

The Little State that Could: The New Hampshire ELC Experience

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PulseNet/OutbreakNet East Coast Regional Meeting 2019

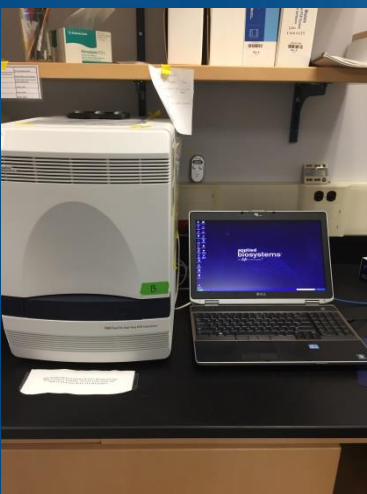
A little background

- NH has just over 1.3 million citizens
 - 10 counties
 - 13 cities, 221 towns and 25 unincorporated places
- NH is part of PulseNet, OutbreakNet Enhanced, CryptoNet and CaliciNet
- Disease investigations largely centralized
 - Two cities have their own health departments, all other investigations are done at the state level
- Centralized Public Health Lab

NH MDX



- 5 Personnel
- 4 separate lab rooms
- Routine work consists of PFGE, WGS, Norovirus RT PCR, HCV and Norovirus Genotyping, 16s sequencing and Food Molecular testing

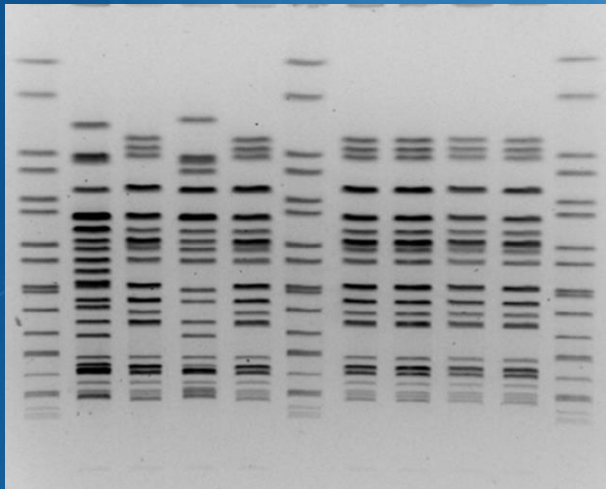


Isolates Sequenced

Isolate	2017	2018
STEC	40	32
<i>Campylobacter</i>	60	3
<i>Salmonella</i>	70	174
<i>Shigella</i>	9	10
<i>Listeria</i>	2	11
Total	181	230

NH WGS Challenges

- More costly than PFGE
- Data analysis and data management
- Longer turn around times



NH Epi/Investigations

- One Epidemiologist, one Enteric Nurse, one Student Interviewer
 - 7 other Public Health Nurses
 - 5 Public Health Nurses at city health departments
- Investigate all reportable enteric and waterborne conditions, lead outbreak investigations, respond to questions from the public, etc.

Cases Investigated

Isolate	2017	2018*
STEC	46	51
<i>Campylobacter</i>	275	276
<i>Salmonella</i>	140	167
<i>Shigella</i>	12	5
<i>Listeria</i>	4	9
<i>Cryptosporidium</i>	71	84
Total	548	592

- Plus outbreak investigations

* Through NOV 2018

Epi/Investigations Challenges

- Limited staff for investigations
 - Have cross-trained nursing staff on Enterics
 - Standard procedures for investigations
- Pathogen-based cluster identification limited by size of WGS runs
 - Working on alternative methods to ID
- Follow-up with cases for specimens (both outbreak and routine)
 - Deliver specimen collection kits, site visits, phone 'encouragement'

Questions?

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