Infectious Disease Control and Prevention Annual Report

2024

CLACKAMAS COUNTY

PUBLIC HEALTH DIVISION

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Introduction

By law, clinicians and laboratories in Oregon must report over 50 diseases to their local public health authority (LPHA), and the LPHA is legally required to respond to these reports. The Clackamas County Infectious Disease Control and Prevention team (referred to in this report as IDCP) is made up of 15 people dedicated to the prevention of and response to this wide variety of diseases. This work includes the following:

- Working closely with the sick person to find out where they might have caught the disease and where they may have exposed others (case investigation)
- Informing people who might have been exposed and helping people isolate if they need to
- Communicating public health safety messaging information with the public
- Coordinating immunization clinics
- Collaborating across jurisdictions to share information and strategies
- Providing community/medical provider education
- Referring people to services
- Partnering with other county agencies such as Dog Services for animal bite response
- Data tracking and monitoring

In 2024, IDCP chose to prioritize the following Key Performance Indicators (KPI) and Budget Measures:

Syphilis:

- **KPI:** Improve sexually transmitted infection (STI) prevention efforts and treatment pathways
- **Budget Measure:** By December 2030, decrease syphilis cases by 10% to 34 per 100,000 population

Immunizations:

- **KPI:** 75% of two-year-olds in Clackamas County will be up to date on recommended vaccinations.
- **Budget Measure:** By March 2030, 95% of kindergartners will have received all vaccines required for school attendance

While syphilis and immunizations were selected as areas of focus, this does not reflect the complex and varied nature of IDCP's work. Below are descriptions of some of the most frequently reported diseases in 2024, their incidence over five years, and the work IDCP does in response. (For a table of all reportable diseases housed in the Oregon Public Health Epidemiologists' User System [Orpheus] by case count, consult Appendix.)

1. STIs: chlamydia, gonorrhea and syphilis
2. Animal bites
3. Pertussis
4. Gastrointestinal illnesses (like campylobacter and salmonella)

In 2024 the IDCP team also responded to highly complex, time-intensive diseases and outbreaks, such as:

1. Facility outbreaks
2. Highly Pathogenic Avian Influenza (HPAI)
3. A measles outbreak
4. Paralytic shellfish poisoning
5. Pediatric elevated blood lead levels
6. Tuberculosis

The IDCP program is funded through a combination of federal, state and county general funds as well as through coordinated care organizations (CCOs).

In FY25, the Communicable Disease Service Area was allocated approximately $1.5 million from state grants and coordinated care organizations (CCOs).

Due to the increase in emerging disease response efforts described below and IDCP's legal obligation to respond, IDCP was projected to overspend by $455,270, leading to a request for supplemental general funds that was granted in January 2025. This led to IDCP receiving a total of $1,145,682 in county general funds this fiscal year. This trend of increasing need is likely to continue, in part due to decreasing vaccination rates. For FY26, IDCP is anticipating the need for a larger emerging disease budget, since the work required will exceed current staff capacity and resources.

Most Common Diseases in Clackamas County

In Clackamas County, the most-reported diseases in 2024 were **STIs**, **animal bites**, **pertussis** and **gastrointestinal diseases.**

STIs: Chlamydia, Gonorrhea and Syphilis

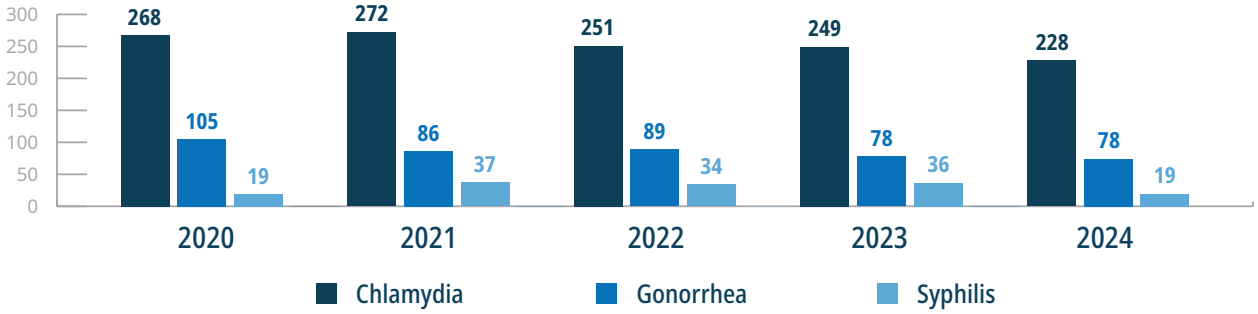
Clackamas County has witnessed a staggering 154% surge in syphilis cases from 2017-2022, with congenital syphilis (CS) —a serious infection that can lead to lifelong deformities for the baby or even result in stillbirth —on the rise. CS occurs when a pregnant person passes syphilis to their baby. The surge in CS is attributed to syphilis becoming more common in people of reproductive age, along with socio-economic factors, such as active drug use and insecure housing, creating obstacles to pregnant people accessing quality prenatal care. As indicated in the Key Performance and Budget Measure above, syphilis is an area of priority for IDCP. The presence of CS reveals gaps and shortcomings in our systems of care for some of our most vulnerable populations and identifies a critical opportunity for public health to step in to improve health outcomes.

