

Sporadic Norovirus Testing-Wisconsin

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PulseNet/OutbreakNet Regional Meeting

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Outline

- Wisconsin Clinical Laboratory Network
- National Respiratory and Enteric Virus Surveillance System
- Sporadic Norovirus Test Results

Wisconsin Clinical Laboratory Network

Wisconsin Clinical Laboratory Network (WCLN)

- Network of Wisconsin clinical labs
- Coordinated and funded by the Wisconsin State Laboratory of Hygiene (WSLH)
- Started over 20 years ago
- Currently involves 130 clinical and public health laboratories

WCLN Purpose

- Training for clinical laboratories
- Communicating with clinical laboratories
- Conducting public health surveillance
- Ensuring emergency preparedness

Activities

- Annual regional meetings and technical workshops
- Routine communications (webinars and emails)
- Laboratory information messages
- In-person visits by WCLN coordinator
- Laboratory-based surveillance data and summaries
- Bioterrorism proficiency exercises and communication drills

Lessons Learned

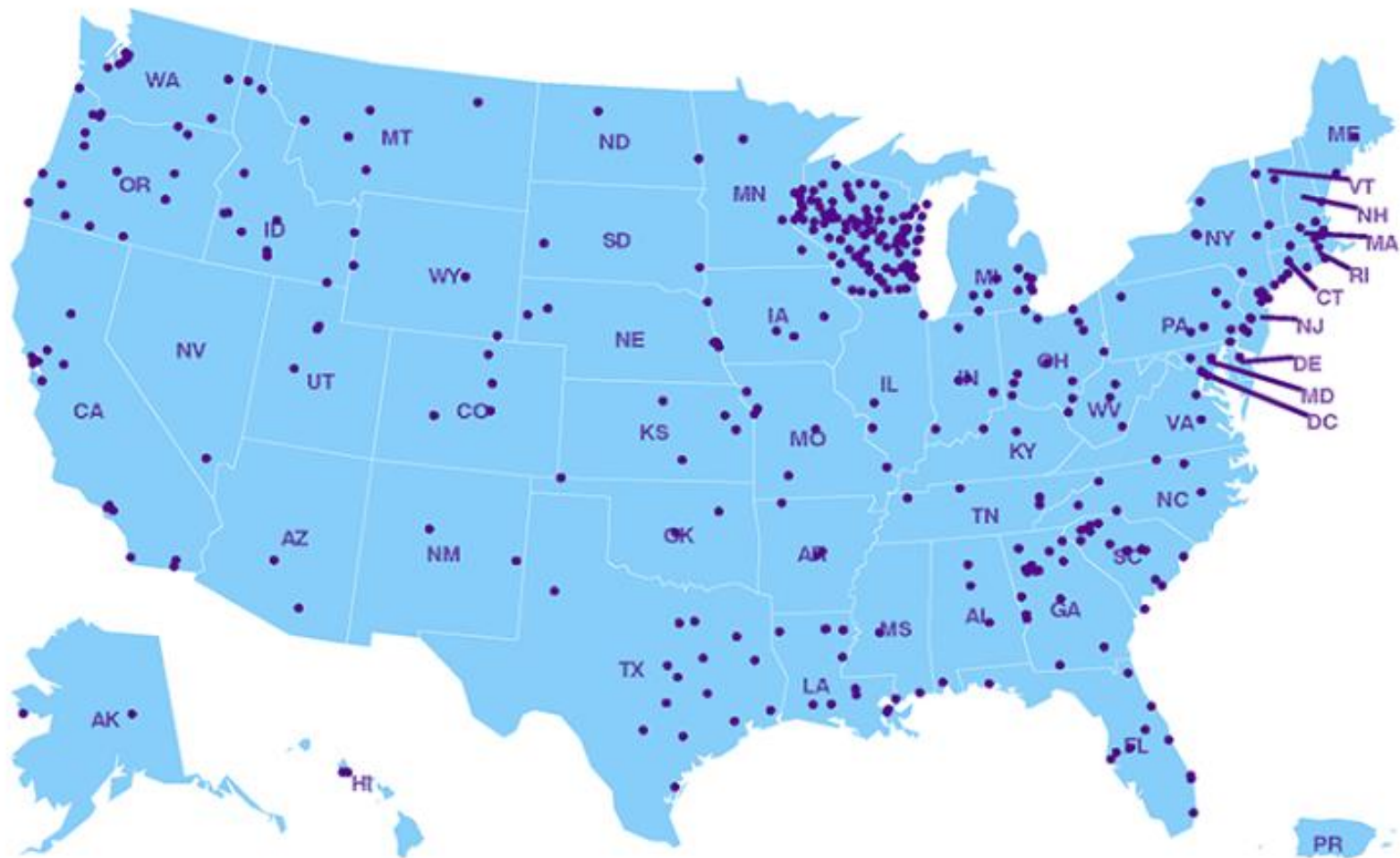
- In-person meetings are key
- A WCLN coordinator is needed
- Clinical laboratory advisors are needed to guide WCLN activities
- Activities and resources provided by WSLH secure participation

Successes

- Increased participation in public health surveillance and outbreaks
 - ◆ 100% of culture-confirmed TB isolates submitted
 - ◆ >95% of clinical specimens submitted for Salmonella, STEC, and Listeria cases
- Rapid method for communicating with clinical laboratories

National Respiratory and Enteric Virus Surveillance System (NREVSS)

Participating Labs



NREVSS-Wisconsin

- WCLN laboratories submit information to WSLH for submission to NREVSS
- WCLN laboratories that test for norovirus also submit norovirus data
 - ◆ Number of norovirus tests completed
 - ◆ Number of positive norovirus tests

Sporadic Norovirus Results

Problem and Solution

- **Problem:** Decreased outbreak specimens being submitted to WSLH for norovirus testing
- **Solution:** Begin sequencing a subset of sporadic norovirus testing in addition to outbreak specimens

Recruitment

- Clinical laboratories were already submitting number of norovirus tests conducted
- Five WCLN laboratories were selected based on volume and geography
- Recruited laboratories are to submit positive norovirus specimens to WSLH
 - ◆ Specimen
 - ◆ Limited demographic information

Results

As of March 1, 2019:

- WSLH sequenced 250 sporadic norovirus specimens.
- Clinical specimens from residents of 36 Wisconsin counties were sequenced.
- A total of 26 different genotypes were identified.

Outbreak Versus Sporadic

Genotype	Outbreak (n=45)	Sporadic (n=250)
GII.P16-GII.4 Sydney	56%	48%
GI.P3-GI.3	13%	23%
Other GII	20%	23%
Other GI	11%	6%

Utility

- Case finding during outbreak
- Outbreak detection
- Identify novel norovirus genotypes

Resources

- WCLN: <http://www.slh.wisc.edu/wcln-surveillance/wcln/>
- NREVSS: <https://www.cdc.gov/surveillance/nrevss/index.html>

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