Introduction

Certain groups of adults are at increased risk of infection or complications from vaccine preventable disease due to working conditions, behavioral and/or health issues. Risk factors for specific diseases can vary, and common risk factors include age and chronic illnesses. For pneumococcal disease, the case fatality rate among younger adults (aged 18 to 64) with risk conditions has been estimated to be more than twice that of younger adults with no risk conditions.\(^1\)

Vaccination rates for high-risk adults, like the general adult population, remain lower than recommended levels. Pneumococcal vaccination among adults aged 19–64 years at high risk was 20.3% in 2014.\(^2\) Healthy People 2020 targets pneumococcal vaccination for high risk adults at 60%.\(^3\) Healthy People 2020 also targets hepatitis B vaccination in health care workers, a high risk group, at 90%, but the coverage rate was only 64% in 2008.\(^4\) Healthy People 2020 objectives also include increasing influenza vaccination for all persons to 70%, yet only 47.6% of 18-64 year olds were vaccinated against influenza in the 2014-15 season.\(^3-4\)

Immunization Programs can expand education and outreach to high-risk adults by working with a variety of partners, including public clinics (e.g., community health centers), other divisions within their own health department (e.g., sexually transmitted diseases, tuberculosis control), and local health departments. The activities highlighted here related to vaccinating high-risk adults are:

- **Getting Started:** Providing 317-funded vaccines to a local health department that uses them for community outreach to vulnerable seniors
- **Moving Forward:** Providing funding and training support to two community health centers serving a large Hispanic/Latino population to develop a customized quality improvement plan to improve adult flu and Tdap vaccine coverage rates
- **Taking It to the Next Level:** Conducting a multi-faceted project to support hepatitis B vaccination of high-risk adults, which includes working with multiple partners who serve this population and the use of surveillance data to help target outreach efforts
How the [ 64 State/Local/Territorial Immunization Programs ] use media to target high risk adults (2014) 

9 used general media to address vaccination for those with chronic medical conditions

6 used social media to address vaccination for those with chronic medical conditions

10 used both general and social media to address vaccination for those with chronic medical conditions

*Data from 2015 AIM Annual Survey, 63 of 64 Immunization Programs responded to survey

Immunization Initiative through the CMS Quality Innovation Network

Medicare’s Quality Innovation Network (QIN)-Quality Improvement Organizations (QIOs) are funded by the Centers for Medicare & Medicaid Services (CMS) to work with beneficiaries, consumers, physicians, hospitals, and other providers to improve care delivery systems. There are currently 14 QIN-QIOs, covering 37 US states and territories.

In April 2015, CMS awarded each QIN-QIO a 4-year contract to improve immunization rates (influenza, zoster, and pneumococcal vaccines) and reduce immunization disparities among Medicare beneficiaries. Under the contract, QIN-QIOs will collaborate with key partners and stakeholders to improve the routine assessment of beneficiaries’ vaccination status, and increase the documentation of beneficiaries’ immunization status in electronic health record systems and immunization registries.

- For more information on the QIN-QIO immunization initiative: http://qioprogram.org/qionews/topics/immunizations
- For more information on QIN-QIOs in general: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityImprovementOrgs/index.html
OVERVIEW OF ACTIVITY
The Nevada State Immunization Program provides 317-funded vaccines to a local health district (LHD) for community outreach to vulnerable seniors.

BACKGROUND/IMPETUS FOR THE ACTIVITY
The Nevada State Immunization Program makes 317-funded vaccine available to LHD partners for administration to uninsured adults. This activity is a local initiative in Washoe County to reach uninsured seniors who are eligible to receive 317-funded vaccine.

DESCRIPTION OF ACTIVITY
The Kids to Seniors Korner (KSK) Outreach Program is a public and private collaboration that includes the Washoe County Health District, Catholic Charities of Northern Nevada, the Reno Police Department, Washoe County Senior Services, the Washoe County Sheriff’s Office, and Washoe County Social Services. The program provides community-based outreach to at-risk populations such as low-income children, families, and senior citizens.

