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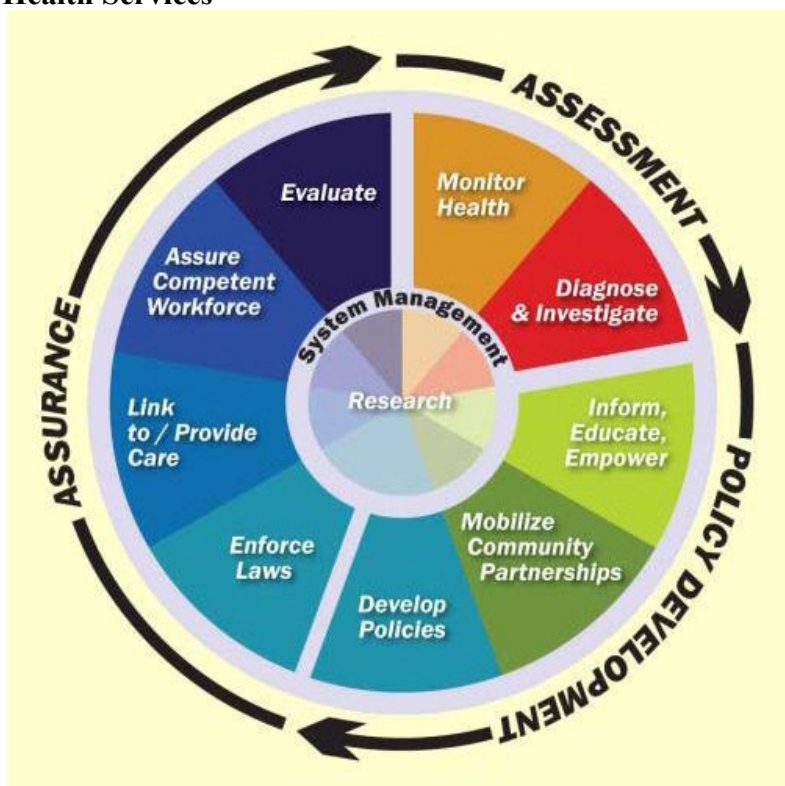
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1. What is meant by Essential Public Health Services?

The Essential Public Health Services are a national standard that provides a working definition of public health and a guiding framework for the responsibilities and public health activities that should be undertaken in all communities. All essential public health services are categorized into three overarching core public health functions: Assessment, Assurance, and Policy Development. Within those three core public health functions, you can find each of the ten essential public health services. The ten Essential Public Health Services include:

1. Monitor health status to identify and solve community health problems.
2. Diagnose and investigate health problems and health hazards in the community.
3. Inform, educate, and empower people about health issues.
4. Mobilize community partnerships and action to identify and solve health problems.
5. Develop policies and plans that support individual and community health efforts.
6. Enforce laws and regulations that protect health and ensure safety.
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
8. Ensure a competent public and personal health care workforce.
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
10. Research for new insights and innovative solutions to health problems.

2. The Three Core Public Health Functions and how they relate to the Ten Essential Public Health Services



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Public health surveillance of reportable diseases/conditions is linked to the Core Public Health Function of *Assessment* and to the Essential Public Health Services #1 - Monitor health status to identify and solve community health problems and #2 - Diagnose and investigate health problems and health hazards in the community.

3. What is the difference between reportable and notifiable diseases/conditions?

State Reportable Diseases/Conditions. Missouri has the authority to define conditions of public health importance, also known as [State Reportable Diseases/Conditions](#). Potential (suspect) cases of disease are reported from hospitals, laboratories, and health care providers to local, regional, or state public health agencies in a process known as “reporting”. Reporting can be based on a positive laboratory test, clinical symptoms, or epidemiologic criteria (called Reporting Criteria). A public health investigation is sometimes conducted to determine and implement appropriate public health interventions. Each state has its own list of [State Reportable Diseases/Conditions](#) (printer-friendly version of list) detailing diseases and events necessary to report.

