Overview of Hepatitis B Vaccination Pilot Project in New York City

National Adult Immunization Coordinators Partnership
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Bureau of Immunization
Outline

- Pilot Project Objective
- New York City (NYC) Demographics
- Interventions
- Results
- Challenges
- Lessons Learned
- Next Steps
Pilot Project Objective

- Work with stakeholders in the NYC Department of Health and Mental Hygiene (DOHMH) and outside organizations to provide education and vaccinate at-risk populations against the hepatitis B virus (HBV)
Targeted Populations

- NYC neighborhoods with acute HBV infection rates 1.2/100,000 residents or greater
- Populations with higher infection risk:
  - Chinese, Korean, African and Caribbean immigrants
  - Injection drug users
- DOHMH provides services where at-risk individuals are seen, including sexually transmitted infections clinics, correctional health facilities and tuberculosis clinics
NYC Demographics

- ~8.2 million people
  - ~37% foreign-born

- Comprised of 5 boroughs
  - Brooklyn, Manhattan, Queens, Bronx, Staten Island

- Racial/Ethnic Population
  - White  44%
  - Latino  29%
  - Black   26%
  - Asian   13%
Bureau of Immunization (BOI) Pilot Project Partners

- **Internal Partners**
  - Bureau of Sexually Transmitted Infections (BSTI)
  - Bureau of Correctional Health Services (CHS)
  - Bureau of Tuberculosis (TB) Control (BTBC)
  - DOHMH HBV Workgroup

- **External Partners**
  - Community-Based Organizations (CBOs)
    - Charles B. Wang Community Health Center, African Services Committee, Korean Health Services
  - Intravenous Drug Use/Harm Reduction Clinic (IDU)
    - VOCAL: Voices Of Community Activists & Leaders
  - NYC Hepatitis B Coalition
Targeted Areas for HBV Interventions

- Washington Heights 
  TB Clinic
- Harlem, Manhattan
  CBO-African Services Committee
- Chinatown, Lower Manhattan
  CBO-Charles B. Wang
- Morrisania, Bronx
  STI-TB Clinics
- Rikers Island, Queens
  Main Correctional Facility
- Flushing, Queens
  CBOs-Charles B. Wang, Korean Community Services
- Downtown Brooklyn
  IDU-VOCAL
Interventions - High Level

- Distribute HBV vaccine and educational materials
  - NYC received 12,400 doses of HBV vaccine
- Conduct focus groups with adults to assess knowledge of HBV
- Provide education and referral for TB clinic patients
- Encourage reporting to Citywide Immunization Registry (CIR), the NYC immunization information system
- Enhance CIR functionality to include reminder/recall email and text messaging capabilities
  - To increase 2\textsuperscript{nd} dose and 3\textsuperscript{rd} dose completion rates
Interventions with BSTI

- Hire Registered Nurse (RN) to address issues identified during an earlier evaluation of HBV vaccination and service delivery
  - Inadequate time and materials for educating patients
  - Need for more dedicated staff to administer vaccines
  - STI Electronic Health Record (EHR) did not identify patients who were due for HBV vaccine
  - HBV vaccine not always recommended during non-treatment-related patient visits
  - Higher rates of vaccine refusal in certain demographic groups

- Hold focus groups to develop a messaging strategy that increases patient vaccination
Interventions with CHS

- Increase HBV vaccination and improve service delivery in NYC correctional facilities
  - Train staff to offer and provide HBV vaccines to all admissions
  - Incorporate HBV vaccination screening protocol
  - Identify the highest and lowest volume vaccinating facilities
  - Provide HBV health education for patients and staff
  - Document HBV and other vaccines in their EHR
  - Encourage patient consent to CIR
  - Target of 125 doses administered per month
Interventions with BTBC

- Provide HBV education to patients attending the Morrisania and Washington Heights TB clinics
- Develop referral form for patients seeking vaccination
  - Target of 500 BTBC patients accepting a referral that leads to vaccination over the course of the pilot project
Interventions with CBOs

- Recruit sites that treat adults at risk for HBV infection to provide vaccination and education
  - All five sites originally agreeing to participate withdrew before start of pilot project due to grant risk-assessment screening and reporting requirements
  - Required rapid action to replace CBOs with new sites
  - Recruited CBOs serving Asian, African and Caribbean immigrants, intravenous drug users

- Sites agree to operate as a referral location for vaccination
Enhance the CIR

- Add text and email reminder/recall functionality for use by providers who access the CIR
Results
HBV vaccine doses distributed and administered November 2012 through September 2015
As of March 31, 2016, 12,343 doses had been used
Encounters: Doses Administered

<table>
<thead>
<tr>
<th>Clinic Type</th>
<th>1&lt;sup&gt;st&lt;/sup&gt; Dose Administered</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; Dose Administered</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt; Dose Administered</th>
<th>Total Doses administered</th>
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<tbody>
<tr>
<td>STI Clinic</td>
<td>1828 (49%)</td>
<td>1155 (32%)</td>
<td>724 (19%)</td>
<td>3707</td>
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<td>Correctional Health</td>
<td>3615 (63%)</td>
<td>1510 (26%)</td>
<td>582 (10%)</td>
<td>5707</td>
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<td>Community-Based Orgs</td>
<td>829 (39%)</td>
<td>683 (32%)</td>
<td>604 (29%)</td>
<td>2116</td>
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<tr>
<td>IDU/Harm Reduction</td>
<td>6 (67%)</td>
<td>3 (33%)</td>
<td>0</td>
<td>9</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>6278 (54%)</strong></td>
<td><strong>3351 (29%)</strong></td>
<td><strong>1910 (17%)</strong></td>
<td><strong>11,539</strong></td>
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HBV vaccine doses administered November 2012 through September 2015
HBV vaccine doses administered November 2012 through September 2015

