

VACCINATION AND POTENTIAL MISSED OPPORTUNITIES AMONG ADULTS IN THE UNITED STATES DURING THE AFFORDABLE CARE ACT ERA

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BACKGROUND AND OBJECTIVE

- Provisions in the Affordable Care Act (ACA) aimed at improving health care access by eliminating cost-sharing for a range of preventive services, including routinely recommended adult vaccinations.¹ However, many adults still do not receive influenza, herpes zoster (HZ), and/or pneumococcal vaccinations.²
- Adult health care utilization may be infrequent, potentially leading to limited opportunities for vaccinations. Little contemporary evidence exists on how patterns and characteristics of health care utilization among adults may influence vaccination after implementation of the ACA.
- Study Objective:** Evaluate health care utilization during the time-period influenza vaccination was most likely to occur and around the ages when HZ and pneumococcal vaccination were first recommended, and to identify factors associated with adult vaccination and potential missed opportunities.

METHODS

- Three non-mutually exclusive cohorts were selected from the 2011-2016 MarketScan Commercial Claims and Encounters, Medicare Supplemental (CCAE/MS) and Medicaid databases:
 - Influenza vaccine-eligible cohort:** Individuals aged 19+ years and continuously enrolled during at least one influenza vaccination season (September through February).
 - HZ vaccine-eligible cohort:** Individuals continuously enrolled during a 36-month period starting January 1st in the year the individual became 60 years of age.
 - Pneumococcal vaccine-eligible cohort:** Individuals continuously enrolled during a 36-month period starting January 1st in the year the individual became 65 years of age.

RESULTS

Figure 1. Proportion of Individuals with a Vaccination, Missed Opportunity, or Missed Encounter