National Notifiable Diseases/Conditions. The Centers for Disease Control and Prevention (CDC) and the Council of State and Territorial Epidemiologists (CSTE) designate certain diseases/conditions as nationally notifiable. CDC requests that states notify them when an instance of a disease or condition occurs that meets notification criteria. When a reported case is determined to meet notification criteria, de-identified data is sent to CDC. This can include information reported to public health by laboratories and health care providers, along with other information collected during public health investigations. A condition might be on the Missouri list of [State Reportable Diseases/Conditions](#) that is not on the national list. Each state carries the authority to determine which diseases/conditions are required to be reported by its health care entities.

4. Why report communicable diseases/conditions?

The reporting, investigation, and surveillance of communicable diseases/conditions is linked to the [Core Public Health Function of Assessment](#) and to the [Essential Public Health Services](#) #1 - Monitor health status to identify and solve community health problems and #2 - Diagnose and investigate health problems and health hazards in the community. The public health system depends upon reports of diseases to monitor the health of the community and to provide the basis for preventive action. Prompt reporting by mandated reporters such as physicians, laboratory scientists, and other health care professionals of both diagnosed and suspected communicable diseases, allows for timely action by local and state public health personnel. This teamwork makes possible important benefits, as listed below, for individual patients and the community.

1. To identify outbreaks and epidemics. If an unusual number of cases occur, local health authorities will investigate and implement measures to control the spread of the disease.
2. To enable preventive treatment and/or education to be provided.
3. To help target prevention programs, identify needs, and efficiently use scarce resources.
4. To evaluate the success of long term prevention and control efforts.

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5. To comply with Missouri's public health laws and rules ([RSMo 192.020](#), [19 CSR 20-20.020](#), and [19 CSR 20-20.070](#)). All health care providers and laboratories are required to report certain cases of communicable disease.
6. To facilitate epidemiologic research to uncover a preventable cause.
7. To assist with national and international disease surveillance efforts. Missouri is part of a national network that the federal government depends on to determine whether national or international investigations are needed.

Accurate and complete disease reporting is essential to the community's health.

5. Where and how should health care providers report?

The presence or suspected presence of [State Reportable Diseases/Conditions](#) requires reporting to the appropriate local public health agency or to the Missouri Department of Health and Senior Services (MDHSS). To report to MDHSS during business hours, call 573-751-6113; after hours and on weekends, call 800-392-0272 or by fax 573-526-0235.

The "appropriate local public health agency" means:

- The local public health agency that has jurisdiction where an individual who has a disease or condition resides **or**
- The local public health agency in which the service provider or facility is located.

Communicable diseases or conditions may be reported using the [MDHSS Communicable Disease Case Reports](#) (CD-1) and *should* be faxed or mailed to your local public health agency or MDHSS. **NOTE: Influenza, Vancomycin-resistant Enterococci (VRE), and Methicillin-resistant *Staphylococcus aureus* (MRSA) are not reported via a CD-1. Please refer to [19 CSR 20-20.020](#) for specifics.** The telephone numbers of your county or city public health agency are usually listed in the phone book with other county services. For a [Directory of Missouri's Local Public Health Agencies](#), you may visit this website.

In some jurisdictions, the local public health agency where your practice or facility is located may desire to have all reports routed through them. Please contact your local public health agency for further information on the mechanism of reporting for your area. A [Directory of Missouri's Local Public Health Agencies](#) can be found by visiting this website.

6. What conditions should be reported, when should these conditions be reported to public health, and why should health care providers report communicable diseases/conditions?

The MDHSS rule for the *Reporting of Communicable, Environmental and Occupational Diseases* is [19 CSR 20-20.020](#). The rule designates the disease(s) or suspected case of disease(s) and/or a positive laboratory result(s) that must be reported to the local health authority or MDHSS and establishes when they must be reported. A list of [State Reportable Diseases/Conditions](#) may be found by visiting this website (this list contains all of Missouri's reportable diseases and conditions with the required reporting timeframes).

The information collected through 19 CSR 20-20.020 flows from the local public health jurisdictions to the Department and on to the national CDC. Data are linked to the national level

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through the CDC’s National Notifiable Diseases Surveillance System (NNDSS). This information is critical for two reasons:

1. It enables public health agencies to act quickly to prevent the spread of disease **and**,
2. It provides an overall picture of disease trends at the local, state and national levels. Analyzing these trends allows public health to target resources where they are most needed and to assess public health’s effectiveness in preventing and controlling disease.

