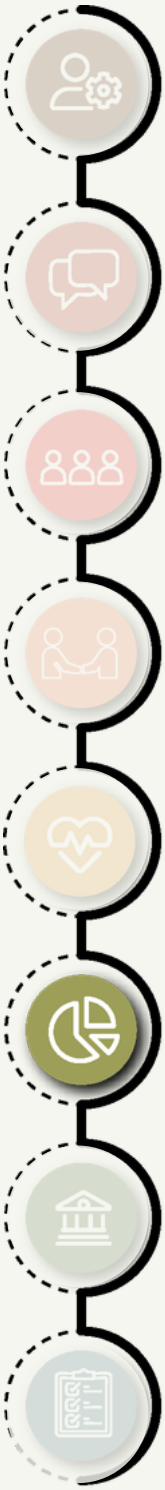
DOMAIN 6 INFORMATION AND DATA

Facilitator Guide



Domain 6: Information and Data Instructional Materials

This facilitator guide is for instructors in schools and programs of public health who are teaching about information and data in governmental public health.

This guide is designed to:

- Clarify what information and data mean in governmental public health practice
- Contextualize how information and data are collected, managed, analyzed, interpreted, protected, and communicated
- Support instructional delivery in academic settings
- Explain how state, Tribal, local, and territorial (STLT) health departments use information and data job tasks to inform planning, decision-making, and action in governmental public health settings
- Align information and data job tasks with the CEPH MPH Foundational Competencies[1]

This guide supports instructors in helping students understand how governmental public health professionals use information and data to inform decisions in governmental public health settings. The Facilitator Guide is informed by the 2024 Governmental Public Health Job Task Analysis.

1. https://media.ceph.org/documents/2024.Criteria.pdf

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Alignment with the CEPH MPH Foundational Competencies

This section of the facilitator guide is intended to support instructors in showing students how classroom learning connects to real-world governmental public health practice. Governmental public health job tasks were mapped to the CEPH MPH Foundational Competencies[1] to illustrate how the knowledge and skills taught in public health degree programs are applied in health department settings. This mapping demonstrates how academic preparation supports workforce readiness and professional growth in governmental public health. As students learn and practice these competencies, they build the knowledge and skills needed to develop proficiency in governmental public health job tasks through experience and training in the field.

Domain 6 Job Task		Related CEPH MPH Foundational Competencies
6.1	Comply with data use, security, and dissemination policies	*No direct CEPH MPH Foundational Competency alignment identified.*
6.2	Manage the usage of data	*No direct CEPH MPH Foundational Competency alignment identified.*
6.3	Engage in primary data collection using various quantitative and qualitative methods	**Competency 2:** Select quantitative and qualitative data collection methods appropriate for a given public health context.
6.4	Engage in secondary data usage using various quantitative and qualitative methods	**Competency 3:** Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate. **Competency 4:** Interpret results of data analysis for public health research, policy, or practice.
6.5	Conduct program evaluations in consultation with key partners	**Competency 11:** Select methods to evaluate public health programs.
6.6	Conduct ongoing and/or new surveillance analyses to monitor emerging health trends	**Competency 1:** Apply epidemiological methods to settings and situations in public health practice. **Competency 3:** Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate.

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Domain 6 Job Task	Related CEPH MPH Foundational Competencies
6.7 Create and/or maintain data visualizations	*No direct CEPH MPH Foundational Competency alignment identified.*
6.8 Communicate data in collaboration with relevant audiences	**Competency 18:** Select communication strategies for different audiences and sectors. **Competency 19:** Communicate audience-appropriate public health content, both in writing and through oral presentation to a non-academic, non-peer audience with attention to factors such as literacy and health literacy.
6.9 Conduct comprehensive jurisdictional assessments focused on population health status and public health issues facing the community	**Competency 2:** Select quantitative and qualitative data collection methods appropriate for a given public health context. **Competency 7:** Assess population needs, assets, and capacities that affect communities' health.

Information and Data in Governmental Public Health

In STLT health departments, information and data are foundational tools used to guide decision-making and action, allocate resources, maintain accountability, and build public trust. This domain includes job tasks related to data collection and management, surveillance and evaluation, data interpretation and visualization, communication, confidentiality, compliance, and data quality.

Job tasks within this domain are often conducted under time pressure, with incomplete or imperfect information, and in environments shaped by policy, governance, and funding requirements.

A helpful framing for students is:
"Domain 6 is about how public health professionals move from data to decision-making."

