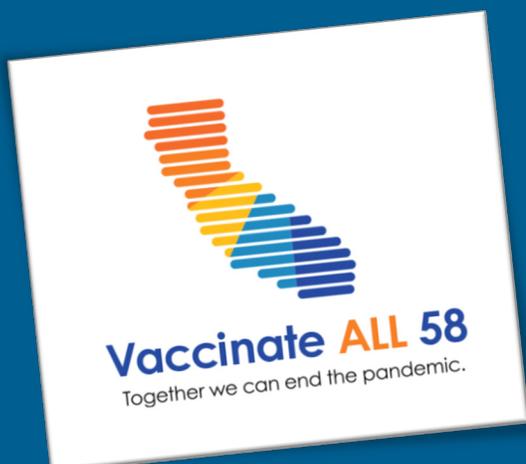




COVID-19 Vaccine Action Plan

California Health and Human Services Agency
California Department of Public Health



September 23, 2021

Executive Summary

The purpose of this Action Plan is to outline the steps we will take to administer vaccine with the potential of both the approval of boosters and the eligibility of children under the age of 12. As we move to this next phase, our priorities will be as follows:

1. Vaccinate those that are unvaccinated or not fully vaccinated while closing the equity gaps;
2. Ensure enough capacity to administer booster shots; and
3. Vaccinate children under age 12 as they become eligible.

This Action Plan models various scenarios of vaccine demand and administration given anticipated changes in eligibility and demand; identifies the strategies for reaching specific population groups; examines the volume and capacity of the provider network to achieve these strategies; identifies gaps and resource need; and reviews key actions underway and planned.

In summary, CDPH has identified strategies by population group (pending federal approval) to leverage all partners and resources most effectively to further extend our collective ability to administer the COVID-19 vaccine.

1. **Immunocompromised:** administration of an additional dose of vaccine through the existing healthcare delivery system, largely pharmacies and primary care providers.
2. **Unvaccinated or not fully vaccinated:** administration of vaccine through Local Health Jurisdictions (LHJs) in order to reach hard to reach populations in trusted and easy to access locations.
3. **Under 12 population:** administration of vaccine through a combination of Vaccine for Children (VFC) providers, school located vaccination clinics, pharmacies, and other primary care/ pediatric providers.
4. **Boosters for those 65+:** administration of vaccine through the existing healthcare delivery system, largely pharmacies and primary care providers.
5. **Boosters for those 12-64:** administration of vaccine through a combination of existing healthcare delivery systems, pharmacies, primary care providers, schools and mass vaccination clinics set up during peak timeframes.

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Considerations and Challenges

- The Long-term Care Federal Pharmacy Partnership will not be re-started nor will federal staffing resources be available.
- Healthcare surge could limit availability of healthcare systems and staff for vaccination.
- Providers and LHJs have scaled back vaccination operations and will need to determine if they will ramp back up; some local jurisdictions and providers are planning for mass vaccination sites and some will again need staffing support.
- There will be a continued need for transportation and at-home vaccinations.
- Federal and state prioritization of the various populations to be vaccinated may change over time depending on who is getting hospitalized, etc. For example, demand for early boosters could be substantial if transmission, hospitalizations, and deaths continue to grow; depending on impact, at-risk populations may be higher priority than under 12 population if disease severity in children remains low.
- Alternatively, demand, at least in some areas, may be low for primary vaccine series and booster shots.
- The need for boosters may create uncertainty among some about the vaccine and therefore cause communication/education challenges to increase vaccination rates.

Strategies by Population Groups

To vaccinate most effectively and efficiently each of the population groups, easy access, convenient locations, and trusted providers will be critical. California will leverage the traditional healthcare system and network of providers that has continued to expand to vaccinate each of the population groups with some nuances as detailed below. CDPH has identified strategies and modeled core vaccination provider's administration capacity for each group over time based on updated vaccine administration for various populations approval scenarios.

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- Providing third doses for those who are moderately to severely **immunocompromised** will rely on the existing healthcare delivery system, largely pharmacies and primary care providers.
 - Peak need was estimated at ~114,000 doses per week on week of August 30th. Approximately 75,000 confirmed additional were reported administered the week of August 30th. This demonstrates less demand from this population than anticipated.
 - Currently, **258,714** third doses have been administered since August 16th which is estimated at 32-38% of those with moderate to severe immune compromise based on an estimated range of 700,000-800,000 in this population group.

- Vaccination of **unvaccinated or not fully vaccinated** population will continue to primarily occur through LHJs to reach hard to reach populations in trusted and easy to access locations. Pharmacies and small provider practices also play a large role in these communities.

- **Under 12 population** will be vaccinated by VFC providers, school located vaccination clinics, pharmacies, and other primary care/pediatric providers.
 - Peak need of 626,000 doses per week / 99,428 doses per day estimated in model during week of November 1st based on assumptions of CDC approving ages 5 to 11 on October 15th, and ages 0 to 4 on December 1st.

- **Boosters for those 65+** will rely on the existing healthcare delivery system, largely pharmacies and primary care providers. Some may need in-home vaccinations. Additional planning and strategies specific to the Long-Term Care (LTC) population will include dedicated appointments at pharmacies and primary care providers and on-site vaccination clinics by pharmacies, local health departments and other dedicated strike teams.
 - If booster is approved with **8-month** eligibility after the last dose, peak need of 0.7 million doses per week/ 100,000 doses per day during week of October 25th
 - If booster is approved with **6-month** eligibility after the last dose, peak need of 1.1 million doses per week/ 167,000 doses per day during week of October 4th

- **Boosters for those 12-64** will rely on a combination of existing healthcare delivery systems, pharmacies, primary care providers, schools and mass vaccination clinics set up during peak timeframes.

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- If booster is approved with **8-month** eligibility after last dose, peak need of 1.9 million doses per week / 280,000 doses per day during week of December 27th
- If booster is approved with **6-month** eligibility after last dose, peak need of 2.7 million doses per week / 390,000 doses per day during week of October 4th

See charts in [Appendix](#) for models of vaccine demand over time for each population group. Models are based on current assumptions and conditions and will continue to be updated pending decisions and recommendations from the Federal Government.

Identified Resource Needs

The Administration is evaluating vaccine resource needs and will work with the Legislature to secure the necessary funding for vaccine administration. This could include approximately \$300-400 million for activities including:

- Evaluate funding for the California Immunization Registry (CAIR) and Digital Vaccine Record (DVR) system to support ongoing data quality needs and remediation effort and proactive data quality/strike teams. Although federal funds were dedicated to other IT projects, there was no dedicated funding for continuing and expanding efforts.
- Evaluate funding to support community engagement and public education to get deeper and wider into the community so that we can continue to focus on vaccinating the unvaccinated, while also reaching newly eligible populations and those eligible for boosters.
- Resources to prepare for vaccinating LTC residents; secure partnerships with pharmacies and vendors to provide mobile/on-site vaccination services.
- Staffing and support for Provider Engagement and Technical Assistance.
- Support to broaden the school partnership with technical assistance and resources.
- Support for LHJ mass vaccination clinics including Staffing and Turn-Key Resources support for these resources.

