has your jurisdiction instituted any changes to food safety regulations/statutes in the last calendar year (Y/N)? If yes, describe briefly.
Type	Process (Active)

Associated Outcome(s)	Improved use of data to: • Develop and implement public health best practices and/or guidelines • Inform program policy development • Develop and implement strong public health interventions, tools, and policies
Associated Strategy(s)	Tier 1: Implement public health interventions and tools
Rationale	This measure will be used to evaluate the adoption of current food safety regulations and/or statutes. These data will be used to identify gaps and successes in adoption.
Data Elements	1. Indicate whether your jurisdiction has instituted any changes to food safety regulations/statutes (Yes or No) 2. If yes, describe briefly
Additional Guidance	If changes to food safety regulations/statues have been made, jurisdictions can summarize recent changes and/or provide links to most recent language on public facing websites. Changes may include adoption/updates to Food Code regulations, agency protocols, protocols for illness among high-risk occupations/setting, etc.
Recommended Data Source	Site-specific work plan
Performance Target	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Performance Measure Number & Name	PM.7 Number of clinical laboratories reporting norovirus, rotavirus, and adenovirus 40/41 test data into National Respiratory and Enteric Virus Surveillance System (NREVSS)
Type	Process (Active)
Associated Outcome(s)	• Conduct surveillance and analyze, compile, and disseminate data • Improved surveillance resulting in improved completeness, accuracy, and representativeness of data
Associated Strategy(s)	Tier 2 NREVSS Enhanced: Improve sporadic enteric virus surveillance/testing

Rationale	This measure will be used to evaluate participation of clinical laboratories in NREVSS.

Data Elements	Total number of clinical laboratories in your jurisdiction reporting aggregate diagnostic results for norovirus, rotavirus, and adenovirus 40/41 directly or indirectly into NREVSS
Additional Guidance	This measure only applies to recipients funded at the Tier 2 level for NREVSS Enhanced.
Recommended Data Source	Site-specific work plan
Performance Target	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Performance Measure Number & Name	PM.8 Number of clinical laboratories submitting norovirus positive specimens and/or rotavirus positive specimens for further confirmation and genotyping
Type	Process (Active)
Associated Outcome(s)	• Conduct surveillance and analyze, compile, and disseminate data • Improved surveillance resulting in improved completeness, accuracy, and representativeness of data
Associated Strategy(s)	Tier 2 NREVSS Enhanced: Improve sporadic enteric virus surveillance/testing
Rationale	This measure will be used to evaluate the number of clinical laboratories participating in NREVSS Enhanced.
Data Elements	1. Total number of clinical laboratories in your jurisdiction submitting norovirus positive specimens for further confirmation and genotyping at the state public health laboratory. 2. Total number of clinical laboratories in your jurisdiction submitting rotavirus positive specimens for further confirmation and genotyping at CDC.
Additional Guidance	This measure only applies to recipients funded at the Tier 2 level for NREVSS Enhanced.
Recommended Data Source	Site-specific work plan

Performance Target	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Performance Measure Number & Name	PM.9 Number of norovirus positive specimens submitted to the state laboratory for genotyping and/or rotavirus positive specimens submitted to the state laboratory for forwarding to CDC.
Type	Process (Active)
Associated Outcome(s)	• Conduct surveillance and analyze, compile, and disseminate data • Improved surveillance resulting in improved completeness, accuracy, and representativeness of data
Associated Strategy(s)	Tier 2 NREVSS Enhanced: Improve sporadic enteric virus surveillance/testing
Rationale	This measure will be used to evaluate the burden of norovirus genotyping at the state public health laboratory.
Data Elements	1. Total number of norovirus positive specimens submitted to the state public health laboratory for genotyping. 2. Total number of rotavirus positive specimens submitted to the state public health laboratory for forwarding to CDC.
Additional Guidance	This measure only applies to recipients funded at the Tier 2 level NREVSS Enhanced.
Recommended Data Source	Site-specific work plan
Performance Target	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Performance Measure Number & Name	PM.10 Number of individuals trained by the PulseNet Area Lab from other laboratories in the area for whole genome sequencing (WGS) wet lab and/or data analysis
Type	Process (Active)
Associated Outcome(s)	Utilize modern laboratory techniques for surveillance, detection, and response
Associated Strategy(s)	Tier 2: PulseNet Area Laboratories
Rationale	This measure will be used to evaluate the burden of workforce training at PulseNet Area Labs.
Data Elements	Total number of individuals your lab trained from other laboratories in your area for WGS wet lab and/or data analysis
Additional Guidance	This measure only applies to recipients funded at the Tier 2 level for PulseNet Area Labs.
Recommended Data Source	Site-specific work plan
Performance Target	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Performance Measure Number & Name	PM.11 Number of isolates for which WGS testing was done from other laboratories by the PulseNet Area Lab
Type	Process (Active)
Associated Outcome(s)	Utilize modern laboratory techniques for surveillance, detection, and response
Associated Strategy(s)	Tier 2: PulseNet Area Laboratories

Rationale	This measure will be used to evaluate burden of isolate submission for WGS to the PulseNet Area Lab.
Data Elements	Total number of isolates for which WGS testing was done from other laboratories in your area
Additional Guidance	This measure only applies to recipients funded at the Tier 2 level for PulseNet Area Labs.
Recommended Data Source	BioNumerics/LIMS/PulseNet database (recipient dependent)
Performance Target	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Performance Measure Number & Name	PM.12 Number of harmful algal bloom (HAB) events and associated illnesses investigated
Type	Process (Active)
Associated Outcome(s)	Conduct surveillance and analyze, compile, and disseminate data
Associated Strategy(s)	Tier 2: Harmful Algal Bloom (HAB) Surveillance, Response, and Mitigation
Rationale	This measure will be used to evaluate the burden of event and case investigations in the recipient jurisdiction/region.
Data Elements	1. Number of suspected HAB events that involved a public health component of the investigation or response 2. Number of suspected HAB-associated human illnesses investigated 3. Number of suspected HAB-associated animal illnesses investigated
Additional Guidance	This measure only applies to recipients funded at the Tier 2 HAB Level.
Recommended Data Source	Surveillance systems and site-specific work plans

Performance Target	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Performance Measure Number & Name	PM.13 Number of HAB-associated outbreaks reported to both one health harmful algal bloom system (OHHABS) and NORS
Type	Process (Active)
Associated Outcome(s)	Conduct surveillance and analyze, compile, and disseminate data
Associated Strategy(s)	Tier 2: Harmful Algal Bloom (HAB) Surveillance, Response, and Mitigation
Rationale	This measure will be used to evaluate the burden and completeness of reporting between HAB-associated case and outbreak reporting systems. Currently, this measure cannot be determined based on reports entered in NORS and OHHABS due to differences in the types of reports received, reporting schedules, and optional use of linking fields in each system.
Data Elements	1. Number of HAB-associated foodborne or waterborne outbreaks reported to NORS 2. Number of HAB-associated outbreaks that were reported in both OHHABS (i.e., as a report with multiple cases) and NORS (i.e., as an outbreak report)
Additional Guidance	This measure only applies to recipients funded at the Tier 2 HAB Level. Use of the linking fields between OHHABS (Other Systems fields) and NORS (OHHABS linking fields) support reporting of this information. These data elements will be used, by CDC, in combination with other Tier 2 HAB measures to determine the proportion of HAB event investigations reported to NORS and OHHABS.
Recommended Data Source	OHHABS, NORS, and jurisdiction surveillance systems
Performance Target	N/A
Reporting Portal	ELC CAMP

Reporting Frequency	Annually

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Performance Measure Number & Name	PM.14 Webpages or other resources made available to support public health surveillance, response, or mitigation of HAB impacts
Type	Process (Active)
Associated Outcome(s)	• Improved surveillance resulting in: o Improved completeness, accuracy, and representativeness of data o Increased use of data and distribution to public health partners, communities, and other types of partners • Improved use of data to: o Inform public health response and control o Develop and implement public health best practices and/or guidelines o Inform program policy development
Associated Strategy(s)	Tier 2: Harmful Algal Bloom (HAB) Surveillance, Response, and Mitigation
Rationale	This measure will be used to evaluate availability of public health information on HABs to target audiences. These data will be used to inform program discussions and collaboration between public health partners.
Data Elements	1. Has your jurisdiction updated or created new HAB resources to support public health surveillance, response, or mitigation of health impacts were posted online for specific audiences (Yes/No) 2. If yes, select all that apply: a. General public b. Animal owners (e.g., pets, livestock) c. Health care professionals d. Animal health professionals (e.g., veterinarians) e. Environmental health professionals
Additional Guidance	This measure only applies to recipients funded at the Tier 2 level.
Recommended Data Source	Site-specific work plan
Performance Target	N/A
Reporting Portal	ELC CAMP

Reporting Frequency	Annually

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Passive Indicator Number & Name	PI.1 Proportion of clinical isolates in multistate outbreaks with epidemiologic data submitted
Type	Process (Passive)
Associated Outcome(s)	More timely, complete, and effective investigation efforts to: • Respond to outbreaks • Investigate outbreaks • Implement control measures
Associated Strategy(s)	Improve lab surveillance, reporting, investigation, preparedness, and response
Rationale	To evaluate the completeness of interviewing during multistate outbreak investigations
Data Elements	Data from System for Enteric Disease Response, Investigation and Coordination (SEDRIC)
Additional Guidance	N/A
Recommended Data Source	Data from SEDRIC
Performance Target	N/A
Reporting Portal	Passive Measure - Data routinely reported for surveillance and investigation purposes will be used for this measure. (If data is NOT reported directly to ELC, please respond “Passive Measure” together with the source from which the data will be obtained. If data IS directly reported to ELC but is entered into a program-specific repository, please provide the URL or other identifying information for the reporting portal.)
Reporting Frequency	N/A

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Passive Indicator Number & Name	PI.2 Median time (in days) from date of notification to completion using an outbreak-specific questionnaire disseminated by CDC
Type	Process (Passive)
Associated Outcome(s)	More timely, complete, and effective investigation efforts to: • Respond to outbreaks • Investigate outbreaks • Implement control measures
Associated Strategy(s)	Improve lab surveillance, reporting, investigation, preparedness, and response
Rationale	To evaluate the timeliness of interviewing during multistate outbreak investigations
Data Elements	Data from SEDRIC
Additional Guidance	N/A
Recommended Data Source	Data from SEDRIC
Performance Target	N/A
Reporting Portal	Passive Measure – Data routinely reported for surveillance and investigation purposes will be used for this measure. (If data is NOT reported directly to ELC, please respond "Passive Measure" together with the source from which the data will be obtained. If data IS directly reported to ELC but is entered into a program-specific repository, please provide the URL or other identifying information for the reporting portal.)
Reporting Frequency	N/A

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Passive Indicator Number & Name	PI.3 Proportion of clinical isolates in multistate outbreaks with race and ethnicity data submitted to CDC
Type	Process (Passive)
Associated Outcome(s)	• More timely, complete, and effective investigation efforts to: o Respond to outbreaks

	○ Investigate outbreaks ○ Implement control measures • Improved use of data to: ○ Inform public health response and control ○ Develop and implement public health best practices and/or guidelines ○ Inform program policy development
Associated Strategy(s)	Improve surveillance, reporting, investigation, preparedness, and response
Rationale	To evaluate the completeness of interviewing data during multistate outbreak investigations
Data Elements	Data from System for Enteric Disease Response, Investigation and Coordination (SEDRIC)
Additional Guidance	N/A
Recommended Data Source	Data from SEDRIC
Performance Target	N/A
Reporting Portal	Passive Measure – Data routinely reported for surveillance and investigation purposes will be used for this measure. (If data is NOT reported directly to ELC, please respond "Passive Measure" together with the source from which the data will be obtained. If data IS directly reported to ELC but is entered into a program-specific repository, please provide the URL or other identifying information for the reporting portal.)
Reporting Frequency	N/A

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Passive Indicator Number & Name	PI.4 Timeliness and completeness of data reported to CDC surveillance systems for cases of botulism, cholera and vibriosis (COVIS), cryptosporidiosis, listeriosis (*Listeria* Initiative), and *Salmonella* Typhi and Paratyphi infection (National Typhoid and Paratyphoid Fever Surveillance - NTPFS)
Type	Process (Passive)
Associated Outcome(s)	Conduct surveillance and analyze, compile, and disseminate data

Associated Strategy(s)	Improve surveillance, reporting, investigation, preparedness, and response

Rationale	To evaluate the completeness and timeliness of national case surveillance data and reporting
Data Elements	Data collected for surveillance and submitted to national surveillance systems including patient demographics, epidemiology, clinical data, laboratory data, food history, and seafood traceback.
Additional Guidance	N/A
Recommended Data Source	Data submitted to national surveillance systems (COVIS, *Listeria* Initiative, NTPFS, and botulism)
Performance Target	N/A
Reporting Portal	Passive Measure – Data routinely reported to national surveillance systems will be used for this measure. (If data is NOT reported directly to ELC, please respond "Passive Measure" together with the source from which the data will be obtained. If data IS directly reported to ELC but is entered into a program-specific repository, please provide the URL or other identifying information for the reporting portal.)
Reporting Frequency	N/A

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Passive Indicator Number & Name	PI.5 Number of outbreak-associated (including zoonotic links/animal involvement) and sporadic *Cryptosporidium* specimens or molecular data submitted to CDC for typing
Type	Process (Passive)
Associated Outcome(s)	Utilize modern laboratory techniques for surveillance, detection, and response
Associated Strategy(s)	Strengthen laboratory testing for surveillance, detection, preparedness, and response
Rationale	Evaluate laboratory surveillance for cryptosporidiosis
Data Elements	*Cryptosporidium* specimens or molecular data for *Cryptosporidium* submitted to CDC CryptoNet
Additional Guidance	N/A
Recommended Data Source	Data submitted to CDC CryptoNet

Performance Target	N/A
Reporting Portal	Passive Measure – Data routinely reported to CrypotNet will be used for this measure. (If data is NOT reported directly to ELC, please respond "Passive Measure" together with the source from which the data will be obtained. If data IS directly reported to ELC but is entered into a program-specific repository, please provide the URL or other identifying information for the reporting portal.)
Reporting Frequency	N/A

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Passive Indicator Number & Name	PI.6 Number and percent of CDC submitted specimens with completed CryptoNet forms submitted to CDC CryptoNet
Type	Process (Passive)
Associated Outcome(s)	• Conduct timely investigations • Conduct surveillance and analyze, compile, and disseminate data • Utilize modern laboratory techniques for surveillance, detection, and response
Associated Strategy(s)	• Strengthen laboratory testing for surveillance, detection, preparedness, and response • Improve surveillance, reporting, investigation, preparedness, and response
Rationale	Evaluate completeness of laboratory and epidemiologic surveillance for cryptosporidiosis
Data Elements	Data submitted to CDC CryptoNet
Additional Guidance	N/A
Recommended Data Source	Data submitted to CDC CryptoNet
Performance Target	N/A
Reporting Portal	Passive Measure – Data routinely reported to CryptoNet will be used for this measure. (If data is NOT reported directly to ELC, please respond "Passive Measure" together with the source from which the data will be obtained. If data IS directly reported to ELC but is entered into a program-specific repository, please provide the URL or other identifying information for the reporting portal.)

Reporting Frequency	N/A

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Passive Indicator Number & Name	PI.7 Whole genome sequencing (WGS) measures for *E. coli* O157:H7, Non-O157 STEC, *Listeria*, *Salmonella*, *Cronobacter*, *Campylobacter*, *Shigella*, *Vibrio cholerae*, Non-cholerae *Vibrio*
Type	Process (Passive)
Associated Outcome(s)	Utilize modern laboratory techniques for surveillance, detection, and response
Associated Strategy(s)	Strengthen laboratory testing for surveillance, detection, preparedness, and response
Rationale	Evaluate timeliness and completeness of laboratory surveillance
Data Elements	Data submitted to PulseNet National Database
Additional Data Elements	These measures will be calculated using data submitted to PulseNet in combination with the denominator data submitted in ACTIVE MEASURE G-PM.1
Recommended Data Source	Data submitted to PulseNet National Database
Performance Target	Based on NARMS pathogen-specific sampling schemes (email enterobacteria@cdc.gov for isolate submission table)
Reporting Portal	Passive Measure - Data routinely reported to PulseNet National Database will be used for this measure. (If data is NOT reported directly to ELC, please respond "Passive Measure" together with the source from which the data will be obtained. If data IS directly reported to ELC but is entered into a program-specific repository, please provide the URL or other identifying information for the reporting portal.)
Reporting Frequency	N/A

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Passive Indicator Number & Name	PI.8 Proportion and timeliness of isolates submitted to CDC for National Antimicrobial Resistance Monitoring System for Enteric Bacteria (NARMS) antimicrobial susceptibility testing, with sampling targets based on established guidelines.
Type	Process (Passive)
Associated Outcome(s)	Utilize modern laboratory techniques for surveillance, detection, and response
Associated Strategy(s)	Strengthen laboratory testing for surveillance, detection, preparedness, and response
Rationale	Evaluate timeliness and completeness of NARMS surveillance
Data Elements	Data submitted to NARMS
Additional Data Elements	These measures will be calculated using data submitted to NARMS in combination with the denominator data submitted in ACTIVE MEASURE G-PM.1
Recommended Data Source	Data submitted to NARMS
Performance Target	N/A
Reporting Portal	Passive Measure - Data routinely reported to NARMS will be used for this measure. (If data is NOT reported directly to ELC, please respond "Passive Measure" together with the source from which the data will be obtained. If data IS directly reported to ELC but is entered into a program-specific repository, please provide the URL or other identifying information for the reporting portal.)
Reporting Frequency	N/A

G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention	
Passive Indicator Number & Name	PI.9 Timeliness and completeness of data reported to One Health Harmful Algal Bloom System (OHHABS)

Type	Process (Passive)
Associated Outcome(s)	Conduct surveillance and analyze, compile, and disseminate data
Associated Strategy(s)	Improve surveillance, reporting, investigation, preparedness, and response
Rationale	Evaluate timeliness and completeness of OHHABS reporting.
Data Elements	Based on data submitted to OHHABS, CDC will determine: 1. Number of OHHABS reports entered in the previous calendar year a. HAB event forms b. Human case forms

	c. Animal case forms 2. Percent of OHHABS reports entered in the previous calendar year that have been finalized a. Numerator: Number of reports finalized b. Denominator: Number of reports
Additional Guidance	N/A
Recommended Data Source	Data submitted to OHHABS
Performance Target	N/A
Reporting Portal	Passive Measure - Data reported to OHHABS will be used for this measure.
Reporting Frequency	N/A

H. Healthcare-associated Infections (HAI) and Antimicrobial Resistance (AR)

Point of Contact: haiar@cdc.gov

List of Performance Measures and Passive Indicators

PM.1	HAI/AR Antibiotic Stewardship Reporting System (RedCap) completed
PM.2	HAI/AR Project Firstline Reporting System (REDCap) completed
PM.3	Status of updates to the HAI/AR Response & Prevention Reporting System (REDCap)
PI.1*	Number of HAI/AR responses in healthcare facilities
PI.2*	Number of prevention-based IPC assessments in healthcare facilities
PI.3*	Number of healthcare facilities engaged to facilitate implementation of antibiotic stewardship activities
PI.4*	Number of individuals trained via Project Firstline
PI.5*	Total reach of promotional activities conducted for Project Firstline (email, social media, website)
PI.6*	Number and percent of staff with an updated profile in the Staffing Directory

***Note: The Program H passive indicators are summary measures drawn from HAI/AR data reported directly to DHQP via REDCap. Recipients will not report passive indicators in ELC CAMP; DHQP will summarize and provide passive indicator data to ELC. Please refer to the HAI/AR Reporting Guide for additional guidance on the HAI/AR measures.**

H. Healthcare-associated Infections (HAI) and Antimicrobial Resistance (AR)	
Performance Measure Number & Name	PM.1 HAI/AR Antibiotic Stewardship Reporting System (REDCap) completed
Type	Process (Active)
Associated Outcome(s)	• Strengthened HAI/AR expertise and capacity available throughout the jurisdiction • Improved antibiotic stewardship (AS) practices in healthcare settings, including implementation of AS core elements • Demonstrated progress towards identifying and reducing HAI/AR risk and improving health outcomes related to AS use and/or prescribing practices
Associated Strategy(s)	• Maintain organizational capacity to complete Required Tasks Area B: Prevention and Intervention • Implement Antibiotic Stewardship Efforts
Rationale	This measure will be used to confirm the HAI/AR Antibiotic Stewardship Reporting System (REDCap) has been completed by the recipient. Completing this task is essential for monitoring implementation of antibiotic stewardship activities across healthcare settings, measuring progress towards outcomes, and providing technical assistance as needed.
Data Elements	Status of the HAI/AR Antibiotic Stewardship Reporting System (REDCap) with all required data elements by the established deadline (Complete, Not complete)
Additional Guidance	See the HAI/AR Reporting Guide for definitions and periods of performance. For BP1, the performance period for submissions to the HAI/AR Antibiotic Stewardship Reporting System (REDCap) will be August through December 2024. For the subsequent years, the period of performance will include the previous 12 months (Jan – Dec).
Recommended Data Source	HAI/AR Antibiotic Stewardship Reporting System (REDCap)
Performance Target	100% of reporting completed
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

