COVID-19 vaccine implementation

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8/18/2020
Complex and evolving landscape for COVID-19 vaccine

- One vs. two dose series
- Products not interchangeable
- Varying presentations
- Vaccine efficacy and adverse event profile in different populations
- Varying cold-chain requirements
- Use in children and pregnant women
- Need for socially distanced vaccination practices
- Communication and education
- Some high-risk groups for COVID-19 may distrust public health
Multiple Critical Components to Vaccine Implementation

Public health impact relies on rapid, efficient, and high uptake of complete vaccine series, with focus on high-risk groups.
Distribution will Adjust as volume of vaccine doses increases, moving from targeted to broader populations reached (phased approach)

**Limited Doses Available**
- Constrained supply
- Highly targeted administration required to achieve coverage in priority populations
- Tightly focus administration
- Administer vaccine in closed settings (places of work, other vaccination sites) specific to priority populations

**Large Number of Doses Available**
- Likely sufficient supply to meet demand
- Supply increases access
- Broad administration network required including surge capacity
- Expand beyond initial populations
- Administer through commercial and private sector partners (pharmacies, doctors offices, clinics)
- Administer through public health sites (mobile clinics, FQHCs, targeted communities)

**Continued Vaccination, Shift to Routine Strategy**
- Likely excess supply
- Broad administration network for increased access
- Open vaccination
- Administer through commercial and private partners
- Maintain PH sites where required

Illustrative scenario for planning purposes; will be adapted based on the clinical / manufacturing information on all OWS candidates and vaccine prioritization.

~660M cumulative doses available

Doses available per month (baseline as of 07/16)

Illustrative ramp-down, not based on OWS decisions or candidate projections
Overview of Distribution and Administration

Contracted OWS Manufacturers

Ancillary Supplies & PPE

Kitting

Distributor

Partner Depots

Administration sites

- Pharmacy
- LTC Providers
- Home Health
- Indian Health Services
- Other federal entity sites
- Public Health Clinics/FQHCs
- Hospitals
- Doctor’s Office
- Mobile Vaccination
- Mass Vaccination

Key

Flow of material

Select commercial partners and federal entities receive allocations

States receive allocations

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To distribute and administer COVID-19 vaccine, we will leverage many partners to ensure success.

Leveraging public health expertise and assets from all-of-USG…

…and contributions from our private partners.
## Draft Concept of Operations for select target populations

Populations are not comprehensive; additional populations to be added

<table>
<thead>
<tr>
<th>Target population</th>
<th>Vaccination Sites</th>
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</thead>
<tbody>
<tr>
<td><strong>Health care and Community support services</strong></td>
<td>Occupational health setting, Pharmacies, Other settings</td>
</tr>
<tr>
<td><strong>Homeland and national security</strong></td>
<td>Occupational health setting, Pharmacies, Other settings</td>
</tr>
<tr>
<td><strong>Other critical infrastructure</strong></td>
<td>Occupational health setting, Pharmacies, Other settings</td>
</tr>
<tr>
<td><strong>People at Increased Risk of Severe Illness</strong></td>
<td></td>
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<tr>
<td><strong>Elderly (65 years &amp; older)</strong></td>
<td>Doctor’s offices, Pharmacies, Other settings</td>
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<tr>
<td><strong>Nursing home / Assisted living facility residents</strong></td>
<td>Facilities health services, Mobile vaccination units</td>
</tr>
<tr>
<td><strong>Communities of color (Black, Hispanic)</strong></td>
<td>Doctor’s offices, PODs, Other settings</td>
</tr>
<tr>
<td><strong>Tribal populations</strong></td>
<td>IHS facilities, Tribal health units, Other settings</td>
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<tr>
<td><strong>People with underlying medical conditions</strong></td>
<td>Doctor’s Offices, Pharmacies, Other settings</td>
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<tr>
<td><strong>People Living in Congregate Settings</strong></td>
<td></td>
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<tr>
<td><strong>People who are incarcerated/detained</strong></td>
<td>Correctional facility health services, Pharmacies, ICE Health Service Corps; BOP for federal facilities</td>
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<tr>
<td><strong>People experiencing homelessness</strong></td>
<td>PODs, Mobile vaccination units, Health clinics serving population</td>
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<tr>
<td><strong>People attending university or college</strong></td>
<td>Student health clinics, PODs, Other settings</td>
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<tr>
<td><strong>People living in rural jurisdictions</strong></td>
<td></td>
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<tr>
<td><strong>Individuals with disabilities</strong></td>
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</tbody>
</table>

### Populations With Limited Access to Vaccine

- **People living in rural jurisdictions**: FQHCs, Mobile clinics, Other settings
- **Individuals with disabilities**: Home health organizations, Mobile clinics, Other settings
In the face of health crises or emergencies, communication, community engagement, and cultural competency are critical.