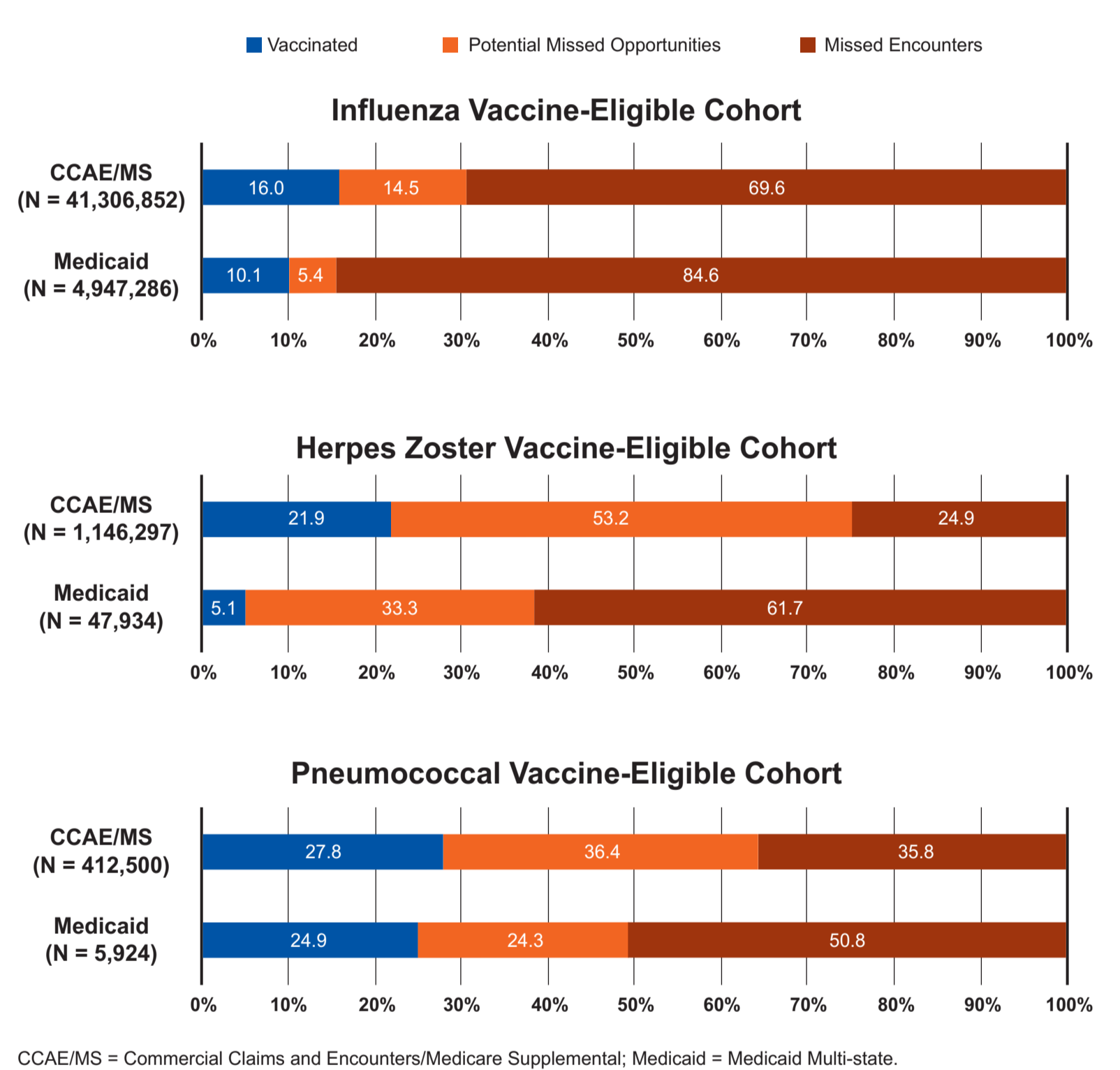


Figure 2. Select Characteristics Associated with the Likelihood of Influenza, HZ, or Pneumococcal Vaccination During the Observation Periods

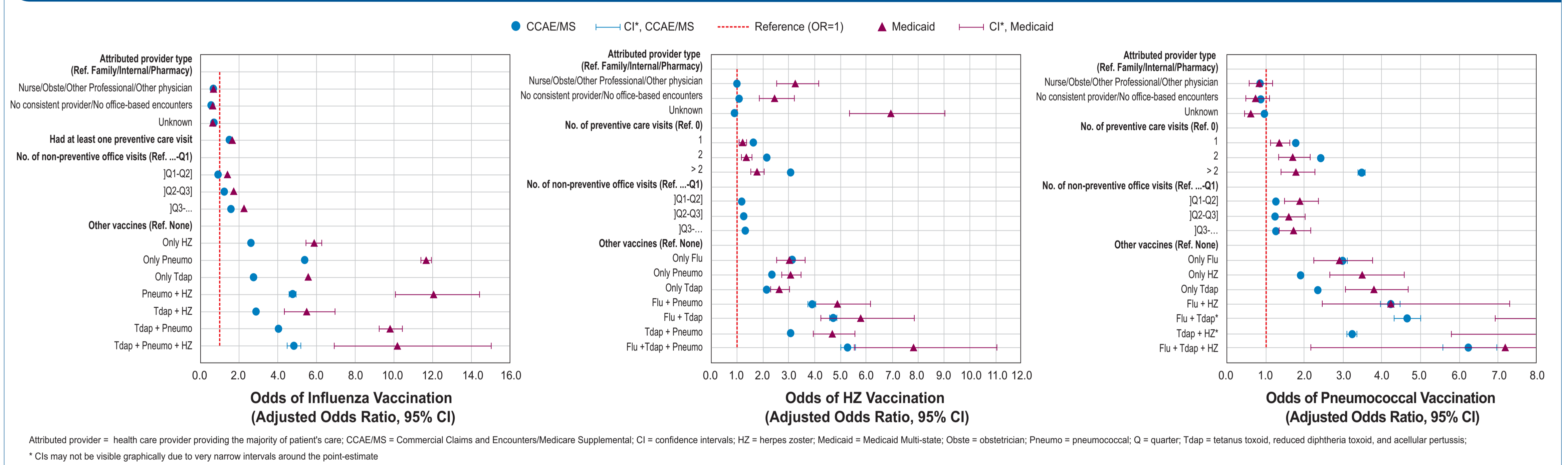


Figure 3. Select Characteristics Associated with the Likelihood of Having at Least One Potential Missed Opportunity for Influenza, HZ, or Pneumococcal Vaccination During the Observation Periods

