

Role of Health Insurance in Financing Vaccinations for Children and Adolescents in the United States

abstract

OBJECTIVE: The goal was to elicit perspectives of selected health insurance plan medical or quality improvement directors regarding factors related to coverage and reimbursement and perceptions of financing as a barrier to child and adolescent immunization.

METHODS: Medical or quality improvement directors from 20 plans selected by America's Health Insurance Plans were invited to complete an online survey in July 2007. Respondents who agreed to follow-up interviews were invited to participate in telephone interviews conducted by Centers for Disease Control and Prevention staff members in August 2007.

RESULTS: Fifteen plans (representing >67 million enrollees) responded to the online survey. All respondents covered all Advisory Committee on Immunization Practices–recommended child and adolescent vaccines in all or most products. Advisory Committee on Immunization Practices recommendations were the most commonly cited criteria for coverage decisions (86.7%) and coverage modifications (100%). Factors affecting reimbursement that were cited most often were manufacturer's vaccine price (80%) and physician feedback (53.3%). In follow-up interviews with 10 self-selected respondents, manufacturer's price (7 of 10 plans) and physician feedback (4 of 10 plans) were identified as the most-important factors affecting reimbursement. Respondents said that reimbursement delays were most commonly attributable to providers' claim submission errors or patient ineligibility. Some respondents thought that vaccine financing was a barrier (4 of 10 plans) or somewhat a barrier (2 of 10 plans) to providing immunizations; others (4 of 10 plans) did not.

CONCLUSION: Although these data suggest that health insurance coverage for recommended vaccines is high, coverage is not universal across all products offered. *Pediatrics* 2009;124:S522–S531

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KEY WORDS

cost, coverage, health insurance, immunization, reimbursement, vaccine, vaccination

ABBREVIATIONS

ACIP—Advisory Committee on Immunization Practices

AHIP—America's Health Insurance Plans

NVAC—National Vaccine Advisory Committee

The findings and conclusions in this report are those of the authors and do not necessarily represent the views of America's Health Insurance Plans, its staff members, or its member organizations, the US Centers for Diseases Control and Prevention, or the US Department of Health and Human Services. Respondents who participated in the survey and interviews discussed in this article expressed solely their views and not the official positions of their affiliated organizations or America's Health Insurance Plans.

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In 2006, the National Vaccine Advisory Committee (NVAC) formed a Vaccine Financing Working Group to examine the current state of the US vaccine financing system, to highlight challenges in the system, and to make recommendations to ensure access to vaccinations for children and adolescents without financial barriers.^{1–5} NVAC was concerned that financial challenges might increase gaps in immunization rates and therefore protection against vaccine-preventable diseases.^{2–6} NVAC sought input from key stakeholders, such as health care providers, consumers, vaccine manufacturers, employers, and payers, including private health insurance plans, to inform its process of providing guidance to the US Department of Health and Human Services.

Health insurance plans play an essential role in the vaccine financing system, providing insurance through either individual or group purchases (eg, employers or state programs). Group purchasers select from a wide range of benefit packages designed by health insurance plans, which vary in the scope of covered benefits and consumer cost-sharing. The primary types of health insurance products (eg, health maintenance organizations, preferred-provider organizations, or point-of-service plans) available to purchasers manage health care services and costs in different ways.

Private-sector vaccine purchases account for 45% to 50% of the pediatric vaccines sold in the United States each year (Centers for Disease Control and Prevention, unpublished data, 2007). Health care providers in the private sector purchase and administer vaccines and are reimbursed subsequently, by parents, health insurance plans, or state programs, for vaccine purchase and administration. Children and adolescents who receive immuni-

zation benefits either pay out of pocket or have coverage under private health insurance plans or public programs. However, some children^{7,8} and adolescents⁹ who have private health insurance may not have coverage for ≥ 1 vaccine.

