Planning and Implementing Immunization Billing Programs at State and Local Health Departments: Barriers and Possible Solutions

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ABSTRACT

Context: Before participating in a project funded by the Centers for Disease Control and Prevention, most state and local health departments (LHDs) were not seeking reimbursement or being fully reimbursed by insurance plans for the cost of immunization services (including vaccine costs and administration fees) they provided to insured patients. Centers for Disease Control and Prevention's Billables Project was designed to enable state and LHDs to bill public and private insurance plans for immunization services provided to insured patients.

Objective: Identify and describe key barriers state and LHDs may encounter while planning and implementing a billing program, as well as possible solutions for overcoming those barriers.

Design: This study used reports from Billables Project participants to explore barriers they encountered when planning and implementing a billing program and steps taken to address those barriers.

Setting and Participants: Thirty-eight state immunization programs.

Results: Based on project participants' reports, barriers were noted in 7 categories: (1) funding and costs, (2) staff, (3) health department characteristics, (4) third-party payers and insurance plans, (5) software, (6) patient insurance status, and (7) other barriers. Possible solutions for overcoming those barriers included hiring or seeking external help, creating billing guides and training modules, streamlining workflows, and modifying existing software systems.

Conclusion: Overcoming barriers during planning and implementation of a billing program can be challenging for state and LHDs, but the experiences and suggestions of past Billables Project participants can help guide future billing program efforts.

KEY WORDS: billing, clinical coding, health departments, health insurance, immunization

Before participating in a project funded by the Centers for Disease Control and Prevention (CDC), most state and local health departments (LHDs) were not seeking reimbursement or being fully reimbursed by insurance plans for the cost of immunization services they provided to insured patients.[1,2] Since 2009, 38 state immunization programs have been funded during 5 separate funding waves to participate in CDC's Billables Project.[1] The project was designed to enable state and LHDs to bill public and private insurance plans for immunization services (including vaccine costs and administration fees) provided to patients who are covered by health insurance.[1]

Not seeking reimbursement from health plans has placed an undue burden on state immunization programs, whose function is to increase vaccination rates in their jurisdictions and, thereby, reduce rates of vaccine-preventable disease. Lack of funds has forced some immunization programs to operate with insufficient staff and prevented some from expanding their reach to immunize more uninsured persons. Inadequate budgets have brought some state and LHD clinics to the brink of closing altogether.

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To plan and implement a billing program that would allow them to collect reimbursements for the cost of immunization services, state and LHDs needed to develop relationships with insurance payers (also known as "third-party payers"), update or maintain systems for claims processing, add new or train existing staff to handle billing tasks, and communicate new billing policies to patients. State and LHDs (known within CDC as funding "awardees") used funding provided through the Billables Project to hire staff to facilitate establishing contracts with third-party payers, complete the required credentialing of medical staff, update or purchase systems for claims processing, and train staff.* Through a sustainable billing program, state and LHDs could begin to recover reimbursable costs, enabling them to expand their reach and more fully fund health care services for uninsured patients.

In 2016, CDC's Billables Project staff conducted a retrospective evaluation and project review, with the goal of identifying barriers to billing encountered by awardees and generating recommendations for future billing efforts.

Design and Methods

A total of 38 awardees participated in the Billables Project. In addition to funding, a team of CDC staff was assembled to provide guidance and technical assistance to awardees as they sought to establish, implement, and/or sustain improvements to their billing programs. The project had 2 phases: planning and implementation. Thirteen awardees participated in only the planning phase, 3 awardees participated in only the implementation phase, and 22 awardees participated in both phases (Figure). As of January 2017, 10 awardees were still in the implementation phase, which all were expected to complete at various times in 2017.

Instrumentation

This study used formative, qualitative research methods to explore barriers awardees encountered when planning and implementing a billing program. After completing the planning and implementation phases of the project, awardees were required to submit a final report identifying barriers to billing and steps taken to address them. Data from those reports were used to conduct the evaluation and project review, and monthly reports and conference call notes were used when needed to further support themes and concepts developed from findings in final reports.

