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Medicaid provider reimbursement policy for adult immunizations[☆]

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Abstract

Background—State Medicaid programs establish provider reimbursement policy for adult immunizations based on: costs, private insurance payments, and percentage of Medicare payments for equivalent services. Each program determines provider eligibility, payment amount, and permissible settings for administration. Total reimbursement consists of different combinations of Current Procedural Terminology codes: vaccine, vaccine administration, and visit.

Objective—Determine how Medicaid programs in the 50 states and the District of Columbia approach provider reimbursement for adult immunizations.

Design—Observational analysis using document review and a survey.

Setting and participants—Medicaid administrators in 50 states and the District of Columbia.

Measurements—Whether fee-for-service programs reimburse providers for: vaccines; their administration; and/or office visits when provided to adult enrollees. We assessed whether adult vaccination services are reimbursed when administered by a wide range of providers in a wide range of settings.

Results—Medicaid programs use one of 4 payment methods for adults: (1) a vaccine and an administration code; (2) a vaccine and visit code; (3) a vaccine code; and (4) a vaccine, visit, and administration code.

Limitations—Study results do not reflect any changes related to implementation of national health reform. Nine of fifty one programs did not respond to the survey or declined to participate, limiting the information available to researchers.

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Conclusions—Medicaid reimbursement policy for adult vaccines impacts provider participation and enrollee access and uptake. While programs have generally increased reimbursement levels since 2003, each program could assess whether current policies reflect the most effective approach to encourage providers to increase vaccination services.

Keywords

Adult vaccination; Immunizations; Medicaid; Provider reimbursement

1. Introduction

Medicaid reimburses medical and health professionals for providing comprehensive services to low-income beneficiaries in every state, the District of Columbia, and five U.S. territories [1]. With approximately 22 million adult enrollees, representing 12% of all American adults, Medicaid is the largest public funder of health services in the country [2]. Enrollment is expected to increase to 31 million adults by 2017 [3]. Medicaid policy related to vaccinations for adults impacts both enrollees' personal health status as well as the public's health.

The federal government provides direction to states regarding minimum program requirements. Programs must follow these requirements to maintain eligibility for federal financial support. Programs must "assure that payments are consistent with efficiency, economy and quality of care and are sufficient to enlist enough providers so that care and services are available. at least to the extent that such care and services are available to the general population in the geographic area." [4] However, programs may establish provider reimbursement policy. Studies show that inadequate reimbursement negatively impacts Medicaid's ability to attract providers to vaccinate adults. This is noteworthy because uptake for adult vaccines remains below national goals [5,6].

Payment rates are based on: (1) the costs of providing the service, (2) the amount private insurers pay, and (3) a percentage of the amount Medicare pays for equivalent services [7]. States wishing to change existing reimbursement policy must submit a State Plan Amendment (SPA) for approval by the Centers for Medicare and Medicaid Services (CMS) and issue a public notice before the amendment's effective date [7].

For adult immunization services, programs determine providers eligible to receive reimbursement, the payment amount, and settings where vaccines may be administered. Programs design total reimbursement for adult immunizations using different combinations of three categories of Current Procedural Terminology (CPT) codes. The codes are developed and maintained by the American Medical Association to provide a standardized method of describing medical services [8]: (1) vaccine (22 codes), (2) vaccine administration (5 codes), and (3) provider visit (6 codes). The vaccine code is always a component of the reimbursement, while administration and/or visit codes are not. Because there are multiple formulations of some adult vaccines, vaccines may have multiple CPT codes: for example, there are six CPT codes for adult influenza vaccines.

Our study determined how Medicaid programs in the 50 states and the District of Columbia approach provider reimbursement for immunizations furnished to adult enrollees. We assessed policies related to vaccine reimbursement, their administration, eligible providers, and permissible settings.

2. Methods

Our study was completed between October 2011 and September 2012. We conducted a document review and developed and administered a survey assessing provider reimbursement policy for Medicaid fee-for-service programs. The document review updated a 2003 study of Medicaid reimbursement policy [9]; we compared results of this review to the 2003 findings.

2.1. Document review

From October 2011 through March 2012, using a standard internet search engine, we identified relevant documents using search terms: “Medicaid fee schedule,” “Medicaid physician visit cost-sharing” and “adult Medicaid immunization or vaccination.” The search yielded publicly available materials from all programs (50 states and the District of Columbia) including: state-issued provider manuals, physician bulletins and newsletters, consumer handbooks, fee schedules, state plan summaries, and vaccine, administration and visit CPT codes.

2.2. Survey population

Medicaid administrators were asked to complete a survey and verify document review results. Forty-two (82.4%) of 51 programs responded to the survey. Nine programs either did not respond or actively declined to participate (Illinois, Kansas, New Hampshire, North Carolina, Ohio, Pennsylvania, Rhode Island, West Virginia, and Wisconsin).