IDCP's Disease Intervention Specialists (DIS) respond to STIs. This involves:

- Understanding proper STI treatment guidelines
- Chart/medical record reviews
- Calling and investigating STI infections
- Working with partners who may have been exposed
- Scheduling treatment of STIs
- Educating cases about STIs, HIV, and ways to protect themselves from future exposures
- Providing referral services for linkage to care.

This work is challenging due to limited resources available for this work. DIS are also often pulled out of their primary focus of STIs to respond to other emerging infectious diseases.

STI incidence per 100,000 population



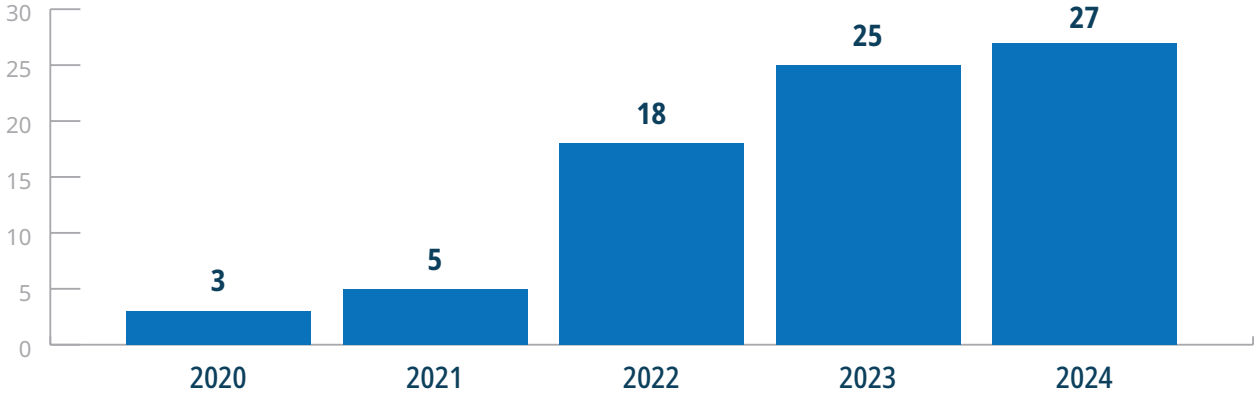
Animal Bites

In 2024, the Oregon Veterinary Diagnostic Lab tested a bat from Clackamas County and found it to be positive for rabies. Several bats test positive for rabies every year in Oregon. Rabies is transmitted through the saliva of an infected animal. If someone is bit by an animal who could potentially have rabies, they need treatment as soon as possible to prevent the virus from infecting their body, because once a rabies infection is established, it almost always leads to death. Due to the severity of rabies, it is IDCP's responsibility to respond to potential rabies exposure, whether it is an animal-to-animal or animal-to-human encounter. This response includes calling the bite victim and gathering enough information to determine if rabies post-exposure prophylaxis (RPEP) is necessary and if animal testing is possible. If the bite involves a dog, IDCP sends a report to Dog Services who implements quarantine of the dog, if possible.

This work can be challenging due to time constraints for IDCP staff and competing priorities with emerging diseases demanding staff time. Successfully reaching bite victims and getting signed documentation can be hard to do, and the absence of veterinarians in Clackamas County who are willing to euthanize animals where testing is recommended has made testing for rabies impossible in most cases.

IDCP has successfully partnered with Genoa Pharmacy at Beavercreek Health Center. If RPEP is recommended to a bite victim, IDCP can make a direct referral to Genoa to receive this necessary series of potentially life-saving injections.

