Chapter 1: Overview

Preface

The field of healthcare epidemiology has expanded tremendously during the last few decades. What was once a specialty area, narrowly focused within hospital walls, has now grown to an extensive network of healthcare and public health professionals working collaboratively across a wide variety of healthcare settings, government agencies, and partner organizations to decrease healthcare-associated infections (HAIs) and antimicrobial resistance (AR).

One part of this partnership is rapid and efficient outbreak responses to prevent and halt the transmission of pathogens or spread of disease. The **CORHA Principles and Practices for Healthcare Outbreak Response** is intended as a comprehensive reference comprised of chapters and materials that cover key areas related to HAI/AR outbreak detection, reporting, investigation, and control. We hope that the CORHA Principles and Practices will serve as a useful resource for those trying to build, standardize, or improve upon their healthcare outbreak response capacities and practices.

Introduction

Throughout the CORHA Principles and Practices, we use the terms “HAI/AR outbreak” and “response.”

The term “HAI/AR outbreak” includes outbreaks involving infections that meet the definition of an HAI as well as infections or colonizations with organisms typically associated with the receipt of healthcare, including pathogens demonstrating resistance to antimicrobial treatment (AR pathogens). Public health agencies often respond to outbreaks that extend beyond traditional HAIs and AR pathogens, and beyond exposures found solely within healthcare settings. Therefore, the CORHA Principles and Practices includes content applicable to response activities involving noninfectious chemical and other toxic agents as well as outbreaks that include both healthcare-associated and community cases.

The term “outbreak response” (or simply “response”) refers to efforts made to assist with assessment and investigation of specific, acute HAI/AR risks. The types of hazards addressed by healthcare outbreak response include overt outbreaks, clusters of infections, sentinel cases (e.g., an uncommon HAI or emerging AR threat), or serious breaches in infection control practice. As this list suggests, response activities often extend to cover *potential* outbreaks: situations that portend danger and may require action to assess risk,

prevent exposure, or avoid harm. As used in the CORHA Principles and Practices, "healthcare outbreak response" is inclusive of this broader array of event types and activities.

The primary intended audience of the *CORHA Principles and Practices* consists of personnel at public health agencies at the federal, state, and local levels; however, the information presented here can also be useful to healthcare professionals, employees at healthcare facilities, and other partners involved in a healthcare outbreak response. It is important to acknowledge that the work involved in responding to and preventing HAI/AR outbreaks occurs across the healthcare–public health continuum. Healthcare institutions, public health and government agencies, and other partners working in this arena comprise a large community of professionals collaborating on the same goal: rapid detection of HAI/AR risks and intervention to stop outbreaks. Below we offer brief overviews of the chapters contained in this document as well as links to chapter sections and subsections.

Overview of Chapter 2: Fundamental Concepts

In the second chapter, the focus is on the background and basis for surveillance of healthcare-associated infections (HAIs) and antimicrobial-resistant (AR) pathogens as well as associated outbreak response activities. The chapter contains information on healthcare settings with which public health professionals may interact as part of an HAI/AR outbreak response; changes to healthcare delivery, regulations, funding, and public health capacity over time that have impacted HAI/AR surveillance practices and outbreak responses; and trends in surveillance, including descriptions of systems used to identify potential outbreaks as well as types of outbreaks and other events to which public health routinely responds.

Overview of Topics Covered in Chapter 2		
Section	**Subheading**	**Covered Topics**
Introduction (2.0)		• Definition and prevalence of HAIs • Definition and prevalence of AR pathogens • Types of HAI/AR outbreaks • Primary audience
Trends in Healthcare (2.1)	Healthcare Settings (2.1.1)	• Definition of a healthcare setting • Types of healthcare settings • Healthcare settings' influence on outbreaks • Definitions, characteristics, and staff with whom public health will interact stratified by specific healthcare setting

