2026

OREGON HEALTH AUTHORITY

Investigative Guidelines

1

Objectives

- Describe the steps in case investigation
- Become familiar with the structure of the Investigative Guidelines
- Practice using the Investigative Guidelines to determine case status

2

2

OREGON HEALTH AUTHORITY

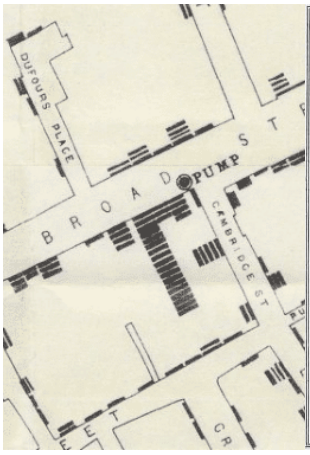
Investigation of Diseases

3

3

Why do we Investigate?

- Protect contacts
- Identify risk factors
- Detect outbreaks
- Monitor epidemiologic trends
- Guide public health programs
- Facilitate public health research



4

4

Why do we Investigate?

- Protect contacts
- Identify risk factors
- Detect outbreaks
- Monitor epidemiologic trends
- Guide public health programs
- Facilitate public health research

Smallpox vaccination, 1881

5

5

Case Investigation Components

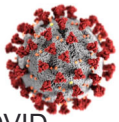
Who is affected?

What is the agent?

When did the disease occur?

Where did the cases occur?

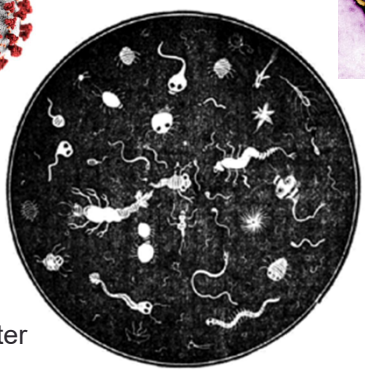
How did they get infected?



COVID

Ebola

Campylobacter



Gonorrhea

Water under microscope illustration, 1846

6

6

Case Investigation: Who

Demographics

- Name, address, sex, age
- Occupation/worksite
  - Daycare
  - School
  - Food handler
  - Healthcare worker

7

7

Case Investigation: Who

READ Questions

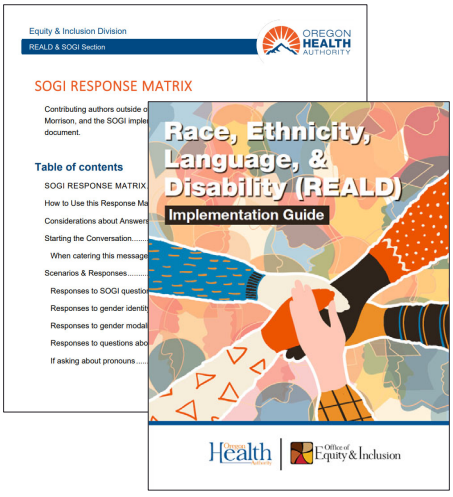
- Race, Ethnicity, Language, and Disability

SOGI Questions

- Sexual Orientation, Gender Identity

Oregon statute requires READ & SOGI be collected annually. It helps us understand health inequities in our communities

Training resources are available.



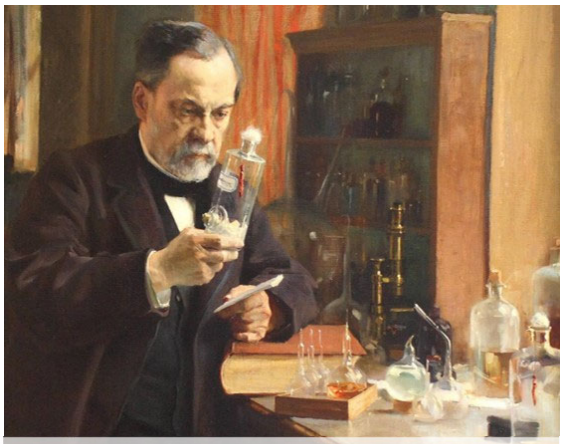
8

8

Case investigation: What

What is the disease or diagnosis?

