

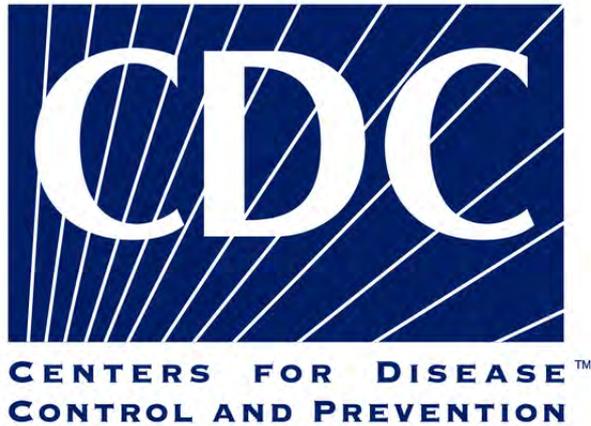
Reportable Conditions in Alaska: An Evaluation of the Rheumatic Fever Surveillance System, 2003-2014

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ALPHA Health Summit

January 21, 2020



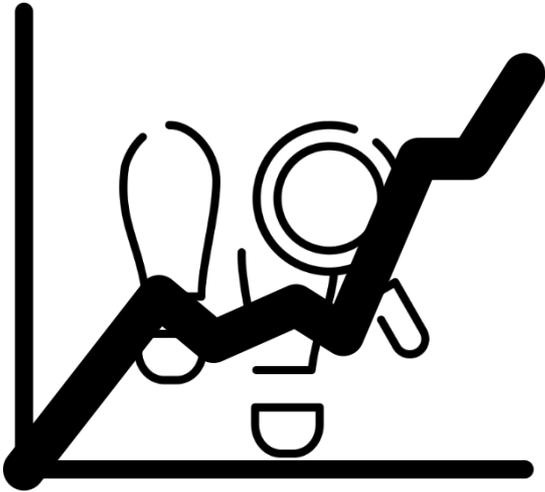


Public health surveillance is

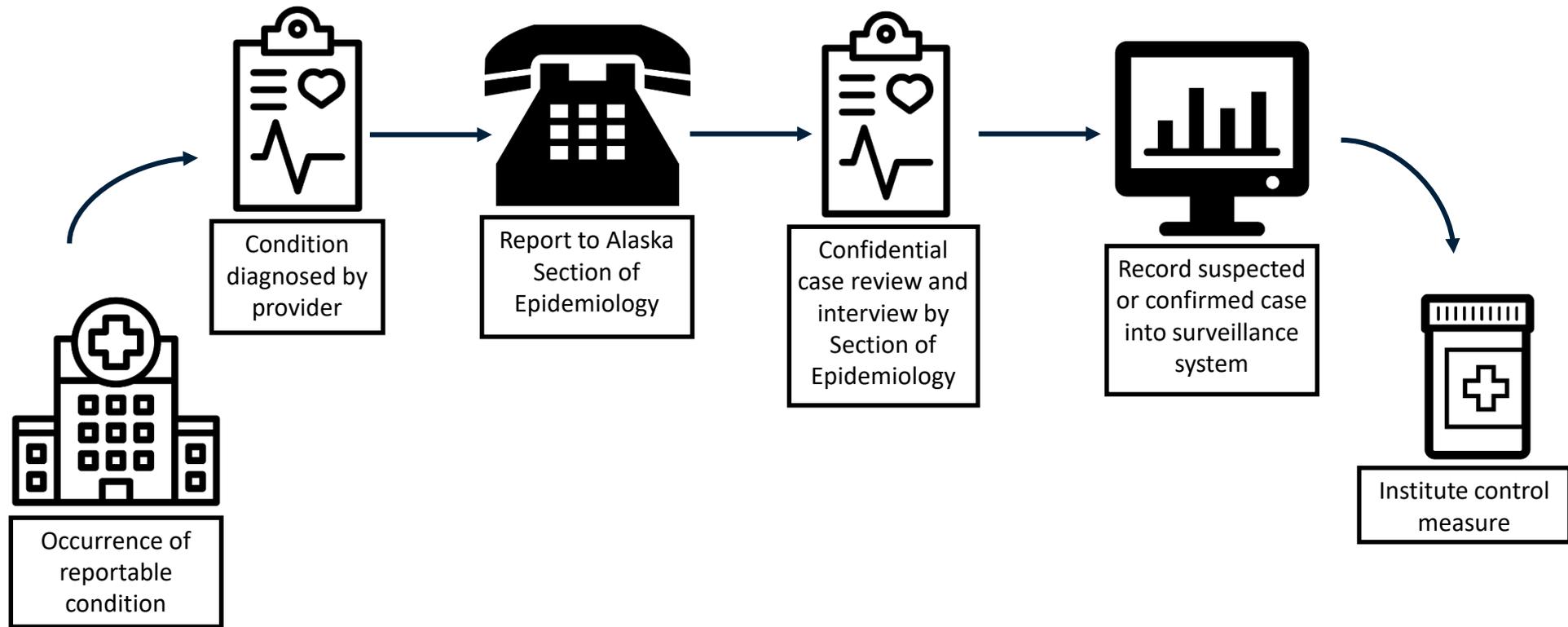
the ongoing systematic collection, analysis, and interpretation of outcome-specific data for use in the planning, implementation, and evaluation of public health practice.



Alaska Division of Public Health requires the reporting of certain health conditions and diseases.



Infectious Disease Surveillance System





Alaska's largest TB outbreak in 8 years contained on Y-K Delta

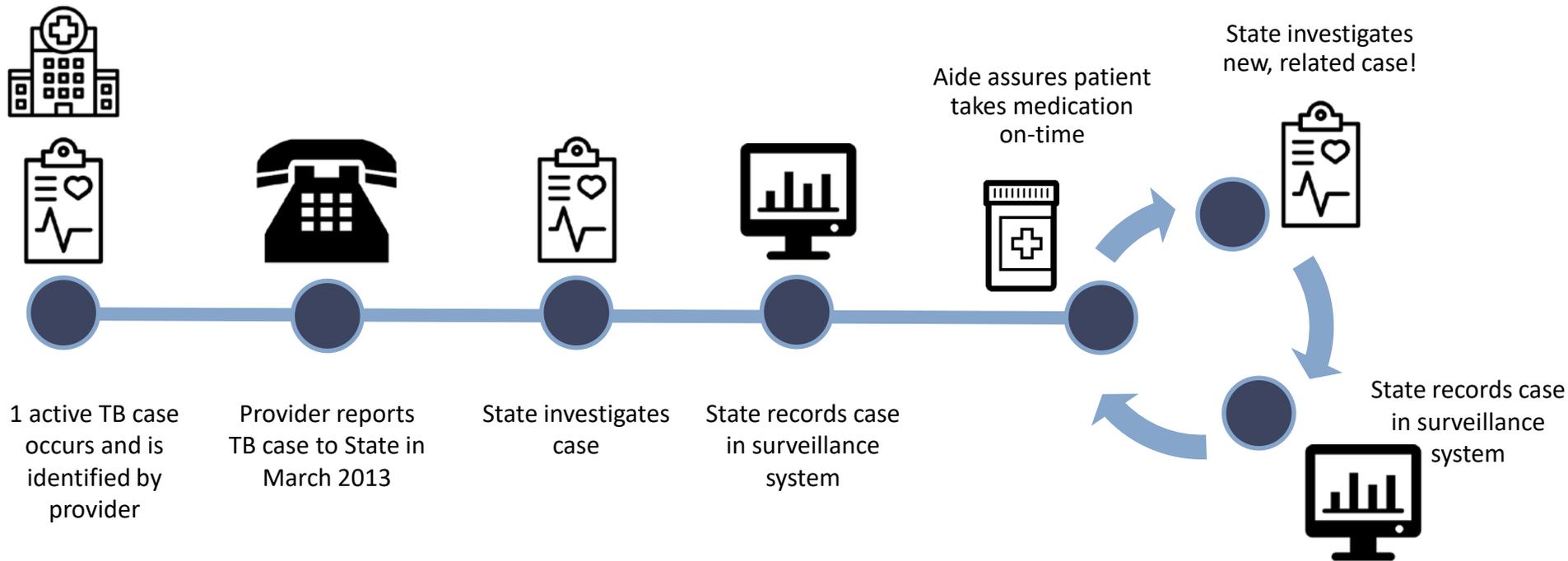
 Author: [Eli Martin](#)