H. Healthcare-associated Infections (HAI) and Antimicrobial Resistance (AR)	
Performance Measure Number & Name	PM 2. HAI/AR Project Firstline Reporting System (REDCap) completed
Type	Process (Active)
Associated Outcome(s)	• Strengthened HAI/AR expertise and capacity available throughout the jurisdiction • • Improved infection control capacity and practices in all healthcare settings, including detection and monitoring of HAIs/AR using National Healthcare Safety Network (NHSN) • Demonstrated progress towards identifying and reducing HAI/AR risk and improving health outcomes
Associated Strategy(s)	• Maintain organizational capacity to complete Required Tasks • Communication, Coordination, and Partnerships: HAI/AR Education and Training
Rationale	This measure will be used to confirm the HAI/AR Project Firstline Reporting System (REDCap) has been completed by the recipient. Completing this task is essential for monitoring implementation of infection, prevention, and control (IPC) training and promotional activities, measuring progress towards outcomes, and providing technical assistance as needed.
Data Elements	Status of the HAI/AR Project Firstline Reporting System (REDCap) with all required data elements by the established deadline (Completed, Not complete)
Additional Guidance	See the HAI/AR Reporting Guide for definitions and periods of performance. For BP1, the performance period for submissions to the HAI/AR Project Firstline Reporting System (REDCap) will be August through December 2024. For the subsequent years, the period of performance will include the previous 12 months (Jan – Dec).
Recommended Data Source	HAI/AR Project Firstline Reporting System (REDCap)
Performance Target	100% of reporting completed
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

H. Healthcare-associated Infections (HAI) and Antimicrobial Resistance (AR)	
Performance Measure Number & Name	PM 3. Status of updates to the HAI/AR Response & Prevention Reporting System (REDCap)
Type	Process (Active)
Associated Outcome(s)	• Strengthened HAI/AR expertise and capacity available throughout the jurisdiction • Demonstrated progress towards identifying and reducing HAI/AR risk and improving health outcomes • Novel or high-concern resistance rapidly identified and contained • Timely and effective response to HAI/AR outbreaks • Reduction in HAIs/AR to protect healthcare personnel and improve patient safety across healthcare settings
Associated Strategy(s)	• Maintain organizational capacity to complete Required Tasks • Surveillance, Detection, and Response: Support containment and response related to novel/high-concern AR organisms and HAI risks • Prevention and Intervention: Implement data-driven HAI/AR prevention strategies • Communication, Coordination, and Partnerships: HAI/AR Program Workforce Capacity Building
Rationale	This measure will be used to confirm the HAI/AR Prevention and Response Reporting System (REDCap) has been completed by the recipient. Completing this task is essential for monitoring implementation of prevention and response activities, measuring progress towards outcomes, and providing technical assistance as needed.
Data Elements	Status of updates to the HAI/AR Response & Prevention Reporting System (REDCap) 1. Response and prevention focused activities (Complete, Partially complete, Not complete) 2. Novel and targeted multidrug-resistant organism (nMDRO) responses (Complete, Partially complete, Not complete) 3. Other HAI/AR responses (Complete, Partially complete, Not complete) 4. Prevention-based activities (infection control assessments and point prevalence surveys) in healthcare facilities (Complete, Partially complete, Not complete)
Additional Guidance	See the HAI/AR Reporting Guide for definitions and periods of performance. For BP1, the performance period for submissions to the HAI/AR Response and Prevention Reporting System (REDCap) will be August through December 2024. For the subsequent years, the period of performance will include the previous 12 months (Jan – Dec).
Recommended Data Source	HAI/AR Response and Prevention Reporting System (REDCap)

Performance Target	100% of reporting completed
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)

Point of Contact: arln@cdc.gov

I: Antimicrobial Resistance Laboratory Network 2024-2029 Performance Measures

Directions: Due to the new program determination status of the AR Lab Network to "I" from "G2", significant changes to the guidance domains and performance measures have been applied. The cross walk below seeks to highlight said changes and clarify reporting requirements by Tier.

Using the guidance and crosswalk below, determine the performance measures you are funded to support and populate the reporting template accordingly. All data are collected under OMB Control No: 0920-1370. If you experience any issues with access or have any questions or concerns, contact us at ARLN@cdc.gov .

Please Note:

Tier 1: Basic funding for minimum required activities as described in guidance. All activities under Tier 1 are required for all applicants. Approximate number of awards is 57.

Tier 2: Enhanced laboratory capacity (non-regional laboratories). Applying for Tier 2 is optional. Note that the number of laboratories supported will depend on available funding.

Tier 3: AR Lab Network regional laboratories. Additionally, the National TB Molecular Surveillance Center (Strategy 7) is optional, but some activities under this strategy are required for those that apply

PM Number	PM Name	Strategy Number as listed in Guidance	Tier 1	Tier 2	Tier 3	SHARP 2.0
PM.1	Routine Testing by Genera in Jurisdiction	1a-d	P	P	P	P
PM.2	Expanded Drug Susceptibility Testing (ExAST) in Jurisdiction	3a, 4c, and 5a		P	P	P
PM.3	Candida Enhanced Yeast Surveillance for Species Identification	3b and 4d		P	P	P
PM.4	Whole Genome Sequencing (WGS) of Carbapenemaes-producing AR Threats in Jurisdiction	3c and 5b		P	P	P
PM.5	*C. auris* Colonization Screening in Jurisdiction	8a and 9b		P	P	P
PM.6	Carbapenemase-Producing Organism (CPO) Screening in Jurisdiction	2, 4a-b and 9a			P	P
PM.7	Azole Resistance in Clinical *Aspergillus Fumigatus* Isolates	6a			P	
PM.8	*N. Gonorrhoeae* Whole Genome Sequencing (WGS)	6b and 14a			P	
PM.9	Gonococcal (GC) Antimicrobial Susceptibility Testing (AST) in Jurisdiction	6c			P	P

PM.10	Whole Genome Sequencing (WGS) of *S. pneumoniae*	6d and 16			P	
PM.11	*Clostridioides Difficile* (*C. difficile*) Testing in Jurisdiction	6e			P	P
PM.12	Antifungal Resistant Tinea/Dermatophytes	6f			P	
PM.13	Antimicrobial Susceptibility Testing (AST) of *H. influenzae* in Jurisdiction	6g			P	
PM.14	Molecular Mtb Testing	7a-e			P	P
PM.15	*C. auris* Whole Genome Sequencing (WGS) in Jurisdiction	3d and 5c		P	P	P
PM.16	Monitoring CRE/CRPA in Companion Animals to/from Humans	10a			P	
PM.17	Communication and Coordination of Actionable Lab Data	12c-e and 15	P		P	P
PM.18	Characterization of the Clinical Laboratory Network in Jurisdiction	12c-e and 16.	P		P	P
PM.19	Etest of *N. gonorrhoeae* in Jurisdiction	NA				P

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM.1 Routine isolate testing by genus, in jurisdiction
Type	Process (Active)
Associated Outcome(s)	Improved surveillance of AR Threats: Improved completeness, accuracy, and representativeness of data
Associated Strategy(s)	Tier 1: Enhance and sustain laboratory testing for surveillance and reporting
Rationale	Routine testing is at the core of AR Lab Network activities and this measure helps CDC understand what proportion of clinical isolates submitted are tested, which will drive technical assistance efforts and can shape CDC testing guidance.
Data Elements	1. Do you test all isolates received? a. Yes b. No

i. If no, describe any challenges or barriers to testing all isolates

2. Proportion of isolates tested in accordance to CDC protocols:
   a. Numerator: Total number of isolates tested
   b. Denominator: Total number of isolates received
   c. Calculated: Percent of isolates tested

3. Number of isolates tested at the AR Lab, by genus *(if Candida, then by species) (for regional laboratories, please also include the state of origin):*

Genera/Species Name	Number of Isolates Submitted	If applicable: State of Origin

4. For regional laboratories only: include number of isolates forwarded by state/local AR Lab Network laboratories to regional laboratory for testing

Name of Submitting State	Number of Isolates Sent

Additional Guidance	Tier 1: include carbapenem-resistant Enterobacterales (CRE) (at least *E. coli*, *Enterobacter*, and *Klebsiella*) and drug-resistant carbapenemase-producing *Pseudomonas aeruginosa* (CRPA) isolates, as recommended, and updated annually by CDC and carbapenem-resistant *Acinetobacter baumannii* (CRAB) Tier 2: include *Candida* spp. (if applicable) and expanded breadth of CRE testing to include at least *Citrobacter*, *Providencia*, *Proteus*, and *Serratia*, in addition to target genera described under Tier 1 Tier 3: include *S. pneumoniae*, in addition to target genera described under Tiers 1 and 2
Performance Target	N/A
Recommended Data Source	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM.2 Expanded drug susceptibility testing (ExAST) in jurisdiction
Type	Outcome (Active)

Associated Outcome(s)	Enhanced molecular surveillance of AR threats
Associated Strategy(s)	Tier 3: Expand and sustain AR lab testing for response
Rationale	Expanded Antimicrobial Susceptibility testing is an important part of informing clinical treatment decisions. This measure helps inform the scope of expanded AST and AFST activities, summarize key findings, and assess compliance with current guidance.
Data Elements	*Proportion of isolates tested for expanded drug susceptibility (ExAST) with results returned to submitter, in accordance with timeline specific in CDC guidance.* 1. For metallo beta-lactamase (MBL)-producing CRE isolates requiring testing against aztreonam-avibactam drugs (within 3 days of isolate receipt at the public health laboratory): a. Numerator: number of isolates tested for ExAST with results reported back to submitter within 3 days of receiving isolate b. Denominator: total number of isolates tested for ExAST c. Calculated: percent of isolates tested for expanded drug susceptibility (ExAST) with results returned to submitter within 3 days of receiving isolate <u>*Candida* Antifungal Susceptibility Testing (AFST):</u> 2. Total number of *Candida* isolates tested for Antifungal Susceptibility 3. Proportion of resistant isolates by species and drug class as indicated according to guidance: a. Numerator: number of resistant *Candida* isolates per species according to guidance b. Denominator: total *Candida* isolates tested per species according to guidance c. Calculated: percent of resistant *Candida* isolates per species 4. Median number and range from *Candida* isolate availability at public health laboratory (from isolate submission or culture of a swab) to communication of test result a. Median (in days) b. Range (in days)
Additional Guidance	Supplemental guidance will be provided that expands on recommended test methods and algorithms
Performance Target	N/A
Recommended Data Source	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM.3 *Candida* enhanced yeast surveillance for species identification
Type	Outcome (Active)
Associated Outcome(s)	Improved surveillance of AR Threats: Improved completeness, accuracy, and representativeness of data
Associated Strategy(s)	• Tier 1: Enhance and sustain laboratory testing for surveillance and reporting • Tier 2: Expand and sustain AR Lab testing and reporting
Rationale	Providing accurate and timely identification of yeasts is important to track and respond to antifungal threats. The purpose of the measure is to better understand the scope of the testing provided and compliance with current guidance.
Data Elements	1. Total number of yeast isolates tested for species identification, by the AR Lab Network lab. 2. Median number and range from specimen receipt at public health laboratory to communication of test result: a. Median (in days) b. Range (in days)
Additional Guidance	Supplemental guidance will be provided that expands on recommended test methods and algorithms
Performance Target	5 days
Recommended Data Source	Laboratory Information Management System (LIMS)
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM.4 Whole genome sequencing (WGS) of carbapenemase-producing AR threats in jurisdiction
Type	Outcome (Active)

Associated Outcome(s)	Enhanced molecular surveillance of AR threats
Associated Strategy(s)	Tier 2: Expand and sustain AR Lab testing and reporting
Rationale	Whole genome sequencing is a powerful tool and leveraging it for AR Lab Network activities is a priority for CDC. This measure allows the CDC program to identify potential issues with testing methodology, which drives technical assistance efforts and helps to ensure that the data are uploaded in a timely manner to National Center for Biotechnology Information (NCBI), which is (a requirement for this activity).
Data Elements	1. Proportion of prioritized isolates (CPOs, or other healthcare-associated organisms prioritized by CDC) that are tested by WGS and passed quality control (QC) in accordance with CDC protocol: a. Numerator: Number of prioritized isolates tested by WGS that passed QC (see guidance for sequencing priorities and QC) b. Denominator: Total number of prioritized isolates tested by WGS c. Calculated: Percent of prioritized isolates (CPOs or other healthcare-associated organisms prioritized by CDC) tested by WGS that passed QC 2. Number and type of targeted organisms (i.e., healthcare-associated organisms prioritized by CDC) tested by WGS: a. Number of prioritized organisms tested by WGS b. Type of prioritized organisms tested by WGS 3. Median number and range from date of sequencing completion to upload of sequence data to NCBI**:** a. Median (in days) b. Range (in days) 4. Median number and range from date of sequencing completion to recording the HAI WGS ID or SRR-accession number LIMS: a. Median (in days) b. Range (in days) 5. Describe challenges or barriers to sequencing prioritized isolates in accordance with CDC guidelines.
Additional Guidance	Refer to the General Guidance for WGS of HAI/AR Pathogens Document for more information about performance targets and targeted organisms for sequencing
Performance Target	1. 90% Passing QC 3. 10 Business Days from sequence generation to NCBI Upload 4. 10 Business days from sequence generation to recording HAI WGS or SRR in LIMS
Recommended Data Source	LIMS
Reporting Portal	ELC CAMP

Reporting Frequency	Annually

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM.5 *C. Auris* colonization screening in jurisdiction
Type	Outcome (Active)
Associated Outcome(s)	Rapid identification and containment of AR threats including novel resistance, especially in facilities lacking in resources (in the form of laboratory testing capacity and/or expertise) or located in underserved communities.
Associated Strategy(s)	• Tier 2: Expand and sustain AR Lab testing and reporting • Tier 3: Expand and sustain AR lab testing for response
Rationale	*Candida auris* colonization screening is important tool to inform infection control and prevention efforts. This measure helps CDC understand the scope of *C. auris* screening activities at the public health labs, evaluate compliance with existing guidance and inform technical assistance and coordination efforts.
Data Elements	1. Total number of specimens (colonization screening swabs) tested 2. Total number of colonization screening swabs positive for *C. auris* 3. Median number and range from specimen receipt at public health laboratory to communication of test result: a. Median (in days) b. Range (in days) 4. Describe any challenges with reporting colonization testing results back to submitter within required timeframe. 5. Describe challenges or barriers to testing all swabs.
Additional Guidance	Supplemental guidance will be provided that expands on recommended test methods and algorithms
Performance Target	5 days
Recommended Data Source	Laboratory Information Management System (LIMS)
Reporting Portal	ELC CAMP

Reporting Frequency	Annually

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM.6 Carbapenemase-producing organism (CPO) screening in jurisdiction
Type	Outcome (Active)
Associated Outcome(s)	Improved coordination and information sharing with epidemiology, laboratory, and prevention partners to support outbreak response and prevention efforts
Associated Strategy(s)	Tier 3: Expand and sustain AR lab testing for response
Rationale	The initiation of CPO screening is an efficient practice to rapidly identify and implement infection control measures. Previously limited to regional labs, SHARP funding has expanded the practice of CPO screening to bedside at healthcare settings and other state laboratories. Results from this measure will help us identify screening trends and challenges, which will inform communication and coordination efforts.
Data Elements	1. Proportion of colonization swabs (For CPOs) tested with results returned to submitter, in accordance with timeline per CDC guidance: a. Numerator: Number of swabs tested for CPOs with results reported back to submitter within designated turnaround time (TAT) target b. Denominator: Total number of swabs tested for CPOs c. Calculated: Percent of CPO colonization swabs tested with results returned to submitter 2. Median number and range from specimen receipt at public health laboratory to communication of test result: a. Median (in days) b. Range (in days) 3. Describe any challenges with reporting colonization testing results back to submitter within required timeframe 4. Describe challenges or barriers to testing all swabs.
Additional Guidance	Turnaround time target for screening via cepheid is 2 days from receipt of swab. Turnaround time target for culture-based screening is 7 days from receipt of swab.
Performance Target	N/A
Recommended Data Source	N/A

Reporting Portal	ELC CAMP

Reporting Frequency	Annually

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM.7 Azole resistance in clinical *Aspergillus Fumigatus* isolates
Type	Outcome (Active)
Associated Outcome(s)	Timely and effective response to AR outbreaks that occur in healthcare and community settings
Associated Strategy(s)	Tier 3: Implement or maintain additional laboratory capacity (some regional laboratories)
Rationale	To better understand the scope of laboratory activities performed to identify azole resistant *Aspergillus fumigatus*, summarize findings and evaluate compliance with guidance.
Data Elements	1. Total number of clinical *A. fumigatus* isolates tested for Azole Resistance 2. Total number of Azole resistant *A. fumigatus* isolates identified according to CDC guidance. 3. Median number and range from specimen receipt at public health laboratory to communication of test result: a. Median (in days) b. Range (in days)
Additional Guidance	Supplemental guidance will be provided that expands on recommended test methods and algorithms
Performance Target	Median 20 days
Recommended Data Source	Laboratory Information Management System (LIMS)
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM.8 *N. Gonorrhoeae* whole genome sequencing (WGS)
Type	Outcome (Active)
Associated Outcome(s)	Timely and effective response to AR outbreaks that occur in healthcare and community settings
Associated Strategy(s)	• Tier 3: Implement or maintain additional laboratory capacity (some regional laboratories) • Tier 3: Sustain workforce capacity to implement AR Lab Network regional laboratory activities
Rationale	To understand the volume of GC WGS being performed by regional lab partners and how well turn around times (TAT) are being met.
Data Elements	1. Total number of GC isolates selected for WGS. 2. Proportion of viable isolates for which WGS was performed successfully within 1 month of antibiotic susceptibility testing: a. Numerator: Number of genomes successfully sequenced within one month of AST completion. b. Denominator: Total number of GC isolates with AST data selected for WGS for the year. c. Calculated: Monthly percentage of viable isolates for which WGS was performed successfully within 1 month of antibiotic susceptibility testing 3. Number of laboratory staff personnel trained to proficiency to perform GC WGS.
Additional Guidance	Ensure up to 1,750 isolates per regional lab are whole genome sequenced per year and the data are submitted to CDC/DSTDP.
Performance Target	Establish or sustain laboratory capacity for *N. gonorrhoeae* resistance surveillance by performing WGS on up to 1,750 isolates annually per regional lab with a 1-month TAT, based on CDC guidance.
Recommended Data Source	LIMS
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM.9 Gonococcal (GC) antimicrobial susceptibility testing (AST) in jurisdiction
Type	Outcome (Active)
Associated Outcome(s)	Enhanced molecular surveillance of AR threats
Associated Strategy(s)	Tier 3: Implement or maintain additional laboratory capacity (some regional laboratories)
Rationale	To assess utility of new drugs added to the AST panel, nature of GC Etest requests, and compliance with AST reporting.

Contaminated Specimens				
Site:	Submitting Laboratory Site Name (pulled from question 1)	Number of contaminated specimens submitted	Number of Specimens submitted (pulled from question 1)	Calculated: Percent of contaminated specimens submitted
1				
2				

Data Elements	1. Proportion of isolates transported per program guidance to CDC: a. Numerator: Number of isolates transported to CDC b. Denominator: Total number of isolates requested c. Calculated: Percent of isolates transported upon request to CDC 2. Proportion of AST results reported to submitters within 3 weeks of submission: a. Numerator: Number of AST results reported to sentinel sites within 3 weeks of submission b. Denominator: Number of GC isolates received at AR Lab Network c. Calculated: Percentage of AST results reported to sentinel sites within 3 weeks of submission 3. Proportion of contaminated specimens submitted by each laboratory, by site: 4. Describe any challenges you've faced with conducting AST and/or reporting results back to submitting laboratories within 3 weeks of submission. 5. Proportion of isolates with AST results for zoliflodacin: a. Numerator: Number of isolates with zoliflodacin AST results. b. Denominator: Total number of isolates submitted for AST. c. Calculated: Percentage of isolates with zoliflodacin AST results. 6. Proportion of isolates with AST results for doxycycline: a. Numerator: Number of isolates with doxycycline AST results. b. Denominator: Total number of isolates submitted for AST. c. Calculated: Percentage of isolates with doxycycline AST results.