Although most research has focused on the public sector,^{10,11} more studies are exploring vaccine provision in the private sector.^{12,13} To address knowledge gaps about how private health plans determine vaccination coverage and reimbursement policies, the National Vaccine Program Office, on behalf of NVAC, collaborated with America's Health Insurance Plans (AHIP), the national trade association of private health insurance plans, to survey selected AHIP members regarding their immunization policies and practices. The study sought to assess the plans' perspectives on (1) factors related to coverage decisions and reimbursement rates, (2) factors affecting timely reimbursement, (3) perceptions of financing as a barrier to child and adolescent immunization, and (4) suggested steps to address any financing barriers.

METHODS

Sample Selection

By using the Atlantic Information Services *Directory of Health Plans: 2007*,¹⁴ which lists 631 health insurance plans, AHIP identified 20 member plans that were responsive to previous AHIP surveys and were representative of 5 prospectively defined categories representing common plan types. Plans selected included (1) 6 large national plans having ≥ 5 million enrollees and operating in ≥ 10 states, (2) 7 large state or regional plans having enrollment between 200 000 and 4 999 999 and operating in ≤ 10 states, (3) 4 small plans having enrollment of $< 200 000$, (4) 1 large plan with preferred-provider organization net-

work products, and (5) 2 single-state Medicaid plans. Participation was voluntary and included 2 components, that is, an online survey and a follow-up telephone interview.

Survey and Interview Administration

AHIP sent an initial e-mail invitation in June 2007 to the chief medical officers or quality improvement directors of the 20 selected plans, requesting their participation in a survey regarding their company's vaccination coverage and reimbursement policies (Appendix 1). A follow-up e-mail with the link to the online survey was sent to nonresponders by a National Vaccine Program Office-contracted, third-party vendor, who executed the survey through an online survey tool and managed the data. Survey respondents were asked whether they would be willing to be contacted for a follow-up interview (Appendix 2). In July and August 2007, Ms Lindley conducted telephone interviews with online survey respondents who agreed to follow-up interviews. The third-party vendor took notes on the responses. Interviews were scheduled for 30 minutes. Respondents were allowed to select multiple answers to survey questions and to provide open-ended responses. Questions asked in the interviews were both multiple-choice (based on responses from the survey) and open-ended, with prompts to solicit more-detailed information when appropriate.

Data-Collection Instruments

A 13-question, online, multiple-choice survey was developed by the Vaccine Financing Working Group and was reviewed by AHIP. The survey asked respondents about the scope of their plan's coverage for child (0–6 years) and adolescent (7–18 years) vaccines, factors used by plans for determining and modifying vaccine coverage, factors related to vaccine reimburse-

ment, and strategies to ensure timely reimbursement.

Telephone interview questions were designed to clarify and to explore responses from the online survey. Topics included distinctions between reimbursement policies for vaccine purchase and vaccine administration, the relative importance of various factors in determining reimbursement, provider feedback regarding reimbursement levels, perceptions of vaccine financing as a barrier to childhood immunization, and suggested steps to address any financing barriers. A standardized list of interview questions was customized on the basis of online survey responses.

Data Analysis

Responses from all plan categories were aggregated and then analyzed. The number of enrollees represented by the responding health plans was calculated. Qualitative responses were grouped in 4 thematic areas, namely, factors related to coverage decisions, factors affecting reimbursement rates, factors related to payment timing issues and potential steps to address those issues, and perceptions of financing as a barrier to immunizations and steps that might address that barrier.

RESULTS

Respondent Characteristics

The online survey was completed by 15 (75.0%) of 20 invited plans, which covered >67 million enrollees in both commercial and Medicaid programs. Responses were received from 5 (83.0%) of 6 large plans, 5 (71.4%) of 7 state or regional plans, 3 (75.0%) of 4 small plans, and both Medicaid plans (100.0%). Product lines represented in these results included commercial health maintenance organizations, commercial preferred-provider organizations, commercial point-of-service

plans, Medicaid, and Medicare (for children with disability coverage).

Ten plans participated in the follow-up interviews. Respondents from 4 plan categories were interviewed, that is, large plans (4 plans), state or regional plans (2 plans), small plans (2 plans), and Medicaid plans (2 plans). Responses reported below were collected from the online survey unless noted otherwise.

