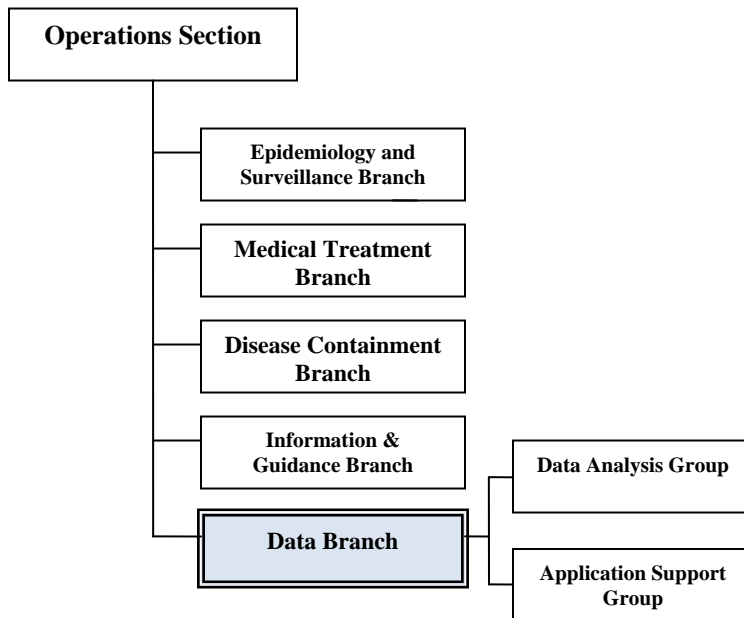


26. DATA BRANCH

A. ORGANIZATION CHART



B. DESCRIPTION

a. Purpose & Objectives

The purpose of the Data Branch is to manage and support databases and software applications used in the Operations Section and to receive, manage, and analyze information about the infectious disease emergency that can guide the selection of strategies to contain the event. The Branch objectives include:

- Determine appropriate data analysis strategies in order to:
 - Identify sources of disease and causes of disease spread.
 - Monitor trends in the incidence and prevalence of disease to identify new or unrecognized exposures or risk factors.
 - Describe the epidemiological and clinical features of an event.
 - Report cases to the proper agencies.
 - Client management.
- Determine appropriate strategies for the creation, management, and administration of information systems.

b. Methods

Primary methods for the Data Group include:

Data analysis. Data analysis is the systematic study of data so that its meaning, structure, relationships, origins, etc. are understood. Data analysis uses statistical methods and logical techniques to describe, summarize, and compare data.

Application Support and Information Systems. Application support and information systems include the design, development, installation, and implementation of data software applications and information

systems. Information systems architecture components include mission, functional and information requirements, system configurations, information flows, information technology standards and business rules. This support will be used to create the most efficient information system possible with available resources [e.g. CDCP Interpreted Case & Outbreak Management System (ICOMS) support.]

Consult the Data Branch modules for details regarding the above strategies.

C. IMPLEMENTATION

a. Data Branch

Activate the Data Branch when a module in the Operations Section will likely have data analysis or application support needs. This will occur in almost any infectious disease emergency.

The Data Branch Director is responsible for completion of Data Branch objectives and coordination with other branches providing data and requesting data support.

Functions of the Data Branch

- Identify, communicate, and oversee strategies to accomplish objectives and design operational plans in accordance with the Incident Action Plan.
- Order mobilization and demobilization of branch modules to meet incident response needs.
- Prioritize and assign responsibilities according to objectives and plans.
- Assure coordination with other partners/agencies providing application software and data analysis assistance.
- Ensure coordination with other branches within the Operations Section.
- Collaborate with other branches and external partners on data interpretation/summaries for the response. (Note that responsibility for interpreting the data output for such requests lies with the requesting branch/partner, in consultation with the Data Branch.)
- Review the work output and process for the Data Analysis Group and the Data Software Support Group.
- Staffing at the beginning of the response should be robust: assign staff to determine data needs, design data collection instruments, clarify data flow, and others to focus on database development.

D. STAFF POSITIONS

The following positions are required for minimum staffing levels.