- Verify the diagnosis
- Lab tests
- Clinical data
- Epi linkages



Louis Pasteur in his laboratory, 1885

9

9

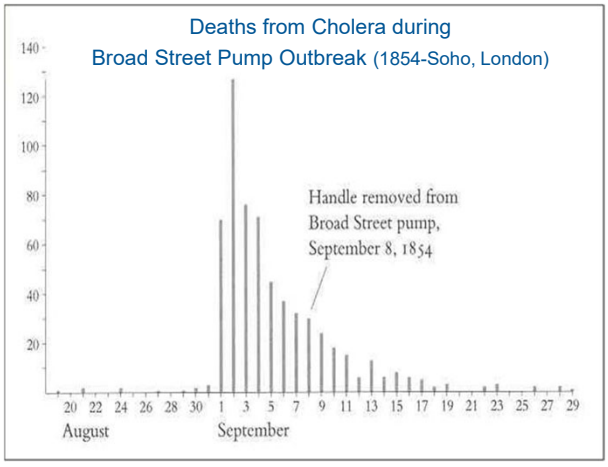
Case Investigation: When

Infectious Timeline

- **Exposure period:** when was our case exposed?
- **Incubation period**
- **Communicable period:** when was the case able to transmit disease to others?

Epidemic curve:

- Plotting number of cases by illness onset



10

10

Case investigation: Where and How

Where

- Place of residence
- Place of occupation
- Activity sites

How (possible exposures)

- Travel history
- Environmental exposures
- Contaminated food
- Other, based on agent

11

11

Case Investigation: Contact Management

- Communicable period
  - Household roster
  - Other close contacts
- Screening for disease
- Prophylaxis if necessary
  - Antibiotics, vaccines, immunoglobulin
- Education

CDC museum COVID-19 exhibit, 2024

12

12

OREGON HEALTH AUTHORITY

Investigative Guidelines

13

13

Have these Investigative Guidelines handy

- Shigellosis
- Meningococcal Disease
- Rabies and Animal Bites

14

14

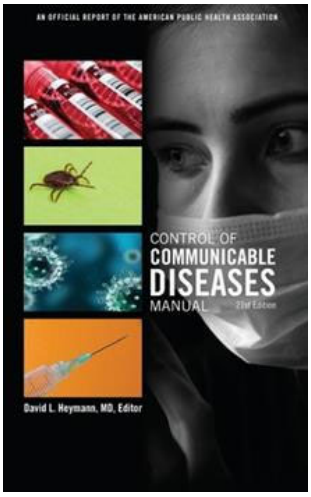
Because each disease is unique, ACDP has developed **Investigative Guidelines** for most of the reportable diseases

15

Investigative Guidelines: Overview

A labor of love; they combine:

- Basics of disease (like in a textbook)
- Public health elements (*cf., Control of Communicable Diseases Manual*)
- Pertinent Oregon law (e.g., exclusion and testing requirements)



16

Part 1: Disease Reporting

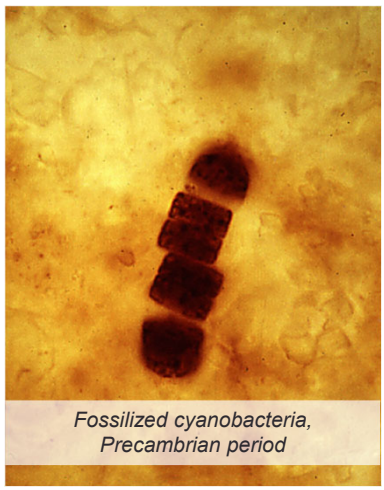
- Purpose of Reporting and Surveillance
- Lab and Physician Reporting Requirements
- Local Health Department Reporting and Follow-up Responsibilities