Published July 29, 2013

Alaska authorities have confirmed an outbreak of tuberculosis (TB) in a Yukon-Kuskokwim Delta village

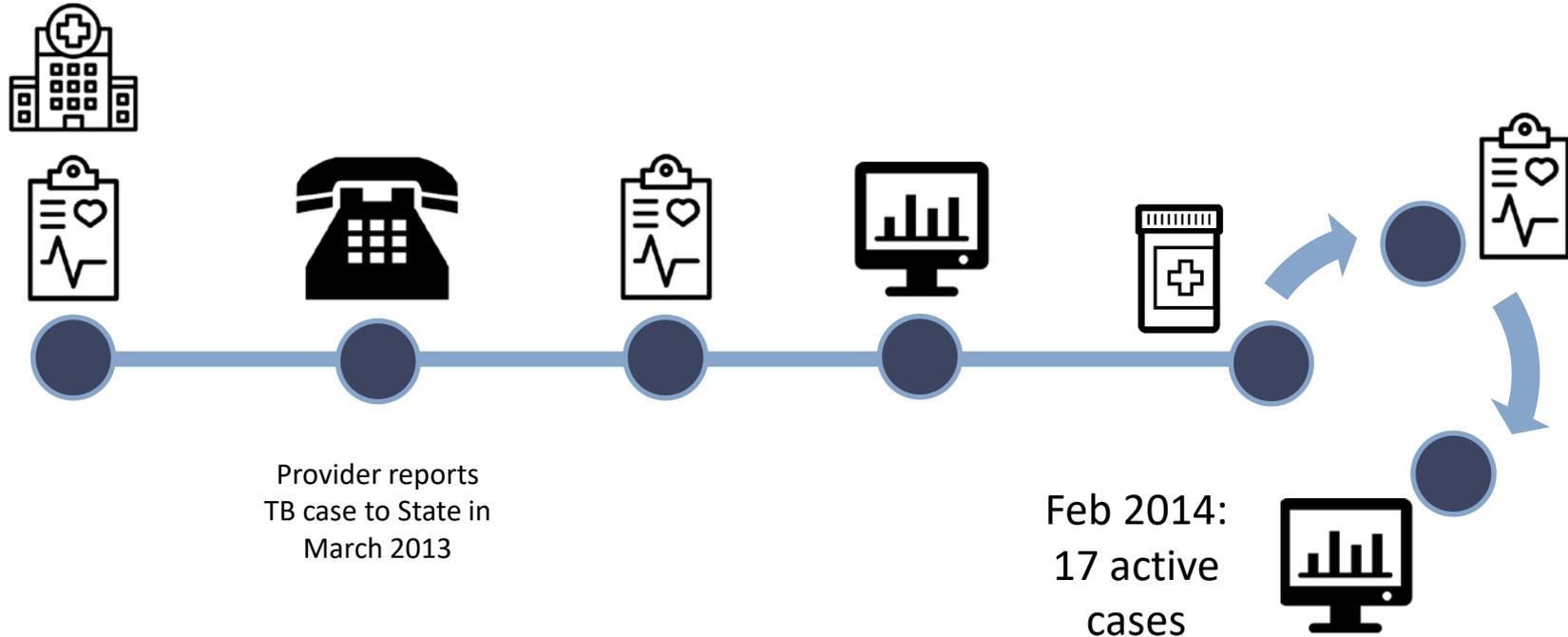


Alaska's largest TB outbreak in 8 years contained on Y-K Delta





Alaska's largest TB outbreak in 8 years contained on Y-K Delta



Infectious Diseases Reportable by Health Care Providers

Hepatitis (type A, B, or C)

Human immunodeficiency virus (HIV) infection

Influenza death, laboratory-confirmed by any testing methodology

Legionellosis (Legionnaires' disease or Pontiac fever)

Leptospirosis

Leprosy (Hansen's disease)

Listeriosis

Lyme disease

Malaria

Mumps

Pertussis (whooping cough)

Pregnancy in a person known to be infected with hepatitis B, human immunodeficiency virus (HIV), or syphilis

Prion diseases, including Creutzfeldt-Jakob disease (CJD)

Psittacosis

Q fever

Rheumatic fever

Salmonellosis

Scombroid fish poisoning

Shiga-toxin producing Escherichia coli (STEC) infection, including O157:H7

Shigellosis

Streptococcus agalactiae (Group B streptococcus), invasive disease

Streptococcus pneumoniae (pneumococcus), invasive disease

Streptococcus pyogenes (Group A streptococcus), invasive disease and streptococcal toxic shock syndrome, including necrotizing fasciitis

Syphilis

Trichinosis (trichinellosis)

Tuberculosis

Typhoid fever

Varicella (chickenpox)

Vibrio infection, including cholera

Yersiniosis



Untreated group A *Streptococcus* can result in rheumatic fever.

