

Equitable vaccine distribution: context, considerations, implementation



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Partners
In Health

Context for these materials

The ideas presented in this deck reflect the latest public health thinking and scientific evidence as of March 2021. You are advised that the COVID-19 vaccine landscape remains highly fluid, and it is your responsibility to ensure that decisions are made based on the most up-to-date information available.

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Overview

- 1 Vaccines: one necessary component in the complete public health response to COVID-19
- 2 Structural barriers to access and vaccine hesitancy
- 3 Development and delivery of the COVID-19 vaccines

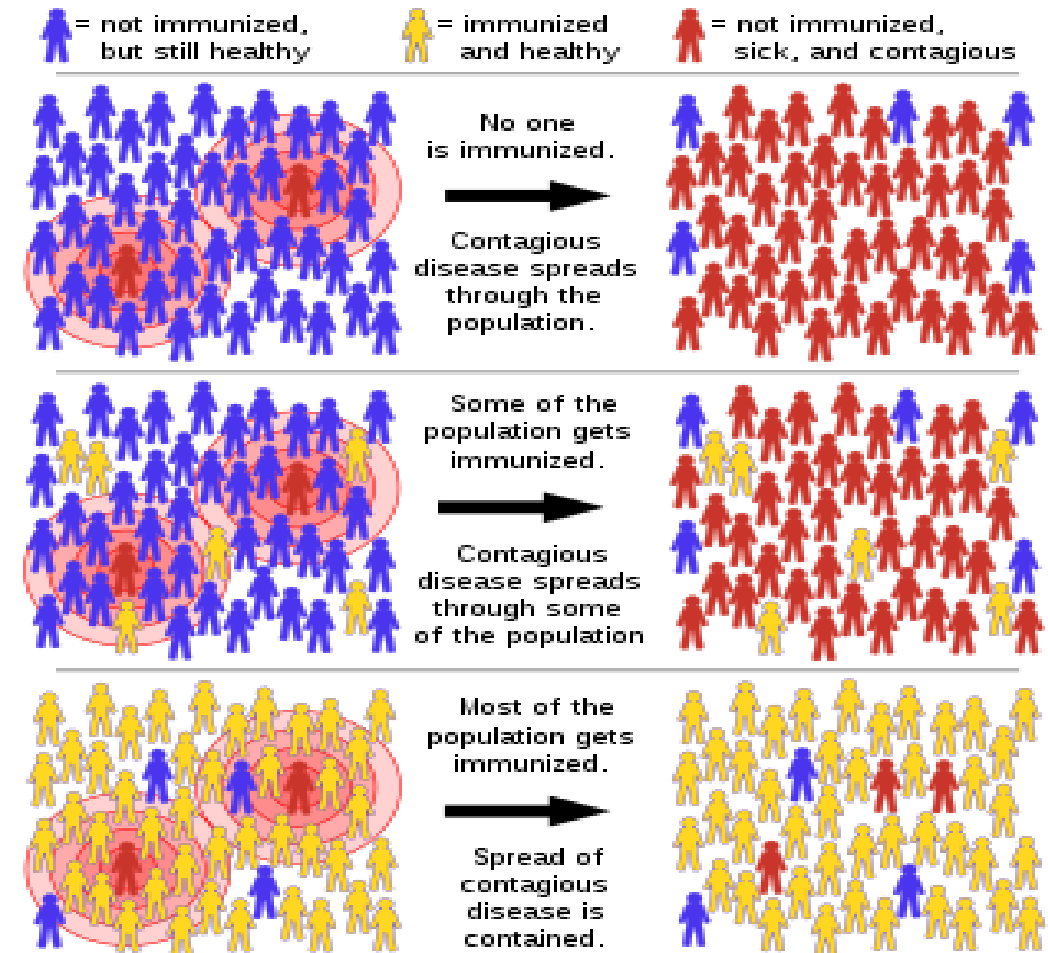
Vaccines: one necessary component in the complete public health response to COVID-19

The role of vaccination alongside other proven public health measures

- Safe, effective COVID-19 vaccines are an important tool for immunizing individuals and ending the pandemic.
- Communities and public health leaders must **maintain support for community mitigation efforts, testing, contact tracing, and care coordination capacity**. Neglect of these components will fuel the COVID-19 pandemic, leave us unprepared for the next pandemic, and deepen the economic crisis.
- Widespread vaccination will help prevent potentially devastating new variants from emerging. Continued social distancing and mask wearing, whether or not a person has been vaccinated, are essential to reducing transmission and maximizing efficacy of all interventions.

