

# Pivoting in a Pandemic: Teamwork and Technology Combine to Stop a Syphilis Outbreak in Minnesota

## STD Prevention SUCCESS STORIES



The resurgence of [syphilis](#) in the United States in the last several years is a troubling trend: in 2019, there were more than 129,000 reported cases. Primary and secondary syphilis – the most infectious stages of this sexually transmitted infection (STI) – increased **11.2%** between 2018 and 2019 to 38,992 cases, the highest number since 1991.

The resilience of this persistent STI signals an ongoing need for effective prevention and treatment solutions to stop its spread, and one of the most reliable solutions is the work of **disease intervention specialists (DIS)**. DIS provide highly-focused [case investigation](#), [contact tracing](#), linkage to care, and community outreach, and are a proven resource for tracking and controlling the spread of STIs such as syphilis. DIS link people with syphilis to treatment and additional support – and are known for flexible, culturally appropriate responsiveness that gets results in the most challenging circumstances.

## NATIONAL DISEASE INTERVENTION SPECIALIST (DIS) RECOGNITION DAY

DIS are the backbone of STI prevention and treatment efforts, and every year on the first Friday in October ([National DIS Recognition Day](#)), we honor DIS for their tireless commitment to improving the health of communities all across the country.

- For over 40 years, DIS have successfully stopped infectious disease outbreaks, especially STIs.
- In 2020, more than 2,200 local, state, and federal DIS performed case investigation and contact tracing in the United States.
- 75% of DIS have emergency response experience.

“DIS frontline work is essential to a number of critical public health activities. This dedicated focus to emerging health threats helps ensure the safety of people across the U.S.,” said Dr. Raul Romaguera, Deputy Director of CDC’s Division of STD Prevention.

## Changing course, staying on track

After helping to contain a syphilis outbreak in northwest Minnesota during the summer of 2019, two DIS—one local and the other assigned by CDC to help with the effort—joined forces again. They identified lessons learned and applied those lessons to halt an expansion of the outbreak in certain counties in the early spring of 2020—a task complicated by the beginnings of the COVID-19 pandemic, limited access to clinical care, and the growing number of stay-at-home orders that followed. “We knew we needed to get a handle on the latest syphilis outbreak, but we recognized that we would have to adapt our methods – we had to be able to get as much investigation and documentation done as we normally would, but had to do so without our usual physical movement throughout the community,” said Tim Heymans, the DIS assigned locally through the [Minnesota Department of Health](#) (MDH).

**70%**  
increase in  
syphilis infections  
since 2015

**\$174**  
million in direct U.S.  
lifetime medical costs  
attributed to syphilis

**100%**  
of DIS casework for  
2020 Minnesota syphilis  
outbreak done remotely



Centers for Disease  
Control and Prevention  
National Center for HIV/AIDS,  
Viral Hepatitis, STD, and  
TB Prevention

What was the answer to this mobility dilemma? Moving the case work processes to a completely virtual platform.

In STI outbreaks, expansive geography can increase the difficulty of DIS efforts to quickly manage cases and identify contact networks, and northwest Minnesota, which includes tribal communities as well as neighboring towns, presents its own unique set of challenges. The first technical assistance provided by CDC to address the 2019 syphilis outbreak showed how much case work could actually be completed by phone and online, without traveling throughout the jurisdiction to knock on doors. This tactic laid the groundwork for the overall strategy used in the next CDC remote technical assistance provided during the region-wide lockdowns in the early days of the COVID-19 pandemic the following year.

**“Those lockdowns forced us to level up our virtual game even more,”** said Marcie Babcock, DIS supervisor with the MDH. “Applying the experience learned from the initial syphilis outbreak in 2019, the CDC technical assistance created to address the additional spread in 2020 helped us build out our technical case work infrastructure to ensure reliable and effective contact tracing and monitoring. Experienced and versatile DIS working those cases was a big advantage. Tim is a seasoned DIS and is highly familiar with the unique geography of our jurisdiction, and Otilio Oyervides—one of two expert federal CDC DIS who helped with the first outbreak response in 2019—also returned to join the second effort remotely, giving us the added benefit of his skills and practical insight to help get the latest syphilis outbreak under control.”

Getting the virtual platform (an electronic, accessible surveillance and case management system for data and interview records) in place was a bit tricky because both state and federal employees required access to the same system of information. It was worth it in the end, however, said Oyervides, because it allowed the entire case investigation process to flow smoothly. **“We were able to combine good, old-fashioned DIS detective work with a robust technical support system to work cases successfully, and the lessons we learned could help others do it quicker and more effectively too,”** he said.



## New system, experienced navigators

These newly-created resources helped pave the way for success for a two-person team simultaneously working from different areas of the country to contain the same local outbreak: 8 of 10 syphilis cases worked virtually yielded complete interviews, and 9 of those 10 cases were treated. Using a state-provided cell phone from a remote location to conduct partner services interviews with those initial cases, Oyervides also identified 17 additional contacts to follow up with for confidential notification of exposure, and to link to testing and treatment services. STI prevention and treatment programs always strive for efficiencies, and since they now face a current and a future post-COVID-19 reality that calls for more frequent use of virtual case investigation and contact tracing, the DIS team also helped create a guidance document that streamlines the process for other jurisdictions seeking to replicate it.

**“At the end of the day, the success of an ambitious project like the one we developed and implemented depends on the skillset of the people putting it into practice, and we were lucky to have resourceful, thorough DIS like Tim and Otilio on the job for us. Their work helped map out a successful strategy to continue critical public health work during the COVID-19 pandemic. They proved that skilled DIS will always be an essential go-to for STI prevention and treatment efforts, especially when faced with community outbreaks in unprecedented times,”** said Babcock.

Learn MORE at [cdc.gov/std](https://cdc.gov/std)

- [Get Tested](#)
- [STD Outbreak Response Resources](#)
- [Syphilis - Get the Facts](#)