

# NH Hepatitis C Outbreak

## LRN Utilization for Laboratory Response

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# Speaker Disclosure

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Jill Power: Nothing to disclose

Presentation: NH Hepatitis C Outbreak: LRN Utilization for Laboratory Response

# Overview of Outbreak

- Suspected HCV cluster reported by hospital to DPHS May 15, 2012
- Epidemiology Response
- Laboratory Response
- CDC Collaboration
- Multi-State sharing of resources
- HCW arrested 7/19/12 and put into custody

# Outbreak Investigation

- Investigation efforts were ongoing for one year
- 150 staff- epidemiologists, PH nurses, lab staff, emergency services unit workers, administrators, and support staff
- Two phases of investigation/testing:
  - CCL/RR patients
  - ICU/OR expansion

# Goals of Laboratory Response

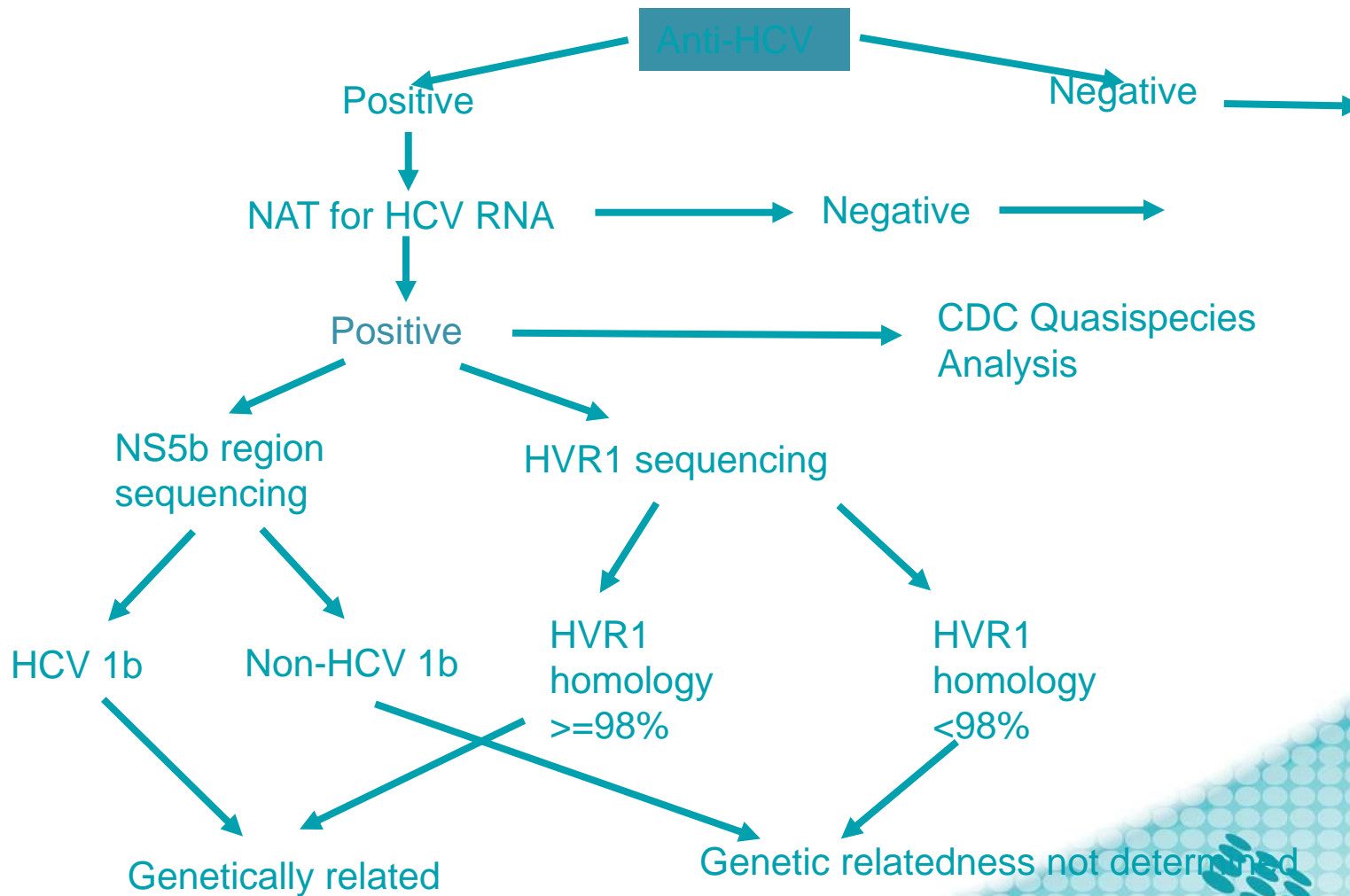
- Identify HCV infected individuals from the potentially exposed patients.
- Determine HCV genetic relatedness to identify HCV infected individuals who are associated with the outbreak.
- Perform testing following quality assurance guidelines and best laboratory practice.