Factors Related to Coverage Decisions

What Factors Are Used to Determine Inclusion of Vaccines in Benefit Packages?

Advisory Committee on Immunization Practices (ACIP) recommendations were selected most commonly by respondents (86.6%) as a factor used in determining inclusion of vaccines in a particular benefit plan design. Other frequently cited factors included US Food and Drug Administration approval, state laws, the contract between the purchaser (eg, employer) and the health insurance plan, and review by a pharmacy and therapeutics committee (responsible for the promotion of rational, safe use of effective, pharmacy-related products, such as drug therapy and vaccines, within an institution such as a health insurance plan or hospital) (Table 1). A health insurance plan's pharmacy and therapeutics committee is responsible for evaluating a formulary of drugs, including vaccines, for inclusion as a covered benefit and recommending to the insurance plan the level at which the covered benefit should be paid.

*Are All ACIP-Recommended Vaccines for Children and Adolescents Covered Benefits?*¹⁵

At the time of the survey, all respondents indicated that all of the recommended child and adolescent vaccines

TABLE 1 Most Commonly Reported Factors for Determining Vaccine Coverage as a Benefit

Factor	n (%)
Determining vaccine coverage	
ACIP recommendation	13 (86.6)
State laws	8 (53.3)
FDA approval	8 (53.3)
Review by pharmacy and therapeutics or other committee	5 (33.3)
Employer group/purchaser contract	5 (33.3)
Affecting modification of coverage	
Change in ACIP recommendation	15 (100.0)
Vaccine shortages	12 (80.0)
FDA action	11 (73.3)
State regulatory changes	11 (73.3)
Determining or adjusting reimbursement rates	
Manufacturer's price of vaccine	12 (80.0)
Physician feedback	8 (53.3)
Price of services	6 (40.0)
Market forces	6 (40.0)
Geographic location	5 (33.3)

Data were obtained from an online survey of 15 selected insurance plans. FDA indicates Food and Drug Administration.

were covered for all or most products offered (Table 2).

How Often Are Vaccine Coverage Policies Reviewed?

More than one half (53.3%) of respondents reported reviewing coverage policies after every ACIP meeting (meetings are held 3 times per year).

What Factors Could Affect Modification of Contracts Between the Health Insurance Plan and Providers in the Middle of a Contract Period?

Respondents from all plans said changes in ACIP recommendations in the middle of a contract period might affect vaccination benefits coverage for the rest of the contract period. Respondents did not quantify what proportion of their products might accommodate such midcontract changes. Other cited factors included vaccine shortages (eg, when a vaccine is unavailable because of a shortage, a plan could modify a contract to include coverage for a substitute vaccine not previously covered, as was the case with

TABLE 2 Reported Health Plan Coverage of ACIP-Recommended Vaccines

Vaccine	Proportion, % (n)		N
	Covered in All Products/Plans	Covered in Most Products/Plans	
Child vaccines (0–6 y)			
Diphtheria-tetanus-pertussis	86.7 (13)	13.3 (2)	15
<i>Haemophilus influenzae</i> type b	86.7 (13)	13.3 (2)	15
Hepatitis A	80.0 (12)	20.0 (3)	15
Hepatitis B	86.7 (13)	13.3 (2)	15
Inactivated poliovirus	86.7 (13)	13.3 (2)	15
Influenza	86.7 (13)	13.3 (2)	15
Measles-mumps-rubella	86.7 (13)	13.3 (2)	15
Meningococcal	80.0 (12)	20.0 (3)	15
Pneumococcal	86.7 (13)	13.3 (2)	15
Rotavirus	80.0 (12)	20.0 (3)	15
Varicella	86.7 (13)	13.3 (2)	15
Adolescent vaccines (7–18 y)			
Diphtheria-tetanus-pertussis	80.0 (12)	20.0 (3)	15
Hepatitis A	71.4 (10)	28.6 (4)	14
Hepatitis B	80.0 (12)	20.0 (3)	15
Human papillomavirus	73.3 (11)	26.7 (4)	15
Inactivated poliovirus	80.0 (12)	20.0 (3)	15
Influenza	80.0 (12)	20.0 (3)	15
Measles-mumps-rubella	80.0 (12)	20.0 (3)	15
Meningococcal	73.3 (11)	26.7 (4)	15
Pneumococcal	78.6 (11)	21.4 (3)	14
Varicella	80.0 (12)	20.0 (3)	15

Data were obtained from an online survey of 15 selected insurance plans.

live, attenuated, inactivated influenza vaccine for inactivated influenza vaccine), Food and Drug Administration action, and state regulatory changes (Table 1).