Information and Data: Job Tasks

6.1 Comply with data use, security, and dissemination policies
6.2 Manage the usage of data
6.3 Engage in primary data collection using various quantitative and qualitative methods
6.4 Engage in secondary data usage using various quantitative and qualitative methods
6.5 Conduct program evaluations in consultation with key partners
6.6 Conduct ongoing and/or new surveillance analyses to monitor emerging health trends
6.7 Create and/or maintain data visualizations
6.8 Communicate data in collaboration with relevant audiences
6.9 Conduct comprehensive jurisdictional assessments focused on population health status and public health issues facing the community

Information and Data in Action

- Reviewing surveillance dashboards to identify emerging trends
- Documenting data limitations before public release
- Preparing summaries for leadership briefings and decision-making
- Interpreting small numbers or unstable rates
- Selecting appropriate data sources to answer governmental public health policy, programmatic, and operational questions
- Ensuring compliance with privacy protections and data-sharing agreements
- Responding to media and public inquiries with accurate, contextualized information
- Coordinating with epidemiologists, program staff, communications teams, leadership, and other internal and external partners

Operationally, information and data job tasks often require personal judgment. They involve deciding what is sufficient for decision-making, what must be disclosed as a limitation, and what additional data are needed.

Information and data are foundational to governmental public health because they:

- Guide evidence-informed decision-making
- Inform funding allocation, workforce planning, and resource prioritization
- Identify differences in health outcomes and inform appropriate action
- Support accountability to communities and governing bodies
- Strengthen transparency and public trust
- Enable evaluation and system improvement

Ultimately, public health information and data job tasks connect data systems and analytic capacity to population health impact by ensuring that STLT health departments can effectively collect, manage, analyze, and use data to inform decisions and respond to community needs.

How to Use This Guide in Academic Settings

In academic instruction, this domain emphasizes that public health impact depends not only on programs and services, but also on the data systems and infrastructure that support them.

This guide is adaptable for use throughout schools and programs of public health, as well as other related educational disciplines, supporting instruction at the undergraduate and graduate levels, including but not limited to courses in public health informatics, epidemiology, biostatistics, and public health surveillance.

SUGGESTED INSTRUCTIONAL FLOW

1. Introduce information and data job tasks and how they are operationalized in governmental public health settings.
2. Review job tasks 6.1-6.9 through applied examples.
3. Align job tasks to CEPH MPH Foundational Competency Domains.
4. Introduce real-world artifacts (e.g., dashboards, assessments, evaluation summaries).
5. Facilitate discussion on how information and data job tasks support interpretation and professional accountability in governmental public health.
6. Conclude with reflection on how information and data job tasks support trust and decision-making in STLT health departments.

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SUGGESTED INSTRUCTIONAL STRATEGIES

In addition to adapting and/or presenting the Domain 6 slide deck, instructors may consider:

1. Data Interpretation Under Constraint (Aligned with Job Tasks 6.6 and 6.8)
Provide students with imperfect or incomplete data and ask them to:

- Identify key findings
- Name limitations
- Suggest next steps
- Draft a brief public explanation

2. Data Source Selection Exercise (Aligned with Job Task 6.4)
Present a policy question and ask students to determine:

- Which data source(s) they would use
- Why those data source(s) are the most appropriate for answering the question
- What limitations they would disclose

3. Transparency and Ethics Scenario (Aligned with Job Tasks 6.1 and 6.2)
Provide a scenario involving small numbers, potential re-identification risk, or sensitive findings. Ask students:

- What would you release?
- What would you suppress?
- What would you document internally?

4. Dashboard Deconstruction (Aligned with Job Tasks 6.7 and 6.8)
Show a real public health dashboard and ask students to:

- Identify intended audience
- Evaluate clarity
- Assess limitations
- Suggest improvements

These activities move students from technical analysis to professional reasoning.

Implementation in Schools and Programs of Public Health

The Domain 6: Information and Data slide deck and instructional materials are adaptable across academic settings, including:

Single or multi-week modules in public health courses, including:

- Public Health Informatics
- Introduction to Health Data Science
- Applied Epidemiology and Data Analysis
- Biostatistics for Public Health
- Design and Management of Health Information Systems
- Monitoring and Evaluation Data Systems

Guest lectures, seminars, and grand rounds

Applied learning intensives or capstone preparation sessions

Strengthening Practice Understanding for Instructors

Instructors may consider the following examples when explaining information and data job tasks. Concrete examples strengthen academic delivery and help students understand how information and data influences public health capacity and performance.