A COVID vaccine is critical to achieving population immunity

- **Direct protection:** Depending on the efficacy of the vaccine and extent of immunity, a vaccine protects an individual who is vaccinated.
- **Population immunity (herd immunity):** means enough people are protected from getting a disease because they already had the disease or *have been vaccinated*. Population immunity makes it hard for the disease to spread from person to person, and protects those who cannot be vaccinated, like newborns.
 - For SARS-CoV-2, it is estimated that 70-90% of people will need to be vaccinated to achieve population immunity.
 - Coverage must not only be high, it must be equitable — both across and within all communities.
 - This goal must be achieved while navigating barriers including:
 - Limited vaccine supply and challenging logistics
 - Emergence of SARS-CoV-2 variants
 - Vaccine hesitancy and access challenges



A focus on the four critical phases of vaccine distribution can promote equity at each step

Planning & Allocation



- Prioritization framework
- Demand quantification
- Community-driven allocation
- Evidence-based
- Inclusive of resource opportunities and constraints

Community Engagement



- Transparent messaging on safety, adoption, behavior change and uncertainty that recognize historical and structural sources of hesitancy and inaccessibility
- Community-led engagement
- Multi-channel communications campaigns (multilingual)

Delivery



- Safe transport and storage
- Trained staff to administer
- Community access points
- Record keeping

Follow-Up



- Multi-dose adherence
- Tracking and treating adverse effects
- Screening for and provision of social supports
- Progress to population immunity

It is important to encourage continual adherence to public health guidelines (hand washing, mask wearing, physical distancing) through each of these phases.

Structural barriers to access and vaccine hesitancy: opportunities to develop inclusive and sustainable systems

Many people face challenges in trying to get the vaccine

Populations/communities who may experience more significant challenges – many of whom are already disproportionately impacted by COVID-19 – include the following:

- Low-income
- Non-English speaking or reduced literacy
- The elderly
- Medically frail or disabled (physical, mental, cognitive, and sensory)
- Isolated (due to geography, documentation status)

Potential barriers to accessing the COVID-19 vaccine

Structural

- Limited access to health care provider and trusted systems for social support
- Inability to navigate a complex health care system

Information

- Inaccessibility of information on vaccine safety, efficacy, available distribution points, and scheduling options

Logistical

- Challenges in scheduling (for example, no computer or lack of knowledge regarding internet/computer skills)
- Lack of convenient locations, schedules, and / or available transportation
- Lack of personnel or equipment to administer vaccines

Address access challenges with community stakeholders

A nuanced understanding of local needs and limitations—[informed by data](#) and driven by the community—will help to establish priorities, identify areas of vulnerability, and create equity-centered solutions for vaccine distribution.

What are the anticipated vaccines access issues in the community?

Identify and address limiting factors within the community inhibiting equal access to vaccines.

- Inadequate public transportation and infrastructure
- Scarcity of vaccination locations, vaccine allotments
- Vaccine hesitancy
- Limited community engagement and/or leadership

What demographic and social factors exacerbate barriers to access?

Confer with local experts and design vaccine sites and information with exacerbating factors in mind. Consider integrating social support provision into the vaccination process.

- Poverty
- Advanced age and mobility
- Co-morbidities
- Work environment
- Housing environment
- Language or literacy challenges

What assets exist in the community to improve access?

Leverage community leaders to understand and incorporate local assets into vaccination plans. Equip organizations with ability to integrate social support provision into planning.

- Mobile vaccination options
- FQHCs
- CBOs/social support infrastructure
- Testing infrastructure
- Public spaces (libraries, churches)
- Workplace vaccinations

Equity Strategies

Vaccine hesitancy: an opportunity to recognize and reconcile deficits in the public health system

- We are faced with the tremendous task of ongoing **allocation and distribution**, building and iterating **efficient delivery systems**, and **taking action to build necessary trustworthiness** within academic, medical, scientific, and government institutions. These efforts to equitably distribute COVID-19 vaccines can rebuild **trust in public health systems**.
- Acknowledging the US history of structural racism, settler colonialism, and policy-driven economic inequities will be key as we seek to **integrate equity into every phase of this process**.
- It is critical that we identify and boldly articulate the principles by which we envision equitable vaccine distribution, and that we ensure those principles are embedded in **how we operationalize all components in the distribution and vaccination chain**.
- Building these systems now will equip us to distribute the COVID-19 vaccines and will help us **prepare for the inevitability of future pandemics**.