	Healthcare Delivery (2.1.2)	• Trends in healthcare delivery • Influence of healthcare delivery changes on outbreaks
	Regulation and Oversight (2.1.3)	• Trends in regulations related to the prevention of healthcare-related infections • Introduction to regulatory partners • Variations in regulation across healthcare settings • Infection prevention and antimicrobial stewardship regulation; resources for HAI rate comparisons
Trends in Surveillance (2.2)	Overview (2.2.1)	• Definition of surveillance • Purposes of disease surveillance • Trends in public health HAI/AR surveillance (2.2.1.1) • Funding for public health HAI/AR initiatives (2.2.1.1) • Reportable diseases and conditions (2.2.1.1.1) • Nationally notifiable diseases and conditions (2.2.1.1.1) • Introduction to HAI reporting via the National Healthcare Safety Network (NHSN) (2.2.1.1.1) • Introduction to healthcare facility surveillance practices (2.2.1.2)
	Public Health Systems (2.2.2)	• Overview of public health surveillance • Description of a surveillance case definition • Description of population-based surveillance (2.2.2.1) • Trends in HAI/AR population-based surveillance (2.2.2.1) • Description of pathogen-specific surveillance (2.2.2.1) • Laboratory impact on AR and pathogen-specific surveillance (2.2.2.1) • Introduction to the Antibiotic Resistance Laboratory Network (AR Lab Network; 2.2.2.1) • Non-AR organisms and community outbreaks of interest to HAI/AR programs (2.2.2.1) • Description of healthcare facility–based surveillance (2.2.2.2) • History and functions of NHSN (2.2.2.2) • Comparison and use of healthcare facility–based surveillance and population-based surveillance (2.2.2.2)

		• Conditions reported and facility types that report to the NHSN (2.2.2.2) • Other systems that support HAI/AR surveillance (2.2.2.3) • Overview of the Emerging Infections Program: Healthcare-Associated Infections Community Interface (2.2.2.3.1) • Description of the AR Lab Network and its function in surveillance activities (2.2.2.3.2) • Description of sentinel surveillance and its use in HAI/AR surveillance activities (2.2.2.3.3) • Description of syndromic surveillance (2.2.2.3.4) • Description of regulatory monitoring systems and their potential to support surveillance activities (2.2.2.3.5) • Description of administrative databases and their use in supporting surveillance activities (2.2.2.3.6)
	Impact of Advances in Laboratory Methods on HAI/AR Surveillance (2.2.3)	• Trends in microbiological and molecular testing and their impact on HAI/AR surveillance • Introduction to the impact of polymerase chain reaction (PCR) and whole genome sequencing (WGS) on surveillance and outbreak detection • Culture-independent diagnostic testing (CIDT) and its impact on public health surveillance • Link to a laboratory protocol resource at the Centers for Disease Control and Prevention (CDC)
	Quality and Usefulness of Surveillance Data (2.2.4)	• Uses of surveillance data (2.2.4.1) • Reasons for incomplete surveillance data (2.2.4.2) • Methods to improve the quality of surveillance data (2.2.4.2) • NHSN validation (2.2.4.2)
Trends in Outbreak Detection and Response (2.3)		• Overview of outbreak detection and response • Changes to public health HAI/AR programs leading to improvements in outbreak detection and response • Other factors contributing to improvements in outbreak detection and response • Overview of the wide span of a healthcare outbreak response

	Modes of Transmission (2.3.1)	• Overview and examples of point-source and person-to-person spread of disease • Relationship of pathogens to mode of transmission
	Outbreak Types Based on Etiology (2.3.2)	• Importance of outbreak types • Outbreak detection and response based on pathogen, including when to suspect an outbreak and the importance of laboratory testing (2.3.2.1) • Outbreak detection and response based on infection type, including frequency and considerations (2.3.2.2) • Noninfectious causes of HAI/AR-related outbreaks (2.3.2.3)
	Outbreak Types Based on Setting (2.3.3)	• Impact of healthcare setting on the type of outbreak • Examples of types of outbreaks based on the healthcare setting • Single-facility outbreaks including typical causes (2.3.3.1) • Introduction to multifacility outbreaks, including typical causes and detection (2.3.3.2) • Local multifacility outbreaks (2.3.3.2.1) • Widespread multifacility outbreaks (2.3.3.2.2) • Outbreaks related to international travel (2.3.3.2.3) • Healthcare facility role in detection of outbreaks outside the facility and in the community (2.3.3.3)
	Investigation of Serious Infection Control Breaches (2.3.4)	• Introduction to serious infection control breaches • Centers for Medicare and Medicaid Services (CMS) requirement to report serious infection control breaches • Core infection control practices
Tables and Box		• Table 2.1 Selected Healthcare Settings Where Public Health May Conduct HAI/AR Outbreak Response Activities: Definitions, Characteristics, and Key Staff • Box 2.1 Reporting to the National Healthcare Safety Network (NHSN): Conditions and Healthcare Settings • Table 2.2 Outbreak Examples Based on Healthcare Setting or Procedure Type

Overview of Chapter 3: Planning and Preparation

In the third chapter, strategies for planning and preparation before an outbreak occurs are discussed. Background information on agencies and partners that may be involved in an outbreak response is provided, and their respective roles and responsibilities are described, including considerations for a coordinating agency and the composition of outbreak response teams. Other topics include planning and preparation for resource identification and record management, communication considerations, understanding legal authorities, and preparation for escalation, recovery, and follow-up, including potential implementation of an incident command system (ICS).

