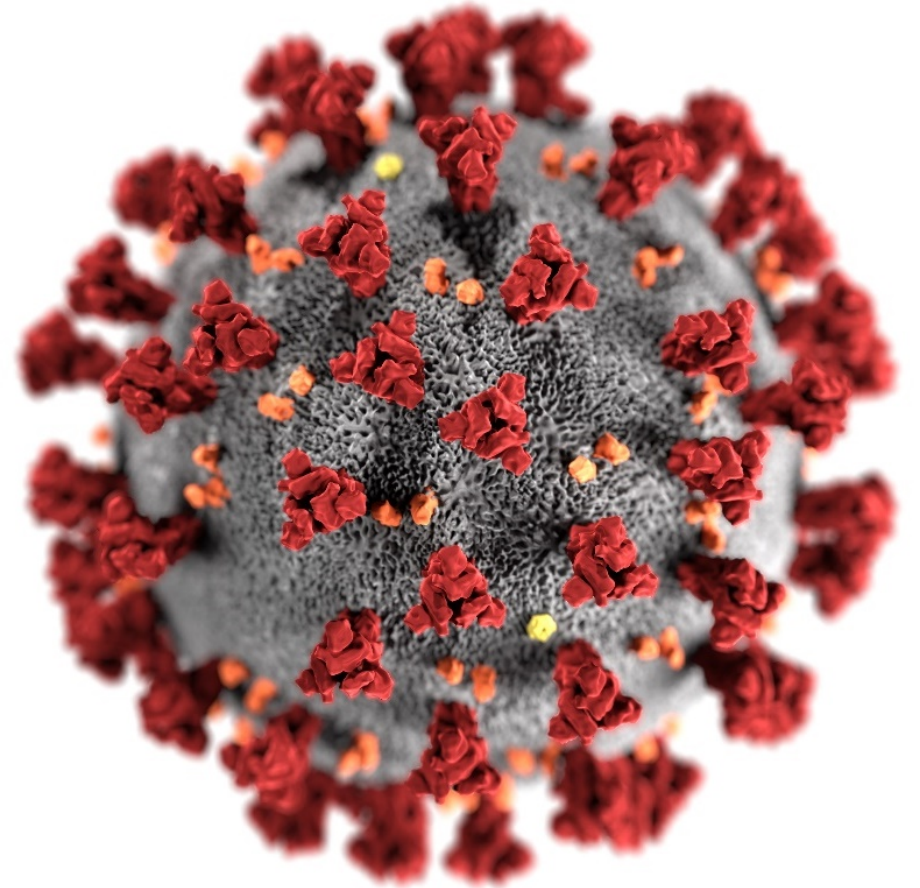


# COVID-19 Vaccine Implementation

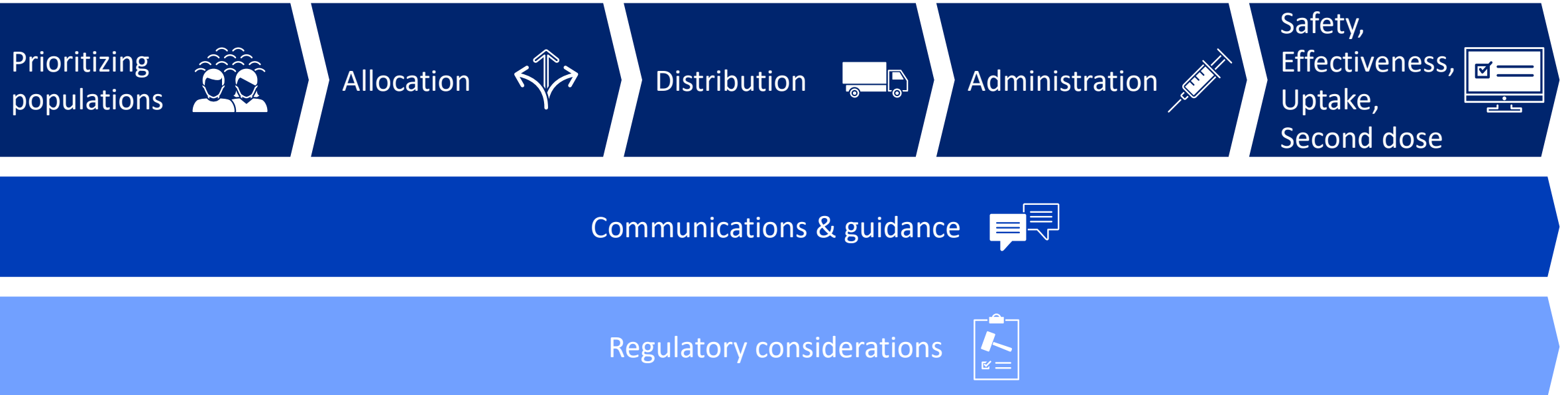
Dr. David Fitter

Dr. Anita Patel

November 4, 2020

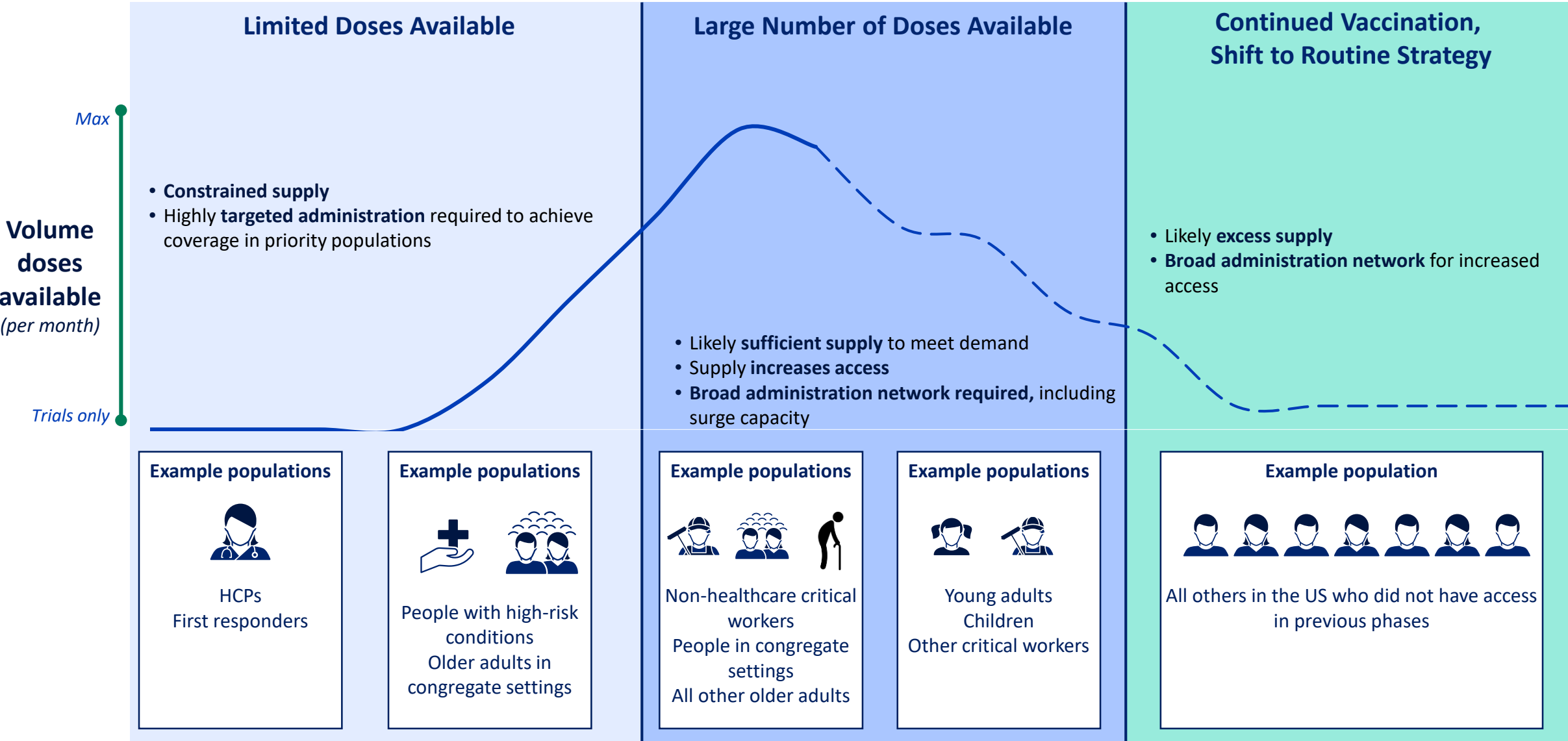


# Multiple components to vaccine implementation



Public health impact relies on rapid, efficient, and high uptake of complete vaccine series, with particular focus on those at increased risk for severe COVID-19 illness

# Distribution will adjust as volume of vaccine doses increases



# Draft Concept of Operations for Select Critical Populations

**Populations are not comprehensive; additional populations to be added**

Population	Vaccination Sites
<b>Critical Infrastructure/Essential Workers</b>	
<b>Health care personnel</b>	Occupational health setting, pharmacies, other settings
<b>Other essential workers</b>	Occupational health setting, pharmacies, other settings
<b>People at Increased Risk of Severe Illness</b>	
<b>Older adults (aged ≥ 65 years)</b>	Doctors' offices, pharmacies, other settings
<b>Long-term care facility residents (nursing home/assisted living facility residents)</b>	Facility health services, pharmacy partners, mobile vaccination units
<b>People with underlying medical conditions</b>	Doctors' offices, pharmacies, other settings
<b>People at Increased Risk for COVID-19</b>	
<b>People from racial and ethnic minorities</b>	Doctors' offices, PODs, other settings
<b>People from tribal populations</b>	IHS facilities, tribal health units, other settings
<b>People who are incarcerated/detained</b>	Correctional facility health services, pharmacies, mobile clinics
<b>People experiencing homelessness</b>	PODs, mobile vaccination units, health clinics serving population
<b>People attending university or college</b>	Student health clinics, PODs, other settings
<b>People with Limited Access to Vaccinations</b>	
<b>People living in rural jurisdictions</b>	FQHCs, mobile clinics, other settings
<b>People with disabilities</b>	Home health organizations, mobile clinics, other settings
<b>People who are under- or uninsured</b>	PODs, mobile vaccination units, other settings