2.3. Survey design and administration

The survey was developed in collaboration with the National Center for Immunization & Respiratory Diseases’ (NCIRD) Immunization Services Division (ISD) of the Centers for Disease Control and Prevention (CDC). The study was exempt from review in accordance with The George Washington University Institutional Review Board (IRB) guidelines. The survey was disseminated using Survey Monkey, an online survey tool.

On March 14, 2012, each Medicaid director was emailed an introductory letter along with study materials and instructions. Administrators were asked to (1) identify and/or verify reimbursement rates for individual vaccines found in the 2012 document review; and (2) respond to the 2012 survey about adult immunization reimbursement. Questions addressed vaccines and their administration among different categories of providers in various settings. Throughout the survey period, project staff was available to discuss the data via phone or e-mail and to clarify any discrepancies between the document review and survey results.

Between March 18, 2012 and September 28, 2012, participants submitted completed surveys via e-mail, facsimile or online. Between April 2, 2012 and September 5, 2012, we conducted

follow-up activities, including bi-weekly e-mails and phone calls or as necessary to those who had not submitted a survey.

2.4. Medicaid reimbursement of vaccination services

Each program's policies were reviewed against three elements of vaccination reimbursement developed for this project and compared to data from the 2003 study. The elements represent core practices that could promote optimal provider participation and increased access to recommended vaccinations for adult Medicaid enrollees, including whether the program permits reimbursement of: (1) vaccines, their administration, and/or office visits when provided to adult enrollees; (2) adult vaccination services administered by a wide range of providers; and (3) adult vaccination services administered in a wide range of settings.

3. Results

3.1. Medicaid reimbursement for adult vaccines

3.1.1. Vaccine reimbursement (Table 1)—All programs, excluding Florida, (50/51) reimburse providers for adult immunizations using vaccine CPT codes as a component of the total reimbursement. Amounts range from \$0.01 for measles, mumps, rubella (MMR) vaccine (CPT code 90707) and varicella (90716) in New Hampshire to \$259.31 for human papillomavirus (HPV) vaccine (90650) in Washington. Results are presented below for the 50 Medicaid programs that reimburse for adult immunizations.

Reimbursement rates for individual vaccines vary by state. For example, 41 states reimburse for one of the HPV vaccine products (90649), with payments from \$3.31 in Wisconsin to \$165.49 in New Jersey. The median payment is \$131.36. All programs except Alaska, Georgia, Minnesota and South Dakota (46/50) reimburse for pneumococcal vaccine (90732). Payments range from \$4.00 in Hawai'i to \$106.49 in Virginia. The median payment is \$130.27. Two programs reimburse the same amount for all adult vaccines: \$4.00 in Hawai'i and \$10.00 in Pennsylvania.

Five programs (5/50), reimburse only the vaccine code. In these states, payment for MMR (90707) is \$4.00 in Hawai'i, \$48.61 in Kansas, \$62.33 in New Jersey, and \$39.31 in Oklahoma. Information was unavailable for West Virginia.

3.1.2. Vaccine administration reimbursement (Table 2)—Most programs' total reimbursement for adult immunization services includes the vaccine code and one of 5 administration codes (33/50). Vaccine administration codes vary based on the administration method (injection, oral, etc.) and the number of vaccines administered during a visit. Administration reimbursement ranges from \$1.60 in Arkansas for a single (90471), first or second administration (90472) to \$34.79 for a single or first injection (90471), or an intranasal administration (90473) in Alaska.

Ten of the 33 programs that incorporate an administration code and a vaccine code pay the same amount across all administration codes, ranging from \$1.60 in Arkansas to \$13.71 in North Carolina: Arkansas (\$1.60), Colorado (\$6.33), Kentucky (\$3.30), Nebraska (\$5.80),

Nevada (\$7.80), New Mexico (\$10.97), North Carolina (\$13.71), South Carolina (\$3.72), South Dakota (\$8.64), Utah (\$8.37), and Virginia (\$11.00).

Massachusetts, New York, and Wyoming have differential payment policies depending on the provider and/or setting where vaccination occurs. Massachusetts provides higher reimbursement for vaccines administered in settings outside hospitals or skilled nursing facilities, than for those provided within facilities. In office settings, New York pays physicians higher administration rates (\$13.23) for influenza and pneumococcal vaccines than nurse practitioners and licensed midwives (\$11.25). In clinics or offices, physicians receive \$8.57 for administration of seasonal intranasal influenza vaccine, while nurse practitioners and licensed midwives are reimbursed \$7.28. Wyoming applies the same rate regardless of the administration method: physicians receive \$14.00 and non-physicians \$10.00.

3.1.3. Office visit reimbursement (Table 3)—Fifteen of 50 programs include one of 6 office visit codes. Visit codes are categorized depending on the patient’s age (18–39 or 40–64), whether the patient is new or established, and whether the visit is comprehensive or minor. Reimbursement varies, with the exception of Utah where all visit codes are reimbursed at \$16.12.