Staff Position Roster: Data Branch				
Job Title	Task Overview	Job Classification / Critical Skills	Minimum No. of Employees	Location
Data Branch Director	Supervise and manage Data Branch activities	2804, 2591, 2803, 2230 Supervisory experience; training and/or experience in epidemiological field investigations; basic epidemiological or biostatistical analysis skills	1	DOC
Administrative Assistant	Assist Data Branch Director with administrative duties. Take notes at meetings and other duties as assigned.	1424, 1426, 2585, 1446		DOC

E. REPORTING

The Data Branch reports directly to the Operations Section Chief. Incident specific information will be provided to other Operations Section Branch Directors.

F. DELIVERABLES

The Data Branch is responsible for producing the following:

- Documents assigned to Data Groups
- Module Objectives and Update, ICS Form 202b (for each Operational Period)

G. RESOURCES

The following resources will be required to perform response operations:

a. Protocols, forms, guidelines, and MOUs

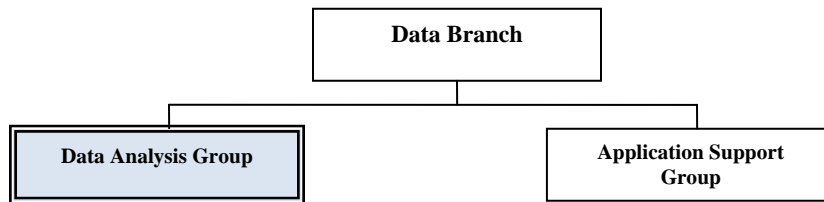
Items	Location
ICS Forms	Appendix B
Job Action Sheets	Appendix C
Data	Appendix J
ICOMS User Manual Shortcut	Appendix J1
Sample DOC Data Request Policy and Procedures	Appendix J2
Active Surveillance	Appendix Ja
Active Surveillance Protocol - SFGH	Appendix Ja1
SFDPH Active Surveillance Macros SAS Program	Appendix Ja2
SFDPH Active Surveillance Read in SAS Program	Appendix Ja3
SFDPH Active Surveillance Outpatient Read in SAS Program	Appendix Ja4
SFDPH Active Surveillance Admits Read in SAS Program	Appendix Ja5
SFDPH Run Active Surveillance SAS Program	Appendix Ja6
Description of Active Surveillance at SFGH	Appendix Ja7

b. Office and Communication Supplies

Item	No. Required	Location or Request From
Telephone	1	Logistics
Fax machine access	1	Logistics
Computer with local network, internet access	1+	Logistics
Printer access	1	Logistics
800 MHz Radio/cell phone/pager	1	Logistics
Copy machine access	1	Logistics

27. DATA ANALYSIS GROUP

A. ORGANIZATION CHART



B. DESCRIPTION

a. Purpose & Objectives

The purpose of the Data Analysis Group is to efficiently and accurately receive, manage, analyze, and summarize data to determine the scope, cause, and progression of the event. The Group objectives include:

- Identify functional requirements for designing and maintaining epidemiological, surveillance, and client management databases.
- Receive data from other branches within the Operations Section .
- Organize and clean client management, surveillance, investigation, outbreak, and other data in preparation for analysis.
- Analyze, manage, and share data.

b. Methods

The Data Analysis Group will use the following methods to achieve objectives:

Infectious disease epidemiological methods. Infectious disease epidemiological methods include epidemic curves, study of contact networks, syndromic surveillance, virologic analysis, and geographic analysis, and will be used to analyze and summarize data about the outbreak. Data Analysis Group members must determine the epidemiological hypotheses and purpose of the analysis, design collection tools with this purpose in mind, and choose analytic methods appropriately. The Data Analysis Group must work with other operational branches to ensure data collection instruments are designed to optimize accuracy, reduce bias, allow for efficient data analysis, and address epidemiologic hypothesis or purpose, which can include situational awareness, individual case or contact management, source of incident, etc.

Data entry. Data entry is transcribing information from the original source into a computer and can occur through keyboard entry, scanners, speech recognition and automatic device-to-system technology. When possible, electronic data sources or automated data entry will be used.

Software and Applications. Whenever possible, software and applications already in use will be used to store, manage, and analyze data (e.g. ICOMS, SAS, Access).