# Vaccine Safety COVID-19 Strategy

1. **Use established systems** to implement heightened safety monitoring for COVID-19 vaccines
2. **Develop new platforms** and leverage other federal data sources to complement existing systems
3. **Communicate clearly** on the vaccine safety process and systems now; provide COVID-19 vaccine safety data and monitoring results once available





*DRAFT*

# Vaccinate with Confidence

**CDC's Strategy to Reinforce Confidence in COVID-19 Vaccines**

**Reinforce  
Trust**

**Strategy: Regularly share clear and accurate COVID-19 vaccine information and take visible actions to build trust**

**Empower  
Healthcare  
Providers**

**Strategy: Promote confidence among healthcare personnel in their decision to get vaccinated and to recommend vaccination to their patients**

**Engage  
Communities  
& Individuals**

**Strategy: Practice equitable and inclusive community engagement**

# Risk Communications Methods Need to be Applied Now

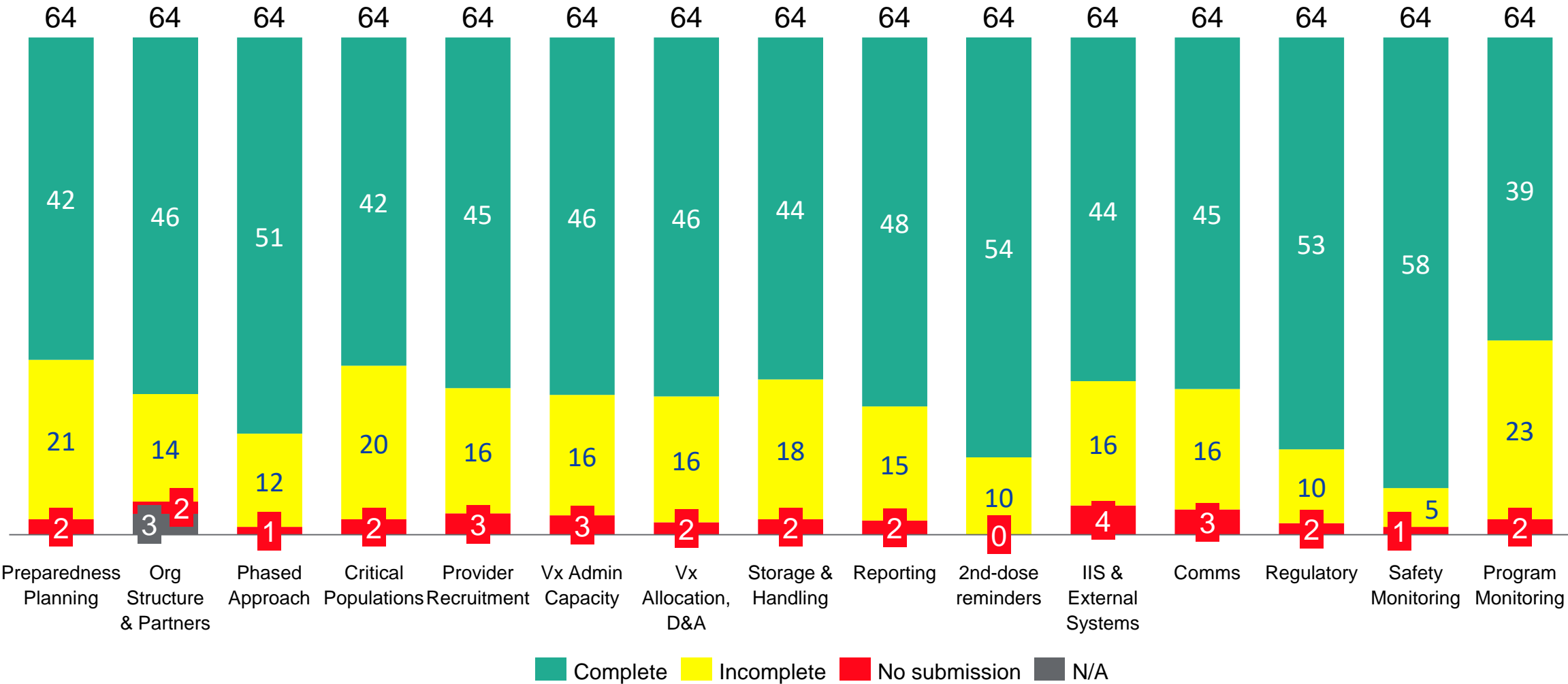
**Given the unknowns and potential risks, will be important to:**

