



Attributes Important to Physicians in the Decision to Stock Adult Vaccines



Angela Rose, MPH¹; Nicole Elmlad, BS¹; Carolyn Bridges, MD²; David Kim, MD²; Lisa Prosser, PhD¹; David Hutton, PhD¹
¹Child Health Evaluation and Research (CHEAR) Center; Division of General Pediatrics; School of Public Health University of Michigan;
²Immunization Services Division, National Center for Immunization and Respiratory Disease, Centers for Disease Control and Prevention, Atlanta, GA

Background

- Low vaccine coverage rates in adults is thought to be attributable to multiple factors including the lower rate of routine well visits for adults, lack of knowledge regarding recommended vaccines for both patients and providers, no school mandate, and financial barriers.
- Issues with reimbursement appear to be strong barriers to providers, but little is known about the specifics of stocking decisions at the practice level.

Objective

- To identify attributes that are most important to physicians in deciding to stock adult vaccines and understand potential barriers to stocking vaccines.

Methods

- Three one-hour online focus groups were conducted by a trained facilitator.
- Participants were US physicians (3-5/group) in specialties that typically provide vaccinations.
- Participants were recruited by email from the American Medical Association's Masterfile.
- Groups were audio and video recorded and transcribed. Thematic analysis was used to identify key themes.

Table 1. Focus Group Outline with Sample Questions

Ranking Task	Lead in question - "What are one or two factors that stand out in your mind as the most important thing you think about when considering whether or not to stock and administer vaccine?" Main task - "Please rank each category of factors from the list (reimbursement, insurance, out of pocket costs, inventory costs, competition, other costs of time) in order of importance"
Key Themes Breakdown	Discussion on specific attributes of key themes - Example: "What is more important to you when thinking about reimbursement? Reimbursement for vaccine costs or reimbursement for vaccine administration" - Example: "What kinds of expenses go into maintaining inventory?" - Example: "What are some of the insurance issues that affect your decisions to stock vaccine?"
Wrap-up	Questions - "How does the insurance mix of your patient population affect how you thought about these questions?" - "Did you consider the insurance mix of patients in your practice as a whole or were you considering one specific type of insurance coverage?"

Results

Table 2. Participant Demographics

	% (n)
Age (mean (SD))	47 (8)
Sex	
Female	43% (5)
Male	58% (7)
Practice size	
<10 physicians	50% (6)
10-20 physicians	33% (4)
>20 physicians	17% (2)
Employment type	
Health system employee	67% (8)
Group practice employee/contractor	17% (2)
Owner	17% (2)
Region	
Northeast	-
Southeast	25% (3)
Midwest	17% (2)
Southwest	8% (1)
West	50% (6)
Insurance mix (average (range))	
Medicare	28% (0-50%)
Medicaid	17% (0-50%)
Private	51% (0-90%)
Uninsured	11% (0-42%)

- Patient out-of-pocket costs and insurance-related issues were the most important attributes in the decision to stock vaccines.
- Inventory costs and reimbursement were also important factors.
- Physicians with more privately insured and Medicare patients were more concerned about reimbursement compared with physicians with a higher percentage of uninsured and Medicaid patients, who were more concerned with patient-out-of-pocket costs.
- Competition with pharmacies was not considered to be an important factor.

Table 3. Key Themes and Quotes

Key Themes	Quotes
Insurance	"Whatever rules they (insurance companies) put they make it much more difficult or less difficult for us to administer or stock the vaccine. Insurance companies all have different rules so you have to keep track of all the different rules – really hard to keep track – it's the inconsistency of insurance coverage – some insurance organizations can have different plans."
Out of pocket costs	"For us the major issue is out of pocket expenses... not only the vaccine but the transportation, the parking at the hospital." "Although we are an HMO, immunizations like the shingles vaccine are not covered so the patient has to pay the \$200 out of pocket cost. Most patients are not willing to pay that." "Maybe ... you can get it (the flu vaccine) cheaper at one of the pharmacies or something. But if you were to do the Zostavax or the pneumo vax or the Prevnar, the PCV 13, then you'd be looking at well over \$100, and that's just completely unaffordable for patients. So, if it's not covered and built into the assistance program, it's just not going to happen." (physician with mostly uninsured and Medicaid patients).
Inventory costs	"We have finite space within our refrigerator and we want to make sure that we stock enough. We want to be on the lower end based on expiration date and based on how much space we have, so inventory cost is huge for us just because we have so many things we want to stock."
Reimbursement	"Vaccines tend to be costly and we sometimes can't even break-even – we are just not in a position to lose money." "If we're losing money (on vaccines), it's not an option. If we keep losing money, we will not be available next year, for the patient. And this is a big factor in terms of decision, whether to stock or even to administer vaccines." (physician with mostly privately insured and Medicare patients).
Competition	"We do vaccinations as a service to our patients...we are not trying to turn a huge profit... there is lots of competition such as drug store, grocery store, primary care.... that's not a big factor."

Conclusions

Financial implications for their practice as well as costs for their patients were leading factors in physicians' decision to stock adult vaccines.