Washington State Department of Health

ELABORATIONS

News and Issues for Washington's Clinical Laboratories

ELABORATIONS is a free bi-monthly publication of the Washington State Department of Health (DOH) Public Health Laboratories (PHL) and the Medical Test Site (MTS) Program.

Secretary, DOH: Dennis Worsham
Acting Health Officer: Scott Lindquist, MD
Acting Director, PHL: Vincent Aoki
Program Manager, MTS: Jessica Holloway
Survey & Investigation Manager, MTS: Heather Pinnick
Editor & Circulation: Chuck Talburt

Comments, letters to the editor, information for publication, and requests for subscription can be directed to:
ELABORATIONS
1610 NE 150th St
Shoreline, WA 98155
e-mail address: chuck.talburt@doh.wa.gov
NOTE: Letters to the editor may be published unless specified otherwise by the author.

Website access:
Department of Health
Medical Test Site Program
Public Health Laboratories

Inside This Issue

Laboratory Guidance for Chagas Disease Screening

The Washington State Department of Health (DOH) Zoonotic and Vector-borne Disease Program recently conducted an analysis to estimate how many Washington residents may be affected by Chagas disease and identified low screening rates for the condition despite broad screening recommendations. In response, it developed training resources for healthcare providers and laboratorians involved in the implementation of screening and specimen submission processes.

Background

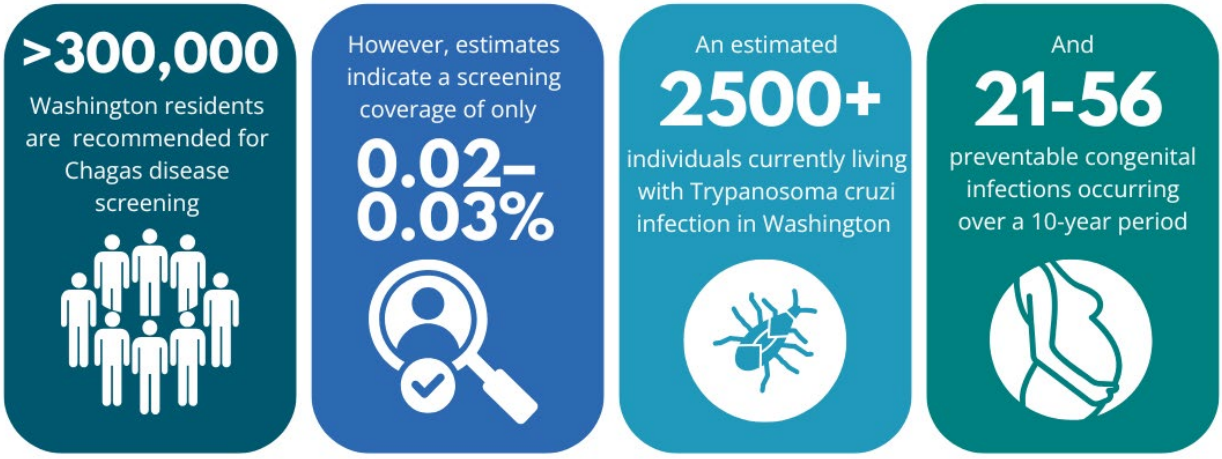
Chagas disease is a vector-borne illness caused by the protozoan parasite *Trypanosoma cruzi*, transmitted through the feces of infected triatomine bugs endemic to areas of Mexico and continental Central and South America. It also can be passed congenitally and through infected blood or organ products. Triatomines are not endemic to Washington, so most cases are among individuals born in Latin America and their children. The disease has an acute and chronic phase. Left untreated, it may lead to chronic cardiac or gastrointestinal symptoms in 20-30 percent of patients.

Screening recommendations for Chagas disease in the United States currently include the following groups:

- People, particularly pregnant people, who were born in or lived for more than six months in areas of Mexico, Central America, or South America with endemic Chagas disease
- Family members of people diagnosed with Chagas disease, if travel or residence exposures were shared
- People with a birth parent who has been diagnosed with Chagas disease
- All blood or organ donors

Epidemiology in Washington

Each year, between one and 10 cases of Chagas disease are reported in Washington. DOH recently conducted an analysis that estimated more than 300,000 Washington residents meet criteria for Chagas disease screening but estimated a screening coverage of only 0.02–0.03-percent. An estimated 2,500 individuals are currently living with *T. cruzi* infection, and between 21and 56 preventable congenital infections occurred over a 10-year period.



Clarifying Screening Procedures for Chagas Disease

Parasitemia during the chronic phase of Chagas disease is low, so serology is performed to diagnose chronic infections. Specimens are screened using a single test; if initial screening is positive, a second antigen preparation should be utilized to confirm. This is because no single test is sufficiently sensitive and specific for diagnosis.

The most common test types are enzyme-linked immunosorbent assay (ELISA) and immunofluorescent antibody test (IFA). The CDC utilizes an FDA-cleared enzyme immunoassay (EIA) based on recombinant *T. cruzi* antigens, alongside an immunoblot (TESA) as the two first-line tests. If initial EIA and TESA results are discordant, a second specimen is requested, and testing is repeated. An immunofluorescence assay (IFA) is performed if results of the second EIA and TESA are also discordant.

Currently, Mayo Clinic Laboratories and Quest Diagnostics offer two-tier confirmatory testing for Chagas disease. If a laboratory does not have two distinct serological tests, the specimen should be submitted to a laboratory that performs reflex testing or routed through public health for confirmatory testing.