- ✓ Communicate early and often, in ways that people trust
- ✓ Communicate clearly and with compassion (attend to low health literacy levels)
- ✓ Acknowledge and communicate in uncertainty
- ✓ Be transparent, honest, frank and open (lean towards disclosure)
- ✓ Listen and respond to specific concerns of stakeholders, including the public
- ✓ Deliver messages through multiple media modes, reading levels, and cultural competence

**>>> To build and maintain trust and confidence**

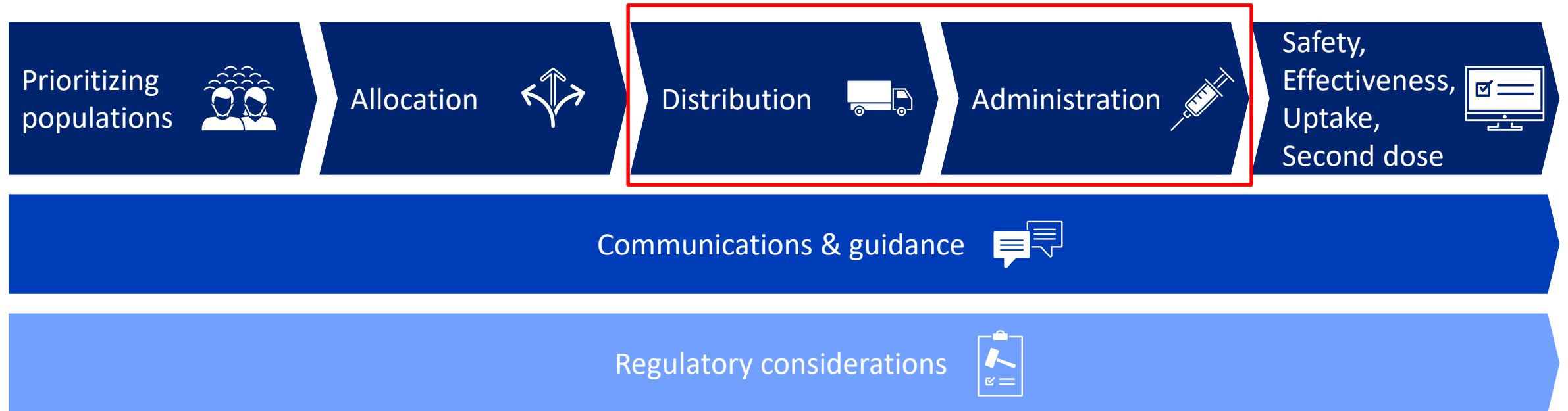
DO NOT DISTRIBUTE

# Jurisdictional progress across 15 key dimensions for readiness





# Multiple components to vaccine implementation



Public health impact relies on rapid, efficient, and high uptake of complete vaccine series, with particular focus on those at increased risk for severe COVID-19 illness

# Vaccine A and B Profiles (notional) - Provided for Planning

## Availability Assumptions

Candidate	Vaccine availability under EUA by		Notes
	End of Nov 2020	End of Dec 2020	
Vaccine A	10M–20M doses	20M–30M doses	Ultra-cold (-75 °C) storage requirements, for large sites only

