Phased Allocation of COVID-19 Vaccines

Kathleen Dooling, MD, MPH
ACIP meeting
December 1st, 2020
Policy Question:

- Should health care personnel and residents of long-term care facilities be offered COVID-19 vaccination in Phase 1a?
Allocation of initial COVID-19 vaccine: Phase 1a

Science:
- COVID-19 disease burden
- Balance of benefits & harms of vaccine
Allocation of initial COVID-19 vaccine: Phase 1a

Implementation:
- Values of target group
- Feasibility
Allocation of initial COVID-19 vaccine: Phase 1a

Ethical Principles:
- Maximize benefits & minimize harms
- Promote justice
- Mitigate health inequities
- Promote transparency
<table>
<thead>
<tr>
<th>Time</th>
<th>Phase 1a</th>
<th>Phase 1b</th>
<th>Phase 1c</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Health care personnel</td>
<td>Essential workers</td>
<td>Adults with high-risk medical conditions, Adults 65+</td>
</tr>
<tr>
<td></td>
<td>LTCF residents</td>
<td>(examples: Education Sector, Food &amp; Agriculture, Utilities, Police, Firefighters, Corrections Officers, Transportation)</td>
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Work Group Proposed Interim Phase 1 Sequence
# Proposed groups for Phase 1a vaccination

<table>
<thead>
<tr>
<th>Health care Personnel(^1,2) (HCP) (~21million)</th>
<th>Long-Term Care Facility (LTCF) Residents(^3) (~3M)</th>
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<tbody>
<tr>
<td>Examples</td>
<td></td>
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<tr>
<td>• Hospitals</td>
<td>• Skilled nursing facilities (~1.3 M beds)</td>
</tr>
<tr>
<td>• Long-term care facilities</td>
<td>• Assisted living facilities (~0.8 M beds)</td>
</tr>
<tr>
<td>• Outpatient clinics</td>
<td>• Other residential care (~0.9 M beds)</td>
</tr>
<tr>
<td>• Home health care</td>
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<tr>
<td>• Pharmacies</td>
<td></td>
</tr>
<tr>
<td>• Emergency medical services</td>
<td></td>
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<tr>
<td>• Public health</td>
<td></td>
</tr>
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1. [https://www.cdc.gov/infectioncontrol/guidelines/healthcare](https://www.cdc.gov/infectioncontrol/guidelines/healthcare)
3. [https://www.cdc.gov/longtermcare/index.html](https://www.cdc.gov/longtermcare/index.html)
Summary of Work Group considerations supporting vaccinating health care personnel in Phase 1a

- As of Nov 30, at least 243,000 confirmed COVID-19 cases among HCP, with 858 deaths\(^1\)

- LTCF modeling demonstrates more cases and death averted at the facility by vaccinating staff compared to vaccinating residents\(^2\)

- COVID-19 exposure (inside and outside the healthcare setting) results in absenteeism due to quarantine, infection and illness. Vaccination has the potential to reduce HCP absenteeism

Older adults in congregate settings are disproportionately affected by COVID-19

- Long-Term Care Facility (LTCF) residents and staff accounted for 6% of cases and 40% of deaths in the U.S.\(^1\) (Nov 24, 2020)
  - Skilled Nursing Facilities (~1.3M)
    - ~496,000 confirmed + probable cases (as of Nov 15, 2020)\(^2\)
    - >69,000 deaths
  - Assisted Living Facilities (~0.8M)
    - 27,965 confirmed + suspected cases (as of Oct 15/2020, based on 23 states\(^3\))
    - 5,469 deaths (as of Oct 15/2020, based on 20 states\(^3\))

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The majority of COVID-associated hospitalized patients older than 75 years, were admitted from a LTCF*

Data Source: COVID-19 associated hospitalizations reported to Coronavirus Disease 2019 (COVID-19)-Associated Hospitalization Surveillance Network (COVID-NET) surveillance system. COVID-NET is a population-based surveillance system that collects data on laboratory-confirmed COVID-19-associated hospitalizations among children and adults through a network of over 250 acute-care hospitals in 14 states.

*LTCF= Nursing home/skilled nursing facility, rehabilitation facility, assisted living/residential care, LTACH, group home/retirement, psychiatric facility, or other long-term care facility
Implementation
Survey respondents supported early allocation of COVID-19 vaccine to health care personnel and seniors

Which of the following groups should receive priority when a COVID-19 vaccine is available?

The Harris Poll, n=1399 U.S. Adults, August 14-16, 2020

- Healthcare Workers: 73%
- Seniors (age 55+): 71%
- Immunocompromised people: 68%
- Essential workers: 60%
- Fire/Rescue/Police: 56%
- Teachers: 44%
- Higest incidence areas: 34%
- Children: 28%
- Young adults (18-30): 16%

Survey respondents supported early allocation of COVID-19 vaccine to groups proposed for Phase 1

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Hospital staff influenza vaccine uptake highest among health care personnel

Percentage of health care personnel who received influenza vaccination, by work setting* — Internet panel surveys, † United States, 2010–11 through 2018–19 influenza seasons

https://www.cdc.gov/flu/fluvaxview/hcp-coverage_1819estimates.htm
Skilled Nursing Facilities (SNFs) Enrolled in Pharmacy Partnership for Long-Term Care Program

* States >100% enrollment: Numerator may include non-CMS-certified SNFs. Denominator is only CMS-certified.

99% of total SNFs nationwide have enrolled (N=15,353)
Example: One-dose and two-dose coverage among Skilled Nursing Facility residents

Note: Results from a simulation run based on SNF lengths of stay, excluding stays longer than a year. Discharge data from Minimum Data Set, 2016.
# Work Group assessment: Ethics

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<td>Maximize benefits &amp; minimize harms</td>
<td>Multiplier effect - protection of HCPs and preservation of healthcare capacity</td>
<td>LTCF residents are at high risk for infection, severe disease and death from COVID-19. Prevention may reduce hospital utilization</td>
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<td>Promote justice</td>
<td>HCP provide care in high-risk settings and will be essential for vaccine distribution</td>
<td>Federal Pharmacy Partnership Program will facilitate equal access to vaccine across most LTCFs</td>
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<td>Mitigate health inequities</td>
<td>HCP includes broad range of occupations, inclusive of low-wage earners and racial and minority groups</td>
<td>Federal Pharmacy Partnership Program will reach LTCF across the socioeconomic spectrum</td>
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Work Group assessment:

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Additional Work Group considerations for Phase 1a

- This represents interim guidance for Phase 1a—allocation policy will need to be dynamic and adapt as new information such as vaccine performance and supply and demand become clear.

- Gating criteria will be necessary to move expeditiously from one Phase to the next, as demand saturates.

- Following vaccination, measures to stop the possible spread of SARS-CoV-2, such as masks and social distancing, will still be needed.

- The U.S. government is committed to making COVID-19 vaccines available to all residents who want them, as soon as possible.
Feedback from ACIP meeting, November 23, 2020:

**Heath care personnel**
- Guidance on sub-prioritization of HCP when vaccine supply is limited
- Address vaccination in pregnant/lactating HCP
- Reactogenicity following vaccination:
  - Guidance on scheduling to avoid potential clustering of worker absenteeism related to systemic reactions
  - Guidance on evaluation of systemic symptoms following vaccination

**LTCF Residents**
- Understanding of LTCF resident consent/assent for vaccination
- Reactogenicity following vaccination & safety monitoring
Thank you

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.

For more information, contact CDC
1-800-CDC-INFO (232-4636)