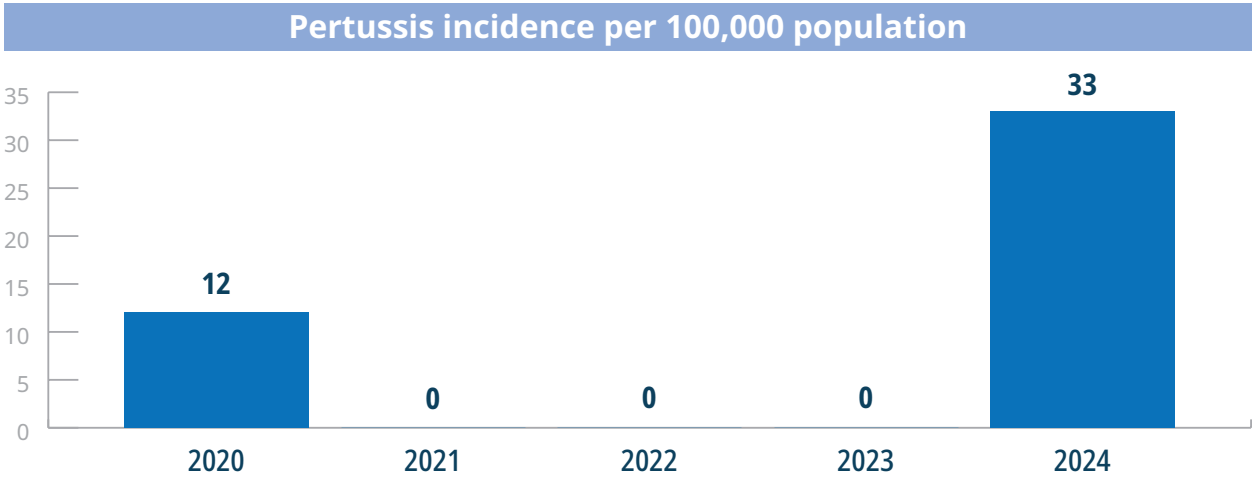
Animal bite incidence per 100,000 population



Pertussis

Pertussis (also known as whooping cough) is a highly contagious bacterial infection that can be very dangerous, especially for young babies. The median age of cases in Clackamas County in 2024 was six years old. Babies too young to be fully vaccinated suffer the most from pertussis, with the highest reported incidence rate and highest likelihood of hospitalization and death. In 2024, there were a staggering 1,183 pertussis cases in Oregon, surpassing the state record. When an outbreak of pertussis occurs—usually in a school—IDCP nurses do everything they can to stop the spread including notifying the school nurse and advising them on the process of excluding the sick child from school. IDCP also gives guidance to the schools on how to notify high risk contacts and how to communicate with families, providing educational letters for the school to distribute.

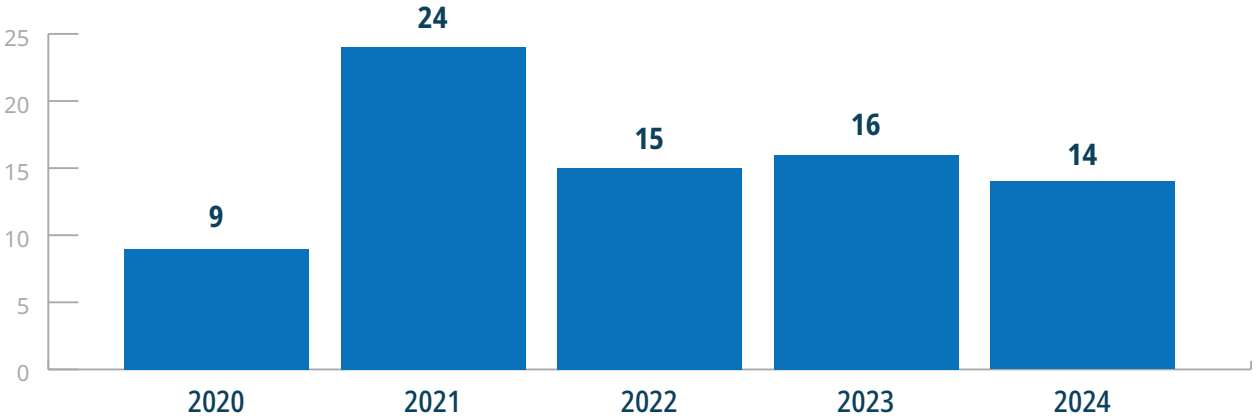
Despite how challenging this work is, given the current volume of cases leading to multiple outbreaks in schools, IDCP's strong relationships with school nurses has been critical and proven successful in pertussis outbreak management.