17

17

Part 2: The Disease and Its Epidemiology

- Etiologic Agent
- Description of Illness
- Reservoirs
- Modes of Transmission
- Incubation Period
- Period of Communicability
- Treatment



Fossilized cyanobacteria, Precambrian period

18

18

Part 3: Case Definition, Diagnosis, Laboratory

- Confirmed Case Definition
- Presumptive Case Definition
- Suspect Case Definition
- Services Available at OSPHL

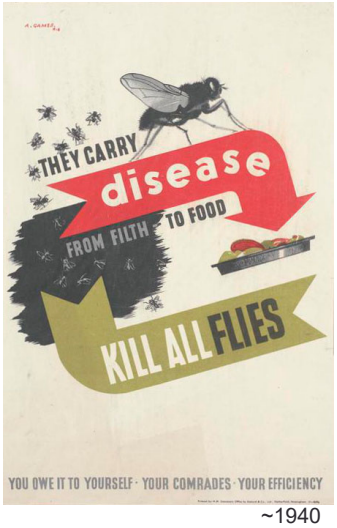
1941

19

19

Part 4: Routine Case Investigation

- Determine Source of Infection
- Identify Potentially Exposed Persons
- Environmental Evaluation



~1940

20

20

Part 5: Controlling Further Spread

- Education
- Isolation and Work or Day-care Restrictions
- Follow-Up of Cases
- Protection of Contacts
- Environmental Measures

~1940

21

21

Part 6: Managing Special Situations

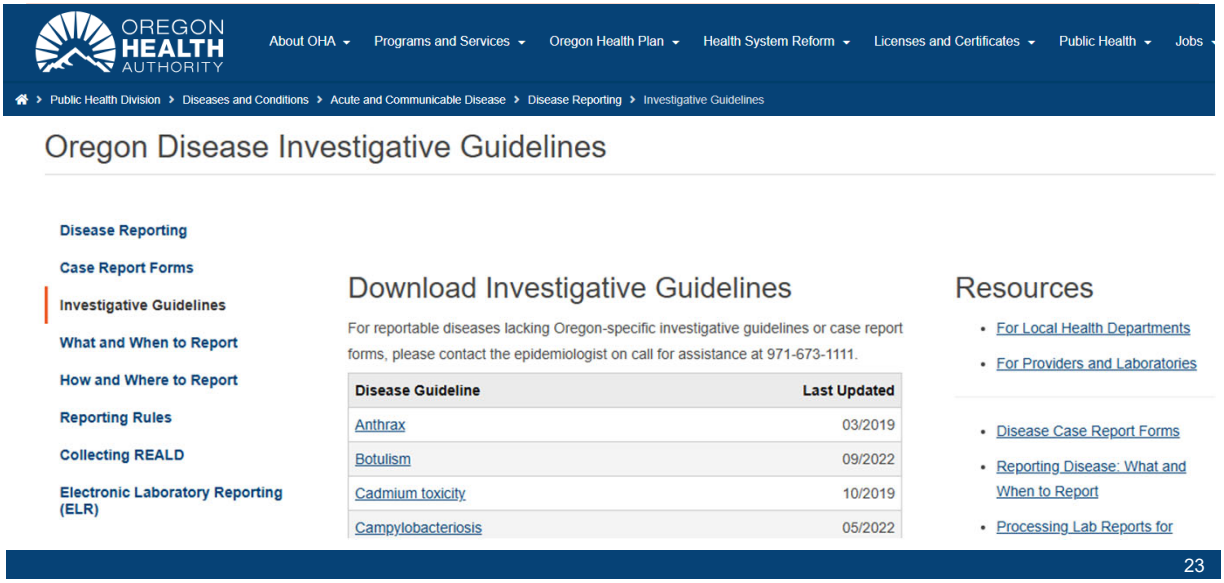
- Each Investigative Guideline has recommendations specific for that disease
- **FOR EXAMPLE**: Meningococcal Disease
  - Daycare Association
  - Determining outbreak
  - Troubleshooting prophylaxis availability

~1940

22

22

Find them online!