- Funding transitioned to LHJs on 8/17 – there may be a need to return some part of state support.
- CDPH has begun discussions with LHJs and is confirming which LHJs are planning mass vaccination sites and evaluating what staffing resources they may need.
- Transportation/Homebound services may need to be reinvigorated. Additional support may be needed as the Ambulance Strike Teams used in some jurisdictions are redirected to fire responses.
- Reliance on the Health Care Delivery System to operate at full capacity will require messaging and targeted outreach from the high-level officials and departments to encourage/require vaccinations.
- Continue working with providers to streamline and address administrative barriers or challenges.

Ongoing and Planned Actions

Resourcing

- Evaluate funding for CAIR data quality and DVR system to support ongoing remediation effort and proactive data quality/strike teams.
- COMPLETED: Secure resources to prepare for vaccinating LTC residents; partnerships with pharmacies and vendors to provide mobile/on-site vaccination services.
- COMPLETED: Secure staffing and support to assist with Provider Engagement and Technical Assistance.
- COMPLETED: Secure support to broaden the school partnership with technical assistance and resources.
- Support for LHJ mass vaccination clinics including Staffing and Turn-Key Resources support for these resources.
- COMPLETED: Determine if transportation/homebound programs need to be reinvigorated.

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- Determine if additional support may be needed as the Ambulance strike teams are used in some jurisdictions given fire situation.
- Targeted outreach from the state leaders and direction from departments to encourage/require vaccinations and to prepare the healthcare delivery system to operate at full capacity.

Communications

- Continue efforts to drive demand through targeted and focused communications and outreach to public as well as by providers to patients.
- COMPLETED: Define what immune compromised means and communicate eligibility to the public.
- Define, emphasize, and explain to the public the recommendations, timeline, and ways to access the under 12 vaccine. Review social media campaigns and adopt broader strategies to vaccinate the unvaccinated including testimonials, additional messengers, etc.
- Define, emphasize, and explain to the public CDPH's recommendations, timeline, and ways to access booster vaccines.
- Focused messaging continues to reach unvaccinated and partially vaccinated people to get and complete their primary series. Review social media campaigns and adopt broader strategies to vaccinate the unvaccinated including testimonials, additional messengers, etc.
- Continue to monitor and address mis- and disinformation.
- Continue messaging to support an ongoing culture of public health best practices to mitigate the spread, including wearing a mask, physical distancing, getting tested, and staying home when sick, etc.
- Continue to develop and execute a multimedia campaign that delivers accurate and actionable information in-language, engaging ethnic media (e.g., TV, radio, social, paid, print, out-of-home, earned, etc.) Additional strategies include amplifying voices of trusted messengers through testimonials, ambassador program, and medical professional program, etc. Use external affairs team and relationships to key stakeholders, as well as

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the trusted messengers in Community-based Organization (CBO) network (see category 2 below).

- Engage stakeholder groups to provide ongoing up-to-date information, understand barriers to accessing vaccine, address concerns and provide tools and materials for communicating with the various populations they represent.

Outreach and CBO Network

- Engage experienced community based and academic partners to advise on shared best practices and successful strategies to address and increase vaccination coverage in identified priority neighbourhoods/high-risk populations like African American and others in Vaccine Equity Metric Q1 and Q2.
- Coordination of outreach efforts via the available supports through the CBO network, LHJs and other on the ground resources. Share information about latest updates and policy changes, including newly eligible populations and recommendations for additional doses vs. boosters. Distribute latest available vaccine related resources, communication materials and collateral.
- Address mis- and disinformation and report new trends.
- As trusted messengers, facilitate vaccine appointment assistance through phone banking, door to door and other tactics to reach unvaccinated Q1 and Q2 populations in identified neighbourhoods. Leverage efforts to date to return to households to reach newly eligible populations for vaccines and boosters.
- Assess CBO network capacity, and co-host/support providers with mobile/pop up vaccination sites in prioritized tracts through canvassing and other methods of advertising. Serve as trusted messengers in community.

Provider Onboarding

Patients consistently rank healthcare providers as their most trusted source of vaccine information. CDPH continues to onboard providers, especially in HPI Q1 and Q2 areas and those serving Medi-Cal populations

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- Conduct zip code analysis of areas with gaps in providers followed by targeted outreach to providers within these geographic areas.
- Continue outreach and promotion of the CalVax grant for small providers. Deadline extended to October 15, 2021.
- Ramp up targeted outreach and engagement of remaining VFC providers not currently enrolled.
- Develop tools to assist smaller providers to connect their patients to vaccination sites such as local pharmacies (for example, pocket cards or tri-fold flyers).

Provide technical assistance and resources to facilitate and implement school-located vaccine clinics to administer COVID-19 vaccine to students, families, and communities.

- CDPH to provide direct support to schools
 - \$10 million CDC Public Health Workforce grant supporting school-based health programs including mobile or pop-up clinics, staffing or equipment requests for school-located vaccination clinics.
 - Expanded eligibility to include schools and school-based health clinics eligible for the [CalVax grant](#).
 - Immunization champions in schools to assist with organizing and overseeing vaccine clinics and related efforts.
- Education and technical assistance including school-located vaccination toolkit in partnership with California Immunization Coalition; webinars and availability of subject matter experts to address questions and share best practices; and creation of new multi-topic immunization training modules/materials for school-personnel. Also developing enhancements to Shotsforschool.org
- Resources developed to support enrollment and onboarding in MyCAVax including job aides and webinars. In addition, CDPH is developing the technical capability for online consent forms for minors through My Turn, addressing a long-time barrier for schools and allows for students to be vaccinated without the parent on site.
 - CDPH is also exploring potential partnerships with large pharmacy chains and MCEs to assist schools with logistics and vaccine administration

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- Outreach efforts include coordination with community-based organizations to support outreach related to school-located vaccine efforts and assessing needs of local health jurisdictions and schools to conduct school-located vaccine events.