Symptoms include

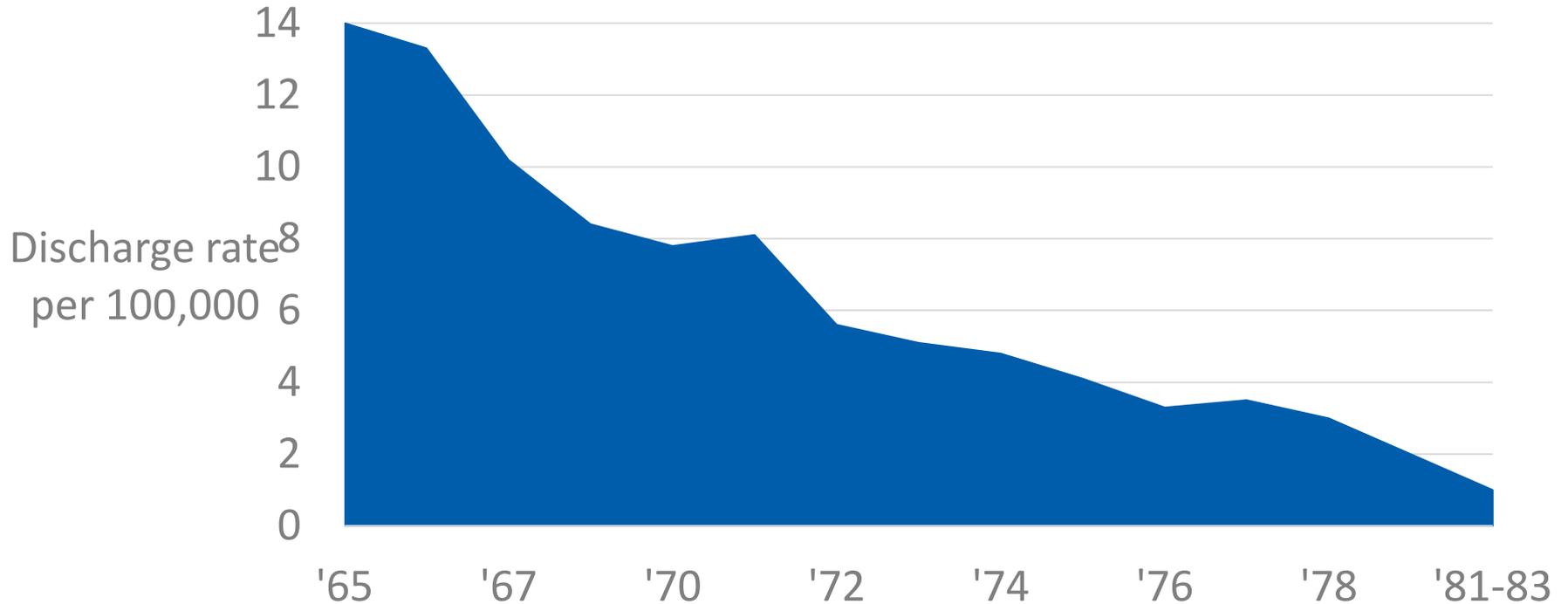
Inflammation of the heart

Joint pain

Involuntary movement



Rheumatic fever rates have decreased across the US.



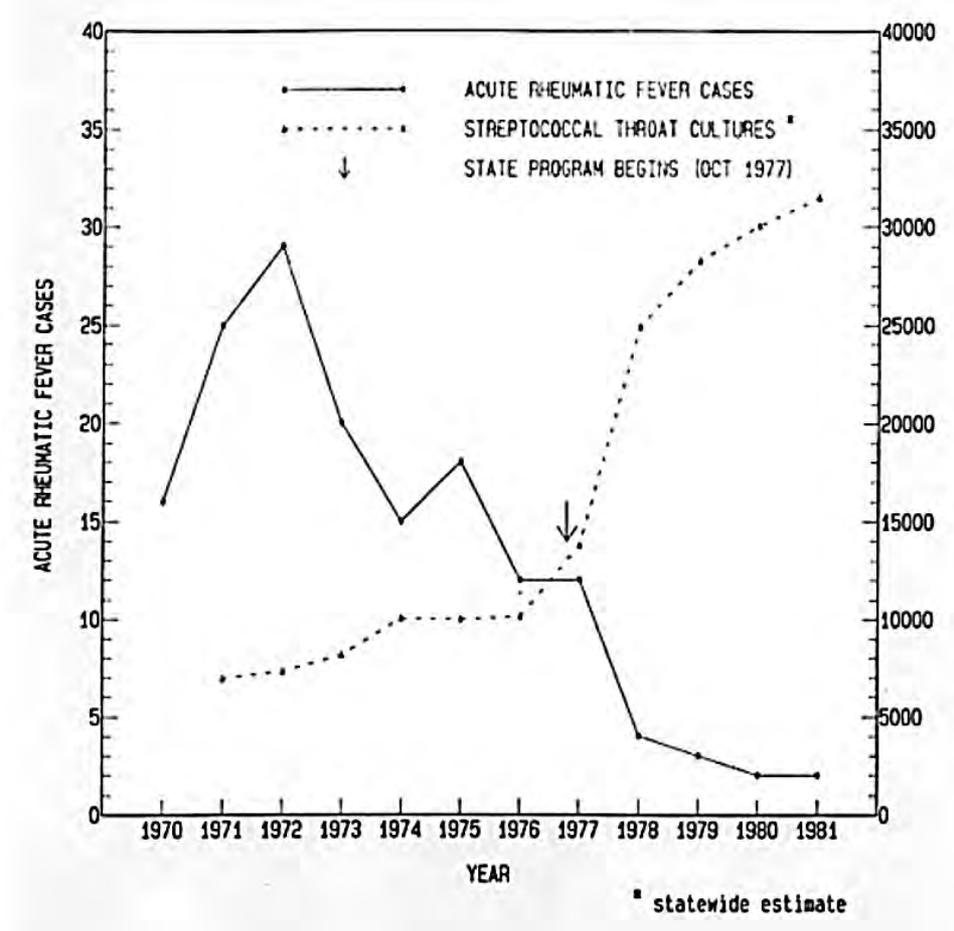
Gordis, Leon. "The virtual disappearance of rheumatic fever in the United States: lessons in the rise and fall of disease. T. Duckett Jones memorial lecture." *Circulation* 72.6 (1985): 1155-1162.



Rheumatic fever surveillance has decreased.



Alaskan rheumatic fever surveillance was historically important.



Who is involved in rheumatic fever surveillance?

- **Primary**
 - Clinicians and other health care providers
 - Alaska State Division of Public Health, Section of Epi

Confidential Infectious Disease Report Form State of Alaska, Section of Epidemiology

Health care providers may use this form for making infectious disease reports. Please use the STD/HIV Disease Report Form for reporting of Sexually Transmitted Diseases (STD) and HIV. Forms may be found at <http://dhs.alaska.gov/dph/Epi/Pages/pubs/conditions/crforms.aspx>.

Immediately report any suspected or confirmed public health emergency to 907-269-8000 (during business hours) or 1-800-478-0084 (after hours). Diseases classified as public health emergencies are listed in bold on page 6 on the Disease Reporting Manual (<http://dhs.alaska.gov/dph/Epi/Documents/pubs/conditions/ConditionsReportable.pdf>).

