

## Retail Clinic Versus Office Setting: Do Patients Choose Appropriate Providers?

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**R**etail clinics, also called convenience clinics, provide preventive care and treatment for minor, acute illnesses. They are located in retail stores, supermarkets, and pharmacies, and typically are staffed by certified physician assistants or nurse practitioners. For the consumer, retail clinics have advantages compared with traditional primary care, including lower cost and the availability of services without an appointment. The first retail clinics emerged in 2000 in Minnesota; the number has continued to grow nationally from 62 in 2006 to nearly 1000 in late 2008.<sup>1</sup> Despite this growth, a 2007 survey found that only 1.2% of households had used a retail clinic in the previous year,<sup>1</sup> even though a recent study estimated that more than one-fourth of the US population resides within a 10-minute drive of one,<sup>2</sup> and a 2008 survey revealed that almost half of consumers would consider using a retail clinic.<sup>3</sup>

What does increasing use of retail clinics mean for consumers and for the healthcare system? These clinics offer convenience to the consumer and lower costs to the payer.<sup>4</sup> Their appropriate use depends on the consumer's ability to distinguish minor acute conditions that can be treated at a retail clinic from more serious conditions that would be better addressed by traditional providers. Given research suggesting that one-third of American adults have a health literacy measured at a "basic" or "below basic" level, this ability is not self-evident.<sup>5</sup> Retail clinics have been criticized by the American Medical Association, the American Academy of Pediatrics, and the American Academy of Family Physicians, who claim that the clinics may create a conflict of interest (because of their relationships with retail pharmacies) and promote fragmented or substandard care.<sup>6-8</sup> Providers have expressed concerns about use of retail clinics and the practice of waiving the copay for retail clinic visits.<sup>9</sup> Critics also have cited concerns about the qualifications of clinic staff and their ability to diagnose serious medical problems,<sup>5</sup> and about the disruption of existing physician-patient relationships, especially for those with chronic conditions.<sup>6,8,9</sup>

Research to date has focused on the purpose and cost of the visit, the quality of care provided,<sup>10-12</sup> the nature of visit follow-up,<sup>10,13</sup> and

the characteristics of retail clinic users.<sup>4,14</sup> This research has not substantiated the concerns voiced about retail clinics, but rather suggests that minor conditions can be treated appropriately in that setting. A ques-

**Objective:** To assess whether health plan members who used retail clinics chose that setting for minor conditions and continued to see other providers for more complex conditions.

**Study Design:** Retrospective analysis of claims data in a commercially insured population.

**Methods:** Health plan enrollment data were used to identify and describe the analysis population. Episode Treatment Groups were used to identify members with chronic conditions and to analyze reasons for retail clinic use, complexity of retail clinic visits, and care for chronic conditions in non-retail clinic settings. Logistic regression was used to study predictors of retail clinic use.

**Results:** Retail clinic users differed significantly from nonusers. The most significant predictors of retail clinic use were age, sex, and proximity to a retail clinic. Episodes of care treated in the retail clinic appeared to be less complex than similar episodes treated in other settings. Chronically ill members who used the retail clinic saw another provider for their chronic condition at rates similar to or higher than those of members who did not use the retail clinic.

**Conclusions:** Individuals may be able to identify when conditions are minor enough to be treated in a retail clinic and serious enough to be treated by a traditional provider.

(*Am J Manag Care.* 2010;16(10):753-759)

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### Take-Away Points

Appropriate use of retail clinics depends on an individual's ability to identify when a condition is minor enough to be treated in that setting. We used claims data from a health plan to study the patterns of care for members who use retail clinics. We found that:

- Episodes seen in the retail clinic setting appeared to be less complex than similar episodes seen in an office setting.
- Members with chronic conditions who used retail clinics sought care for their chronic conditions from non-retail clinic providers at rates similar to those of members who did not use retail clinics.

tion that remains unanswered is whether individuals are adept at assessing the seriousness of their own conditions and are seeking care consistent with that assessment.

