The COVID-19 Pandemic:
Impact on US Adolescent and Adult
Vaccine Utilization Across Markets
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The pandemic has led to a significant and sustained drop in immunization rates among adolescents and adults. Immunization claims declined 41-53% across markets from March-August 2019 to March-August 2020. No direct correlation with COVID-19 cases; however, claims declined and stagnated across all markets following the PHE. Rise in influenza vaccinations early in the season (up to August) may reflect multi-stakeholder messaging efforts.

Even as immunization rates have begun to rebound, the number of missed doses continues to accumulate. Steep decline seen in April 2020 compared to April 2019; later months saw increase, but most stayed below 2019.

Avalere Analyzed Changes in Administration of ACIP-Recommended Adult and Adolescent Vaccines

- Pre-adjudicated medical benefit Medicare fee-for-service (FFS) claims from a provider clearinghouse dataset maintained by Inovalon
- The Inovalon MORE2 Registry®, a large scale, real-world multi-payer dataset that contains claims across commercial markets (group, individual, and Exchanges), Medicare managed care, and Medicare Advantage (MA)
- Both data sources are nationally representative, but there are likely different geographies reflected in the analysis of each market; in addition, there may be cross-payer population shifts due to insurance coverage changes

Data Sources
- 5-7% Medicare FFS
- 25% Medicare Advantage
- 69% Managed Medicaid
- 42% Commercial

Approach
- Compared billing for vaccine products, defined by Healthcare Common Procedure Coding System (HCPCS) codes, from 2019 to 2020
- Adjusted the analysis to account for any changes in claim sources within the data to ensure that reported vaccine utilization changes are not driven by the addition or subtraction of claim sources over time.

True vaccine coverage rates cannot be calculated with claims data due to lack of long-term longitudinal follow-up data over adulthood; this analysis estimates the impact of COVID-19 on the volume of submitted claims.
The Largest Declines in Vaccine Claims Occurred in April 2020 Compared to April 2019 Following the PHE Declaration

Percent Change in Claims for Influenza Vaccines*

January-August 2019 vs January-August 2020

Percent Change in Claims for Vaccines with Age or Shared Clinical Decision-Making ACIP Recommendations

January-August 2019 vs January-August 2020

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

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