

# WHY OUR VACCINE DEPLOYMENT IS SHY OF TARGET: STATE RESPONSES TO VACCINE SUPPLY



### Overview

The journey to a post-COVID era is a difficult one. Although two promising vaccines are currently authorized for emergency use, with others on the way, and more than 4.2 million people have received the first of two required doses as of January 3, 2021, the United States fell short of its goal to inoculate 20 million front-line workers and seniors in December 2020. Adding to the vaccine administration challenge, three mutations of COVID-19, named B.1.1.7 (the European variant), B.1.351 (the South African variant) and P.1. (the Brazilian variant), have been identified among positive cases in at least 40 states in the U.S. According to the CDC there is no evidence to-date to suggest that these variants cause more severe illness or a higher risk of death than COVID-19.

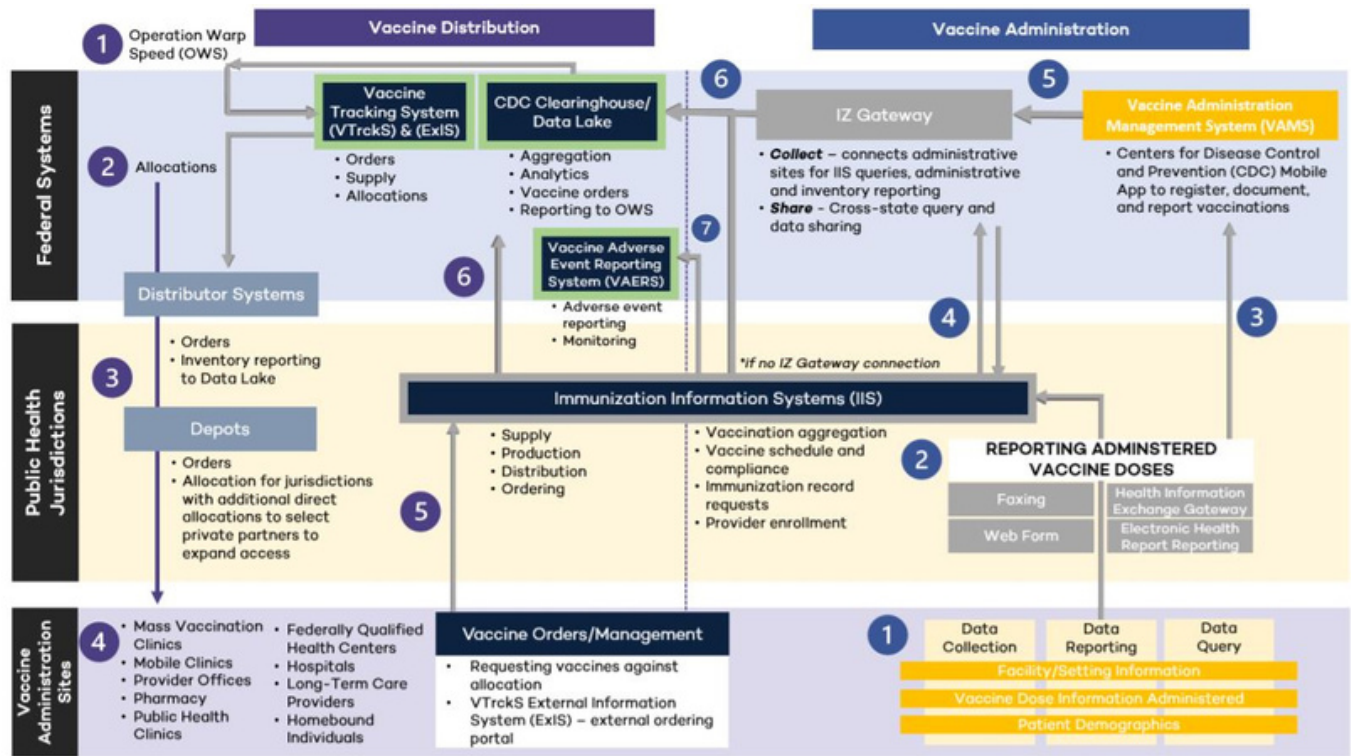
As the world remains uncertain about how the coronavirus pandemic will evolve or come to an end, states and local entities have been working tirelessly to mitigate the spread of the virus, inoculate as many Americans as quickly and safely as possible, and contend with new virus mutations. On February 4, 2021, the Alliance for Health Policy hosted a briefing that explored state efforts to contend with the virus. Expert panelists shared their views about the challenges and opportunities states face in safe and timely vaccine deployment and supply management, plans states are executing to ensure equitable vaccine distribution, plans states are executing to ensure equitable vaccine distribution along the way, and understand the difference between COVID-19 and its variants.