7. What is the CDIRM?

The Communicable Disease Investigation Reference Manual (CDIRM) was written to provide technical assistance for public health disease investigations, establish appropriate control measures, and assistance with disease reporting and reportable disease surveillance activities for the protection of public health as described in [RSMo. 192.020](#). This document contains disease-specific information, reporting criteria, reporting forms, case investigation forms, and other tools to assist the local and state health departments with the above-mentioned tasks.

The CDIRM is compiled from a number of references, is based on current science, and is considered appropriate by medical experts. Some of the references used are from the CDC, American Public Health Association, American Academy of Pediatrics, and Mandell, Douglas and Bennett’s *Principles and Practice of Infectious Diseases*, to name a few. The references used for each disease section are provided at the end of the disease section. The CDIRM is a dynamic document and will be revised as needed or required by funding sources.

8. What are the roles and responsibilities of Missouri’s local and state public health agencies regarding communicable disease reporting?

When case reports are received by the local public health agencies, they should report the conditions as soon as possible to MDHSS. This can be done by faxing the report to the appropriate [MDHSS district office](#) or entering the case report into the Missouri Health Surveillance Information System, known as ShowMe WorldCare. The case should be entered as a “suspected” case until the local health department has determined if the report meets the case definition of a reportable condition as provided in CDC’s [National Notifiable Diseases Surveillance System \(NNDSS\)](#). Since not all positive laboratory reports represent cases and not all initial case reports are supplemented or confirmed by a positive laboratory report, additional information will be needed.

Complete information, including clinical and laboratory findings, should be obtained by the local public health agency from the reporter, allowing a decision to be made regarding the status of the report. Once it is determined that a report represents a suspected, probable, or confirmed case status; staff at the local public health agency should enter this information in WebSurv and forward any additional reports and forms not available in WebSurv to the appropriate [MDHSS district office](#).

Some reportable diseases require supplemental reports that should be completed by public health as part of the case investigation. Some of these forms are from MDHSS; others are from the CDC. Generally, these forms are completed by the local public health agency.

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Forms can be completed in ShowMe WorldCare. Those that are not available in WorldCare should be sent to the appropriate [MDHSS district office](#). This information allows for disease prevention and control measures to be instituted, and in some cases, allows identification of outbreaks. *MDHSS will adhere to the following protocol to notify CDC about the occurrences of Nationally Notifiable Conditions:*

9. Protocol for MDHSS to Notify CDC about the Occurrences of Nationally Notifiable Conditions, 2013.

The following **National Notifiable Conditions** are categorized as **IMMEDIATE, EXTREMELY URGENT**. MDHSS will report these conditions to the CDC Emergency Operations Center (EOC) at 770-488-7100 within 4 hours of a case meeting the notification criteria, followed by submission of an electronic case notification (WebSurv) to CDC by the next business day.

National Notifiable Conditions

- Anthrax
 - Source of infection not recognized
 - Recognized BT exposure / potential mass exposure
 - Serious illness of naturally-occurring anthrax
- Botulism
 - Foodborne (except endemic to Alaska)
 - Intentional or suspected intentional release
 - Infant botulism (clusters or outbreaks)
 - Cases of unknown etiology / not meeting standard notification criteria
- Plague
 - Suspected intentional release
- Paralytic poliomyelitis
- SARS – associated coronavirus
- Smallpox (variola)
- Tularemia
 - Suspected intentional release
- Viral hemorrhagic fevers¹
 - Suspected intentional

Status of Cases Requiring Notification

Confirmed and probable cases
 Confirmed and probable cases
 Confirmed and probable cases

 All cases prior to classification
 All cases prior to classification
 All cases prior to classification

 All cases prior to classification

 All cases prior to classification
 Confirmed cases
 All cases prior to classification
 Confirmed and probable cases

 All cases prior to classification

 Confirmed and suspected cases

The following **National Notifiable Conditions** are categorized as **IMMEDIATE, URGENT**. MDHSS will report these conditions to the CDC EOC at 770-488-7100 within 24 hours of a case meeting the notification criteria, followed by submission of an electronic case notification (WebSurv) in the next regularly scheduled electronic transmission.