The goal of this study was to extend the research to whether members choose retail clinics for minor concerns and whether they still choose non-retail clinic providers for less minor and chronic conditions. In particular, we estimated predictors of retail clinic use, compared complexity of visits for similar episodes in retail clinic and non-retail clinic settings, and assessed the degree to which members with chronic conditions who used a retail clinic also saw other providers for their chronic conditions.

## DATA AND METHODS

This study was set at Blue Cross and Blue Shield of Minnesota, a national health plan headquartered in Minnesota. Health plan claims and enrollment data were analyzed for a population of commercially insured members residing in Minnesota and continuously enrolled in 2007. The analysis included only services rendered by providers contracting with the health plan and located in Minnesota. This set included 72 separate retail clinic locations. A retail clinic is a unique category for contracting purposes and is defined as a clinic located in a retail or nonmedical setting with a limited scope of services. All retail clinics are covered by the same reimbursement arrangement. The services provided at retail clinics are limited by design to address noncomplex ailments that fall within the scope of practice of the provider staff. Some health systems in Minnesota have added clinics that function as retail clinics in terms of scope of practice and reimbursement, but are staffed by physicians in addition to nurse practitioners and physician assistants. These physician-staffed clinics were classified as retail clinics for the purposes of this analysis.

To study whether members chose retail clinics for less complex concerns, we identified members with at least 1 visit to a retail clinic in 2007. To draw a comparison with members who did not use a retail clinic, we identified members with at least 1 office visit associated with diagnoses thought to

be treatable in a retail clinic (see [eAppendix A](#) at [www.ajmc.com](http://www.ajmc.com)). We also included *Current Procedural Terminology* codes for common immunizations (see [eAppendix B](#) at [www.ajmc.com](http://www.ajmc.com)). We excluded members younger than 18 months (as of January 1, 2007) because the state of Minnesota requires that retail clinic patients be at least that old. We used geocoding to identify whether each member lived within 10 miles of a retail clinic.<sup>15</sup> We then assessed whether members with at least 1 chronic condition who used a retail clinic continued to use traditional providers for chronic conditions. Episode Treatment Group (ETG) data from the prior years 2005 and 2006 were used to identify chronic conditions in the study population. Episode Treatment Groups use proprietary algorithms to group medical and pharmacy claims into episodes of care based on clinically similar conditions.<sup>16</sup> Individuals with a chronic condition were identified using the following ETGs: diabetes (27-30), asthma (386-389), depression (95, 96), coronary artery disease (251-254, 256-265), congestive heart failure (267, 268), chronic obstructive pulmonary disorder (390-395), hyperlipidemia (47), and hypertension (278-281). We used episodes from the prior years to exclude new diagnoses of chronic conditions in the analysis year. For the comparison group of retail clinic nonusers with a chronic condition, we did not require an office visit as an inclusion criterion.

We also used ETGs to describe the reason for the retail clinic visit and to describe the overall health of the members. Episode Risk Groups (ERGs) aggregate ETGs of similar clinical and risk characteristics.<sup>16</sup> A person with multiple ETGs will have 1 or more ERGs. Each member was assigned a prospective ERG risk score, a weighted combination of those ERGs that predicts utilization. We defined high health risk as those members with a score of 7 or higher. This cutoff point captured those members incurring the top 0.5% of total claims spending.

Demographic characteristics were compared between retail clinic users and nonusers using  $\chi^2$  tests to assess whether clinic use was strongly dependent on sex, age, or type of health plan product. All available data describing an individual member were included in the analysis, including sex, age, health plan product, presence of a chronic condition, residence near a retail clinic, and ERG risk score. Health plan products were categorized as preferred provider organization (PPO), health maintenance organization (HMO), or consumer-directed health plan (CDHP). The PPO plans involve a network of preferred doctors and hospitals. Generally, services incurred with providers not in the network result in higher out-of-pocket expenses (ie, deductibles, copayments,