### Key Lessons

- Federal officials set a goal to have 20 million people receive their first shot by the end of 2020. Since the week of December 14, 2020, to the time of this publication, the nation's public health and health care system safely and appropriately administered 33,878,254 vaccinations, including 6,436,931 2nd doses. It was thought that in order to reach "herd immunity", 60% of the U.S. population must be vaccinated; that is approximately 198 million Americans. However, the proliferation of new, more contagious virus strains requires a higher proportion of the population to get vaccinated making herd immunity a moving target.
- The United States' campaign to vaccinate against COVID-19 is far behind schedule and multiple factors are contributing to this timeline. State health officials, health systems, and front-line staff are faced with a steep learning curve for responding to a public health emergency of this size. There is a need for an established cadence, consistency, and predictability of vaccine supplies. As administration sites adapt to scheduling around expiry windows and delicate storage requirements of vaccines, there is risk of wastage, reporting lag times, and under-reporting doses administered.
- State allocation strategy is dependent on supply. Without clear figures of vaccine availability, states cannot effectively plan distribution and administration of available vaccine doses.
- States are facing a steep learning curve in data collection and reporting. States are relying not only on existing systems, but are navigating new systems, system enhancements, and adapting to new processes for reporting. In addition, providers with limited broadband access may be unable to enter

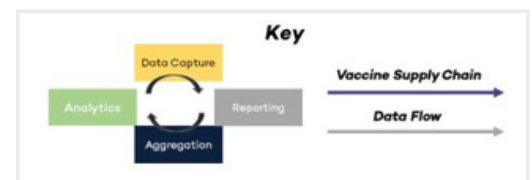
data in a timely fashion, or experience volume overload. As well, a number of states may face legal hurdles. For example, some state laws may limit the ability to collect or report on racial and ethnic demographic data, which may be a barrier to completeness of data and sharing a full understanding of equity dynamics. There is a lot to work through in the weeks and months ahead.

### Information Systems and Data Flow for COVID-19 Vaccine Distribution and Administration



#### Data Infrastructure

- Data infrastructure is essential to operationalizing vaccine distribution and administration
- States have existing systems (e.g. immunization information systems) but are also navigating new systems and processes
- Timely, accurate, and complete data are critical
- Operational, technical, and legal challenges exist



Source: Johnson, K. (2021). State Efforts to Distribute and Administer COVID-19 Vaccines [PowerPoint slides]. National Governors Association. Available [here](#).

- As of February 2, 2021, there were 242 COVID-19 vaccines either approved or in development from manufacturers. Top candidates from Moderna and Pfizer/BioNTech were approved for emergency use authorization demonstrating 94% and 95% efficacy, respectively. Other leading candidates have either been approved abroad in the UK or are in phase-three clinical trials. With the first two vaccine candidates available in the United States demonstrating such high efficacy rates, other vaccines may seem less appealing to the general population. However, efficacy isn't the only measure that should be considered when focusing on these vaccines. The Moderna and Pfizer/ BioNTech vaccine efficacy

rates that built on existing mRNA research stunned the science community. They far surpassed the annual flu vaccine's efficacy rate, which is 65-70% from year to year, a vaccine that we trust and receive annually. Outside of efficacy, we should consider the ability for the vaccines to prevent respiratory arrest and mitigate hospitalizations.

