



Guidance for Monitoring of Persons Exposed to Communicable Infectious Diseases of Public Health Importance

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Purpose

This document is intended to provide guidance to Department of Health (DOH) staff for prioritizing and planning appropriate monitoring for individuals exposed to select infectious diseases of public health importance to prevent transmission of the infection.

Introduction

The Department is responsible for protecting the health of all people in Florida by ensuring that necessary measures are taken to prevent transmission of a broad spectrum of communicable infectious diseases.

As part of established guidelines, DOH staff conduct public health investigations of reportable communicable infectious diseases, which include interviewing ill persons or proxies, determining the period of communicability and risk of exposure to contacts, determining the susceptibility of contacts, initiating enhanced or active surveillance, and recommending disease control and prevention strategies. A key component of the surveillance and prevention strategies for communicable infectious diseases involve the identification, prophylaxis, and monitoring of susceptible persons exposed to confirmed cases or contaminated environmental sources. This ensures prompt detection of signs and symptoms of disease in exposed persons and early isolation, evaluation and treatment of secondary cases. The monitoring method implemented should be the least-restrictive and most efficient procedure necessary to ensure the public's health is protected from the pathogen.

The objective of this document is to create one framework that synthesizes existing disease specific guidelines to describe the role and type of public health monitoring used by the Department and standardize the vocabulary used to describe public health monitoring.

Scope

Recommendations regarding monitoring of contacts vary according to an infectious organism's pathogenicity, virulence, mode of transmission, reproductive number (R_0), incubation period, use of personal protective equipment, availability of efficacious therapeutic agents and pre/post exposure prophylaxis. In the case of a novel or emerging pathogen where little is known about these factors, initial monitoring procedures may be more stringent than is ultimately required (i.e., after the pathogen and disease process is better characterized).

According to existing guidelines, the public health response to the following reportable diseases include contact tracing and monitoring of contacts:

Table 1. List of Reportable Diseases that Routinely Include Contact Tracing and Monitoring of Contacts.

Cholera	Novel Influenza	Severe Acute Respiratory Syndrome (SARS) and SARS-like Coronavirus
Diphtheria	Other diseases of urgent public health concern*	Smallpox
Invasive Disease caused by <i>Haemophilus influenzae</i> , type B	Pandemic Influenza	Tuberculosis
Hepatitis A	Pertussis	Typhoid Fever
Measles	Plague (Pneumonic)	Viral Hemorrhagic Fevers
Meningococcal Disease	Polio	
Middle Eastern Respiratory Syndrome	Rubella	

* In the context of this document, “other diseases of urgent public health concern” include significantly pathogenic emerging, novel or genetically modified infectious diseases that are potentially transmissible from person-to-person. This may include other reportable diseases during urgent investigation of disease clusters or outbreaks.

Types of Public Health Monitoring

Self monitoring requires that individuals exposed to a communicable infectious disease of concern are provided written and verbal guidance that instructs them to regularly assess themselves for signs and symptoms compatible with the disease in question during the incubation period.

Active monitoring involves establishing regular communication (e.g. telephone, texting, or video as permitted by the Department) between representatives of the Department and persons exposed to a communicable infectious disease of concern during the incubation period. It is the responsibility of department staff to actively determine if the person is experiencing signs and symptoms of infection. The schedule and timing of regular communication may range from daily to weekly as necessary for the public health response.

Direct active monitoring involves establishing direct observation through in-person or video (as permitted by the Department) meetings between representatives of the Department and persons exposed to a communicable infectious disease of concern, as the primary means to conduct active monitoring during the incubation period.

For contacts who require active monitoring, or direct active monitoring, working with approved health care partners is permissible to accomplish periodic or daily monitoring, provided that the partner agrees to meet the department’s expectations and that monitoring data is provided to the Department within 12 hours of monitoring. For example, a hospital may be able to most effectively and efficiently monitor exposed employees. Similarly, military public health staff may monitor persons that fall under their authority.

People who develop signs and symptoms while undergoing public health monitoring are expected to promptly notify public health authorities and health care practitioners, and self-isolate (separate themselves from others in the household, workplace, and community) as directed by public health.

Table 2. Types of Public Health Monitoring for Contacts of Selected Reportable and Novel Diseases (see Appendix A)

Self Monitoring	Active Monitoring	Direct Active Monitoring
Cholera	Diphtheria	Ebola Virus Disease
Invasive Disease caused by <i>Haemophilus influenzae</i> , type B	Lassa Fever	Genetically Modified Pathogen
Hepatitis A	Measles	Lujo
Pertussis	Novel Influenza	Marburg
Plague (pneumonic)	Pandemic Influenza (initial disease containment phase only)	Middle Eastern Respiratory Syndrome
Tuberculosis**	Polio	Severe Acute Respiratory Syndrome (SARS) and SARS-like Coronavirus
Typhoid	Rubella	Smallpox
Meningococcal Disease		
Other Diseases of Urgent Public Health Concern [^]		

[^] The type of monitoring for contacts of “other diseases of urgent public health concern” will be determined using the framework presented in this guidance, in coordination with Division of Disease Control and Health Protection, Bureau of Epidemiology and subject matter experts during an event.