School Readiness

- Create an easy way for schools to request support for standing up vaccine clinics – this could be aligned with state, local, pharmacy or health system support.
- Continue increasing capacity for school vaccination teams (i.e. staff to coordinate and provide technical assistance and resources to support school vaccination events) to prioritize and support school vaccine clinics across the state during the first three weeks in November and 2nd dose clinics during the first three weeks in December with priority in low HPI areas.
- Create toolkits on how to run school-located clinics.
- Facilitate forums for LHJs and schools to share lessons learned and best practices for school located vaccination events.
- Facilitate connections between CBOs and schools to help support outreach for school located vaccination events.
- Provide on-the-ground technical assistance and guidance for schools and convene stakeholders to identify strategy for school vaccination (and annual flu / routine immunization catch-up).
- Evaluate grants to schools to hire immunization champions and continued support for mobile school clinics and necessary personnel.
- Create a virtual training on immunizations to make available for schools.
- Make changes to My Turn to make it easier to use for school clinics (including integration of consent).
- Enhance Shots for Schools website to make it easier for schools to use (incl. mobile accessibility).

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- Make improvements to user experience of immunization registry (to allow schools to track vaccination more easily status).

Provider Engagement and Monitoring

Provider outreach will be key to meeting vaccine capacity and will require ongoing engagement, planning, and technical assistance over the coming weeks and months. Activities include:

- Conduct weekly provider engagement calls and webinars.
- Conduct townhalls with individual provider types to communicate expectations and hear concerns and resource needs.
- Work with providers to confirm current capacity and understand any operational challenges.
- Target engagement with priority VFC providers that have not enrolled to determine any barriers or resource needs.
- Continue executive level provider to encourage member and non-member vaccinations, as well as address logistical and/or resource needs.
- Continue to monitor vaccine administration data and actively reach out to providers who are operating under capacity.
- Continue to work with Department of Healthcare Services (DHCS) to engage Medi-Cal providers to increase vaccination of beneficiaries and provide boosters.

Key Messages to providers:

- Share data and express need for them to operate at full vaccination capacity.
- Vaccinate their own members through proactive outreach to patients and scheduling of appointments.
- Encourage co-administration of influenza and other routine childhood vaccinations.

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Individual Outreach for Boosters

- Use existing data in CAIR to provide text messaging through My Turn platform encouraging individuals to sign onto the system and schedule a booster shot once eligible.
- Work with providers to proactively reach out to their patient populations to schedule receive booster vaccination.
- Share best practices from local health jurisdictions.

Local Health Jurisdiction Vaccination Planning

Continue outreach, engagement, and planning with local health jurisdictions to understand their capacity, barriers, including their funding available, and priorities for vaccination.

- Identify barriers to ramping up vaccine administration capacity.
- Work with local health jurisdictions to understand modes, capacity, and priority populations for vaccine administration.
- Assist LHJ that commit to a specific number of vaccinations via mass vaccination clinics; based on identified local needs.

Long-Term Care Facility Planning

- CDC will not repeat the Long-term Care Federal Pharmacy Partnership with Walgreens and CVS to vaccinate certain LTC facilities. Using National Healthcare Safety Network (NHSN), CDC surveyed SNFs to ask if they have vaccine access. 96% nationally said yes. CDC shared the list of SNFs lacking vaccine access with states to follow up and confirm details. **California's results include approximately 200 facilities that need vaccine access support.**
- CDC is assisting states in matching some facilities that participated in the LTC Federal Pharmacy Partnership program with approved pharmacies. Facilities are encouraged to work with pharmacies to reserve appointments/dedicated hours for LTC residents and to request on-site clinics for large facilities. Some of the smaller facilities will need additional

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assistance from the state or local jurisdiction.

- CDC is developing communication materials, FAQs, up to date links, readiness checklists for pharmacies and jurisdictions to work on local options.
- CDPH is currently and will continue doing the following:
 - Work with DSS, DSH, DDS, and DHCS on to determine which facilities need linkages to pharmacies; continue overall planning efforts
 - Work with LHJs to identify resource needs at local level specific to this population
 - Assess feasibility of on-site strike teams for specific facilities that are unable to find a pharmacy to meet their vaccination needs.
 - Continue meetings with CVS, Walgreens, and other pharmacy chains
 - Conduct matchmaking of LTC pharmacies/local Public Health and LTC facilities as needed
 - Develop an LTC toolkit for facilities to address what is needed to coordinate and schedule on-site clinics or access to state resources (e.g., transportation services)
 - Continue meetings with LHJs and stakeholders to ensure vaccination plans are in place at licensed skilled nursing and other types of congregate care facilities.

IT System Planning

- Update MyCAVax, My Turn, DVR, and CAIR systems to support booster doses:
 - Update MyCAVax system for Small Order Capacity and Third-Party Redistribution (completed)
 - Update My Turn to add booster dose clinics (both public and clinic updates), functionality for booster doses, and functionality for flu vaccine (mostly completed – depending on recommendations for boosters additional enhancements/programming may be needed)
 - Update DVR to report 3rd doses (completed), ongoing work on remediation, and access to records including CAIR data quality improvements
 - Update California Immunization Registry (CAIR) to record third doses/boosters (completed)

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- Identify any IT needs in order to reach out to individuals in CAIR who are due or soon to be due for a booster to help them know when they should arrange their appointment
 - Define additional IT needs for administering vaccine to U12 and booster shots.
 - Conduct ongoing monitoring of IT infrastructure health with the California Department of Technology.
 - Ensure that the public knows how to access pharmacy sites for vaccination appointments by continuing to link through My Turn system—improve navigation on My Turn to ensure pharmacy appointments are easily accessible and encourage using pharmacy appointment systems. Messaging from state and providers about use of pharmacies as a primary resource.

Data Quality

- Leverage the qualitative and quantitative data from both CAIR and our community partners to develop targeted strategies and engagement opportunities in order to reach those who are eligible for a booster.
- Define quality metrics for under 12 and booster performance monitoring. Determine what information will be provided on data dashboards and summary reports.
- Continue to improve data quality, timeliness, and accuracy especially for new providers through Data Strike Teams and CDPH review. Include work towards DVR data quality improvements as part of effort.

Equity

- Conduct equity data analytics to inform and improve vaccine program.
- Continue routine and novel sites for immunization of vulnerable populations. This includes access for home-bound immunocompromised populations, access to small providers particularly in HPI Q1 zip codes with low vaccination rates, and access to homebound vaccination.
- Continue partnerships for community outreach and targeted messaging.
- Continue access to state contracts for turn-key vaccination services and staffing.

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- Continue and increase use of school vaccination sites as trusted locations and messengers, prioritize school sites in lower HPI zip codes for school vaccination clinic support.
- Prepare to monitor equity performance for booster and under 12 vaccination.