All 15 programs reimburse for an established patient office or other outpatient visit that may not require a physician’s presence (99211). Payments range from \$9.98 in Indiana to \$39.64 in New York (excluding visits for administration of seasonal influenza vaccine). The median payment is \$16.82. Thirteen of the 15 programs reimburse for initial comprehensive preventive visits for new patients ages 40–64 (99386): from \$16.12 in Utah to \$127.41 in Delaware. The median payment is \$93.37. However, reimbursement for the same services for new patients ages 18–39 (99385), is lower: from \$20.00 in Pennsylvania to \$109.62 in Delaware, with a median payment of \$75.38.

Mississippi has different rules for HPV vaccinations. The state requires providers to bill visit code 99211 and the vaccine code, because “Mississippi Medicaid will not reimburse for a vaccine administration fee” [10]. The vaccine and administration are included in the encounter rate for a core service for rural health clinics (RHC), federally qualified health centers (FQHC), and State Department of Health (MSDH) providers. Thus, reimbursement for a visit is not permitted when the only service provided is vaccine administration.

3.1.4. Using multiple CPT codes—Programs have adopted 4 approaches to reimburse providers for adult immunization services. For most programs (30/50), reimbursement includes vaccine and administration codes. Under this method, reimbursement for pneumococcal vaccine (90732) combined with administration code 90471, ranges from \$13.94 in Arkansas (\$12.34 for vaccine and \$1.60 for administration) to \$82.18 in Oregon (\$65.77 for vaccine and \$16.41 for administration). Reimbursement for influenza vaccine (90658) and administration code 90471 ranges from \$8.43 in New Hampshire (\$5.38 for vaccine and \$3.05 for administration) to \$37.01 in the District of Columbia (\$14.56 for vaccine and \$22.45 for administration).

Eleven programs (11/50) use vaccine and visit codes. In these states, pneumococcal vaccine (90732) and visit code (99396), results in reimbursements from \$30.00 in Pennsylvania (\$10.00 for vaccine and \$20.00 for the visit) to \$142.58 in Mississippi (\$65.77 for vaccine and \$76.81 for the visit). Influenza vaccine (90658) and visit code (99211) range from \$15.50 in Wisconsin (\$3.31 for vaccine and \$12.19 for the visit) to \$39.32 in Connecticut (\$21.18 for vaccine and \$18.14 for the visit).

Five programs (5/50), reimburse based only on a vaccine code. Payment for pneumococcal vaccination ranges from \$4.00 in Hawai'i to \$65.00 in Kansas. Providers who administer preservative-free influenza vaccine (90656), receive payments of \$4.00 in Hawai'i to \$26.48 in Kansas. (Data for West Virginia is unavailable.)

In 4 programs (4/50), reimbursement includes vaccine, administration, and visit codes. Under this model, reimbursement for pneumococcal vaccine (90732), administration (90471), and visit (99396 or 99395 in Virginia), is: \$124.94 in Iowa (\$23.00 for vaccine, \$5.04 for administration, and \$96.90 for the visit); \$137.32 in North Carolina (\$31.53 for vaccine, \$13.71 for administration, and \$92.08 for the visit); and \$197.27 in Virginia (\$106.49 for vaccine, \$11.00 for administration, and \$79.78 for the visit). In New York, reimbursement includes the vaccine acquisition cost, \$2.00 for administration, and \$39.64 for the visit.

Reimbursement for influenza vaccine (90656), administration fee (90471), and visit code (99211) is: \$35.76 in Iowa (\$12.79 for vaccine, \$5.04 for the administration, and \$17.93 for the visit); \$47.28 in North Carolina (\$16.75 for vaccine, \$13.71 for administration, and \$16.82 for the visit); and \$37.99 in Virginia (\$18.20 for vaccine, \$11.00 for administration, and \$13.77 for the visit). New York uses the vaccine acquisition cost in addition to a \$2.00 administration fee and \$39.64 for the visit.

3.2. Providers eligible to receive Medicaid reimbursement for adult immunizations (Table 4)

All programs responding to the survey except for Florida (41/42) reimburse at least one category of provider for the cost of vaccines administered to adult enrollees. All 41 programs reimburse primary care physicians; four of these (Alaska, Georgia, Kentucky, and Maryland), restrict reimbursement to physicians.

Twenty programs (20/41), reimburse primary care physicians, pharmacists and nurses. Delaware is working to authorize pharmacists to receive reimbursement for the cost of vaccines. Four of the 41 programs reimburse other providers: certified nurse midwives (Arkansas and Texas), clinical nurse specialists (Texas), nurse practitioners (Delaware, Oregon and Texas), and physician assistants (Oregon and Texas).