	7. Proportion of isolates with AST results for ertapenem: a. Numerator: Number of isolates with ertapenem AST results. b. Denominator: Total number of isolates submitted for AST. c. Calculated: Percentage of isolates with ertapenem AST results. 8. Total number of laboratory proficient in GC AST methods. 9. Total number of Etest AST requests received a. Number of different submitters 10. Number and proportion of types of samples received by anatomical site for Etest 11. Proportion of 'Alert' isolates: a. Numerator: Number of isolates with 'Alert' minimum inhibitory concentrations (MICs) b. Denominator: Number of isolates tested for antimicrobial susceptibility c. Calculated: Percentage of isolates with 'Alert' MICs of all isolates tested for antimicrobial susceptibility
Additional Guidance	N/A
Performance Target	N/A
Recommended Data Source	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

Anatomical Site	Number of Etest AST requests	Number of Etests with results reported to submitter

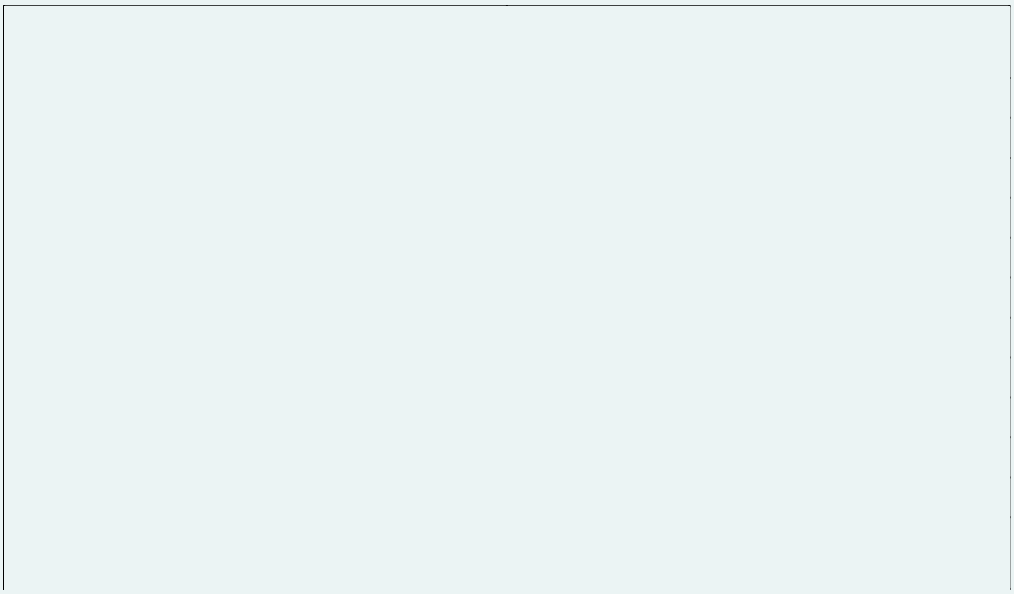
I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM.10 Whole genome sequencing (WGS) of *S. Pneumoniae*
Type	Outcome (Active)

Associated Outcome(s)	Timely and effective response to AR outbreaks that occur in healthcare and community settings
Associated Strategy(s)	Tier 3: Implement or maintain additional laboratory capacity (some regional laboratories)
Rationale	Current literature fails to identify adaptive differences in WGS, in terms of i. presence and absence of genes or genetic mutations, ii. strains invading the blood, and iii. strains that were able to cross the blood-brain barrier. There is a need to comprehensively identify whether adaptation of invasive pneumococcal disease (IPD) isolates occurs through genetic variation between carriage and invasion.
Data Elements	1. Proportion of *S. pneumoniae* isolates tested by WGS and AST that passed QC in accordance with CDC protocol: a. Numerator: Number of targeted isolates tested by WGS and AST that passed QC (see guidance for sequencing priorities) b. Denominator: Total number of targeted isolates tested by WGS and AST. c. Calculated: Percent of *S. pneumoniae* tested by WGS and AST of submission that passed QC in accordance with CDC protocol 2. Number and type of targeted organisms (i.e., healthcare-associated organisms prioritized by CDC) tested by WGS and AST a. Number of targeted organisms tested by WGS and AST Type of targeted organisms tested by WGS 3. Median and range (in days) from date of receipt at public health laboratory to upload of sequence data to NCBI: a. Median (in days) b. Range (in days)
Additional Guidance	N/A
Performance Target	N/A
Recommended Data Source	Surveillance System
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM.11 *Clostridioides Difficile* (*C. Difficile*) testing in jurisdiction
Type	Process (Active)
Associated Outcome(s)	Increased state, local, and regional public health laboratory capacity to detect and confirm bacterial and fungal AR using CDC-recommended methods
Associated Strategy(s)	Implement or maintain additional laboratory capacity (some regional laboratories) (Tier 3)
Rationale	Accurate and timely diagnosis of *Clostridioides difficile* infection (CDI) is imperative to prevent *C. difficile* transmission and reduce morbidity and mortality due to CDI, but CDI laboratory diagnostics are complex. The purpose of this measure is to assess everchanging epidemiology of *C. difficile* and transmission dynamics.
Data Elements	1. Proportion of available specimens cultured for *C. difficile*: a. Numerator: Number of specimens cultured for *C. difficile*. b. Denominator: Total number of specimens available for culture c. Calculated: Percent of available specimens cultured for *C. difficile* 2. Proportion of available *C. difficile* isolates sequenced: a. Numerator: Number of *C. difficile* isolates sequenced b. Denominator: Total number of *C. difficile* isolates available for sequencing c. Calculated: Percent of *C. difficile* isolates sequenced 3. Proportion of available sequenced *C. difficile* isolates passing QC: a. Numerator: Number of *C. difficile* isolates sequenced that passed QC b. Denominator: Total number of isolates sequenced c. Calculated: Percent of available *C. difficile* isolates sequenced that passed QC
Additional Guidance	N/A
Performance Target	N/A
Recommended Data Source	Emerging Infections Program (EIP) surveillance, local and regional healthcare facilities
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM.12 Antifungal resistant Tinea/Dermatophytes
Type	Outcome (Active)
Associated Outcome(s)	Rapid identification and containment of AR threats including novel resistance, especially in facilities lacking in resources (in the form of laboratory testing capacity and/or expertise) or underserved communities
Associated Strategy(s)	Tier 3: Implement or maintain additional laboratory capacity (some regional laboratories)
Rationale	To better understand scope of laboratory activities performed to identify antifungal resistant tinea/dermatophytes, summarize findings, and evaluate compliance with guidance.
Data Elements	1. Total number of trichophyton isolates tested and identified to species. 2. Total number of antifungal resistant trichophyton isolates identified according to guidance. 3. Median and range (in days) from specimen receipt at public health laboratory to communication of test result: a. Median (in days) b. Range (in days)
Additional Guidance	Supplemental guidance that expands on recommended test methods and algorithms will be provided
Performance Target	Median 20 days
Recommended Data Source	Laboratory Information Management System (LIMS)
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM.13 Antimicrobial susceptibility testing (AST) of invasive *Haemophilus Influenzae* (*H. Influenzae*) in jurisdiction
Type	Outcome (Active)

Associated Outcome(s)	Rapid identification and containment of AR threats including novel resistance, especially in facilities lacking in resources (in the form of laboratory testing capacity and/or expertise) or underserved communities.
Associated Strategy(s)	Tier 3: Implement or maintain additional laboratory capacity (some regional laboratories)
Rationale	Antibiotics are important for the treatment and prevention of invasive *Haemophilus influenzae* disease. Reduced susceptibility to clinically relevant drugs, except ampicillin, has been uncommon in the United States. Continued surveillance for *H. influenzae* is needed to monitor susceptibility trends and mechanisms of resistance.
Data Elements	1. Susceptibility of invasive *H. influenzae* (HI) isolates using broth microdilution, according to the Clinical & Laboratory Standards Institute (CLSI) guidelines for at least the following 12 antibiotics with QC-passed broth microdilution test results:  2. Proportion of isolates with AST results reported to submitting sites within 3 weeks of submission: a. Numerator: Number of isolates with AST results reported to submitting sites within 3 weeks of submission b. Denominator: Number of HI isolates received at AR Lab Network c. Calculated: Percentage of isolates with AST results reported to sentinel sites within 3 weeks of submission 3. Proportion of isolates with AST results reported to CDC-Bacterial Meningitis Laboratory (CDC-BML) quarterly: a. Numerator: Number of isolates with AST results reported to CDC quarterly b. Denominator: Number of HI isolates received at AR Lab Network c. Calculated: Percentage of isolates with AST results reported to CDC quarterly

	4. Proportion of isolates transported to CDC-BML within 6 months:

	a. Numerator: Number of isolates transported to CDC b. Denominator: Total number of Hi isolates received at AR Lab Network c. Calculated: Percent of isolates transported to CDC within 6 months
Additional Guidance	N/A
Performance Target	Establish laboratory capacity for *H. influenzae* resistance surveillance by performing broth microdilution AST on up to 500 isolates annually per regional lab, based on CDC guidance.
Recommended Data Source	N/A
Reporting Portal	ELC CAMP or other
Reporting Frequency	Annually

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM.14 Molecular Mtb testing
Type	Outcome (Active)
Associated Outcome(s)	Enhanced capacity for detection of outbreaks and transmission of Mtb
Associated Strategy(s)	Tier 3: Implement or maintain additional laboratory capacity (some regional laboratories)
Rationale	Monitor performance of National Tuberculosis (TB) Molecular Surveillance Center
Data Elements	1. Number and percentage of isolates successfully tested by WGS within two weeks of receipt of isolate 2. Proportion of isolates successfully tested by WGS within three weeks of submission: a. Numerator: Number of isolates successfully tested by WGS within three weeks of submission b. Denominator: Number of isolates successfully tested by WGS c. Calculated: Percentage of isolates successfully tested by WGS within three weeks of submission
Additional Guidance	N/A

Performance Target	95%
Recommended Data Source	Local LIMS system
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM.15 *C. Auris* whole genome sequencing (WGS) in jurisdiction
Type	Outcome (Active)
Associated Outcome(s)	Enhanced molecular surveillance of AR threats
Associated Strategy(s)	Tier 3: Expand and sustain AR lab testing for response
Rationale	WGS is a key tool to track the spread of *Candida auris*. This measure helps inform the scope of WGS testing activities being performed and evaluate compliance with guidance.
Data Elements	1. Total number of *C. auris* isolates tested by WGS 2. Total number of *C. auris* isolates tested by WGS which were obtained from specimens submitted to your laboratory for C. auris colonization testing 3. Total number of isolates analyzed (i.e., phylogenetic tree) and result shared with epidemiologists according to guidance 4. Total number of *C. auris* isolates tested by WGS that had sequencing data uploaded to NCBI according to guidance 5. Total number of isolates with resistance markers identified through WGS analysis according to guidance (e.g., FKS1) 6. Median number and range from date of receipt to communication of test result according to guidance: a. Median (in days) b. Range (in days)

Additional Guidance	Supplemental guidance that expands on recommended test methods and algorithms will be provided
Performance Target	1: 90% of total isolates tested by WGS (with passing QC) are uploaded to NCBI 4: 10 business days from sequence generation to NCBI upload 6: 10 business days from sequence generation to reporting NCBI SRR number to CDC
Recommended Data Source	LIMS (or temporarily in REDCap, until data elements described in the guidance can be implemented in LIMS).
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM.16 Monitoring CRE/CRPA in companion animals to/from humans
Type	Outcome (Active)
Associated Outcome(s)	Timely and effective response to AR outbreaks that occur in healthcare and community settings.
Associated Strategy(s)	Tier 3: Implement or maintain additional laboratory capacity (some regional laboratories)
Rationale	To evaluate whether regional labs are increasing their testing capacity for CRE and CRPA in companion animal isolates that might have public health importance
Data Elements	1. Proportion of companion animal isolates determined to be CP-CRE or CP-CRPA (report CRE and CRPA separately) a. Numerator: Number of CP-CRE or CP-CRPA companion animal isolates confirmed. b. Denominator: Number of companion animal Enterobacterales or *P. aeruginosa* isolates tested for carbapenemase production/carbapenemase genes c. Calculated: Percentage of CP-CRE or CP-CRPA among all companion animal isolates tested 2. Number of companion animal CP-CRE and CP-CRPA isolates undergoing WGS and number of sequences uploaded to NCBI
Additional Guidance	Recipients will work closely with CDC to implement the described activities.
Performance Target	Increase in the number of companion animal samples tested for carbapenemase production and genetic mechanism testing
Recommended Data Source	N/A

Reporting Portal	ELC CAMP
Reporting Frequency	Annually

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM.17 Communication and coordination of actionable lab data in jurisdiction
Type	Process (Active)
Associated Outcome(s)	Improved coordination and information sharing with epidemiology, laboratory, and prevention partners to support outbreak response and prevention efforts
Associated Strategy(s)	• Tier 1: Improve laboratory and epidemiology coordination and outreach • Tier 3: Improve laboratory and epidemiology coordination and outreach
Rationale	AR Lab Network generates data for action, not surveillance. Actionable data requires a fast turnaround from test completion to results reporting. This measure helps us track turnaround times and drives technical assistance efforts for jurisdictions that may be struggling to meet turnaround time goals. Additionally, we recognize the value of regular meetings with partners and hope to track best practices for how often to engage those partners to drive success in the AR Lab Network. Data from this measure helps track this engagement.
Data Elements	1. Median number and range from receipt of CRE, CRPA, CRAB and *Candida* isolates to communication of final testing results to submitting laboratory: a. Median (in days) b. Range (in days) 2. Describe any challenges you've faced with reporting results back to the submitting laboratories within 2 days of testing. 3. Median number and range from date of specimen receipt at public health laboratory to date of communication of final test results with alert values to: <u>CDC:</u> a. Median (in days) b. Range (in days) <u>HAI/AR Program:</u> a. Median (in days) b. Range (in days) 4. Number of isolates transported upon request to CDC 5. Describe any challenges you've faced with reporting test results with alert values to CDC or the originating jurisdiction's HAI/AR program within 1 day of testing.

	6. Considering coordination and information sharing among clinical labs: a. How often do you meet with clinical lab partners? • Daily • Weekly • Bi-Weekly • Monthly • Quarterly • Annually b. What strategies work well to maintain coordination and information sharing? c. What challenges do you encounter with advancing coordination and collaboration?
Additional Guidance	N/A
Performance Target	N/A
Recommended Data Source	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM.18 Characterization of the clinical laboratory network in jurisdiction
Type	Process (Active)
Associated Outcome(s)	Improved coordination and information sharing with epidemiology, laboratory, and prevention partners to support outbreak response and prevention efforts
Associated Strategy(s)	Tier 1: Improve laboratory and epidemiology coordination and outreach Tier 3: Advance electronic information exchange implementation
Rationale	The clinical lab network in each jurisdiction is critical to the success of the AR Lab Network. Characterization of the clinical lab network allows us to appropriately credit the work done by recipients in expanding/maintaining their lab network and any changes, year to year, in the data within this measure can be used to drive technical assistance and 1:1 conversation about changes within the clinical lab network of a jurisdiction.
Data Elements	1. Number of clinical laboratories that have agreed to submit isolates for testing 2. Total number of clinical laboratories submitting isolates for testing, by type of isolate:

	a. CRE/CRPA

	i. Numerator: Number of clinical laboratories submitting CRE/CRPA isolates for testing ii. Denominator: Number of clinical laboratories that have agreed to submit CRE/CRPA isolates for testing b. *Candida* spp. i. Numerator: Number of clinical laboratories or other entities submitting *Candida* spp. isolates for testing ii. Denominator: Number of clinical laboratories or other entities that have agreed to submit *Candida* spp. isolates for testing c. CRAB i. Numerator: Number of clinical laboratories submitting CRAB isolates ii. Denominator: Number of clinical laboratories that have agreed to submit isolates for testing
Additional Guidance	N/A
Performance Target	N/A
Recommended Data Source	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	
Performance Measure Number & Name	PM. 19 Etest of *N. gonorrhoeae* in Jurisdiction
Type	Process (Active)
Associated Outcome(s)	Enhanced surveillance and improved understanding of antimicrobial susceptibility patterns for AR Threats.
Associated Strategy(s)	SHARP **P.II Activity A8 (Optional)**: Establish laboratory capacity for *N. gonorrhoeae* gradient strip AST using to monitor cases of concern (e.g., suspected treatment failures), cases with prevalent susceptibility and to expand the potential to capture emerging resistance.
Rationale	To ensure the labs have the capacity to perform GC Etest as needed, particularly for cases of suspected treatment failure or where tests of cure are needed.
Data Elements	1. Characterization of jurisdiction: Number of different submitters that participated in Etest with your lab. 2. *N. gonorrhoeae* testing: Number of isolates tested by gradient strip and percent of AST results reported to submitters within required timeframe

	3. Median and range (in days) from receipt of *N. gonorrhoeae* isolate to communication of final AST results to submitting laboratory 4. Number of laboratory personnel trained to proficiency in performing gradient strip AST. 5. For laboratories performing whole genome sequencing (WGS): Proportion of gradient strip tested *N. gonorrhoeae* isolates tested by WGS that passed quality control in accordance with CDC testing protocols.
Additional Guidance	Samples should be obtained from partnering STI clinics within the public health laboratories jurisdiction.
Performance Target	N/A
Recommended Data Source	Laboratory information system
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases

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List of Performance Measures and Passive Indicators

PM.1 Review of VPD Surveillance Indicator Reports at least annually (e.g., provisional, final) and documentation of regular (e.g., quarterly) utilization of surveillance data and VPD Surveillance Indicator Reports to improve and/or make changes to current processes in order to improve the quality of surveillance data

PM.2 Documentation that Acute Flaccid Myelitis (AFM) education is in place in jurisdiction and description of educational tools developed/outreach conducted

PM.3 Number of AFM cases investigated, confirmed, and ruled out

PM.4 Number of specimens associated with respiratory virus surveillance and outbreaks that were received at the public health laboratory from clinics, hospitals, coroners, local health departments (LHDs), or other source

PM.5 Number of specimens associated with respiratory virus surveillance and outbreaks that were tested for respiratory viruses

PM.6 Status of reporting health department testing data for additional respiratory viruses (e.g., RSV, hMPV, PIVs, Adenovirus, RV/EVs, coronaviruses) to CDC via PHLIP for inclusion in National Respiratory and Enteric Virus Surveillance System (NREVSS)

PM.7 Status of identifying and reporting respiratory virus associated pediatric deaths of public health concern (e.g., influenza, RSV, and SARS-CoV-2) in which key clinical and other data are obtained and transmitted to CDC

PI.1 A surveillance coordinator for vaccine preventable and respiratory diseases, and an Influenza Surveillance Coordinator to serve as points of contact supporting surveillance for vaccine preventable and respiratory diseases, influenza, and related conditions

PI.2 Proportion of cases with complete and timely information for key VPD Surveillance Indicator data elements

PI.3 Documentation of process to support modernized messaging (e.g., HL7) and data transmission to enhance standardization, harmonization, interoperability, and use of surveillance information systems by jurisdiction and CDC

PI.4 Proportion of meningococcal disease cases with isolates and enhanced surveillance data submitted to CDC

PI.5 Proportion of cases with complete information for key meningococcal disease Surveillance Indicator data elements

PI.6 Number of varicella outbreak-associated cases with enhanced surveillance data submitted to CDC

PI.7 For sites where varicella is a reportable condition and case-based varicella surveillance is conducted, proportion of cases with complete information for key varicella Surveillance Indicator data elements (e.g., age, number of lesions, hospitalization status, confirmation status, laboratory testing, relation to outbreak, vaccination status)

PI.8 Percentage of influenza A viruses tested by the PHL that are subtyped

PI.9 Number of positive specimens shipped to CDC or a designated reference center for additional testing, typing, sequencing, or other characterization (e.g., influenza specimens shipped every two weeks to a National Influenza Reference Center [NIRC], SARS-CoV-2, RSV, and other respiratory virus specimens submitted to CDC, and meningococcal disease specimens)

PI.10 US Outpatient Influenza-like Illness Surveillance Network (ILINET) engagement

PI.11 Status of implementing and transmitting key variables from public health laboratories to CDC via Public Health Laboratory Interoperability Project (PHLIP) for influenza, SARS-CoV-2 and additional respiratory viruses

PI.12 Appropriate and timely participation in respiratory disease and virus surveillance reporting systems (NREVSS & NATRS)