A team of community professionals (law enforcement, social work, health care) conducts bi-weekly “Knock-n-Talks” in selected neighborhoods in Washoe County, going door-to-door to provide information about community resources, conduct free safety and health assessments, and suggest referrals to other community services. Seniors can receive flu and pneumonia vaccines, chronic disease prevention and treatment education, and referrals to primary care providers.

ROLE OF IMMUNIZATION PROGRAM AND OTHER AGENCIES/GROUPS INVOLVED
The Nevada State Immunization Program provides the Washoe County Health District with 317-funded vaccines for administration to uninsured seniors. The statewide coalition (Immunize Nevada) also receives funding through the Nevada State Immunization Program to partner with the local health districts on immunization outreach; the coalition also participates and assists with the KSK outreach events.

DISSEMINATION
Promotion of this activity is generally conducted at the local level by the LHD and other local partners.

INTERSECTION WITH OTHER PROGRAM ACTIVITIES
This activity is locally driven, but the Immunization Program provides technical assistance if requested, and monitors the distribution and use of the 317 vaccines. State law requires that all doses administered are reported to the IIS.

FUNDING
Federal 317 vaccine funds are used to purchase the vaccines that are provided to the LHD for administration to uninsured adults.
STAFFING
The Nevada State Immunization Program vaccine manager is involved in supplying and monitoring use of the vaccines provided to the LHD. At the request of local organizers, IIS staff may participate in the outreach events to check and print immunization records.

IMPLEMENTATION STATUS
This outreach activity is ongoing.

SUCCESSES
• In 2014, the Kids to Seniors Korner Outreach Program’s mobile clinic served 10,368 children, families, and seniors, including providing 4,012 immunizations. The program is a unique way to reach vulnerable populations.

CHALLENGES
Nothing to report.

OTHER LESSONS LEARNED/ADVICE TO OTHER PROGRAMS
• With autonomous LHDs, it is a typical arrangement for the local level to provide direct services (e.g., vaccinations) and conduct community events, with support from the state (e.g., providing vaccine).

RELEVANT RESOURCES
• Nevada Kids to Seniors Korner website: http://ccsn.org/kids-to-seniors-korner.html

FOR MORE INFORMATION
Contact the Kids to Seniors Korner program at (775) 858-5251.
OVERVIEW OF ACTIVITY
The Washington State Office of Immunization and Child Profile (OICP) worked with community and migrant health centers to conduct quality improvement activities aimed at increasing adult immunization rates.

BACKGROUND/IMPETUS FOR THE ACTIVITY
Working with community health centers to expand adult immunization was an optional activity for the Centers for Disease Control and Prevention's (CDC) Prevention and Public Health Funds (PPHF) adult immunization grants. OICP staff had an existing contract within the Washington Association of Community and Migrant Health Centers (WACMHC), which represents 26 federally qualified health centers (FQHCs) in the state, and thought that the PPHF grant would be a good opportunity to work with this community health network.

DESCRIPTION OF ACTIVITY
The goal of this project was to expand adult vaccination activities, increase provider awareness and use of the Washington State Immunization Information System (IIS), and increase community awareness of adult immunizations. The immunization program established a contract with the WACMHC, which then issued a Request for Proposal (RFP) to its health centers for a $10,000 grant as a small incentive to support adult immunization-related activities. Two clinics were selected for the project; both clinics have an active Promotores de Salud (Health Promoters) program, serve a large Hispanic/Latino population, and together geographically represent the east and west sides of the state.

The clinics worked with OICP and WACMHC staff to assess clinic adult immunization rates and barriers to increasing those rates. Based on each clinic’s assessment, a customized quality improvement plan was developed to improve flu and Tdap vaccine coverage rates in their adult population. OICP staff, in collaboration with WACMHC staff, also worked closely with each participating clinic to train Promotores de Salud/Community Health Workers in adult immunization and outreach to the Hispanic/Latino population. This effort also included promoting and providing adult vaccines at health fairs and community events.