23

24

Incubation Period

List the incubation periods for the following diseases:

- Shigellosis
- Rabies
- Meningococcal disease

- In which section of the Guideline is this information found?

25

25

Incubation Period

List the incubation periods for the following diseases:

- Shigellosis 1-3 days (12 hours to 7 days)
- Rabies
- Meningococcal disease

- In which section of the Guideline is this information found?

26

26

Incubation Period

List the incubation periods for the following diseases:

- Shigellosis — 1-3 days (12 hours to 7 days)
- Rabies — 3-8 weeks (up to 7 years)
- Meningococcal disease

- In which section of the Guideline is this information found?

27

27

Incubation Period

List the incubation periods for the following diseases:

- Shigellosis — 1-3 days (12 hours to 7 days)
- Rabies — 3-8 weeks (up to 7 years)
- Meningococcal disease — 3-4 days (2-10 days)

- In which section of the Guideline is this information found?

28

28

Incubation Period

List the incubation periods for the following diseases:

- Shigellosis — 1-3 days (12 hours to 7 days)
- Rabies — 3-8 weeks (up to 7 years)
- Meningococcal disease — 3-4 days (2-10 days)

- In which section of the Guideline is this information found?
  Section 2 (The Disease and Its Epidemiology)

29

29

Case Definitions: Shigellosis

A nurse calls to report that a 4-year-old girl is admitted with severe abdominal cramps, nausea and bloody diarrhea, and moderate fever.

A culture independent diagnostic test (CIDT) at the hospital detects Shigella in her stool, but no culture was performed. The stool sample is sent to OSPHL for further testing.

Does this meet the confirmed case definition for shigellosis?

30

30

Case Definitions: Shigellosis

A nurse calls to report that a 4-year-old girl is admitted with severe abdominal cramps, nausea and bloody diarrhea, and moderate fever.

A culture independent diagnostic test (CIDT) at the hospital detects Shigella in her stool, but no culture was performed. The stool sample is sent to OSPHL for further testing.

Does this meet the **confirmed** case definition for shigellosis? No

She is a **presumptive** case. Further testing is needed of the organism.

31

31

Case Definitions: Shigellosis

OSPHL reports that testing done on the girl's stool specimen was unable to identify any Shigella spp.

Since this test is negative, should she be considered "no case"?

32

32

Case Definitions: Shigellosis

OSPHL reports that testing done on the girl's stool specimen was unable to identify any Shigella spp.

Since this test is negative, should she be considered "no case"?

No

If reflex cultures are negative, she remains a **presumptive** case and requires investigation

33

33

Case Definitions: Meningococcal Disease

An infection control practitioner calls to report a 14-year-old male, admitted via the emergency room to the intensive care unit with fever, hypotension, maculopapular rash, diminished level of consciousness. Blood and cerebrospinal fluid (CSF) cultures are negative, but Gram stain of CSF showed Gram-negative diplococci.

Does this meet the case definition as a confirmed case of Meningococcal disease?

34

34

Case Definitions: Meningococcal Disease

An infection control practitioner calls to report a 14-year-old male, admitted via the emergency room to the intensive care unit with fever, hypotension, maculopapular rash, diminished level of consciousness. Blood and cerebrospinal fluid (CSF) cultures are negative, but Gram stain of CSF showed Gram-negative diplococci.

Does this meet the case definition as a confirmed case of Meningococcal disease? NO. This is a **presumptive** case.

35

Case Definitions: Meningococcal Disease

An infection control practitioner calls to report a 14-year-old male, admitted via the emergency room to the intensive care unit with fever, hypotension, maculopapular rash, diminished level of consciousness. Blood and cerebrospinal fluid (CSF) cultures are negative, but Gram stain of CSF showed Gram-negative diplococci.

Does this meet the case definition as a confirmed case of Meningococcal disease? NO. This is a **presumptive** case.

What would make it a confirmed case?