This research suggests that efforts should prioritize targeted messaging, community engagement and support, and culturally competent interventions to promote equitable acceptance and uptake of adult immunizations.

**Targeted Messaging**

Epidemics do not increase vaccine acceptance in racial or ethnic minorities, meaning targeted communication from trusted messengers remains necessary—especially when a vaccine is new, data on safety or risks is limited, and negative informal messaging occurs (CDC, 2015).

**Community Engagement**

Sustained community engagement is key in identifying the education and support required to implement health efforts—especially in communities that face instability with basic needs, such as employment, food, shelter, and clean water (Hutchins, 2009).

**Cultural Competency**

Health care staff and first responders should provide culturally competent messaging and care—and include minority groups in planning—to encourage equitable engagement and outcomes in a pandemic response (Hutchins, 2009).
The Vaccine Life Cycle
safety at every phase

GUIDE
ACIP
ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES

BLA
BIOLOGICS LICENSE APPLICATION

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

FDA
FOOD AND DRUG ADMINISTRATION

IND
INVESTIGATIONAL NEW DRUG APPLICATION

VACCINE
DEVELOPMENT

safety is a priority during vaccine development + approval

safety continues with CDC + FDA safety monitoring

PHASE 1 safety
PHASE 2 effectiveness
PHASE 3 safety + effectiveness

FDA APPROVAL OF NEW VACCINE
ACIP REVIEW
POST-APPROVAL MONITORING + RESEARCH

BASIC RESEARCH
DISCOVERY
PRE-ClinICAL STUDIES
IND SUBMITTED
CLINICAL STUDIES / TRIALS
BLA SUBMITTED
FDA REVIEW
ACIP RECOMMENDATION

LEARN MORE
FDA VACCINE DEVELOPMENT + APPROVAL PROCESS http://go.usa.gov/xvvNd
CDC VACCINE SAFETY MONITORING + RESEARCH http://go.usa.gov/xvvNe
CDC’s strategic framework for strengthening vaccine confidence and preventing outbreaks of vaccine preventable diseases.

**Strategy: Protect communities at risk from under-vaccination**
- Leverage immunization data to find and respond to communities at risk
- Work with trusted local partners to reach at-risk communities before outbreaks
- Ensure vaccines are available, affordable, and easy-to-get in every community

**Strategy: Get providers and parents effective information resources**
- Expand resources for health care professionals to help them have effective vaccine conversations with parents
- Work with partners to start conversations before the first vaccine appointment
- Help providers foster a culture of immunization in their practices

**Strategy: Stop misinformation from eroding public trust in vaccines**
- Work with local partners and trusted messengers to improve confidence in vaccines among key, at-risk groups
- Establish partnerships to contain the spread of misinformation
- Educate key new stakeholders (e.g., state policy makers) about vaccines
Stakeholder Engagement and Strategies

Engagement
- A complex network is necessary for successful implementation of a national COVID-19 vaccine distribution program
  - Support local, state and regional planning
  - Promote vaccine to general public and special populations
  - Ensure vaccine equity and access

Strategies
- Provide routine and timely updates on vaccine planning
- Build national network to amplify messaging and outreach to increase trust, acceptance, and uptake of vaccine
- Engage in dialogue with new and existing partners to understand key considerations and needs for special populations
- Stand up specific stakeholder groups for communities of color
Microplanning with jurisdictions for COVID-19 vaccination response began last week

Objectives of program

1. Accelerate state, local, tribal readiness for a large-scale vaccination campaign
2. Better inform OWS's understanding of jurisdiction plans & technical assistance needs
3. Provide technical assistance to jurisdictions on their COVID-19 vaccine planning process
4. Develop model plans to be shared with all jurisdictions prior to COVID-19 vaccine release
5. Build on expanded influenza vaccination campaign planning work

Key facts

- Five jurisdictions:
  - North Dakota (on site)
  - FL (on site)
  - CA, MN, PHI (virtual)
- Multi-agency microplanning teams, including
  - CDC
  - DOD
  - IHS

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Next Steps for State Planning

- Each jurisdiction develops a microplan
  - Utilize microplans and outputs from first 5 locations
  - CDC provides technical assistance

- Programs are operationally ready, including identifying vaccination sites and onboarding into IT system, for vaccinating the populations laid out in the planning assumptions
  - MOUs signed
  - Providers onboarded
  - Vaccinating workforce identified/planned

- Programs lay the groundwork for vaccinating communities of color through community engagement, including a work group or stakeholder groups

- Form a vaccination crisis committee
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.