Policy Development

- Work with CDC and Western State's Scientific Advisory Work Group to determine if and when a change will occur to the definition of "fully vaccinated" in case this definition is updated given boosters.
- Monitor for any updates on recommended booster doses of vaccine for J&J recipients and which vaccine is recommended.

Governance

To manage the activities above, CDPH will establish an updated governance process to manage this work plan:

- Conduct weekly workstream lead meetings to check in on progress against each initiative and address outstanding issues.

Planning Assumptions for Vaccination Needs

Estimates are that California may need to administer an additional 63 million doses by the end of 2022 (roughly 44 million doses have been delivered to date). The following table provides the breakdown of the populations to be vaccinated.

Population	Estimated Number of People	Total Doses	Estimated Start Date
Third dose for Immunocompromised estimated*	700,000	700,000	Mid-August (underway)
Primary Series for those Age 5-11 years	3,615,122	7,230,244	October 15, 2021
Primary Series for those Age 6 months – 4 years	2,170,663	4,341,325	December 2021

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Vaccinating the Unvaccinated or Not Fully Vaccinated Already Eligible Population	11,929,641	18,678,941	Ongoing
Provide Booster Shots for all Californians 65+ Eight months post series completion	6,638,564	6,638,564	September 2021
Provide Booster Shots for all Californians Age 12-64, Eight months post series completion	27,299,339	27,299,339	Late September
Totals	50,953,329	63,488,413	

*Subtracted from totals as this group overlaps with other categories

** Conservative estimated approval timeline; best guess approval timeline currently October 14th, 2021

Model of Vaccination Needs Over Time

Based on the estimated start dates for these populations, historical data on when 12–64 year-old population completed their vaccination series, and accounting for the unvaccinated and partially-vaccinated population, modeling indicates that vaccine administration capacity will need to **ramp up over the next 4-12 weeks peaking at about 370,000 doses per day in late-December (based on approval with 8-month booster eligibility) or 600,000 doses per day in early October (based on approval with 6-month booster eligibility)**. Currently, California providers are vaccinating between 60,000 and 150,000 doses per day, with the key factor being low demand for vaccination. Providers that have scaled back both staffing site locations will need to ramp up over the next weeks. For booster planning purposes, essential workers and 65+ are broken out from the general population as these groups will be the first to receive boosters (reach 8-month mark) and the vaccination strategies vary by population.

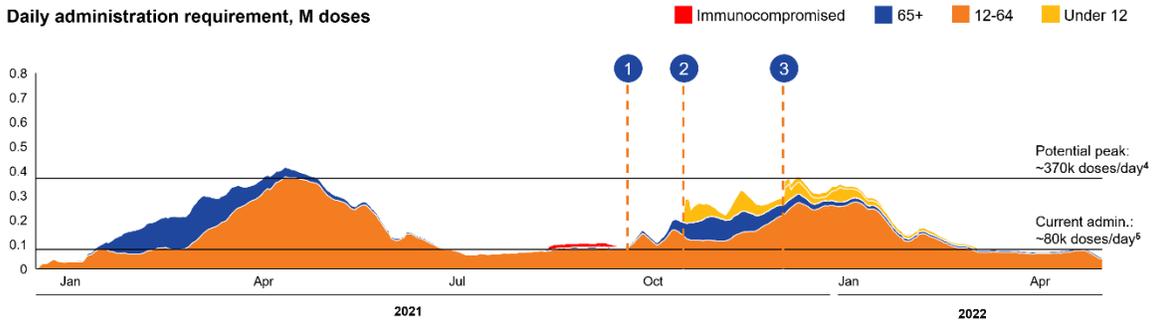
Models are based on assumptions and conditions as of September 16th, 2021 and will continue to be updated as Federal policies, guidance and recommendations change.



Daily administration requirement for 8 months booster eligibility scenario^{1,2}

PRELIMINARY; MODELS ARE BASED ON ASSUMPTIONS AND CONDITIONS AS OF SEPTEMBER 16TH, 2021 AND WILL CONTINUE TO BE UPDATED AS FEDERAL POLICIES, GUIDANCE AND RECOMMENDATIONS CHANGE.

(Assumes all fully vaccinated individuals are eligible for boosters) If Moderna booster is approved 2 weeks after Pfizer³ and administered 8 months after full vaccination, peak daily demand may be ~370K doses per day and State may remain within historical peak of 410k doses per day⁴



Timeline assumptions^{1,4,5}

- 1 Booster approved for all age groups 6 months after full vaccination (Pfizer on Sept 20, Moderna on Oct 4); accumulated demand met within 2 weeks⁴
- 2 5-11 age group eligible to receive vaccines (Pfizer on Oct 15)⁴
- 3 0-4 age group eligible to receive vaccines (Pfizer on Dec 1)⁴

Source: Scenelake (data as of 8/16/2021), CDPH scenario assumptions
 1. Scenario represented is one of many models under consideration, and is not illustrative of the full scope of scenarios considered
 2. One detailed scenario assumption page for additional scenario details
 3. https://www.cdph.ca/Programs/CID/DCDC/Pages/Immunization/Assessing-Moderna-Vaccine-Booster-Options.aspx
 4. Based on scenario being illustrated
 5. Based on historical data as of August 16, 2021 (latest historical data available at time of scenario modeling)

Note: Details on the methodology and assumptions are included in the appendix.



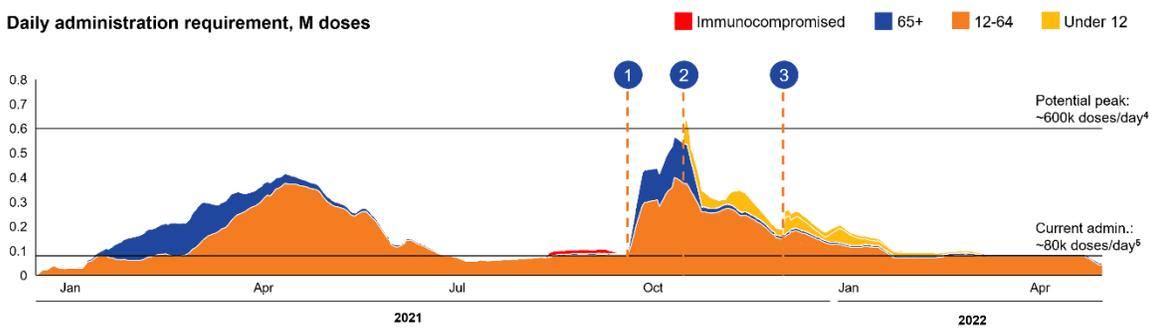
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Daily administration requirement for 6 months booster eligibility scenario^{1,2}

PRELIMINARY; MODELS ARE BASED ON ASSUMPTIONS AND CONDITIONS AS OF SEPTEMBER 16TH, 2021 AND WILL CONTINUE TO BE UPDATED AS FEDERAL POLICIES, GUIDANCE AND RECOMMENDATIONS CHANGE.