# PHL Response Phase I

- Patients who received care at CCL/RR between 10/1/11 and 5/25/12 were recommended for testing
- PHL prepared and validated sequencing procedures for testing
- PHL performed 1214 tests in phase I
  - Tests confirmed 32 patients with outbreak related HCV infection in addition to HCW

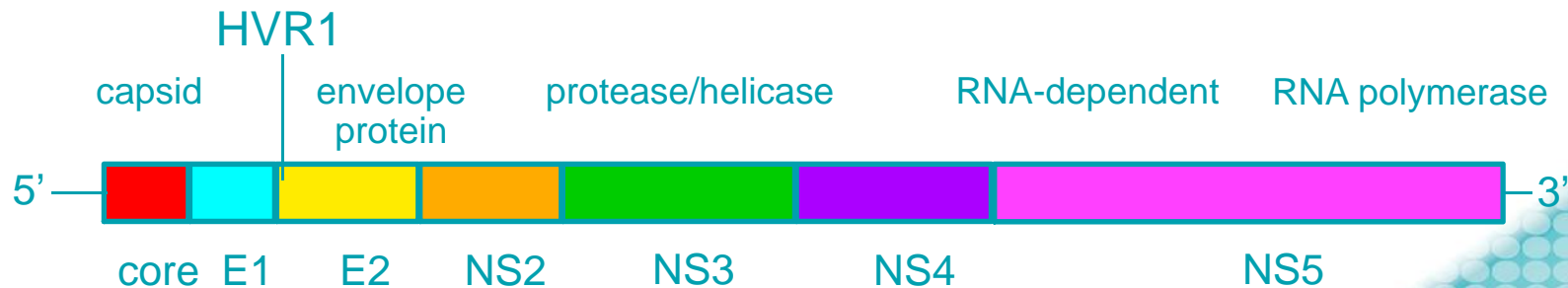


# NH PHL HCV Testing Algorithm for Outbreak Investigation



# Target Region Selection

- 5'UTR for HCV diagnosis
- NS5b for HCV genotyping
- HVR1 for determining HCV genetic relatedness