■ **Table 1.** Characteristics of Retail Clinic Users and Nonusers<sup>a</sup>

Characteristic	Users, % (n = 40,686)	Nonusers, % (n = 651,514)	P <sup>b</sup>
<b>Female</b>	60.4	56.6	<.001
<b>With ≥1 chronic condition</b>	20.5	33.5	<.001
<b>With prospective risk score (ERG) ≥7</b>	0.4	2.2	<.001
<b>Age</b>			
18-23 mo	1.9	3.6	<.001
2-11 y	23.2	14.8	<.001
12-17 y	9.9	8.9	<.001
18-24 y	5.4	5.4	.962
25-44 y	32.8	20.7	<.001
45-64 y	23.6	29.5	<.001
≥65 y	3.3	17.2	<.001
Average age, y	31.0	39.9	<.001 <sup>c</sup>
<b>Product</b>			
CDHP	28.9	23.4	<.001
PPO	61.4	67.2	<.001
HMO	9.7	9.5	.206
<b>Residing within 10 miles of a retail clinic</b>	91.6	49.0	<.001

CDHP indicates consumer-directed health plan; ERG, Episode Risk Group; HMO, health maintenance organization; PPO, preferred provider organization.  
<sup>a</sup>Source: Blue Cross and Blue Shield of Minnesota enrollment and claims data. Values are percentages unless indicated otherwise.  
<sup>b</sup>P value associated with  $\chi^2$  test for independence.  
<sup>c</sup>P value associated with *t* test.

and/or coinsurance). The HMO products require members to choose a primary care provider and require a copayment for most services. The CDHP products include major medical plans with high deductibles and out-of-pocket maximums, and some form of savings vehicle (eg, Health Reimbursement Arrangement, Health Savings Account) to fund expenses that are subject to the deductible. In the time period covered by the analysis, none of these products included an incentive for members to use retail clinics.

We assessed whether members chose the retail clinic for minor conditions using the percentage of retail clinic episodes resolved in 1 visit. For people with chronic conditions, we analyzed whether they also saw a non-retail clinic provider for that condition. This study received no external funding.

## RESULTS

In 2007, among commercially insured members who were continuously enrolled, 40,686 members (2.8%) had at least 1 visit to a retail clinic. This constituted an increase of 71% over the previous year (results not shown). Among members who did not have a visit to a retail clinic, 651,514 members had at least 1 office visit for an immunization or for diagnosis of a con-

dition that was potentially treatable in a retail clinic. **Table 1** compares the demographic characteristics of retail clinic users and nonusers. They differed significantly on nearly every measure analyzed. A higher percentage of retail clinic users were female, healthier, and younger compared with retail clinic nonusers. In both populations, a majority of members were enrolled in a PPO plan. A lower percentage of retail clinic users had chronic conditions and an ERG prospective risk score of 7 or higher. More than 90% of retail clinic users lived within 10 miles of a retail clinic, but fewer than 50% of nonusers did.

We performed a logistic regression to identify the predictors of retail clinic use (**Table 2**). All of the characteristics listed in Table 2 were significant predictors. This table indicates that compared with the reference group (members aged 25-44 years), all other age groups were less likely to use the retail clinic, after controlling for other characteristics. Members enrolled in CDHP plans, members enrolled in HMOs, and women were more likely to use retail clinics, whereas sicker members and members with chronic conditions were less likely. The most significant predictor in the model was whether the member lived within 10 miles of a retail clinic.

We next sought to understand whether members appropriately chose the retail clinic for their care by analyzing the

■ **Table 2.** Predictors of Retail Clinic Use<sup>a</sup>

Variable	Odds Ratio (95% CI)
<b>Prospective risk score (ERG) ≥7</b>	0.52 (0.44, 0.62)
<b>Female</b>	1.21 (1.18, 1.24)
<b>≥1 Chronic condition</b>	0.85 (0.83, 0.88)
<b>Age</b>	
18-23 mo	0.34 (0.31, 0.37)
2-11 y	0.97 (0.94, 0.99)
12-17 y	0.68 (0.65, 0.70)
18-24 y	0.62 (0.59, 0.65)
25-44 y (reference)	
45-64 y	0.56 (0.55, 0.58)
≥65 y	0.16 (0.15, 0.17)
<b>Product type</b>	
PPO (reference)	
CDHP	1.11 (1.02, 1.14)
HMO	1.04 (1.00, 1.08)
<b>Residing within 10 miles of a retail clinic</b>	11.03 (10.6, 11.4)

