Utilizing Data and Technology to Impact HCV in Houston

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The Houston Health Department provides traditional public health services and seeks to use innovative methods to meet the community’s present and future needs. Our mission is to work in partnership with the community to promote and protect the health and social well being of all Houstonians.

- Serves city population >2.3 million residents
  - Harris County nearly 4.6 million residents
  - 42% Hispanic, 20% black or African American, 26% foreign born
  - ~1300 employees
  - 11 multiservice centers, 4 health centers, 16 WIC sites
Data Sources & Systems
HHD System Interoperability

**Inputs**
- Commercial Labs
- Hospital Labs
- Hospital Medical Records
- HHD Laboratory
- Greater Houston HIE
- HHD Clinics (EPIC)

**Data Processors**
- DSHS Integration Engine
- TXPHIN
- HHD Integration Engine
- TALHO (HHD)

**Information Systems**
- Communicable disease registry (NEDSS)
- STD registry (STD*MIS)
- HIV registry (eHARS)
- Houston communicable disease registry (Maven)
- HIV/STD/TB disease registry (proposed Maven)
- Syndromic surveillance system

**Outputs**
- Data visualization platforms
- Automated reports
- Improved outcomes
- Novel grant opportunities
Houston Electronic Disease Surveillance System

System utilized by programs for investigations and service linkage
Regional Syndromic Surveillance in Texas

City of Houston
HHD ESSENCE
Interface Engine
TxS2 ESSENCE
Texas DSHS

Tarrant County
TCPH ESSENCE
Interface Engine
Biosense 2.0
CDC
HCV in Houston
Hepatitis C infection is present in either the acute or chronic phase.

Acute infection represents a potential new source for an outbreak.

*Only acute infection is reportable in Texas.*
Challenges to Tackling HCV in Houston

• Positive HCV results are sent to HHD via electronic lab reports (ELRs).
• We receive tens of thousands of ELRs annually.
• Follow-up is nearly impossible with this volume of HCV+ labs.
Our Approach to Tackling HCV

**Education/Training**
Educate the community & train providers

**Service Linkage**
Connect patients to treatment and services.

**Testing**
Rapid testing and genotyping capacity

**Enhanced HCV**
Characterize HCV population in Houston

**SHARP**
Accurate & automated HCV case reports
**Enhanced HCV Surveillance**

**Goal:** Characterize the population of people living with hepatitis in Houston

Conducted every 6 months

1. Medical records abstracted
2. Data entered into HHHDs data system
3. Phone interviews conducted
4. Persons referred to linkage staff
Enhanced HCV Surveillance

Assess clinical data and risk factor information
Challenges to Reporting Acute HCV

- **Distinguishing** acute from chronic HCV
- **Insufficient data** provided on electronic lab reports
Objectives of S.H.A.R.P.

Streamlining Hepatitis C Automatic Reporting Project (SHARP)

- Distinguish **acute** from **chronic** hepatitis C infection
- **Improve accuracy and efficiency** of HCV reporting
- Assist the Enhanced Hepatitis C Project in **reaching more people**
Engage and Leverage
• CMS’ Promoting Interoperability (PI) public health reporting measures

• Leverage the data sources for improved surveillance
Goals of HHD HCV Activities

• Improved **support of linkage-to-care efforts** of HCV

• **Improved health outcomes** of patients of HHD’s community health centers

• Improved data for **improved public health action**