Gastrointestinal Illnesses

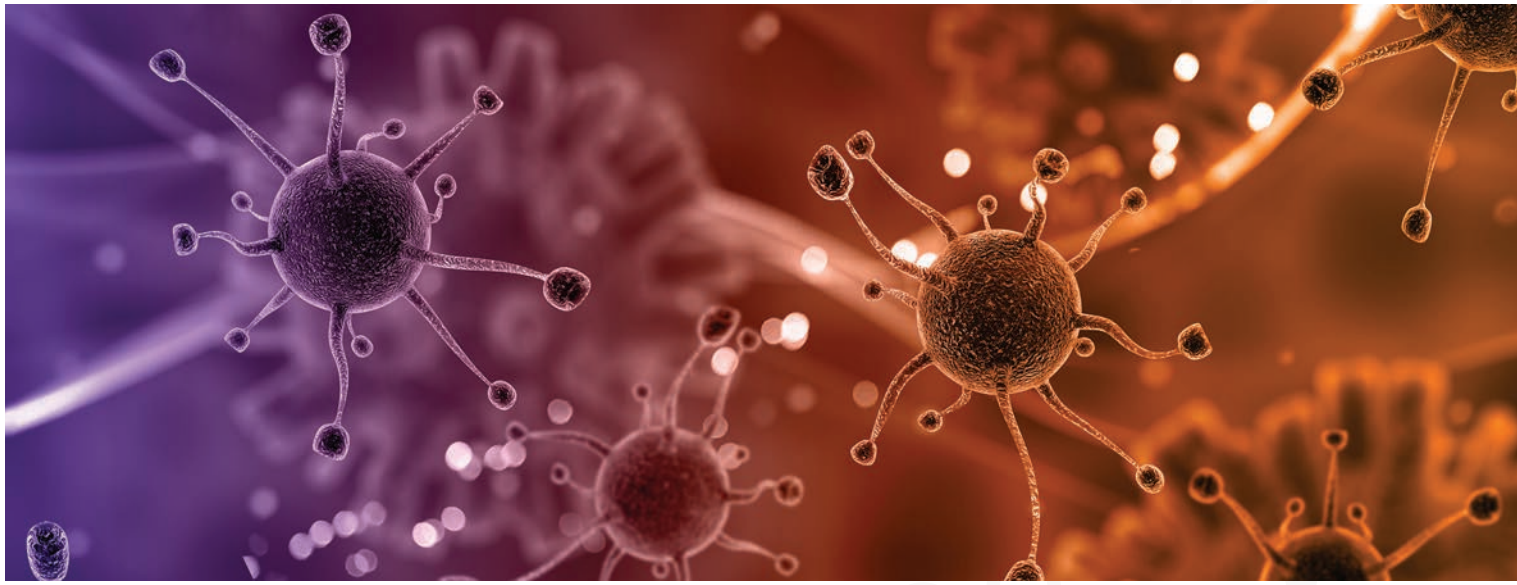
Gastrointestinal (or enteric) illnesses—such as those caused by salmonella and campylobacter bacterial infections—impact the quality of life of Clackamas County residents. Some variants – such as Shiga toxin-producing E. coli (STEC) – are particularly dangerous and can lead to hospitalization or even death. Outbreaks of enteric pathogens are regularly reported at the national level. For example, a nationwide STEC outbreak in onions and carrots was discovered in late 2024. Response to enteric illnesses entails reviewing the sick person's health records, conducting an interview with specific questions about foods consumed as well as other possible risks, providing education and interviewing any contacts with the sick person who were identified as having similar symptoms. This work can be challenging as it is time-intensive and can involve conversations with people during a difficult time in their lives that can result in disruptions in work or school.

Salmonella incidence per 100,000 population



It is also the responsibility of the IDCP team to follow up on foodborne illness reports from the general public. Anyone who reports that they suspect they were made ill by eating at a particular restaurant in Clackamas County will be called by an IDCP team member for an interview to investigate their symptoms, what foods they ate and when. Should the facility reported be located in Clackamas County, our public health colleagues in Environmental Health will follow up with a restaurant inspection. IDCP responded to approximately 60 foodborne illness complaints in 2024.

