Local Public Health Matters: The “Art” of Decision-Making

The Houston/Harris County Response Experience

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HCPHES serves as the county health department for Harris County (TX) with a staff of now 500.

- Third most populous county in the nation with population of 4.1 million.
- Spread over 1,700+ square miles (size of Rhode Island).
- Geographically, politically, & demographically diverse.
2.1 million within the City of Houston (COH)

1.6 million in unincorporated areas of Harris County

500,000 within other non-COH municipalities
Biowatch Actionable Result (BAR) and HCPHES
Disease Surveillance

Unusual zoonotic patterns through local veterinary clinics/state zoonosis

Unusual human disease presentations to area hospitals/other health departments

Contextual Intelligence (Intel)

Unusual environmental patterns/changes

Unusual security threat or system pattern changes

Support Functions

Crisis risk communication

Operational readiness/fiscal considerations
A Public Health Perspective
PREPAREDNESS

FOR IMMEDIATE RELEASE

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City and county health officials are following up on the death of a person in the southern part of the state who caused laboratory-confirmed cases of hantavirus. The virus is often found in human and other rodent populations.

Health officials said that though the bacteria is found naturally in the environment, they are taking precautionary measures to determine if there have been any human cases of hantavirus. The county health department has been notified.

Low levels of the bacteria were detected by laboratory tests done on the patient. The tests were not performed in the county.

"We are investigating to determine if the bacteria was present or newly present and if it represents a threat to the community," said Dr. Angela Rice-Kordan, M.D., M.P.H., Executive Director of the Houston Health and Human Services Department.

Precautionary measures are being taken by the City of Houston and the Health and Human Services Department and Harris County Public Health and Environmental Services. Additional testing is being conducted to determine if the bacteria is present in the state.

"The bacteria is transmitted via inhalation and causes severe illness in animals," said Dr. Rice-Kordan.

Officials are contacting residents in the affected area and providing information on how to protect their health.

"We are taking this challenge to the community seriously and working to protect the public," said Dr. Rice-Kordan.

Several local, state, and federal agencies are participating in the investigation.
Value Proposition in Increasingly Resource Constrained Environment

- Decreased Investment in Technologies
- Decreased Staffing for Surveillance
- Diminished Response Capabilities
- Syndromic Surveillance
- Electronic Health Records
- Automated Disease Reporting
- E-communication

- Interruption in Workforce
- Loss of Experience/Skillsets
- Leveraging of Technologies
- Human Relationships
Public Health Decision Making

A NUANCED “ART”
Specific Gen-3 Considerations

- A laboratory “positive” is not a public health “positive” = issue of **false positive (FP)** results

- “**Red light**” / “**Green light**” decreases the nuanced ability to interpret test results

- Very real issue of **public health integrity**

- Does this make us more **effective**?