Patient Information			
Last Name _____		First Name _____ MI _____	
Date of birth _____ (mm/dd/yyyy)	Sex: <input type="checkbox"/> Female <input type="checkbox"/> Male <input type="checkbox"/> Transgender	Pregnant: <input type="checkbox"/> No <input type="checkbox"/> Yes EDC _____	<input type="checkbox"/> Unknown
Race: <input type="checkbox"/> White <input type="checkbox"/> Black <input type="checkbox"/> Alaska Native/American Indian <input type="checkbox"/> Native Hawaiian/Pacific Islander	<input type="checkbox"/> Asian <input type="checkbox"/> Unknown <input type="checkbox"/> Other _____	Ethnicity: <input type="checkbox"/> Hispanic <input type="checkbox"/> Non-Hispanic <input type="checkbox"/> Unknown	
Physical Address _____		PO Box _____	
City _____	State _____	Zip Code _____	
Phones (home) _____	(cell) _____	(work) _____	
Disease Information			
Name of Disease _____			
Was the diagnosis laboratory confirmed? <input type="checkbox"/> Yes <input type="checkbox"/> No			
*If so, please include a copy of the lab result		Specimen Collection Date: _____	
Type of Specimen: <input type="checkbox"/> Stool <input type="checkbox"/> Serum <input type="checkbox"/> CSF <input type="checkbox"/> Blood <input type="checkbox"/> Other _____	Type of Test: <input type="checkbox"/> Culture <input type="checkbox"/> PCR <input type="checkbox"/> Rapid test <input type="checkbox"/> Other _____		
Name of Medical Facility _____		Phone _____	
Patient Status: <input type="radio"/> Inpatient <input type="radio"/> Outpatient <input type="radio"/> Emergency Department			
Attending Health Care Provider _____		Laboratory Name (if known): _____	
Reported by: _____		Date Reported: _____	

Fax reports to (907) 561-4239 - please verify fax has been transmitted
This form is also available online at <http://dhs.alaska.gov/dph/Epi/Pages/pubs/conditions/crforms.aspx>

Rev 9/2018





We evaluated the surveillance system's ability to capture rheumatic fever cases.

Surveillance
system



We compared external datasets to the surveillance system.

Surveillance
system

Indian Health
Service

Medicaid

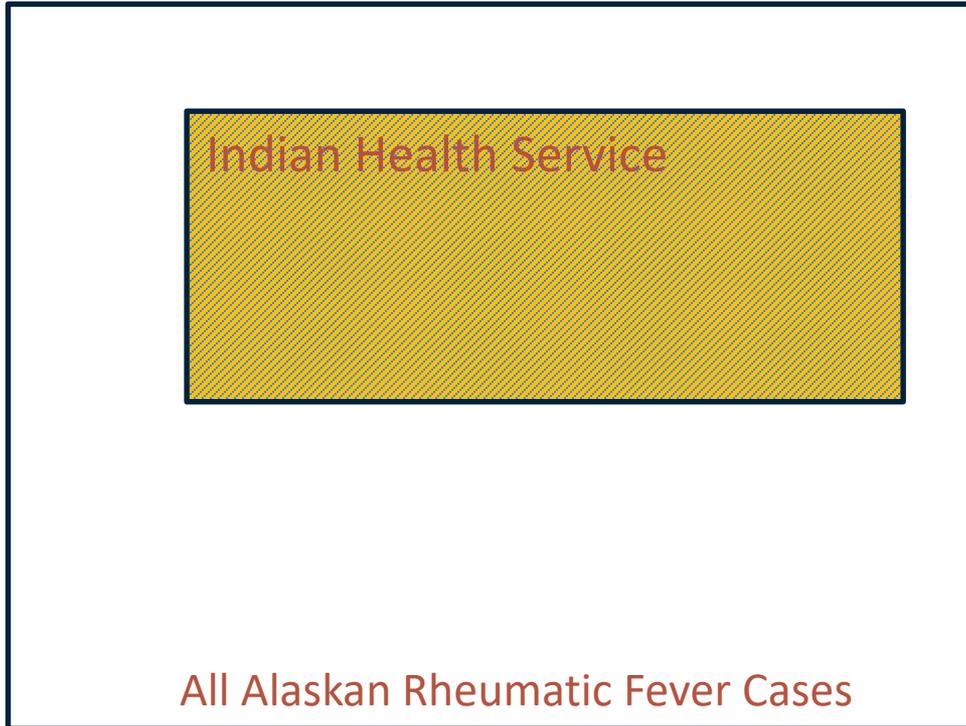


The data sets have overlapping populations.



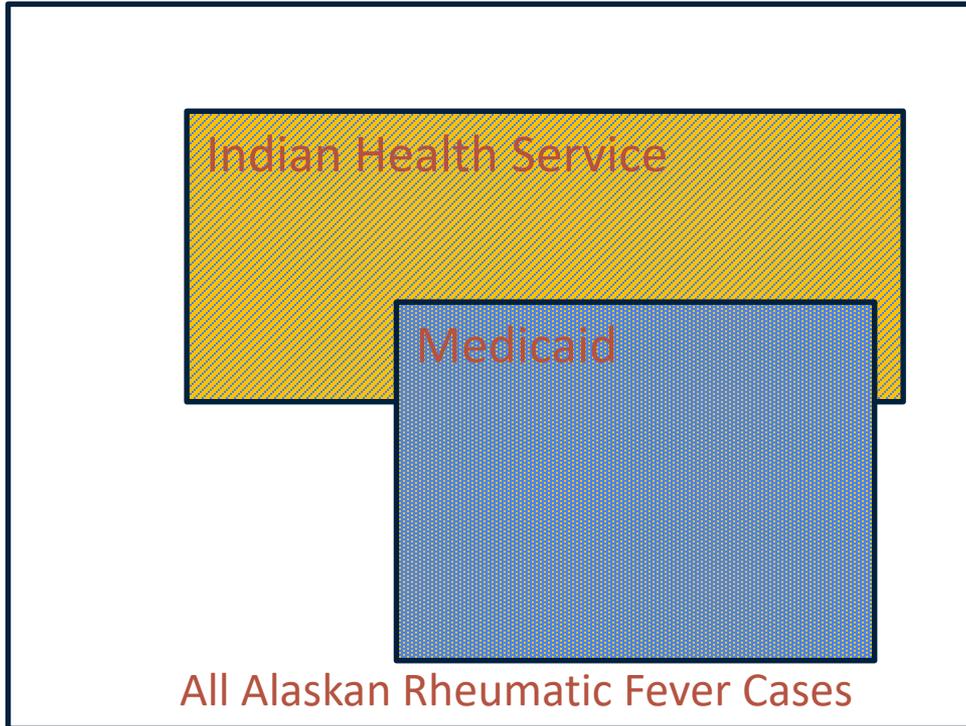


The data sets have overlapping populations.





The data sets have overlapping populations.





We also conducted stakeholder interviews to understand interaction with the system.



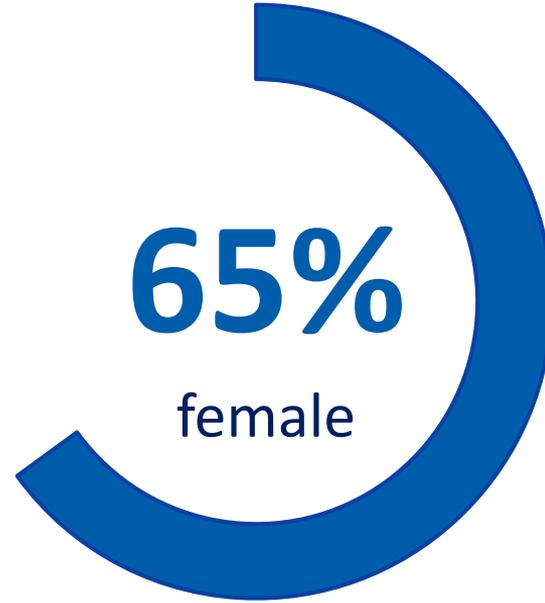
Rheumatic fever surveillance captured 20 cases between 2000 and 2018.