National Notifiable Conditions

- Anthrax
 - Naturally-occurring or occupational, responding to treatment
- Brucellosis
 - Multiple cases, temporally / spatially clustered

Status of Cases Requiring Notification

Confirmed and probable cases

 Confirmed and probable cases

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National Notifiable Conditions

- Diphtheria
- Novel Influenza A virus infection, Initial detections of
- Measles
- Poliovirus infection, nonparalytic
- Rabies in human
- Rabies in an animal
 - Imported from outside continental US within past 60 days
- Rubella
- Viral hemorrhagic fevers¹
 - All cases other than suspected intentional
- Yellow Fever

Status of Cases Requiring Notification

- All cases prior to classification
- Confirmed cases
- Confirmed cases
- Confirmed cases
- Confirmed cases
- Confirmed cases
- Confirmed cases
- Confirmed and suspected cases
- Confirmed and probable cases

The following **National Notifiable Conditions** are categorized as **STANDARD**. MDHSS will submit these conditions to the CDC by electronic case notification (WebSurv) within the next reporting cycle.

National Notifiable Conditions

- Anaplasmosis
- Arboviral disease²
 - (California serogroup, EEE, Powassan, SLE, WNV, WEE)
- Babesiosis
- Botulism
 - Infant, sporadic cases
 - Wound, sporadic
- Brucellosis
 - Cases not temporally/spatially clustered
- Cancer
- Chancroid
- *Chlamydia trachomatis* infections
- Coccidioidomycosis
- Cryptosporidiosis
- Cyclosporiasis
- Dengue virus infections
- Ehrlichiosis
- *Escherichia coli*, Shiga toxin-producing (STEC)
- Foodborne disease outbreaks
- Giardiasis
- Gonorrhea
- *Haemophilus influenza*, invasive disease
- Hansen's disease (Leprosy)
- Hantavirus pulmonary syndrome
- Hemolytic uremic syndrome, post-diarrheal
- Hepatitis A, acute

Status of Cases Requiring Notification

- Confirmed and probable cases
- Confirmed and probable cases
- Confirmed and probable cases
- All cases prior to classification
- All cases prior to classification
- Confirmed and probable cases
- Confirmed cases³
- Confirmed and probable cases
- Confirmed cases
- Confirmed cases
- Confirmed and probable cases
- Confirmed and probable cases
- Confirmed and probable and suspect cases
- Confirmed and probable cases
- Confirmed and probable cases
- Confirmed outbreaks⁴
- Confirmed and probable cases
- Confirmed and probable cases
- All cases prior to classification
- Confirmed cases
- Confirmed cases
- Confirmed and probable cases
- Confirmed cases

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National Notifiable Conditions

- Hepatitis B, acute
- Hepatitis B, chronic
- Hepatitis B, perinatal infection
- Hepatitis C, acute
- Hepatitis C, past or present
- HIV infection

- Influenza-associated mortality, pediatric
- Lead, exposure screening test results
- Legionellosis
- Leptospirosis
- Listeriosis
- Lyme disease
- Malaria
- Meningococcal disease (*Neisseria meningitidis*)
- Mumps
- Pertussis
- Pesticide-related illness, acute
- Plague
 - All cases not suspected to be intentional
- Psittacosis
- Q Fever (acute and chronic)
- Rabies in an animal
 - Animal not imported within past 60 days
- Rickettsiosis, Spotted Fever
- Rubella, congenital syndrome
- Salmonellosis
- Shigellosis
- Silicosis
- *Staphylococcus aureus* infection
 - Vancomycin-intermediate (VISA)
 - Vancomycin-resistant (VRSA)
- *Streptococcus pneumoniae*, invasive disease (IPD)
- Streptococcal toxic shock syndrome (STSS)
- Syphilis
- Tetanus
- Toxic shock syndrome (non-Strep)
- Trichinellosis (Trichinosis)
- Tuberculosis
- Tularemia
 - All cases other than suspected intentional release