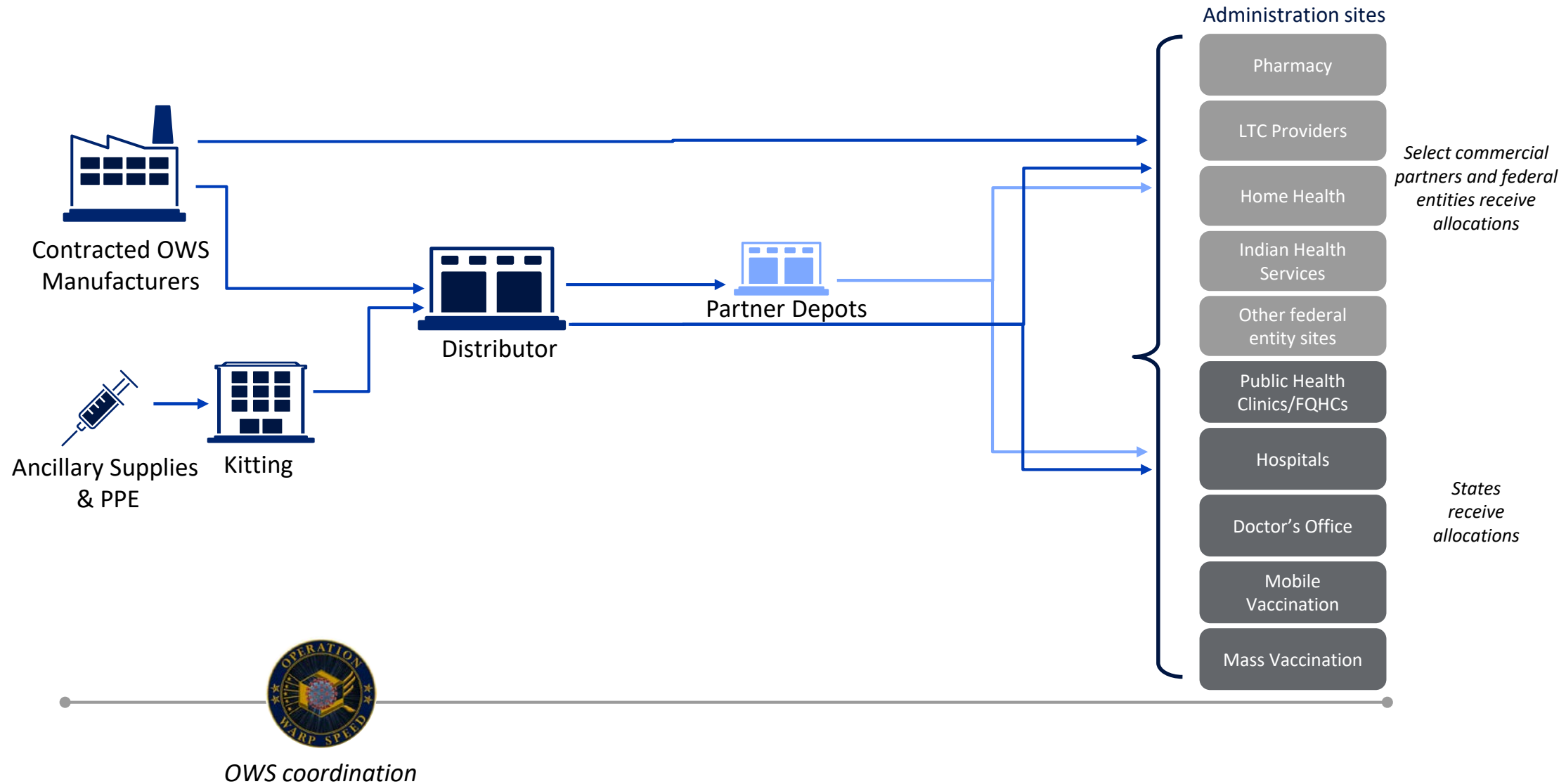
## Distribution, Storage, Handling, and Administration Assumptions

Vaccine A	
<b>SHIPMENT</b> <i>3 separately acquired components (mixed on site)</i> <ol style="list-style-type: none"> <li>Vaccine <ul style="list-style-type: none"> <li>2mL vial, Multidose vials (5 doses/vial)</li> <li>Direct to site from manufacturer (on dry ice) in thermal shipping container</li> <li>Thermal shipping container estimated specs: 400mm X 400mm X 560mm</li> </ul> </li> <li>Diluent and ancillary supply kits (for administration and mixing) <ul style="list-style-type: none"> <li>Direct to site from the US Government (USG) at room temperature)</li> </ul> </li> <li>Thermal shipping container should be returned once use is completed. Instructions for mail back and labels will be forthcoming.</li> </ol>	<b>ON-SITE VACCINE STORAGE</b> <i>Ultra-Low Temp Frozen (-80 °C to -60 °C)</i> <ul style="list-style-type: none"> <li>Freezer units capable of ultra-cold temperatures (ULT)</li> <li>The shipping container (thermal shipper) may be used to store vaccines: <ul style="list-style-type: none"> <li>Once received, thermal shipping container should be replenished with pelleted dry ice within 24H</li> <li>Containers may only be opened two times a day</li> <li>Containers should be replenished with dry ice every 5 days to maintain required temperature.</li> <li>Total amount of dry ice needed per thermal shipping container ‘recharge’ is ~23kg.</li> <li>Container may be recharged up to 3 times (once upon receipt, and two more time there after)</li> </ul> </li> <li>Temperature Monitoring needs to happen in alignment with CDC guidance, irrespective of re-icing <ul style="list-style-type: none"> <li>Shipper may be monitored using temperature probes on the container, in alignment with guidance provided by CDC and information provided by the manufacturer.</li> <li>Direct handling of dry ice needed for recharging the containers will require the use of appropriate PPE</li> </ul> </li> </ul>