Highlighted Diseases



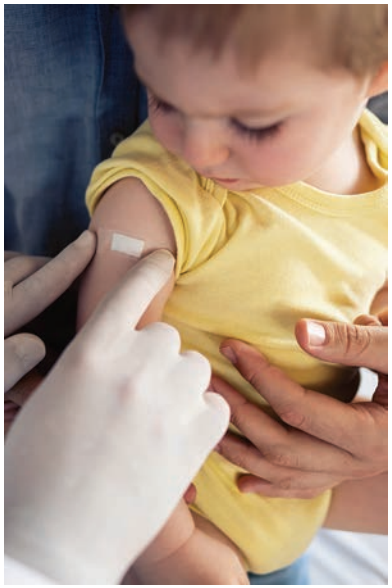
Facility Outbreaks

IDCP responds to a wide range of disease outbreaks. Outbreaks are discovered through several avenues. Some outbreaks are reported directly to our team by long-term care facilities, school nurses and restaurants. Sometimes IDCP discovers an outbreak during routine case investigation of individual disease reports by connecting cases with similar symptoms. At times, a possible outbreak is reported to IDCP by a community member, such as parent with a child in day care. IDCP provides infection control guidance and support tailored to the reporting facility and tracks the individual cases to understand how the pathogen may be spreading and to inform prevention recommendations. IDCP also analyzes the data when the outbreak is over to attempt to understand what occurred.

Outbreak response is not one-size-fits-all and requires human understanding and ingenuity to ensure that infection control is properly addressed. Fortunately, IDCP has three team members board certified in infection control, making them technical and clinical experts in this space. IDCP usually manages large outbreaks and often many at once, which is complicated and time-intensive work.

Highly Pathogenic Avian Influenza

Clackamas County identified Oregon's first human case of highly pathogenic avian influenza (HPAI), sometimes called "bird flu," in 2024. The affected individual was linked to a commercial poultry operation with 150,000 birds in rural Clackamas County. The Oregon Department of Agriculture (ODA) confirmed the outbreak in these birds and, together with the Oregon Health Authority, reached out to IDCP. IDCP responded quickly by traveling to the site in the public health mobile van to provide education to the workers, test exposed people for HPAI, screen and treat anyone who was symptomatic and offer preventative medication to anyone identified as having high risk exposure. It was through these efforts that the positive case was discovered. This work was challenging, as it required significant coordination with multiple agencies and the site owners, labor contractors, management and staff. The high numbers of exposed individuals and the need for detailed contact information to track symptoms among contracted, migratory staff proved difficult, particularly in a population that does not always have a stable working phone number. Despite these challenges, IDCP worked long hours and weekends and was successful in limiting the spread of bird flu while also fostering a collaborative working relationship with the site and with partner agencies. Unfortunately, more bird flu events are likely in the future, which could be even larger in scale and could require 24/7 monitoring. Future events will require IDCP expertise and resources.



Measles Outbreak

Oregon experienced the largest measles outbreak in the United States in 2024 with at least 30 cases associated with one outbreak. Nine of those cases were Clackamas County residents and none of them were vaccinated against measles. IDCP worked tirelessly to respond. This response included coordination across multiple organizations and sister counties to identify contacts to these cases. Additionally, IDCP drew upon additional public health employees for their support in this response, even preparing to activate a Divisional Operating Center if required. Once contacts were found, IDCP provided education about measles, monitored them for any symptoms, connected them to testing, encouraged vaccination, and, if they were unvaccinated, facilitated their exclusion from school/childcare in order to prevent further spread. In Oregon, individuals who have been exposed to measles and are not vaccinated must be excluded from school and childcare for up to 21 days, which is a difficult message to relay. Fortunately, IDCP has worked hard to build trust for years, which proved essential throughout this response. Given the ongoing measles outbreaks occurring across the country, more measles outbreaks are likely, and IDCP needs to be prepared to respond at any moment.