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Performance Measure Number & Name	PM.1 Review of VPD Surveillance Indicator Reports at least annually (e.g., provisional, final) and documentation of regular (e.g., quarterly) utilization of surveillance data and VPD Surveillance Indicator Reports to improve and/or make changes to current processes in order to improve the quality of surveillance data
Type	Process (Active)
Associated Outcome(s)	Improved surveillance data quality and completeness (e.g., vaccine history, importation, sociodemographic data)
Associated Strategy(s)	• Enhance and coordinate investigation and outbreak response • Improve surveillance and reporting

Rationale	Review and use of VPD Surveillance Indicators and surveillance data is a key component of this project, and this measure will provide insight into jurisdictions' efforts and ability to utilize this information. Data from this measure will inform CDC about progress in using and applying VPD Surveillance Indicator Reports to improve and/or make changes to current processes and quality of surveillance data.
Data Elements	1. Completed review of VPD Surveillance Indicators data (Yes/No) 2. Text summary of how VPD Surveillance Indicators/data are used
Additional Guidance	VPD Surveillance Indicator Reports are created by NCIRD for the 50 states, New York City, and Washington DC, as those are the jurisdiction codes specified in NNDSS. Jurisdictions that do not receive jurisdiction-specific VPD Surveillance Indicator Reports from NCIRD are still required to conduct internal surveillance data reviews and must document how their reviews are used to make improvements to the quality of surveillance data. Current guidelines for VPD surveillance can be found in the *Manual for the Surveillance of Vaccine-Preventable Diseases* (Manual for the Surveillance of Vaccine-Preventable Diseases | CDC). Additional guidance/guidelines referenced throughout this document can be found on CDC disease-specific websites.
Performance Target	Regular review and utilization of VPD Surveillance Indicator Reports/data.
Recommended Data Source	Jurisdictions collect surveillance data through case investigations. Surveillance data is submitted electronically to CDC through NNDSS. VPD Surveillance Indicators are provided to jurisdictions by CDC.
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Performance Measure Number & Name	PM.2 Documentation that Acute Flaccid Myelitis (AFM) education is in place in jurisdiction and description of educational tools developed/outreach conducted
Type	Process (Active)
Associated Outcome(s)	Improved educational awareness through engagement with diverse groups of health care providers, community institutions, and other public health partners
Associated Strategy(s)	• Enhance and coordinate investigation and outbreak response • Improve/sustain support for disease prevention and public health intervention • Enhance, sustain, and coordinate partnerships

Rationale	AFM education is a key component of this project, and this measure will provide insight into jurisdictions' ability and effort to educate partners on this condition. Data from this measure will inform CDC about progress for AFM education and outreach.
Data Elements	Documentation that AFM education is in place in jurisdiction and description of educational tools developed/outreach conducted (Yes/No)
Additional Guidance	N/A
Performance Target	AFM education in place throughout the project period.
Recommended Data Source	Jurisdiction knowledge of education efforts.
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Performance Measure Number & Name	PM.3 Number of AFM cases investigated, confirmed, and ruled out
Type	Outcome (Active)
Associated Outcome(s)	Improved timeliness of detection, investigation, and response to cases, outbreaks, and deaths
Associated Strategy(s)	• Enhance and coordinate investigation and outbreak response • Improve surveillance and reporting • Enhance laboratory testing for surveillance and reporting • Improve laboratory coordination and outreach to improve increase efficiency
Rationale	This measure will provide insight on jurisdictions' efforts and ability to detect and submit case information for AFM, which is a key component of this project. Data from this measure will inform CDC about progress for AFM case investigation.
Data Elements	Number of AFM cases that: a. Are investigated b. Confirmed c. Ruled out
Additional Guidance	N/A

Performance Target	N/A
Recommended Data Source	Jurisdiction surveillance data
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Performance Measure Number & Name	PM.4 Number of specimens associated with respiratory virus surveillance and outbreaks that were received at the public health laboratory from clinics, hospitals, coroners, local health departments (LHDs), or other source
Type	Outcome (Active)
Associated Outcome(s)	Improved timeliness of detection, investigation, and response to cases, outbreaks, and deaths Increased support for and utilization of surveillance data assessments to inform public health practice
Associated Strategy(s)	• Enhance and coordinate investigation and outbreak response • Improve surveillance and reporting • Enhance laboratory testing for surveillance and reporting • Improve laboratory coordination and outreach to improve increase efficiency
Rationale	This provides an understanding of the current testing volume and testing approach for both influenza and non-influenza pathogens. CDC compares the numbers of specimens received to those tested for specific viruses and uses information provided in the description to put this into context (e.g., outbreak only or combined with influenza-like illness (ILI) or acute respiratory infections (ARI) surveillance; prescreening for influenza conducted for all specimens or testing all or a predefined subset for non-influenza viruses). This provides information about the current surveillance capacity for respiratory viruses in general and the potential for increased non-flu respiratory virus testing. Data from this measure will inform CDC about progress in testing volume and testing approach for non-influenza pathogens.
Data Elements	1. Total number of respiratory specimens collected from all sources (e.g., surveillance, outbreaks, sentinel providers, medical examiners, local health departments, other) 2. Description of the relevant sources and the breakdown of specimens received from each source (if known) [Open text response]
Additional Guidance	N/A

Performance Target	Testing for respiratory viruses appropriate for circumstances, considering criteria such as severity of outbreaks, existing surveillance capacity, and capacity for testing.
Recommended Data Source	LIMS
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Performance Measure Number & Name	PM.5 Number of specimens associated with respiratory virus surveillance and outbreaks that were tested for respiratory viruses at the public health laboratory or on behalf of the public health jurisdictions at a contract or reference laboratory.
Type	Outcome (Active)
Associated Outcome(s)	• Improved linkages between epidemiology, immunization, laboratory, and health information partners to support surveillance-related activities and resources • Enhanced support for laboratory testing as appropriate for investigation and control
Associated Strategy(s)	• Enhance and coordinate investigation and outbreak response • Improve surveillance and reporting • Enhance laboratory testing for surveillance and reporting • Improve laboratory coordination and outreach to improve increase efficiency • Enhance epi-lab-HIT (Health Information Technology) partner coordination
Rationale	Understanding of current testing volume and testing approach for both influenza and non-influenza pathogens informs about the current surveillance capacity (for both flu and non-flu respiratory viruses) and the potential for increased non-flu virus testing with adequate funding. Data from this measure will inform CDC about progress for influenza and non-influenza virus testing.
Data Elements	1. Number of respiratory specimens tested for a. Influenza b. SARS-CoV-2 c. Respiratory Syncytial Virus d. Human metapneumovirus e. Respiratory adenoviruses f. Parainfluenza viruses g. Common human coronaviruses h. Rhinoviruses and enteroviruses 2. Briefly describe the approach toward testing specimens for non-influenza respiratory viruses in your jurisdiction [Open text response]

Additional Guidance	Currently all commercial assays, CDC assays, and in-house developed assays are considered acceptable for respiratory viruses other than influenza. However, CDC may request documentation of the validation process for each assay, particularly if questions arise regarding unusual test results.
Performance Target	Ideally, each jurisdiction will develop the capacity to use molecular diagnostic methods to test for common respiratory viruses using a variety of respiratory specimen types obtained from respiratory surveillance and outbreaks.
Recommended Data Source	Public Health Laboratory operating procedures and LIMS
Reporting Portal	ELC CAMP
Reporting Frequency	Annual assessment.

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Performance Measure Number & Name	PM.6 Status of reporting public health laboratory testing data for additional respiratory viruses (e.g., RSV, hMPV, PIVs, Adenovirus, RV/EVs, coronaviruses) to CDC via PHLIP for inclusion in National Respiratory and Enteric Virus Surveillance System (NREVSS)
Type	Outcome (Active)
Associated Outcome(s)	Improved timeliness of reporting (e.g., NREVSS, ILINet) to CDC
Associated Strategy(s)	• Enhance epi-lab-HIT (Health Information Technology) partner coordination • Improve and/or sustain enhanced information systems • Enhance data available for public health action
Rationale	As described in PI.3, health departments should already all be testing for influenza and SARS-CoV-2 and reporting their data to CDC via PHLIP (including clinical variables such as hospitalization/ICU/death when feasible). This measure focuses on expanding PHLIP messaging to include additional respiratory viruses such as respiratory syncytial virus (RSV). Jurisdictions that test for additional respiratory viruses are encouraged to report their data to CDC on at least a weekly basis, year-round, for inclusion in NREVSS. Ideally, reporting is accomplished through validation of electronic messages sent via PHLIP. Once the HL7 messages containing additional respiratory virus test data are validated against a secondary data source by CDC staff, it is aggregated and included in the NREVSS national surveillance database. Such reports are used to identify unusual spikes in specific viral detections, indicating potential clusters or outbreaks of infections, and the data are combined with reports from clinical facilities in the region to help track temporal and regional trends in circulation. Data from this measure will inform CDC about progress reporting non-influenza test results to NREVSS.
Data Elements	Are any respiratory virus test results (not including SARS-CoV-2 and influenza) being reported to CDC via PHLIP or NREVSS? (please select one):

a. Yes – data are being reported to NREVSS through validated PHLIP messages

	b. Yes – data are being reported via PHLIP messages but the validation process is not complete c. Yes – data are being reported directly to NREVSS d. No - testing for additional respiratory viruses is not being conducted e. No - testing for additional respiratory viruses is being conducted but reporting to CDC has not been initiated f. Other (please specify)
Additional Guidance	This measure relates to data from public health laboratory testing only. Setting up this reporting capacity is carried out in coordination with Influenza Division and Coronavirus and Other Respiratory Viruses Division (CORVD) program staff and the Association of Public Health Laboratories (APHL) implementation team. Mapping should be completed for all non-influenza and non-SARS-CoV-2 respiratory viruses for which there is testing. After that, all messages that are received will undergo validation. The process of setting up mapping and validation may take over a year. If expanded reporting of respiratory virus test data via PHLIP is not possible, then the aggregate data should be reported directly to the NREVSS system by manual data entry or data upload to the NREVSS Online Data Submission System, preferably on a weekly basis. Although reports may include multiple weeks, timely reporting for each week is ideal to support situational awareness. This reporting will be a key factor in justifying further support and is expected if CDC has funded the purchase of equipment, laboratory reagents, or supplies in support of the testing.
Performance Target	The overall goal is initiating and maintaining year-round, at least weekly, reporting for additional respiratory viruses (beyond influenza and SARS-CoV-2), ideally via HL7 messaging through PHLIP.
Recommended Data Source	Internal public health department records; the NREVSS Online Data Submission System (ODSS); LIMS
Reporting Portal	ELC CAMP
Reporting Frequency	Annual assessment of reports submitted

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Performance Measure Number & Name	PM.7 Status of identifying and reporting respiratory virus associated pediatric deaths of public health concern (e.g., influenza, RSV, and SARS-CoV-2) in which key clinical and other data are obtained and transmitted to CDC
Type	Process (Active for RSV and SARS-CoV-2; Passive for influenza)
Associated Outcome(s)	Improved timeliness of detection, investigation, and response to cases, outbreaks, and deaths
Associated Strategy(s)	• Enhance and coordinate investigation and outbreak response • Improve surveillance and reporting
Rationale	Pediatric deaths due to respiratory viral infections are a significant public health concern. There are several recently approved new products adding to the more established products to prevent severe

	outcomes from viral infections, so it is increasingly important to have current baseline numbers of

	deaths, an understanding of populations at risk, and to monitor the success of current and future public health interventions. Influenza associated pediatric deaths among those <18 years of age are nationally notifiable and no changes for case notifications are currently being implemented. Since RSV-associated deaths are not nationally notifiable, CDC is requesting voluntary notification for these deaths using the 2018 Council of State and Territorial Epidemiologists (CSTE) case definition for RSV-associated deaths for guidance in case ascertainment and initially focusing on those <5 years of age. Notifications for pediatric SARS-CoV-2-associated deaths is also being developed. Data from this measure will inform CDC about progress identifying and reporting respiratory deaths.
Data Elements	Since RSV-associated deaths are not nationally notifiable, may case ascertainment activities be conducted for RSV-associated deaths in your jurisdictions at this time? a. If yes, is case ascertainment being conducted? If not, please describe key barriers: b. If yes, is case verification and data collection being conducted? If not, please describe key barriers: _____ c. If yes, are reports being sent to CDC? If not, please describe key barriers: _____
Additional Guidance	CDC may receive notifications of RSV-associated deaths from state health departments via NNDSS (event code 11646). However, CDC is also finalizing a case report form to collect additional information via online submissions to REDCap. Jurisdictions will be notified when the REDCap site is launched and the onboarding process for reporting via REDCap begins. Contact CDC to request more information regarding reporting options. If respondents wish to describe the number of potential RSV-associated deaths that were investigated but were not confirmed, they may describe that in the separate progress description narrative.
Performance Target	This activity encourages as many voluntary reports of verified RSV-associated deaths as possible. Although the true total number of these deaths is unknown, CDC does not anticipate a large number of reports per jurisdiction. The immediate goal is for jurisdictions to initiate prospective case ascertainment, data collection, and reporting activities. The eventual target goal is for participating jurisdictions to report >90% of all RSV-associated deaths among children <5 years of age, including calendar year 2023 to the present. Prospective reports should ideally be reported within 3 months of death. Retrospective reports from 2017-2022 are also requested, as feasible. CDC recognizes that some jurisdictions are currently prohibited from undertaking these investigations since cases are not nationally notifiable. Since voluntary notification for pediatric RSV-associated deaths is a new activity, the current performance measure focuses on the status of initiating this work and may be updated in future years. The mechanism for notifications of influenza-associated pediatric deaths remains unchanged.
Recommended Data Source	Hospital records, laboratory records, vital records, medical examiner, and coroner reports. Jurisdictions may need to take different approaches for case ascertainment depending upon the data sources they are able to access.
Reporting Portal	Via ELC CAMP for RSV To be determined for SARS-CoV-2 “Passive Measure” via the Pediatric Deaths online reporting system in Secure Access Management System (SAMS) for influenza (i.e. no additional information regarding influenza associated pediatric deaths is needed to satisfy this measure).

Reporting Frequency	Annually (Notifications for applicable deaths may be sent to CDC at the time they are identified. The status of initiating notifications for pediatric RSV-associated deaths will be assessed annually via ELC CAMP.)

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Passive Indicator Number & Name	PI.1 A surveillance coordinator for vaccine preventable and respiratory diseases, and an Influenza Surveillance Coordinator to serve as points of contact supporting surveillance for vaccine preventable and respiratory diseases, influenza, and related conditions.
Type	Process (Passive)
Associated Outcome(s)	• Improved coordination and exchange of surveillance data and information across jurisdictions' programs and partners • Enhanced workforce (e.g., program management, epidemiology, laboratory, and informatics) to support surveillance activities and methods (e.g., virus detection, typing, and subtyping; vaccine preventable and respiratory disease surveillance coordination)
Associated Strategy(s)	• Enhance and coordinate investigation and outbreak response: Maintain VPD surveillance coordinator(s) & influenza surveillance coordinator • Improve surveillance and reporting: Improve completeness, timeliness, and quality of data submitted to CDC
Rationale	Surveillance Coordinator for Vaccine Preventable and Respiratory Diseases and Influenza Surveillance Coordinator serve as points of contact for vaccine preventable and respiratory diseases, influenza, and related conditions to enhance surveillance. Therefore, these positions are a key component of this project and directly indicative of project success. Depending on the jurisdiction and/or funding availability, a Respiratory Virus coordinator focusing on surveillance of a wider array of respiratory viruses, including, but not limited to, respiratory syncytial virus (RSV), and COVID, may be identified and serve a role similar to the VPD and Influenza Surveillance Coordinators. Data from this measure will inform CDC about improvements in coordination.
Data Elements	Identification of Surveillance Coordinator for Vaccine Preventable and Respiratory Diseases [Yes (Surveillance Coordinator for Vaccine Preventable and Respiratory Diseases) or No] and Influenza Surveillance Coordinator [Yes (Influenza Surveillance Coordinator) or No] If applicable, identification of Respiratory Virus Surveillance Coordinator [Yes (Respiratory Virus Surveillance Coordinator) or No]
Additional Guidance	N/A
Performance Target	Surveillance Coordinator for Vaccine Preventable and Respiratory Diseases and Influenza Surveillance Coordinator hired/identified throughout the project period.

Recommended Data Source	Surveillance Coordinator for Vaccine Preventable and Respiratory Diseases and Influenza Surveillance Coordinator identification status and contact information will be maintained by CDC and will be informed by jurisdiction activity participation and submission of required reports (e.g., Quarterly Surveillance Coordination Activity Summary, Bimonthly Meningococcal Data/Isolate Submission, Quarterly Varicella Outbreak Report) throughout the project year
Reporting Portal	SAMS secure data eXchange; Email
Reporting Frequency	Quarterly confirmation of Surveillance Coordinator for Vaccine Preventable and Respiratory Diseases and Influenza Surveillance Coordinator role/responsibilities in Quarterly Surveillance Coordination Activity Summary; ad hoc notification to CDC if Surveillance Coordinator for Vaccine Preventable and Respiratory Diseases or Influenza Surveillance Coordinator position(s) is vacated/replaced. If applicable, ad hoc notification to CDC if Respiratory Virus Surveillance Coordinator position is vacated/replaced.

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Passive Indicator Number & Name	PI.2 Proportion of VPD cases with complete and timely information for key VPD Surveillance Indicator data elements
Type	Outcome (Passive)
Associated Outcome(s)	• Improved surveillance data quality and completeness (e.g., vaccine history, importation, sociodemographic data) • Improved timeliness of case notifications to CDC through (NNDSS) and other relevant surveillance systems
Associated Strategy(s)	• Enhance and coordinate investigation and outbreak response • Improve surveillance and reporting
Rationale	VPD Surveillance Indicators provide insight on jurisdictions' ability and efforts to collect key surveillance data, which is a key component of this project. Data from this measure will inform CDC about progress for surveillance data quality improvement.
Data Elements	Percent completeness of information a. *Numerator:* Number of cases with complete information for key VPD Surveillance Indicator variables b. *Denominator:* Number of cases for which notification was received
Additional Guidance	Details on algorithms used to calculate the VPD Surveillance Indicators can be provided by NCIRD at jurisdiction request.
Performance Target	N/A

Recommended Data Source	These data will be provided to jurisdictions via the VPD Surveillance Indicator Reports, which are based on data submitted to CDC though National Notifiable Disease Surveillance System (NNDSS).
Reporting Portal	"Passive Measure"- NNDSS
Reporting Frequency	VPD Surveillance Indicator Reports are provided to jurisdictions annually for provisional and final data and can be provided to jurisdictions throughout the project year as requested.

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Passive Indicator Number & Name	PI.3 Documentation of process to support modernized messaging (e.g., HL7) and data transmission to enhance standardization, harmonization, interoperability, and use of surveillance information systems by jurisdiction and CDC
Type	Outcome (Passive)
Associated Outcome(s)	Enhanced standardization, harmonization, interoperability, and use of surveillance information systems by jurisdiction and CDC
Associated Strategy(s)	• Enhance epi-lab-HIT (Health Information Technology) partner coordination • Improve and/or sustain enhanced information systems • Enhance data available for public health action
Rationale	Utilization of modernized messaging is an indicator of jurisdiction efforts to enhance standardization, interoperability, and use of surveillance information systems, which is a key component of this project. Data from this measure will be used to track progress on recipients' uptake and implementation of modernized messaging.
Data Elements	1. Utilization of modernized messaging for NNDSS (e.g., HL7 message mapping guides) to enhance standardization, interoperability, and use of surveillance information systems by jurisdiction and CDC (Yes/No) 2. Utilization of modernized messaging for laboratory data related to influenza and SARS-CoV-2 testing via the Public Health Laboratory Interoperability Project (PHLIP) 2.5.1 to enhance standardization, interoperability, and use of surveillance information systems by jurisdiction and CDC (Yes/No)
Additional Guidance	N/A
Performance Target	Currently, HL7 messaging has been established and validated for one or more uses in most jurisdictions. To enhance standardization, interoperability, and use of surveillance information systems:

	1. Jurisdiction utilization of modernized messaging for NNDSS (e.g., HL7 message mapping guides) for case reporting for nationally notifiable conditions by jurisdictions and CDC. Updates to mapping and messaging should be implemented as needed to support data modernization. 2. Jurisdictions should report influenza and SARS-CoV-2 test results from public health laboratories to CDC via PHLIP 2.5.1. Jurisdictions reporting via PHLIP 2.5.1 should maintain this capacity and those reporting via PHLIP 2.3.1 should update to 2.5.1 as soon as feasible. Updates to mapping and messaging should be implemented as needed, e.g. if current influenza or SARS-CoV-2 testing practices change.
Recommended Data Source	These data will be maintained by CDC and will be informed by jurisdiction activity participation in modernized messaging activities for NNDSS and PHLIP. Description of relevant activities should be provided in required reports (e.g., Quarterly Surveillance Coordination Activity Summary).
Reporting Portal	"Passive Measure"- Quarterly Surveillance Coordination Activity Summary via SAMS secure data eXchange and ad hoc interactions/work with CDC program on HL7 messaging activities.
Reporting Frequency	Quarterly description of activities

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Passive Indicator Number & Name	PI.4 Proportion of meningococcal disease cases with isolates and enhanced surveillance data submitted to CDC
Type	Outcome (Passive)
Associated Outcome(s)	Improved linkages between epidemiology, immunization, laboratory, and health information partners to support surveillance-related activities and resources
Associated Strategy(s)	• Enhance and coordinate investigation and outbreak response • Improve surveillance and reporting • Enhance laboratory testing for surveillance and reporting • Improve laboratory coordination and outreach to improve increase efficiency
Rationale	This measure will provide insight on jurisdictions' efforts and ability to submit isolates and surveillance data, which is a key component of this project. Data from this measure will inform CDC about progress for enhancing surveillance for meningococcal disease.
Data Elements	Proportion of meningococcal disease cases with isolates and enhanced surveillance data submitted to CDC a. *Numerator:* Number of meningococcal disease cases with isolates and enhanced surveillance data submitted to CDC b. *Denominator:* Number of meningococcal disease cases

Additional Guidance	N/A

Performance Target	100% of cases
Recommended Data Source	These data will be maintained by CDC and will be informed by jurisdiction activity participation and submission of required reports throughout the project year (e.g., Bimonthly Meningococcal Data/Isolate Submission).
Reporting Portal	"Passive Measure"- data/isolate submission; SAMS secure data eXchange
Reporting Frequency	Meningococcal data/isolate submission is due bimonthly.

