

The COVID-19 Pandemic: Impact on US Adolescent and Adult Vaccine Utilization Across Markets

Avalere Health | An Inovalon Company
July 2021

The Pandemic Has Led to a Significant and Sustained Drop In Immunization Rates Among Teens and Adults

Claims for routinely-recommended immunizations declined 26-46% across all markets from March-November 2019 to March-November 2020

Both adolescents and adults experienced the greatest single drop in immunizations in April 2020; however, claims declined and stagnated across all markets for the rest of the year

From January-November 2020, adolescents and adults may have missed over 26 million doses of recommended vaccines when compared the same period in 2019

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

Data Sources

- 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), Medicaid 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
-

Approach

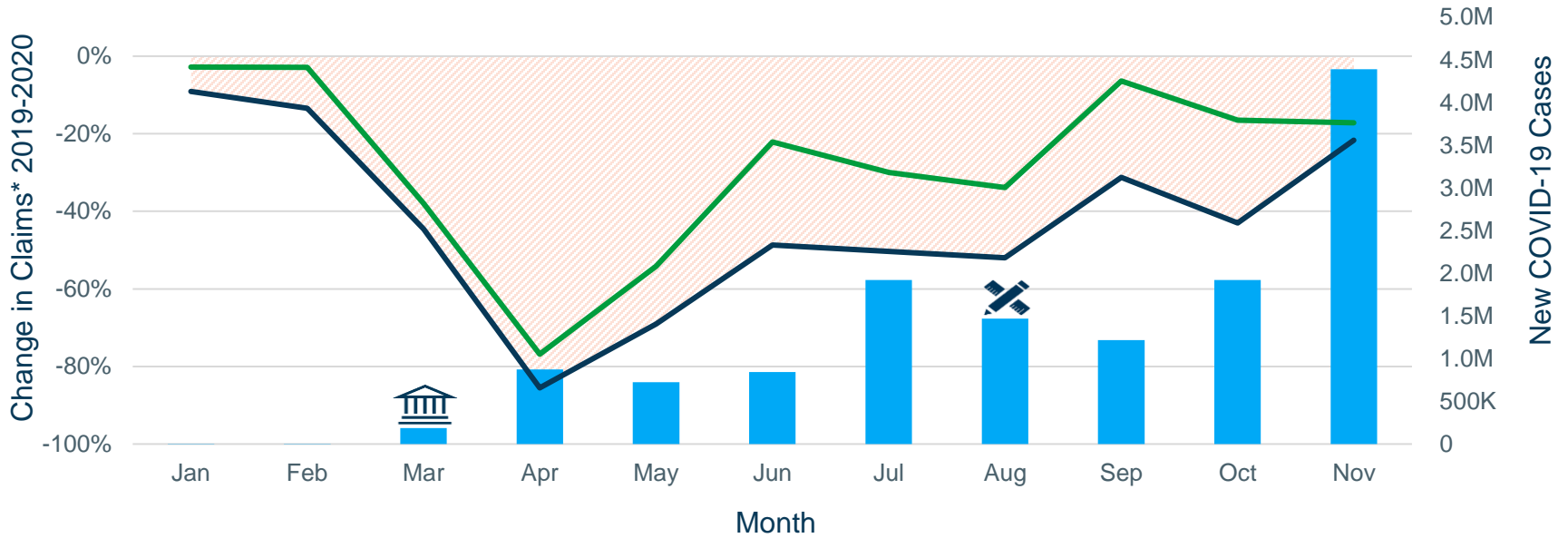
- Compared billing for vaccine products and general administration of vaccines, defined by Healthcare Common Procedure Coding System (HCPCS) codes, from 2019 to 2020
 - Adjusted the analysis to account for any changes in claim sources within the data to ensure that reported vaccine utilization changes 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.**

Vaccines included in this analysis are: 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)