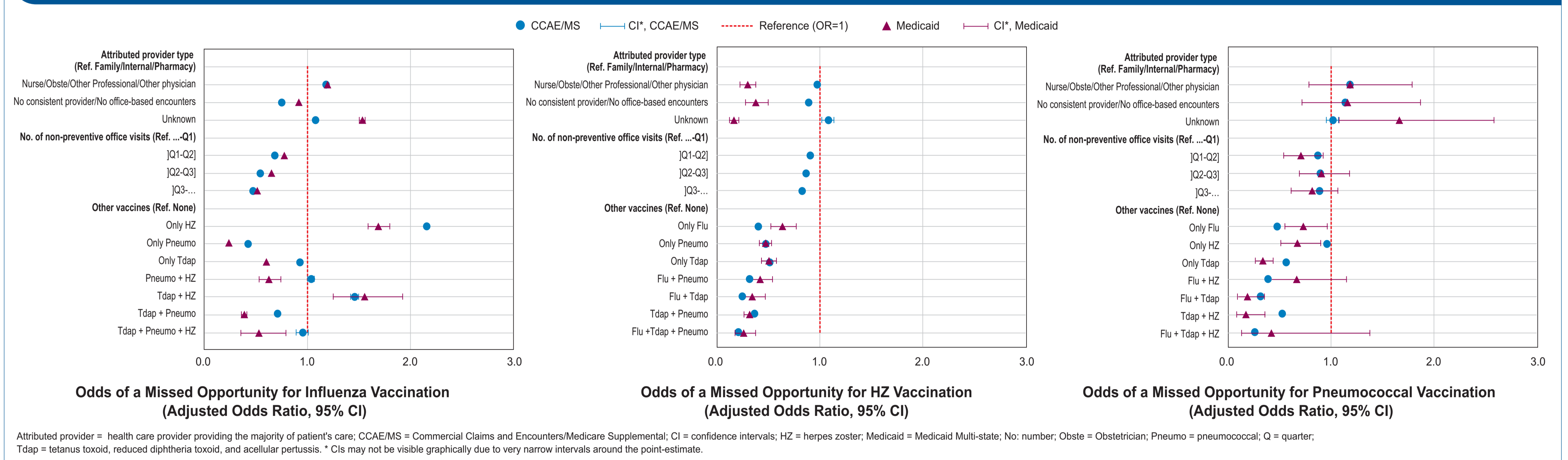


Table 1. Vaccine-Eligible Cohort Characteristics

Enrollee Characteristics	Vaccine-Eligible Cohort					
	Influenza CCAE/MS	Influenza Medicaid	HZ CCAE/MS	HZ Medicaid	Pneumococcal CCAE/MS	Pneumococcal Medicaid
Total individuals (N)	98,060,151	10,518,295	1,146,297	47,934	412,500	5,924
Sex (%)						
Male	46.9	30.5	46.0	43.7	48.5	35.3
Female	53.1	69.5	54.0	56.3	51.5	64.7
Race (%)						
White		51.7		49.1		56.2
Black		33.0		37.1		32.7
Hispanic		2.3		1.5		2.7
Other/Unknown		13.0		12.3		8.4
Other vaccines received during the observation period (%)						
None	95.9	96.9	70.4	75.2	70.9	79.7
Only influenza			6.7	4.0	3.9	5.1
Only HZ	0.6	0.1			11.4	4.4
Only pneumococcal	1.0	0.9	5.4	8.8		
Only Tdap	2.2	2.0	11.5	7.0	8.5	7.5
Influenza + HZ					1.3	1.0
Influenza + pneumococcal			1.3	1.4		
Influenza + Tdap			2.0	0.7	0.8	1.0
Pneumococcal + HZ	0.05	0.02				
Tdap + HZ	0.05	0.01			2.8	1.0
Tdap + pneumococcal	0.1	0.1	2.0	2.5		
Influenza + Tdap + HZ					0.4	0.2
Influenza + Tdap + pneumococcal			0.5	0.4		
Tdap + pneumococcal + HZ	0.01	0.00				

References

- Han X, et al. Has recommended preventive service use increased after elimination of cost-sharing as part of the Affordable Care Act in the United States? Prev Med. 2015;78:85-91.
- Hung MC, et al. Vaccination Coverage Among Adults in the United States, National Health Interview Survey, 2016. 2018. <https://www.cdc.gov/vaccines/imz-managers/coverage/adultvaxview/pubs-resources/NHIS-2016.html>. Accessed: January 7, 2019.

CONCLUSIONS

- In the post-ACA era, adult vaccination uptake in the United States continues to be suboptimal.
- Patients' interactions with the healthcare system need to be better leveraged to ensure adequate adherence to recommended vaccinations.
- Adherence to regular annual visits may increase opportunities to offer and administer eligible vaccines.
- Regardless of the type of visit, increased contact with providers may facilitate vaccination.
- Family and internal medicine providers and pharmacists remain key adult vaccination stewards.
- Alternative providers who practice in the outpatient setting could administer vaccines to adults who may not have a primary care provider or are seeking regular care through specialists.

LIMITATIONS

- Only year of birth was available for this analysis, therefore calculating a patient's exact periods of age eligibility for pneumococcal and HZ vaccines was not feasible.
- Vaccinations occurring outside of the reimbursable CCAE/MS or Medicaid systems (e.g., some workplace vaccinations, traditional Medicare) were not captured.
- Limiting potential missed opportunities to well-visits is a conservative approach to identifying visits; many visits for treatment of acute or chronic conditions may also be appropriate for vaccine administration.

Disclosures

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