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Passive Indicator Number & Name	PI.5 Proportion of cases with complete information for key meningococcal disease Surveillance Indicator data elements
Type	Outcome (Passive)
Associated Outcome(s)	Improved surveillance data quality and completeness (e.g., vaccine history, importation, sociodemographic data)
Associated Strategy(s)	• Enhance and coordinate investigation and outbreak response • Improve surveillance and reporting
Rationale	VPD Surveillance Indicators provide insight on jurisdictions' ability and efforts to collect key surveillance data, which is a key component of this project. Data from this measure will inform CDC about progress in completeness of data for meningococcal disease.
Data Elements	Proportion of cases with complete information for key meningococcal disease Surveillance Indicator variables a. *Numerator:* Number of cases with complete information for key meningococcal disease Surveillance Indicator variables b. *Denominator:* Number of meningococcal disease cases
Additional Guidance	Details on algorithms used to calculate the VPD Surveillance Indicator Reports can be provided by NCIRD at jurisdiction request.
Performance Target	N/A
Recommended Data Source	These data will be provided to jurisdictions via the VPD Surveillance Indicator Reports, which are based on data submitted to CDC though NNDSS.
Reporting Portal	"Passive Measure"- NNDSS

Reporting Frequency	VPD Surveillance Indicator Reports are provided to jurisdictions annually for provisional and final data and can be provided to jurisdictions throughout the project year as requested.

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Passive Indicator Number & Name	PI.6 Number of varicella outbreak-associated cases with enhanced surveillance data submitted to CDC
Type	Outcome (Passive)
Associated Outcome(s)	Improved linkages between epidemiology, immunization, laboratory, and health information partners to support surveillance-related activities and resources
Associated Strategy(s)	• Enhance and coordinate investigation and outbreak response • Improve surveillance and reporting
Rationale	This measure will provide insight on jurisdictions' efforts and ability to submit surveillance data, which is a key component of this project. Data from this measure will inform CDC about progress for enhancing surveillance of outbreak-associated varicella cases.
Data Elements	Number of varicella outbreak-associated cases with enhanced surveillance data submitted to CDC
Additional Guidance	N/A
Performance Target	N/A
Recommended Data Source	These data will be maintained by CDC and will be informed by jurisdiction activity participation and submission of required reports throughout the project year (e.g., Quarterly Varicella Outbreak Report).
Reporting Portal	"Passive Measure"- Varicella Outbreak Report; SAMS secure data eXchange
Reporting Frequency	Varicella outbreak report submission is due quarterly.

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Passive Indicator Number & Name	PI.7 For sites where varicella is a reportable condition and case-based varicella surveillance is conducted, proportion of cases with complete information for key varicella Surveillance Indicator data elements (e.g., age, number of lesions, hospitalization status, confirmation status, laboratory testing, relation to outbreak, vaccination status)
Type	Outcome (Passive)
Associated Outcome(s)	Improved surveillance data quality and completeness (e.g., vaccine history, importation, sociodemographic data)

Associated Strategy(s)	• Enhance and coordinate investigation and outbreak response • Improve surveillance and reporting
Rationale	VPD Surveillance Indicators provide insight on jurisdictions' ability and efforts to collect key surveillance data, which is a key component of this project. Data from this measure will inform CDC about progress in completeness of key varicella data elements among jurisdictions that make varicella reportable.
Data Elements	For sites where varicella is a reportable condition and case-based varicella surveillance is conducted, proportion of cases with complete information for key varicella Surveillance Indicator data elements a. *Numerator:* Number of cases with complete information for key varicella Surveillance Indicator variables b. *Denominator:* Number of varicella cases
Additional Guidance	Details on algorithms used to calculate the VPD Surveillance Indicator Reports can be provided by NCIRD at jurisdiction request.
Performance Target	N/A
Recommended Data Source	These data will be maintained by CDC and will be informed by jurisdiction activity participation and submission of required reports throughout the project year. Also, these data will be provided to jurisdictions via the VPD Surveillance Indicator Reports, which are based on data submitted to CDC though NNDSS.
Reporting Portal	"Passive Measure"- NNDSS
Reporting Frequency	VPD Surveillance Indicator Reports are provided to jurisdictions annually for provisional and final data and can be provided to jurisdictions throughout the project year as requested.

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Passive Indicator Number & Name	PI.8 Percentage of influenza A viruses tested by the public health laboratory (PHL) that are subtyped
Type	Outcome (Passive)
Associated Outcome(s)	• Improved linkages between epidemiology, immunization, laboratory, and health information partners to support surveillance-related activities and resources • Enhanced support for laboratory testing as appropriate for investigation and control
Associated Strategy(s)	• Enhance and coordinate investigation and outbreak response • Improve surveillance and reporting • Enhance laboratory testing for surveillance and reporting • Improve laboratory coordination and outreach to improve increase efficiency
Rationale	Influenza testing in PHLs provide valuable information for monitoring influenza activities. PHLs

	primarily test specimens for surveillance purposes to understand which influenza viruses are

circulating throughout their jurisdiction and the affected population groups. A subset of the influenza viruses collected by PHLs are sent to CDC for further characterization, including antiviral resistance testing and antigenic and/or genetic characterization. Data from this measure will inform CDC about progress for influenza A virus testing and subtyping.

Data Elements	PHLs report specimen level data to CDC that allow CDC to determine: a. Weekly total number of specimens tested b. Number of positive influenza tests c. Number by influenza virus type, subtype, and influenza B lineage d. Number and proportion of influenza virus-positive specimens in each influenza A subtype and influenza B virus lineage by age group (0-4 years, 5-24 years, 25-64 years, and ≥65 years) each week e. Cumulative totals of influenza virus-positive specimens in each influenza A subtype and influenza B virus lineage by age group (0-4 years, 5-24 years, 25-64 years, and ≥65 years) each week for the season
Additional Guidance	N/A
Performance Target	Each season, >95% of influenza A viruses tested by the PHL are subtyped
Recommended Data Source	PHLs participating in the U.S. World Health Organization (WHO) Collaborating laboratories System
Reporting Portal	"Passive Measure"- LIMS and other surveillance systems
Reporting Frequency	Test specimens for influenza and submit at least weekly specimen level data to CDC year-round.

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Passive Indicator Number & Name	PI.9 Number of positive specimens shipped to CDC or a designated reference center for additional testing, typing, sequencing, or other characterization (e.g., influenza specimens shipped every two weeks to a National Influenza Reference Center [NIRC], SARS-CoV-2, RSV, and other respiratory virus specimens submitted to CDC, and meningococcal disease specimens).
Type	Outcome (Passive)
Associated Outcome(s)	Improved linkages between epidemiology, immunization, laboratory, and health information partners to support surveillance-related activities and resources
Associated Strategy(s)	• Enhance and coordinate investigation and outbreak response • Improve surveillance and reporting • Enhance laboratory testing for surveillance and reporting • Improve laboratory coordination and outreach to improve increase efficiency • Enhance epi-lab-HIT (Health Information Technology) partner coordination

Rationale	Specimens from public health laboratories are submitted to CDC or a national reference center for further characterization, including antigenic and/or genetic characterization, and effectiveness of available therapeutics. This information informs public health messaging and informs vaccine strain selection. Data from this measure will inform CDC about progress in utilization of designated reference centers for surveillance related testing.
Data Elements	1. Submission of original clinical specimens that tested positive for influenza virus from the previous two-week time period. 2. Number of respiratory virus specimens (e.g., SARS-CoV-2, RSV, adenovirus, rhinovirus/enterovirus) submitted for additional public health testing, sequencing, or characterization 3. Number of VPD specimens or isolates submitted for additional public health testing (e.g., meningococcal disease)
Additional Guidance	Please follow the standard submission guidance that is released at the beginning of each influenza season. Contact CDC to request assistance prior to shipping aliquot specimens.
Performance Target	Influenza: Minimum of 40 specimens over 10 shipments every two weeks, according to the current season's specimen submission guidance. See National Influenza Surveillance Guidance (aphl.org) Other respiratory viruses, including RSV and SARS-CoV-2: Respiratory Infections (Non-Influenza) (aphl.org) and National SARS-CoV-2 Strain Surveillance (NS3) (aphl.org)
Recommended Data Source	Public health and clinical laboratories. For influenza, laboratories participating in the U.S. WHO Collaborating Laboratories System.
Reporting Portal	"Passive Measure"- Surveillance systems
Reporting Frequency	Annual assessment unless otherwise stated. For influenza, specimen testing at the PHL and shipment of specimens should occur year-round beginning with week 40 each year. Follow specimen submission guidance as described by CDC/Influenza Division.

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Passive Indicator Number & Name	PI.10 US Outpatient Influenza-like Illness Surveillance Network (ILINET) engagement
Type	Process (Passive)
Associated Outcome(s)	Improved timeliness of reporting to CDC
Associated Strategy(s)	• Enhance epi-lab-HIT (Health Information Technology) partner coordination • Improve and/or sustain enhanced information systems • Enhance, sustain, and coordinate partnerships

Rationale	Establishing or maintaining one or more regularly reporting ILINet sites within each Core-Based Statistical Area (CBSA) that, in aggregate, see at least 200 patients per 100,000 population each week, will help each jurisdiction obtain more complete geographic coverage for syndromic surveillance for respiratory illnesses. For non-CBSA areas within a state, ILINet sites and patient visits should be commensurate with population size. Data from this measure will inform CDC about progress in appropriate reporting in ILINET.
Data Elements	Participating ILINet providers should report: a. Counts of ILI using the standard case definition by age group (0-4 years, 5-24 years, 25-49 years, 50-64 years, and >64 years) b. Total number of patients seen for any reason c. Total number of patients seen by age group (optional reporting along with their weekly ILINet report)
Additional Guidance	*Core-Based Statistical Area:* Metropolitan and Micropolitan Statistical Areas are collectively referred to as Core-Based Statistical Areas[1]. They are defined by the Office of Management and Budget (OMB) and consist of the county or counties or equivalent entities associated with at least one urban core (urbanized area or urban cluster) of at least 10,000 population, plus adjacent counties having a high degree of social and economic integration with the core as measured through commuting ties with the counties containing the core. *ILINet provider types:* Providers in many types of practices may be ILINet providers, including Emergency medicine, Family practice, Infectious disease, Internal medicine, OB/GYN, Pediatrics, Student health, Urgent care
Performance Target	• Within each CBSA, at least 200 patient visits per 100,000 population captured in ILINet each week • For non-CBSA areas of a state, maintain the number of providers and patient visits commensurate with the population • 80% of ILINet sites routinely report, as measured by reporting at least 46 out of 52 weeks annually
Recommended Data Source	Healthcare providers enrolled in ILINet. This includes healthcare providers who are utilizing electronic health records.
Reporting Portal	Passive Measure
Reporting Frequency	Begin collecting data during week 40 of each influenza season and submit weekly reports to CDC year-round, by noon the following Tuesday. Influenza coordinators are responsible for enrollment of ILINet providers and will be the point-of-contact in each jurisdiction for CDC/Influenza Division inquiries. Influenza coordinators will work with their enrolled ILINet providers to ensure data quality and timeliness of reporting.

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Passive Indicator Number & Name	PI.11 Status of implementing and transmitting key variables from public health laboratories to CDC via Public Health Laboratory Interoperability Project (PHLIP) for influenza, SARS-CoV-2 and additional respiratory viruses.

Type	Process (Passive)
Associated Outcome(s)	Improved surveillance data quality and completeness (e.g., vaccine history, importation, clinical data, laboratory data, sociodemographic data) for respiratory virus test messages sent to CDC through PHLIP
Associated Strategy(s)	• Enhance and coordinate investigation and outbreak response • Improve surveillance and reporting • Enhance epi-lab-HIT (Health Information Technology) partner coordination
Rationale	Improving the completeness of public health laboratory reports via PHLIP will help CDC gain a better understanding of the community and seasonal spread of influenza, SARS-CoV-2, RSV, and other respiratory viruses. Expanding this automated approach toward data transmission will result in more complete reporting of test results and epidemiologic data to CDC. This activity focuses on expanding PHLIP messaging to include additional variables. Data from this measure will inform CDC about progress in transmitting key laboratory variables to CDC via PHLIP.
Data Elements	1. Percent completeness* of the following key data elements reported to CDC specimens tested at the PHL: a. Patient Date of Birth (DOB) (or age if DOB is not available) b. Patient demographics c. Patient zip code or county of residence (or zip code or county of submitting facility) d. Specimen collection date e. Virus test results f. Level of care (inpatient/outpatient), when possible g. Illness onset date, when possible h. Specimen source, when possible i. Sex, when possible o *Numerator:* Number of specimens with valid data for each key data element o *Denominator:* Total number of specimens reported
Additional Guidance	*PHLIP:* The Public Health Laboratory Interoperability Project (PHLIP) is a collaborative effort between the Association of Public Health Laboratories, CDC, and state public health laboratories (PHLs) to advance automated electronic data flows from PHLs to CDC. (https://www.aphl.org/programs/informatics/Documents/INF_2013May15_ELSM-Overview.pdf) *Completeness: Traditionally, a completeness check reviews the % of missing vs submitted data, regardless of whether the submitted data is valid. It is important to note that in this context, completeness is an analysis of data that has passed validation checks. Because of built-in validation checks, the data reported must be valid to be accepted. However, blank (missing) data is also accepted. Thus, this analysis is a completeness check amongst valid and blank data. This means if the data is 80% complete, it is also 80% valid. The remaining 20% would be missing data. In very rare circumstances, the remaining 20% of missing data may include *some* invalid data that was coded as blank, but this difference is negligible. Setting up this reporting capacity is carried out in coordination with Influenza Division program staff and the APHL implementation team. Mapping should be completed for the non-influenza and non-

	SARS-CoV-2 respiratory viruses that are tested for. After that, all messages that are received will undergo validation.
Performance Target	• Reports for influenza and SARS-CoV-2 testing at the public health laboratory include data that are at least 80% complete* for each key data element. • Appropriate test orders and results for non-influenza and non-SARS-CoV-2 respiratory viruses are coded and mapped according to standard guidance and HL7 messages are automatically sent to CDC upon generation.
Recommended Data Source	Public health facility database containing epidemiologic and clinical data.
Reporting Portal	"Passive Measure" – PHLIP
Reporting Frequency	Reporting may be initiated at any point in time. Once established, PHLIP messaging will be continuous and ongoing. The status of reporting will be confirmed annually.

J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases	
Passive Indicator Number & Name	PI.12 Appropriate and timely participation in respiratory disease and virus surveillance reporting systems (NREVSS & NATRS).
Type	Process (Passive)
Associated Outcome(s)	Improved timeliness of reporting to CDC through NREVSS, National Adenovirus Reporting System (NATRS) and other relevant surveillance systems
Associated Strategy(s)	• Enhance laboratory testing for surveillance and reporting • Enhance epi-lab-HIT (Health Information Technology) partner coordination • Improve and/or sustain enhanced information systems • Enhance data available for public health action • Enhance, sustain, and coordinate partnerships
Rationale	CDC collaborates with public health jurisdictions to help ensure adequate levels of data are reported to NREVSS to track temporal and regional trends in virus circulation. Therefore, jurisdictions should maintain awareness of the number of NREVSS participants within their jurisdiction. Health departments may recruit laboratory participation independently or coordinate their efforts with CDC staff. In addition, health departments may encourage clinical laboratories to report directly to NREVSS or may prefer to collect their data and report it to NREVSS on behalf of laboratories within their jurisdiction. Health departments that conduct typing for adenoviruses are encouraged to report their data to CDC for inclusion in NATRS. Such reports are used to identify unusual spikes in specific viral detections, indicating potential clusters or outbreaks of infections, and the data are combined with reports from clinical facilities in the region to help track temporal and regional trends in circulation. These reports may be sent to the NATRS coordinator for entry into the database. This reporting is expected if CDC has funded the purchase of equipment, laboratory reagents, or supplies in support

of testing for this activity and will be a key factor in justifying further support. Data from this

	measure will inform CDC about recipients' progress participating in respiratory and viral surveillance reporting systems.
Data Elements	1. Number of clinical laboratories participating in NREVSS within a jurisdiction 2. Amount of pass-through data being reported on behalf of clinical laboratories within a jurisdiction 3. Is site reporting to NATRS?
Additional Guidance	Weekly reports and more information regarding NREVSS data are available at the following public website: Interactive Dashboard | NREVSS | CDC. Information about NATRS is available at: About NATRS | Adenovirus | CDC.
Performance Target	The overall goal is year-round, robust, weekly, reporting. Target enrollment for each jurisdiction to be determined in consultation with CDC.
Recommended Data Source	The NREVSS ODSS; NATRS ODSS; LIMS
Reporting Portal	"Passive Measure" – surveillance systems (e.g., NREVSS, NATRS)
Reporting Frequency	Ongoing assessment of reports submitted

K. Vector-borne Diseases and Tick-Associated Conditions

Building Comprehensive Programs to Identify, Diagnose, Report, Prevent, and Respond

Point of Contact: VBDELC@cdc.gov

List of Performance Measures and Passive Indicators

K. Vector-borne Diseases and Tick-Associated Conditions	
Performance Measure Number & Name	PM.1 Human diagnostic capacity
Type	Outcome (Active)

Associated Outcome(s)	• Improved human diagnostic, veterinary and vector laboratory capacity to support vector-borne disease surveillance • Increased availability of timely and accurate information on vector-borne disease risk and prevention to public health partners, healthcare providers, vector control agencies, decision makers, and the public • More rapid and complete identification of vector-borne disease outbreaks to facilitate timely and effective control measures for all
Associated Strategy(s)	PHIG A4. Strengthen human laboratory testing for vector-borne diseases of relevance
Rationale	Measure will allow CDC to evaluate the recipient's lab capacity. The information is needed to assess recipient tier placement and yearly improvement.
Data Elements	Reported recipient human vector-borne disease diagnostic capability (Tables 1 and 2). Note, this includes all testing performed at the recipient's laboratory, but does not include testing options sent to commercial labs. **Table 1: Recipient Arboviral Diagnostic Capability (check all that apply**) †Such as La Crosse or Jamestown Canyon viruses **Table 2: Recipient Other Vector-Borne Diseases Diagnostic Capability (check all that apply)**

Pathogen	ELISA		IFA		Culture	PCR
	IgG	IgM	IgG	IgM		
Spotted fever group *Rickettsia*						

	Typhus group *Rickettsia*						
	Ehrlichia spp.						
	Anaplasma spp.						
	Yersinia pestis						
	Francisella tularensis						
	Relapsing fever *Borrelia* spp.						