Modifying factors to monitoring categories for selected diseases:

- A. If contacts received appropriate pre (e.g., completed immunization series) or post exposure prophylaxis within the recommended timeframe and are not considered susceptible to the disease specified in this document, then only self-observation is recommended.
- B. If the contact investigation reveals multiple relevant exposure levels based on disease or outbreak specific investigation guidelines, distinctly low/high risk contacts may be monitored using different categories than are specified in the table.

**Tuberculosis contact investigation may involve testing of exposed contacts by public health staff to identify latent infection. Please refer to existing tuberculosis contact investigation guidelines.

Monitoring protocols

Self Monitoring

- The Department will contact person's known or suspected to be exposed to the selected reportable diseases and provide written disease-specific education, prevention, and monitoring messages. Contacts will be advised on precautions to take if they develop signs and symptoms of illness during the specified time frame and how to contact the Department.

Active or Direct Active Monitoring

- The Department will implement a sustainable system of appropriate duration (typically the disease incubation period) to identify and monitor contacts. Surge capacity may be needed for counties with multiple persons under direct active monitoring or who have staffing limitations.
- Staff safety should take precedence when considering active vs direct active monitoring.
- Department staff or their approved representatives will make contact with the person(s) known or suspected to be contacts and conduct an in-person (direct active) or telephone (active) risk assessment to assess the individual's exposure.
- County staff that become aware that an actively monitored contact is not currently within, or is planning to leave the county and will not return within 12 hours is responsible for transferring monitoring to the other county and notifying the Bureau of Epidemiology. Bureau of Epidemiology staff will contact other states to discuss transferring of public health monitoring.
- A Merlin outbreak module or other centralized system will generally be created to document outbreak monitoring activities. If no centralized system for documentation has been developed at the time of the event or outbreak, staff conducting the monitoring should document all monitoring efforts.
- Document the person's contact and exposure information in a Merlin outbreak module, Epi Info, or other system, as applicable.
- Advise contacts on the components of monitoring, including daily symptom and fever monitoring:
 - Advise contacts on how to use a disease specific Daily Symptom and Temperature Log (Appendix C), as appropriate.
 - Advise contacts on the requested process and timing for periodic or daily contact (remote or in-person) with public health, to document their health status.
 - The individual should be provided a number to contact appropriate CHD staff 24/7.
 - Review the process for immediately notifying CHDs and seeking health care, if they develop signs or symptoms, including 24/7 CHD contact information.
 - If requested and available, provide a dedicated thermometer if they do not have one.
 - As needed, review the "Public Health Monitoring Agreement Notice" with the contact and obtain their signature, and leave a copy of the notice (Appendix B).

- Document completion of monitoring or development of illness in Merlin, Epi Info or other system.
- Document any occurrence of reportable diseases in Merlin.
- If a contact reports one or more symptoms or if overt signs of illness are observed, public health staff or designee will immediately notify the County Health Officer and the Bureau of Epidemiology (Regional Epidemiologist or 850-245-4401 24/7).
- If a contact has not been reached for 12 hours or more beyond a designated contact time, additional efforts should be made to find and reach the person (i.e. home visit, emergency contacts, and local health care facilities) and the Bureau of Epidemiology should be notified.

Movement restrictions: In most cases, asymptomatic monitored persons are able to carry on with day to day activities, although the individual circumstances of each person and likelihood of transmission for a given pathogen during the incubation period should be considered. Factors that may prevent someone from returning to daily activities during the monitoring period include their ability to quickly seek immediate medical attention if they develop symptoms, number of daily close contacts, risk of transmission, risk of exposing others in sensitive situations, and concerns about compliance.

Persons deemed to be of high risk for infection may be advised to voluntarily quarantine themselves for the duration of the monitoring period. Non-compliance with voluntary quarantine may result in institution of an involuntary quarantine order by the County Health Officer.

Monitoring requiring temperature checks: Temperature should be taken daily around the same time. Temperature should be taken orally using the same thermometer each time. Ask the person if they are taking aspirin, Tylenol® (acetaminophen), ibuprofen, or any medicine that can lower a fever, whether they have recently had any hot or cold beverages, or whether they have recently engaged in rigorous activity. The temperature should be taken before taking the above mentioned medications.