CDHP indicates consumer-directed health plan; CI, confidence interval; ERG, Episode Risk Group; HMO, health maintenance organization; PPO, preferred provider organization.  
<sup>a</sup>Source: Blue Cross and Blue Shield of Minnesota enrollment and claims data.

percentage of episodes of care resolved in 1 visit. We reasoned that if the episode that prompted the retail clinic visit resolved completely in that visit, the ailment was minor and using the retail clinic for its treatment was fitting. Overall, 94.8% of episodes with a retail clinic visit began with that

visit. Moreover, 89.9% of episodes involved no other providers, and 88.3% were resolved in 1 visit, suggesting that the majority of visits were for minor conditions. **Table 3** shows the percentage of episodes resolved in 1 visit for the top 10 episode types (as described by ETG and sub-ETG) seen in the retail clinic, and compares this percentage with that for episodes seen in a non-retail clinic setting. We excluded 2 of the most frequent episode types, routine inoculation (791, 0) and screenings and immunizations incidental to other services—immunizations (901, 7). As one would expect, for both of these episode types, nearly every episode was resolved in 1 visit, in both the retail clinic and the other settings. For all but 2 episode types, a greater percentage of episodes were resolved in 1 retail clinic visit than in 1 visit to other providers. This conclusion held when we applied the Bonferroni correction. For chronic sinusitis, there was no difference between the 2 settings. For routine exams, fewer retail clinic episodes were resolved in 1 visit. This may reflect the more open-ended nature of a routine exam, which could result in referrals for follow-up. We also performed this analysis separately for those members with

■ **Table 3.** Percentage of Episodes Resolved in 1 Visit<sup>a</sup>

ETG Description (ETG, sub-ETG)	Retail Clinic Users		Retail Clinic Nonusers		P <sup>b</sup>
	No. of Episodes	% of Episodes Resolved in 1 Visit	No. of Episodes	% of Episodes Resolved in 1 Visit	
Tonsillitis, adenoiditis or pharyngitis, without surgery (331, 0)	12,109	80.6	126,686	56.6	<.001
Otitis media, without surgery (329, 0)	3922	74.6	69,273	66.4	<.001
Acute sinusitis (333, 0)	3692	78.9	48,789	76.4	<.001
Otolaryngology disease signs and symptoms (354, 0)	1648	95.6	38,962	87.3	<.001
Infection of the lower genitourinary system, not sexually transmitted (574, 0)	1406	76.5	43,736	34.8	<.001
Conjunctivitis (204, 0)	1402	89.9	24,209	82.8	<.001
Acute bronchitis, without comorbidity, aged 5+ y (384, 0)	1258	80.6	40,547	69.7	<.001
Chronic sinusitis, without surgery (335, 0)	796	56.7	19,764	55.3	.463
Routine exam (794, 0)	613	18.9	356,347	58.8	<.001
Other ENT infection, without surgery (337, 0)	510	86.1	13,044	70.3	<.001

ENT indicates ear, nose, throat; ETG, Episode Treatment Group.  
<sup>a</sup>Source: Blue Cross and Blue Shield of Minnesota enrollment and claims data.  
<sup>b</sup>P value associated with  $\chi^2$  test for independence.

■ **Table 4.** Characteristics of Individuals With  $\geq 1$  Chronic Condition<sup>a</sup>

Characteristic	Users (n = 8859)	Nonusers (n = 386,600)	P <sup>b</sup>
<b>Female</b>	64.0	54.7	<.001
<b>With prospective risk score (ERG) <math>\geq 7</math></b>	1.4	5.3	<.001
<b>Age, y<sup>c</sup></b>			
18-24	3.9	2.0	<.001
25-44	35.0	15.2	<.001
45-64	49.3	42.1	<.001
$\geq 65$	11.9	40.7	<.001
Average age	49.1	60.2	<.001 <sup>d</sup>
<b>Product</b>			
CDHP	23.6	15.1	<.001
PPO	64.7	77.1	<.001
HMO	11.7	7.8	<.001

CDHP indicates consumer-directed health plan; ERG, Episode Risk Group; HMO, health maintenance organization; PPO, preferred provider organization.  
<sup>a</sup>Source: Blue Cross and Blue Shield of Minnesota enrollment and claims data. Values are percentages unless indicated otherwise.  
<sup>b</sup>P value associated with  $\chi^2$  test for independence.  
<sup>c</sup>Members younger than 18 years with chronic conditions constituted <1% of the population in both retail clinic users and retail clinic nonusers.  
<sup>d</sup>P value associated with *t* test.

and without chronic conditions, and separately for children aged 2 through 11 years, and the conclusions did not change (results not shown).

