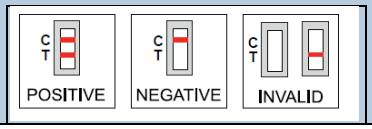
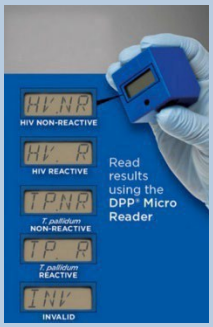
CLIA-Waived Syphilis Point-of-Care Testing Options for Providers

There are currently two Food and Drug Administration (FDA) cleared and Clinical Laboratory Improvement Amendments (CLIA) waived point-of-care (POC), or rapid, syphilis tests available – the Syphilis Health Check and the HIV-Syphilis System. These tests may be performed by trained individuals in traditional clinical/laboratory settings and non-traditional settings such as mobile vans, health fairs, and other venues. The FDA also granted marketing authorization to an over-the-counter at-home self-administered syphilis test (First To Know from NOWDiagnostics), which is outside the scope of this document. The below table summarizes the details of the Syphilis Health Check and the HIV-Syphilis System.

	SYPHILIS HEALTH CHECK	HIV-SYPHILIS SYSTEM
Manufacturer	**Diagnostics Direct, LLC**	**Chembio Diagnostic Systems, Inc.**
What it tests for	Syphilis	Syphilis and HIV[1]
Age parameters	Persons aged 13 or older	Persons aged 13 or older
Window period	**Syphilis detection**: 10-90 days after exposure	**Syphilis detection**: 10-90 days after exposure **HIV detection**: 23-90 days after exposure
Who can perform these tests?	These are CLIA-waived tests and can only be performed by healthcare providers as defined in Business and Professions Code 1206.5, as well as Disease Intervention Specialists and HIV Test Counselors under specific circumstances (see pg. 4).	These are CLIA-waived tests and can only be performed by healthcare providers as defined in Business and Professions Code 1206.5, as well as Disease Intervention Specialists and HIV Test Counselors under specific circumstances (see pg. 4).
Who should be screened with these tests?	Both tests may be used for initial syphilis screening of asymptomatic patients without a known history of syphilis, or diagnosis of syphilis in symptomatic patients in conjunction with a non-treponemal test (e.g., rapid plasma reagin [RPR]) and clinical findings. Both tests may be used in groups that meet syphilis screening and expanded screening criteria (see pg. 5).	Both tests may be used for initial syphilis screening of asymptomatic patients without a known history of syphilis, or diagnosis of syphilis in symptomatic patients in conjunction with a non-treponemal test (e.g., RPR) and clinical findings. Both tests may be used in groups that meet syphilis screening and expanded screening criteria (see pg. 5).

[1] Symptomatic persons with an acute viral syndrome (e.g., fevers, chills, body aches, sore throat, rash, etc.) that could be consistent with acute HIV infection should have HIV RNA testing in addition to the rapid test if possible, as HIV tests may be falsely negative during early infection.

	SYPHILIS HEALTH CHECK	HIV-SYPHILIS SYSTEM
Who should NOT be screened with these tests	• People with a history of syphilis should see a provider for lab-based testing including a non-treponemal test (e.g., RPR or venereal disease research laboratory [VDRL])	• People with a history of syphilis should see a provider for lab-based testing including a non-treponemal test (e.g., RPR/VDRL) • People with HIV should be linked to care to ensure access to HIV treatment and resources • People with a known history of HIV but not syphilis can use this test for syphilis screening (and vice versa)
Method of syphilis detection	A qualitative enzyme immunoassay for detection of *Treponema (T.) pallidum* antibodies (treponemal test) using finger stick whole blood	A qualitative, multiplex, immunoassay for the detection of antibodies to both HIV-1/2 and *T. pallidum* (treponemal test) using fingerstick whole blood
Accuracy[2]	**Syphilis**: positive percent agreement (PPA) ~96%; negative percent agreement (NPA) ~97%	**Syphilis**: PPA ~90%; NPA ~96% **HIV**: sensitivity 98-100%; specificity: 99-100%
Instructions	Please refer to the package insert	Please refer to the package insert
Sample volume	20 microliters	10 microliters
Time to test result	10 minutes	15 minutes
Test temperature	15 to 30°C (59 to 86°F)	18 to 25°C (64 to 77°F)
Result interpretation	Results are positive, negative, or invalid. • **Positive:** colored bands in both the test (T) area AND control (C) area • **Negative:** 1 colored band in the control area only • **Invalid:** no distinct colored bands in either area OR 1 colored band in test area and no band in control area 	The results of HIV-Syphilis System are read and interpreted only by a DPP Micro Reader with dedicated software. Results should not be read manually. Results may include: • **HV.NR:** HIV non-reactive • **HV.R:** HIV reactive • **TP.NR:** *T. pallidum* non-reactive • **TP.R:** *T. pallidum* reactive • **INV:** invalid result 

[2] As syphilis results were compared to serologic tests, performance values presented here are PPA and NPA, rather than sensitivity and specificity, respectively.