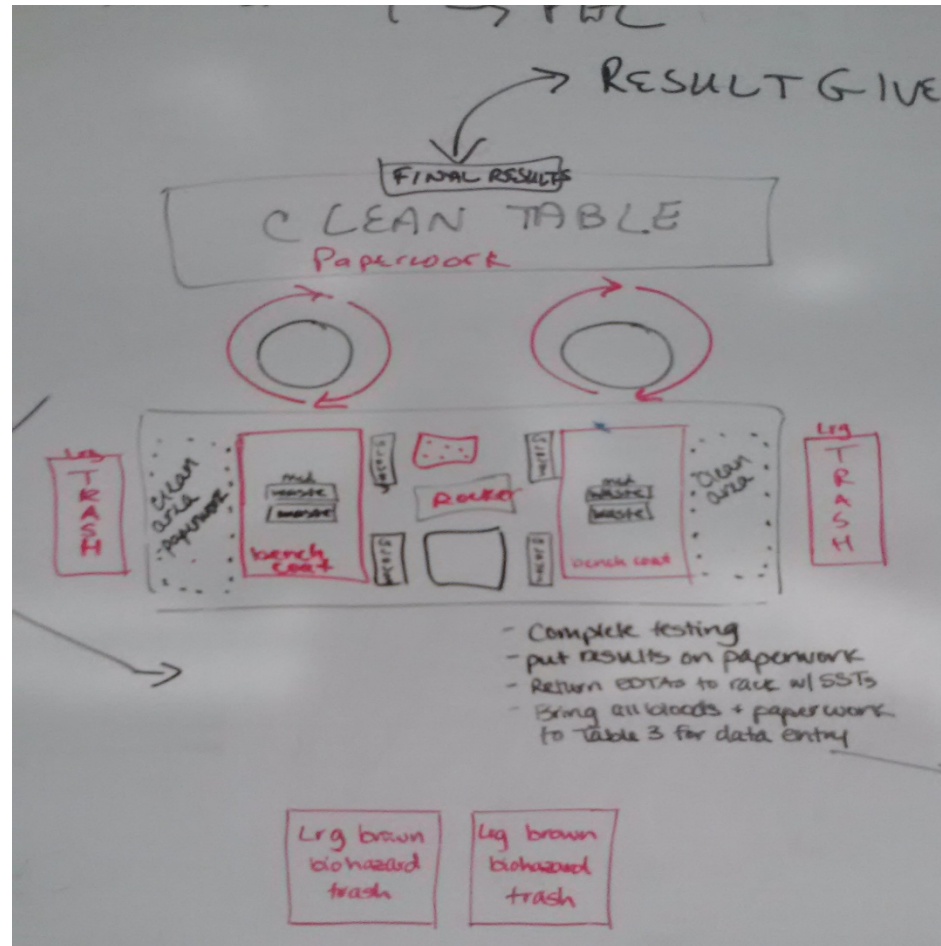
# Laboratory System Response Phase II

- ICU/OR expansion to patients who received care between 4/1/11 and 5/25/12
- Initial estimate was 6,000 patients
- Actual number was 3,000 tested
- 8 clinics set up over 7 days for rapid testing
  - 1167 patients tested: 1144 neg/22 pos/ 1 invalid

# Planning for POD testing

- Unified Incident Command established
- Lab actively involved in planning for clinics
- PH Regions (13 in NH) activated for support
  - PHRs successfully planned and implemented 2009 H1N1 public vaccination clinics
  - POD plans used for setting up testing clinics

# PHL Pre-planning



# HCV POD Registration





# HCV Blood drawing station



# HCV POD Specimen Transport





# HCV POD Testing area



# HCV POD Testing Area





# HCV Rapid Test Results



# LRN Utilization for Phase II

- PHL notified LRN via HAN messaging to recruit volunteers for assistance with clinics
- Phlebotomists and testers were recruited
- 24 testing personnel were trained and competency assessed prior to event
- Many volunteers were used in multiple clinics once trained

# Multi-State Outbreak Investigation

- 5/29/12 employment history of HCW shared
- HCW had worked in 16 hospitals in 7 states
- DPHS shared this information with CDC who then took the lead coordinating weekly conference calls.
- NH assisted KS with HCV sequencing
  - KS and NH both have ChemWare LIMS
  - Web portal used for data entry at KS

# Communication and Public Messaging

- Secure data exchange set up for info sharing
- PIO developed public messaging materials
- SME's used to develop materials
- Maintained availability and response to media inquiries- 18 press releases
- 2 community forums held to provide information and answer questions



# HCV AAR: Lessons Learned

- Resources required for response:
  - Utilization of LRN was essential for response
  - Cross-training of lab staff was effective
  - Reagents/supplies ordered and other lab supplies were available for response
  - LIMS for data exchange and reporting
  - Test sharing for support of other states
  - Communication with lab staff