Status of Cases Requiring Notification

- Confirmed cases
- Confirmed and probable cases
- Confirmed cases
- Confirmed cases
- Confirmed and probable cases
- Confirmed cases; Perinatally exposed infants prior to classification
- Confirmed cases
- All test results⁵
- Confirmed and suspected cases
- Confirmed and probable cases
- Confirmed and probable cases
- Confirmed and probable and suspect cases
- Confirmed and suspected cases
- Confirmed and probable cases
- Confirmed and probable cases
- All cases prior to classification
- Definite, probable, possible and suspicious cases

- All cases prior to classification
- Confirmed and probable cases
- Confirmed and probable cases

- Confirmed cases
- Confirmed and probable cases
- Confirmed cases
- Confirmed and probable cases
- Confirmed and probable cases
- Confirmed cases

- Confirmed cases
- Confirmed cases
- Confirmed cases
- Confirmed and probable cases
- Confirmed and probable cases
- All cases prior to classification
- Confirmed and probable cases
- All cases prior to classification
- Confirmed cases

- Confirmed and probable cases

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National Notifiable Conditions

- Typhoid Fever
- Varicella (chickenpox)
- *Vibrio cholera* infection (cholera)
- Vibriosis (non-cholera infections)
- Waterborne disease outbreaks

Source: CSTE Official List of Nationally Notifiable Conditions.

¹ Viral hemorrhagic fever diseases: Ebola, Marburg, Lassa, Lujo, new world Arenavirus (Guanarito, Machupo, Junin, and Sabia viruses), or Crimean-Congo.

² Arboviral diseases: California serogroup virus disease (Calif. Serogroup), Eastern equine encephalitis virus disease (EEE), Powassan virus disease (Powassan), St. Louis encephalitis virus disease (SLE), Western equine encephalitis virus disease (WEE), West Nile virus disease (WNV).

³ Notification for all confirmed cases of cancers should be made at least annually.

⁴ Outbreaks are defined by state and local health departments, all situations deemed by a local or state health department to be an outbreak are notifiable.

⁵ Notification for lead exposure screening results should be submitted quarterly for children and twice a year for adults.

Status of Cases Requiring Notification

Confirmed and probable cases
Confirmed and probable cases
Confirmed cases
Confirmed and probable cases
All outbreaks⁴

Information from individual case reports is forwarded to CDC by MDHSS without personal identifiers. [State statistical summaries are published annually](#), and national statistical summaries appear weekly in CDC's [Morbidity and Mortality Weekly Report](#). There are limitations to the data provided in these reports for the following reasons:

- Sick people do not always seek medical care, and
- Healthcare providers and others do not always recognize, confirm, or report notifiable conditions.

Therefore, reported cases may represent only a fraction of the actual burden of disease.

10. What is ShowMe WorldCare?

ShowMe WorldCare is a comprehensive reportable conditions system that can receive electronic reports from laboratories, health care providers, and other data submitters. Public health staff review incoming data and take appropriate action to reduce further spread and lessen the impact of these conditions. ShowMe WorldCare allows these staff to review for potential clusters or outbreaks and provide any necessary case management services to affected individuals. For more information, visit the ShowMe WorldCare [Resource Hub](#).

11. What is the local public health agency system and communicable disease services in Missouri?

Missouri is served by a system of local public health agencies that provide many public health services, including communicable disease-related services, to all citizens and health care providers in their jurisdictions.

Local public health agencies function as administratively autonomous units, separate from MDHSS. As such, they set their own priorities for how they allocate the resources available to

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them. Most local public health agencies are able to provide a wide range of communicable-disease-related services. Some of the communicable disease services that are frequently offered include:

- Communicable disease consultation, including information on testing and specimen requirements
- Provision of diagnostic, treatment, and partner services for sexually-transmitted diseases and HIV infection
- Childhood immunization clinics
- Animal bite consultation services
- Tuberculosis consultation and treatment services

The primary role of the MDHSS (the state health department) in communicable disease control and prevention is to provide the framework for the three core public health functions: [assurance, assessment, and policy development](#). These core public health functions may be supported by, but are not limited to, the following activities: expert consultation, reference-level diagnostic laboratory services, providing childhood vaccines, providing support as needed to Missouri's local public health agencies, and ensuring the health and safety of the public. MDHSS also interfaces with the CDC on issues related to multistate outbreak investigation, analysis of unusual organisms, and reviews case reports in WebSurv for national case definitions and key variables accuracy. Select data stored in WebSurv is forwarded to CDC to comply with National Notifiable Diseases/Conditions reporting.