15

years old

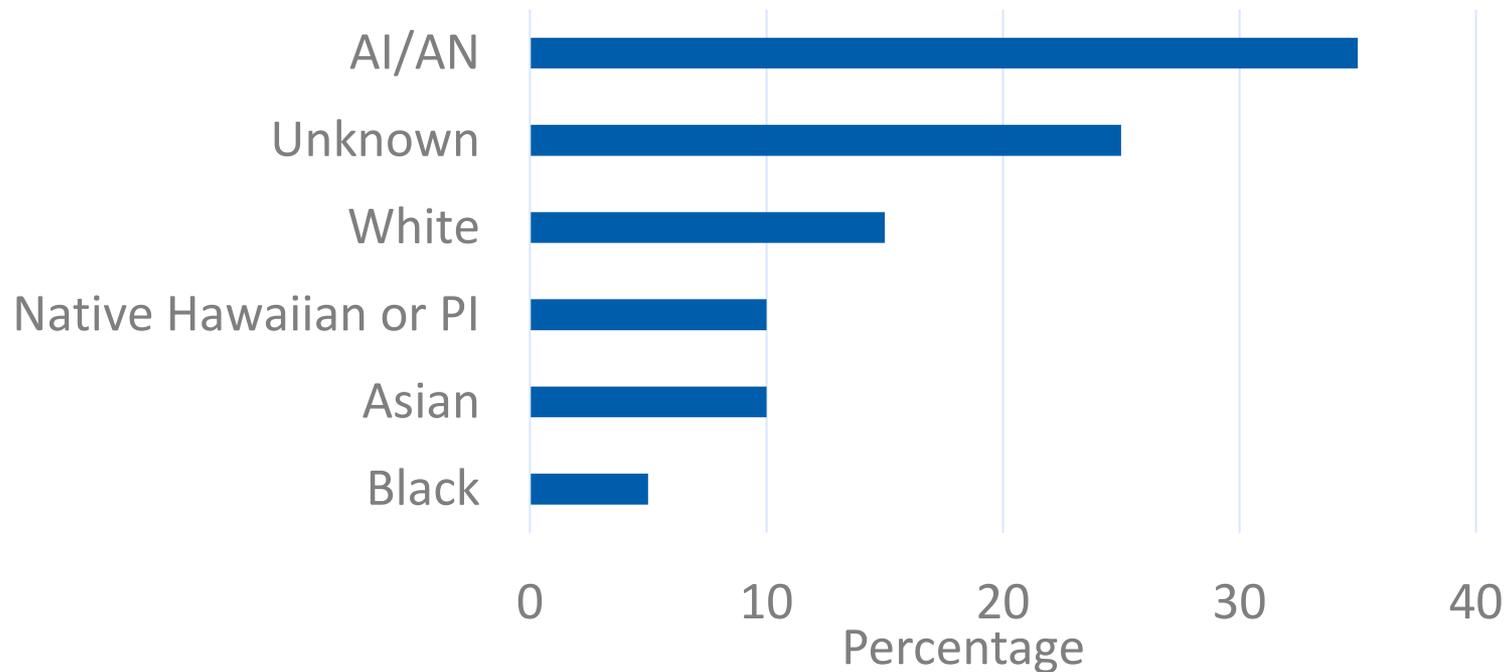
65%

female

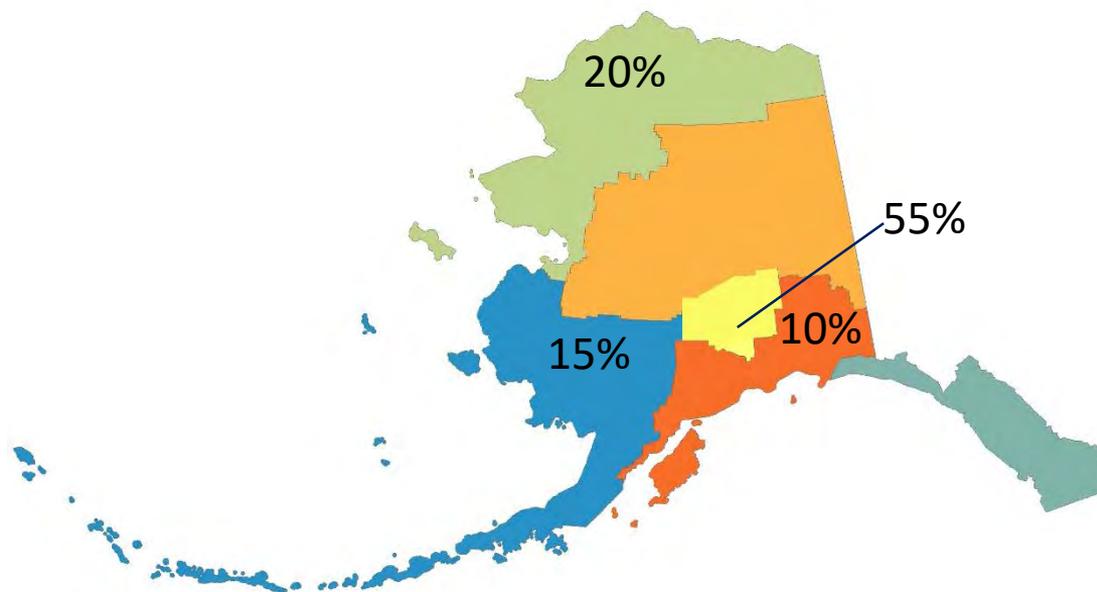




The majority of patients were American Indian/Alaska Native.