3.3. Reimbursement for vaccines and vaccine administration in different settings

Survey respondents indicated settings where providers may vaccinate. (It was assumed that vaccines administered in provider offices would be covered, and was not offered as a response in the survey.) Most frequently, programs will reimburse for vaccines administered in hospitals and state and local health departments (35/42), long-term care facilities (27/42),

and maternal/child health clinics (25/42). Nineteen of 42 programs reimburse STD clinics, mobile clinics (11/42), and community-based organizations (7/42). Eleven programs will reimburse when vaccines are administered in other clinical or supportive settings including: ambulatory care centers, federal health centers, homeless shelters, long-term care facilities, residential treatment facilities, and urgent care facilities.

Most programs reimburse administration fees to state and local health departments (32/42) and hospitals (29/42). Fewer programs reimburse long-term care facilities (19/42), and STD clinics (18/42). Eleven of the 42 programs reimburse for the administration of vaccines that occur in other settings, including ambulatory care centers and federal health centers.

3.4. Vaccine Reimbursement Policy 2003 vs. 2012

In general, more programs addressed reimbursement policy for vaccination services and reimbursed for vaccination services in 2012 when compared to the results of our 2003 study [9]. In 2003, 3/50 programs (6.0%) reimbursed the cost of vaccines, 32/50 programs (64.0%) did not reimburse the cost of vaccines, 8/50 (16.0%) did not address the cost of vaccines, and 5/50 programs (10.0%) did not have reimbursement information available.[9] By 2012, 50/51 programs (98.0%) reimbursed for the cost of vaccines, addressed reimbursement for the cost of vaccines in their program policies, and had vaccine reimbursement information available.

In 2003, 26/50 programs (52.0%) reimbursed providers for vaccine administration, 1/50 programs (2.0%) did not reimburse vaccine administration, 15/50 (30.0%) did not address vaccine administration, and 6/50 programs (12.0%) did not have reimbursement information available. By 2012, the programs reimbursing providers for administration increased 46.0 percentage-points to 50/51 (98.0%), addressed reimbursement for vaccine administration in their program policies, and had vaccine reimbursement information available.

4. Discussion

We found that Medicaid programs use one of 4 approaches that combine CPT codes for vaccines, administration, and a visit to develop payments for adult vaccinations. Most states' total reimbursement includes a vaccine and an administration code. Other states combine a vaccine and visit code. The third model relies solely on the vaccine code. The last model incorporates the vaccine, visit, and administration codes. States that do not recognize all three codes necessarily limit the amount ultimately paid to providers.

The payment model generally associated with the lowest total reimbursement is a vaccine-only method. For example, pneumococcal vaccination reimbursement is \$4.00 in Hawai'i, a state that uses the vaccine-only payment model and is also among the states with the lowest rate. The highest model incorporates payment for a vaccine, the administration method, and a visit category. Using this approach, Virginia pays \$197.27 for pneumococcal vaccinations, the highest payment in the country.

The Government Accounting Office (GAO) reports that Medicaid reimbursement rates for adult immunization services diminish the ability to attract and retain sufficient numbers of

providers [5]. Other studies show general internal medicine physicians and adult primary care providers indicate that inadequate reimbursement creates a barrier affecting their ability to provide immunization services [11,12]. These findings suggest that increased reimbursement for vaccine administration could improve adult vaccination coverage levels [13]. Medicaid payment policies that ensure vaccines and their administration are reimbursed at sustainable levels and include several provider categories in a wide range of settings, could alleviate a critical barrier to provider participation in Medicaid.

Reimbursement rates for adult immunizations are also influenced by the provider administering the vaccine. Some programs restrict payment for vaccination services to physicians, while other programs compensate non-physician healthcare providers (NPHP) at reduced rates when compared to primary care physicians. For instance, in New York, physicians are compensated at a higher rate for influenza and pneumococcal vaccines administered in an office than nurse practitioners and licensed midwives. Wyoming also pays physicians more than non-physicians for administering any adult vaccine. While all programs reimburse primary care physicians for the cost of vaccines, fewer than half compensate NPHPs. To illustrate, pharmacists are legally permitted to vaccinate adults in all states [14]. However, only 28 Medicaid programs reimburse pharmacists and one state (Delaware), is modifying their program to do so. These practices may impact the ability of skilled and willing providers to offer vaccinations and may decrease Medicaid enrollees' access to necessary services.

Most frequently, programs will approve payment for vaccinations that occur in hospitals and state and local health departments. Conversely, fewer programs reimburse for vaccines administered in long-term care facilities, clinics, and a wide range of community settings. These policies may present barriers as providers seek reimbursement for vaccinations provided in settings that are readily accessible and familiar to enrollees. Because Medicaid enrollees have limited incomes, they are more likely to lack reliable transportation. As a result, visits to physicians' offices occur less often than among higher income, privately insured individuals [5]. Policies that expand the number of locations where vaccinations can be reimbursed could create more opportunities for providers to vaccinate and increase uptake among enrollees.

5. Conclusion

Medicaid reimbursement policy for adult vaccines impacts provider participation and enrollee access and uptake. While programs have generally increased reimbursement levels since 2003, each program could assess whether current policies reflect the most effective approach to encourage providers to increase vaccination services. Program administrators might consider: (1) including vaccine administration in the total reimbursement for vaccination services; (2) expanding the categories of providers eligible to receive payment for vaccination; and (3) reimbursing vaccinations provided in a wide range of community settings.

