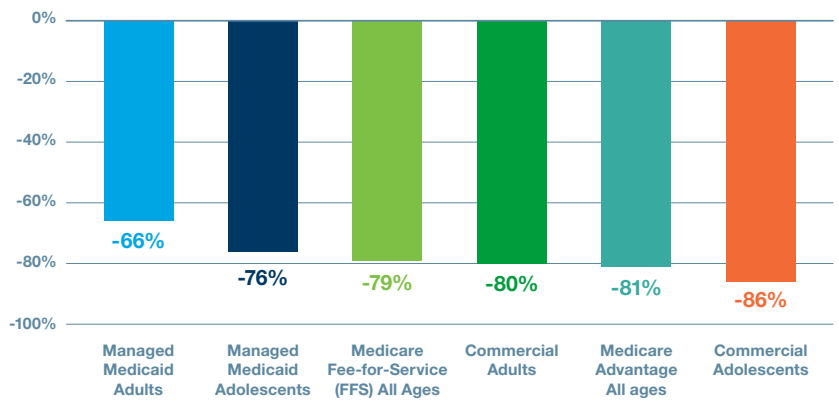
Immunization Rates for Adolescents and Adults Have Decreased During the COVID-19 Pandemic

The pandemic has led to a significant and sustained drop in immunization rates among adolescents (ages 7-18) and adults (ages 19+), placing individuals and communities at increased risk of preventable outbreaks.

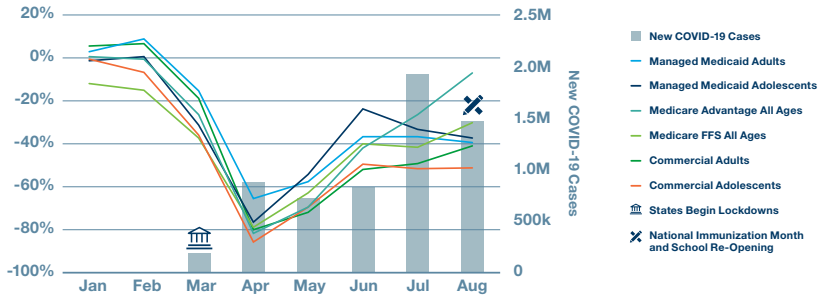
Figure 1 / 66-86% Drop in Vaccine Claims Across Markets Between April 2019 and April 2020



The largest declines in vaccine claims submissions occurred in April 2020 compared to April 2019 following the declaration of the Public Health Emergency, and while there is some increase in claims in the following months, most submissions remained below 2019 submissions.

Figure 2 / Aggregate Changes in Claims for All Vaccine Products Across Markets*

Adolescents and Adults, January-August 2019 vs January-August 2020



Between 2019-2020, vaccine claims in March-August decreased by...

-53%	-41%	-42%	-48%
Commercial	Managed Medicaid	Medicare Advantage	Medicare FFS

Adolescent and adult vaccine uptake was low before the pandemic; less than half of adults in the US received most vaccines recommended for them.[1]

Vaccines Included in the Analysis:

- Influenza
- Haemophilus influenzae (Hib)
- Hepatitis A
- Hepatitis B
- Human Papillomavirus (HPV)
- Meningococcal ACWY
- Meningococcal B
- Measles, Mumps and Rubella (MMR)
- Pneumococcal
- Tetanus, Diphtheria, and Pertussis (Tdap)
- Varicella Zoster (Chickenpox)
- Herpes Zoster (Shingles)

* The analysis used 2 different data sources, reflecting different claim types and sample sizes across payer markets. While both data sources are nationally representative, there are likely different geographies reflected in the analysis of each market. Cross-payer population shifts between 2019 and 2020 due to insurance coverage changes were not controlled for. Therefore, changes in vaccine utilization may be driven by underlying volume of patients enrolled in a given plan/program in addition to access and clinical practice patterns.