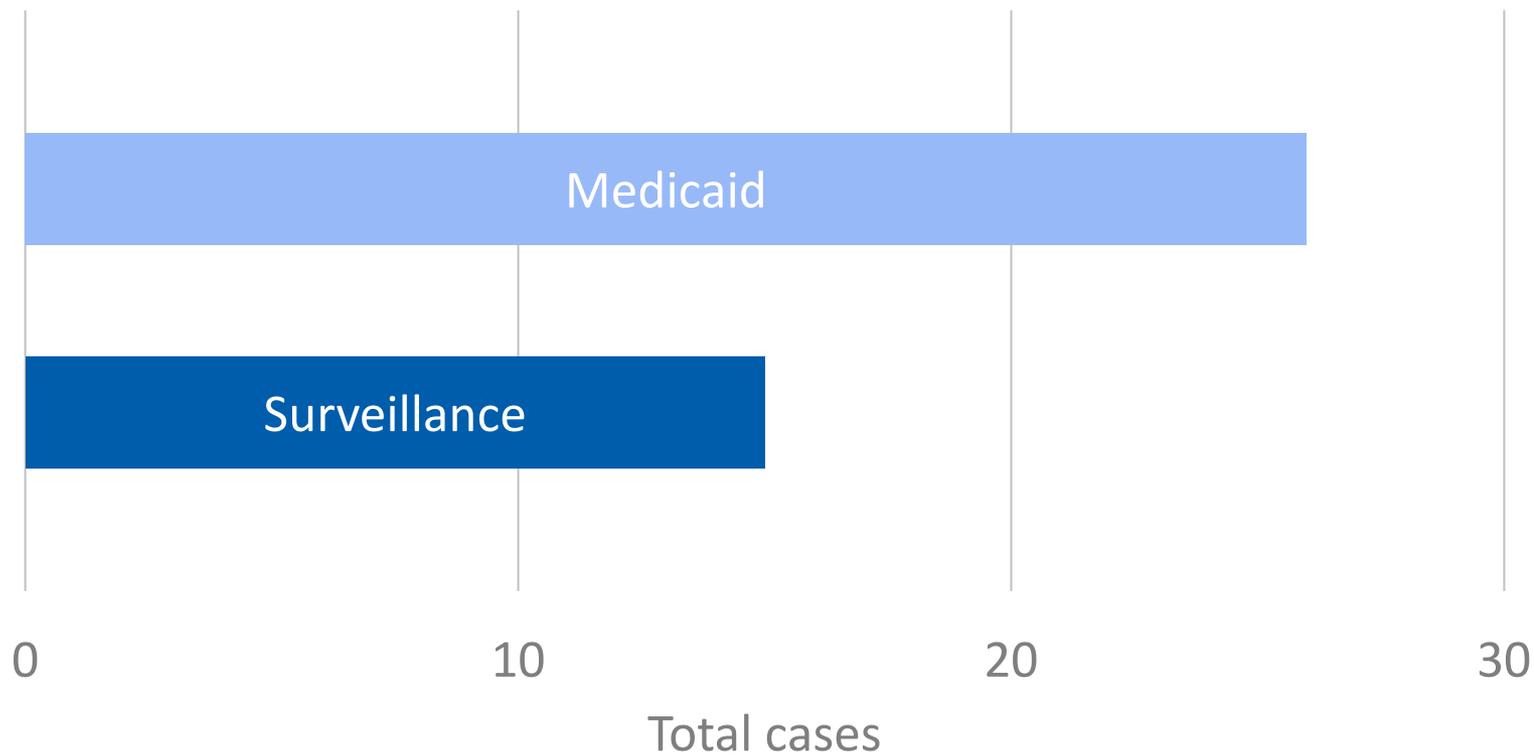


The majority of patients originated in the Anchorage/Mat-Su region.



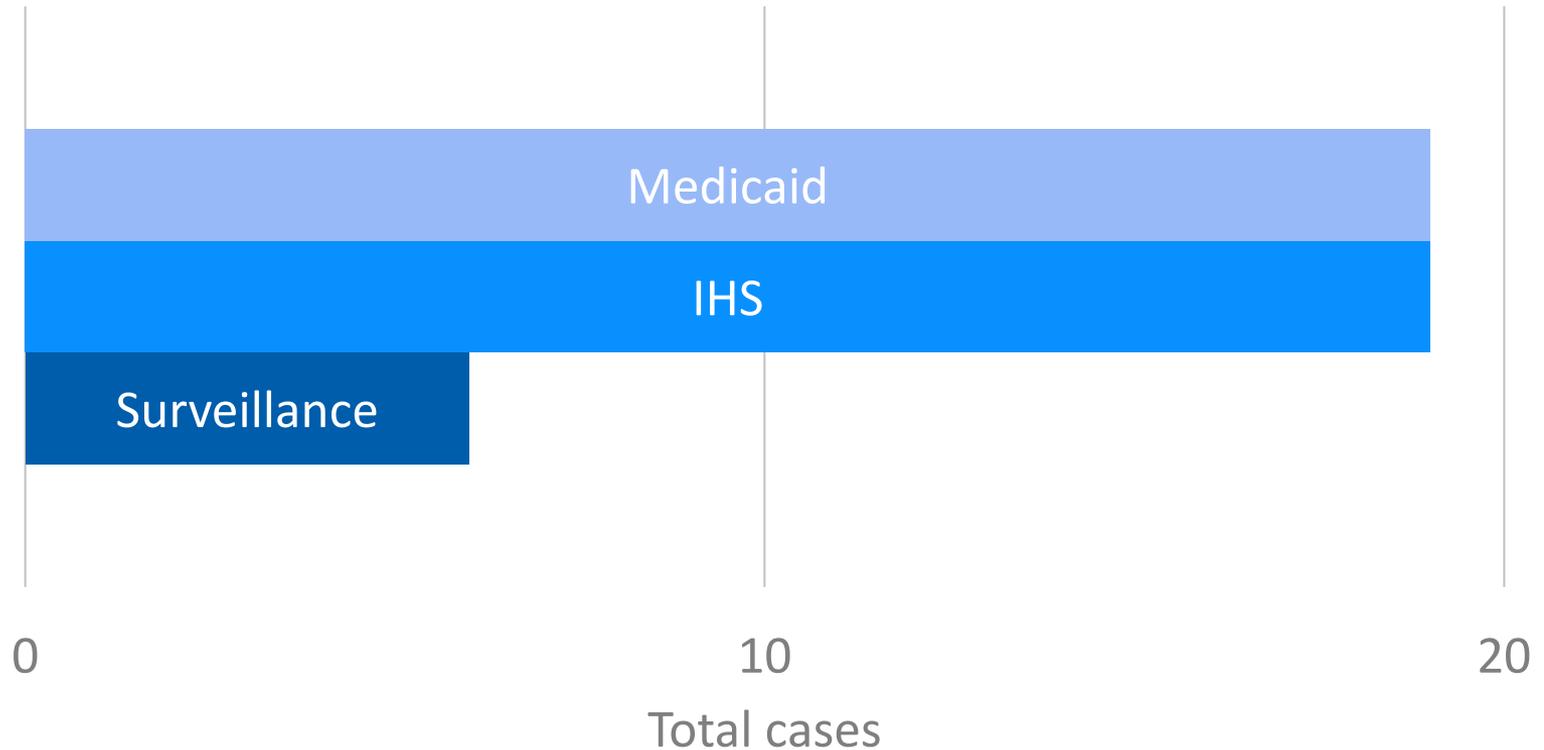


More patients appeared in the Medicaid database between 2003 and 2018.