Centers for Disease Control and Prevention project managers provided awardees with broad guidelines and questions to assist them in writing their final reports. To describe barriers encountered in either phase of the project, awardees were asked to answer the question, "What barriers and facilitators to billing were identified by awardees?"

Data analysis and interpretation

Final reports were reviewed to verify that they included a response to the question about barriers. Four awardee reports—2 from the planning phase and 2 from the implementation phase—did not include a description of barriers, so they were omitted from the data analysis. Data were independently coded and a spreadsheet of emergent themes was created. Once main themes were established, subthemes and supporting data were categorized to best answer the question of what barriers were encountered and how they were overcome.

Results

Multiple barriers to planning and implementing a billing program were identified, and the following sections describe recurring themes around those barriers (Table).

Funding and costs

Even with the funding provided by CDC, awardees frequently cited initial expenses as a major barrier. To bill for immunization services, health departments must have the capacity to maintain a private stock of vaccines for use in insured patients (separate from publicly funded vaccines paid for by the federal Vaccines for Children program†). In addition to the cost of the vaccine itself, LHDs must cover the cost of adequate vaccine storage equipment and its maintenance. Before participating in the Billables Project, some LHDs were already billing partially for immunization services (eg, for Vaccines for Children vaccine administration fees or for influenza vaccination at mass immunization clinics). However, those LHDs

*CDC recognizes 64 immunization programs (awardees), which include the 50 states, 6 large urban areas, and 8 US territories and island nations eligible to receive Section 317 funds (see https://www.cdc.gov/vaccines/imz-managers/guides-pubs/qa-317-funds.html). These awardees were eligible for competitive selection to receive funding for billing activities through the Billables Project.

†The federally funded Vaccines for Children (VFC) program provides vaccines at no cost to children who might not otherwise be vaccinated because of inability to pay.