(Assumes all fully vaccinated individuals are eligible for boosters) If Moderna booster is approved 2 weeks after Pfizer³, and State meets all accumulated demand for boosters within 2 weeks of approval, peak daily demand may increase to ~600K doses per day and State may operate for 4 weeks above the historical peak of 410k doses per day⁴



Timeline assumptions^{1,4,5}

- 1 Booster approved for all age groups 6 months after full vaccination (Pfizer on Sept 20, Moderna on Oct 4); accumulated demand met within 2 weeks⁴
- 2 5-11 age group eligible to receive vaccines (Pfizer on Oct 15)⁴
- 3 0-4 age group eligible to receive vaccines (Pfizer on Dec 1)⁴

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Estimated Current Capacity to Meet Needs

CDPH estimates that based on historical capacity and the 884 new provider enrollments (as of 8/13/21) that California has the needed capacity to address

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weekly vaccination demands. However, this assumes that all providers can operate at the same capacity as during the peak week in April 2021. This will require ongoing engagement of providers at every level to ensure they are ready, resourced, and willing to operate at this capacity. In addition, this does not account for the additional capacity of mass vaccination clinics that many jurisdictions are planning to stand up.

- During California's peak administration week (Apr 5-12), MyCAVax providers administered a daily average of 417K doses.
- Providers are currently administering an average of 79K doses a day. The current network of providers including the additional enrolled MyCAVax providers translates to a maximum capacity of 420K doses a day without the reliance on LHJ run mass vaccination sites. Note that approximately 10% of vaccinations were provided by mass vaccination sites during the peak.
- Some large and medium-sized health jurisdictions are planning for mass vaccination sites as well as Kaiser and UC Davis. CDPH is working with additional providers and MCEs to determine plans for mass vaccination sites.
- This increase is led by medical practices, which today have a collective estimated capacity of nearly 30,000 more daily doses than they did in early April.
- Pharmacies continue to provide more than 60% of the administered doses and have demonstrated capacity to provide additional doses (ongoing conversations with pharmacy chains indicate ability to administer 50-100 doses daily); during the peak week pharmacies were only operating at 70% of their capacity. 20% of the 500 recent providers added to the network are small pharmacies; 75% of which took advantage of the MyCAVax incentive program.
- School sites are increasing and continuing to come online with the assistance of resources and technical assistance from CDPH.
- Even with more conservative assumptions (more attrition, subtracting more mass vax site doses, new provider un-readiness), providers could still administer the same number of doses today as during peak administration.

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Provider Type	Daily Doses Administered (April 5-11)	Estimated Current Daily Capacity (Aug 19)
Medical Practice	106,270	144,237
Pharmacy	108,031	114,971
Other or Unknown	40,137	42,237
Commercial	17,208	35,421
Public Health	100,598	30,510
Hospital	27,083	29,882
Health Center	11,006	12,399
Urgent Care	3,578	4,556
Corrections	1,260	3,996
Tribal/IHS	1,431	1,360
Long Term Care	45	675
Home Health	416	535
Totals	417,063	420,777

Role of Local Health Jurisdictions

Many local health jurisdictions perceive their top priority as vaccinating the unvaccinated which includes those currently eligible who are not yet vaccinated and the under 12 population that is not yet eligible. They will continue to prioritize the hard-to-reach and most vulnerable populations. LHJs are well suited to work with community-based organizations to provide easier access to convenient sites in the community wrapped with trusted messengers and targeted messages to address access and the concerns of these populations. Some local jurisdictions are involved in current school vaccination sites and plan to expand these sites with the start of school and once the under 12 population becomes eligible.

Many of the small/medium health jurisdictions asked that the state rely on healthcare providers to play a significant role in providing boosters to their patients instead of relying on community based and mass vaccination sites. However, larger health jurisdictions recognize the need for scaling up mass vaccination sites to address the large number of people who will need boosters in the winter months. The Administration will evaluate the need for staffing support and assistance in identifying locations to hold clinics since many will be occupied or will be expensive since businesses are now open.

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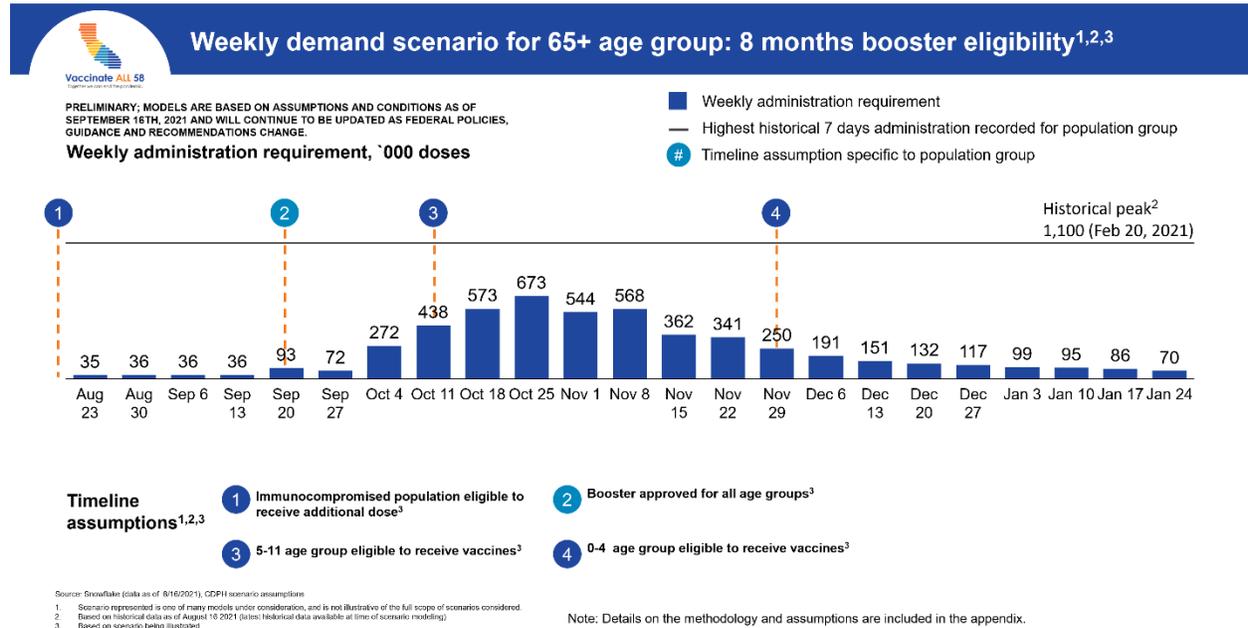
Vaccine Supply

According to CDC estimates, CDPH does not believe there will be a gap in the supply chain. The state has a current vaccine inventory of 6.5 million doses. In recent conversations with the CDC, the new Pfizer contract will increase production over the current rate to account for the pediatric population becoming eligible for vaccination. Additionally, as local demand for vaccines increases, we assume the provision of vaccines overseas will decrease, therefore increasing domestic supply. CDPH is awaiting production numbers. See chart in [appendix](#).