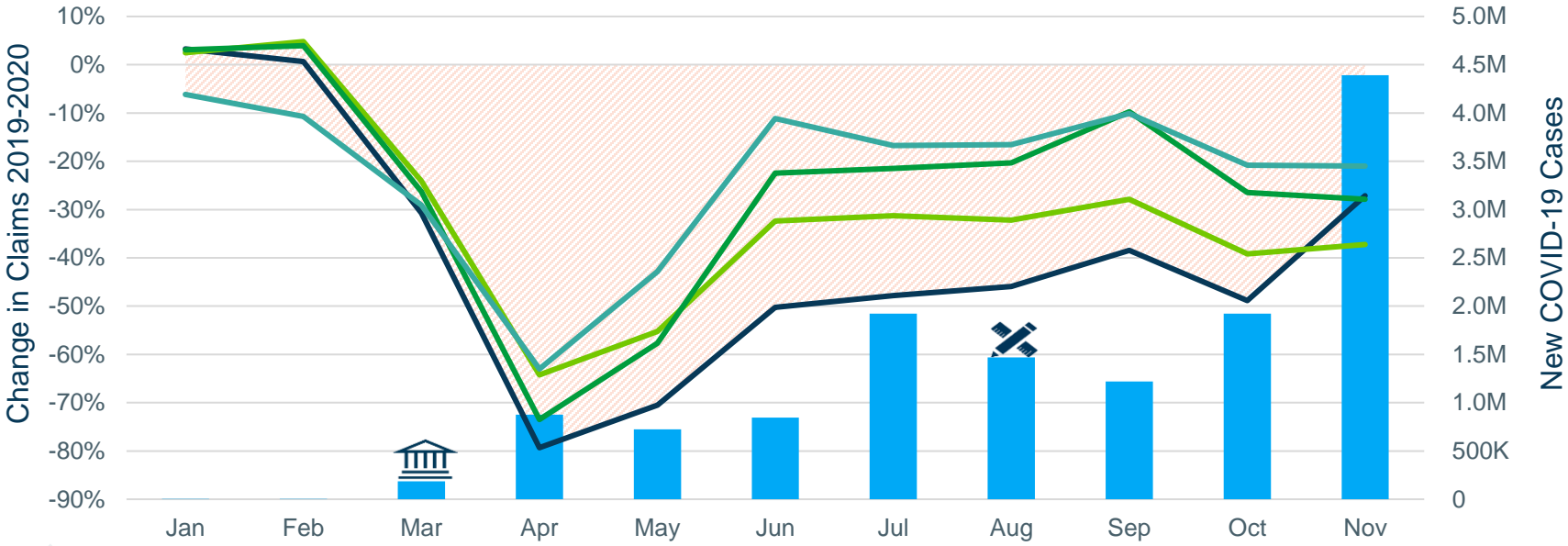
In 2020, Adolescent Vaccine Claims Rebounded Slightly in the Fall but Largely Remained Well Below 2019 Levels



- New COVID-19 Cases
- Commercial Adolescents
- Managed Medicaid Adolescents
- States Begin Lockdowns
- National Immunization Month, School Re-Opening, PREP Act

Note: Influenza vaccine claims excluded due to seasonality
 FFS: Fee-for-service; PREP: Public Readiness and Emergency Preparedness Act
 Source: Avalere analysis of 2019-2020 Commercial and Managed Medicaid claims using the Inovalon MORE² Registry®.

In 2020, Adult Vaccinations Declined Sharply As COVID-19 Cases Rose and Remained Well Below 2019 Levels