Additional Guidance	N/A
Performance Target	Clinical diagnostic testing capacity for at least one arbovirus, preferably for your jurisdiction's most common endemic arbovirus. Recipients will have the ability to perform diagnostic tests for relevant vector-borne diseases as specified in the funded activities.
Recommended Data Source	Recipient laboratory program
Reporting Portal	E
Reporting Frequency	A
K. Vector-borne Diseas Report, Prevent, and R	
Performance Measure Number & Name	P
Type	C
Associated Outcome(s)	• Increased availability of timely and accurate information on vector-borne disease risk and prevention to public health partners, healthcare providers, vector control agencies, decision makers, and the public • More rapid and complete identification of vector-borne disease outbreaks to facilitate timely and effective control measures for all
Associated Strategy(s)	• Improve human surveillance, outbreak response and reporting for vector-borne disease (VBD) • Analysis and interpretation of vector-borne disease surveillance data
Rationale	M ant VBD s

MMG	Planning	Onboarding	Production
Lyme and TBRD			
Arboviral v1.3			

Data Elements	1. Is your recipient planning or onboarding Message Mapping Guides (MMG) (please check all that apply)

	2. Number and proportion of spotted fever rickettsiosis cases confirmed by polymerase chain reaction (PCR) a. *Numerator:* Number of PCR-confirmed spotted fever rickettsiosis cases b. *Denominator:* Total number of spotted fever rickettsiosis cases reported by recipient
Additional Guidance	N/A
Performance Target	Complete reporting of applicable MMGs for vector-borne diseases
Recommended Data Source	NNDSS, recipient surveillance program
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

K. Vector-borne Diseases and Tick-Associated Conditions: Building Comprehensive Programs to Identify, Diagnose, Report, Prevent, and Respond	
Performance Measure Number & Name	PM.3 Vector surveillance and control capacity
Type	Process (Active)
Associated Outcome(s)	• Improved ecologic surveillance to detect and monitor vector species distribution, abundance, infection, and insecticide resistance to inform vector control and public health response • Increased availability of timely and accurate information on vector-borne disease risk and prevention to public health partners, healthcare providers, vector control agencies, decision makers, and the public • More rapid and complete identification of vector-borne disease outbreaks to facilitate timely and effective control measures for all
Associated Strategy(s)	• Improved ecological and vector surveillance, response, and reporting • Analysis and interpretation of vector-borne disease surveillance data • Implement vector-borne disease interventions and tools
Rationale	Measure will allow CDC to evaluate the ability of recipients to report the most relevant vector surveillance data.
Data Elements	1. Does your jurisdiction perform mosquito insecticide resistance (IR) testing? If yes, what agency performs the IR testing? 2. Number and proportion of vector-borne disease or vector control staff that are trained in tick identification and collection.

	3. Number and proportion of vector-borne disease or vector control staff that are trained in mosquito identification and collection. 4. Description of vector control capacities and enhancements. 5. Vector control activities undertaken in response to identified arboviral disease outbreaks.
Additional Guidance	N/A
Performance Target	Complete reporting of training and IR testing to appropriate CDC data systems
Recommended Data Source	Recipient vector surveillance and testing group.
Reporting Portal	ArboNET, direct sharing with CDC, VectorSurv
Reporting Frequency	Annually

K. Vector-borne Diseases and Tick-Associated Conditions: Building Comprehensive Programs to Identify, Diagnose, Report, Prevent, and Respond	
Performance Measure Number & Name	PM.4 Cross-cutting coordination and collaborations
Type	Process (Active)
Associated Outcome(s)	Increased availability of timely and accurate information on vector-borne disease risk and prevention to public health partners, healthcare providers, vector control agencies, decision makers, and the public
Associated Strategy(s)	• Disseminate VBD data to stakeholders to improve situational awareness • Implement health promotion and education strategies for VBDs • Enhance coordination and collaboration with external stakeholders
Rationale	Measure will allow CDC to determine extent of partner engagement by the recipient. Success in this measure is a proxy for CDC to determine which tier the recipient falls.
Data Elements	1. Estimated number of stakeholders reached through presentations/outreach activities, including healthcare professionals (physicians, nurses, nurse practitioners, physician assistants), local recipients, and public. 2. Reported breakdown of vector-borne disease activities: a. Estimated percent of the total Program K budget which was allocated to tick-borne disease activities in BP1. b. Estimated percent of the total Program K budget which was allocated to mosquito-borne disease activities in BP1. c. Estimated percent of the total Program K budget which was allocated to mosquito-borne

	disease activities in BP1.

Additional Guidance	N/A
Performance Target	Appropriate and timely messaging to stakeholders and demonstration of successful collaborations with public health partners.
Recommended Data Source	Recipient epidemiologic and/or communication program
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

K. Vector-borne Diseases and Tick-Associated Conditions: Building Comprehensive Programs to Identify, Diagnose, Report, Prevent, and Respond	
Passive Indicator Number & Name	PI.1 ArboNET Reporting
Type	Outcome (Passive)
Associated Outcome(s)	• Improved human diagnostic, veterinary and vector laboratory capacity to support vector-borne disease surveillance • Improved completeness and timeliness of reporting of vector-borne disease surveillance data to monitor the epidemiology, incidence, and geographic spread of vector-borne diseases. • Improved ecologic surveillance to detect and monitor vector species distribution, abundance, infection, and insecticide resistance to inform vector control and public health response • Increased availability of timely and accurate information on vector-borne disease risk and prevention to public health partners, healthcare providers, vector control agencies, decision makers, and the public • More rapid and complete identification of vector-borne disease outbreaks to facilitate timely and effective control measures for all
Associated Strategy(s)	• Improve human surveillance, outbreak response and reporting for VBD • Improved ecological and vector surveillance, response, and reporting • Analysis and interpretation of vector-borne disease surveillance data
Rationale	Measure will allow CDC to evaluate the ability of recipients to report the most relevant VBD surveillance data.
Data Elements	1. Burden and completeness of arboviral surveillance data reported to CDC via ArboNET including: a. Number of arboviral disease cases and infections (i.e., viremic blood donors) reported to ArboNET b. Proportion of reported human disease cases with complete data for the following data elements: age, sex, clinical syndrome, hospitalization, and death

	c. Proportion of total recipient population that live in a county with environmental surveillance arboviral data (bird, mosquito, and sentinel animal infections or mosquito surveillance) reported to ArboNET d. Number of veterinary disease cases reported to ArboNET 2. Completeness of active tick surveillance data reported to CDC via ArboNET including: a. Number and proportion of counties from which medically important ticks (listed by species) were collected and reported to ArboNET b. Number and proportion of counties from which tickborne pathogens (list by pathogen genus and species) were detected in host-seeking ticks (by tick species) c. County, state, and regional estimates of tick densities and tickborne pathogen prevalence
Additional Guidance	N/A
Performance Target	Complete reporting of all reportable cases of vector-borne diseases. Complete reporting of active tick surveillance and pathogen testing data if conducted.
Recommended Data Source	ArboNET
Reporting Portal	ArboNET
Reporting Frequency	At least annually

Section III: Disease-Specific Projects

L. Prion Surveillance

Point of Contact: Ryan Maddox, rmaddox@cdc.gov

List of Performance Measures and Passive Indicators

PM.1 Number of cases of suspected prion disease received via surveillance (by reporting source) and the number of investigations conducted

PM.2 Number of suspected and clinically diagnosed cases of prion disease for which a brain biopsy or brain autopsy was conducted. (If possible human chronic wasting disease [CWD] is suspected, tissues other than brain may be requested.)

PM.3 Number of suspected or confirmed high priority cases of CJD and the number reported to CDC within two weeks of the report to the state department of health

PM.4 Number of suspected cases of CJD identified through death certificate review and other surveillance mechanisms with additional diagnostic information

PM.5 Number of meetings with wildlife/natural resources department

L. Prion Surveillance	
Performance Measure Number & Name	PM.1 Number of cases of suspected prion disease received via surveillance (by reporting source) and the number of investigations conducted.
Type	Outcome (Active)
Associated Outcome(s)	Follow-up investigations of all suspected Creutzfeldt-Jakob Disease (CJD) or clinically diagnosed cases reported to the state department of health, especially for high priority cases: cases in persons less than 55 years of age; cases in hunters of cervids or consumers of venison from free ranging deer; reported case clusters of concern to the public; suspected iatrogenic cases.
Associated Strategy(s)	Enhance investigation, response, and reporting
Rationale	To enhance national prion disease surveillance through identification of suspected cases, recipients will track the overall disease burden and the source of information that is used for surveillance
Data Elements	1. Number of cases (by reporting source) 2. Incidence rate (for all probable and definite cases)
Additional Guidance	Refer to Recommended Data Source for examples of Reporting Sources; case definitions are available on the CDC website
Performance Target	N/A
Recommended Data Source	Surveillance system (e.g., mortality data, reports from National Prion Disease Pathology Surveillance Center [NPDPSC], providers, local public health, patient's family members, media)
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

L. Prion Surveillance	
Performance Measure Number & Name	PM.2 Number of suspected and clinically diagnosed cases of prion disease for which a brain biopsy or brain autopsy was conducted. (If possible human chronic wasting disease [CWD] is suspected, tissues other than brain may be requested.)
Type	Outcome (Active)
Associated Outcome(s)	Development of an effective collaborative network between pathologists, neurologists, funeral and mortuary directors, and other appropriate professionals dealing with persons diagnosed with human prion disease, and distribution of educational materials about CJD surveillance and the role of state health departments, CDC, and NPDPSC.

Associated Strategy(s)	• Enhance investigation, response, and reporting • Coordinate and engage with partners
Rationale	The number of suspected and clinically diagnosed cases of prion disease for which a brain biopsy or brain autopsy was conducted provides information on the recipient's disease burden and will help inform CDC on the recipient's coordination with neuropathologists to confirm case diagnosis.
Data Elements	1. Number of cases; percent with neuropathology performed (biopsy and/or autopsy) 2. Number of cases with additional tissue specimens submitted to NPDPSC (when human CWD suspected)
Additional Guidance	Additional tissue specimens may include: appendix, spleen, periaortic lymph nodes.
Performance Target	N/A
Recommended Data Source	Surveillance system (e.g., mortality data, reports from National Prion Disease Pathology Surveillance Center (NPDPSC), providers, local public health, patient's family members, media)
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

L. Prion Surveillance	
Performance Measure Number & Name	PM.3 Number of suspected or confirmed high priority cases of CJD and the number reported to CDC within two weeks of the report to the state department of health
Type	Outcome (Active)
Associated Outcome(s)	• Follow-up investigations of all suspected CJD or clinically diagnosed cases reported to the state department of health especially for high priority cases: cases in persons less than 55 years of age; cases in hunters of cervids or consumers of venison from free ranging deer; reported case clusters of concern to the public; suspected iatrogenic cases. • Effective coordination and exchange of information and data between state health departments, NPDPSC, the CJD Foundation, and CDC.
Associated Strategy(s)	Enhance investigation, response, and reporting
Rationale	To enhance national prion disease surveillance through prompt communication of high-priority cases to CDC and medical record review of such cases to verify diagnoses and assess potential risk factors; data from this measure will inform on disease burden and the proportion that were reported to CDC within the requested 2-week time period. The measure provides additional clarity on the number of cases reported with associated medical records.

Data Elements	1. Number of suspected or confirmed cases of CJD in a person less than 55 years of age, suspected cases of variant CJD or possible human CWD, suspected iatrogenic cases, and suspected case clusters reported to CDC within 2 weeks of the report to the state department of health. a. For those less than 45 years of age and for each of the other above investigations, the number of persons for whom the pertinent portions of the medical record were submitted to CDC.
Additional Guidance	Pertinent sections of the medical record include the admission summary, discharge summary, EEG reports, MRI reports, neurology consultation notes, psychiatry consultation notes, pathology reports from a biopsy, and pathology reports from autopsy
Performance Target	Complete (100%) reporting of all cases of special interest as defined above
Recommended Data Source	Surveillance system (e.g., mortality data, reports from National Prion Disease Pathology Surveillance Center (NPDPSC), providers, local public health, patient's family members, media)
Reporting Portal	Submission of case number totals to ELC CAMP
Reporting Frequency	Annually

L. Prion Surveillance	
Performance Measure Number & Name	PM.4 Number of suspected cases of CJD identified through death certificate review and other surveillance mechanisms with additional diagnostic information
Type	Outcome (Active)
Associated Outcome(s)	• Follow-up investigations of all suspected CJD or clinically diagnosed cases reported to the state department of health especially for high priority cases: cases in persons less than 55 years of age; cases in hunters of cervids or consumers of venison from free ranging deer; reported case clusters of concern to the public; suspected iatrogenic cases. • Complete reporting of all suspected CJD cases to CDC through a biannual line list of cases, including those with a positive or indeterminate Real-time quaking-induced conversion assay (RT-QuIC) result.
Associated Strategy(s)	Enhance investigation, response, and reporting
Rationale	To enhance national prion disease surveillance by identifying and assessing potential cases not indicated as such on the death certificate
Data Elements	1. The number of suspected cases of CJD identified through annual review of death certificate data or other data sources b. Include the number of newly identified cases found by this review in addition to the total number 2. The number of cases identified through surveillance that did not indicate CJD on the death certificate

	a. And where possible, for those cases where CJD was not indicated on the death certificate, what was listed as the cause and underlying cause of death.
Additional Guidance	For RT-QuIC positive/indeterminate persons lacking neuropathologic confirmation, report the following: date of death (if applicable), discharge/death certificate diagnoses, and, if still alive, current status (i.e., diagnosis, location (e.g., transferred to another institution (name if available), lost to follow-up)).
Performance Target	N/A
Recommended Data Source	Surveillance system (e.g., mortality data, reports from National Prion Disease Pathology Surveillance Center (NPDPSC), providers, local public health, patient's family members, media)
Reporting Portal	Submission of case number totals to ELC CAMP
Reporting Frequency	Annually

L. Prion Surveillance	
Performance Measure Number & Name	PM.5 Number of meetings with wildlife/natural resources department
Type	Outcome (Active)
Associated Outcome(s)	Effective coordination and exchange of information and data between the state departments of health and wildlife/natural resources.
Associated Strategy(s)	Coordinate and engage with partners
Rationale	To enhance national prion disease surveillance by fostering relationships with other agencies that could benefit efforts to assess potential transmission of the animal prion disease, CWD, to humans
Data Elements	For recipients where CWD has been identified: Number of meetings with wildlife/natural resources department to encourage CWD-related education and other activities aimed at persons who hunt within the state and those who consume venison provided by these hunters.
Additional Guidance	Only recipients where CWD has been identified should report this measure
Performance Target	N/A
Recommended Data Source	N/A
Reporting Portal	ELC CAMP

Reporting Frequency	Annually

M. Mycotics: Detecting and Preventing Fungal Infections

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List of Performance Measures and Passive Indicators

PM.1 Annual percentage increase in reported cases and incidence rate surveillance for targeted fungal diseases

PM.2 Number of fungal disease clusters and outbreaks detected, and number and percent tracked and reported through NNDSS

PM.3 Number and types of educational interactions (presentations, dissemination of printed materials, poster presentation, workshops, Grand Rounds, etc.)

PM.4 Number of accurate fungal pathogen identifications out of total identifications (true positive identification)

PI.1 Percentage completion of minimum reportable data elements for fungal disease outbreaks in electronic reporting platforms

PI.2 Fungal infection awareness campaign reach and engagement

PI.3 For jurisdictions that opt-in for FungiSurv: Number of fungal disease cases reported, and number and % of medical chart reviews and patient interviews completed

PI.4 For jurisdictions that received laboratory related mycotics funding: Description of implementation of fungal laboratory capacity (could include standard operating procedure (SOP), protocols, environmental sampling results, etc.)

M. Mycotics: Detecting and Preventing Fungal Infections	
Performance Measure Number & Name	PM.1 Annual percentage increase in reported cases and incidence rate surveillance for targeted fungal diseases
Type	Outcome (Active)
Associated Outcome(s)	Improved tracking and epidemiologic data on known and emerging fungal diseases, including coccidioidomycosis, histoplasmosis, blastomycosis, *C. auris*, and invasive mold infections. Comprehensive data on fungal diseases will enable analyses to understand the impacts of environment and other factors influencing health outcomes, as well as the geographic spread, temporal trends, environmental and healthcare exposures, patient and occupational risk groups, clinical outcomes, and potential exposure sources. These analyses will guide prevention measures aimed at reducing morbidity and mortality from fungal infections.
Associated Strategy(s)	Improve surveillance and reporting
Rationale	This measure will be used to evaluate the overall fungal disease burden of event and case investigations in the recipient jurisdiction/region.
Data Elements	1. Number of suspected targeted fungal diseases being investigated over a designated time period

	(annual)

	2. Number of suspected new targeted fungal diseases in designated time period (annual) a. Numerator: Number of suspected new targeted fungal diseases b. Denominator: Population at risk in the given jurisdiction during the same time period
Additional Guidance	Population at risk: Population data for the same time-period and geographical area as related to reporting in the specific jurisdiction
Performance Target	N/A
Recommended Data Source	Internal surveillance system if available
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

M. Mycotics: Detecting and Preventing Fungal Infections	
Performance Measure Number & Name	PM.2 Number of fungal disease clusters and outbreaks detected, and number and percent tracked and reported through NNDSS
Type	Outcome (Active)
Associated Outcome(s)	Improved tracking, lab detection and epidemiologic data on fungal disease outbreaks.
Associated Strategy(s)	Improve surveillance and reporting
Rationale	This measure will be used to evaluate the burden and completeness of reporting between fungal disease clusters and outbreak reporting systems. Currently, this measure cannot be determined based on reports entered in NNDSS due to differences in the types of reports received, reporting schedules, and optional use of linking fields in each system. Measure supports assessing the effectiveness of disease surveillance and response systems in detecting and managing fungal disease outbreaks,
Data Elements	1. Number of fungal outbreaks reported to NNDSS by type of fungal disease 2. Total Number of fungal outbreaks investigated by the recipient by type of fungal disease 3. Calculated: the percent of these outbreaks that were tracked through NNDSS
Additional Guidance	Type of Fungal Disease: Categorical data (e.g., coccidioidomycosis, histoplasmosis, etc.). Reported Cases in NNDSS Data: This includes the number of new cases of the targeted fungal

	diseases reported during a specific time period (annually) Population Data: Population data for the same time period and geographical area as related to case reporting in the specific jurisdiction
Performance Target	N/A
Recommended Data Source	National Notifiable Diseases Surveillance System (NNDSS)
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

M. Mycotics: Detecting and Preventing Fungal Infections	
Performance Measure Number & Name	PM.3 Number and types of educational interactions (presentations, dissemination of printed materials, poster presentation, workshops, Grand Rounds, etc.)
Type	Process (Active)
Associated Outcome(s)	• Improved tracking, lab detection and epidemiologic data on fungal disease outbreaks. • Increased healthcare provider and public awareness of fungal infections and their diagnosis and treatment (e.g., via local outreach, reports, and participation in Fungal Disease Awareness Week activities).
Associated Strategy(s)	Implement public health interventions and tools. Additionally, to enhance communication, promote coordination, and develop partnerships
Rationale	This measure will be used to increase availability of public health information on fungal disease outbreaks to target audiences. These data will be used to inform program discussions and collaboration between public health partners and relevant parties.
Data Elements	1. Has your jurisdiction updated or created new fungal educational resources to support public health surveillance, response, or mitigation of health impacts for specific audiences (Yes/No) a. If yes, select all that apply: • Presentations • Workshops • Poster presentations • Printed material • Other (specify) b. If yes, select all intended audiences that apply: • Public health officials • Health care providers

	• Policy makers

	• General Public • Other (please specify)
Additional Guidance	Intended audience: healthcare providers, public health officials, laboratory professionals, epidemiologists, medical and healthcare students, the general public, researchers, policy makers, health organizations, and community health workers. These educational interactions are strategically designed to inform and empower healthcare professionals, students, researchers, and the public about fungal infections, their diagnosis, and treatment, while also facilitating collaboration, data improvement, and awareness campaigns to support more effective disease tracking and control efforts.
Performance Target	N/A
Recommended Data Source	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

M. Mycotics: Detecting and Preventing Fungal Infections	
Performance Measure Number & Name	PM.4 Number of accurate fungal pathogen identifications out of total identifications (true positive identification)
Type	Outcome (Active)
Associated Outcome(s)	Improved laboratory detection of pathogenic fungi
Associated Strategy(s)	Improve surveillance and reporting
Rationale	This measure will be used to evaluate the overall burden of fungal pathogens, and this data will be used to determine the proportion of accurate identifications. Reliable identifications directly impact patient care, research, and continuous quality improvement in the field of fungal disease management. Tracking the number of accurate fungal pathogen identifications will help inform CDC on improvements in surveillance and reporting. Changes in accurate fungal identification can be used to alert of new assay issues or changes in pathogen.
Data Elements	1. Numerator: Number of Accurate Fungal Identifications. 2. Denominator: Total Number of Fungal Identifications.