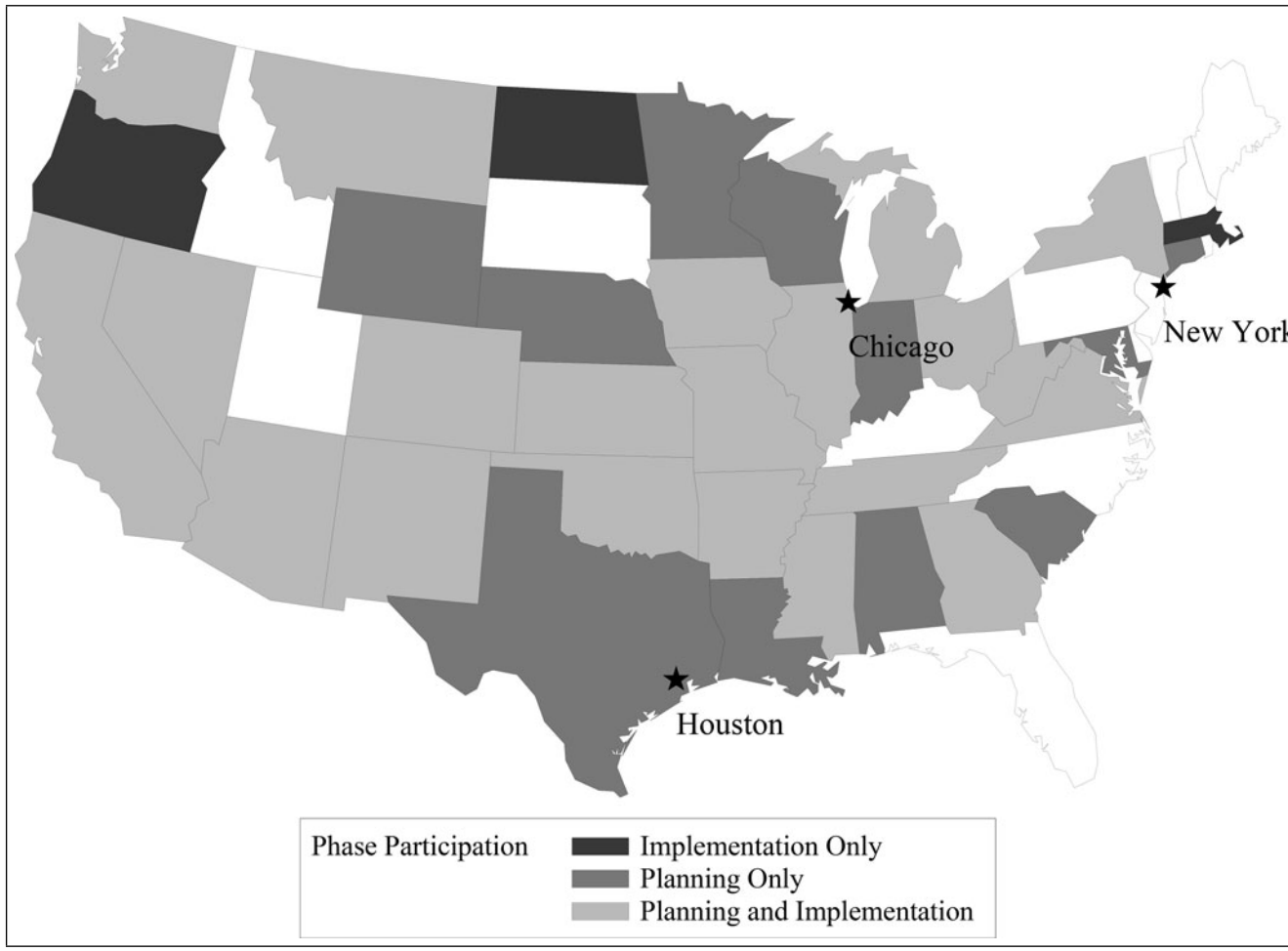

FIGURE CDC Billables Project Awardees[a]
[a]City participation phases: Chicago—planning and implementation, Houston—planning only, and New York City—planning only.

had no or only limited amounts of privately funded vaccine and/or inadequate equipment that was not designed to store a larger inventory that included private stock. Those barriers hindered their ability to keep up with community demand. One awardee wrote, "LHDs reported high costs associated with obtaining the initial private vaccine stock inventory can be a barrier." Other costs included those for billing software and clearinghouse services used by some health departments to assist with claims processing.

Staff

Staff turnover and overall staffing levels at LHDs were commonly listed as obstacles to billing for immunization visits. "Some of the barriers included changes in leadership at the Billing office and, later, the Finance Director in the Division," stated 1 awardee report. Lack of training and skills was repeatedly named as a staffing barrier. Management or staff resistance to change and lack of belief in the need for a billing program were also initial challenges for many programs.

Health department characteristics

Health department structure, patient demographics, and state geography caused many of the barriers awardees encountered. Awardees in states with a decentralized health department system often cited issues around lack of uniformity and communication that could lead to billing errors or missed opportunities to bill. One awardee discussed how state demographic and geographic variations affected health departments: "Variations among local health jurisdictions (LHJs) include small rural communities and large, densely populated urban areas.... The demographic differences impact the number and type of clients receiving services in each LHJ." In addition, states differed in the ways they distributed and/or used funds collected from reimbursements for covered

TABLE
Barriers to a Successful Billing Program[a]