Overview of Topics Covered in Chapter 3		
Section	**Subheading**	**Covered Topics**
Introduction (3.0)		• Advantages of advanced preparation • Enumeration of tasks for public health agencies prior to an outbreak
Agency Roles (3.1)	Overview (3.1.1)	• Overview of the importance of understanding roles and responsibilities • Centralized and decentralized governance and relationship to public health agencies
	Local, State, and Federal Agencies (3.1.2)	• Description of local public health agency experience and capacity (3.1.2.1) • The local public health agency role in planning for HAI/AR outbreaks (3.1.2.1) • Local public health agency roles, responsibilities, and resources (3.1.2.1) • Description of state public health agency experience and capacity (3.1.2.2) • The state public health agency role in planning for HAI/AR outbreaks (3.1.2.2) • State public health agency roles, responsibilities, and resources (3.1.2.2) • Role of the state survey and facility licensing agency and strategies for coordination (3.1.2.3)

		• Role of the state provider licensing agency and strategies for coordination (3.1.2.4) • Role of CDC and coordination with state and local public health agencies and healthcare facilities (3.1.2.5) • Role of the Food and Drug Administration (FDA) in HAI/AR outbreak investigations (3.1.2.6)
	Healthcare Facilities (3.1.3)	• Roles and responsibilities of healthcare facilities • Role of the team tasked with preventing infections, including the infection preventionist and the medical epidemiologist within healthcare facilities • General information about facility planning for an outbreak • Variations in resources among healthcare facility types
	Patients and Other Agencies/Partners (3.1.4)	• Professional member organizations for healthcare professionals and healthcare facilities (3.1.4.1) • Tribal entities and the Indian Health Service (IHS) (3.1.4.2) • Law enforcement (3.1.4.3)
Outbreak Response Team (3.2)	Overview (3.2.1)	• Basic composition of an outbreak response team • Introduction to roles and responsibilities of outbreak response team members
	Roles of Team Members (3.2.2)	• Introduction to the coordinating agency • Roles of the public health outbreak response team members • Role and responsibilities of the public health team leader (3.2.2.1) • Roles and responsibilities of the epidemiologist(s) on the public health team (3.2.2.2) • Role and responsibilities of the infection preventionist on the public health team (3.2.2.3) • Roles and responsibilities of public health laboratorians (3.2.2.4) • Other team members, who may include administrative staff, statisticians, public health information officers, legal staff, and emergency preparedness staff (3.2.2.5)

	Outbreak Response Team Model Practices (3.2.3)	• Pre-identified dedicated outbreak response teams (3.2.3.1) • Scaling up additional support (3.2.3.2) • Establishing outbreak response plans and protocols (3.2.3.3) • Training for outbreak response team members (3.2.3.4)
Resources (3.3)		• Introduction to resource components needed during the response to an outbreak
	Equipment and Supplies (3.3.1)	• List of equipment and supplies to consider in preparation for an outbreak response
	Outbreak Investigation Documents and Toolkits (3.3.2)	• Investigation documents, tools, and protocols to consider preparing ahead of an outbreak
	Reference Materials (3.3.3)	• Reference materials to consider compiling ahead of an outbreak
	Tracking Time and Resources (3.3.4)	• Advantage of setting up processes to track time and resources during large-scale investigations
Records Management (3.4)	Overview (3.4.1)	• Overview of systematic information management during an outbreak response
	Records Management Model Practices (3.4.2)	• Standardized information collection (3.4.2.1) • Considerations for sharing information across agencies (3.4.2.1) • Tracking data during an outbreak investigation, including what situations to track and data system considerations (3.4.2.2)
Communication (3.5)		• Importance of communication across all partners • Considerations for communication preparation ahead of an outbreak
Escalation (3.6)	Overview (3.6.1)	• Notifying leadership within your agency • Obtaining help within your agency • Considerations for transferring coordination responsibilities to another agency
	When to Ask for Help (3.6.2)	• Considerations for when to ask for help from another agency