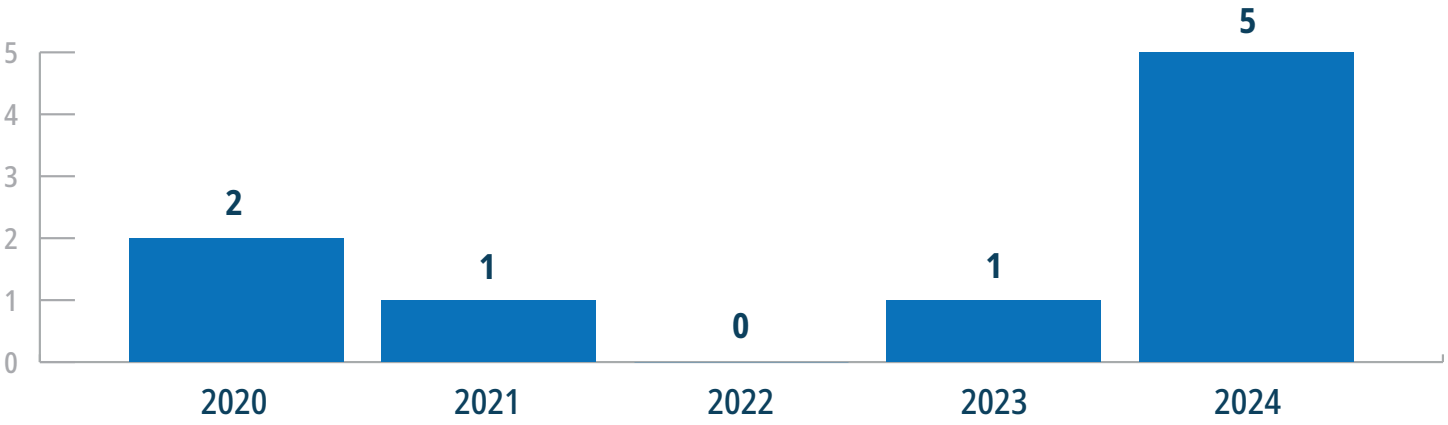
Paralytic Shellfish Poisoning

Paralytic shellfish poisoning is a serious illness caused by eating shellfish contaminated with algae-produced toxins. Symptoms include tingling, numbness, nausea, vomiting and difficulty breathing. Before 2024, the last case of paralytic shellfish poisoning in Clackamas County was in 2017. In 2024, IDCP responded to a multi-jurisdictional outbreak of the disease working closely with other counties and OHA. IDCP conducted interviews, provided education, collected shellfish for testing, and even created an electronic, fillable interview form for the entire state's use. This was challenging work due to the high volume of interviews and the many agencies involved. Despite this challenge, IDCP interviewed every reported case, which was quite the accomplishment given that Clackamas County had the highest number of cases in the state. This response is another example of how IDCP must be ready to respond to an infectious disease incident at a moment's notice.

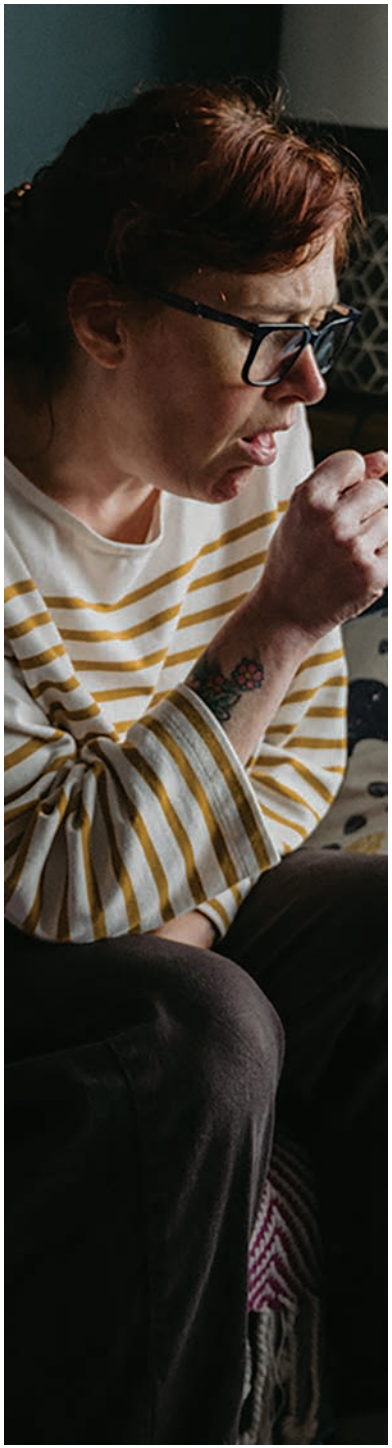
Pediatric Elevated Blood Lead Levels

High blood lead levels in children can cause serious health problems, including developmental delays, learning difficulties, behavioral issues and even permanent damage to the brain and nervous system. In October 2021, in light of the severe outcomes of even small amounts of lead in children's blood, the CDC lowered the threshold that requires LPHAs to respond. This increased the workload for IDCP staff. Note the difference in incidence since the CDC rule change in the graph below.