12. What authorizes health care professionals to report communicable diseases/conditions?

The rule [19 CSR 20-20.020](#) may be viewed online. Section (6) states: A physician, physician's assistant, nurse, hospital, clinic, or other private or public institution providing diagnostic testing, screening or care to any person with any disease, condition or finding listed in sections (1)–(4) of this rule or who is suspected of having any of these diseases, conditions or findings, shall make a case report to the local health authority or the Department of Health and Senior Services, or cause a case report to be made by their designee, within the specified time.

13. What are the laboratory reporting requirements?

The rule [19 CSR 20-20.080 Duties of Laboratories](#) may be viewed online. The purpose of this rule is to establish the responsibility of laboratories to report to the MDHSS specified results of tests and to submit isolates/specimens to the state public health laboratory for certain diseases and conditions.

14. Why are reportable disease case definitions needed?

The case definitions provided in this manual are from CDC's [National Notifiable Diseases Surveillance System \(NNDSS\)](#). They were developed by epidemiologists at the CDC in collaboration with the CSTE. They are used by all states so that reporting to the National Electronic Telecommunications System for Surveillance (NETSS), maintained by CDC is standardized and uniform to allow for comparison of data across all states. CDC receives case

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notifications from 57 reporting jurisdictions. Each state has laws requiring certain diseases to be reported at the state level, but it is voluntary for states to provide information or notifications to CDC at the federal level.

The notifiable disease data voluntarily shared by these 57 jurisdictions represents a small portion of the public health surveillance data that jurisdictions collect and use to make decisions and conduct public health activities in their communities (e.g., outbreak detection and control). [A few case definitions were modified in this manual to make them consistent with their use in Missouri. In some instances, there was no case definition in the MMWR reference cited above for the condition being reported in Missouri.]

15. What impact does HIPAA have on communicable disease/condition reporting?

None, the Privacy Rule in the Health Insurance Portability and Accountability Act of 1996 (HIPAA) allows for the disclosure of protected health information, without individual client or patient authorization, to public health authorities, who are legally authorized to receive such reports for the purpose of preventing or controlling disease. Physicians or other health care providers who are concerned about reporting communicable diseases as required under Missouri's public health law and rules can be reassured by visiting the U.S. Department of Health and Human Services website "Understanding HIPAA Privacy / [Public Health](#)".

16. Should confidential information from a patient's medical records be provided to public health?

Yes, this is allowed under Missouri law [RSMo 192.067](#) *Patients' medical records, department may receive information from--purpose--confidentiality--immunity for persons releasing records, exception--reimbursement of costs of abstracting data — penalty..* The statute states:

1. The department of health and senior services, for purposes of conducting epidemiological studies to be used in promoting and safeguarding the health of the citizens of Missouri under the authority of this chapter is authorized to receive information from patient medical records. The provisions of this section shall also apply to the collection, analysis, and disclosure of nosocomial infection data from patient records collected pursuant to section 192.667 and to the collection of data under section 192.990.
2. The department shall maintain the confidentiality of all medical record information abstracted by or reported to the department. Medical information secured pursuant to the provisions of subsection 1 of this section may be released by the department only in a statistical aggregate form that precludes and prevents the identification of patient, physician, or medical facility except that medical information may be shared with other public health authorities and coinvestigators of a health study if they abide by the same confidentiality restrictions required of the department of health and senior services and except as otherwise authorized by the provisions of sections 192.665 to 192.667, or section 192.990. The department of health and senior services, public health authorities and coinvestigators shall use the information collected only for the purposes provided for in this section, section 192.667, or section 192.990.
3. No individual or organization providing information to the department in accordance with this section shall be deemed to be or be held liable, either civilly or criminally, for divulging

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confidential information unless such individual organization acted in bad faith or with malicious purpose.