Dissemination of information. Determining what information needs to be shared and how it will be shared are integral issues in a response. The Data Analysis Group will actively manage and assume responsibility for the flow of information to and from the Data Branch and will effectively prioritize data information processing .

Client management analysis. Client management analysis includes descriptive statistics, line lists, and work process completion and will be used to provide quantitative and qualitative feedback to IDER modules to help them manage and improve response activities.

C. IMPLEMENTATION

a. Data Analysis Group

Activate the Data Analysis Group when data collection, storage, and analysis are needed.

The Data Analysis Group will work closely with the Operations Section Branches to create analysis plans and analyzable questionnaires, surveys, and forms. The Group will receive and/or input data, analyze data, and provide data reports to the Branch director for approval prior to dissemination to responders, partners, the State, and/or other sources. In some cases, the Group will also need to coordinate with other branches or external partners to create a process and tools for data collection and to ensure efficient data transmission to the Group. At the beginning of a response, the Data Analysis Group should assign a staff member to work closely with any Operations Branch with data needs in order to observe and better understand data work flow. Database and application support will be provided by the Data Software Support Group.

Data analysis needs will be identified at the time of the response. Some objectives that may require data analysis include:

Response operations. The section chief may request analysis of process indicator data to evaluate the effectiveness of response actions and interventions for use by decision makers, such as Command and General staff.

Epidemiology and surveillance. Data analysis may be required to understand the nature and scope of the event, to refine the case definition, and/or to identify effective strategies to control and prevent disease. Data sources may include clinical, exposure, and laboratory data reports for cases, contacts, and case clusters. If an analytic study is conducted, assist the Epidemiology and Surveillance Branch to develop analyzable questionnaires, the study purpose and design, and power calculations. Case/contact information to be collected may include risk factors, sensitive occupations or settings, and time, location, and mode of exposure. Required data reports may include case counts, line lists, case mapping, case population pyramids, and descriptive and analytic epidemiology of cases.

Isolation and quarantine. Data analysis may be required to summarize characteristics of individuals placed in isolation or quarantine, and/or legal and logistical issues of this strategy. Data on individuals in home-based and facility-based settings will be collected by the Isolation and quarantine Group.

Restriction, exclusion, and clearance. Data analysis may be required to manage and summarize restriction, exclusion, and clearance data to improve client management functions. Data will be collected by the Restriction, Exclusion, and Clearance Group. Required data reports may include line lists with clearance specimen submission dates and testing results.

Mass prophylaxis. Data analysis may be required to aid in documenting informed consent, contraindications, vaccine take, adverse events, close contacts, and efficiency of clinic operations. The Data Analysis Group will work closely with the Mass Prophylaxis Group. Key considerations include:

- If a patient screening form is used to aid in dispense prophylaxis the decision to enter data on or off-site will depend on staff and equipment availability. It may be more efficient to collect paper data and send all forms to a central repository for data entry. If a paperless dispensing model is utilized, patients who receive antibiotics will not be tracked in an electronic system.

Information and outreach. Data analysis may be required to track the number and types of public, clinician, or other questions received at call centers, email and telephone information lines. Coordinate with the Information and Guidance Branch to identify data analysis needs and to create an analysis plan.

Community mitigation. Data analysis may be required to monitor and analyze the impact of community mitigation strategies (e.g., school dismissal). Coordinate with the Community Mitigation Group to identify data analysis needs and to create an analysis plan.

Medical treatment. Data analysis may be required to monitor and analyze hospital, clinic, shelter, alternate care site, ambulance, and fatality data. Coordinate with the Medical and Treatment to identify data analysis needs and to create an analysis plan.

Note that data and information collected, received, and summarized will be used only for public health purposes and will be kept confidential to the extent provided by law.

Functions of the Data Analysis Group

- Coordinate with other Branches to identify data needs, develop an analysis plan, create necessary forms and protocols for data collection, and enter or transmit data.
- Coordinate with the Database Group to develop/modify databases and to manage data transmission.
- Enter data and/or concatenate data transmitted electronically from various sources.
- Check accuracy and quality of data. Clean and edit data as necessary.
- Review work output and process.
- Complete and following approval, disseminate data reports.
- Complete required forms and send to the California Department of Public Health or other appropriate health agency.
- Update the Data Branch Director on activities and resource needs.