Use of personal protective equipment (PPE) for staff conducting in-person monitoring: Virtual monitoring is preferred in most cases. For direct active monitoring assessments conducted in-person, the contact should be known to be well prior to the visit. Staff should avoid direct contact (e.g. hand shaking) with the monitored individual; however, if contact is necessary, staff should use appropriate transmission-based infection control precautions. Hand hygiene should be performed immediately after the visit is completed if contact was made with the individual, household surfaces, or personal items; this includes washing hands with soap and water or an alcohol-based hand sanitizer.

If the individual is determined to be ill during an in-person visit, staff should not have any direct contact with the person or objects contaminated with blood or bodily fluid. The traveler should be asked to isolate themselves in a private room with the door closed. Staff should leave the location, perform hand hygiene, and contact the County Health Officer immediately, to coordinate further medical care and to evaluate the risks for the staff member.

Non-compliance: If an actively monitored person shows evidence of being non-compliant (refusing to take temperature, refusing to correspond in a timely manner with public health authorities, missing scheduled appointments, or attempting to travel without alerting public health authorities) the County Health Officer and the Office of General Counsel should be notified immediately.

Appendix A: Rationale for Categorization of Communicable Infectious Diseases of Public Health Importance.

Category	Disease	Virulence	R ₀	Treatment	Prophylaxis	Score
Self Monitoring	Cholera	++	+	+	+	5
	<i>Haemophilus influenzae</i> , type B, Invasive Disease	++	+	+	+	5
	Hepatitis A	+	+	+++	+	6
	Pertussis	+	+++	+	+	6
	Plague (pneumonic)	++	++	+	+	6
	Tuberculosis	++	+	+	+	5
	Typhoid	++	+	+	+	5
	Meningococcal Disease	+++	+	+	+	6
Active Monitoring	Diphtheria	+++	++	++	+	8
	Lassa Fever	+	+	++	+++	7
	Measles	+	+++	+++	+	8
	Novel Influenza	++ (variable)	+(variable)	++	++	7
	Pandemic Influenza (initial disease containment phase only)	++ (variable)	++(variable)	++	++	8
	Polio	+	++	+++	+	7
	Rubella	+	++	+++	+	7
Direct Active Monitoring	Ebola Virus Disease	+++	+	+++	+++	10
	Genetically Modified Pathogen	Unknown	Unknown	Unknown	Unknown	
	Lujo	+++	Unknown	++	+++	
	Marburg	+++	+	+++	+++	10
	Middle Eastern Respiratory Syndrome	+++	+	+++	+++	9
	Severe Acute Respiratory Syndrome (SARS) and SARS-like Coronavirus	+++ (variable)	++(variable)	+++	+++	11
	Smallpox	+++	++	+++	+	9

Virulence: Expected mortality rate (in US or other industrial country), other factors to consider include severe morbidity with potential to overwhelm hospital capacity, rate of significant chronic sequela, emerging or genetically modified pathogen with limited virulence information. Factors to consider when assessing an emerging or new pathogen include characteristics of closely related pathogens, natural or potentially genetically enhanced, and preliminary epidemiologic information.

+ $\leq 1\%$ mortality

++ 2-10% mortality

+++ $>10\%$ mortality or unknown with factors suggesting potential for high virulence

R₀: Generally accepted basic reproduction rate in a naïve population. Factors to consider when assessing an emerging or new pathogen include characteristics of closely related pathogens, natural or potentially genetically enhanced, and preliminary epidemiologic information.

+ ≤ 2

++ 2-10

+++ >10 or unknown with factors suggesting potential for high R₀

Treatment: Effective and routinely available. May change with time.

+ highly effective and readily available

++ some limitations on efficacy and/or availability

+++ no effective or routinely available treatment

Prophylaxis: Effective and routinely available. May change with time.

+ highly effective and readily available

++ some limitations on efficacy and/or availability

+++ no effective or routinely available prophylaxis

Appendix B: Example Public Health Monitoring Agreement Notice

Public Health Monitoring Agreement

Dear Sir/Madam,

Thank you for agreeing to participate in **active/direct active** public health monitoring for **enter disease** for **##** days following your last possible exposure to **enter disease**.

Your **##**-day monitoring period begins on _____ (date) and ends on _____ (date).

