Executive Summary of the Final Report: Formative Evaluation of Methods to Improve the CDC Adult Hepatitis B Vaccination Initiative

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Executive Summary

Introduction

In September 2007, the Centers for Disease Control and Prevention (CDC) distributed $20 million of Section 317 Immunization Program funds among state, territorial, and local grantees through the Adult Hepatitis B Vaccination Initiative (the Initiative). These funds were granted for the purchase of adult hepatitis B virus (HBV) vaccine for delivery to local settings serving adult clients at disproportionate risk for incident hepatitis B infection. The Section 317 Immunization Program funds (317 funds) all 50 states, Washington D.C., select urban areas, the U.S. Territories, and selected Pacific Island nations to "expand access to vaccines and vaccination services by making more vaccines available, increase national public awareness and knowledge about the benefits and risks of vaccines and vaccine-preventable diseases, and strengthen the evidence base for vaccination policies and programs."[i] The 317 funds for HBV vaccine enabled local health departments (LHDs), sexually transmitted disease (STD) clinics, local correctional facilities, drug treatment centers, HIV testing and treatment centers and other venue types to vaccinate populations disproportionally affected by HBV. However, while funding provided free vaccine, monies for implementing the vaccination Initiative were not available posing a unique challenge to vaccine administration.

In September 2009, CDC commissioned the National Association of County and City Health Officials (NACCHO)[ii] to conduct a formative evaluation of the strategies LHDs and their local partners used to deliver HBV vaccine through this Initiative. While NACCHO gathered qualitative data to describe the strategies used to deliver the vaccine to those at disproportionate risk, CDC simultaneously collected quantitative data on vaccine delivery from the local sites. This report summarizes results from an analysis of the qualitative data NACCHO gathered from in-person interviews and focus groups.

This report is intended for NACCHO and CDC's internal use only, as it includes site-specific information not intended for public dissemination. A public version that is de-identified will be made available by NACCHO in the coming months.

Methods

The evaluation intended to identify the strengths, challenges, and strategies used to deliver adult HBV vaccine or hepatitis A/B vaccine (Twinrix), hereafter referred to as the vaccine, to high-risk adults

through the Initiative. Local health departments (LHDs) and other local venues provided information on their HBV vaccination efforts from 2007 at the start of the Initiative to winter/spring 2010 as part of NACCHO's formative evaluation. NACCHO and CDC staff conducted in-person site visits at 10 LHDs across the country, which involved interviews with LHD staff and state viral hepatitis coordinators and partners from other local venues when possible. At two sites, NACCHO also conducted focus groups with additional partners and providers. During these interviews and focus groups, participants were asked to identify the strategies used and the strengths, challenges and lessons learned they had in the conduct of the Initiative in their jurisdiction.

NACCHO staff conducted a qualitative analysis of all interview and focus group data. The results are presented as an aggregate summary of interviewee-identified successes, challenges, and lessons learned. To offer a more focused look, the participating LHDs were divided into three categories by jurisdiction population size: four small (population approximately 100,000 or less), three medium (population between 400,000 and 700,000), and three large (population over 1 million) LHDs. The graph on page 17 shows the distribution of these sites by population size and category.

Results

Sites

Ten LHD sites participated in the evaluation. They were:

1. Columbus Public Health, Columbus, OH;
2. Jefferson County Department of Health, Birmingham, AL;
3. City of Stamford Department of Health and Social Services, Stamford, CT;
4. Los Angeles County Department of Public Health, Los Angeles, CA;
5. San Mateo County Health Service Department, San Mateo, CA;
6. Public Health- Seattle & King County, Seattle, WA;
7. Palm Beach County Health Department, West Palm Beach, FL;
8. Okeechobee County Health Department, Okeechobee, FL;
9. Siouxland District Health Department, Sioux City, IA; and
10. Randolph-Elkins Health Department, Elkins, WV.

Vaccination Strategies

This report summarizes vaccination strategies sites used to deliver the Initiative vaccine, how they ensured clients received all three doses necessary for full protection against HBV (i.e. series completion), and partnerships. Facilitating factors for Initiative vaccination efforts commonly involved sharing the work load with internal and external partners, educating both staff and clients, and cultivating internal and external relationships as soon as possible to leverage resources and strategize on how to reach the intended clients. One strategy frequently cited by interviewees was collaborating with other LHD and external programs and integrating services such as sexually transmitted infection (STI) screening and treatment and HBV vaccination for populations at high-risk for incident HBV and other STIs. [iii] LHDs integrating public health services felt that integration facilitated adult HBV vaccination because programs were able to utilize their expertise and current capacity rather than developing a completely new process for administering HBV vaccine.