Factors Affecting Reimbursement Rates

What Factors Need to Be in Place for a Physician to Be Reimbursed for Providing Vaccination Services?

The availability of Current Procedural Terminology codes (93.3%) and the assignment of these codes to a new vaccine (93.3%) were the most common responses. For the providers to bill for a vaccine, there must be a code to submit a bill.

What Factors Are Considered When Determining or Adjusting Reimbursement Rates?

Manufacturer's price for the vaccine was the most frequently cited response, followed by physician feedback, the price of services related to immunization ad-

ministration, market forces, and geographic location (Table 1).

Follow-up Interview Findings on Reimbursement Rates

Which Factors Identified Were Most Important for Determining Reimbursement for Vaccines and Vaccine Administration?

The manufacturer's price for the vaccine was cited by 7 of 10 respondents as the most-important factor affecting the reimbursement rate for vaccine purchase. Physician feedback was cited by 4 of 10 respondents as the most important factor affecting vaccine administration reimbursement (Table 3).

How Often Are Reimbursement Rates Modified?

Responses varied from "monthly" to "biannually"; ≥1 respondent indicated that the plan modified rates "as new information becomes available." Some respondents indicated that vaccine purchase and administration rates

TABLE 3 Most-Important Factors in Determining Vaccine and Vaccine Administration Reimbursement

Factor	n (%)
Affecting vaccine reimbursement	
Manufacturer's price	7 (70.0)
Physician feedback	2 (20.0)
Vaccines for Children	1 (10.0)
Affecting administration reimbursement	
Physician feedback	4 (40.0)
Medicare	2 (20.0)
Market forces	1 (10.0)
No factors or no response	3 (30.0)

Data were obtained from follow-up interviews of 10 self-selected insurance plans.

were modified at the same time. Respondents who indicated that rates were modified at different times noted that vaccine administration rates were modified less frequently than reimbursement for vaccines.

How Long Does It Take to Begin Paying Claims for Newly Covered Vaccines?

Various factors characterized above (eg, ACIP recommendations) came into play during decision-making. Respondents stated that, once a plan decided to cover a vaccine as a benefit, claims began to be paid anywhere from the same day (5 respondents) to 45 days after coverage was determined.

Are There Mechanisms in Place to Modify Contracts Between the Plan and Providers?

Respondents stated that communicating in advance with pharmaceutical companies to learn of available new vaccines and holding appropriate monthly committee meetings (eg, pharmacy and therapeutics committee) were mechanisms for including a vaccine in benefit packages during the middle of a contract period.

Are Provisional ACIP Recommendations Sufficient to Prompt Coverage of New Vaccines?

Four of 10 respondents answered that an ACIP provisional recommendation

(approved by ACIP vote and posted at www.cdc.gov/vaccines/recs/provisional/; recommendations do not become official until they are accepted by the Centers for Disease Control and Prevention director and published in the *Morbidity and Mortality Weekly Report*) was sufficient for their plans to cover a new vaccine as a benefit, 2 stated that they waited for *Morbidity and Mortality Weekly Report* publication, and 3 stated that their responses would vary depending on the vaccine. For example, 2 respondents mentioned that, if a vaccine was widely anticipated or was receiving coverage in the media (eg, human papillomavirus vaccine), then the typical requirements or time line for approval might be modified. One respondent mentioned that the plan had the ability to apply coverage retroactively to the Food and Drug Administration approval date.