Finally, we explored how often in the study year people with chronic conditions who were seen in a retail clinic also were seen by another provider for care of their chronic condition, which reflected a member's ability to choose a care setting appropriate for more complex conditions. We compared that with the rate at which retail clinic nonusers with chronic conditions had provider visits for their chronic condition. For this comparison, we included all commercially insured members residing in Minnesota who had at least 1 chronic condition. When comparing the retail clinic users to the nonusers, we found that they differed in the same way as in the larger population (Table 4). We limited this comparison to members 18 years and older, yielding 8859 retail clinic users and 386,600 nonusers with 1 or more chronic conditions. Retail clinic users with diabetes were less likely to see non-retail clinic providers for the care of their chronic conditions than were nonusers, and retail clinic users with hyperlipidemia or depression were more likely (Table 5). There were no significant differences in these measures for the other conditions studied. The number of retail clinic users with chronic obstructive pulmonary disorder was too small to make a meaningful comparison. When we applied the Bonferroni correction, the difference for members with diabetes was no longer significant, although the differences for hyperlipidemia and depression remained significant.

## DISCUSSION

The number of retail clinics has increased significantly in the last decade. With growing acknowledgment of their ability to provide quality care at lower cost, insurers have developed strategies to encourage the use of such clinics. These policies have been criticized by those who worry that retail clinics will adversely affect the care received. In this study, we compared the characteristics of people who used retail clinics with the characteristics of those who did not, and estimated the predictors of retail clinic use. We explored whether members appeared to be making appropriate choices by examining the complexity of retail clinic visits and visits to non-retail clinic providers by members with chronic conditions.

Overall, our findings of age and sex being significant predictors reaffirm the findings of previous research.<sup>4,14</sup> We also found that proximity to a retail clinic was a significant predictor of retail clinic use. The percentage of care episodes resolved in 1 visit was higher for retail clinic users than for nonusers. This finding is consistent with an earlier study that found that retail clinic users were no more likely to have an "early return" visit.<sup>10</sup> One interpretation of this finding is that the episodes seen in the retail clinic setting were less complex and were suitably treated there. Another interpretation is that non-retail clinic providers may have been more likely to schedule follow-up visits or to refer to other providers, and that retail clinics may discourage repeat visits. Claims data did not provide adequate information to judge

■ **Table 5.** Percentage of Individuals With  $\geq 1$  Chronic Condition Who Had Other Provider Visits<sup>a</sup>

Chronic Condition	Retail Clinic Users Seeing a Non-Retail Clinic Provider for Their Chronic Condition		Retail Clinic Nonusers Seeing a Provider for Their Chronic Condition		P <sup>b</sup>
	Percent	No.	Percent	No.	
Diabetes	85.1	806	87.6	64,988	.031
Hypertension	65.1	3170	66.0	215,169	.301
Hyperlipidemia	45.5	3710	42.7	177,759	<.001
Asthma	40.7	1255	42.6	36,774	.175
Depression	50.9	2887	44.6	80,162	<.001
Coronary artery disease	57.8	448	61.2	51,528	.142
Congestive heart failure	53.4	103	57.2	17,683	.439

<sup>a</sup>Source: Blue Cross and Blue Shield of Minnesota enrollment and claims data.

<sup>b</sup>P value associated with  $\chi^2$  test for independence.

if those episodes (whether occurring in a retail clinic or not) that included more than 1 visit were due to the proper referral of a patient with a more serious condition to a primary care provider or specialist, unnecessary referrals, or poor quality of care provided by the originating provider. For the retail clinic users, another possible explanation for the episodes requiring additional visits may be that the consumer underestimated the complexity of the condition and chose an inappropriate setting for treatment.