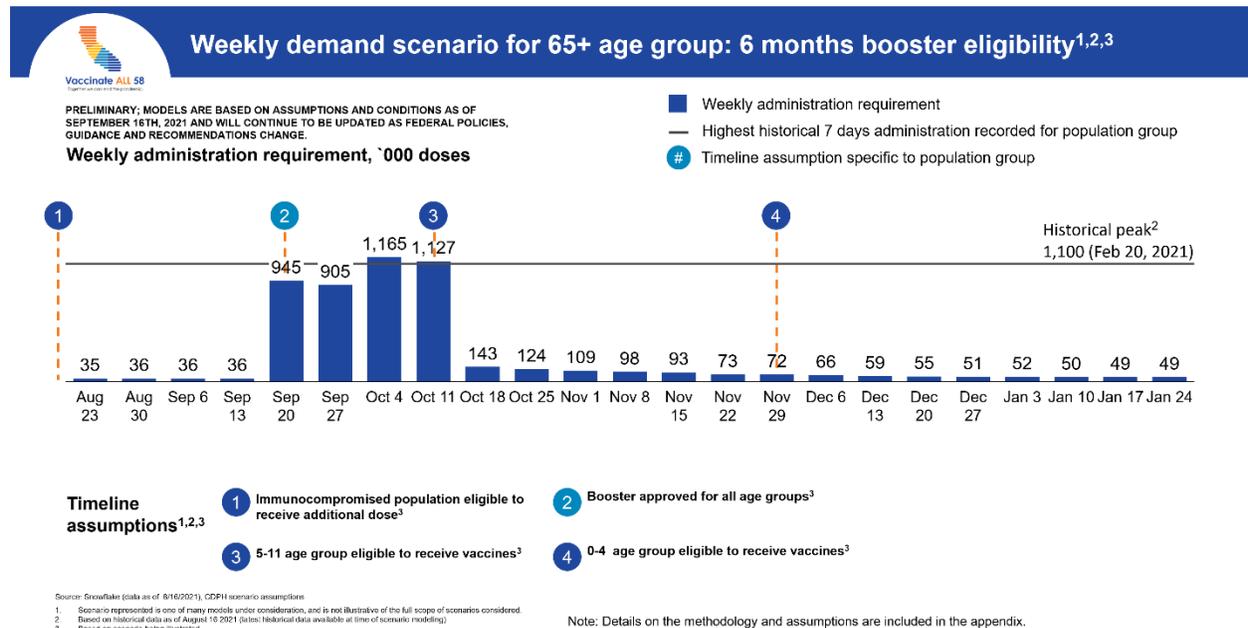
Appendix

Weekly Demand Scenarios by Population Group

1) 65+

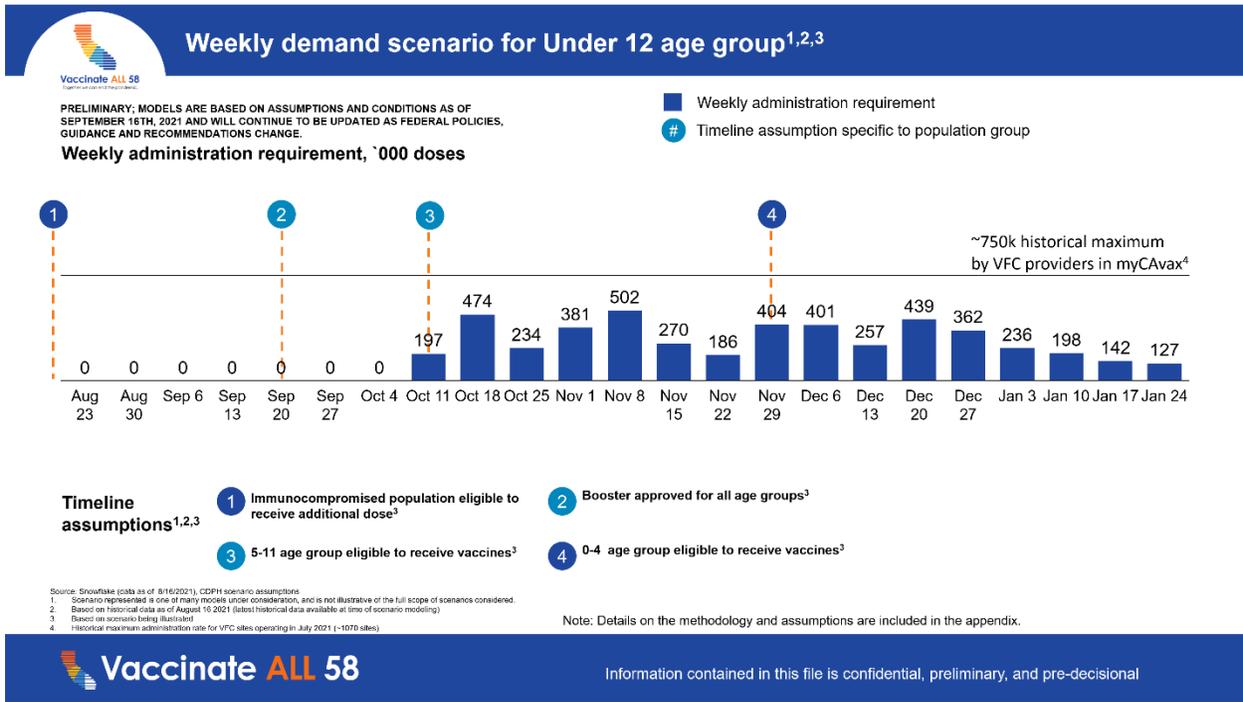


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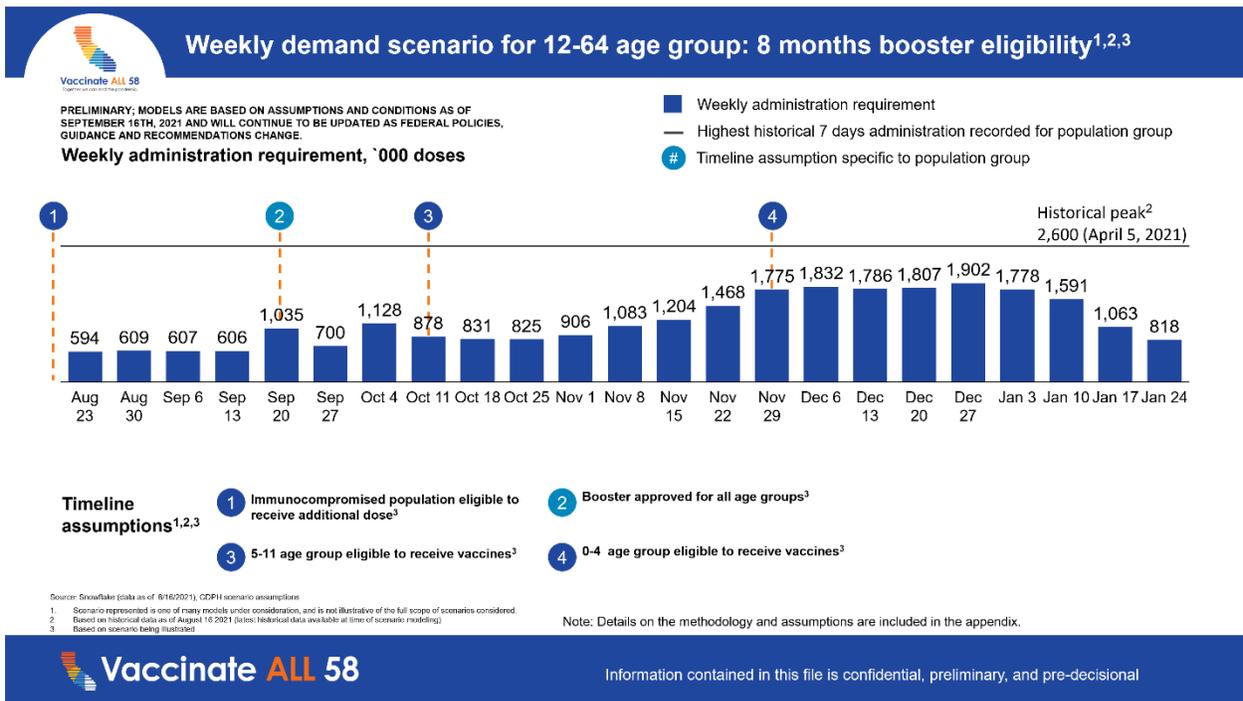


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2) UNDER 12



3) 12-64 YEARS



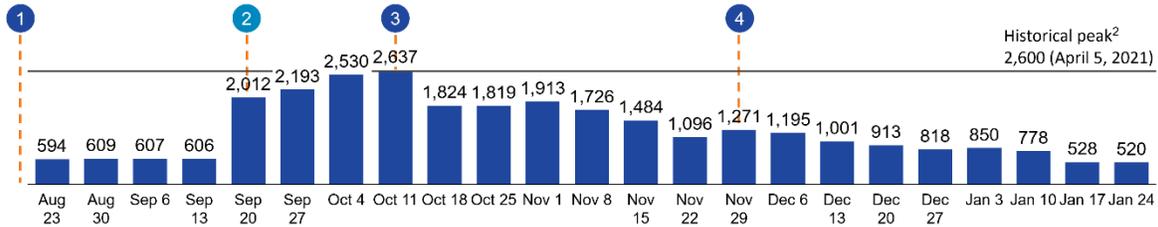


Weekly demand scenario for 12-64 age group: 6 months booster eligibility^{1,2,3}

PRELIMINARY; MODELS ARE BASED ON ASSUMPTIONS AND CONDITIONS AS OF SEPTEMBER 16TH, 2021 AND WILL CONTINUE TO BE UPDATED AS FEDERAL POLICIES, GUIDANCE AND RECOMMENDATIONS CHANGE.

Weekly administration requirement, `000 doses

- Weekly administration requirement
- Highest historical 7 days administration recorded for population group
- # Timeline assumption specific to population group



Timeline assumptions^{1,2,3}

- 1 Immunocompromised population eligible to receive additional dose³