Additional Guidance	Denominator: Total Number of Fungal Identifications. This data element involves recording the total number of fungal pathogen identifications made using a specific method or within a defined timeframe, which serves as the denominator for the performance measure. Numerator: Number of Accurate Fungal Identifications. This data element records the number of fungal pathogen identifications that have been confirmed as accurate and reliable. It serves as the numerator for the performance measure, indicating how many of the total identifications were correct.
Performance Target	N/A
Recommended Data Source	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

M. Mycotics: Detecting and Preventing Fungal Infections	
Passive Indicator Number & Name	PI.1 Percentage completion of minimum reportable data elements for fungal disease outbreaks in electronic reporting platforms
Type	Outcome (Passive)
Associated Outcome(s)	Improved tracking, lab detection and epidemiologic data on fungal disease outbreaks
Associated Strategy(s)	Improve surveillance and reporting
Rationale	To evaluate the completeness of interviewing during multistate outbreak investigations
Data Elements	Data submitted to national surveillance systems
Additional Guidance	N/A
Performance Target	N/A
Recommended Data Source	Passive Measure - Data routinely reported for surveillance and investigation purposes will be used for this measure.
Reporting Portal	REDCap

Reporting Frequency	N/A

M. Mycotics: Detecting and Preventing Fungal Infections	
Passive Indicator Number & Name	PI.2 Fungal infection awareness campaign reach and engagement
Type	Outcome (Passive)
Associated Outcome(s)	Increased healthcare provider and public awareness of fungal infections and their diagnosis and treatment (e.g., via local outreach, reports, and participation in Fungal Disease Awareness Week activities).
Associated Strategy(s)	To enhance communication, promote coordination, and develop partnerships
Rationale	To enhance communication, promote coordination, and develop partnerships
Data Elements	Number of attendees participating in fungal infection awareness campaign activities/number of participants targeted
Additional Guidance	N/A
Performance Target	N/A
Recommended Data Source	Participants that are invited by the programs to attend fungal infection awareness campaign activities, which can be the total number of participants invited.
Reporting Portal	N/A
Reporting Frequency	N/A

M. Mycotics: Detecting and Preventing Fungal Infections	
Passive Indicator Number & Name	PI.3 For jurisdictions that opt-in for FungiSurv: Number of fungal disease cases reported, and number and % of medical chart reviews and patient interviews completed.
Type	Outcome (Passive)
Associated Outcome(s)	Improved tracking and epidemiologic data on known and emerging fungal diseases, including coccidioidomycosis, histoplasmosis, blastomycosis, C. auris, and invasive mold infections. Comprehensive data on fungal diseases will enable analyses to understand the impacts of environment and other factors influencing health outcomes, as well as the geographic spread,

	temporal trends, environmental and healthcare exposures, patient and occupational risk groups, clinical outcomes, and potential exposure sources. These analyses will guide prevention measures aimed at reducing morbidity and mortality from fungal infections.
Associated Strategy(s)	Improve surveillance and reporting
Rationale	Evaluate completeness of medical chart and interviews completed.
Data Elements	Data submitted to national surveillance systems
Additional Guidance	N/A
Performance Target	N/A
Recommended Data Source	Data submitted to FungiSurv
Reporting Portal	Data submitted to FungiSurv
Reporting Frequency	N/A

M. Mycotics: Detecting and Preventing Fungal Infections	
Passive Indicator Number & Name	PI.4 For jurisdictions that received laboratory related mycotics funding: Description of implementation of fungal laboratory capacity (could include standard operating procedure (SOP), protocols, environmental sampling results, etc.).
Type	Outcome (Passive)
Associated Outcome(s)	Improved tracking and epidemiologic data on known and emerging fungal diseases, including coccidioidomycosis, histoplasmosis, blastomycosis, C. auris, and invasive mold infections. Comprehensive data on fungal diseases will enable analyses to understand the impacts of environment and other factors influencing health outcomes, as well as the geographic spread, temporal trends, environmental and healthcare exposures, patient and occupational risk groups, clinical outcomes, and potential exposure sources. These analyses will guide prevention measures aimed at reducing morbidity and mortality from fungal infections.
Associated Strategy(s)	Enhance laboratory testing for surveillance and reporting
Rationale	Evaluate completeness of laboratory and epidemiologic surveillance for targeted fungal diseases
Data Elements	N/A

Additional Guidance	N/A
Performance Target	N/A
Recommended Data Source	N/A
Reporting Portal	N/A
Reporting Frequency	N/A

N. Binational Border Infectious Disease Surveillance (BIDS)

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List of Performance Measures and Passive Indicators

PM.1 Binational Reporting Criteria Trainings (BRC Trainings on the collection of the binational variable in surveillance systems)

PM.2 Binational case reporting

PM.3 Strategic partnerships

N. Binational Border Infectious Disease Surveillance (BIDS)	
Performance Measure Number & Name	PM.1 Binational Reporting Criteria Trainings (BRC Trainings on the collection of the binational variable in surveillance systems)
Type	Process (Active)
Associated Outcome(s)	Improved binational case surveillance and data sharing through training, resulting in: Improved completeness, accuracy, and representativeness of binational data This performance measure relates to activity 1b from the J guidance.
Associated Strategy(s)	Improve surveillance, reporting, investigation, preparedness, and response.
Rationale	Knowledge and appropriate use of the binational variable are critical steps in improving surveillance and public health response for binational cases of infectious diseases of concern. Recipients' data on training number and knowledge gained will provide valuable information on progress towards recipient's ability to standardize and improve binational surveillance.
Data Elements	1. Number of state and local public health staff trained on the BRC 2. Average increase in knowledge of the BRC among trained staff associated with training.

Additional Guidance	The Binational Reporting Criteria variable (referred to as the binational variable) serves to identify cases that are binational. A binational case is defined as meeting one or more of the binational reporting criteria: • Potentially exposed while in Mexico or Canada • Potentially exposed by a resident of Mexico or Canada • Resident of Mexico or Canada • Has case contacts in or from Mexico or Canada • Exposure to suspected product from Mexico or Canada • Other situations that may require binational notification or coordination of response This performance measure relates to activity 1b from the N guidance.
Performance Target	1. 100% of new county and state staff involved in case or contact investigations trained at onboarding, and 90% of existing county and state personnel trained at least annually 2. 50% average increase in knowledge associated with the BRC training, as collected with pre- and post-test.
Recommended Data Source	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually (Calendar year reporting)

N. Binational Border Infectious Disease Surveillance (BIDS) Program	
Performance Measure Number & Name	PM.2 Binational case reporting
Type	Outcome (Active)
Associated Outcome(s)	Increased use and timeliness of distribution of binational data and distribution to public health partners, communities, and other types of partners.
Associated Strategy(s)	Improve surveillance, reporting, investigation, preparedness, and response.
Rationale	Measures reflect the degree to which public health and coordination is occurring and provide insight for programmatic strategy.

Data Elements	1. Number and percentage of all actionable binational cases with notification to public health counterparts in Mexican sister jurisdictions. Recipients should describe methods for determining actionability of notifications. a. Number and percentage of the notifications to Mexican public health authorities by each of the binational reporting criteria (**not** mutually exclusive categories) **combined**.

	E.g., if there were a total of 20 cases (of actionable notifiable conditions) notified to Mexican authorities, recipients may report that 10 cases (50%) of all the binational cases notified to Mexico were classified as binational due to the case being a resident of Mexico; 12 cases (60%) were due to the case being classified as a contact of a resident of Mexico. 2. Count of binational case report outcomes (mutually exclusive categories) in, at a minimum, border counties for cases with: a. Known public health follow-up in Mexico b. Binational collaboration on investigation or cluster/outbreak c. Unknown public health follow-up in Mexico
Additional Guidance	Case reports can be considered **actionable** if they are timely and contain sufficient information to pursue public health action for cases and contacts. The recipient may define **timely notification**, as a report made within the time period for public health intervention. Recipients may use more specific definitions of timeliness, e.g., timeliness by disease according to incubation period, days elapsed after exposure or post exposure prophylaxis, vaccination for contacts, etc. Binational coordination is defined as responding to requests for further information after initial report, receiving information from regional partners regarding the event after the initial report, or communication to discuss the event or response activities. A binational case is defined as a confirmed case in which one or more of the binational reporting criteria have been met. The Binational Reporting Criteria, as defined in NNDSS, are: a. Potentially exposed while in Mexico or Canada b. Potentially exposed by a resident of Mexico or Canada c. Resident of Mexico or Canada d. Has case contacts in or from Mexico or Canada e. Exposure to suspected product from Mexico or Canada f. Other situations that may require binational notification or coordination of response) For the purposes of this cooperative agreement, funding recipients only need to report on binational cases with links to the U.S.—Mexico border region. Recipients do not need to report on cases with links to Canada or other countries. Border counties are defined as the 44 U.S.-Mexico border counties with most of their area within the 100 km line, as established by the 1983 La Paz agreement. They are: • **Arizona:** Cochise, Pima, Santa Cruz, Yuma; • **California:** Imperial, San Diego; • **New Mexico:** Doña Ana, Grant, Hidalgo, Luna, Otero, Sierra; • **Texas:** Brewster, Brooks, Cameron, Crockett, Culberson, Dimmit, Duval, Edwards, El Paso, Frio, Hidalgo, Hudspeth, Jeff Davis, Jim Hogg, Kenedy, Kinney, La Salle, Maverick, McMullen, Pecos, Presidio, Real, Reeves, Starr, Sutton, Terrell, Uvalde, Val Verde, Webb, Willacy, Zapata, Zavala. This performance measure relates to activity 1c from the N guidance.

Performance Target	1. Number and percent of all actionable binational cases with notification to public health counterparts in Mexican sister jurisdictions for all reportable diseases as specified by the Operational Protocol for US-Mexico Communication: 90% 1a. N/A 2. N/A
Recommended Data Source	Primary state electronic disease surveillance system, or county/regional system, or grantees will create database(s) to track.
Reporting Portal	ELC CAMP
Reporting Frequency	Annually via ELC CAMP (calendar year reporting)

N. Binational Border Infectious Disease Surveillance (BIDS) Program	
Performance Measure Number & Name	PM.3 Strategic partnerships
Type	Process (Active)
Associated Outcome(s)	Engaged and sustained strategic binational and multi-sectorial partnerships to improve awareness, coordination, and exchange of public health information in the border region.
Associated Strategy(s)	Sustain or develop strategic partnerships
Rationale	Measures reflect the degree to which binational and multi-sectoral relationships are sustained and provide insight for programmatic strategy to improve collaborative public health response with partners.
Data Elements	1. Number of partners (agencies, organizations, employers) within your state or border region (including local, regional, and international partners) participating in review or testing of local/regional and binational information sharing protocols, by disease program/agency/sector.
Additional Guidance	This performance measure relates to required activity 4a from the N guidance. All recipients should provide performance measure 3.
Performance Target	N/A
Recommended Data Source	Implementation records

Reporting Portal	ELC CAMP

Reporting Frequency	Annually via ELC CAMP (calendar year reporting)

P. Parasitic Diseases Surveillance

Points of Contact: Vitaliano Cama, vec5@cdc.gov; Theresa Benedict, tgd5@cdc.gov

List of Performance Measures and Passive Indicators

PM.1 Number of public health laboratories that have been supported for the newly implemented assays for parasitic diseases

PI.1 Improvements in diagnostic testing: use of telediagnosis for parasite identification

PI.2 Number of NGS sequences AND number of physical specimens submitted to CDC for Cyclospora genotyping

P. Parasitic Diseases Surveillance	
Performance Measure Number & Name	(Tier I - Improvements in diagnostic testing for parasitic diseases) PM.1 Number of public health laboratories that have been supported for the newly implemented assays for parasitic diseases
Type	Process (Active)
Associated Outcome(s)	Expanded diagnostic capacity for parasitic diseases initially focusing on visceral leishmaniasis (via rapid diagnostic tests) and trichinosis (via indirect antibody enzyme immunoassays)
Associated Strategy(s)	Tier 1: Expand the number of assays for parasitic disease diagnosis offered at PHLs
Rationale	This measure will inform CDC on the recipients' progress towards the implementation of new test for the laboratory diagnosis of parasitic diseases. To ensure that the new tests are fully implemented and offered, key indicators will be the date when the assays were published in the test directories of the recipient's jurisdiction, and which other states are being supported with these assays.
Data Elements	For each measure below, provide the values for the corresponding funding period: a. Dates when new diagnostic assays for the serological diagnosis for visceral leishmaniasis (in-vitro diagnostic assay, Food and Drug Administration (FDA cleared) and the serology diagnosis for trichinosis (in-vitro diagnostic assay, FDA cleared) are published in the test directory of the Public Health Laboratory b. Names of other public health laboratories that are being supported with the newly implemented diagnostic assays for parasitic diseases, following the regional service areas (regions) as defined by PulseNet. c. Number of samples tested for each of the new diagnostic assays.
Additional Guidance	N/A

Performance Target	Two or more additional (new) diagnostic parasitology assays offered in Public Health Laboratory test directory
Recommended Data Source	ELC CAMP
Reporting Portal	Once per year via ELC CAMP
Reporting Frequency	Annually

P. Parasitic Diseases Surveillance	
Passive Indicator Number & Name	(Tier I - Improvements in diagnostic testing for parasitic diseases) PI.1 Improvements in diagnostic testing: use of telediagnosis for parasite identification Outcome
Type	(Passive) CDC will evaluate the performance based on the number of requests for telediagnosis received by the CDC reference laboratory.
Associated Outcome(s)	Expanded submission of digital images to CDC for remote diagnosis (telediagnosis) of parasitic diseases
Associated Strategy(s)	Tier 1: Expand the use of telediagnosis for morphology identification of parasites
Rationale	To expedite testing for “Parasites – Morphologic Identification, CDC-10234", CDC recently added a new and specific test request for morphological identification of parasites based solely on digital images: "Parasites: Telediagnosis, CDC-10563". This new test request will reduce the number of specimens to be physically shipped to CDC and will expedite testing. This measure will allow CDC to assess the use and implementation of telediagnosis for the morphological identification of parasites.
Data Elements	Data elements will include values for the corresponding funding period: a. The total number of diagnostic requests submitted to CDC for parasite identification via telediagnosis AND b. the total number of physical specimens submitted to CDC for parasite morphological identification.
Additional Guidance	N/A
Performance Target	Increased proportion of requests for telediagnosis (CDC test name and number: Parasites: Telediagnosis, CDC-10563) to at least 50%.
Recommended Data Source	CDC will use its ELIMS system to determine the proportion of request for telediagnosis when compared to the total number of submissions for morphological identification of parasites.

Reporting Portal	N/A
Reporting Frequency	This is a passive indicator, and CDC will evaluate on a yearly basis.

P. Parasitic Diseases Surveillance	
Passive Indicator Number & Name	(Tier II: Genotyping of parasites of public health importance) PI.2 Number of NGS sequences AND number of physical specimens submitted to CDC for Cyclospora genotyping
Type	Outcome (Passive)
Associated Outcome(s)	Increased genotyping of outbreak-associated parasitic diseases of public health importance, initially focusing on Cyclospora cayetanensis and malaria.
Associated Strategy(s)	Tier 2: Increase PHL capacity to genotype parasitic agents associated with outbreaks, initially focused on Cyclospora cayetanensis and malaria
Rationale	Parasitic diseases can cause focal outbreaks that require molecular epidemiological investigations. CDC has developed a novel algorithm for genotyping parasites, that overcomes the genetic heterogeneity found in samples from non-cultured parasites. This genotyping method cannot yet be deployed to other Public Health Laboratory, thus, the genotyping algorithm is based at CDC. Public health laboratories can submit the required sequences, rather than physical specimens. This approach will expedite the time to generate genotyping results that will support the corresponding epidemiological investigations. Information from this measure will inform CDC on uptake of services using the novel genotyping assay and on recipient's improvements on NGS data transmission
Data Elements	For this performance measure, CDC will track submissions for genotyping in two categories: 1. Total number of NGS sequences submitted to CDC 2. Number of physical specimens submitted to CDC
Additional Guidance	N/A
Performance Target	Increase the proportion of NGS sequences submitted to CDC for genotyping, which will reduce the processing time for generation of results.
Recommended Data Source	CDC records of NGS sequences and physical samples submitted to CDC for genotyping of parasites.
Reporting Portal	
Reporting Frequency	This is a passive indicator, and CDC will evaluate on a yearly basis.

Q. Combating Antimicrobial Resistant Gonorrhea and Other STIs (CARGOS)

Point of Contact: Shacara Johnson Lyons, CARGOS@cdc.gov

List of Performance Measures and Passive Indicators

PM.1 Number of specimens collected and number of cultures positive for *Neisseria gonorrhoeae* (GC), by specimen source (urethral, pharyngeal, rectal, and/or endocervical) and sex

PM.2 Status of implementation and use of gradient strip antimicrobial susceptibility testing (AST) via Etest™

Q. Combating Antimicrobial Resistant Gonorrhea and Other STIs (CARGOS)	
Performance Measure Number & Name	PM.1 Number of specimens collected and number of cultures positive for *Neisseria gonorrhoeae* (GC), by specimen source (urethral, pharyngeal, rectal, and/or endocervical) and sex.
Type	Outcome (Active)
Associated Outcome(s)	• Improved epidemiologic capacity to identify, investigate, respond to, and interrupt transmission of GC strains with antimicrobial resistance (AR) • Improved quality and availability of epidemiologic, clinical, and laboratory data on AR in GC and other STIs to inform protective and appropriate public health actions.
Associated Strategy(s)	Strengthen local epidemiologic capacity to detect, monitor, and respond to AR in STIs: • Improve surveillance and reporting of male urethral GC in STI clinics • Improve surveillance and reporting of pharyngeal GC in STI clinics • Improve surveillance & reporting of GC from populations where AR is likely • Improve surveillance and reporting of rectal GC in STI clinics
Rationale	This information will demonstrate progress on recipient's ability to successfully perform GC and AR GC surveillance by tracking the collection of clinical specimens from eligible participants and the associated clinical/demographic data of submitted specimens. Data from this measure will inform CDC/Division of STD Prevention (DSTDP) on AR GC surveillance and data quality.
Data Elements	

Pharyngeal Specimens (required)		
Patient Sex	Total Specimens Collected for GC Culture	Total Positive GC Specimens
Male		

	Female		
	Unknown		

Additional Guidance	Recipients should include a table for each specimen source from which GC isolates are collected. All recipients will report on urethral and pharyngeal specimens. Reporting on specimens from additional specimen sources is dependent on funding for optional activities.
Performance Target	All recipients are required to collect urethral GC isolates from 300 males with symptomatic gonococcal urethritis AND pharyngeal GC isolates from 300 patients seen in participating STI clinic(s) annually. Recipients funded for optional components should additionally report annual counts of rectal and endocervical specimens.
Recommended Data Source	Clinic electronic medical record, laboratory information system.
Reporting Portal	Annual reporting of performance measures via ELC CAMP.
Reporting Frequency	Annually

Q. CARGOS: Combating Antimicrobial Resistant Gonorrhea and Other STIs	
Performance Measure Number & Name	PM.2 Status of implementation and use of gradient strip antimicrobial susceptibility testing (AST) via Etest™.
Type	Outcome (Active)
Associated Outcome(s)	• Improved epidemiologic capacity to identify, investigate, respond to, and interrupt transmission of AR in GC • Improved laboratory capacity to conduct gradient strip AST

	• Increased collaboration between state and local jurisdictions, regional Antimicrobial Resistance Laboratory Network (ARLN) laboratories, and CDC/DSTDP • Improved quality and availability of epidemiologic, clinical, and laboratory data on AR in GC to inform protective and appropriate public health actions
Associated Strategy(s)	• Enhance local laboratory testing for surveillance, reporting, and response. • Establish or enhance gradient strip AST capacity.
Rationale	This information will demonstrate progress on the recipient's implementation and use of Etest™. Additionally, this measure will inform CDC/DSTDP on GC and AR in GC surveillance and data completeness by providing important summary information on the collection of clinical specimens from eligible participants, as well as the associated clinical/demographic data for submitted specimens. Information on the use of the Etest™ for field/case investigations on isolates meeting alert criteria will improve CDC/DSTDP's understanding of testing uptake and field utility.
Data Elements	1. Partner has established Etest™ capacity to perform gradient strip AST: Yes/No a. If yes, recipients should provide the following information:
Additional Guidance	Recipients with existing capacity to perform Etest™ must perform AST for ceftriaxone and cefixime on GC cultures obtained during all surveillance activities funded in Strategy 1.
Performance Target	Recipients required to initiate (within 48 hours of AST results) robust field investigations of all patients infected with GC with elevated minimum inhibitory concentrations (MICs) to ceftriaxone or cefixime as identified by E-test™ (for additional guidance please see Strategy 3, Activity 1).
Recommended Data Source	Clinic electronic medical record, laboratory information system.
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