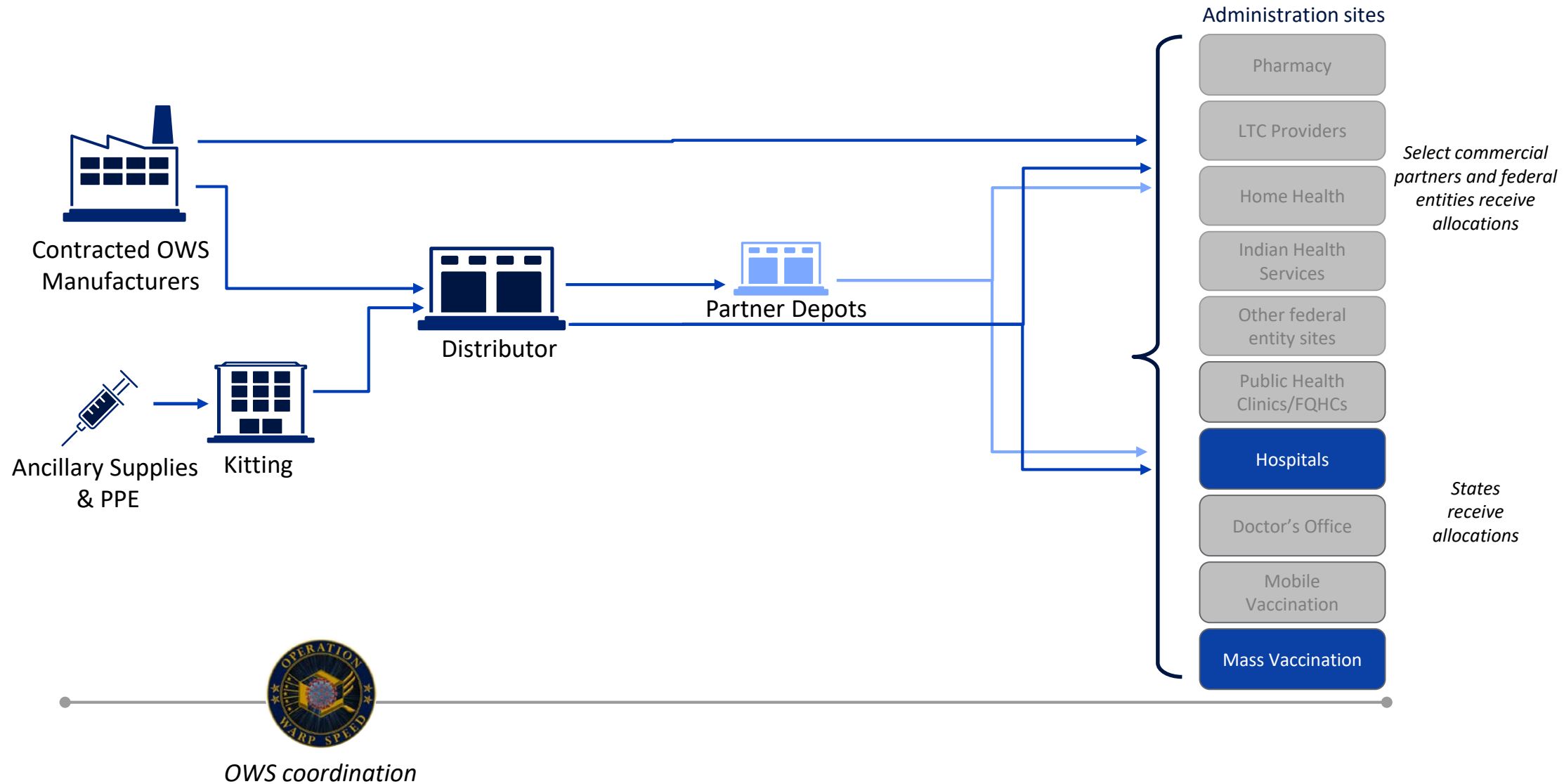
## Additional Considerations for Early Vaccination Planning

- “Healthcare personnel” includes paid or unpaid persons serving in healthcare settings who have the potential for direct or indirect exposure to people with COVID-19 or infectious materials.
- Jurisdictions should plan for real-time shipment of doses.
- Administration sites (during Phase 1) will not be required to store vaccine products beyond the period of time Vaccine A can be stored in the ultra-cold shipment box.
- Given the challenging storage, handling, and administration requirements, early vaccination should focus on administration sites that can reach critical populations with as much throughput as possible.
- Stability testing is ongoing for Vaccine A; the storage and handling requirements presented here may shift. The requirements in these scenarios are likely the strictest set of requirements for which planning is needed.
- Jurisdictions should consider partnering with the private sector and with local hospital systems to provide vaccine in closest proximity to the critical populations as possible, given limitations with the product. For example: Vaccine A may be administered through mobile clinics if multiple mobile clinics are planned over a short period of time to ensure sufficiently high throughput.