Concerns about retail clinics disrupting the patient-provider relationship have not been fully explored. When we focused on members with chronic conditions, we found that retail clinic users were at least as likely as nonusers to have had a visit with another provider for their condition. No studies to date have addressed the impact of retail clinics on coordination of care. When a patient visits a retail clinic located in a clinic system with electronic health records, that record makes it possible for the patient's primary care provider to know about the visit. Some retail clinics provide a record of the patient's visit to the primary care provider at the patient's request. In the absence of either of these options, a physician may not know about a patient's retail clinic visit, which may affect coordination of care.

This study has several limitations. Some chronic conditions (eg, depression) may have been overidentified because of limitations of the episode grouper logic. Missing episodes and orphan records resulting from the logic may have slightly affected the results by under- or overidentifying retail clinic visits. We could not ascertain how many members attempted to use the retail clinic but were turned away because their presenting condition was not appropriate for treatment there. One study suggested 2% of retail clinic patients were triaged to an emergency department or a primary care provider.<sup>14</sup> In our analysis of why people with chronic conditions went to

the retail clinic, we did not control for clinically significant combinations of acute and chronic conditions such as asthma and bronchitis. Finally, claims data presented an incomplete picture of the decision-making process that led the member to the retail clinic. The member's stated symptoms may not match the diagnosis eventually coded on the claim by the retail clinic provider. Furthermore, we cannot know from the claims whether additional diagnoses (beyond the presenting complaint) were uncovered during the course of the retail clinic visit and resulted in follow-up visits to other providers. These new diagnoses may have resulted in a subsequent episode of care that was not captured by this analysis.

Previous research on retail clinics focused on the purpose of the visits, the characteristics of the patients, cost, and quality of care. In this study, we explored whether members could ascertain when the severity of their condition indicated that a retail clinic would be an appropriate treatment setting. For the most common acute and preventive conditions, the choice of a retail clinic does not appear to have been associated with problematic self-triage, with more than 88% of episodes resolved in 1 visit. Sicker members appeared to be less likely to use retail clinics. Retail clinic use was not associated with a lesser frequency of ongoing visits to other providers for the treatment of chronic conditions. The degree to which patients with chronic conditions who use the retail clinic receive high-quality care for those conditions from their regular provider should be further studied. Another area for future study is whether healthier patients using retail clinics for routine and minor acute care affect the patient mix in primary care settings.

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**Funding Source:** This study was funded by Blue Cross and Blue Shield of Minnesota.

**Author Disclosures:** The authors (ARW, XTZ, WS, HR, EPB, NAG, TJS) report no relationship or financial interest with any entity that would pose a conflict of interest with the subject matter of this article.

**Authorship Information:** Concept and design (ARW, XTZ, EPB, NAG); acquisition of data (XTZ, WS, TJS); analysis and interpretation of data (ARW, XTZ, WS, HR, EPB, TJS); drafting of the manuscript (ARW, WS); critical revision of the manuscript for important intellectual content (ARW, HR, EPB, NAG, TJS); statistical analysis (XTZ, WS, HR); administrative, technical, or logistic support (WS); and supervision (ARW, EPB, NAG).

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■ **eAppendix A.** *ICD-9* Codes Used to Identify Non-Retail Clinic Visits

<b>ICD-9 Code</b>	<b>Description</b>
<b>0340x</b>	Streptococcal sore throat and scarlet fever
<b>372xx</b>	Disorders of conjunctiva
<b>380xx</b>	Disorders of external ear
<b>381xx</b>	Otitis media (nonsuppurative) and Eustachian tube disorders
<b>382xx</b>	Otitis media (suppurative) and unspecified otitis media
<b>38870</b>	Otalgia, unspecified
<b>461xx</b>	Acute sinusitis
<b>462xx</b>	Acute pharyngitis
<b>465xx</b>	Acute upper respiratory infections
<b>4660x</b>	Acute bronchitis
<b>473xx</b>	Chronic sinusitis
<b>477xx</b>	Allergic rhinitis
<b>490xx</b>	Bronchitis
<b>5990x</b>	Urinary tract infection
<b>6926x</b>	Contact dermatitis and other eczema due to plants (except food)
<b>7806x</b>	Fever
<b>7862x</b>	Cough
<b>V20xx</b>	Health supervision of infant or child
<b>V70xx</b>	General medical examination