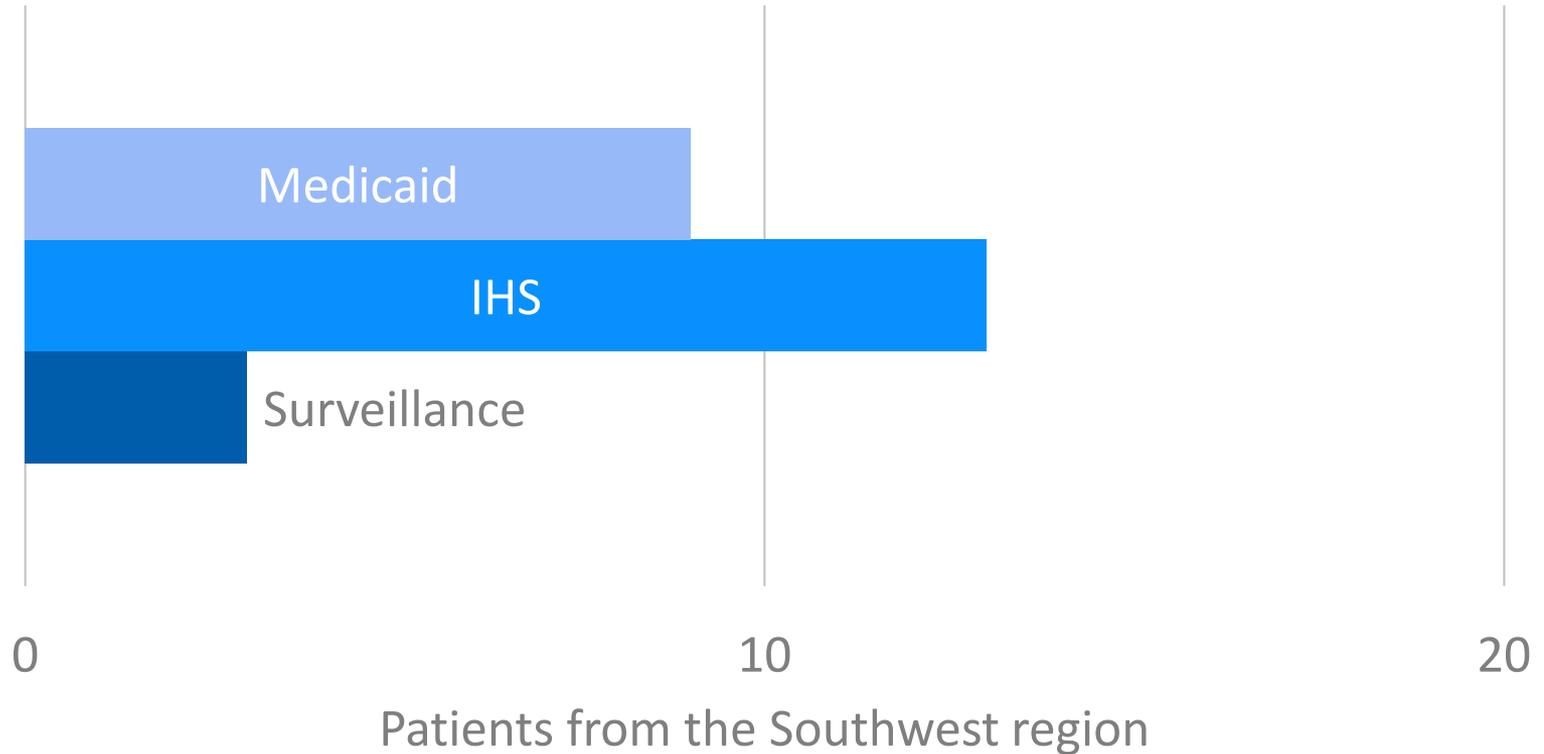


More patients appeared in the Medicaid and IHS databases between 2003 and 2014.





Few patients in the surveillance system were from the Southwest region.





Summary

- Data from Medicaid and IHS indicate there is underreporting to the surveillance system
- Our next step was to interview surveillance system stakeholders to evaluate why there is underreporting



We interviewed 3 physicians to understand their interactions with the system.





We interviewed 3 physicians to understand their interactions with the system.



“I never knew rheumatic fever was a reportable disease.”

“Reporting [rheumatic fever] doesn’t immediately come to mind.”



We also interviewed 2 RN case managers.





We also interviewed 2 RN case managers.



“Strep is so common and not reportable...rheumatic fever is a result of strep and isn’t communicable itself.”



We talked to the Section of Epidemiology.



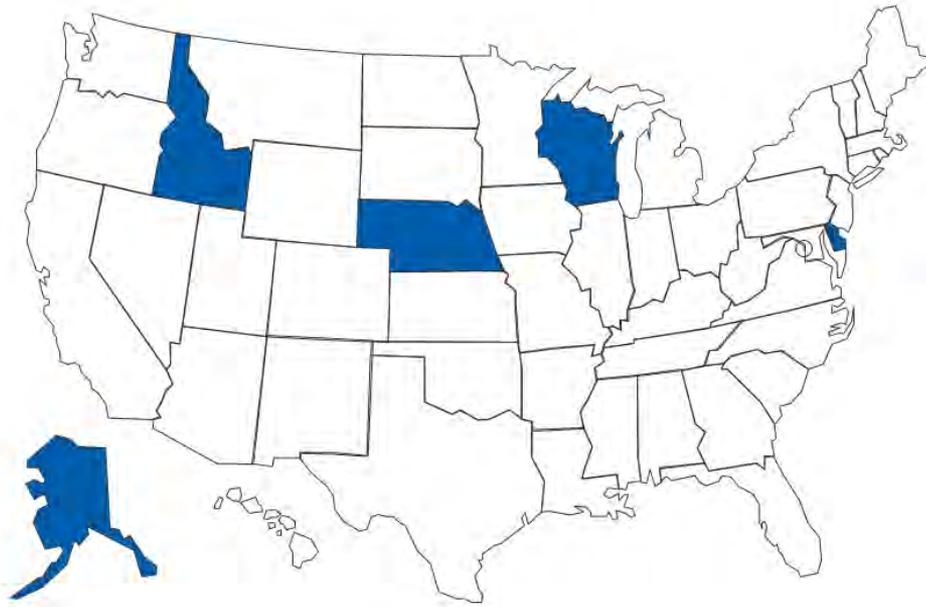


We talked to the Section of Epidemiology.

Is rheumatic fever surveillance still necessary?



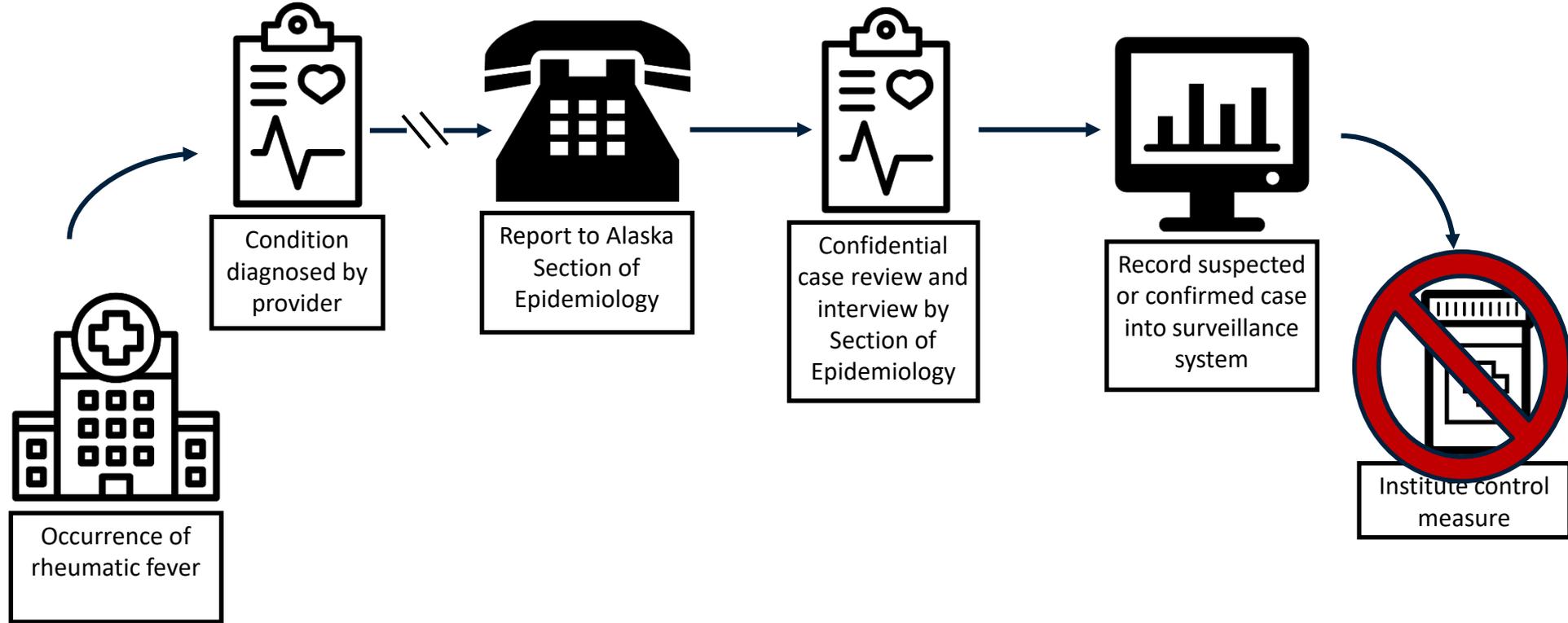
How are other states using this information?