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Table 1

Medicaid adult vaccine reimbursement rates (\$) ($n = 50$).

Program	FLU				PNEUMO		TDAP		
	90654	90656	90658	90660	90661	90662	90714	90718	90715
Alabama			10.80					17.05	37.60
Alaska		16.74					8.00		40.10
Arizona				Managed care Medicaid program (not FFS)					
Arkansas		13.12	12.06	18.40		13.80	14.00	7.61	28.80
California		31.46	13.76	22.27		32.96	9.00	13.96	48.45
Colorado		17.44	13.74				50.53	28.24	95.35
Connecticut		16.57	21.18	21.18	AWP-16%	29.21	18.87	18.95	33.20
Delaware				MP – All adult vaccine reimbursement rates are currently manually priced					
D.C.			\$14.56	55.20			7.25	1.60	
Georgia		12.38							18.50
Hawai'i		4.00	4.00	4.00		4.00	4.00	4.00	4.00
Idaho		11.14	13.22	20.08		44.76	17.13	20.54	33.49
Illinois	18.38	11.19	11.19	22.37		14.60	18.92	2.70	38.28
Indiana		10.74	7.43	19.90		27.83	20.63	17.57	39.56
Iowa		12.79		28.63			39.85	6.31	39.85
Kansas		26.48	20.16	16.31		30.92	21.20	20.98	41.61
Kentucky	18.40	18.40		29.14			18.40	18.40	18.40
Louisiana	18.38	17.37	13.22	22.03			2.42 (no CPT)		
Maine		12.38	11.37	22.32			19.51	17.99	41.26
Maryland		12.54	11.37	22.32			20.12	18.47	33.17
Massachusetts	IC	12.54	11.37	22.32	IC		20.66	15.87	33.81
Michigan	18.98	12.38	11.37	22.32		29.21	19.09	17.05	37.60
Minnesota		12.37	11.36	22.31			UK	UK	UK
Mississippi	18.98	12.38	11.37	22.00			UK	UK	UK
Missouri		6.75	12.82	20.84			14.99	20.63	20.63
Montana		11.07	12.10	19.97			19.09	17.85	41.15
Nebraska		17.14	13.81	11.22			19.14	19.14	41.22

Program	FLU					PNEUMO			TDAP		
	90654	90656	90658	90660	90661	90662	90732	90714	90718	90715	
Nevada		62% Usual/Cust. Charges		11.12	7.69	8.31	35.65				
N. Hampshire	MP	13.68	5.38	57.50	19.01	16.50	22.50		2.00	46.23	
N. Jersey		20.64	17.56	25.69	BR	32.50	26.05		17.50	47.25	
N. Mexico	18.98	12.38	11.37	22.32	30.92	65.77	19.92		17.05	37.60	
N. York	INC – All adult vaccine reimbursement rates are based on the acquisition cost										
N. Carolina		16.75	12.74	21.24		31.53	19.25		UK	39.49	
N. Dakota		14.00	11.34	22.32		57.19	18.74		23.62	41.15	
Ohio		18.19	13.21	22.31		37.60	19.79		19.80	34.91	
Oklahoma		11.97		21.59	29.92	55.34	18.47		17.27	39.81	
Oregon		12.38	13.25	22.32		65.77	19.92		17.05	37.60	
Pennsylvania		10.00	10.00	10.00	10.00	10.00	10.00			10.00	
R. Island		UK	UK	UK		49.73	UK			37.21	
S. Carolina		90658 ^a				49.36					
S. Dakota		10.56					9.00			9.00	
Tennessee	100% Managed Care (no fee-for-service). All ACIP-recommended vaccines are covered, but reimbursement varies.										
Texas	14.15	13.87	11.57			49.64	18.37		18.37	33.13	
Utah	13.52	11.10	14.49	19.70	COV	28.69	19.19		13.10	34.88	
Vermont		9.75	8.89		11.36	18.62	11.80		14.99	28% PAC 1	
Virginia		18.20	13.22	13.22	IC	IC	106.49		17.50	36.25	
Washington		12.38	13.23	22.32		57.19	19.51		17.99	41.26	
W. Virginia	Data unavailable – fee schedule does not show reimbursement rates.										
Wisconsin		3.31	\$3.31	\$3.31		20.22	3.31		3.31	3.31	
Wyoming	If it is from state-supplied vaccine, \$0.00. If it is from a private stock, invoice cost.										
Program	HEP A	HEP A.B	HEP B	HEP 740	HEP 746	HEP 747	MMR	MENING	HPV	VAR	ZOS
Alabama	90632	90636	90740	90746	90747	90707	90733	90734	90649	90650	90736
Alaska	71.07		119.42	59.71	119.42	43.10		108.49			93.05
Arizona	Managed care Medicaid program (not FFS)										
Arkansas	61.05	91.28	153.14		110.20	34.64	69.85	65.60			164.73
			188.43	58.99		54.69				145.92	95.49

