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Expanded Testing for Hepatitis C Virus Infection in a Public Health Department and Linkage to Care in Durham, North Carolina

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Background

- Public health departments have established community networks that can be leveraged to raise awareness, increase education, and facilitate HCV testing and linkage to care for vulnerable populations.
- North Carolina (NC) has experienced challenges with provision of healthcare services for the uninsured. Prior to 2012, HCV screening was not routinely offered through public health departments in the state.
- We implemented a hepatitis C virus (HCV) testing and linkage to care program at a local public health level located in Durham, NC, using similar strategies reported for HIV care.

Methods

- In December 2012, Durham County Department of Public Health (DCoDPH) initiated a program for HCV testing and linkage to care funded by federal Prevention and Public Health Funds.
- DCoDPH established Memorandums of Understanding (MOUs) with other agencies and healthcare providers in the community in order to expand HCV testing and care for populations at risk.
- HCV antibody with reflex quantitative RNA testing was integrated along with HIV/STD testing at the following sites: 1) the public STD clinic; 2) the county jail; 3) community testing sites, including a residential substance abuse recovery program; and 4) a clinic providing healthcare for the homeless.
- Universal opt-out HCV testing was offered to incarcerated persons at the county jail, while targeted HCV testing was offered at the other sites based on risk factors including: current and past intravenous drug use (IDU), HIV-infection, and birth year from 1945 through 1965.
- An HCV Bridge Counselor (or patient navigator) provided HCV education, patient incentives, transportation, and scheduled appointments with HCV specialists.
- In addition to clinics at nearby academic centers, on-site HCV assessment clinics were conducted by HCV providers at DCoDPH and at the residential substance abuse program.
- Demographic and risk factor data were collected on standardized forms, and analyzed to identify HCV prevalence, characteristics of persons with chronic HCV infection, and linkage to care outcomes.

Results

Table: HCV Antibody and RNA Test Results by Testing Site in Durham, NC, December 2012- March 2015

Testing Facility	Total Tests	HCV Antibody Positive	HCV Antibody Positive/RNA Positive	HCV Antibody Negative
STD Clinic	773	110 (14%)	82 (10%)	662 (86%)
County Jail	699	87 (12%)	71 (10%)	612 (88%)
Community Testing Sites	1418	272 (19%)	210 (15%)	1146 (81%)
Homeless Clinic	113	32 (28%)	27 (24%)	81 (72%)
Total	3003	501 (17%)	390 (13%)	2501 (83%)

Expanded HCV Testing

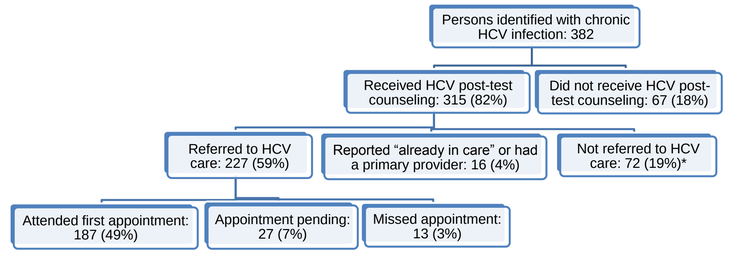
- From December 2012 through March 2015, 3003 tests were conducted for HCV at the testing sites in Durham County; 501 (17%) had reactive HCV antibodies, of which 390 (13%) had detectable quantitative HCV RNA results (Table).
- Targeted HCV testing at a homeless clinic identified the highest prevalence of chronic HCV infections (28%); in comparison, universal opt-out HCV testing at the county jail identified an HCV prevalence of 12%.
- Among 382 unique patients with chronic HCV infection, approximately 75% were male, 45% were Black, and 47% were born from 1945 through 1965.
- The predominant risk factor among patients with chronic HCV infection was current or past IDU (66%); HIV co-infection was identified in only 3% of persons with HCV.

HCV Post-test Counseling and Linkage to Care

- HCV results and post-test counseling was provided to 82% of the patients identified with chronic HCV infection; 67 (18%) did not return for their results or left the testing site (e.g. county jail) before they could be post-test counseled (Figure).
- Of the 382 persons identified with chronic HCV infection, 187 (49%) have been successfully linked to care and attended their first appointment with an HCV provider.

Results

Figure: Persons with Chronic HCV Infection and Linked to HIV Care, Durham, NC



* Reasons for not being referred for HCV care included: incarceration (n=16), relocation (n=16), refusal of linkage services (n=6), loss to follow-up/Could not be located (n=25), or other (n=9).

Limitations

- Our project did not collect data regarding subsequent steps in the HCV cascade of care (e.g. initiation or completion of HCV therapy, and sustained virologic response).
- We implemented HCV testing and linkage to care at one local health department; therefore, our results may not be generalizable to other public health programs in the US.

Conclusions

- At the local public health level, existing programs and provider networks can be leveraged to expand HCV testing and facilitate linkage to care.
- Targeted HCV testing in STD clinics, homeless clinics and other community venues appear to be a reasonable strategy for screening populations with a high prevalence of HCV infections.
- Despite the use of an HCV Bridge Counselor and co-location of HCV care, only 49% of persons diagnosed with chronic HCV infection were linked to care; therefore, additional strategies are needed to improve HCV linkage services.

Acknowledgments

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