*ICD-9 indicates International Classification of Diseases, Ninth Revision.*

## Retail Clinics and Patient Choice

### ■ eAppendix B. CPT Codes Used to Identify Non-Retail Clinic Visits

CPT Code	Description
90371	Hepatitis B immune globulin (HBIG), human, for intramuscular use
90632	Hepatitis A vaccine, adult dosage, for intramuscular use
90633	Hepatitis A vaccine, pediatric/adolescent dosage—2-dose schedule, for intramuscular use
90634	Hepatitis A vaccine, pediatric/adolescent dosage—3-dose schedule, for intramuscular use
90636	Hepatitis A and hepatitis B (HepA-HepB), adult dosage, for intramuscular use
90669	Pneumococcal conjugate vaccine, polyvalent, for children under 5 years of age, for intramuscular use
90696	Diphtheria, tetanus toxoids, acellular pertussis vaccine and poliovirus vaccine, inactivated (DTaP-IPV), when administered to children 4 years through 6 years of age, for intramuscular use
90698	Diphtheria, tetanus toxoids, and acellular pertussis vaccine, <i>Haemophilus influenza</i> type B, and poliovirus vaccine, inactivated (DTaP-Hib-IPV), for intramuscular use
90700	Diphtheria, tetanus toxoids, and acellular pertussis vaccine (DTaP), for use in individuals younger than 7 years, for intramuscular use
90707	Measles, mumps, and rubella virus vaccine (MMR), live, for subcutaneous use
90708	Measles and rubella virus vaccine, live, for subcutaneous use
90710	Measles, mumps, rubella, and varicella vaccine (MMRV), live, for subcutaneous use
90712	Poliovirus vaccine (any type[s]) (OPV), live, for oral use
90713	Poliovirus vaccine, inactivated (IPV), for subcutaneous or intramuscular use
90714	Tetanus and diphtheria toxoids (Td) adsorbed, preservative-free, for use in individuals 7 years or older, for intramuscular use
90715	Tetanus, diphtheria toxoids, and acellular pertussis vaccine (Tdap), for use in individuals 7 years or older, for intramuscular use
90718	Tetanus and diphtheria toxoids (Td) adsorbed for use in individuals 7 years or older, for intramuscular use
90721	Diphtheria, tetanus toxoids, and acellular pertussis vaccine and <i>Haemophilus influenza</i> B vaccine (DTaP-Hib), for intramuscular use
90723	Diphtheria, tetanus toxoids, acellular pertussis vaccine, hepatitis B, and poliovirus vaccine, inactivated (DTaP-HepB-IPV), for intramuscular use
90730	Hepatitis A vaccine
90731	Hepatitis B vaccine
90732	Pneumococcal polysaccharide vaccine, 23-valent, adult or immunosuppressed patient dosage, for use in individuals 2 years or older, for subcutaneous or intramuscular use
90733	Meningococcal polysaccharide vaccine (any group[s]), for subcutaneous use
90734	Meningococcal conjugate vaccine, serogroups A, C, Y, and W-135 (tetravalent), for intramuscular use
90740	Hepatitis B vaccine, dialysis or immunosuppressed patient dosage (3-dose schedule), for intramuscular use
90743	Hepatitis B vaccine, adolescent (2-dose schedule), for intramuscular use
90744	Hepatitis B vaccine, pediatric/adolescent dosage (3-dose schedule), for intramuscular use
90745	Hepatitis B vaccine, adolescent/high-risk infant dosage, for intramuscular use
90746	Hepatitis B vaccine, adult dosage, for intramuscular use
90747	Hepatitis B vaccine, dialysis or immunosuppressed patient dosage (4-dose schedule), for intramuscular use
90748	Hepatitis B and <i>Haemophilus influenza</i> B vaccine (HepB-Hib), for intramuscular use

CPT indicates *Current Procedural Terminology*.