ROLE OF IMMUNIZATION PROGRAM AND OTHER AGENCIES/GROUPS INVOLVED
This project involved a partnership between the two participating FQHC clinics, WACMHC and OICP. The clinics implemented system improvements with technical assistance and consultation from WACMHC and OICP staff. WACMHC facilitated interactions between the clinics and OICP staff, and conducted health fairs.

DISSEMINATION
Spanish-language training materials were disseminated to promotores training attendees, and are posted online. English- and Spanish-language outreach materials were distributed at community outreach events/health fairs. Outreach events were advertised in Spanish and English by the clinics in various formats (posters, radio ads, and social media).
INTERSECTION WITH OTHER PROGRAM ACTIVITIES
The training materials developed may be used more broadly for provider education.

FUNDING
The Immunization Program’s federal PPHF grant funded the work of the WACMHC and provided the small grants given to the two participating FQHCs. Immunization Program staff time was covered as part of federal 317 immunization grant-funded work. OICP did not provide vaccine for this project.

STAFFING
OICP staff provided technical assistance and consultation to the clinics related to evidence-based interventions to improve adult immunization rates, usage of the WAIIS, and assessment and evaluation of the project. An OICP staff person developed the Spanish-language training materials for promotores.

IMPLEMENTATION STATUS
This activity has been completed.

SUCCESSES
• The two clinics successfully implemented strategies that changed their workflow to identify adult patients due for immunizations, such as adding a prompt to their electronic health record (EHR).
• Flu and Tdap vaccine coverage rates increased for adult patients in both clinics.
• 58 individuals attended promotores training.
• 59 outreach events were held, in addition to 3 health fairs.

CHALLENGES
• The clinics’ EHR system was more accurate than the state’s IIS for checking patient’s immunization status, due to the mobility of patients between sites; integrating the IIS and EHR helps to address this challenge, and was accomplished at one of the clinics.
• The clinics experienced periodic vaccine shortages due to unanticipated demand; future planning for vaccine ordering must take into account the new process to determine every patient’s immunization status at intake, which has led to greater uptake of vaccines.

OTHER LESSONS LEARNED/ADVICE TO OTHER PROGRAMS
• Establishing a relationship with umbrella organizations for community health centers is valuable in and of itself, but it is also helpful for providing structure and oversight to implement immunization interventions at individual clinics.
It is important to help clinics find options that are low cost and sustainable, and that meet multiple needs (e.g., HEDIS) where possible. The planning process should include staff members who perform a variety of tasks, and patient information should meet the needs of the target audience.

Having the clinics lead the process of deciding which specific activities to undertake is important for helping clinic staff to feel vested in the process.

**RELEVANT RESOURCES**

- Washington assessment questionnaire used by CHCs to identify areas for improvement: [https://aim.site-ym.com/resource/collection/BAE93F84-9249-4F41-99C8-38A16645E182/WA%20CHCsAssessmentToolQuestionnaire%202012.docx](https://aim.site-ym.com/resource/collection/BAE93F84-9249-4F41-99C8-38A16645E182/WA%20CHCsAssessmentToolQuestionnaire%202012.docx)
- Washington example agreement with pharmacy/vendor to provide vaccines at health fair/outreach events: [https://aim.site-ym.com/resource/collection/BAE93F84-9249-4F41-99C8-38A16645E182/WAOffsiteClinicAgreement.docx](https://aim.site-ym.com/resource/collection/BAE93F84-9249-4F41-99C8-38A16645E182/WAOffsiteClinicAgreement.docx)

**FOR MORE INFORMATION**

Contact Ann Butler, Immunization Health Promotion Supervisor, at [ann.butler@doh.wa.gov](mailto:ann.butler@doh.wa.gov)
OVERVIEW OF ACTIVITY
The New York City (NYC) Department of Health and Mental Hygiene (DOHMH) Bureau of Immunization (BOI) conducted a multi-faceted project to support hepatitis B vaccination of high-risk adults.