	SYPHILIS HEALTH CHECK	HIV-SYPHILIS SYSTEM
Follow-up testing for positive results (if possible)	Lab-based non-treponemal test (RPR/VDRL) and treponemal test (e.g., TPPA, TPA, FTA-ABS, etc.)	**Reactive syphilis**: lab-based non-treponemal test (RPR/VDRL) and treponemal test (e.g., TPPA, TPA, FTA-ABS, etc.) **Reactive HIV**: lab-based 4th generation HIV ab/ag test and HIV RNA test
When to conduct quality control testing	• For each new lot, each new shipment, or new operators/learners • Monthly on stored tests • If there are problems with the tests	• For each new lot, each new shipment, or new operators/learners • If the temperature of the test storage area falls outside 2 to 25°C (36 to 77°F) • If the temperature of the testing area falls outside 18 to 25°C (64 to 77°F) • At periodic intervals as indicated by the facility
Contents of test kit	20 test devices, pipettes, and 1 bottle of diluent	20 test devices, sample loops, sample containers, and 1 bottle of buffer
Contents of control kit	1 bottle each of positive/negative control; one control kit can be used 7-10 times	1 bottle each of positive/negative control; one control kit can be used ~50 times
Shelf Stability	**Test kit**: shelf-stable at 4 to 30°C (39 to 86°F) for 30 months from manufacture date **Controls**: must be refrigerated at 2 to 8°C (36 to 46°F); stable for 12 months after opening	**Test kit**: shelf-stable at 2 to 25°C (36 to 77°F) for 24 months from manufacture date **Controls**: must be refrigerated at 2 to 8°C (36 to 46°F); stable for 24 months from manufacture date
Additional supplies (not included with kit)	Gloves, lancets, gauze, antiseptic wipes, bandages, absorbent workspace cover, biohazard sharps container, biohazard bag, and timer	Gloves, lancets, gauze, antiseptic wipes, bandages, absorbent workspace cover, biohazard sharps container, biohazard bag, timer, and DPP Micro Reader (must be purchased separately and can be used for 3000 tests)
Approximate Pricing	$200/kit ($10/test), $55/controls	$550-600/DPP Micro Reader, $320/kit ($16/test), $80-90/controls

Have questions about Syphilis Health Check or HIV-Syphilis System?
The CDPH STD Control Branch and the California Prevention Training Center (CAPTC) at UCSF clinical staff can answer questions regarding clinical management of patients with syphilis or other STIs. You can contact the CDPH STD Control Branch at stdcb@cdph.ca.gov or consult with a CAPTC clinical expert regarding a complex STI case at stdccn.org. The 2021 CDC STI Treatment Guidelines for syphilis may also be a helpful resource.

Frequently Asked Questions

Who can perform Syphilis Health Check or HIV-Syphilis System in California?
There are three pathways for becoming eligible to perform CLIA-waived point-of-care syphilis tests in California.

1. Scope of Practice: A health care provider able to perform CLIA-waived tests within their scope of practice under Business and Professions Code (BPC) 1206.5 can perform CLIA-waived syphilis tests without any additional specific training besides following the test kit manufacturer's package insert. Medical personnel allowed to perform CLIA-waived tests, including CLIA-waived syphilis rapid tests, under California law include physicians and surgeons, nurse practitioners, physician assistants, pharmacists and pharmacy student interns, registered nurses, and, if certain conditions are met, licensed vocational nurses and medical assistants. Please refer to BPC 1206.5 for a complete listing and description of required conditions.
2. Disease Investigation Specialists (DIS) under Local Public Health Laboratory Supervision: A local DIS or other non-licensed local health department staff may perform a CLIA-waived syphilis test under the supervision of the local public health laboratory director. See July 2018 letter from the State Public Health Laboratory Director for details on related requirements.[3]
3. HIV Test Counselors *(pending):* In accordance with Health and Safety Code 120917, HIV test counselors who have either been trained by CDPH Office of AIDS or its agents or completed a training course approved by CDPH Office of AIDS, and who meet other requirements specified in California law, may perform CLIA-waived syphilis tests. See Training HIV Test Counselors to Use Rapid Tests for HIV, Hepatitis C Virus (HCV), and Sexually Transmitted Infections (STIs) - Senate Bill 306 (Pan, Chapter 486, Statutes of 2021) Fact Sheet for more information on related training requirements**.** As of October 2024, CDPH Office of AIDS was working to develop an HIV test counselor training that will include both the Syphilis Health Check and the HIV-Syphilis System.

[3] Non-licensed staff may conduct CLIA-waived rapid syphilis tests under the following conditions:

- Staff conducting rapid syphilis tests are operating **under the authority of the Public Health Laboratory Director** for the local health department.
- Rapid syphilis tests must be FDA-cleared, approved as CLIA-waived tests, and used according to the manufacturer's instructions.
- Blood collection is performed by skin puncture only.
- Testing is performed on-site and reported directly to the person requesting the test.
- A minimum of 20 hours of in-person basic phlebotomy didactic training approved by the California Department of Public Health (CDPH) Laboratory Field Services (LFS) is completed. DIS with phlebotomy certifications from LFS-approved programs have already met that training requirement.