Pediatric Elevated Lead Level Incidence per 100,000 population



When notified of a child's elevated blood lead level, an IDCP nurse interviews the child's parents to assess for possible lead exposures, provides education on mitigation, and connects the child to follow up testing. At times, home testing is needed to identify the source of the lead exposure, at which point an inspection is needed. After the CDC rule change, Clackamas County intentionally embedded a certified lead inspector within its infectious disease team, one of few LPHAs in Oregon to do so. The lead inspector visits the child's home to test for the source of the lead. The IDCP nurse also provides resources for other public health services such as WIC, early intervention, and nurse home visiting. The IDCP nurse will follow each case through chart review and discussions with providers until the child's blood lead levels are no longer at a level of concern. This process is lengthy taking anywhere from six to twelve months. Through IDCP's effective communication and follow-up with providers and families, they have been able to lower lead levels and mitigate future exposures for children in Clackamas County.



Tuberculosis

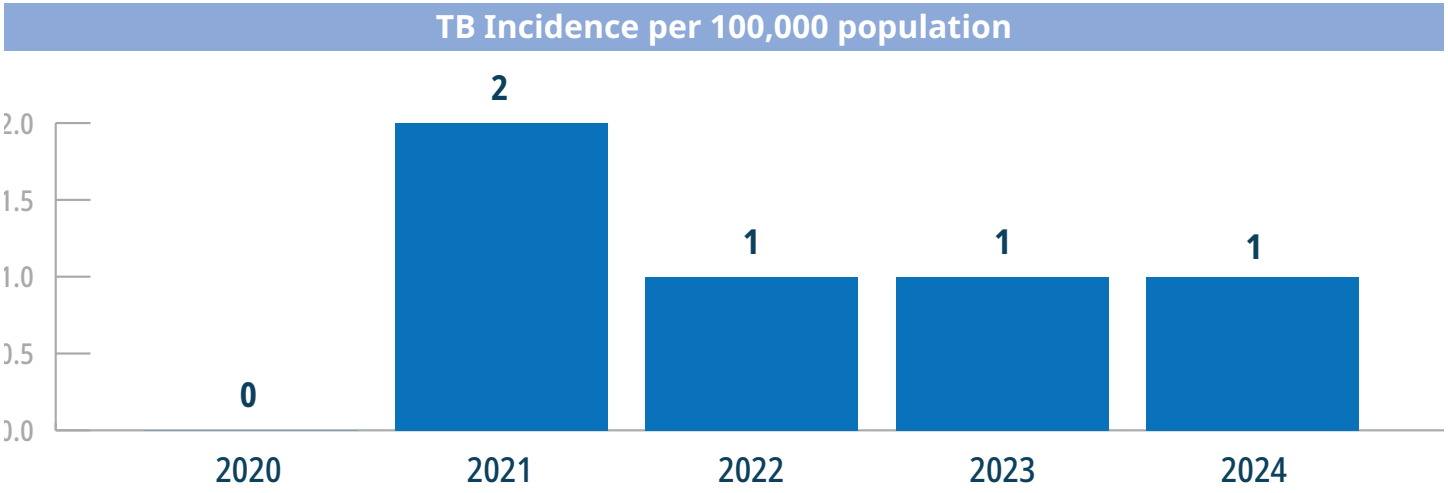
Tuberculosis (or TB) – is the leading cause of infectious disease death in the world. People can have active (infectious) or latent (non-infectious) forms of TB disease. To contain the spread of TB and to facilitate treatment completion, IDCP is required by law to treat TB, provide education, manage cases and conduct contact tracing. This work requires daily interaction with people for long periods of time, depending on the complications they experience. TB is a complex disease, and treatment takes a minimum of six months, but can last as long as two years, requiring significant IDCP time and resources.

In 2024, 100% of all TB patients seen by IDCP successfully completed treatment. Case management involves care coordination including but not limited to:

- Daily directly observed therapy (DOT) to ensure the patient completes their course of medications
- In-home collection of specimens including sputum samples to test for TB
- At least monthly in-home assessment and evaluation of TB patients
- Extensive facilitation of social support to TB patients and their families
- Medication management and monitoring for side effects
- Ongoing monitoring of laboratory and radiology results throughout treatment
- Ongoing review of all TB patients' medical care, including consultation and coordination with clients' healthcare teams
- Documentation in both the state's database (Orpheus) as well as EPIC, the county's electronic medical record
- Informing people who might have been exposed to TB, providing education, testing, and treatment

IDCP also provides TB screenings to individuals who are at high risk for active and latent tuberculosis infection (LTBI) as required by state and federal regulations in an effort to prevent further cases of active TB. Latent TB is a state where an individual has been infected, but is not sick and cannot infect others. Active TB is when the bacterium is causing illness and the individual is infectious. The screenings coordinated by IDCP include the Uniting for Ukraine Program (U4U). Clackamas County created a unique program that enabled 185 recent arrivals from Ukraine to receive their required screening for active or latent TB. IDCP partnered together with a public health community liaison and Clackamas County Health Centers to provide these services. Those identified as having LTBI were referred for follow up treatment and care.