	How to Obtain Help (3.6.3)	• Whom to ask for help • Contact information for CDC
Incident Command System (3.7)		• History and description of the incident command system (ICS) • ICS in government agencies • ICS in healthcare organizations • Considerations for ICS activation
Other Aspects of Preparation (3.8)	Legal Preparedness and Authority (3.8.1)	• Understanding legal authority • Anticipating legal situations and preparing in advance
	Ethics (3.8.2)	• Consideration of potential ethical dilemmas in advance
	Privacy (3.8.3)	• Understanding privacy laws and regulation • Maintaining confidential information • Preparing for protection versus disclosure of information
	Permissions and Approvals (3.8.4)	• Considerations for the need for permissions or approvals • Preparation for accessing medical records
Planning for Recovery and Follow-Up (3.9)	Overview (3.9.1)	• Planning for recovery and follow-up
	Recovery and Follow-Up Model Practices (3.9.2)	• Model practices to assist in planning for recovery and follow-up
Tables, Boxes, and Keys to Success		• Table 3.1 Additional Agencies and Partners that Public Health Agencies Interact with During an Outbreak Response • Table 3.2 Partners to Consider Involving by Type of Event • Box 3.1 Selected Training Resources • Box 3.2 Selected Resources from Federal Regulatory Agencies • Box 3.3 Types of Facilities Required by CMS to Develop Emergency Preparedness Plans • CORHA Keys to Success: Key Planning and Preparation Steps • CORHA Keys to Success: Developing Relationships Prior to an Outbreak

Overview of Chapter 4: Outbreak Detection and Reporting

Chapter 4 examines the detection and reporting of potential outbreaks, including detection via reports and through use of surveillance data. Definitions of sentinel cases, clusters, and outbreaks are described. The section on direct reporting of outbreaks includes information on reporting within a healthcare facility and reporting to public health, entities that can report to public health, and types of events that may be reported. This is followed by an overview of the use of routine surveillance systems for cluster and outbreak detection. Strengths and limitations, key determinants of successful detection, and model practices are described for both types of detection methods.

Overview of Topics Covered in Chapter 4		
Section	**Subheading**	**Covered Topics**
Introduction (4.0)		• Description of what is covered in Chapter 4 • Purpose of detecting clusters and outbreaks • Benefits of detecting outbreaks
Overview (4.1)		• Overview of methods of detection
	Outbreak Detection Pathways (4.1.1)	• Introduction to outbreak reporting • Introduction to detection of clusters and outbreaks using surveillance data • Other activities that may lead to outbreak detection
	Definitions (4.1.2)	• Definition of a cluster • Considerations for defining an outbreak • Threshold levels and outbreak definitions • General principles for determining when a situation warrants investigation and reporting
Reporting Sentinel Cases, Clusters, and Outbreaks (4.2)	Purpose (4.2.1)	• Importance of reporting as a method to detect outbreaks
	Background (4.2.2)	• Reporting potential outbreaks within healthcare facilities (4.2.2.1) • Reporting potential outbreaks to public health (4.2.2.2) • Public health processes to receive reports of potential outbreaks (4.2.2.2) • Requirements for reporting to public health (4.2.2.2) • Strategies to encourage reporting potential outbreaks to public health and perceived barriers to reporting (4.2.2.2) • Perceived barriers for reporting potential outbreaks (4.2.2.2)