- 2 Booster approved for all age groups³
- 3 5-11 age group eligible to receive vaccines³
- 4 0-4 age group eligible to receive vaccines³

Source: Snowflake (data as of 8/16/2021), CDPH scenario assumptions
 1. Scenario represented is one of many models under consideration, and is not illustrative of the full scope of scenarios considered.
 2. Based on historical data as of August 10 2021 (dates: historical data available at time of scenario modeling)
 3. Based on scenario being illustrated

Note: Details on the methodology and assumptions are included in the appendix.



Information contained in this file is confidential, preliminary, and pre-decisional

4) IMMUNOCOMPROMISED

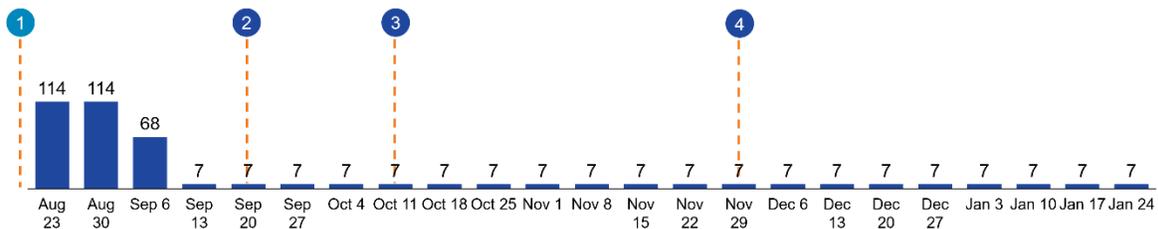


Weekly demand scenario for immunocompromised population group^{1,2,3}

PRELIMINARY; MODELS ARE BASED ON ASSUMPTIONS AND CONDITIONS AS OF SEPTEMBER 16TH, 2021 AND WILL CONTINUE TO BE UPDATED AS FEDERAL POLICIES, GUIDANCE AND RECOMMENDATIONS CHANGE.