Program	HEP A 90632	HEP A.B 90636	HEP B 90740	90746	90747	MMR 90707	MENING 90733	HPV 90649	90650	VAR 90716	ZOS 90736	
California	70.28	102.24	126.14	67.98	126.14	59.19	80.25	121.49	146.96	150.38	99.03	193.55
Colorado	77.65	104.82	71.37	71.37	71.37	52.37	116.22	107.75	156.82	156.82	100.46	
Connecticut	43.59	66.31	114.52	57.26	114.52	41.72	84.46	67.83	126.42	AWP-16%	72.75	120.24
Delaware	MP – All adult immunizations are currently manually priced											
District of Col.	56.90	86.96	55.46	65.15	65.15	39.79	39.20		COV		39.94	
Georgia	54.18		59.71				106.49		16.50			112.48
Hawai'i	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Idaho	46.92	85.00	107.47	53.74	107.47	44.82	95.84	90.20	131.73	128.75	77.33	MP + 10%
Illinois	54.18	111.18	74.38	74.38	108.68	39.70	85.00	116.78	149.33	153.10	46.60	190.02
Indiana	62.20	92.77	173.55	54.34	108.68	52.31	118.85	102.50	137.59	134.40	90.66	161.63
Iowa	71.88	86.49	52.26	52.26		37.64	66.98	90.24	143.93		42.25	160.76
Kansas	66.65	86.04	119.42	59.71	119.42	48.61	106.49	178.35	135.00	135.00	87.03	170.00
Kentucky	62.94	18.40	55.46	55.46		18.40	18.40	82.00	120.75		18.40	18.40
Louisiana									125.29	128.75		
Maine	48.22	110.64	119.42	59.71	119.42	47.07	106.49	102.50	120.00		81.67	
Maryland	44.06	78.16	119.42	59.71	119.42	47.01	100.43	82.00	130.27	128.75	81.75	
Massachusetts	45.32	IC	119.42	59.71	119.42	47.07	103.41	IC	137.59	134.40	81.67	IC
Michigan	52.43	95.24	119.42	59.71	119.42	53.17	106.49	82.66	138.09	135.68	88.10	171.19
Minnesota	UK	102.14	119.41	119.41	119.41	UK	106.49	124.88	UK	UK	81.66	153.93
Mississippi			119.42	59.71	119.42				142.60			
Missouri	65.98	91.41	67.54	67.54	41.16	53.17	113.86	145.00	5.00	84.52	84.52	153.93
Montana	115.47	89.85	106.85	53.42	106.85	50.16	106.49	106.49	130.27	128.75	83.77	153.93
Nebraska	26.89	82.83	RD	59.70	55.10	48.07	91.16	89.43	120.75		74.56	77.79
Nevada	56.31	36.16	102.77	51.08	102.77	33.23	60.62	70.57	124.80	124.80	57.23	117.01
N. Hampshire	61.00	123.00	197.72	65.00	110.20	0.01	113.76	111.61	25.00		0.01	MP
N. Jersey	80.95	103.04	209.86	65.25	209.86	62.33	127.85	125.46	165.49	156.10	105.50	188.66
N. Mexico	52.43	113.28	119.42	59.71	119.42	47.07	106.49	127.15	130.00	128.75	81.67	81.67
N. York	INC – All adult vaccine reimbursement rates are based on the acquisition cost											
N. Carolina	44.16	89.50	110.41	55.20	110.41	41.02	90.50	106.87	135.73	133.25	86.42	UK
N. Dakota	50.81	54.18	119.42	59.71	119.42	47.15	103.41	89.44				
Ohio	46.43	89.68	119.41	59.70	119.41	44.66	98.52	BR	10.00			77.65

Program	HEP A 90632	HEP A.B 90636	HEP B 90740	HEP B 90746	90747	MMR 90707	MENING 90733	90734	HPV 90649	90650	VAR 90716	ZOS 90736
Oklahoma	52.42	82.50	115.53	57.77	115.53	39.31	103.03	99.17	127.71	127.71	81.53	171.88
Oregon	52.43	93.87	119.42	59.71	119.42	50.90	106.49	112.87	139.23	136.00	92.57	197.49
Pennsylvania	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Rhode Island	52.13	94.73	119.42	59.71	119.42	UK	106.49	UK	135.66	UK	UK	152.00
S. Carolina	62.58	163.26	51.54	69.78	9.00	9.00	104.66	101.02	9.00	9.00	9.00	13.40
S. Dakota	34.48	100% Managed Care (no fee-for-service). All ACIP-recommended vaccines are covered, but reimbursement varies.										
Tennessee	44.41	55.13	55.13	52.44	137.27	137.27						
Texas	59.99	88.13	64.02	50.35	69.11	14.49	26.94	82.71	125.29	128.75	67.80	153.93
Utah	62.94	PAC 1	110.92	55.46	28.52	34.93	58.66	PAC 1	PAC 1	PAC 6	57.86	28% PAC 1
Vermont	IC	77.41	119.42	59.71	119.42	38.05	93.87	130.27	96.08	63.26	84.32	INC
Virginia	48.22	90.32	119.42	59.71	119.42	50.18	106.49	214.44	119.75	259.31		
Washington	Data unavailable – fee schedule does not show reimbursement rates.											
West Virginia	PCI	91.75	114.55	60.57	3.31	3.31/3.28	72.91	3.31	3.31	3.31	3.31	158.10
Wisconsin												
Wyoming												