4. The department of health and senior services is authorized to reimburse medical care facilities, within the limits of appropriations made for that purpose, for the costs associated with abstracting data for special studies.
5. Any department of health and senior services employee, public health authority or coinvestigator of a study who knowingly releases information which violates the provisions of this section shall be guilty of a class A misdemeanor and, upon conviction, shall be punished as provided by law.

17. What is the authority granting public health agencies in Missouri the ability to control communicable diseases?

The rule [19 CSR 20-20.040](#) *Measures for the Control of Communicable, Environmental and Occupational Diseases* which may be viewed online. The purpose of this rule is to define the investigative and control measures for reportable diseases and establishes who is responsible for them.

18. What is the authority addressing exclusion from school for persons who have a reportable disease or who are liable to transmit a disease in school?

The rule [19 CSR 20-20.030](#) *Exclusion from School and Readmission* may be viewed online. This rule requires the exclusion of persons from school who have a reportable disease or who are liable to transmit a reportable disease and also provides the methods of readmission to school that have been established.

19. What is the authority addressing quarantine and isolation practices of persons, animals, and their contacts with a communicable disease?

The rule [19 CSR 20-20.050](#) *Quarantine or Isolation Practices and Closing of Schools and Places of Public and Private Assembly* may be viewed online. The purpose of this rule provides for the isolation or quarantine of persons and animals with a communicable disease and their contacts; it also authorizes the closing of schools and places of public and private assembly when necessary to control disease.

20. What is the authority addressing control measures for food handlers having or suspected of having a communicable disease to prevent further spread among the community?

The rule [19 CSR 20-20.060](#) *Control Measures for Food Handlers* may be viewed online. The purpose of this rule establishes control measures for persons working with food products who are suspected of having a communicable disease to prevent further spread among the community.

21. Disclaimer.

This manual is designed to provide general guidance regarding public health investigations, surveillance activities, prevention and control strategies for select state-reportable diseases. In clinical practice, certain circumstances and individual cases require professional judgment beyond the scope of this manual. Practitioners and users of this manual should not limit their

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judgment on the management and control of communicable disease to this publication, and are well advised to review the references contained in each bibliography and remain informed of new developments and resulting changes in recommendations on communicable disease prevention and control.

This manual is not intended to be a therapeutic guide; therefore, while dosages of antimicrobials and immunobiologics are discussed in the context of prophylaxis and treatment for case-patients and contacts, physicians and other health-care professionals should review the package inserts prepared by the manufacturers to determine appropriate dosages. Because recommendations for use of vaccines may change, readers should consult their [local](#) or [state health department](#) or the Centers for Disease Control and Prevention's vaccines website at <http://www.cdc.gov/vaccines/>.

Use of trade names and commercial sources is for identification only and does not imply endorsement by the Missouri Department of Health and Senior Services (MDHSS). References to non-MDHSS Internet sites are provided as a service to readers and do not constitute or imply endorsement of these organizations or their programs by MDHSS. MDHSS is not responsible for the content of these sites. URL addresses were current as of the date of publication in the manual.

22. **Terms, Abbreviations, and Symbols used in the Communicable Disease Investigation Reference Manual.**