Number and percentage of HBV vaccine doses given

- Black Non-Latino: 4799 (42%)
- Latino: 3976 (34%)
- Asian Non-Latino: 1795 (16%)
- White Non-Latino: 618 (5%)
- Other: 338 (3%)
HBV Vaccine Doses Administered by Gender, All Clinics

Number and percentage of HBV vaccine doses given

- Male: 8936 (79%)
- Female: 2598 (21%)
- Transgender: 5 (<1%)

HBV vaccine doses administered November 2012 through September 2015.
HBV vaccine doses administered November 2012 through September 2015

HBV Vaccine Doses Administered by Age, All Facilities

- 18-24: 1449 (13%)
- 25-44: 6380 (55%)
- 45-64: 3479 (30%)
- 65+: 231 (2%)

Total doses: 11589
Hiring an RN was important in addressing clinical needs

- Implemented reminder/recall process: reminder letters and recall phone calls using tickler file
- Participated with the HBV Workgroup to develop an updated HBV vaccination palm card for patients
- Provided HBV counseling to patients
- Ensured vaccination data entered into CIR

EHR improved to capture HBV doses administered
CHS

- Implemented a consistent intake process which offered all patients vaccine upon admission
- Developed a HBV vaccination screening questionnaire for use in all admissions
- Encouraged co-vaccination when flu vaccine was offered
- Tracked patient vaccination in the CHS EHR
- Provided patients with health education materials
- Provided ongoing training and education to healthcare staff
  - Providers are reminded of monthly target goals if vaccination administration numbers are low or drop in their facilities
- Met their monthly target 80% of the time (28 of 35 months)
BTBC Clinics

- Developed educational referral form
- Goal of 1,500 referrals to be provided/500 vaccinated
- 1,890 patients were approached but most patients refused the referral form
CBOs

- BOI shared health education materials, held educational meetings/training with key staff
- Charles B. Wang sites have dedicated staff to provide vaccination, maintains relatively stable vaccination levels
- African Services Committee maintained vaccination levels until losing key medical staff
- VOCAL had poor staffing throughout, few doses given before leaving the program
- Korean Community Services joined the pilot project in May 2015
HBV Focus Groups

- Worked with BSTI and a vendor to develop questions for focus groups
- Recruited participants from the Bronx, Brooklyn and Queens
- Three focus groups formed: Spanish-speaking, foreign born and US born adults, age 28-60 years

Key findings

- Focus group participants were familiar with hepatitis in general, HBV symptoms and some of the ways the disease is spread
- While foreign-born and U.S.-born believe sexual contact is the most common way to transmit the virus, the Spanish-speaking group did not mention it
- Most foreign and U.S.-born adults were open to receiving an HBV vaccination from a trusted medical provider
- Focus group participants were uncertain about whether they received the HBV vaccine
HBV Focus Groups, Continued

- Tested prototype versions of the TB referral sheet and the DOHMH-produced palm card
  - Participants liked the inclusion of information about HBV’s risks and symptoms, and information that emphasizes HBV’s prevalence and contagiousness
  - Participants felt inclusion of the Health Department logo added credibility
  - Eye-catching colors and images were important
HBV Public Service Announcement

- Worked with media vendor to produce a PSA in three languages: English, Chinese and Spanish
- Completed in March 2015
- Shared PSA with pilot project participants, NYC Hepatitis B Coalition and other stakeholders
- An unbranded English version was shared with other grantees nationally
- Looked to integrate PSAs into medical facilities
- Posted on YouTube
Other Results

- CIR recall text message functionality is available to providers
- 90% of patients at all sites consented to have vaccine data entered into CIR
  - 100% in correctional settings but data entry an issue
  - Patient consent at CBOs serving Chinese populations ~60%.
- Stronger relationships with participating Bureaus within DOHMH and outside partner organizations
Challenges

- Grant risk-assessment screening and reporting requirements created a barrier for participation for some providers.
- Legal (HIPAA) and technical issues concerning recall text delayed implementation.
- CIR data entry is a problem at some facilities.
Lessons Learned

- Solid infrastructure for vaccination within the facility is essential; having staff dedicated to providing vaccine is especially important.
- Keep reporting requirements minimal to recruit and retain vaccinating sites.
- Most adults are comfortable giving consent to have vaccination data in the CIR.
- Patient referral for vaccination was not successful.
- PSAs are not practical in every setting.
Next Steps: A Pearl of Wisdom - Sustainability

- Closeout interviews suggest pilot project not sustainable in some sites without a supply of no-cost vaccine
- Consistent funding for vaccine is essential for DOHMH if it is to be the source
- BOI to identify CBOs that can meet reporting requirements and have infrastructure to vaccinate under- and uninsured patients, as part of the Standards for Adult Immunization cooperative agreement
# Acknowledgements

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<th>NYC</th>
<th>CDC</th>
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Thank you

Questions?

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