COVID-19 VACCINE TRACKER		Vaccine Sponsor	Type	Location
RAPIDLY EVOLVING, CHECK BACK OFTEN.		1 Moderna	mRNA	Canada, Israel, Switzerland, and the E.U., U.S., and U.K.
LAST UPDATED: FEBRUARY 2, 2021 9:23 PMPST		2 Pfizer/BioNTech	mRNA	European Commission and in Argentina, Mexico, Saudi Arabia, Canada, Bahrain, and the U.S. and U.K.
242 vaccines are in development.		3 AstraZeneca/University of Oxford	Non-Replicating Viral Vector	Argentina, Brazil, Dominican Republic, El Salvador, India, Mexico, Morocco, Pakistan, and the U.K.
55 are now in clinical testing.		4 Gamaleya Research Institute (Russia)	Non-Replicating Viral Vector	Algeria, Argentina, Bolivia, Hungary, Palestine, Paraguay, Serbia, Turkmenistan, UAE, and Venezuela, and "registered" in Belarus and Russia
10 are in use.		5 CanSino Biologics	Non-Replicating Viral Vector	"The military" by China's Central Military Commission
		6 Research Institute for Biological Safety Problems, Republic of Kazakhstan	Inactivated Virus	"Temporary registration" in Kazakhstan
		7 Wuhan Institute of Biological Products/ Sinopharm	Inactivated Virus	For "emergency use" in China and the UAE
		8 Sinovac	Inactivated Virus	For "emergency use" in Brazil, China, and Indonesia
		9 Beijing Institute of Biological Products/ Sinopharm	Inactivated Virus	In Bahrain, China, Pakistan, and the UAE
		10 Bharat Biotech/ Indian Council of Medical Research	Inactivated Virus	For "emergency use" in India

MILKEN INSTITUTE

Source: Krofah, E. (2021). Tracking COVID-19 Vaccines [PowerPoint slides]. FasterCures, a Center of the Milken Institute. Available [here](#).

## Questions & Answers

### What should we know about the COVID-19 variants?

"The rise of variants from Brazil, the UK, and South Africa are posing new threats to global health as the current vaccines roll-out. What we know from the CDC is that these new strains are more transmissible than [other] COVID-19 [strains]. Antibodies from approved vaccines may recognize the mutations, but more studies need to be done to be conclusive. Mitigation strategies like masks, social distancing, etc. are more critical than ever to stop the spread and the rise of new mutations." – Esther Krofah, MPP, Executive Director, FasterCures, a Center of the Milken Institute

### What are the key elements of a successful vaccine rollout? What infrastructure(s) must states have in place to support successful distribution and administration?

"Procedures for determining allocation to critical populations, distribution and administration, data infrastructure for managing, tracking, and reporting, and communication and engagement, with equity as a cross-cutting and underlying focus." – Kate Johnson, MPH, Program Director, Health, National Governors Association

## What do states need and what can states do moving forward?

"Continuous assessment and adjustment to improve efficiencies, ongoing management of supply and demand tensions including transparency and communications, bring to scale the campaign by expanding and sustaining infrastructure capacity and capabilities, address vaccine hesitancy and build trust in the system and confidence in the vaccine, maintain a flexible posture for variant strains." – James S. Blumenstock, MA, Senior Vice President, Pandemic Response and Recovery, Association of State and Territorial Health Officials

"Better and faster genomic sequencing and ongoing surveillance, rapid deployment of vaccines to most at-risk groups, quickly followed by other priority groups, and diligent and consistent mitigation efforts, continued vaccine discovery and rapid production." – Esther Krofah, MPP, Executive Director, FasterCures, a Center of the Milken Institute

## Experts

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*\*Served as panelist for February 4, 2021 event*

*"Why Our Vaccine Deployment is Shy of Target: State Responses to Vaccine Supply."*

## Resources

“COVID-19 Treatment and Vaccine Tracker.” Milken Institute FasterCures. January 31, 2021. Available at <http://allh.us/c6wJ>.

“U.S. COVID-19 Cases Caused by Variants.” Centers for Disease Control and Prevention. January 31, 2021. Available at <http://allh.us/YWEx>.

“Building Confidence to Build Immunity: Vaccine Hesitancy and COVID-19.” Alliance for Health Policy. January 29, 2021. Available at <http://allh.us/KrXB>.

“January 25 Coronavirus News” Gan, N., Renton, A., Mahmood, Z., et al. Cable News Network. January 26, 2021. Available at <http://allh.us/hQME>.

“From Bench to Body: How the U.S. Health Care System Plans to Distribute COVID-19 Vaccines.” Alliance for Health Policy. December 16, 2020. Available at <http://allh.us/MNJt>.

“Supporting An Equitable Distribution of COVID-19 Vaccines.” National Governors Association. December 9, 2020. Available at <http://allh.us/YpHC>.

“State and Territorial Issue Brief: COVID-19 Vaccine Distribution and Implementation in States and Territories.” Association of State and Territorial Health Officials. November 2020. Available at <http://allh.us/qnhJ>.

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*This event was hosted by the Alliance for Health Policy on February 4, 2021. The Alliance gratefully acknowledges the support of Arnold Ventures for this event. For additional resources, please visit [allh.us/4hmu](http://allh.us/4hmu).*