	Reporting Entities (4.2.3)	• Sources of outbreak reports • Healthcare facility and provider reports (4.2.3.1) • Clinical and public health laboratory reports (4.2.3.2) • Public, patient, and media reports (4.2.3.3) • Other government agencies that may report, including state facility licensing agencies (4.2.3.4) • Other partners that may report (4.2.3.5)
	Epidemiology Process (4.2.4)	• Importance of a pre-established process • Determining if cases, clusters, and outbreaks are linked
	Laboratory Process (4.2.5)	• Importance of communication between epidemiology and laboratory staff upon report of a potential outbreak
	Strengths and Limitations of Outbreak Reporting Systems (4.2.6)	• Strengths of outbreak reporting systems (4.2.6.1) • Limitations of outbreak reporting systems (4.2.6.2)
	Key Determinants of Successful Outbreak Reporting Systems (4.2.7)	• Definition of a successful outbreak reporting system • Factors impacting the sensitivity of outbreak detection (4.2.7.1) • Impact of the prevalence of disease on outbreak detection (4.2.7.2) • Impact of relationships among reporting entities and public health agencies (4.2.7.3)
	Model Practices for Outbreak Reporting Systems (4.2.8)	• Establishing requirements for reporting (4.2.8.1) • Ensuring timeliness of reporting (4.2.8.2) • Establishing a clearly defined reporting process methodology (4.2.8.3) • Useful tools to apply to outbreak reporting systems (4.2.8.4) • Importance of tracking outbreaks (4.2.8.5)
Detecting Sentinel Cases, Clusters, and Outbreaks through Surveillance (4.3)	Purpose (4.3.1)	• Importance of use of surveillance data as a method to detect outbreaks
	Background (4.3.2)	• Basic surveillance principles impacting detection of sentinel cases, clusters, and outbreaks • Techniques to assist with detecting patterns in surveillance data

		• Detection of clusters and outbreaks within a healthcare facility using surveillance data (4.3.2.1) • Surveillance data typically collected by public health that can be used to detect clusters and outbreaks (4.3.2.2)
	Types of Surveillance Data (4.3.3)	• Types of surveillance data used for cluster detection
	Epidemiology Process (4.3.4)	• General epidemiology process for collection of surveillance data • Manual review of surveillance data for cluster detection • Automated processes for cluster detection using surveillance data
	Laboratory Process (4.3.5)	• General laboratory process for conditions under surveillance • Methods for support of cluster detection using laboratory data
	Strengths and Limitations of Surveillance for Outbreak Detection (4.3.6)	• Strengths of outbreak reporting systems (4.3.6.1) • Limitations of outbreak reporting systems (4.3.6.2)
	Key Determinants of Successful Outbreak Detection via Surveillance Systems (4.3.7)	• Surveillance system components that support outbreak detection • Factors impacting complete reporting of conditions under surveillance (4.3.7.1) • Effect of sensitivity of surveillance on cluster detection (4.3.7.2) • Impact of the prevalence of disease on cluster detection (4.3.7.3) • Influence of the speed of reporting diseases and conditions under surveillance on outbreak detection (4.3.7.4)
	Model Practices for Detecting Outbreaks through Surveillance (4.3.8)	• Strategies for rapid case detection (4.3.8.1) • Advantages of submission and characterization of isolates (4.3.8.2) • Standardized processes for cluster detection using surveillance data (4.3.8.3) • Communication practices supporting cluster detection (4.3.8.4)

		• Tools that can be used for cluster detection using surveillance data (4.3.8.5) • Importance of tracking outbreaks (4.3.8.6)
Multifacility and Multijurisdictional Considerations (4.4)		• Importance of complete reporting to identify multifacility and multijurisdictional outbreaks • Factors influencing multifacility and multijurisdictional cluster and outbreak detection
Table and Keys to Success		• Table 4.1 Potential Methods of Outbreak Detection by Healthcare Facilities and Public Health Agencies • CORHA Keys to Success: Maximizing Outbreak Detection

Overview of Chapter 5: Investigation and Control

The fifth chapter contains a review of the key elements and steps involved in the investigation and control of outbreaks involving HAIs and AR pathogens. The chapter is arranged to follow the steps typically followed in an outbreak investigation, recognizing that such steps may indeed not occur in linear order and will depend on the precise nature and needs of the response. The chapter also reviews the goals of a healthcare outbreak investigation and includes collections of resources to support and improve the HAI/AR outbreak response.

Overview of Topics Covered in Chapter 5		
Section	**Subheading**	**Covered Topics**
Introduction (5.0)		• Description of what is covered in Chapter 5 • Overall function of public health in an outbreak investigation • Collaboration between public health and healthcare • Importance of a systematic approach
Outbreak Investigation and Response Steps (5.1)		• Review of outbreak detection and initial steps of an investigation • Overview of application of outbreak steps
	Perform an Initial Assessment (5.1.1)	• Initial information to be gathered when an outbreak is detected via reporting or use of surveillance data (5.1.1.1)