Several respondents mentioned that, although the ACIP vote might not be sufficient for coverage, their plans used information provided at ACIP meetings to begin the process of preparing coverage of a new vaccine. This preparation decreased lag time in coverage once the recommendation was published in the *Morbidity and Mortality Weekly Report*.

Factors Related to Payment Timing Issues and Potential Steps to Address Those Issues

What Are the Most Common Reasons for Delays in Payment?

The majority of respondents (73.3%) said that delays in reimbursement were most commonly attributable to claim submission errors by providers or patient ineligibility.

What Can Providers and Plans Do to Minimize the Time Between Claim Submission and Reimbursement?

Respondents said that providers should confirm that patients are eligible (ie,

enrolled in the plan) and that vaccination is a covered benefit in the plan, should submit accurate complete claims, and should submit claims electronically. All respondents indicated that the ability to process claims electronically minimizes the time from claim submission to reimbursement. Respondents identified steps that health insurance plans could take to facilitate reimbursement, including ensuring that information about patient eligibility and covered services is available online and providing rapid feedback regarding issues that delay payment.

What Is the Average Claims-Processing Time From Claim Receipt to Provider Reimbursement?

All respondents stated that their answers reflected “clean claims” (ie, for eligible services and without errors). Five respondents processed claims within 30 days, 4 respondents processed claims within 15 days, and 1 respondent did not know. All respondents stated that electronic claims filing and processing helped decrease the time from claim receipt to provider reimbursement. Some respondents already receive and process 90% of their claims electronically; others are closer to 50%. Respondents with 90% electronic claims noted that they are working to reduce claims payment time to 1 to 3 days.

Follow-up Interview Findings on Perceptions of Financing as a Barrier to Immunization and Potential Steps to Address That Barrier

Is Vaccine Financing a Barrier to Childhood Immunization?

Some respondents (4 of 10 plans) perceived vaccine financing to be a barrier, some (2 of 10 plans) perceived financing to be somewhat of a barrier,

and some (4 of 10 plans) did not perceive financing to be a barrier.

What Are the Major Reasons?

Respondents who perceived financing as a barrier or somewhat of a barrier to childhood immunization cited financial challenges for physicians providing vaccinations, including high storage fees, overhead costs, and inadequate reimbursement.

What Are Possible Solutions to the Problem?

Respondents suggested various solutions to address direct and indirect costs of providing immunization, including vaccine-related expenses (eg, vaccine purchase and storage) and immunization administration expenses (eg, medical supplies). These solutions included (1) instituting centralized vaccine purchasing by states or insurers, so that providers would not need to pay for vaccine inventory up front, (2) applying the American Academy of Pediatrics recommendations to ensure that reimbursement covers direct and indirect costs, including return investment on vaccine inventory,¹⁶ and (3) listening to providers to ensure adequate reimbursement.

Have Health Care Providers Expressed Dissatisfaction With Vaccine Purchase Reimbursement Rates?

Six respondents answered yes and named newer, “expensive” vaccines, most frequently human papillomavirus vaccine.

Have Health Care Providers Ever Expressed Dissatisfaction With Vaccine Administration Reimbursement Amounts?

Five respondents had heard provider dissatisfaction, 4 had not, and 1 had rarely heard dissatisfaction with vaccine administration reimbursement.

How Can Provider Satisfaction With Administration Reimbursement Rates Be Improved?

Respondents suggested ways to improve provider satisfaction indirectly by shifting vaccine purchasing to states or the insurer and communicating to providers the rationale for changes in reimbursement rates.

Are Vaccines Discussed Specifically in Contracts With Providers?

Five respondents answered yes. Several stated that contract language requires providers to administer set amounts of required vaccines, as listed in the contract. One respondent stated that contracts require providers to administer vaccines but do not mention specifically which vaccines or how many.

DISCUSSION

Our survey and follow-up interviews help to provide insight into vaccine coverage and reimbursement policies of some health insurance plans. Understanding the factors that contribute to decision-making about benefit packages available to health plan members is important for addressing challenges to the private-sector vaccine financing system and helps ensure that financing is not a barrier to providing ACIP-recommended vaccinations.