Source: MILKEN INSTITUTE/GWU/SPH Medicaid Provider Reimbursement for Adult Immunizations 2014.

S. Carolina = SCDHHS uses alternate CMS codes for 90658, \$14.17 (Q2036), \$14.17 (Q2037), \$13.81 (Q2038), \$10.68 (Q2039) = all intramuscular influenza vaccines for ages 3/3+.

SCDHHS does not reimburse intranasal (Flumist) vaccine or administration outside of Vaccines for Children (Physicians Provider Manual, 07/2012).

Abbreviations: BR (By Report), COV (Covered, but reimbursement = \$0.00), IC (Individually Considered), INC (Invoice Cost), MP (Manually Priced), PAC (Pricing Action Code), PCI (Pricing Considered Individually), RD (Requires Documentation), UK (Reimbursement rate unknown).

^a Florida does not provide coverage or reimbursement for any vaccines for non-institutionalized adult Medicaid beneficiaries.

Table 2Medicaid administration reimbursement for adult vaccinations ($n = 33$).

Program	90471	90472	90473	90474	96372
Alabama	5.00				
Alaska	34.79	18.44	34.79	18.44	
Arkansas	1.60	1.60			
California	4.46				
Colorado	6.33		6.33		
DC	10.00/22.45	10.00/10.79			
Idaho	19.79	9.95	19.79	9.95	
Iowa	5.04	5.04	12.76	12.76	
Kentucky	3.30	3.30	3.30	3.30	
Louisiana	15.22	9.45	10.80	9.45	
Maine	13.43	6.84	8.93	5.94	
Massachusetts	17.14	8.37(NFAC)/5.92 (FAC)	11.33 (NFAC)/6.14 (FAC)	7.14 (NFAC)/5.62 (FAC)	
Michigan	7.00	7.00	3.00	3.00	
Minnesota	18.13	8.97	18.13	8.97	
Missouri	12.34	6.25	7.85	5.36	
Montana	15.52	8.49	10.62	7.34	
Nebraska	5.80	5.80			
Nevada	7.80	7.80	7.80	7.80	
N. Hampshire	3.05	5.00	3.00	5.00	
N. Mexico	10.97	10.97	10.97	10.97	
N. Dakota	13.90	11.02	13.90	8.93	
N. York	2.00	2.00	2.00	2.00	
N. Carolina	13.71	13.71	13.71	13.71	
Oregon	16.41	8.35	11.13	7.23	
Rhode Island	8.16	3.68	8.16	3.68	
S. Carolina	3.72	3.72			3.72
S. Dakota	8.64	8.64			
Texas	7.84	3.92	7.84	3.92	
Utah	8.37	8.37	8.37	8.37	
Vermont	19.86	9.71	18.17	9.43	
Virginia	11.00	11.00	11.00	11.00	
Washington	14.93	7.26			
Wyoming	\$10.00 (non-physician), \$14.00 (physician)				

Source: MILKEN INSTITUTE/GWU/SPH Medicaid Provider Reimbursement for Adult Immunizations 2014.

Data Source: Document review and Survey.

Florida does not provide coverage or reimbursement for any vaccines for non-institutionalized adult Medicaid beneficiaries.

Massachusetts: NFAC (non-Facility setting), FAC (Facility setting)

New York: Different Administration rates for: Seasonal influenza and pneumococcal vaccines provided in an office setting (physician, \$13.23; nurse practitioner and licensed midwife: \$11.25), seasonal intranasal influenza vaccine provided in a clinic or office setting (physician, \$8.57; nurse practitioner, licensed midwife: \$7.28).

RELEVANT CPT CODES

90471: Vaccine administration (percutaneous, intradermal, subcutaneous, or intramuscular injection); 1 vaccine (single or combination). Do not report in conjunction with 90473.

90472: Each additional vaccine (single or combination) (List separately in addition to code for primary procedure). Use with 90471 or 90473.

90473: Vaccine administration by intranasal or oral route; 1 vaccine (single or combination). Do not report with 90471.

90474: Each additional vaccine (single or combination) (List separately in addition to primary procedure). Use with 90471 or 90473.

96372: Therapeutic, prophylactic, or diagnostic injection (specify substance or drug); subcutaneous or intramuscular).