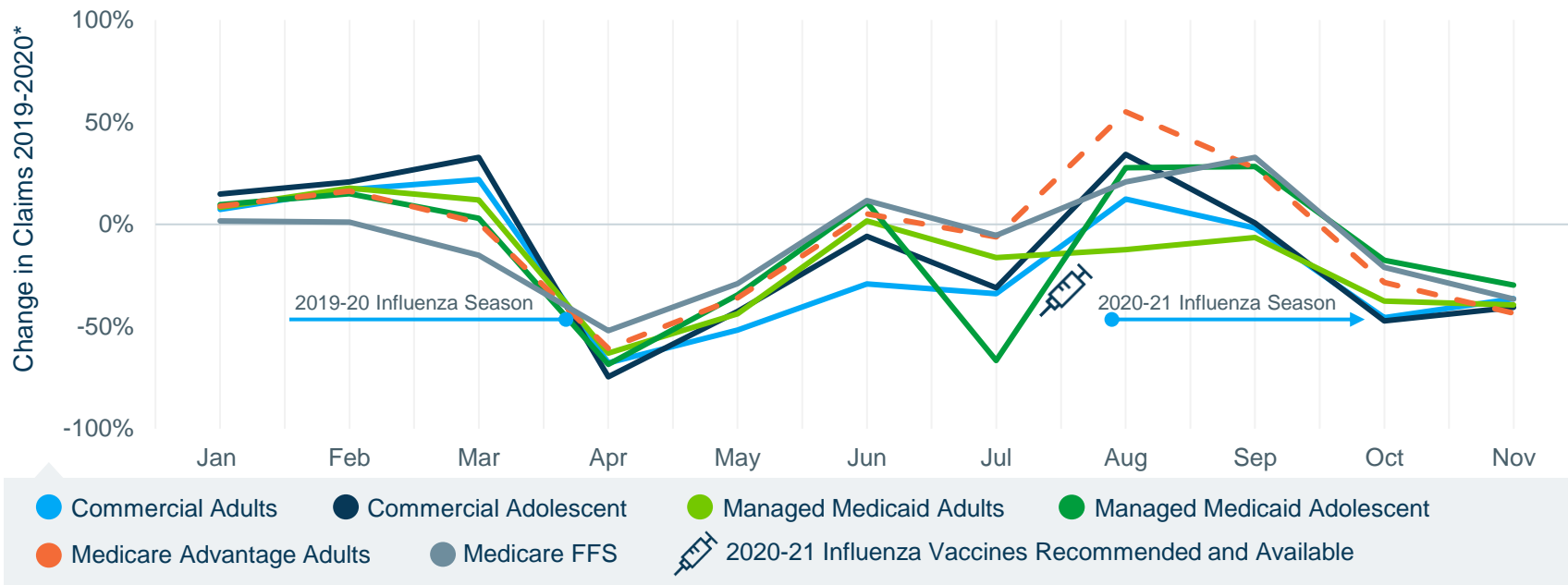


● New COVID-19 Cases
 ● Commercial Adults
 ● Managed Medicaid Adults
 ● Medicare Advantage
 ● Medicare FFS

🏛️ States Begin Lockdowns
 ✂️ National Immunization Month, School Re-Opening, PREP Act

Note: Influenza vaccine claims excluded due to seasonality
 FFS: Fee-for-service; PREP Act: Public Readiness and Emergency Preparedness Act
 Source: Avalere analysis of 2019-2020 Commercial, Managed Medicaid, and Medicare Advantage claims using the Inovalon MORE² Registry[®] and Medicare Fee-for-Service claims from a provider clearinghouse dataset maintained by Inovalon.

In the 2020-2021 Flu Season, Early Gains in Flu Vaccination Dropped Off Later in the Fall