ACIP recommendations (which are based on careful review of scientific data, including disease morbidity and mortality rates, vaccine safety and efficacy, and cost-effectiveness) clearly play a critical role in influencing coverage benefits and subsequent modifications. ACIP works closely with many liaison organizations, including AHIP, to develop evidence-based recommendations for vaccine use that are harmonized among professional organizations, including the American Academy of Pediatrics and the American Academy of Family Physicians.¹⁷ Although all respondents indicated that their plans covered all vaccines recommended by ACIP in all or

most of their products, not all products included coverage for all recommended vaccines.

Immunization is consistently a top-ranked, clinical preventive service in the United States. These rankings are designed to help decision-makers, including public health agencies and employers, allocate limited resources, informing consumers about high-quality and high-value health care services.¹⁸ In the United States, employer-sponsored insurance is the leading source of health insurance, covering ~158 million non-elderly people.¹⁹ Purchasers choose from a range of benefits offered by the health insurance plan, and not all products include coverage for all vaccines. Because benefit plans are designed and developed on the basis of purchaser demand, employers and consumers play important roles in ensuring access to vaccines.

We sought to determine whether vaccine providers' perceptions of payment timing issues were corroborated by health insurance plans and, if so, to understand the causes of any delays. Respondents reported discrete, identifiable factors as the main causes of payment delays, that is, claim submission errors and patient ineligibility. This suggests that working with health care providers to improve claim submissions might decrease the time from claim submission to reimbursement and might improve the stability of provider practices. Health insurance plans and medical professional organizations can play roles in educating health care providers on appropriate billing practices.

Balancing the concerns of multiple stakeholders involved in the vaccine financing and delivery system while simultaneously reducing financial barriers to all US individuals receiving ACIP-recommended vaccinations is a continuing challenge. One suggestion put forth by 2 respondents who thought that vaccine financing is a barrier to immunization proposed shifting the costs of vac-

cine purchases from health care providers to other stakeholders (eg, states or insurers). This idea highlights the interrelatedness of the stakeholders involved in the US immunization system. Because vaccine manufacturers oppose a universal purchase system regardless of payer,^{4,20,21} this may not be a realistic solution. Manufacturers assert that they rely on the current pricing structure in the public- and private-sector market as a source of revenue and a source of funds to invest in the development of new vaccines.²¹

There are several limitations to this study. First, it was conducted with a small convenience sample of plan representatives who had responded to previous AHIP surveys, and selection bias might limit the representativeness of the responses. However, respondents represented diverse health insurance plans that covered 67 million individuals, with variations in enrollment size, geographic setting, and organizational structure. Other limitations for interpretation of the study findings are the general nature of the questions and the fact that responses could not be analyzed for each product line the health insurance plans offered. Finally, responses were aggregated from all plan categories. This might have masked differences between categories of responding health insurance plans. Despite these limitations, our results provide a snapshot of information from representatives of health insurance plans covering a significant proportion of the population.

CONCLUSIONS

Many factors influence the coverage and reimbursement decisions of the health insurance plans whose employees participated in this survey. Although these data suggest that health plan coverage for ACIP-recommended vaccines is high, coverage for all vaccines is not universal in all of the products offered. Additional efforts may be needed to educate pur-

chasers of health insurance (both individuals and employers) about the value and cost-effectiveness of vaccines.²² The results of this analysis helped inform the recent NVAC recommendations to en-

sure delivery of all ACIP-recommended vaccines to all children and adolescents without financial barriers.²³ They also provide a framework for researchers to explore these issues in a larger context.