Your primary point of contact at the county health department (CHD) is:

_____ (name) _____ (cell phone)

An alternate contact person at the county health department is:

_____ (name) _____ (cell phone)

Expectations

- **Include PRIORITY DISEASE SPECIFIC EXPECTATIONS.**
- Participate in daily **in-person visits/telephone/video contact** with CHD staff.
- Monitor yourself for signs and symptoms of illness.
- Notify CHD staff immediately
 - If you develop signs or symptoms of illness.
 - If you have a family, medical, or other emergency that requires you to leave your home.
 - You have a need for support services (i.e. housing, security, food, medical care, etc.)
- Notify health department personnel if leaving the county **[Or alternate language on travel restriction as appropriate]**.
- **If emergency travel is approved, travel only by personal vehicle. Do not take buses, airplanes, trains, or other forms of mass transportation. (As needed)**
- If you seek medical attention, notify staff at the healthcare facility or emergency medical services staff of your exposure to a person with **enter disease** and provide them the contact information for the CHD point of contact.

I, _____ (name) agree to follow the expectations of **active/direct active** public health monitoring.

Signature

Witness Signature

Date

APPENDIX C: Example daily log. Symptoms, signs, and timeframe will vary by disease.

Traveler's Name: _____ Date of Birth: _____ Phone Number: _____ Last Day in Impacted Country: _____

Daily Symptom and Temperature Log			
Day 1 MM / DD / YYYY	Day 2 MM / DD / YYYY	Day 3 MM / DD / YYYY	Day 4 MM / DD / YYYY
Temp ___:___AM ___°F ___:___PM ___°F	Temp ___:___AM ___°F ___:___PM ___°F	Temp ___:___AM ___°F ___:___PM ___°F	Temp ___:___AM ___°F ___:___PM ___°F
AM PM <input type="checkbox"/> <input type="checkbox"/> No symptoms <input type="checkbox"/> <input type="checkbox"/> Fever <input type="checkbox"/> <input type="checkbox"/> Chills <input type="checkbox"/> <input type="checkbox"/> Weakness <input type="checkbox"/> <input type="checkbox"/> Headache <input type="checkbox"/> <input type="checkbox"/> Muscle Aches <input type="checkbox"/> <input type="checkbox"/> Abdominal Pain <input type="checkbox"/> <input type="checkbox"/> Diarrhea ___times/day <input type="checkbox"/> <input type="checkbox"/> Vomiting <input type="checkbox"/> <input type="checkbox"/> Unexplained hemorrhage <input type="checkbox"/> <input type="checkbox"/> Other _____	AM PM <input type="checkbox"/> <input type="checkbox"/> No symptoms <input type="checkbox"/> <input type="checkbox"/> Fever <input type="checkbox"/> <input type="checkbox"/> Chills <input type="checkbox"/> <input type="checkbox"/> Weakness <input type="checkbox"/> <input type="checkbox"/> Headache <input type="checkbox"/> <input type="checkbox"/> Muscle Aches <input type="checkbox"/> <input type="checkbox"/> Abdominal Pain <input type="checkbox"/> <input type="checkbox"/> Diarrhea ___times/day <input type="checkbox"/> <input type="checkbox"/> Vomiting <input type="checkbox"/> <input type="checkbox"/> Unexplained hemorrhage <input type="checkbox"/> <input type="checkbox"/> Other _____	AM PM <input type="checkbox"/> <input type="checkbox"/> No symptoms <input type="checkbox"/> <input type="checkbox"/> Fever <input type="checkbox"/> <input type="checkbox"/> Chills <input type="checkbox"/> <input type="checkbox"/> Weakness <input type="checkbox"/> <input type="checkbox"/> Headache <input type="checkbox"/> <input type="checkbox"/> Muscle Aches <input type="checkbox"/> <input type="checkbox"/> Abdominal Pain <input type="checkbox"/> <input type="checkbox"/> Diarrhea ___times/day <input type="checkbox"/> <input type="checkbox"/> Vomiting <input type="checkbox"/> <input type="checkbox"/> Unexplained hemorrhage <input type="checkbox"/> <input type="checkbox"/> Other _____	AM PM <input type="checkbox"/> <input type="checkbox"/> No symptoms <input type="checkbox"/> <input type="checkbox"/> Fever <input type="checkbox"/> <input type="checkbox"/> Chills <input type="checkbox"/> <input type="checkbox"/> Weakness <input type="checkbox"/> <input type="checkbox"/> Headache <input type="checkbox"/> <input type="checkbox"/> Muscle Aches <input type="checkbox"/> <input type="checkbox"/> Abdominal Pain <input type="checkbox"/> <input type="checkbox"/> Diarrhea ___times/day <input type="checkbox"/> <input type="checkbox"/> Vomiting <input type="checkbox"/> <input type="checkbox"/> Unexplained hemorrhage <input type="checkbox"/> <input type="checkbox"/> Other _____

NOTES:

FOR COUNTY HEALTH DEPARTMENT:

Conclusion of monitoring: Completed and asymptomatic
 Incomplete
 Developed symptoms (Complete case report form and report to regional epidemiologist)

Describe: _____

CHD Follow-up: _____