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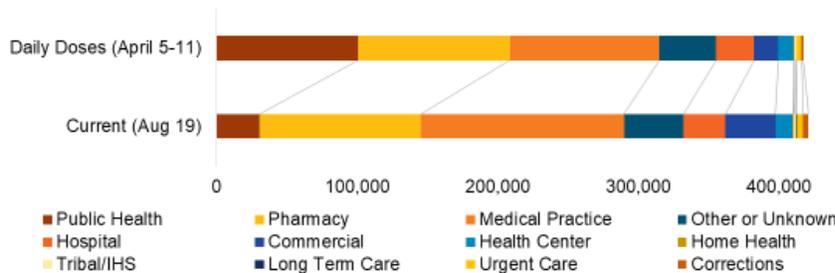
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Provider Capacity

Capacity Estimate: Aug 19 – Updated to Mass Vaccination Site Actuals and Provider-Specific Administration Peaks

- During CA's peak administration week (Apr 5-12), myCAvax providers administered a daily average of 417K doses.
- Providers are currently administering an average of 79K doses a day, but the increase in enrolled myCAvax providers translates to a **maximum capacity of 420K doses a day**.
- This increase is led by medical practices, which today have a collective estimated capacity of 30K more daily doses than they did in early April.

Avg. Daily Dose Capacity, Peak Administration Week vs. Estimated Today



Methodology

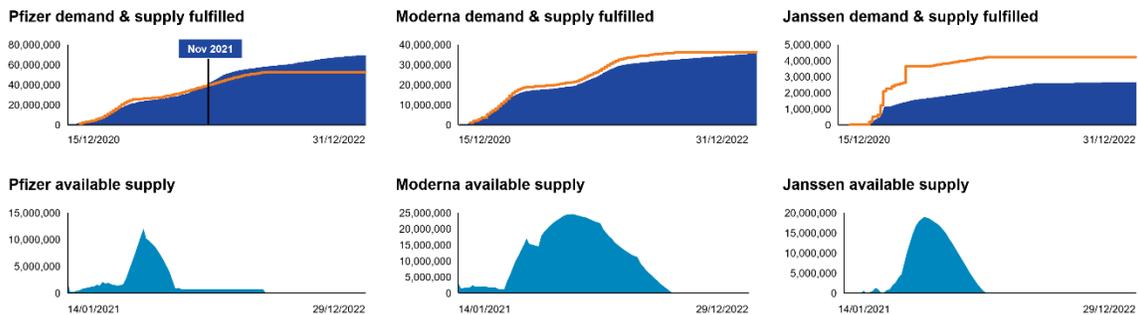
- Multiplied average daily doses per provider during provider-specific peak administration weeks by total number of registered myCAvax providers today.
- Subtracted mass vaccination sites and doses from public health providers to get current public health estimate.
- Assumed 5% attrition across all provider types over time.

Vaccine Supply

Supply / demand per brand for 8 months booster eligibility scenario¹

PRELIMINARY; MODELS ARE BASED ON ASSUMPTIONS AND CONDITIONS AS OF SEPTEMBER 16TH, 2021 AND WILL CONTINUE TO BE UPDATED AS FEDERAL POLICIES, GUIDANCE AND RECOMMENDATIONS CHANGE.

Under the 8 months booster eligibility scenario, State's accessible vaccine supply will exceed its expected vaccine demand for Pfizer through Nov 2021^{2,3}. Accessible vaccine supply will exceed expected vaccine demand for Moderna and Janssen through Dec 2022^{2,3}. Federal government does have option to purchase additional Pfizer doses⁴.



1. Scenario represented is one of many models under consideration, and is not illustrative of the full scope of scenarios considered.
 2. Based on scenario being illustrated
 3. See assumptions page for detailed supply assumptions
 4. <https://www.pfizer.com/news/press-release/press-release-detail/pfizer-and-biotech-provide-us-government-additional-200>

Note: Details on the methodology and assumptions are included in the appendix.

COVID-19 Vaccine Action Plan



6 month booster eligibility scenario: detailed assumptions¹

PRELIMINARY: MODELS ARE BASED ON ASSUMPTIONS AND CONDITIONS AS OF SEPTEMBER 16TH, 2021 AND WILL CONTINUE TO BE UPDATED AS FEDERAL POLICIES, GUIDANCE AND RECOMMENDATIONS CHANGE.

In this scenario¹, additional doses are approved for the immunocompromised population in Aug 2021. For the non-immunocompromised population, **boosters are approved for all age groups receiving Pfizer in Sept 2021, Moderna in Oct 2021**. For all populations, boosters are approved **6+ months after full vaccination status**, and are administered within 2 weeks of becoming eligible. Vaccines are approved for the 5-11 age group Oct 15, 2021, and vaccines are approved for the 0-4 age group in Dec 2021.

Assumptions for...	Under 12 vaccination	Booster vaccination	Additional dose vaccination
FDA approval	5-11 age group: Oct 15 2021 0-4 age group: Dec 2021	Non-immunocompromised (all age groups): Pfizer: Sept 20 2021 Moderna: Oct 4 2021	Immunocompromised: Aug 13 2021
Administration timing / vaccine uptake	Assumes 1 st dose administration rate as follows: <ul style="list-style-type: none"> Day 1 – 70 after approval²: historical rate for 12-15 age group Day 71 – 184 after approval²: historical rate for 16+ age group Day 185+ after approval²: holds last 7 day average constant 	Non-immunocompromised (all age groups): For all groups, administration of boosters to happen within 2 weeks of booster being approved Vaccine brands are not approved for cross-vaccination ⁴	Immunocompromised: All eligible for additional dose on approval date For all groups, administration of additional dose to happen within 4 weeks of approval Vaccine brands are not approved for cross-vaccination ⁵
Conversion rate	1 st to 2 nd dose conversion: 88% ⁵	Full vaccination to booster conversion: 88% ⁵	Full vaccination to additional dose conversion: 88% ⁵

¹ Scenario represented is one of many models under consideration, and is not illustrative of the full scope of scenarios considered.

² Number of days constrained by historical data available for 12-15 and 16+ age groups of July 21st 2021 (latest historical data available at time of scenario modeling).

³ Assumes pending approval for booster shots will include the under 12 age group. If boosters for under 12 age group require separate approval, administration to this group may occur later than illustrated in this scenario.

⁴ Lack of approval indicates individuals need to receive the same brand of booster as they received for 1st and 2nd dose vaccinations.

⁵ Based on historical data of 1st to 2nd dose conversion as of July 21st 2021 (latest historical data available at time of scenario modeling).

Sources: CDCPII Briefings: CDCPII scenario assumptions: Media: <https://www.washingtonpost.com/health/2021/08/16/boosters-ohio-coronavirus/>
<https://www.nytimes.com/2021/07/26/us/politics/covid-vaccine-trials-chosen.html>, <https://www.kitv.com/publics/bury/2021-08-16/16days-administration-urgency-boosters-6-months-after-being-inoculated> <https://www.npr.org/sections/health-to-school/live-updates/2021/08/24/1030911446/a-vaccine-for-young-children-is-not-likely-until-the-end-of-year-but-effective> <https://www.cnn.com/2021/08/20/health/coronavirus-1st-2nd-moderna-vaccine-boosters/index.html>



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