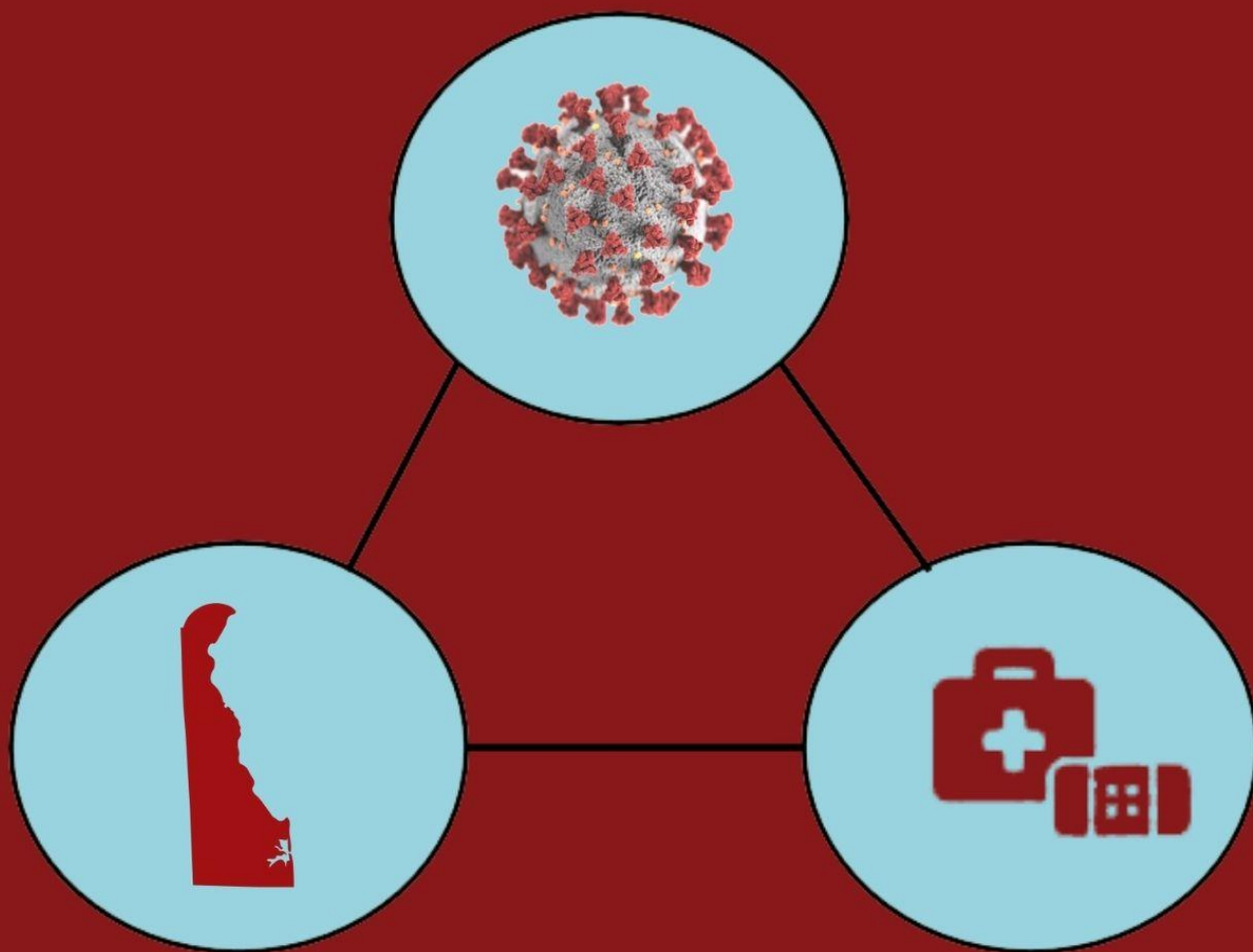


Delaware COVID-19 Vaccine



Allocation Framework

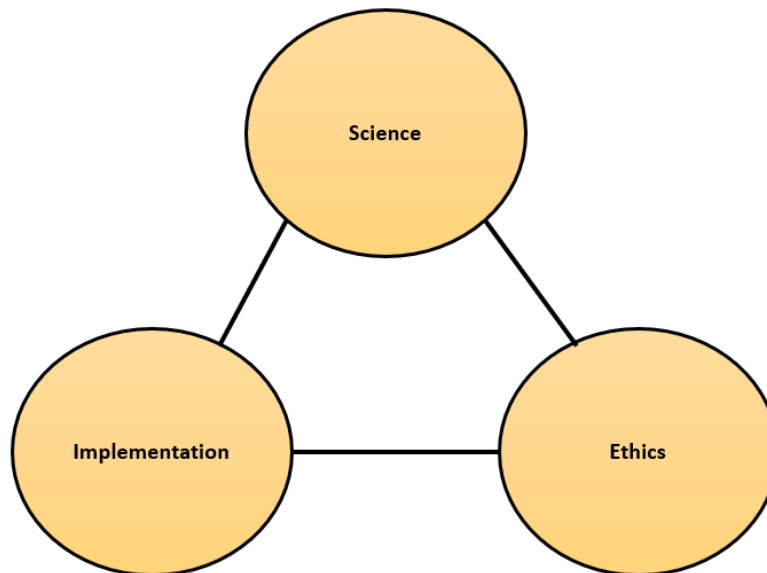


Delaware COVID-19 Vaccine Allocation Framework

The Delaware Division of Public Health has adopted an ethical framework that guides decision-making for administration of the vaccines that are expected to be limited for the first several weeks. Vaccine administration to the public expands through the phases as vaccine becomes more available.