# Overview of Distribution and Administration



# Overview of Distribution and Administration



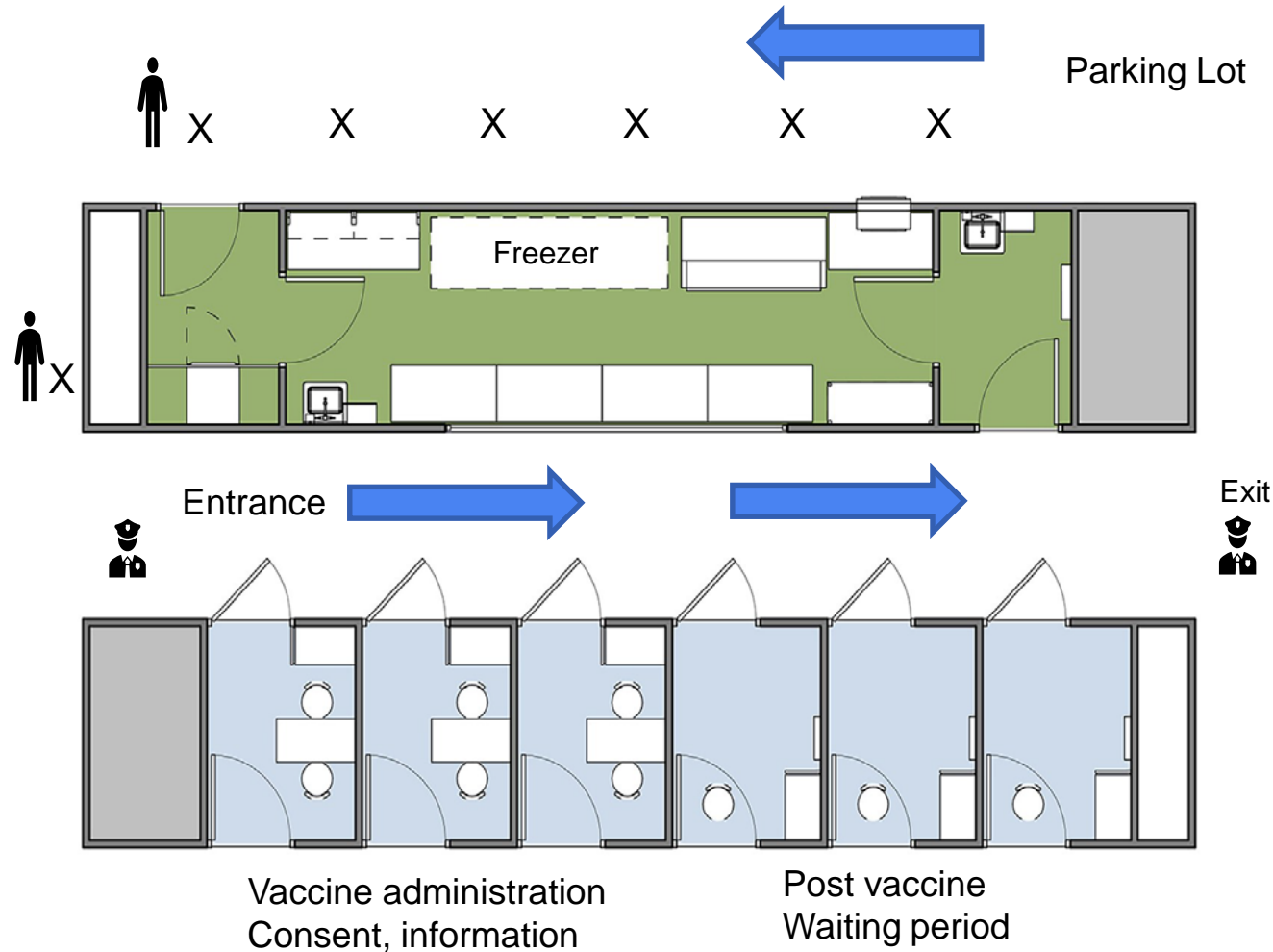
## Examples of Site Types for Vaccine A Product

Vaccination site	Ordering assumptions			Operating assumptions				
	Order size	Storage conditions	Patient flow	Number of immunizers	Patients per immunizer	Hours per day	Vaccines per day	Shipment model
<b>A – large outpatient center (mass vx)</b>	1 tray (975 doses)	Thermal box with dry-ice, 2-8C fridge, for product estimated at site (5 days)	~500/day	10 immunizers	6 patient/hour (~10 min/Vx)	8 hours	480 vaccinations	1 tray; 2-3 times per week
<b>B – hospital or outpatient center</b>	1 tray (975 doses)	ULT freezer, Thermal box with dry-ice, 2-8C fridge, for product estimated at site (5 days)	Variable	4 immunizers	6 patient/hour (~10 min/Vx)	8 hours	192 vaccinations	1 tray; every week
<b>C – large hospital with affiliated outpatient center</b>	5 trays (4,875 doses)	ULT freezer, Thermal box, 2-8C fridge, for product estimated at site (5 days)	Variable	7 immunizers (hospital outpatient clinic)	6 patients/hour (~10 min/Vx)	8 hours	340 vaccinations	1 tray; 1-2 times a week
<b>D – outdoor parking lot vaccination hub at large retail pharmacy</b>	1 tray (975 doses)	2-8C fridge, for product estimated at site (5 days)	~200/day	5 immunizers	6 patients/hour (~10 min/Vx)	N/A	240 vaccinations	1 tray; every week
<b>E – mobile vaccination in targeted geographies</b>	5 trays (4,875 doses)	2-8C fridge, for product estimated in mobile unit (5 days)	Variable	3 immunizers	6 patients/hour (~10 min/Vx)	Not specified	150 vaccinations	1 tray; every week