AIDS - Acquired immunodeficiency syndrome

ACIP – Advisory Committee on Immunization Practices

ALT - Alanine aminotransferase levels

anti-HBc - Antibody to hepatitis B core

antigen anti-HCV - Hepatitis C antibodies

APIC – Association for Professionals in Infection Control

ARDS – Acute Respiratory Distress Syndrome

ASC-US - Atypical squamous cells of undetermined significance

AST - Aspartate aminotransferase levels

BCDCP - Bureau of Communicable Disease Control and Prevention

BEHS - Bureau of Environmental Health Services

BMAT - *Brucella* microagglutination

test C – Celsius

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CBC - Complete blood count

CCDM - Control of Communicable Diseases Manual

CCHF - Crimean Congo Hemorrhagic Fever

CD - Communicable Disease

CDC - Centers for Disease Control and

Prevention CD-1 - Disease Case Report form

CD-2 - Record of Investigation of Communicable Disease

CIE - Counter immunoelectrophoresis

CDIRM - Communicable Disease Investigation Reference Manual

CJD - Creutzfeldt-Jakob Disease

CLD - Chronic liver disease

CNS - Central nervous system

CRS - Congenital rubella syndrome

CSF - Cerebrospinal fluid

CSR - Missouri Code of State Regulations

CSTE - Council of State and Territorial Epidemiologists

DHF - Dengue Hemorrhagic Fever

DFA - Direct fluorescent antibody

DNA - Deoxyribonucleic acid

DRSP - Drug-Resistant *Streptococcus Pneumoniae*

EEE - Eastern Equine Encephalitis

EIA - Enzyme immunoassay

EITB - Electrophoretic immunotransblot

ELISA - Enzyme-linked immunosorbent assay

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e.g. – “For example”

EOC - Emergency Operations

Center ERC – Emergency

Response Center F - Fahrenheit

FAQ – Frequently asked question FDA - Food and Drug Administration

GAS - Group A Streptococcus

GNID - Gram-negative intracellular diplococci

HAV - Hepatitis A virus

HBIG - Hepatitis B immune globulin

HbsAg - Hepatitis B surface antigen

HBV - Hepatitis B virus

HEV - Hepatitis E virus

HCV - Hepatitis C virus

HICPAC - Healthcare Infection Control Practices Advisory Committee

Hib - *Haemophilus influenzae* type B

HIPAA - Health Insurance Portability and Accountability Act

HIV - Human immunodeficiency virus

HPS - Hantavirus Pulmonary Syndrome

HUS - Hemolytic Uremic Syndrome

IAMFES - International Association of Milk, food, and Environmental Sanitarians

IDU - Injection-drug user

i.e. – “That is” or “In other words”

IFA - Immunofluorescence assay IG - Immune globulin

IgG – Immunoglobulin G antibodies

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IgM - Immunoglobulin M antibodies

IHC - Immunohistochemistry

IM – Intramuscularly

IV - Intravenous or intravenously

kg - kilograms

LA - Latex agglutination

LAC - LaCrosse encephalitis

LCMV - Lymphocytic Choriomeningitis Virus

LTCF - Long Term Care Facility

LPHA - Local Public Health Agency

MAC - *Mycobacterium avium* complex

MDHSS – Missouri Department of Health and Senior Services

MOHSIS - Missouri Health Surveillance Information System

mL - Milliliter

MMWR - Morbidity and Mortality Weekly Report

MMR - Measles, mumps, and rubella vaccine

MMRV - Measles, mumps, rubella, and varicella vaccine

MRSA – Methicillin-Resistant Staphylococcus

MSM - Men who have sex with men

MSPHL – Missouri State Public Health Laboratory

MTB - *Mycobacterium tuberculosis*

NAAT - Nucleic acid amplification test

NF - Necrotizing Fasciitis

NNDSS - National Notifiable Diseases Surveillance System

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NORS - National Outbreak Reporting System

OVPH – Office of Veterinary Public Health

O&P - Ova and Parasite (stool kits, laboratory test)

PCR - Polymerase chain reaction

PDF - Portable document format

PEP - Postexposure prophylaxis

PFGE - Pulsed Field Gel Electrophoresis

pH - Power of hydrogen

RIBA - Recombinant Immunoblot Assay

RNA - Ribonucleic Acid

rRT-PCR - Real-time reverse transcriptase polymerase chain reaction

RSMo. - Missouri Revised Statutes

RT-PCR - Reverse transcriptase polymerase chain reaction

SLE - St. Louis encephalitis

STD - Sexually transmitted disease

STSS - Staph Toxic Shock Syndrome

TB - Tuberculosis

TSS - Toxic Shock Syndrome

TTP - Thrombocytopenic purpura

US - United States

USDA – United States Department of Agriculture

VEE - Venezuelan Equine Encephalitis

VPD - Vaccine-preventable Disease

VRE - Vancomycin Resistant Enterococcus

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WB - Western blot

WBC - White blood count

WEE - Western Equine encephalitis

WHO - World Health Organization

WSW - Women who have sex with women

° - Degrees

> - Greater than

< - Less than

≤ - Less than or equal to

≥ - Greater than or equal to

~ - Approximately

% - Percent