Instituting a standard of care (SOC) by adding the HBV vaccine to the standard clinical protocol emerged as another strategy for vaccination. Sites felt that institution of a SOC helped to ensure staff considered HBV vaccination as much of a priority as the other services they provide, such as STD testing and pneumococcal vaccinations.[iv] Most sites, regardless of whether they instituted a SOC, offered vaccine on clients' initial visit rather than requiring serologic evidence of lack of immunity or past infection prior to vaccination. This practice aligns with CDC's guidelines for adult HBV vaccination. In addition, many sites conducted mass vaccinations at public gatherings, including health fairs, grocery stores and markets tending to serve those at disproportionate risk for HBV, and gay pride events.[v] Other sites conducted outreach visits to facilities where large amounts of high-risk clients were seeking services, such as a correctional facility or drug treatment centers.[vi]

An accelerated vaccination schedule was another strategy sites reported using to get three doses to clients. Under these terms, clients receive the vaccine at zero, seven, and 21 – 28/30 days. To ensure long-term immunity, a fourth dose after six months for the monovalent HBV vaccine and at 12 months for the Twinrix vaccine, is recommended.[vii] Three sites used this method of vaccination because their clients had a limited window of time at the clinic, were unlikely to seek the vaccine on their own outside of the clinic, and reported behaviors putting them in a high-risk category according to the state health department (SHD) or CDC's criteria for assessing risk factors.

According to several sites, series completion rates also seemed to increase when LHDs improved clients' access to the vaccine. Sites reported the following three methods for improving vaccine access: 1) offering the vaccine at multiple venues; 2) allowing clients to return to any venue in a community to receive follow-up doses; and 3) providing walk-in or fast-track clinics, where clients do not need to make appointments. Sites specifically noted enabling a client to receive services at his/her convenience and avoidance of long lines at the venue resulted in increased access to HBV vaccination and increased series completion.[viii] Many sites also noted an increase in series completion when a client reminder card or phone call system was introduced.[ix] In addition, sites reported maintaining a clinic atmosphere of respectfulness and lack of judgment made clients feel at ease and willing to return for future vaccinations.[x] Several sites perceived access to translation services as a helpful means to increasing the acceptance rate of the adult HBV vaccine among immigrants.[xi]

Finally, there were many strategies sites identified for working in partnerships, including involving non-traditional partners, bringing partners to the table for consistent collaborative discussions, and partnering with non-profit organizations such as community health centers. Gathering buy-in from partners and providers was one of the most frequently cited strategies to ensure vaccination, series completion, and sustained partnerships. Many sites cited the providers' motivation and buy-in as significant factors in the likelihood of clients being offered the vaccine. Sites noted community outreach efforts enabled sites to vaccinate a larger number of high-risk populations.[xii] Sites also noted a higher uptake of their other traditional services in the community when providing outreach for the Initiative.

Challenges

Some LHDs used monies from separate State grants, collaborated with internal or external partners, and incorporated HBV program work into existing staff workloads to bring the Initiative vaccine to the clients. Yet regardless of their size or jurisdiction served, each LHD interviewed reported challenges in administering and tracking the delivery of Initiative vaccine. Most sites, including both LHDs and other venues interviewed, reported that maintaining proper documentation of how much vaccine was administered, series completion, and which risk groups received the vaccine was a significant burden. Additionally, maintaining paper records and manually entering the information into an electronic immunization (IZ) registry system was cited by many as frustrating. Some LHDs tried to set up their own internal tracking systems to monitor their programs and ensure they used the vaccine efficiently, even though neither CDC nor their SHD required this collection. However, this process proved to be laborious.

Because very few LHDs have staff solely dedicated to the Initiative, they found it difficult to provide the individual-level demographic and series completion data requested by CDC. Some States' IZ registries did not provide risk-group data specific to the local level. In addition, even if a site collected its own risk group data, it was not always feasible for sites to review and utilize the data they were collecting and reporting, especially if the site relied on paper records.

The 317 funds did not come with additional funds to support staff or other administrative activities; therefore, most sites reported their efforts to deliver vaccine in this Initiative competed with other projects and priorities. With regard to staffing, many LHDs found integrating their Initiative with other internal programs or partnering with external organizations conserved financial resources but also stretched their human resources. Unless the LHD clearly communicated the importance of providing a free vaccine to a group in high need, some staff hesitated to provide their full support. Similarly, external partners were reluctant to help move the LHD's Initiative forward unless the LHD advocated for the value of the Initiative and established buy-in from the necessary stakeholders.

LHDs' response to the H1N1 influenza pandemic (H1N1) affected recent efforts to deliver HBV vaccine through the Initiative. Prioritizing adult HBV vaccination during this time was a task with which every LHD interviewed struggled. When LHDs returned to their HBV vaccination work months after H1N1 waned, those that had created vaccination implementation plans were more easily able to return to their Initiatives than those that had lesser formed strategies in place.