D. STAFF POSITIONS

The following positions are required for minimum staffing levels.

Staff Position Roster: Data Analysis Group				
Job Title	Task Overview	Job Classification / Critical Skills	Minimum No. of Employees	Location
Data Analysis Group Leader	Coordinate and manage Data Analysis Group	2804, 2803, Epidemiologist; Epidemiological and/or biostatistical analysis skills; supervisory experience; training and/or experience in epidemiological field investigations	1	DOC
Epidemiologist	Facilitate receipt and incorporation of data into databases	2803; Epidemiological and/or biostatistical analysis skills; experience designing and analyzing epidemiological studies		DOC
Data Analyst	Assist with data analysis strategy. Receive, manage, analyze, interpret, and report data. Train data entry staff.	2804, 2803; Epidemiological and/or biostatistical analysis skills; supervisory or project coordinator experience		DOC
Data Entry Staff	Enter data into databases	1424, 1426; Experience in data entry of health-related data		DOC
Administrative Assistant	Performs administrative functions	1424, 1426, 2585, 1446; Knowledge of office methods and procedures.		DOC

E. REPORTING

The Data Analysis Group reports directly to the Data Branch.

F. DELIVERABLES

The Data Analysis Group is responsible for producing the following:

- Module Objectives and Update, ICS Form 202b (for each Operational Period)
- Data Analysis Plans
- Data collection tools, protocols, forms, etc.
- Data Reports
- Analysis documentation

G. RESOURCES

The following resources will be required to perform response operations:

a. Protocols, forms, guidelines, and MOUs

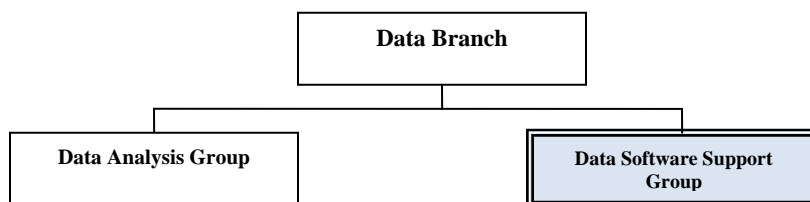
Items	Location
ICS Forms	Appendix B
Job Action Sheets	Appendix C
Data	Appendix J
ICOMS User Manual Shortcut	Appendix J1
Sample DOC Data Request Policy and Procedures	Appendix J2
Active Surveillance	Appendix Ja
Active Surveillance Protocol - SFGH	Appendix Ja1
SFDPH Active Surveillance Macros SAS Program	Appendix Ja2
SFDPH Active Surveillance Read in SAS Program	Appendix Ja3
SFDPH Active Surveillance Outpatient Read in SAS Program	Appendix Ja4
SFDPH Active Surveillance Admits Read in SAS Program	Appendix Ja5
SFDPH Run Active Surveillance SAS Program	Appendix Ja6
Description of Active Surveillance at SFGH	Appendix Ja7

b. Office and Communication Supplies

Items	Units Required	Location or Request From
Telephone	1	Logistics
Fax machine access	1	Logistics
Computer with local network, internet access	1+	Logistics
Printer access	1	Logistics
Copy machine access	1	Logistics
Statistical software (1 per position in the Data Team)	1+	Logistics

28. APPLICATION SUPPORT GROUP

A. ORGANIZATION CHART



B. DESCRIPTION

a. Purpose & Objectives

The purpose of the Data Software Support Group is to program and manage data systems required by the Data Analysis Group. Objectives include:

- Ensure that Data Branch data analysts and epidemiologists have the ability to gain access to and/or generate reports/queries from applicable database-driven systems.
- Maintain the integrity and security of field data and data transmissions from field teams.
- Create, update, and modify applications databases as needed.

b. Methods

The Database Group will use the following methods to achieve objectives:

Technical support and triage. The Data Software Support Group will provide targeted and system-specific technical support with data applications by managing software application settings and/or managing internal links between database tables that drive the information system. The Data Software Support Group will determine whether problems can be resolved using the Group's internal resources or whether they need to be referred to the Information Technology Unit.

