State Health Advisory Supplement
Expansion of COVID-19 Vaccine Boosters
Coronavirus Disease 2019 Supplemental Advisory #13.5
Wyoming Department of Health
November 19, 2021

SITUATION SUMMARY
The U.S. Food and Drug Administration (FDA) has authorized and the Centers for Disease Control and Prevention (CDC) have recommended expanding the use of booster doses for individuals aged 18 years and older who received a primary series of an mRNA COVID-19 vaccine (Pfizer-BioNTech/COMIRNARTY or Moderna). All individuals aged 18 years and older who received a primary series of mRNA COVID-19 vaccine may receive a booster dose at least 6 months after completion of the primary series. This Health Advisory provides a summary of current recommendations for booster doses and additional doses of COVID-19 vaccines.

INDIVIDUALS WHO RECEIVED A PRIMARY SERIES OF PFIZER OR MODERNA
For individuals who received a primary series of Pfizer or Moderna, the following groups are recommended to receive a booster dose at least six months after completion of the primary series:

● All individuals aged 50 years and older
● Residents of long-term care settings aged 18 years and older
● All individuals aged 18-49 years based on individual benefit and risk

Based on the sustained high transmission levels in Wyoming, the Wyoming Department of Health considers most individuals aged 18-49 years to be at substantial risk for COVID-19 infection and recommends a booster dose for these individuals.

INDIVIDUALS WHO RECEIVED A PRIMARY SERIES OF J&J
All individuals aged 18 years and older who received the J&J vaccine are recommended to receive a booster dose. Booster doses should be given two or more months after the initial dose.

BOOSTER DOSES
Individuals may choose which vaccine they receive as a booster dose. Individuals who are eligible for a booster dose as described above may receive a dose of Pfizer, a dose of Moderna, or a dose of J&J regardless of which vaccine they received for their primary series.
**BOOSTER DOSING**

All boosters consist of a single dose of vaccine. The booster dose of Moderna is half the dose provided during the initial series. The booster doses of Pfizer and J&J use the same dosing as the initial series.

Dosing for boosters is as follows:
- Pfizer: 0.3 mL/30 mcg (same as for the initial series)
- Moderna: 0.25 mL/50 mcg (half the dose of the initial series)
- J&J: 0.5 mL (same as for the initial series)

**BOOSTER DOSE SUMMARY**

<table>
<thead>
<tr>
<th>Eligibility for Booster</th>
<th>Primary Series</th>
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</thead>
<tbody>
<tr>
<td>Pfizer</td>
<td>Moderna</td>
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<tr>
<td>o All individuals aged 18+</td>
<td>o All individuals aged 18+</td>
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<table>
<thead>
<tr>
<th>Timing</th>
<th>Primary Series</th>
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<tr>
<td>At least 6 months after completion of primary series</td>
<td>At least 6 months after completion of primary series</td>
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<table>
<thead>
<tr>
<th>Booster Options</th>
<th>Primary Series</th>
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<tbody>
<tr>
<td>Single dose of Pfizer, J&amp;J, or half-dose Moderna</td>
<td>Single dose of Pfizer, J&amp;J, or half-dose Moderna</td>
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Fact sheets for healthcare providers administering COVID-19 vaccines can be found below:
Pfizer: [https://www.fda.gov/media/153713/download](https://www.fda.gov/media/153713/download);
[https://www.fda.gov/media/153713/download](https://www.fda.gov/media/153713/download)
Moderna: [https://www.fda.gov/media/144637/download](https://www.fda.gov/media/144637/download)
J&J: [https://www.fda.gov/media/146304/download](https://www.fda.gov/media/146304/download)

**ADDITIONAL DOSES OF mRNA COVID-19 VACCINES**

WDH reminds providers that individuals who may not have had an adequate immune response to an initial two-dose series of mRNA COVID-19 vaccine (Pfizer or Moderna) may receive a third dose at least 28 days after completion of the initial 2-dose mRNA series.

The age groups authorized to receive additional doses are unchanged from those authorized to receive the primary vaccination series:
- Pfizer-BioNTech: aged ≥ 12 years
- Moderna: aged ≥ 18 years

An additional dose of an mRNA COVID-19 vaccine after an initial 2-dose primary mRNA COVID-19 vaccine series should be considered for people with moderate to severe immune compromise due to a medical condition or receipt of immunosuppressive medications or treatments. These conditions and treatments include but are not limited to:
- Active treatment for solid tumor and hematologic malignancies
- Receipt of solid-organ transplant and taking immunosuppressive therapy
- Receipt of CAR-T-cell or hematopoietic stem cell transplant (within 2 years of transplantation or taking immunosuppression therapy)
- Moderate or severe primary immunodeficiency (e.g., DiGeorge syndrome, Wiskott-Aldrich syndrome)
- Advanced or untreated HIV infection
- Active treatment with high-dose corticosteroids (i.e., ≥20mg prednisone or equivalent per day), alkylating agents, antimetabolites, transplant-related immunosuppressive drugs, cancer chemotherapeutic agents classified as severely immunosuppressive, tumor-necrosis (TNF) blockers, and other biologic agents that are immunosuppressive or immunomodulatory.

Factors to consider in assessing the general level of immune competence in a patient include disease severity, duration, clinical stability, complications, comorbidities, and any potentially immune-suppressing treatment.

The utility of serologic testing or cellular immune testing to assess immune response to vaccination and guide clinical care (e.g., as part of need assessment for an additional dose) has not been established. Serologic testing or cellular immune testing outside of the context of research studies is not recommended at this time.

The additional mRNA COVID-19 vaccine dose should be the same vaccine product as the initial 2-dose mRNA COVID-19 primary vaccine series. If the mRNA COVID-19 product given for the first two doses is not available, the other mRNA COVID-19 vaccine product may be administered. **Individuals receiving the Moderna vaccine as an additional dose should receive the same dose as the initial series (0.5 mL/100 mcg).**

Individuals who are immunocompromised and receive an additional primary dose of mRNA vaccine and are 18 years of age and older should receive a single booster dose at least 6 months after the additional primary dose. At this time it is not recommended to receive more than 4 doses of mRNA vaccines.

Currently there are insufficient data to support the use of an additional mRNA COVID-19 vaccine dose after a single dose J&J COVID-19 vaccination series in immunocompromised people. However, immunocompromised individuals who received J&J should receive an mRNA vaccine or a second dose of J&J as a booster dose at least two months after completion of the primary series. A person who received one primary dose of Janssen COVID-19 Vaccine should not receive more than two COVID-19 vaccine doses.

**CONTACT INFORMATION**
For questions about the COVID-19 vaccines, providers should visit the WDH Immunization Unit website at [https://health.wyo.gov/publichealth/immunization/wyoming-covid-19-vaccine-information/](https://health.wyo.gov/publichealth/immunization/wyoming-covid-19-vaccine-information/) or email WDH.immunization@wyo.gov.
Wyoming healthcare providers and facilities are reminded to check COVID-19 resources available from WDH and CDC. Healthcare providers or facilities can contact WDH through the following channels:

- Please email questions about preparedness, PPE, infection control, or other non-urgent topics to wdh.covid19@wyo.gov. This email address is monitored 7 days a week and replies will come within 24 hours.
- Please contact WPHL with questions about specimen collection, storage, or shipping at 307-777-7431 or WPHL@wyo.gov.
- Please use the WDH Public Health Emergency Line (1-888-996-9104) for urgent questions. This line is intended ONLY for healthcare providers. Do not share this number with the public.

Please refer questions from the general public to 211 or to the WDH email box (wdh.covid19@wyo.gov).