36

Case Definitions: Meningococcal Disease

An infection control practitioner calls to report a 14-year-old male, admitted via the emergency room to the intensive care unit with fever, hypotension, maculopapular rash, diminished level of consciousness. Blood and cerebrospinal fluid (CSF) cultures are negative, but Gram stain of CSF showed Gram-negative diplococci.

Does this meet the case definition as a confirmed case of Meningococcal disease? NO. This is a **presumptive** case.

What would make it a confirmed case?
It would be a **confirmed case** if the culture grew *Neisseria meningitidis*.

37

37

Case Study: Meningococcal Disease

In the week before this case's onset he attended a 4 hour study group, went to church for 1 hour, went hiking with his family, kissed his girlfriend.

Which of his contacts should get postexposure prophylaxis?

What are appropriate antibiotic prophylaxis options?

38

38

Case Study: Meningococcal Disease

In the week before this case's onset he attended a 4 hour study group, went to church for 1 hour, went hiking with his family, kissed his girlfriend.

Which of his contacts should get postexposure prophylaxis?

- Study group and family (Persons who have spent ≥4 hours in close, face-to-face association within one week of case onset)
- Girlfriend (anyone directly exposed to case's nasopharyngeal secretions)

What are appropriate antibiotic prophylaxis options?

39

39

Case Study: Meningococcal Disease

In the week before this case's onset he attended a 4 hour study group, went to church for 1 hour, went hiking with his family, kissed his girlfriend.

Which of his contacts should get postexposure prophylaxis?

- Study group and family (Persons who have spent ≥4 hours in close, face-to-face association within one week of case onset)
- Girlfriend (anyone directly exposed to case's nasopharyngeal secretions)

What are appropriate antibiotic prophylaxis options?

- Ciprofloxacin, rifampin, ceftriaxone

40

40

Diagnostic Testing: Rabies

What confirmatory lab tests are available for rabies?

41

Diagnostic Testing: Rabies

What confirmatory lab tests are available for rabies?

Animals must be killed and brain tissue assayed for the presence of virus

42

Diagnostic Testing: Rabies

What confirmatory lab tests are available for rabies?

Animals must be killed and brain tissue assayed for the presence of virus

Where is this testing of animal tissue performed?

43

Diagnostic Testing: Rabies

What confirmatory lab tests are available for rabies?

Animals must be killed and brain tissue assayed for the presence of virus

Where is this testing of animal tissue performed?

Oregon State University Veterinary Diagnostic Laboratory (OSU VDL)

44

Confused, questioning, lost?

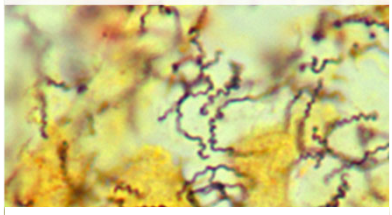
ACDP 24/7 Epi On-Call:
971-673-1111

OREGON HEALTH AUTHORITY

45

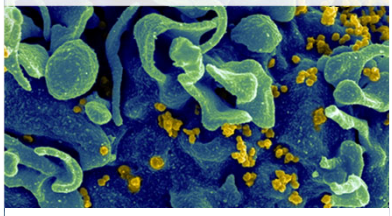
45

STDs



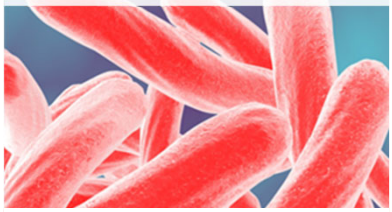
Jillian Garai
STD Nurse Consultant
jillian.d.garai@oha.oregon.gov
503-358-5176
OHA STD Prevention

HIV



Lea Bush
HIV Surveillance Coordinator/Manager
lea.bush@oha.oregon.gov
971-673-0183
HIV Data and Analysis

TB



Heidi Behm
TB Nurse Consultant/TB Controller
Heidi.BEHM@oha.oregon.gov
971-673-0169
OHA TB Program

46

46

Confused, questioning, lost?

ACDP 24/7 Epi On-Call:

971-673-1111

OREGON HEALTH AUTHORITY

47

47