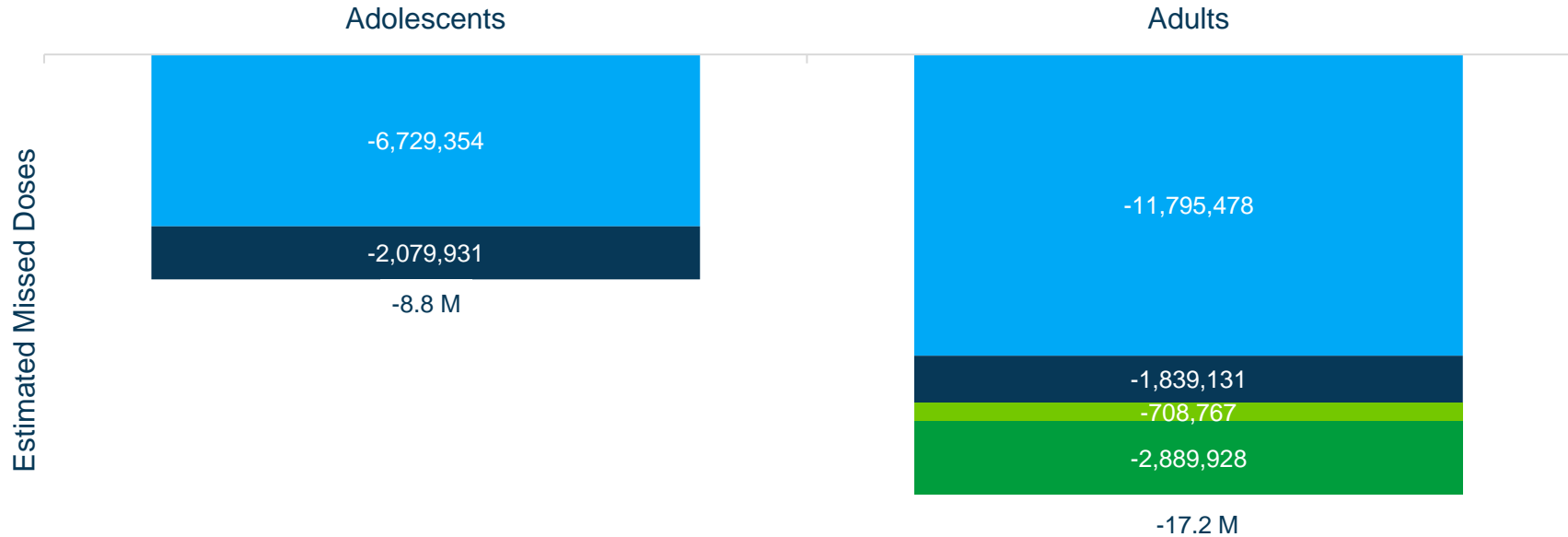
Heightened awareness of respiratory illness may have driven influenza vaccination uptake earlier in the 2020-2021 season compared to the 2019-2020 season.

FFS: Fee-for-service

Source: Avalere analysis of 2019-2020 Commercial, Managed Medicaid, and Medicare Advantage claims using the Inovalon MORE² Registry[®] and Medicare Fee-for-Service claims from a provider clearinghouse dataset maintained by Inovalon.



Adolescents and Adults Missed An Estimated 26M+ Doses of Recommended Vaccines in 2020 vs. 2019



● Commercial

● Managed Medicaid

● Medicare Advantage

● Medicare FFS (Part B Only)

FFS: Fee-for-service

Note: Avalere used national enrollment data to extrapolate the difference between observed 2019 and 2020 vaccine claims to estimate the potential number of "missed doses" in 2020 on a national level. Here, "missed doses" refers to the decrease in doses of recommended adolescent and adult vaccines from 2019 to 2020.

Source: Avalere analysis of 2019-2020 Commercial, Managed Medicaid, and Medicare Advantage claims using the Inovalon MORE² Registry[®] and Medicare Fee-for-Service claims from a provider clearinghouse dataset maintained by Inovalon.