Sources of vaccine hesitancy

- Vaccine hesitancy describes a spectrum of trust that individuals and communities may have for the COVID-19 vaccines, informed by concerns rooted in historical, structural and economic experiences.
- Mischaracterizing valid hesitancy as “anti-vaccine” threatens to obscure actual barriers to adoption while perpetuating a system of blame that distracts from governmental and institutional failures in allocation, distribution, and trust-building.

Historical

Participation – Exclusion from equal participation in clinical trials

Coercion – Government complicity in unethical research

Neglect – Perpetual lack of investment in health systems and access for most marginalized populations

Practical

Economic – Uncertainty related to how to pay for care or time away from work in the event of sickness resulting from vaccination

Health – Unknown susceptibility to adverse events, allergic reactions

Undocumented status – Contact information requirements for scheduling and tracking doses

Informational

Multiple sources of (mis)information, relating to:

- Vaccine development process
- Vaccine safety
- Vaccine efficacy
- Vaccination prioritization strategies
- Vaccine access

Address hesitancy and support informed decision-making (1 of 2)

Information and perceptions about the vaccines will continue to change. This is a unique opportunity to rebuild trust in the public health system. Ideas for developing vaccine messaging activities and campaigns, do the following:

Capitalize on existing knowledge

Consult research literature and expert opinion from the communities where messaging will be targeted to accurately understand underlying perceptions, motivations and intended behaviors.

Resource starters:

- [Black Coalition Against COVID-19](#)
- [Urban Indian Health Institute](#)
- [United We Dream](#)

Maintain flexible feedback systems

Establish multiple feedback channels based on cultural preferences, language needs, and practical realities of marginalized groups.

Examples:

- Schedule regular, open community listening sessions; solicit feedback from trusted messengers
- Multilingual hotlines for feedback
- Leverage existing systems (contact tracing, CHW outreach, FQHCs)

Present information honestly and accurately

Clearly and consistently communicate known and unknown information about [vaccine development, efficacy, and side effects](#).

- Update information regularly
- Support communities with emerging data to conduct their own risk/benefit assessment
- Equip community leaders and trusted messengers to relay accurate, hyper-local information

Address hesitancy and support informed decision-making (2 of 2)

Transparent prioritization

- Utilize equity-focused frameworks for allocation and provide transparency into their development and implementation.
- Modify tools for local use based on community member feedback.

Data-driven decision-making

- Disaggregate data to understand heterogeneity within groups like health care workers, congregate living facilities, essential workers, and age categories.
- When developing local strategies for distribution, determine risk-profiles by sub-group.

Right-fit communication methods and channels

- Utilize diverse tools to engage audiences at different levels, including community listening sessions, FAQs, and talking points for creating buy-in with sub-groups.
- Include vaccine information at food bank collection sites and other established touchpoints.
- Engage trusted community partners as messengers.

These strategies can be applied through each of the four distribution phases.

COVID-19 vaccines

Approved COVID-19 vaccines in the US

There are 3 COVID-19 vaccines approved with emergency use authorization by the FDA as of February 28, 2021



Type of vaccine: mRNA

Efficacy in trials: 95%

Dosing: 2 shots, 21 days apart

moderna

Click to add text

Type of vaccine: mRNA

Efficacy in trials: 94.1%

Dosing: 2 shots, 28 days apart



Type of vaccine: Viral vector

Efficacy in trials: 72%*

Dosing: 1 shot

It is hard to compare the vaccines directly, because each trial study was designed slightly differently.

However, these three vaccines have one important statistic in common:

In trials, all were 100% effective at preventing hospitalizations and deaths!

Sources: <https://www.nejm.org/doi/full/10.1056/NEJMoa2035389>; <https://www.nejm.org/doi/full/10.1056/NEJMoa2034577>;
<https://www.fda.gov/media/146217/download>; <https://www.vox.com/22273502/covid-vaccines-pfizer-moderna-johnson-astrazeneca-efficacy-deaths>

Who can get the COVID-19 vaccines?

Almost everyone regardless of allergies, medications, pregnancy, or underlying medical conditions is eligible to receive COVID-19 vaccines

The only groups NOT eligible to receive COVID-19 vaccination are:

- Children under 16 years old for Pfizer, and under 18 years old for Moderna and Johnson & Johnson. These vaccines have not yet been approved for younger ages, though new studies are in progress that could expand eligibility soon
- Those who experience a severe allergic reaction to the first dose of a two dose COVID-19 vaccine



All vaccines provided through the US government will be free of charge to all individuals, including those without insurance. For those who have insurance, information will be collected so the vaccine provider can bill for administrative costs, but there will be no out of pocket cost to the individual.

CDC Advisory Council on Immunization Practices has recommended vaccination in phases.