R. Rabies Surveillance and Laboratory Capacity

Point of Contact: Sarah Catherine Bonaparte ygb7@cdc.gov

List of Performance Measures and Passive Indicators

PM.1 Number of competent diagnosticians in laboratory conducting rabies tests

R. Rabies Surveillance and Laboratory Capacity	
Performance Measure Number & Name	PM.1 Number of competent diagnosticians in laboratory conducting rabies tests
Type	Process (Active)
Associated Outcome(s)	A well-trained and proficient laboratory workforce is available to ensure compliance with national protocols and standards
Associated Strategy(s)	Enhance laboratory testing for surveillance and reporting
Rationale	Proficient diagnosis of rabies suspect animals by state laboratories is the cornerstone of rabies prevention in the United States Well-trained rabies diagnosticians are necessary to ensure accurate and timely surveillance. This measure will provide important insights into the recipient's ability to process, test, and identify rabies cases appropriately.
Data Elements	2. Number of competent diagnosticians in laboratory conducting rabies tests
Additional Guidance	Participate in the CDC/APHL sponsored training course “Laboratory Techniques for Rabies Diagnosis. The National Standard Protocol for Postmortem Diagnosis of Rabies in Animals requires that the rabies laboratories in the US send at least 1 laboratorian to this course every six years. CDC SMEs conduct this training annually to ensure the continuity of national rabies diagnostic capacity as staff turnover occurs. The course is designed for individuals performing rabies testing in public health laboratories, and addresses traditional rabies testing techniques, safety in the rabies laboratory, specimen acquisition and preparation, rabies quality control and proficiency testing, standardized testing procedures, emerging technologies, and epidemiologic issues. Participate in Wisconsin State Laboratory of Hygiene proficiency testing or internal competency assessment.
Performance Target	80% proficiency score
Recommended Data Source	Administrative system or training logs
Reporting Portal	ELC CAMP

Reporting Frequency	Annually

S. Surveillance for Emerging Threats to Mothers and Babies Network (SET-NET)

Point of Contact: setnet@cdc.gov

List of Performance Measures and Passive Indicators

PM.1 Number of jurisdictional technical support sessions completed. This can include but is not limited to phone calls, office hours, or materials reviewed

PI.1 Number of data sources used for linkage for case ascertainment and data collection for completeness of data variables for factors that influence health (e.g., pregnancy status, demographics, location/residence)

PI.2 Percentage of cases submitted to CDC among expected cases for surveillance area by cohort year

PI.3 Number and percentage of infants with completed medical record abstraction or indication of lost to follow- up among all live births for surveillance area by cohort year submitted to CDC

S. Surveillance for Emerging Threats to Mothers and Babies Network (SET-NET)	
Performance Measure Number & Name	PM.1 (Tier 3) Number of jurisdictional technical support sessions completed. This can include but is not limited to phone calls, office hours, or materials reviewed.
Type	Process measure (Active)
Associated Outcome(s)	Support a network of jurisdictional partners to enhance the capabilities of the surveillance network. This includes providing technical assistance to recipients funded as Tier 1 or 2 and supporting efforts to improve and streamline surveillance methods, in collaboration with CDC.
Associated Strategy(s)	Partner with other recipients to provide technical assistance
Rationale	The number of technical support sessions will be used to measure the involvement of the Tier 3 recipients among Tiers 1&2 recipients. This measure will provide important data that informs CDC on the increasing span of the SET-NET surveillance network.
Data Elements	1. Number of jurisdictional technical support sessions completed 2. Number of jurisdictions collecting SET-NET data or poised to collect data in a public health emergency
Additional Guidance	Technical support sessions can include but are not limited to phone calls, office hours, or materials reviewed. CDC will collaborate with recipients to guide the focus of the support sessions. Recipients may use internal or adopted best practices to guide support sessions. Recipients should provide concrete examples of successful practices for "out-of-the-box" implementation by other jurisdictions.

Performance Target	A minimum of 6 technical support sessions should be conducted per calendar year, with defined objectives, and actionable steps to achieve goals.
Recommended Data Source	N/A
Reporting Portal	ELC CAMP
Reporting Frequency	Annually

S. Surveillance for Emerging Threats to Mothers and Babies Network (SET-NET)	
Passive Indicator Number & Name	PI.1 (Tiers 1, 2, and 3) Number of data sources used for linkage for case ascertainment and data collection for completeness of data variables for factors that influence health (e.g., pregnancy status, demographics, location/residence).
Type	Outcome measure (Passive)
Associated Outcome(s)	Improve epidemiological capacity to monitor pregnant individuals, and their infants and children exposed to the selected infections during pregnancy, including for people who are at increased risk, and where applicable, those who meet the required case definition(s) defined by program.
Associated Strategy(s)	• Develop methods for surveillance of infections during pregnancy • Improve completeness of surveillance of infections during pregnancy • Implement data modernization efforts with linked pregnancy-child data
Rationale	Systematic linkage to various data sources is crucial for successful case identification and data collection. These data sources can vary but should include (at a minimum) linkages that provide birth outcomes and laboratory information for all cases meeting inclusion criteria in the surveillance area. This measure will be used to inform CDC on progress improvements expanding the recipient's epidemiologic surveillance capacity.
Data Elements	Recipient should report the number of data systems for which the jurisdiction has the ability to access (Tier 1) or currently links to for data submission (Tiers 2 and 3).
Additional Guidance	The SET-NET team recognizes that some jurisdictions are able to collect the majority of data from 1-3 sources. (Tier 1) Recipients may count new linkages, data sources, or prospective linkages. Recipients will determine the best data source(s) for the surveillance area and specify the data source(s) used to identify sociodemographic data.
Performance Target	Jurisdictions should link to a total of at least 3-4 sources. At least 1 source that provides birth outcome information, 1 source that provides laboratory tests and results for the exposure of interest, and 2 other sources such as death certificate or birth defects registry. This target may vary based on jurisdictional systems. (Tier 1) Recipients should have the ability to link to these sources for internal use, even if they are

	not submitting data to CDC. Total numbers will include identified prospective or retrospective data linkages.
Recommended Data Source	Data source linkage information will be submitted per CDC instructions.
Reporting Portal	Secure data exchange as directed by CDC
Reporting Frequency	Bi annual reporting of linkage data sources. Exact dates will be determined by the SET-NET team and shared with recipients.

S. Surveillance for Emerging Threats to Mothers and Babies Network (SET-NET)	
Passive Indicator Number & Name	PI.2 (Tiers 2 and 3) Percentage of cases submitted to CDC among expected cases for surveillance area by cohort year.
Type	Outcome measure (Passive)
Associated Outcome(s)	Ensure completeness, timeliness, and representativeness of data reported to surveillance systems for infectious threats for mothers and their babies to state, local, and territorial health departments and CDC in alignment with established timelines. This includes more complete information on pregnancy status for case identification through routine case interviews, medical chart review, electronic laboratory reporting, electronic case reporting, or linkages with other existing data sources.
Associated Strategy(s)	• Improve completeness of surveillance of infections during pregnancy • Implement data modernization efforts with linked pregnancy-child data
Rationale	This measure will aid in encouraging timely case ascertainment and will be useful in improving the completeness of surveillance data by cohort year.
Data Elements	Jurisdictions should report expected number of cases per CDC instructions. SET-NET team will estimate the percentage based on exposure. Cohort year can be infection or birth year depending on the exposure. By exposure, cases would be determined by the number of birth outcomes that meet inclusion among the expected cases reported by the recipient.
Additional Guidance	The SET-NET team recognizes that denominators may change based on the cohort year. Recipients will determine the best methodology, in consultation with CDC, for calculating the expected cases for the surveillance area. Generally expected cases can be obtained from case surveillance data, with either active or passive methods for identifying pregnancy status or infants.
Performance Target	Case ascertainment will be dependent on the years of surveillance per cohort. Expected cases for the earliest year of surveillance should be 90% ascertained and submitted to CDC by the end of the budget period.

Recommended Data Source	Case level data will be submitted per CDC instructions with every data submission.
Reporting Portal	Secure data exchange as directed by CDC.
Reporting Frequency	The CDC project team will analyze the percentage based on data submissions for the project year. Dates of data submission will be determined by the SET-NET team and shared with recipients.

S. Surveillance for Emerging Threats to Mothers and Babies Network (SET-NET)	
Passive Indicator Number & Name	PI.3 (Tiers 2 and 3) Number and percentage of infants with completed medical record abstraction or indication of lost to follow-up among all live births for surveillance area by cohort year submitted to CDC.
Type	Outcome measure (Passive)
Associated Outcome(s)	Improve epidemiological capacity to monitor mothers, and their babies and children exposed to the selected infections during pregnancy, including for people who are at increased risk, and where applicable, those who meet the required case definition(s) defined by program.
Associated Strategy(s)	• Improve completeness of surveillance of infections during pregnancy • Implement data modernization efforts with linked pregnancy-child data
Rationale	Completeness and timeliness of data by cohort contribute to overall value of data to action. CDC will analyze the lost to follow-up variable and review the submitted surveillance data to track progress on improvements in follow-up and data collection completeness. CDC will apply a lag based on the expected follow-up period as specified in the surveillance protocol based on the oldest age of follow-up given that jurisdictions will be requesting medical records at one time point.
Data Elements	These data elements will be submitted to CDC via the requested SET-NET variables.
Additional Guidance	Number includes cases submitted to CDC with completed medical record abstraction or indication of lost to follow-up among all live births for surveillance area by cohort year. Recipients will determine the best methods for completing medical record abstraction via medical record or Health Information Exchange (HIE). An internal system should be used to track cases that are lost to follow-up based on the jurisdiction's follow-up protocol.
Performance Target	Six months after all infants/children in the cohort year have reached the oldest age of expected follow-up based on the surveillance protocol, program expects 90% or greater completeness.
Recommended Data Source	Abstracted data will be submitted per CDC instructions with every data submission.
Reporting Portal	Secure data exchange as directed by CDC.

Reporting Frequency	The CDC project team will analyze the percentage based on reporting from data submissions for the project year. Dates of data submission will be determined by the SET-NET team and shared with recipients.

T. Human Papillomavirus Surveillance Among Men

Point of Contact: Carla DeSisto, wup5@cdc.gov

List of Passive Indicators

PI.1 Total number of residual specimens from anal swabs obtained and submitted annually to the CDC Human Papillomavirus (HPV) laboratory

PI.2 Total number of specimens with associated line-list of epidemiologic data submitted annually to the CDC HPV Team

T. Human Papillomavirus Surveillance Among Men	
Passive Indicator Number & Name	PI.1 Total number of residual specimens from anal swabs obtained and submitted annually to the CDC Human Papillomavirus (HPV) laboratory
Type	Outcome (Passive)
Associated Outcome(s)	Improved surveillance of HPV infections among men who have sex with men (MSM)
Associated Strategy(s)	Improve surveillance and reporting of anal HPV prevalence among MSM
Rationale	This measure will be used to track how many specimens the participating health centers have collected and submitted to the CDC HPV laboratory for testing. Specimens submitted to the CDC HPV Laboratory will be tested for HPV DNA (type-specific testing). Detection of vaccine-type HPV will allow surveillance for vaccine-type HPV prevalence in this population.
Data Elements	Number of specimens collected and submitted to the CDC HPV laboratory
Additional Guidance	Each recipient will collect 500 specimens per year from MSM. Ideally, the population will include 200-250 people ages 18-26 years, 150 people ages 27-35 years, and 100-150 people ages 36-45 years. Specimens should be stored and shipped in batches in accordance with CDC HPV Laboratory recommendations. Specimen shipments should be coordinated with CDC HPV epidemiology and laboratory teams and a requisition sheet may be required to account for each specimen. Specimen numbering or barcoding should be discussed with the CDC Program. No patient identifying information should be submitted to CDC. Methodology should be confirmed with CDC HPV Laboratory at project initiation.

Performance Target	By the end of budget period 1, recipients should have 500 specimens collected and submitted to the CDC HPV laboratory.
Recommended Data Source	Participating health centers or laboratories
Reporting Portal	Passive measure (line lists sent via email)
Reporting Frequency	Annually

T. Human Papillomavirus Surveillance Among Men	
Passive Indicator Number & Name	PI.2 Total number of specimens with associated line-list of epidemiologic data submitted annually to the CDC HPV Team
Type	Outcome (Passive)
Associated Outcome(s)	Improved surveillance of HPV infections among MSM
Associated Strategy(s)	Improve surveillance and reporting of anal HPV prevalence among MSM
Rationale	This measure will be used to track whether a line-list of epidemiologic data is provided for each specimen.
Data Elements	Number of specimens with associated line-list of epidemiologic data submitted to CDC HPV Team
Additional Guidance	Each recipient will collect 500 specimens per year from MSM. Ideally, the population will include 200-250 people ages 18-26 years, 150 people ages 27-35 years, and 100-150 people ages 36-45 years. For each specimen collected, obtain relevant information, including but not limited to: demographics, HPV vaccination status (e.g., number of doses, age at first dose), and HIV status. Recipient should also track any individual participation in previous project year(s), if possible. Line-listed de-identified demographic and clinical data elements associated with each specimen will be collected by the recipient and electronically submitted to CDC following standardized protocols. Epidemiologic data should be linked to specimens via ID number assigned to both the specimen and the associated data. No patient identifying information should be submitted to CDC.
Performance Target	By the end of budget period 1, recipients should have 500 specimens collected, with associated line-list of epidemiologic data for each specimen.
Recommended Data Source	Participating health centers or laboratories, electronic medical records, vaccine registries
Reporting Portal	Passive measure (line lists sent via email)

Reporting Frequency	Annually

U. HIV Centers for Cluster and Outbreak Response Enhancement (HIV C-CORE)

Project U does not have any Performance Measures in BP1.

Appendix I: Acronyms and Definitions

Below is a list of all acronyms used in this guidance document and their definitions.

Acronym	Definition
AFM	Acute Flaccid Myelitis
AFST	Antifungal Susceptibility Testing
AIMS	APHL Informatics Messaging Service
AMD	Advanced Molecular Detection
APHL	Association of Public Health Laboratories
API	Application Programming Interface
AR	Antimicrobial Resistance
ARI	Acute Respiratory Infections
ARLN	Antimicrobial Resistance Laboratory Network
AS	Antibiotic Stewardship
AST	Antimicrobial Susceptibility Testing
BIDS	Binational Border Infectious Disease Surveillance
BML	Bacterial Meningitis Laboratory
BP	Budget Period
BRC	Binational Reporting Criteria
BRR	Bioinformatics Regional Resource Leads
CAMP	Cooperative Agreement Management Platform
CARGOS	Combating Antimicrobial Resistant Gonorrhea and Other STIs
CBSA	Core-Based Statistical Area
CDC	Centers for Disease Control and Prevention
CDI	*Clostridioides difficile* infection
CIDT	Culture-independent diagnostic tests
CJD	Creutzfeldt-Jakob Disease
CLSI	Clinical & Laboratory Standards Institute
COVIS	Cholera and Vibriosis
CPO	Carbapenemase-Producing Organism
CRAB	carbapenem-resistant Acinetobacter baumannii
CRE	Carbapenem-resistant Enterobacterales
CRPA	Carbapenem-resistant Pseudomonas aeruginosa
CSTE	Council of State and Territorial Epidemiologists
CWD	Chronic Wasting Disease
DOB	Date of Birth
DSTDP	Division of STD Prevention
ECR	Electronic Case Reporting
ED	Emergency Department
EHR	Electronic Health Record
EICRs	Electronic Initial Case Reports
EIP	Emerging Infections Program
ELC	Epidemiology and Laboratory Capacity
ELR	Electronic Laboratory Reporting
ETOR	Electronic Test Ordering and Results
FDA	Food and Drug Administration

FHIR	Fast Healthcare Interoperability Resources
GC	Gonococcal
HAB	Harmful Algal Bloom
HAI	Healthcare-associated Infections
HCO	Healthcare Organizations
HIE	Health Information Exchange
HIS	Health Information Systems
HIV	Human Immunodeficiency Virus
HL7	Health Level 7
HPV	Human Papillomavirus
ILI	Influenza-like Illness
ILINET	US Outpatient Influenza-like Illness Surveillance Network
IPC	Infection, Prevention, and Control
IPD	Invasive Pneumococcal Disease
LDX	Local Data Exchange
LHD	Local Health Departments
LIMS	Laboratory Information Management Systems
LTACH	Long-Term Acute Care Hospitals
LTCFs	Long-Term Care Facilities
MBL	Metallo beta-lactamase
MDRO	Multi-drug Resistant Organisms
MG	*Mycoplasma Gentalium*
MIC	Minimum Inhibitory Concentration
MMG	Message Mapping Guides
MSM	Men Who Have Sex with Men
MVPS	Message Validation, Processing, and Provisioning System
NAAT	Nucleic Acid Amplification Tests
NARMS	National Antimicrobial Resistance Monitoring System
NATRS	National Adenovirus Reporting System
NCBI	National Center for Biotechnology Information
NCEZID	National Center for Emerging and Zoonotic Infectious Diseases
NCHS	National Center for Health Statistics
NCIRD	National Center for Immunization and Respiratory Diseases
NGS	Next-generation Sequencing
NHSN	National Healthcare Safety Network
NIRC	National Influenza Reference Center
nMDROs	Novel Multidrug-Resistant Organisms
NNDSS	National Notifiable Diseases Surveillance System
NOFO	Notice of Funding Opportunity
NORS	National Outbreak Reporting System
NPDPSC	National Prion Disease Pathology Surveillance Center
NREVSS	National Respiratory and Enteric Virus Surveillance System
NS3	National SARS-CoV-2 Strain Surveillance
NSSP	National Syndromic Surveillance Program
NTPFS	National Typhoid and Paratyphoid Fever Surveillance
NWSS	National Wastewater Surveillance System

ODSS	NREVSS Online Data Submission System
OHHABS	One Health Harmful Algal Bloom System
OMB	Office of Management and Budget
PCR	Polymerase Chain Reaction
PHA	Public Health Agency
PHD	Public Health Data
PHIG	Public Health Infrastructure Grant
PHL	Public Health Lab
PHLIP	The Public Health Laboratory Interoperability Project
PPS	Point Prevalence Screening
QC	Quality Control
RCKMS	Reportable Conditions Knowledge Management System
RR	Reportability Responses
RSV	Respiratory Syncytial Virus
RT-QuIC	Real-time quaking-induced conversion assay
SAMS	Secure Access Management System
SEDRIC	System for Enteric Disease Response, Investigation and Coordination
SME	Subject Matter Expert
SNF	Skilled Nursing Facilities
SOP	Standard Operating Procedure
SRR	SRR is a prefix is followed by a 7-digit accession number to denote the sequencing run for an isolate that has been sequenced.
STEC	Shiga toxin producing E. coli
STI	Sexually Transmitted Infection
TAT	Turnaround Time
TB	Tuberculosis
VBD	Vector-borne Disease
VPD	Vaccine Preventable Disease
WGS	Whole Genome Sequencing
WHO	World Health Organization
WW	Wastewater

Appendix II. Budget Period 1 Reporting Timelines and Mechanisms

Month Due	Program/Project	Time Period Covered	Reporting Mechanism
January	H. Healthcare-associated Infections (HAI) and Antimicrobial Resistance (AR) * refer to HAI-AR guidance for details	Calendar year* (8/1/YYYY to 12/31/YYYY)	REDCAP
May	A. Cross-Cutting Epidemiology and Laboratory Capacity B. ELC Leadership, Management, and Administration **C. Health Information Systems (HIS) Capacity D. Advanced Molecular Detection (AMD) D. (Supplemental): Advanced Molecular Detection (AMD) E. (Supplemental): National Wastewater Surveillance System G. Enteric, Foodborne, Waterborne, and Zoonotic Diseases: Surveillance, Detection, Response, Reporting, and Prevention H. Healthcare-associated Infections (HAI) and Antimicrobial Resistance (AR) J. Enhanced Surveillance of Vaccine Preventable Disease (VPD) and Respiratory Diseases K. Vector-borne Diseases and Tick-Associated Conditions L. Prion Surveillance M. Mycotics: Detecting and Preventing Fungal Infections N. Binational Border Infectious Disease Surveillance (BIDS) P. Parasitic Diseases Surveillance Q. Combating Antimicrobial Resistant	Calendar year (1/1/YYYY to 12/31/YYYY) ** March HIS submission covers data from 7/1/YYYY to 12/31/YYYY	ELC CAMP

	Gonorrhea and Other STIs (CARGOS) R. Rabies Surveillance and Laboratory Capacity S. Surveillance for Emerging Threats to Pregnant People and Infants Network (SET-NET) T. Human Papillomavirus Surveillance Among Men		
May	I. Antimicrobial Resistance Laboratory Network (AR Lab Network)	Calendar year (8/1/YYYY to 12/31/YYYY)	ELC CAMP
September	C. Health Information Systems Capacity	HIS Mid-year (1/1/YYYY to 06/30/YYYY)	ELC CAMP