Barrier Topic	Supporting Themes	Examples of Possible Solutions Given by Awardees
Funding and costs		
	Start-up funding (including software and equipment needs)	• Use grant funds to purchase equipment and software • Negotiate with companies for discounts
	Private stock of vaccines	• Use revenue from billing to purchase • Work with manufacturers and distributors
	Clearinghouses	• Provide claims processing and submission services
Staff		
	Knowledge and understanding of processes for billing	• Create a billing guide • Use training modules • Contact subject matter experts for assistance
	Leadership resistance	• Repeated messages to leadership
	Clinical coding errors	• Have a staff contact in the finance department • Attend training on clinical coding
	Staff levels/turnover	• Use subcontractors
	Training/resources	• Create billing manuals • Have mentors from other LHDs assist in training
	No on-site physician/provider	• Educate third-party payers on the role of public health nurses in providing immunization services
	Time requirements	• Use billing clearinghouses to help streamline processes
Health department characteristics		
	Structure of state health department systems	• Centralize operations if possible
	Inadequate volumes/needs	• Conduct cost-benefit analyses • Partner with other LHDs to bill
	Fees for services applied inconsistently/changes to fees	• Establish policies and procedures to simplify application of fees for services for an efficient, consistent implementation of billing practices
	Liability insurance coverage	• Increase coverage amounts
	Claim submission issues (including rejections and denials)	• Create more consistent processes for submission • Training in accurate submission
	Varied front-end processes	• Modify and streamline processes to accommodate billing
Third-party payers and health plans		
	Payments for vaccine doses/reimbursement	• Try to renegotiate fees or rates
	Credentialing and contracting	• Seek help from immunization coalitions or partners • Develop contract templates • Ask attorneys general for assistance
	Medicare	• Seek state assistance with Medicare application fees
	Negotiations/communication	• Be persistent in working to develop relationships and lines of communication
	Lack of recognition of public health model	• State legislation to support recognition of public health model
Software		
	Vaccine purchase and inventory management system needed	• Use or implement a practice management system
	Gaps in current system	• Change workflow to accommodate new billing mechanisms • Modify current system to fill gaps

(*continues*)

TABLE
Barriers to a Successful Billing Program[a] (*Continued*)

Barrier Topic	Supporting Themes	Examples of Possible Solutions Given by Awardees
Patient insurance status		
	Insurance information/status unavailable at time of service	• Immunization coalition (The Arizona Partnership for Immunization [TAPI]) developed the capacity to submit and process bills from within the coalition • Infrastructure and technology changes to capture insurance information

Abbreviation: LHDs, local health departments.
[a] *Includes barriers that were discussed by at least 2 awardees.*

immunization services. In some states, those reimbursements went directly back to LHDs, while in others, the funds were used for other programs. Two awardees encountered an issue regarding tax IDs shared with local hospitals or other county entities that temporarily halted billing and reimbursement collection. One awardee who participated only in the planning phase indicated that its immunization services and programs were being eliminated because of inadequate demand at some LHDs, which meant billing was not cost-effective.

Third-party payers and insurance plans

Communicating with third-party payer representatives proved to be more difficult than expected for many awardees. Many health plan representatives did not have a clear understanding of how health departments operate—often staffed exclusively by nurses who provide immunization services under standing orders. The credentialing of medical staff required by insurance plans was a long and often complex process for awardees. For some LHDs with no physician on staff, it was difficult to meet state requirements that would allow them to be eligible for reimbursement by insurance plans. Some third-party payers agreed to work only with awardees as "out-of-network" providers, and some were not willing to establish contracts with state or LHDs at all. Awardees who were able to negotiate contracts had to learn and follow different claims submission procedures for each health plan. Even when claims were submitted correctly, the schedules of reimbursement rates determined by health plans were applied inconsistently. Reimbursement amounts were not always clear and sometimes were less than the actual cost of vaccine. The cost of Medicare's application/enrollment fee was burdensome for many LHDs.

Software

For some awardees, gaps in the electronic health or medical record systems already in place were the largest software barrier. Some of the existing software lacked a component specifically for immunization billing, making it difficult or impossible to verify insurance and/or obtain accurate and complete data needed to bill for immunization services. Some awardees found that they needed new software to track vaccine orders and manage inventory or to extract monthly reimbursement totals and other data needed to monitor billing program progress. Rolling out new software to support billing efforts often required LHDs to spend time and money from already strained budgets to train staff.

Patient insurance status

To bill public or private insurance plans for immunization visits, state and LHDs must collect accurate patient insurance information at the time of the visit. However, awardee staff found that patient insurance information was often unavailable or incorrect, and lack of systems and processes for verifying coverage made the task difficult and time-consuming. One report stated:

> Clients rarely know the details of their insurance coverage. In some cases, clients are not aware if they have coverage at all. There is not time to verify coverage because clients are treated on a walk-in basis. It can take up to 45 minutes to verify by phone and/or website. Coverage of immunizations on insurance websites is difficult to locate and confusing.