		• Considerations for determining the level of response: full investigation and response following a facility investigation or receipt of a report (5.1.1.2) • Initial control measures at the time of outbreak detection (5.1.1.3) • Development of an initial hypothesis (5.1.1.4)
	Verify the Diagnosis (5.1.2)	• Information review to aid in diagnosis verification • Importance of the laboratory in diagnosis verification
	Assemble and Brief the Outbreak Response Team (5.1.3)	• Composition of the outbreak response team • Introduction to team roles • Introduction of the concept of a coordinating agency • Partners' outbreak response teams, including healthcare facilities and regulatory partners (5.1.3.1) • Escalation of response and partner roles (5.1.3.1) • Public health team communication (5.1.3.2) • Communication among partners (5.1.3.3) • Coordination among public health and regulatory agencies (5.1.3.3)
	Establish a Plan and Prepare for Fieldwork (5.1.4)	• Determination of missing information and steps to gather that information • Gathering of information on similar outbreaks, including information on the pathogen or type of infection • Considerations for utility and burden of planned steps during preparations • Considerations for on-site investigations • Onsite preparation steps including gaining access to medical records, preparing for data collection (including tool development), and infection control preparation
	Confirm the Presence of an Outbreak (5.1.5)	• Factors involved in verifying outbreaks • Pseudo-outbreaks

	Establish Case Definition and Classification Criteria (5.1.6)	• Components of a case definition • Creation of a useful case definition • Stratified case definitions and classification criteria
	Identify and Count Cases (5.1.7)	• Retrospective and prospective case counting • Methods to retrospectively identify cases • Methods to prospectively identify cases • Consideration of cases in healthcare workers, visitors, and community residents • Importance of systematic case counting and application of case definitions and classifications
	Collect, Organize, and Analyze Data (5.1.8)	• Data sources for collection of data (5.1.8.1) • Importance and components of a standardized data collection tool (5.1.8.1) • Protecting information that could be used to identify a patient (5.1.8.1) • Organizing data into a line list (5.1.8.2) • Descriptive epidemiologic analysis (5.1.8.2) • Other data organization tools including maps, timelines, and epidemic curves (5.1.8.2) • Refining the hypothesis (5.1.8.3) • Considerations for use of analytic epidemiology (5.1.8.4) • How to conduct an analytic study (5.1.8.4 and Appendix A)
	Perform an Infection Control Assessment (5.1.9)	• Considerations for performing on-site infection control assessments • Areas of focus during infection control assessments • Considerations for staff interviews
	Consider an Environmental Assessment (5.1.10)	• Determining possible environmental factors that may have contributed to an outbreak • Environmental assessment as part of the infection control assessment • Determining when environmental sampling is appropriate • Laboratory considerations for environmental testing

	Recommend Control Measures (5.1.11)	• Recommendations for infection control measures throughout the investigation • Providing written recommendations • Importance of follow-up after recommendations • What to do when there is imminent potential harm to patients
	Interpret Results (5.1.12)	• Considerations for interpretation of results following investigation
	Monitor the Outbreak Until Completion (5.1.13)	• Monitoring the outbreak (5.1.13.1) • Re-evaluation of hypotheses and case definitions during the monitoring phase (5.1.13.2) • Determining when to end an investigation (5.1.13.3) • Post-outbreak and after-action meetings as a strategy for improvements (5.1.13.3)
	Other Follow-Up Activities (5.1.14)	• Writing a final report (5.1.14.1) • Distribution of the final report (5.1.14.2) • Policy action that could result from an outbreak investigation (5.1.14.3)
Tables, Boxes, Figure, and Keys to Success		• Box 5.1 HAI/AR Outbreak Investigation Resources • Box 5.2 Goals of an Outbreak Investigation • Table 5.1 Investigation Activities for Outbreak Response Objectives • CORHA Keys to Success: Initial Steps in the Investigation of Outbreaks • Box 5.3 Steps of an Outbreak Investigation • Table 5.2 Immediate Control Measures for Healthcare Outbreak Management • CORHA Keys to Success: Communication During an Investigation • Box 5.4 Example Case Definitions • Box 5.5 Healthcare Facility Records to Consider Reviewing During an Outbreak Investigation • Figure 5.1 Sample Timeline

Appendices		• Appendix A: Cohort and Case-Control Studies

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URLs in this document are valid as of August 1, 2022.

At the time of publication of this first edition of the CORHA Principles and Practices for Healthcare Outbreak Response, additional chapters and supplements are under development. These will be included in subsequent editions and the tables above will be updated to reflect their contents.

Disclaimers: The findings and conclusions in this document are those of the authors and do not necessarily represent the official views of CDC nor those of other CORHA member organizations.

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