BACKGROUND/IMPETUS FOR THE ACTIVITY
The overall goal of this project was to reduce the incidence of acute hepatitis B infection among adults by increasing hepatitis B vaccination. Elements of the project were developed based on surveillance data showing a higher incidence of hepatitis B infection in certain neighborhoods, and ethnic differences in the proportion of newly reported cases. In addition, the project built on the successes and lessons learned in prior work on hepatitis B vaccination conducted by the program over the years.

DESCRIPTION OF ACTIVITY
The program provided hepatitis B vaccines and conducted several different interventions, with a focus on high-risk geographic areas. The interventions included developing and disseminating patient education materials, as well as encouraging reporting to the Citywide Immunization Registry (CIR), which requires having procedures in place to collect consent from adult patients. Interventions were tailored to the particular partner/site involved as stated below:

- A full-time nurse was hired for one of DOHMH’s Bureau of Sexually Transmitted Disease (BSTD) clinics to address previously identified barriers (e.g., lack of staff to administer and consistently document vaccines, insufficient reminder/recall capability).
- Focus groups with English or Spanish-speaking adults of different races/ethnicities were conducted to develop messaging to promote hepatitis B vaccination.
- DOHMH’s Correctional Health Services (CHS) staff were trained to screen and offer hepatitis B vaccine to all persons at admission to the correctional facility; educational materials were provided to patients; and efforts were made to improve reporting of vaccines administered in the CHS system’s electronic health record and obtain patient consent for CIR reporting.
- A referral form was developed to refer patients from two Bureau of Tuberculosis Control (BTBC) clinics to nearby BSTD clinics that provide hepatitis B vaccine, and hepatitis B-related education was provided to patients.
- Participating community health centers (CHC) agreed to screen and provide eligible high-risk adult patients hepatitis B vaccine and serve as referral sites. These CHCs were given patient education materials, with education and training for key staff members.

In addition, BOI added patient text recall functionality to the CIR that can send reminder messages for patients to complete the hepatitis B series.
ROLE OF IMMUNIZATION PROGRAM AND OTHER AGENCIES/GROUPS INVOLVED
BOI worked with several internal and external partners for this project, including BSTD, CHS, BTBC, the DOHMH Hepatitis B Workgroup, the NYC Hepatitis B Coalition, an intravenous drug use/harm reduction clinic, and three community-based health clinics (CHCs), one of which operates two facilities.

DISSEMINATION
As part of this project, BOI worked with a media vendor to produce a hepatitis B-related public service announcement (PSA) promoting vaccination, which is available online in English, Spanish, and Chinese. Additionally, DOHMH worked with B Free CEED, a national resource and expert center committed to eliminating hepatitis B disparities in Asian and Pacific Islander communities, and the Charles B. Wang Community Health Center to develop print ads and a PSA in Chinese, Korean, and English promoting hepatitis B testing. Parts of the campaign have been displayed in a branch of the New York City Public Library, on an LED screen in a major shopping center, and on a popular Korean community website. A brochure of hepatitis B facts is available on the program’s website in English, Spanish, Chinese, French, Korean, and Russian.

INTERSECTION WITH OTHER PROGRAM ACTIVITIES
These activities intersect with efforts by CIR staff to obtain adult patient consent and increase reporting of adult vaccine doses administered to the CIR.

FUNDING
Project activities were funded by a two-year Prevention and Public Health Fund (PPHF) cooperative agreement (October 2012-September 2014), with a one year no-cost extension. Hepatitis B vaccine was provided through the PPHF cooperative agreement using federal 317 funding.