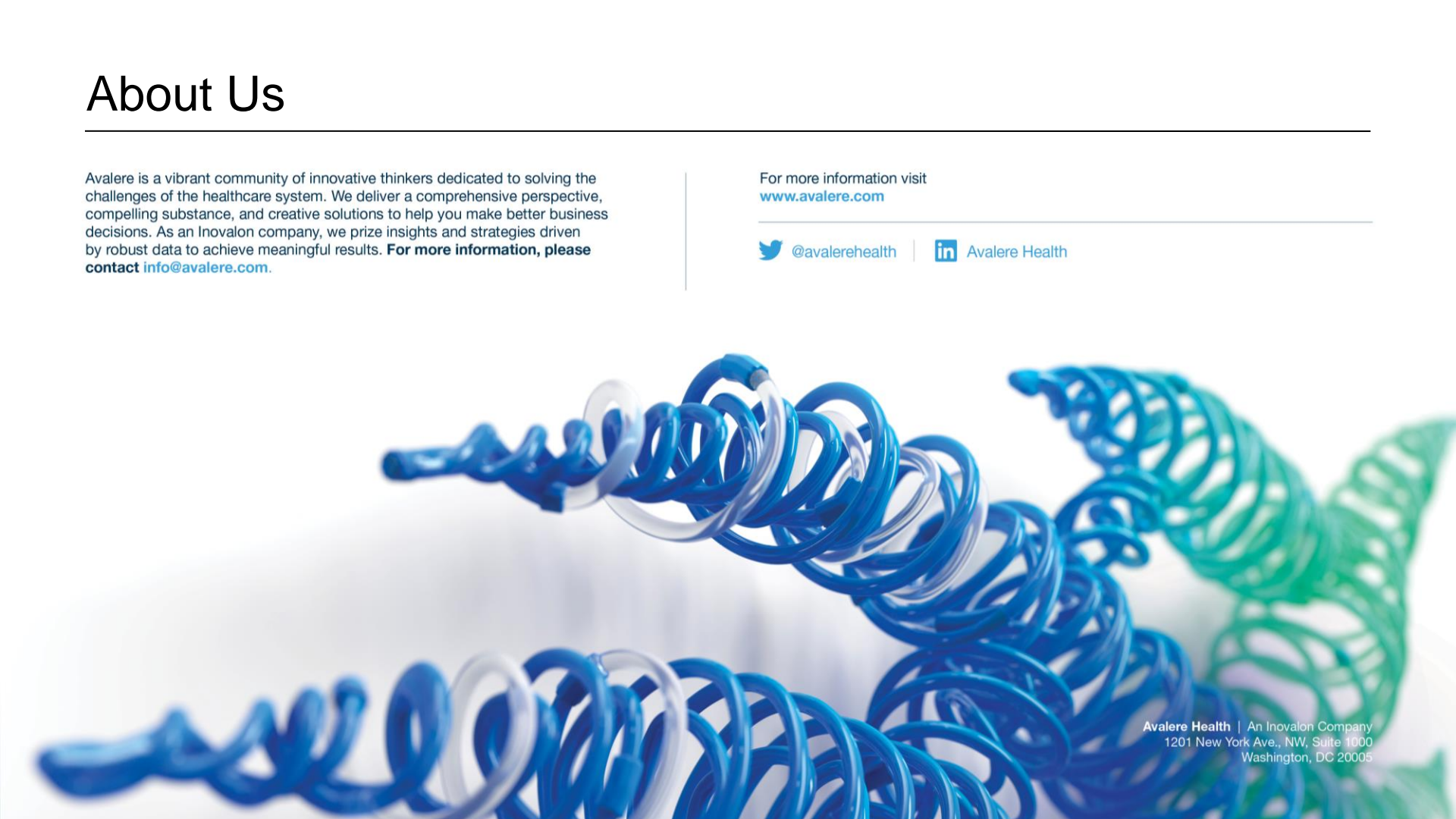


About Us

Avalere is a vibrant community of innovative thinkers dedicated to solving the challenges of the healthcare system. We deliver a comprehensive perspective, compelling substance, and creative solutions to help you make better business decisions. As an Inovalon company, we prize insights and strategies driven by robust data to achieve meaningful results. **For more information, please contact info@avalere.com.**

For more information visit
www.avalere.com

 [@avalerehealth](https://twitter.com/avalerehealth) |  [Avalere Health](https://www.linkedin.com/company/avalere-health)



Avalere Health | An Inovalon Company
1201 New York Ave., NW, Suite 1000
Washington, DC 20005