Lessons Learned

Sites shared many lessons learned during the interviews. One salient lesson LHDs learned was they cannot undertake the Initiative alone and recognized the importance of partnerships. Many LHDs reported partnerships were helpful at moving HBV Initiatives forward and proved particularly critical when administrative support for vaccine delivery was not available. In order to collaborate with partners, interviewees noted LHD staff must be willing to advocate for themselves and on behalf of the Initiative at the forefront, so partners will support the LHD's efforts. LHDs also noted they needed sufficient support from staff involved in administering vaccine prior to beginning the Initiative to ensure providers would voluntarily provide vaccine and willingly keep track of the necessary documentation. LHDs also learned not to "reinvent the wheel" and recognized adult HBV vaccination was best accomplished when the vaccine administration was integrated into another LHD program. Although

there may be resistance to creating more work for staff, in the end, sites determined integrating programs is more efficient than starting a new program for the Initiative. Interviewees also noted if an LHD integrates its Initiative with its STD program, staff that are unfamiliar with administering vaccines should be trained to do so since this is not a part of their regular duties. Sites also identified communication with clients about the vaccination schedule as important to facilitate vaccine series completion.

Tools, Resources, and Suggestions for Improvement

NACCHO gathered tools and resources from both state and local interview participants; the audience for the tools collected includes Initiative staff at LHDs and other local venues, local providers, and clients. As part of this evaluation project, NACCHO will present these tools and conduct a separate evaluation on their utility in the future. Sites also shared what they would like to learn from one another. For example, some LHDs are uncertain about the optimal vaccination schedule they should be using in the jails given median jail stays may be significantly shorter than six months. Many of the LHDs interviewed would like to know how to encourage clients to come back for their second and third vaccine doses without the labor intensive process involved in case management.

Sites also made suggestions for how to improve the Initiative, including the following actions: increase the amount of client education materials; strengthen CDC's STD educational module; provide comparative data between states, indicating whether venues have seen changes in their vaccination rates over time; provide access to helpful reminder systems and data integration systems that could be incorporated into electronic medical records (EMR); allow local venues to add or remove groups at disproportionate risk for HBV based on available local prevalence data and qualitative information gathered about clients' risk behaviors; and provide guidance to assist venues in determining whether they should focus on surveillance, education, or service integration as they devise a broad coordinated plan for continued adult HBV vaccine delivery.

Conclusion

CDC's Adult Hepatitis B Vaccination Initiative provided LHDs and other local venues an invaluable opportunity to procure and distribute costly vaccines to those adults most at risk for HBV infection. This evaluation summarizes lessons learned, strategies, and challenges to help CDC, NACCHO, and

participating venues: 1) understand strategies employed to suggest improvements to the Initiative should funds be available in the future, and 2) to guide other venues in starting or strengthening their own HBV Initiative. The lack of implementation funds posed unique challenges to nearly all sites; yet each site offered a range of techniques and approaches to ensure the vaccine reached its intended clients. Some of these methods included external and internal partnerships, service integration, and creative communication methods. Each site voiced their support for continuing the Initiative so they can address the serious issue of adult HBV infection in their communities. Without the Initiative, most sites reported they would not have had access to adult HBV vaccine for vulnerable populations. Sites are also eager to learn from one another and from NACCHO and CDC. Each site expressed an interest in improving their programs and making the best use of the free HBV vaccine provided by the Initiative.

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[i] Department of Health and Human Services American Recovery and Reinvestment Act Promoting Prevention and Wellness. **Centers for Disease Control and Prevention: Section 317 Immunization Program.** Retrieved on May 28, 2010 from: http://www.hhs.gov/recovery/reports/plans/section317imunization_cdc.pdf

[ii] The mission of the National Association of County and City Health Officials (NACCHO) is to be a leader, partner, catalyst, and voice for local health departments in order to ensure the conditions that promote health and equity, combat disease, and improve the quality and length of all lives. http://www.naccho.org/

[iii] Centers for Disease Control and Prevention. (2009) Program Collaboration and Service Integration: Enhancing the Prevention and Control of HIV/AIDS, Viral Hepatitis, Sexually Transmitted Diseases, and Tuberculosis in the United States. http://www.cdc.gov/nchhstp/programintegration/docs/207181-C_NCHHSTP_PCSI%20WhitePaper-508c.pdf

[iv] Site H

[v] Site H, Site D, Site A

[vi] Site C, Site A, Site F, Site H

[vii] Centers for Disease Control and Prevention. Traveler's Health – Yellow Book. Hepatitis B - Special Situations. Retrieved on June 1, 2010 from http://wwwnc.cdc.gov/travel/yellowbook/2010/chapter-2/hepatitis-b.aspx

[viii] Site B, Site D, Site A

[ix] Site B, Site A, Site G

[x] Site C

[xi] Site I

[xii] Site A