STAFFING
Three Immunization Program staff members were directly involved with this project, including the Program Manager, the Adult Immunization Unit Chief, and a Public Health Prevention Specialist fellow, with responsibilities that included collecting vaccination data and monitoring the vaccine-related activity of participants, developing and/or distributing health education and training materials, and drafting monthly and quarterly reports.

IMPLEMENTATION STATUS
The grant period ended in September 2015. Patient education materials continue to be available online. BSTD assumed funding for the nurse position at the STD clinic when grant dollars were exhausted, and has continued the activities implemented to address the barriers to vaccination it identified earlier.
SUCCESSES
- 12,400 doses of hepatitis B vaccine were distributed by the Immunization Program and administered to high-risk populations.
- Focus groups provided valuable feedback on educational materials (e.g., prototype referral sheet).
- Participating sites obtained a 90% consent rate overall from adult patients to enter vaccine doses in the CIR.
- Efforts at the BSTD clinic increased the number and percentage of patients initiating and completing the hepatitis B vaccination series.
- Vaccine uptake in CHS facilities was robust; more than three times as many doses of vaccine projected for use in the jails were administered.
- The program developed stronger relationships with participating bureaus within DOHMH and other partner organizations.

CHALLENGES
- The screening and reporting requirements specified by the project staff for the cooperative agreement deterred originally selected community-based clinics from participating. BOI was able to recruit another group of sites serving at-risk populations, although not all sites were ideal replacements.
- BOI’s own immunization clinic did not participate in this project due to the screening requirements. The clinic’s policy was to ask patients whether they had any risk factors, not specify which risk factors they have. It is important to differentiate data needs versus data “wants,” including consideration of the barriers to data collection.
- The success rate for obtaining patient consent for CIR reporting varied by site.
- While almost 1,900 referrals were given at the participating tuberculosis clinics, few of these referrals led to receipt of vaccine.
- Legal (HIPAA) and technical issues concerning e-recall texting delayed implementation of this activity.
- CIR data entry was problematic at some facilities, including some CHCs and CHS, because it was not well integrated into their workflow (for direct data entry) or their own electronic health record did not allow for direct communication with the CIR.
- Vaccination sites that did not have a history of providing vaccines and had insufficient staff to sustain efforts faltered.

OTHER LESSONS LEARNED/ADVICE TO OTHER PROGRAMS
- A clinic must have a solid immunization infrastructure to successfully implement a vaccination program, and having staff dedicated to providing vaccines is especially important. When choosing partners for immunization efforts, it is important to assess their current capacity to provide vaccination service and whether they are able to support infrastructure improvements, if needed.
- Reporting requirements should be minimal to attract community-based health clinics as vaccinators. Screening requirements should be able to be incorporated into their established workflow.
- Most adults are comfortable with consenting to having vaccination data in the registry; the process for obtaining consent must be built into a clinic’s workflow.
• PSAs are not practical in every setting. PSA use in vaccinating facilities is limited to sites with video playback capabilities in areas where patients congregate.

RELEVANT RESOURCES

• NYC: BOI Hepatitis B PSA videos (English, Spanish and Chinese):
  https://www.youtube.com/playlist?list=PLz5aMT8znHez988n5Q1w0Q6AjlNas8KKk

• NYC: English version of brochure of Hepatitis B Facts (also available in Spanish, Chinese, French, Korean, and Russian):

• NYC: Getting Tested Hepatitis B PSA videos (in Chinese and Korean with English subtitles):
  https://www.youtube.com/watch?v=scdGHhkHLns and
  https://www.youtube.com/watch?v=ZT8AgUCecqY

• NYC: B Free CEED hepatitis B campaign:
  http://www.testhepb.org/be_certain_campaign.html

• Unbranded versions of the PSAs are available from the program by request.

FOR MORE INFORMATION

Contact Edward Wake, Adult Immunization Unit Chief, at (347) 396-2453 or ewake@health.nyc.gov

REFERENCES


5 2015 AIM Annual Survey, 63 of 64 state/city/territorial Immunization Programs completed the survey that was administered online April - June 2015.