# COVID-19 Vaccination Provider Recruitment and Enrollment

- Early efforts should focus on providers that can rapidly vaccinate initial populations of focus as soon as a COVID-19 vaccine is available
- For subsequent planning, recruit additional COVID-19 vaccination providers to expand equitable access to remaining critical populations and eventually the general public
- Seek assistance with recruitment from key partners
- Training of COVID-19 vaccination providers is vital to ensure the success of the COVID-19 Vaccination Program

# Considerations for Vaccine Administration

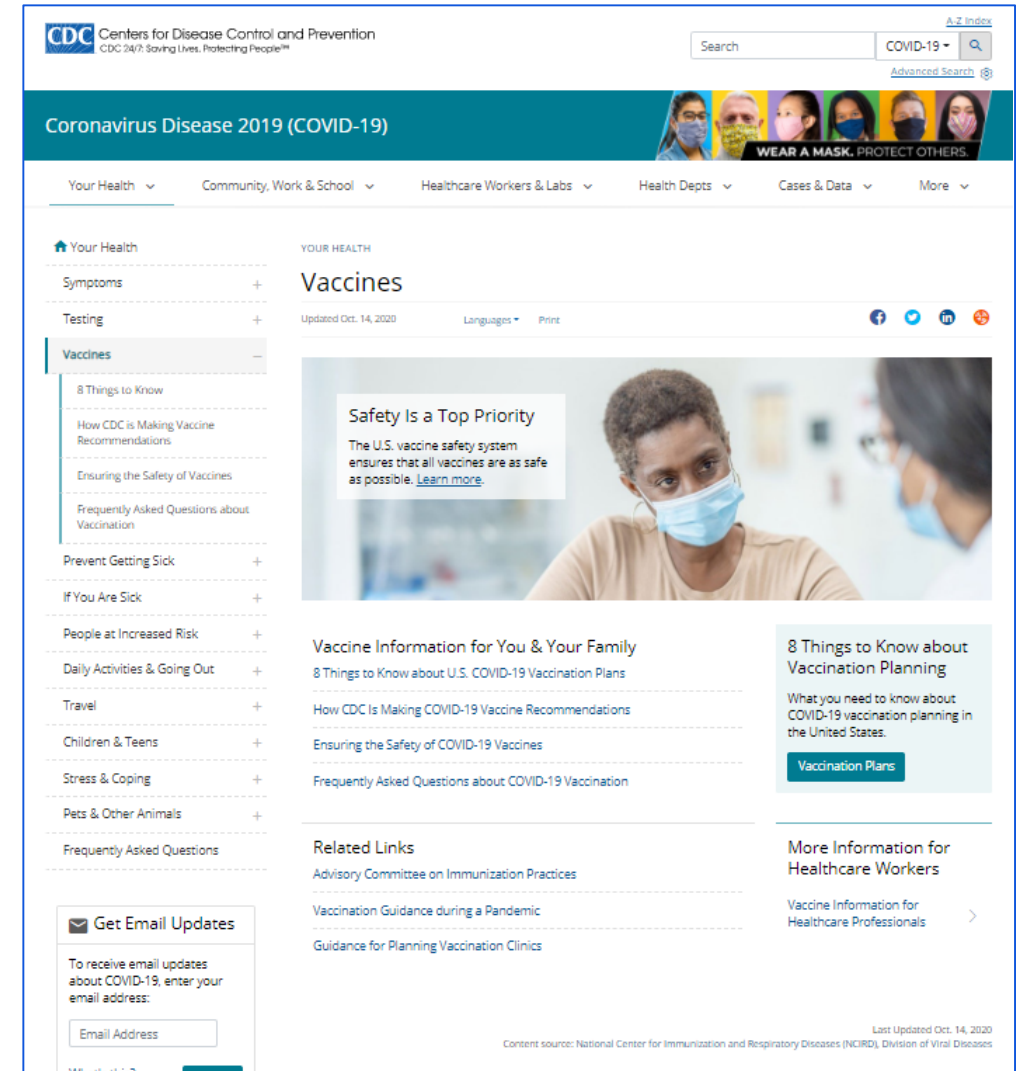


- Infection control and social distancing measures
- Storage and handling capacity
- Security
- Adhere to EUA conditions of use

## COVID VACCINATION CLINIC FLOW

# CDC Vaccine Web Content

- New content live at  
<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html>  
<https://www.cdc.gov/coronavirus/2019-ncov/hcp/vaccination.html>
- New ACIP webpage that describes ACIP and its recommendation process (general, not COVID-19 specific)  
<https://www.cdc.gov/vaccines/acip/committee/role-vaccine-recommendations.html>
- More content coming soon





# Thank you



For more information, contact CDC  
1-800-CDC-INFO (232-4636)  
TTY: 1-888-232-6348 [www.cdc.gov](http://www.cdc.gov)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.