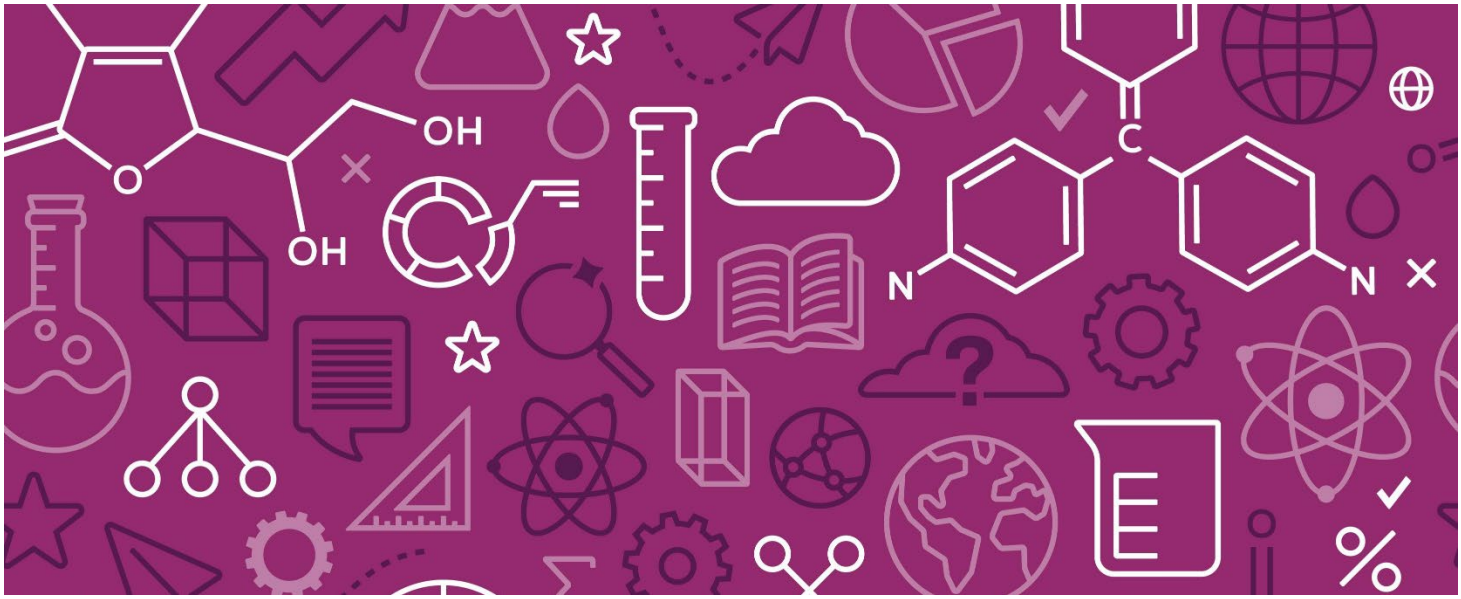
Acute Chagas disease can be diagnosed through visualization of *T. cruzi* by microscopy (e.g., wet mount microscopic examination, thick and thin smears with Giemsa stain) performed on any tissue or body fluid. In infants born to infected birth parents, cord blood should be collected at birth, or whole blood should be collected within six weeks of birth. CDC conducts molecular testing (e.g., NAAT, metagenomic sequencing) for suspected acute cases (including congenital and reactivated infections) and for monitoring lab exposures.

View DOH's educational resource for laboratorians clarifying the screening procedure and timeline for Chagas disease here: https://doh.wa.gov/sites/default/files/2025-02/420651-ChagasLabTestingGuide.pdf.

Clarifying Requirements for Laboratories under WAC 246-101-201

A positive detection of *Trypanosoma cruzi* through any method is reportable to the Local Health Jurisdiction within two business days.

Specimens associated with a positive result must be submitted to the Washington State Public Health Laboratories within two business days.



Practice Guidelines

The following practice guidelines have been developed by the Washington Clinical Laboratory Advisory Council. They can be accessed at the Medical Test Site Program website.

- Acute Diarrhea
- Anemia
- ANA
- Bioterrorism Event Management
- Bleeding Disorders
- Chlamydia
- Diabetes
- Group A Strep Pharyngitis
- Group B Streptococcus
- Hepatitis
- HIV
- Infectious Diarrhea
- Intestinal Parasites
- Lipid Screening
- PAP Smear Referral
- Point-of-Care Testing
- PSA
- Rash Illness
- Red Cell Transfusion
- Renal Disease
- STD
- Thyroid
- Tuberculosis
- Urinalysis
- Wellness

2025 Virtual Northwest Medical Laboratory Symposium (NWMLS), October 2-3

32nd Annual Washington Clinical Laboratory Conference: November 17, 2025

The Calendar of Events is a list of upcoming conferences, deadlines, and other dates of interest to the clinical laboratory community. If you have events that you would like to have included, please mail them to chuck.talburt@doh.wa.gov. Information must be received at least one month prior to the scheduled event. The editor reserves the right to make final decisions on inclusion in *ELABORATIONS*.

ELABORATIONS
Washington State Department of Health, 1610 NE 150th St, Shoreline, WA 98155

Washington State Department of HEALTH

DOH 505-068 January 2025 (CS)
To request this document in another format, call 1-800-525-0127. Deaf or hard of hearing customers, please call 711 (Washington Relay) or email doh.information@doh.wa.gov.