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NVAC Financing Working Group

June 27, 2007

Thank you for responding to this short survey on coverage decision and reimbursement for immunization and related services. Your responses will not be interpreted as representing all factors that determine your plan's immunization policies. The survey is an attempt to obtain general background information on the most common considerations and decision making processes that are used in the development of these policies. *All information collected will be confidential – plan-specific information will only be seen by the contractor and NVPO staff. You will be provided a copy of the final aggregate survey results. The information will be used only for this survey and destroyed once the aggregated report is complete.*

1. Please describe the product lines for which you will be responding in this survey:
 - Commercial _____
 - HMO _____
 - PPO _____
 - POS _____
 - Medicare (for children with disability coverage) _____
 - Medicaid _____

2. Which of the following factors are used in determining whether or not vaccines are included in a particular benefit design? (Check all that apply)
 - Vaccine coverage is determined by employer group / purchaser contract _____
 - ACIP recommendations _____
 - FDA approval _____
 - Review by a Pharmacy and Therapeutics (P & T) or other committee _____
 - A cost-benefit analysis for newly-introduced vaccines _____
 - A cost-benefit analysis for more than one vaccine recommended for the same disease _____
 - State laws _____
 - Other? Please specify _____

3. Please describe coverage of ACIP-recommended childhood and adolescent vaccines by your plan:

ACIP-recommended vaccines ^c	Coverage Levels			
	Covered in all product / plans	Covered in most product / plans	Covered in some product / plans	Not covered
Childhood 0 – 6 years				
Hepatitis B				
Rotavirus				
Diphtheria, Tetanus, Pertussis				
<i>Haemophilus influenzae</i> type b				
Pneumococcal				
Inactivated Poliovirus				
Influenza				
Measles, Mumps, Rubella				
Varicella				
Hepatitis A				

^c “2007 Childhood, Adolescent, & Catch-up Immunization Schedules”. ACIP, accessed June 27, 2007 at: <http://www.cdc.gov/vaccines/recs/schedules/downloads/child/2007/child-schedule-color-print.pdf>

Meningococcal				
Adolescent 7 – 18 years				
Tetanus, Diphtheria, Pertussis				
Human Papillomavirus				
Meningococcal				
Pneumococcal				
Influenza				
Hepatitis A				
Hepatitis B				
Inactivated Poliovirus				
Measles, Mumps, Rubella				
Varicella				

4. How often do you review vaccine coverage policies?
 - Quarterly _____
 - Semi-annually _____
 - Annually _____
 - After every ACIP meeting (held 3 times per year) _____
 - Other? Please specify _____

5. What are acceptable covered services related to immunizations? (Check all that apply)
 - Vaccine/toxoid codes _____
 - Immunization administration codes _____
 - Immunization administration codes with counseling _____
 - E & M or preventive service codes if patient is seen by a physician _____

APPENDIX 1

Online survey tool. NVPO indicates National Vaccine Program Office; HMO, health maintenance organization; PPO, preferred-provider organization; POS, point of service; FDA, Food and Drug Administration; AAP, American Academy of Pediatrics; CPT, Current Procedural Terminology; MMWR, *Morbidity and Mortality Weekly Report*; E & M, evaluation and management.

6. Which of the following is a condition of coverage for new vaccines? (Check all that apply)
- FDA approval _____
 - ACIP recommendation _____
 - AAP approval _____
 - ACIP or AAP approval _____
 - Publication of ACIP recommendation in MMWR _____
 - Review by you plan's Pharmacy and Therapeutics (P & T) or other relevant committee _____
 - Other? Please specify _____
7. What operational factors need to be in place, in addition to coverage determination in #6, in order for a physician to be reimbursed? (Check all that apply)
- Availability of CPT codes _____
 - Approval by your plan's Pharmacy and Therapeutics (P & T) or other relevant committee _____
 - Retooling of plan's IT system for new CPT codes (entry of new codes) _____
 - Assignment of reimbursement to codes _____
 - Assignment of appropriate edits to codes (e.g. age and gender) _____
 - Other? Please specify _____
8. What factors might affect the modification of vaccine-related coverage during the interim in which vaccine coverage policies are reviewed?
- Change in ACIP recommendations _____
 - FDA action _____
 - Change in manufacturer's price _____
 - Vaccine shortages _____
 - State regulatory changes _____
 - Other? Please specify _____
9. What factors are considered when determining or adjusting reimbursement rates? (Check all that apply)
- Manufacturer's price of vaccine _____
 - Price of services related to immunization administration _____
 - Geographic location _____
 - Medicare reimbursement rates _____
 - Medicaid reimbursement rates _____
 - Physician feedback _____
 - Market forces _____
 - Other? Please specify _____
10. What are the most common reasons for delays in payment?
- Ineligibility of patient _____
 - Non-eligible service _____
 - Inaccurate or incomplete claims _____
 - Duplicate claims _____
 - Coverage of benefits issues _____
 - Other? Please specify _____
11. What can the provider do to minimize the time between claim submission and reimbursement?
- Confirm eligibility of patient _____
 - Confirm eligibility of service _____
 - Submit accurate and complete claims _____
 - Submit claims electronically _____
 - Other? Please specify _____
12. What can plans do to minimize the time between claim submission and reimbursement?
- Assure eligibility information is available online for patients and services _____
 - Have the ability to process claims electronically _____
 - Provide rapid feedback regarding issues identified that delay payment _____
 - Other? Please specify _____