Database design, creation and maintenance. The collection and analysis of data is integral to the response. The Data Software Support Group will collaborate closely with the Data Branch's Analysis Group to assist in the creation, maintenance, and modification of databases. Examples of databases managed by the Group include, but are not limited to, those that store epidemiology and surveillance, disease containment, information and guidance, and laboratory data.

User account management. The Data Software Support Group will maintain control of user accounts for Data Branch's data systems where applicable. The group will create, assign and/or modify access levels of user accounts for database-driven applications.

Report production. When the output of statistical analyses performed by Data Branch analysts must be disseminated, the Database Group will assist with automating the production of reports and queries.

C. IMPLEMENTATION

a. Data Software Support Group

When at least one of the Data Branch data systems is required for the response, the Data Software Support Group should be activated. Data systems may include:

Outbreak management systems. The Communicable Disease Control and Prevention Section relies on the Integrated Case and Outbreak Management System (ICOMS) to manage communicable disease outbreaks and public health monitoring of cases and their contacts.

MLAB. A laboratory information management system that is primarily utilized by DPH Laboratory for day-to-day operations. In an emergency, the Data Software Support Group will work with the Laboratory Group to ensure that the Data Branch has access to MLAB data and reports, to coordinate the creation of new queries, and to ensure that laboratory testing information is properly managed and reports are distributed. See Appendix Ic.

Field data transmission. In responses where field investigation teams are activated, the successful and secure transmission of data collected in the field to the IDER data repository is a critical component of the response strategy. The Data Software Support Group will prepare the necessary computing resources required by the field investigation teams to transmit data. The Group will also coordinate with the Information Technology Unit or the appropriate DOC Logistics personnel to establish the proper transmission protocols and to ensure that the DPH network infrastructure can support the secure transmission/receipt of field data. The Group will also manage the integration of field data into the existing core databases of the relevant information system.

Functions of the Data Software Support Group

- Determine the appropriate IT/computing strategies to accomplish response objectives and deploy information systems to support operational plans.
- Work with the Data Branch’s Analysis Group on database design and maintenance, including ability to integrate data from multiple sources, linkage of case and contact databases.
- Provide technical assistance to merge, append, and/or concatenate data transmitted electronically from various partner agencies or from field investigation teams.
- Receive and triage technical support issues for users.
- Coordinate support with Information Technology Unit.

D. STAFF POSITIONS

The following positions are required for minimum staffing levels.

Staff Position Roster: Data Software Support Group				
Job Title	Task Overview	Job Classification / Critical Skills	Minimum No. of Employees	Location
Database Group Supervisor	Coordinate and manage the Data Software Support Group. Decide on strategy to manage computing resources.	IT administrator	1	DOC
Database Unit Staff	Assist with maintenance of database(s), data transmission, manage system user accounts and access, and respond to technical support queries.	IT specialist, technical expertise with data systems		DOC

E. REPORTING

The Data Software Support Group reports directly to the Data Branch Director. Information about the information systems will also be provided to the Data Analysis Group or other IDER responders as needed.

F. DELIVERABLES

The Group is responsible for producing the following:

- Creation of database(s) and documentation
- User accounts and access rights for IDER-critical information systems
- Module Objectives and Update, ICS Form 202b (for each Operational Period)

G. RESOURCES

The following resources will be required to perform response operations:

a. Protocols, forms, guidelines, and MOUs

Items	Location
ICS Forms	Appendix B
Job Action Sheets	Appendix C
Data	Appendix J
ICOMS User Manual Shortcut	Appendix J1
Sample DOC Data Request Policy and Procedures	Appendix J2
Active Surveillance	Appendix Ja
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b. Office and Communication Supplies

Items	Units Required	Location or Request From
Telephone	1	Logistics
Fax machine access	1	Logistics
Computer with local network, internet access	1+	Logistics
Printer access	1	Logistics
800 MHz Radio/cell phone/pager	1	Logistics
Copy machine access	1	Logistics