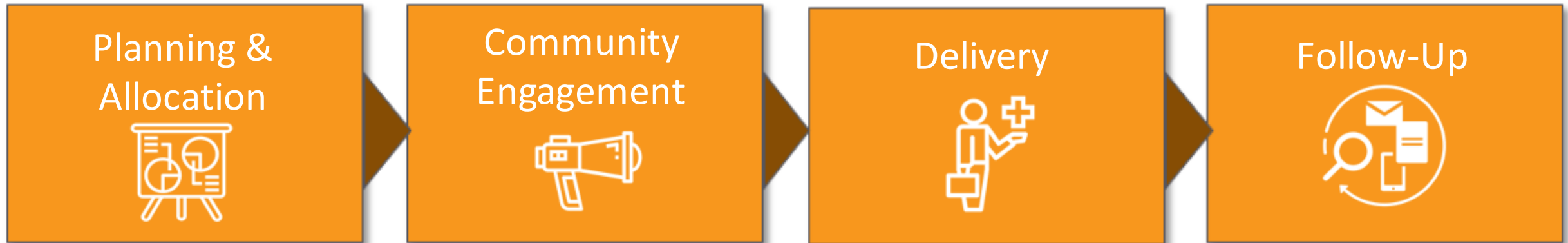
*Phase	Groups Recommended for vaccination	# of persons in each group (millions)	Total (millions)
1a	Health care personnel	21	24
	Long-term care facility residents	3	
1b	Frontline essential workers	30	49
	Persons aged 75 years and older	19	
1c	Persons aged 65-74	28	129
	Persons aged 16-64 years with high-risk conditions	81	
	Essential workers not recommending in Phase 1b	20	
2	All people aged 16 years and older not in Phase 1, who are recommended for vaccination		

There is state-by-state variation in how allocation policy is being translated in practice.

The initial rollout has been deeply inequitable in most jurisdictions—gaps are driven by supply, access and demand issues.

With a new US National Strategy for Vaccination (announced March 11, 2021), all adults will be eligible for vaccinations by May 1, 2021

Four critical phases of vaccine distribution: promoting equity at each step



1. Planning & Allocation

Challenge: The COVID pandemic has brought to light persistent inequities. A lack of a cohesive, equity-driven national response prioritizing those most in need will further exacerbate vulnerabilities

Cross-Stakeholder Coordination

- Share knowledge as much as possible across state and jurisdictional lines
- Engage city, county, and community leadership when making allocation determinations

Vaccine Information

- Deploy proactive community-led social mobilization campaigns to inform and sign up individuals
- Educate community leaders, employers, hospitals, health systems on the vaccine development and trial data, particularly related to inclusion and equity

Prioritization

- Prioritize access and preferential optionality, bolstered by education & support, for high-risk communities most impacted by COVID
- Feed community insights and medical mistrust into prioritization frameworks

Equity Strategies

2. Community Engagement

Challenge: Nearly [over one quarter of Americans](#) are hesitant to get a COVID-19 vaccine. While not the most hesitant population subset, communities of color have been historically and structurally marginalized by the medical system and have borne a history of experimentation and racism which could contribute to hesitancy. Speed of vaccine manufacturing and the politicization of the COVID pandemic has contributed to vaccine skepticism.

Community Insights

- Conduct and leverage immersive research on vaccine perspectives and hesitancies, and incorporate lessons learned from past risk and health communication
- Incorporate social marketing and behavioral science insights into communications strategies

Local Engagement

- Engage meaningfully with trusted community leaders, frontline health workers, CBOs, faith-based orgs, and schools to reinforce messaging, support outreach, and foster accountability
- Flip history and narrative of coerciveness to inclusion/participation

Communications & Messaging

- Communications campaigns that are multi-channel and hyperlocal counter sources of vaccine hesitancy (COVID-19 and other routine immunization programs) in communities where medical system may be untrustworthy

Equity Strategies

3. Delivery

Challenge: Distributing multiple vaccine types with different storage and administration requirements, especially to vulnerable communities with high disease burden and inadequate infrastructure (staff & space) presents operational complexities.

Equity Strategies

Staff Training

- Hire culturally competent, trustworthy staff
- Provide comprehensive training in vaccines, administration, and follow up support
- Provide training to identify needs and link to appropriate social supports at the point of vaccination

Accessibility

- Engage with employers and unions to provide work-site clinics and cover costs for employees
- Review learnings from testing expansion to establish community access points
- Use equity mapping techniques to plan accessible sites

Supply Chain Requirements

- Analyze infrastructure in vulnerable communities and address barriers to equity (i.e. volume packaging, ultra-cold requirements)
- Define operational constraints created by each vaccine
- Consider use of 1-dose vaccines when appropriate

4. Follow Up

Challenge: Maintaining preventative public health measures as the focus shifts increasingly to vaccines is critical. Coordinated tracking systems, ensuring follow-up care for any adverse effects, and screening for social support needs will be key to positive outcomes, vaccine uptake, and building public health infrastructure.