Other barriers

Not all barriers were encountered by multiple awardees. Barriers that were specific to some of the awardees' projects did not necessarily occur in other states or areas, but they still provide important insight into state-specific issues that can hinder development of a billing program. Examples included difficulty in verifying clients' insurance coverage at mobile clinics; absence of state legislation to support immunization billing; elimination of immunization

services; and need for assistance and training in complying with Health Insurance Portability and Accountability Act privacy regulations.

Discussion

The study findings provide detailed information on how to better plan and implement billing programs at state and LHDs. Centers for Disease Control and Prevention's project awardees described the barriers they encountered and the importance of resolving those barriers so that they could bill for immunization services. Some barriers were previously discussed on individual state levels[3-5] but not in a comprehensive study involving health departments nationwide.

Solutions for overcoming barriers were, for the most part, similar among awardees throughout planning and implementation (Table). Solutions reported by past awardees were used to develop the following recommendations for planning and implementing successful future billing programs: (1) use supplemental funds (eg, grants) and clearinghouse services to overcome initial funding and cost barriers; (2) create billing guides and modules to aid in staff training and ensure that all staff are well trained and have sufficient knowledge of billing processes; (3) subcontract work or use clearinghouse services if staffing levels are not adequate; (4) create consistent, streamlined workflow processes at LHDs to bill accurately for immunization services; (5) establish strong relationships with third-party payers to ensure open communication; (6) request assistance with contracting from state insurance commissioners and attorneys general; (7) modify, develop, or purchase new software to accommodate billing practices; and (8) capture the patient data needed to bill by updating and modifying current clinic workflows/processes and patient/medical record systems.

Throughout the project, CDC staff developed partnerships with organizations such as America's Health Insurance Plans and the National Association of County & City Health Officials (NACCHO), and those relationships were helpful in facilitating solutions to barriers encountered by awardees. In addition, CDC staff shared ideas from awardees that had been successful in implementing solutions with other awardees who were seeking assistance with overcoming specific barriers. Centers for Disease Control and Prevention staff also helped facilitate communication between awardees when needed.

The study data and analyses have several limitations. Data were self-reported by awardees, so there might have been errors in the final reports. Differences in population, demographics, and other factors sometimes made it difficult to compare and summarize barriers among awardees. The scale and scope of a barrier encountered in one state or area did not always reflect what other states might encounter. However, the comparisons and summaries can be used to improve planning and evaluation of future billing programs.

Although budget cuts at LHDs have declined since 2008, many LHDs still indicated that they are experiencing such cuts or expecting them in the future.[6] In anticipation of shrinking budgets, billing programs are needed to generate revenue to provide immunization and other services to communities LHDs serve. Revenue collected through billing programs has allowed state and LHDs to develop self-sustaining immunization programs, expand services to reach more people in their communities, increase private stocks of vaccine so that they can offer a wider range of immunizations, and, in some cases, keep public clinic doors open. Overcoming barriers during planning and implementation of a billing program can be challenging for state and LHDs, but the experiences and suggestions of past Billables Project awardees can help guide future billing program efforts.

Implications for Policy & Practice

- Every year, millions of dollars from state and federal budgets are used to pay vaccination costs for patients who have insurance coverage for vaccination. Covering these costs has placed an undue burden on state and local health department immunization programs, diverting funds that could be used in efforts to increase vaccination rates and reduce the impact of vaccine-preventable diseases. Knowledge gained through this study can be used to inform future efforts by health departments to plan and implement billing programs aimed at collecting reimbursements for the cost of immunization services provided to insured patients.
- Lessons learned in the process of billing for immunization services have already been used to inform efforts to bill for other covered services offered by health departments to insured patients (eg, human immunodeficiency virus screening and counseling, family planning, and laboratory services).
- Billing efforts by state and local health departments have led to a better understanding and acceptance in the health plan community of the need for and importance of the public health model of practice in the health care system.

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