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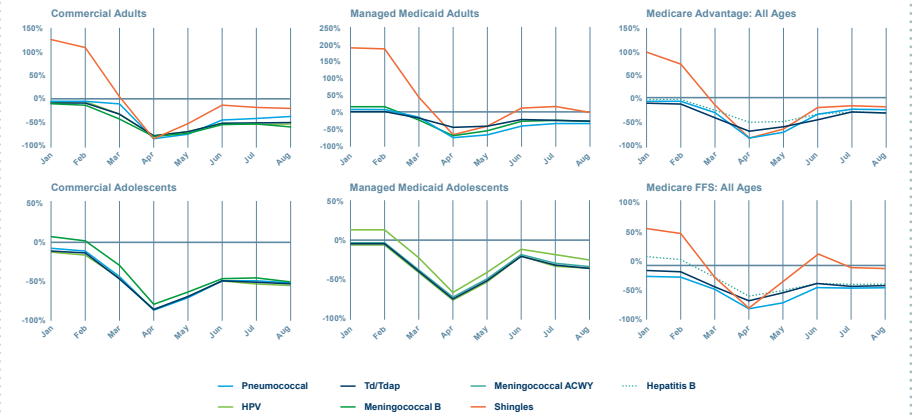
Avalere Health compared adolescent and adult vaccine billing patterns in commercial, Medicaid managed care (due to variability across states in billing requirements for vaccines provided through the Vaccines for Children program, this analysis may not fully capture adolescent vaccine utilization in the Managed Medicaid market), Medicare FFS, and MA markets from January-August 2019 to vaccine billing patterns during the same months in 2020 (e.g., March 2019 to March 2020), represented as a percent change between years. Between 2019-2020, aggregate vaccine claims submitted between March-August decreased by 53% (Commercial), 41% (Managed Medicaid), 42% (Medicare Advantage) and 48% (Medicare FFS).

Figure 3 / Percent Change in Claims for Vaccines with Age or Shared Clinical Decision-Making (SCDM) ACIP Recommendations**

January-August 2019 vs January-August 2020

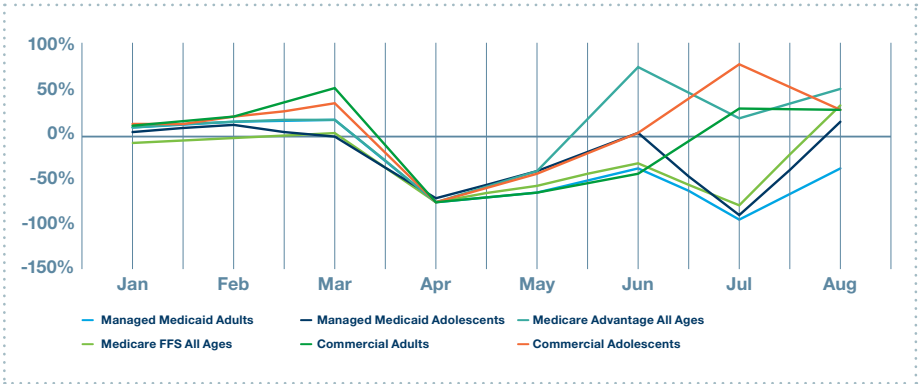


Uptick in Influenza Immunizations

Early data show an early increase in influenza claims for the 2020-21 season, which may reflect multi-stakeholder influenza-related messaging efforts[2] and could inform public health approaches to other routine vaccines.

Figure 4 / Percent Change in Claims for Influenza Vaccines***

January-August 2019 vs January-August 2020



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Guidance from the Centers for Disease Control and Prevention (CDC) encourages providers to administer any necessary or missed vaccines to patients during face-to-face interactions, including primary care and pharmacy visits, while maintaining proper social distancing and COVID-19 safety protocols;[3] CDC currently recommends administration of routine vaccines at least 14 days before or after COVID-19 vaccination.[4]

Assessing the impact of the COVID-19 pandemic on utilization of healthcare services, including vaccination across the life-course, can support immunization stakeholders and policymakers in developing and expanding vaccination policy, outreach, and support programs.

** Vaccines with risk-based recommendations or limited applicability to adolescents and adults (e.g. chickenpox, Hib, hepatitis A, and MMR) are included in the aggregate estimate in Figures 1 and 2 but excluded from Figure 3. Although hepatitis B has a risk-based recommendation, it is displayed in Figure 2 for Medicare plans, which cover hepatitis B for beneficiaries at increased risk.

*** Due to the seasonality of influenza, influenza vaccine claims in May-July are based on a smaller sample size than other months.

[1] Vaccination Coverage Among Adults in the United States, National Health Interview Survey, 2016." Centers for Disease Control and Prevention. February 8, 2018. https://www.cdc.gov/vaccines/imz-managers/coverage/adultvaxview/pubs-resources/NHIS-2016.html

[2] "Communicating the Benefits of Seasonal Influenza Vaccine during COVID-19." Immunize.org. Immunization Action Coalition, 2020. https://www.immunize.org/catg.d/p3115.pdf.

[3] "Interim Guidance for Routine and Influenza Immunization Services During the COVID-19 Pandemic." Centers for Disease Control and Prevention. October 20, 2020.https://www.cdc.gov/vaccines/pandemic-guidance/index.html.

[4] "Interim Clinical Considerations for Use of Pfizer-BioNTech COVID-19 Vaccine." Centers for Disease Control and Prevention. January 6, 2021. https://www.cdc.gov/vaccines/covid-19/info-by-product/clinical-considerations.html.

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