Who should be screened with the Syphilis Health Check or HIV-Syphilis System?
Both tests may be used for initial syphilis screening of asymptomatic patients without a known history of syphilis, or diagnosis of syphilis in symptomatic patients in conjunction with a non-treponemal test (e.g., RPR) and clinical findings.

Both tests may be used in groups that meet syphilis screening and expanded screening criteria. They may be particularly useful for populations with increased syphilis prevalence or that may have difficulty following up for treatment, including men who have sex with men, commercial sex workers and their clients, people who are incarcerated, people who use substances, especially methamphetamine, people experiencing homelessness, people visiting emergency departments, or pregnant patients with limited or no prenatal care.

In what settings could Syphilis Health Check or HIV-Syphilis System be useful?
Syphilis Health Check and HIV-Syphilis System may be useful in 1) clinical settings such as emergency departments or urgent cares, STI/sexual health clinics, HIV clinics, family planning clinics, and practices providing prenatal care; 2) non-clinical settings offering limited services, such as correctional facilities, homeless shelters, and substance use treatment programs if performed under a CLIA waiver and lab director; or 3) community/outreach settings, including: mobile vans, homeless encampments, commercial sex venues, syringe exchange services, harm reduction programs, and health fairs if performed under a CLIA waiver and lab director.

What if I find a patient with a positive Syphilis Health Check or HIV-Syphilis System result in a non-clinical setting?
For positive syphilis results, treat empirically as clinically indicated in the field AND draw blood for confirmatory tests including a quantitative non-treponemal test (RPR/VDRL) and a second treponemal test (TPA, TPPA, FTA-ABS, EIA, CIA, TPHA, etc.). Empiric treatment prior to confirmatory testing should be considered for patients with symptoms of primary or secondary syphilis, or patients who are at risk of morbidity (e.g., pregnant patients) or loss to follow-up (e.g., patients with unstable housing). Additionally, refer the patient to a local clinic for further testing and treatment as needed. For additional information on POC syphilis test sensitivity and specificity, syphilis staging, and duration of treatment, please see the National Syphilis and Congenital Syphilis Syndemic Federal Task Force's Considerations for the Implementation of POC Tests for Syphilis. For positive HIV results with the HIV-Syphilis System, draw blood for further confirmatory testing, if possible. Regardless, immediately link to local care for further testing and, if appropriate, initiation of antiretroviral therapy.

What are reporting requirements for Syphilis Health Check and HIV-Syphilis System results?
California Code of Regulations, Title 17, Section 2500 requires health care providers to report known or suspected cases of syphilis to the jurisdiction where the patient resides. California Code of Regulations, Title 17, Section 2505 requires laboratories to report test results suggestive of syphilis to the local health department. CDPH understands that reporting the results of CLIA-waived syphilis tests conducted in non- healthcare settings may not currently be feasible. The U.S. Centers for Disease Control and Prevention (CDC) is currently developing a tool (SimpleReport) to facilitate reporting of CLIA-waived syphilis test results to public health in the future.

How do we decide between point-of-care versus lab-based testing?
In people without a history of syphilis there are many factors that may be considered when deciding between using POC versus lab-based tests (e.g., patient risk factors, testing location, ability to follow-up, etc.). The table below outlines these considerations. For information on the accuracy of lab-based and POC syphilis tests, see the National Syphilis and Congenital Syphilis Syndemic Federal Task Force's Considerations for the Implementation of POC Tests for Syphilis.

When are lab-based tests most useful?	When are POC syphilis test most useful?
• Individuals with prior history of syphilis should only have lab-based tests • Low-risk individual presenting for routine visit	• When identifying syphilis infection is important for same day identification and treatment
Disadvantages of POC syphilis tests:	**Advantages of POC syphilis tests:**
• Results are treponemal only and less accurate than lab-based tests • If positive, lab-based tests are needed for ongoing patient care and follow-up	• Results quicker than lab-based tests • Easier to perform • Less sample required, easier to collect • Empiric treatment can occur at time of POC test results if clinically indicated
Settings for lab-based tests:	**Settings to consider for POC syphilis tests:**
• Where feasible and accessible • Routine screening in clinical settings • Hospital inpatient, especially if likely to stay 48 hours or more • Maternal and infant testing at delivery prior to newborn discharge (requires lab-based testing)	• Correction facilities • Emergency departments • Homeless shelters and encampments • Substance use treatment programs • Syringe service and harm reduction programs • Outreach and community-based care events • Rural communities • Other shelters and congregate settings
Populations most appropriate for lab-based tests:	**Populations most appropriate for POC syphilis tests:**
• Lab-based testing should be used to confirm all positive POC tests results • Low risk • Populations likely to follow up if results positive • Geographic areas where syphilis is not common	• Pregnant people not engaged in prenatal care • Persons using substances and not engaged in health care • Populations with limited access to healthcare • Geographic areas with high syphilis rates • Transient populations

Adapted from the National Syphilis and Congenital Syphilis Syndemic Federal Task Force's Considerations for the Implementation of POC Tests for Syphilis.