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Table 3Medicaid visit reimbursement rates for adult vaccinations ($n = 15$).

Program	99211	99281	99385	99386	99395	99396
Connecticut	18.14	11.73	96.35	112.99	78.54	86.68
Delaware	19.81	20.34	109.62	127.41	95.81	104.42
Georgia	17.46	17.28	75.38	75.38	75.38	75.38
Illinois	12.30	14.35	71.76 (PCP)	104.96	64.40 (PCP)	85.65
Indiana	9.98	15.25	69.80	81.60	61.69	67.52
Iowa	17.93	18.27	101.03	121.68	86.94	96.90
Maryland	17.40	19.85	96.88	113.97	79.03	87.23
Mississippi	16.09	17.67	93.37	93.37	76.81	76.81
New York	39.64	6.50	39.64	39.64	39.64	39.64
North Carolina	16.82	17.03	96.83	113.48	84.13	92.08
Ohio	13.43	11.62	68.22		56.62	
Pennsylvania	20.00	16.19	20.00	20.00	20.00	20.00
Utah	16.12	16.12	16.12	16.12	16.12	16.12
Virginia (+)	13.77	14.79	89.52		79.78	
Wisconsin	12.19	20.21	57.53	58.00	57.53	20.21

Source: MILKEN INSTITUTE/GWU/SPH Medicaid Provider Reimbursement for Adult Immunizations 2014.

Data Source: Document review and survey.

Florida does not provide coverage or reimbursement for any vaccines for non-institutionalized adult Medicaid beneficiaries.

Virginia (+): Visit = medical events when Evaluation/Management (EM) or preventive care services are rendered during an outpatient hospital clinic, office, or RQHC/RHC encounter (CMS Codes).

Illinois: 99385: rates were calculated by taking the allowed percentage of state maximum for the CPT code plus the adult rate (\$38.56 for 99385-6, \$43.15 for 99395-6).

Mississippi: HPV (90649) & FluMist (90660) administration not covered. Allows reimbursement of administration for influenza & pneumococcal vaccines with 99211 (90471= \$18.52, 90472= \$9.55)

Utah: Total REIMBURSEMENT = Vaccine CPT Code + ADMINISTRATION CPT CODE OR VISIT CODE.

RELEVANT CPT CODES

99211: Established Patient Office or other outpatient visit for evaluation and management that may not require the presence of a physician. Usually, the presenting problem(s) are minimal. Typically, 5 minutes are spent performing or supervising these services.

99281: Emergency department visit.

99385: New Patient, Initial Comprehensive Preventive Medicine Evaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of appropriate immunizations(s), laboratory/diagnostic procedures; 18–39 years.

99386: New Patient, Initial Comprehensive Preventive Medicine (same as above); 40–64 years.

99395: Established Patient, Periodic Comprehensive Preventive Medicine Reevaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of appropriate immunization(s), laboratory/diagnostic procedures; 18–39 years.

99396: Established Patient, Periodic Comprehensive Preventive Medicine (same as above); 40–64 years.

Table 4

Providers eligible to receive Medicaid reimbursement for adult immunizations.

Program	Primary care providers	Pharmacists	Nurses	Other
Alabama	•	•		
Alaska	•			
Arizona	•	•		
Arkansas	•	•	• (certified)	CNM
California	•	•	•	
Colorado	•		•	
Connecticut	•		•	
Delaware	•	Working to cover		NP
DC	•		•	
Georgia	•			
Hawai'i	•	•	•	
Idaho	•	•	•	
Indiana	•		•	
Iowa	•	•	•	
Kentucky	•			
Louisiana	•	•	•	
Maine	•	•	•	
Maryland	•			
Mass	•	•	•	
Michigan	•	•	•	
Minnesota	•	•	•	
Mississippi	•	•		
Missouri	•	•	•	
Montana	•	•	•	
Nebraska	•	•		
Nevada	•	•	•	
N. Jersey	•	•		
N. Mexico	•		•	
N. York	•	•	•	
N. Dakota	•	•		
Oklahoma	•	•	•	
Oregon	•	•		NP, PA
S. Carolina	•	•	•	
S. Dakota	•		•	
Tennessee	•		•	
Texas	•	•	•	CNM, CNS, NP, PA
Utah	•	•	•	

Program	Primary care providers	Pharmacists	Nurses	Other
Vermont	•	•	•	
Virginia	•	•		
Washington	•	•	•	
Wyoming	•		•	

Source: MILKEN INSTITUTE/GWU/SPH Medicaid Provider Reimbursement for Adult Immunizations 2014.

Data Source: Survey.

Florida does not provide coverage or reimbursement for any vaccines for non-institutionalized adult Medicaid beneficiaries.

Abbreviations: CNM (Certified Nurse Midwife); CNS (Clinical Nurse Specialist); NP (Nurse Practitioner); PA (Physician Assistant).

Idaho: Pharmacists may receive the dispensing fee or the administration fee, but not both.