3 States said:

- Historical importance but no longer actively tracked
- May remove rheumatic fever from reportable list

Rheumatic fever surveillance





Rheumatic fever will be removed from the reportable conditions list.

The reportable conditions list changes over time.

■ Conditions removed since 1991

- Amebiasis
- Aseptic meningitis
- Granuloma inguinale
- Murine typhus fever
- Rheumatic fever

■ Conditions added since 1991

- Arboviral diseases
- Babesiosis
- Campylobacteriosis
- Candida auris
- CP-CRE
- Coccidiomycosis
- Cryptosporidiosis
- Cyclosporiasis
- Dengue virus infections
- Giardiasis
- Hantavirus
- Hemolytic uremic syndrome
- Hepatitis C
- Influenza-associated pediatric mortality
- Invasive pneumococcal disease
- Listeriosis
- Novel influenza A virus infections
- Q fever
- SARS
- Smallpox
- Vibriosis
- Viral hemorrhagic fevers
- Yellow fever
- Zika virus disease/infection



Reporting

- By phone or fax.

The screenshot shows the website for the Alaska Department of Health and Social Services. The page title is "Conditions Reportable to Public Health in Alaska". The main content area is divided into three columns. The left column contains a link to the "Conditions Reportable to Public Health Manual" and a "To report Public Health Emergencies" section with phone numbers. The middle column, highlighted with a red box, is titled "What Is Reportable" and lists conditions reportable by Health Care Providers and Laboratories. The right column is titled "How To Report" and lists methods and report forms. A sidebar on the far right contains sections for "Section of Epidemiology", "Programs", and "Resources".

State of Alaska myAlaska My Government Resident Business in Alaska Visiting Alaska State Employees

Alaska Department of Health and Social Services

Home Divisions and Agencies Services News Contact Us

Health and Social Services > Public Health > Epidemiology > Conditions Reportable to Public Health in Alaska

Conditions Reportable to Public Health in Alaska

This site provides information to help health care providers and laboratories comply with public health reporting requirements in Alaska. Further assistance may be obtained by calling the Section of Epidemiology at (907) 269-8000.

Conditions Reportable to Public Health Manual
November 2018

To report Public Health Emergencies call
(907) 269-8000 or after hours
(800) 478-0084

Other Reporting Resources

- > Alaska statutes and regulations relevant to disease reporting and control
- > Frequently Asked Questions about infectious disease reporting
- > One page posters of all reportable infectious diseases/pathogens

What Is Reportable

by Health Care Providers

- > Birth Defects
- > Blood Lead Level Testing
- > Cancer
- > Firearm Injuries
- > Healthcare-Associated Infections
- > Immunization Administration Data
- > Infectious Diseases
- > Newborn Hearing Loss
- > Occupational Disease and Injuries
- > Sexually Transmitted Diseases, HIV Infections and AIDS
- > Toxic or Hazardous Exposures

by Laboratories

- > Infectious Disease Pathogens
- > Submission of Isolates or Source Material

How To Report

Methods

Report Forms

- > Birth Defects
- > Blood Lead Level Testing
- > Cancer
- > Firearm Injuries
- > Healthcare-Associated Infections
- > Immunization Administration Data
- > Infectious Diseases
- > Influenza-Associated Mortality
- > Newborn Hearing Loss
- > Occupational Disease and Injuries
- > Sexually Transmitted Diseases, HIV Infections and AIDS
- > Toxic or Hazardous Exposures

Section of Epidemiology

- Home
- Conditions Reportable
- Epidemiology Bulletins
- Contact Us

Programs

- Environmental Public Health
- Health Impact Assessment
- HIV/STD
- Immunization
- Infectious Disease
- Injury Surveillance

Resources

- Confidentiality & Privacy
- Protection Resources
- Links
- Contact Us

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

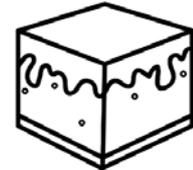
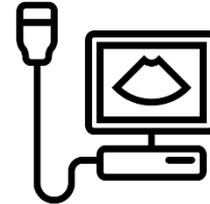
The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.





Case definition for rheumatic fever

- Clinical diagnosis using the revised Jones Criteria:
 - Major criteria:
 - Arthritis
 - Carditis
 - Minor criteria
 - Subcutaneous nodules
 - Chorea
 - Erythema marginatum
 - 2015*: Echocardiogram
- No laboratory confirmation



Condition	ICD-9 Code	ICD-10 Code
Rheumatic fever w/o heart involvement	390	I00
Rheumatic fever w/ heart involvement	391	
Acute rheumatic pericarditis	391.0	I01.0
Acute rheumatic endocarditis	391.1	I01.1
Other acute rheumatic heart disease	391.8	I01.8
Acute rheumatic heart disease, unspecified	391.9	I01.9
Rheumatic chorea	392	
Rheumatic chorea with heart involvement	392.0	I02.0
Rheumatic chorea without mention of heart involvement	392.9	I02.9
Chronic rheumatic pericarditis	393	I09.2
Rheumatic mitral insufficiency	394.1	I05.1
Rheumatic aortic stenosis	395.0	I06.0
Rheumatic aortic insufficiency	395.1	I06.1
Rheumatic aortic stenosis with insufficiency	395.2	I06.2
Diseases of other endocardial structures	397	
Other rheumatic heart disease	398	
Rheumatic myocarditis	398.0	I09.0
Rheumatic heart disease, unspecified	398.90	I09.9
Rheumatic heart failure (congestive)	398.91	I09.81
Other rheumatic heart diseases	398.99	I09.89