TB work is all-consuming and time-intensive, and, in addition to the complex medical presentation, TB patients often need housing benefits and other social supports, particularly when they need to isolate in their homes while infectious and unable to work. Establishing trust early in the relationship is critical to successful treatment of TB. The IDCP RNs work closely with the individuals and their families for many months, which can pull them away from their other infectious disease work. TB work has historically been woefully inadequately funded. The already limited supportive funding provided by the Oregon Health Authority to Clackamas County for this critical support was reduced further in January 2025. Furthermore, changes in rules and regulations regarding TB case management at the state and federal levels increased the burden of work for the IDCP TB nurses without providing any additional funding or support.



Appendix

IDCP Program Summary

Through partnership with health care providers, the Oregon Health Authority, local organizations and community members the Infectious Disease Control and Prevention (IDCP) team works to prevent the emergence and spread of over 50 reportable communicable diseases. This statutory responsibility includes diseases such as tuberculosis, foodborne illness, sexually transmitted infections, vaccine-preventable diseases and respiratory illness. The IDCP team provides provider/community education, performs disease investigations, ensures access to immunizations, refers individuals to services, and partners with vector control and dog services for animal bite response.

Clackamas County Disease Profile

Below is a table of all reportable diseases housed in the Oregon Public Health Epidemiologists' User System - Orpheus - by case count:

Disease Name	2024	2023	Average, Last 5 Years
Animal Bites	112	106	65
Babesiosis	<6	0	<6
Campy	92	90	89
Chlamydia	962	1,056	1,069
Coccidioidomycosis	<6	<6	<6
COVID pediatric death	<6	<6	<6
CRE	14	18	14
Cryptococcus	12	6	6
Cryptosporidium	11	7	8
Dengue	<6	0	<6
E. coli (ETEC)	11	12	8
E. coli (STEC)	22	39	25
Giardia	36	31	30
Gonorrhea	312	327	364
H. flu	<6	10	6

Disease Name	2024	2023	Average, Last 5 Years
Hep A	<6	0	<6
Hep B (acute)	<6	0	<6
Hep B (chronic)	44	31	32
Hep C (chronic)	187	188	213
Hep C (perinatal)	<6	0	<6
HIV	11	19	17
Lead (Pediatric Elevated Lead Levels)	20	8	8
Legionella	10	8	6
LTBI	58	55	35
Lyme	<6	<6	<6
Malaria	6	<6	<6
Measles	9	0	<6
Mumps	<6	<6	<6
Novel Influenza	<6	0	<6
NTM	8	6	7
Other MDRO	<6	<6	<6
Outbreak (Respiratory)	116	159	69
Outbreak (GI)	10	11	10
Outbreak (Other)	6	<6	<6
Paralytic shellfish poisoning	11	0	<6
Pertussis	140	<6	40
Rabies (animal)	<6	0	<6
RSV pediatric death	<6	<6	<6
Salmonella	58	68	54
Shigella	31	27	19
Syphilis	79	153	123
TB	<6	<6	<6
Tularemia	<6	0	<6
Vibrio	<6	<6	<6
Yersinia	8	7	<6
Zika	<6	0	<6

Notes about interpreting the prevous table:

- Sometimes the reason that case numbers are different year-to-year is due to a new or different way of testing or a change in the way we define what a case is or in the way we record things.
- Sometimes we start tracking something new and it will look like it has never occurred before, simply because we decided that this is an important thing to track.
- Sometimes there are outbreaks and it will increase the number of cases of a disease that year.
- Sometimes diseases seem to have cycles where they will be very high one year and practically have no cases the next.
- Sometimes disease trends change over time and there will be increases in the amount of disease we continue to see for many years.
- Sometimes there is new treatment for a disease and we may stop seeing that disease as often because it can now be treated.
- Sometimes we don't know exactly why a disease has gone up or down in case numbers that year.
- We do not display numbers in this table if there were very few cases of a disease because we do not want that person or persons to be identifiable. However, you will notice small numbers in the incidence tables as those are calculations as if Clackamas County was represented as a population of 100,000 people.