EXAMPLE 1: **COMMUNITY HEALTH ASSESSMENT**

A local health department conducting a community health assessment may:

- Compile surveillance and vital statistics data
- Integrate qualitative community input
- Assess disparities across demographic groups
- Document data sources and limitations
- Present findings to governing bodies, leadership, and the public

EXAMPLE 2: **INFECTIOUS DISEASE SURVEILLANCE**

A state surveillance team may:

- Monitor case reports daily
- Identify emerging trends
- Investigate anomalies
- Communicate findings to leadership
- Coordinate with communications staff before public release
- Document changes in case definitions

EXAMPLE 3: **PROGRAM EVALUATION REPORTING**

A chronic disease program within a STLT health department may:

- Collect performance indicators
- Analyze reach and effectiveness
- Prepare reports required by funding streams
- Communicate findings to community partners
- Recommend program adjustments

Toolkit Components – Instructional Materials for Domain 6: Information and Data

The Domain 6: Information and Data toolkit is structured to help instructors teach governmental public health data practice in a way that is conceptually clear, practice-oriented, grounded in real-world systems, and aligned with the CEPH MPH Foundational Competency Domains.

Student-Facing Instructional Slides

The student-facing slides introduce each Domain 6 job task and provide:

- An overview of each job task
- A clear explanation of how the job task functions within governmental public health systems
- Practical examples of how the job task appears in STLT health department settings
- Identification of skills strengthened through the job task (e.g., judgment, communication, collaboration, ethical reasoning)

The slide deck is designed to build shared vocabulary and conceptual clarity around information and data job tasks in governmental public health. It reinforces that robust data systems, data quality, and the effective use of information for decision-making are essential to governmental public health effectiveness.

Real-World Example Slides

Each Domain 6 job task is paired with a real-world example drawn from governmental public health initiatives. These examples reflect common data systems and practices used in governmental public health and demonstrate how information and data job tasks operate beyond theory.

Examples include:

Job Task 6.1: Michigan Department of Health & Human Services Data Use Agreements Policy
- Provides a real example of a governmental public health data use and access policy

Job Task 6.2: CDC WONDER Compressed Mortality File Documentation
- Demonstrates how governmental data systems require structured documentation to ensure transparency, reproducibility, and appropriate interpretation.

Job Task 6.3: Primary Data Collection in Dallas County 2025 Community Health Needs Assessment
- Demonstrates integration of multiple data sources, including primary data collection and community input.

Job Task 6.4: CDC Behavioral Risk Factor Surveillance System (BRFSS); CDC WONDER (Wide-ranging Online Data for Epidemiologic Research); CDC National Notifiable Diseases Surveillance System (NNDSS)
- Highlights three major secondary data sources used across public health practice.

Job Task 6.5: Administration for Community Living's (ACL) Program Evaluations and Reports
- Provides real-world examples of government program evaluations conducted in consultation with key partners that assess program implementation, performance, and outcomes, demonstrating how evaluation findings are used to understand and improve publicly funded programs.

Job Task 6.6: CDC's Respiratory Virus Hospitalization Surveillance Network (RESP-NET)
- Demonstrates how surveillance systems track respiratory hospitalizations over time, informing situational awareness and response.

Job Task 6.7: CDC Open-Source Visualization Editor (COVE) Data Visualization Types
- Includes different types of charts — bar graphs, line charts, maps, dashboards — that are used by public health professionals to display surveillance data, trends, comparisons, and distribution patterns.

Job Task 6.8: CDC Respiratory Illnesses Data Channel
- Demonstrates how governmental public health agencies communicate surveillance data through accessible national, state, and county-level respiratory illness dashboards, enabling communities to understand local conditions and make informed public health decisions.

Job Task 6.9: Dallas County 2025 Community Health Needs Assessment (CHNA)
- Demonstrates how a jurisdictional assessment integrates data and community input to identify population health needs, strengths, and priorities.

These examples are included to ground instruction in recognizable governmental public health structures, demonstrate how job tasks appear in real systems and support governmental public health infrastructure, capacity, and performance.

Instructor Guidance Slides

Instructor guidance slides accompany each job task and include:

- Framing notes explaining the context of the job task within the domain
- Clarification of systems-level implications and how the job task functions operationally within STLT health departments
- Suggested instructional emphasis
- Discussion prompts focused on student reasoning rather than correctness
- Explicit alignment with the CEPH MPH Foundational Competency Domains

Domain 6 Example Activities

This collection includes sample activities that instructors can incorporate into courses to reinforce the competencies and job tasks within this domain. Each activity is designed to engage students in authentic governmental public health scenarios while building practical workforce skills.

Instructional Emphasis

When facilitating instruction on information and data, instructors should prioritize applied reasoning over technical depth.

Instructors should:

- Reinforce that data is never neutral and reflects systems and power
- Normalize the reality of imperfect data
- Emphasize transparency in communicating limitations
- Highlight how confidentiality and ethics shape data decisions
- Clarify how funding and governance structures influence data reporting
- Encourage collaborative interpretation and shared decision-making across teams and partners
- Connect data use to evidence-based public health action

Effective instruction should continually reconnect students to the central question:

How do Domain 6: Information and Data job tasks enable public health professionals to responsibly move from data to decision-making within STLT health departments?