Centralized IT Infrastructure

- Implement centralized information technology to track progress, coordinate between jurisdictions, identify communities with low adoption, and design policy based on emerging learnings

Follow Up Care

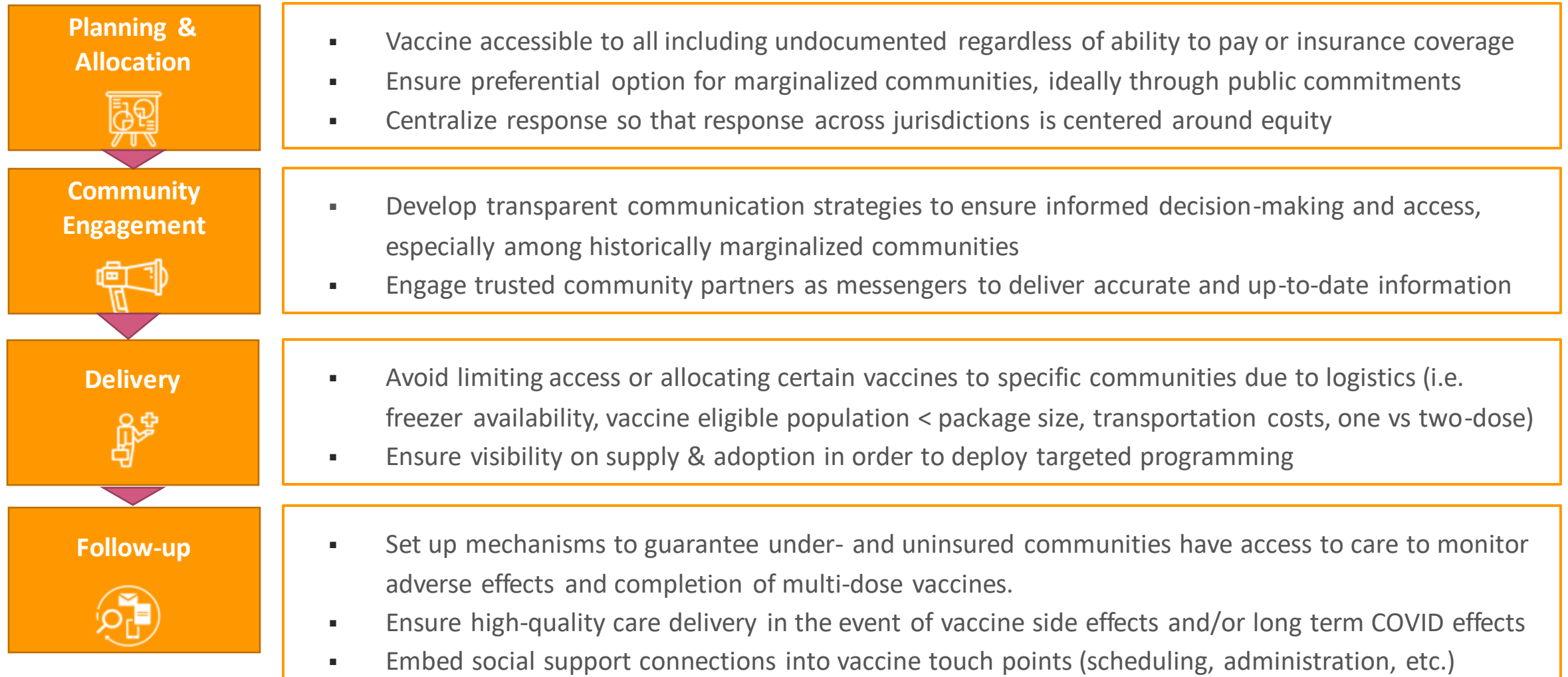
- Make follow up care fully accessible, particularly for under/uninsured and undocumented, with emphasis on care for those suffering from complications
- Screen for and provide social supports

Sustained Community Response

- Encourage continued vigilance around public health guidelines; i.e. hand washing, distancing, mask wearing
- Continue to strengthen existing contact tracing and testing programs

Equity Strategies

Integrating equity at every step requires sufficient funding and thoughtful implementation



US Public Health Accompaniment Unit



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