NVPO has indicated that they may want to conduct a follow-up interview to clarify your responses or explore other areas. Would you be willing to have a representative of your health insurance plan participate in an interview? If so, please provide the name and contact details of the person in your organization that Constella Group, LLC, on behalf of NVPO, would need to contact in order to schedule this follow-up interview.

- Name: _____
- Position: _____
- Work Address: _____
- Phone Number: _____
- Fax Number: _____
- E-mail: _____

APPENDIX 1

Continued.

Questions for Follow-Up Interview of AHIP Members (facilitated by CDC)

1. You told us that you consider the following factors when determining or adjusting reimbursement rates for vaccines and vaccine administration: _____.

- Do any of those factors apply only to vaccines, or only to administration? If so, which?
- Of all the factors you named, _____, which one is the MOST important in determining your level of reimbursement for vaccines? Why?
- Of all the factors you named, _____, which one is the MOST important in determining your level of reimbursement for vaccine administration? Why?
- (only for those selecting “geographic location” in question 9 of initial survey) You said that you consider geographic location in determining reimbursement rates.
 - How do you determine the cost of providing vaccines in each geographic location?
 - And do you include an adjustment for practice size, or are reimbursements standard throughout a given region?
- Since factors like _____ may change periodically, how often do you modify reimbursement rates?
 - _____ as new information becomes available
 - _____ on a periodic basis (e.g. monthly, quarterly)
 - _____ upon contract renewal
 - _____ other, please specify:

2. You mentioned that _____ was/were conditions of coverage for new vaccines.

- Once you approve coverage of a new vaccine, about how long is it before coverage takes effect?
- And if _____ occurs mid-cycle, what mechanisms do you have for modifying contracts mid-cycle to adjust for new vaccines or price increases?

3. What is your view of the concern that vaccine financing is a barrier to childhood immunization, particularly with newer and more expensive vaccines?

- (If they do think there is a problem): What do you see as the major reasons for the problem?
- If you could think ‘outside the box’, what sorts of solutions would you suggest?

4. Have your providers ever expressed dissatisfaction with vaccine reimbursement amounts?

- If so, for which vaccines?
- What about reimbursement amounts for vaccine administration?
- What suggestions do you have that might improve provider satisfaction with these rates?

5. Are there analogies between the vaccine finance issues and any other areas of health insurance?

- If so, what are the other areas and how are they being dealt with?

6. We asked you what insurance plans might do to minimize the time between claim submission and reimbursement, and you suggested _____.

- In general, what is the average processing time from receipt of claim to claim payment (reimbursement) for your providers?
 - _____ within 15 days of service
 - _____ within 30 days of service
 - _____ within 60 days of service
 - _____ more than within 60 days of service

7. Are vaccines specifically discussed as part of preventive services to be provided in contract with providers?

APPENDIX 2

Follow-up interview guide. CDC indicates Centers for Disease Control and Prevention.

Role of Health Insurance in Financing Vaccinations for Children and Adolescents in the United States

Angela K. Shen, John Hunsaker, Julie A. Gazmararian, Megan C. Lindley and Guthrie S. Birkhead

Pediatrics 2009;124;S522

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