Overarching Goal: To vaccinate as many people who choose to be vaccinated as possible in a time-sensitive manner as a critical mitigation strategy in the COVID-19 pandemic response.

Advisory Communities on Immunization Practices (ACIP) Allocation Framework of COVID-19 Vaccine¹



Balancing Goals: Prevention of Morbidity & Mortality and Preservation of Societal Functioning

Phase 1 Operational Goals²

- Decrease death and serious disease as much as possible
- Preserve functioning of society
- Reduce the extra burden the disease is having on people already facing disparities
- Increase the chance for everyone to enjoy health and well-being

¹ Chamberland, M.E. Ethical Principles for Phased Allocation of COVID-19 Vaccines. (October 30, 2020). Retrieved from <https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2020-10/COVID-Chamberland.pdf>

² How CDC is Making COVID-19 Vaccine Recommendations. (November 25, 2020). Retrieved from <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations-process.html>

Ethical Principles³

- **Maximize benefits and minimize harms** — Respect and care for people using the best available data to promote public health and minimize death and severe illness.
- **Mitigate health inequities** — Reduce health disparities in the burden of COVID-19 disease and death, and make sure everyone has the opportunity to be as healthy as possible.
- **Promote justice** — Treat affected groups, populations, and communities fairly. Remove unfair, unjust, and avoidable barriers to COVID-19 vaccination.
- **Promote transparency** — Make a decision that is clear, understandable, and open for review. Allow and seek public participation in the creation and review of the decision processes.

Other Considerations

- National/statewide trends and data (at-risk groups)
- Operational considerations (staff levels, critical services/infrastructure, available supply, etc.)
- Logistics (vaccination staff/resources, storage, venue support requirements)
- Time sensitivity (ability to vaccinate large groups within the timeframe)

Situations and Assumptions

- The COVID-19 vaccine allocation phased groups for Delaware were developed based on ethical decision-making only; logistics were not a consideration.
- The initial allocation of COVID-19 Vaccine to the State of Delaware will not be adequate to protect all the Phase 1 groups⁴.
- The initial allocation of vaccine must be distributed and administered in a very short period due to storage and utilization requirements and urgency to reduce transmission during the pandemic.
- Operational decision-making is used to consider the physical ability to vaccinate within the Phase 1 sub-groups in order to efficiently utilize the anticipated vaccine supply with the resources available and within the limited timeframe.
- The vaccine delivery timeline will drive the allocation of resources among the phases; overlap of phased groups is likely (see Figure 2).
- Flexibility is permitted to adjust phased groups based on current trends and public health needs.

³ Johns Hopkins Bloomberg School of Public Health, Center for Health Security (2020). *Interim Framework for COVID-19 Vaccine Allocation and Distribution in the United States*. Retrieved from: https://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2020/200819-vaccine-allocation.pdf

⁴ Johns Hopkins Bloomberg School of Public Health, Center for Health Security (2020). *Interim Framework for COVID-19 Vaccine Allocation and Distribution in the United States*. Retrieved from: https://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2020/200819-vaccine-allocation.pdf

Figure 1: Delaware COVID-19 Vaccine Allocation Framework

Phase 1a and 1b have been recommended, the remaining phases are proposed phase allocation pending federal and state recommendations.

Phase 1 - Higher risk for acquiring or experiencing severe COVID-19				
Group	Definition	Examples	Primary Strategies	Anticipated Vaccine Availability
Phase 1a	Residents of long-term care facilities (LTCFs)	<ul style="list-style-type: none"> • Skilled Nursing Facilities • Assisted Living Facilities 	Pharmacy Partnership for Long-term Care (LTC) Program	Week 0 (constrained supply)
	Health care personnel (HCP) ^{5,6,7} (including “direct care providers”)	<ul style="list-style-type: none"> • Hospitals • Long-Term Care Facilities • Ambulatory Sites (e.g., FQHC’s, Urgent Care) • Home Health • Pharmacies • First Responders with direct patient care • Public Health • Direct care providers (e.g., direct service providers, personal attendant services) 	Existing or new vaccine administration providers within health facilities or designated vaccination sites LTC Pharmacy Partnership for staff	

⁵ The Advisory Committee on Immunization Practices’ Interim Recommendation for Allocating Initial Supplies of COVID-19 Vaccine - United States, 2020. US Department of Health and Human Services, Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Report, December 11, 2020 / Vol. 69 / No. 49 1857. Accessed December 17, 2020.

⁶ HCP refers to all paid and unpaid persons serving in healthcare settings who have the potential for direct or indirect exposure to patients or infectious materials, including body substances (e.g., blood, tissue, and specific body fluids); contaminated medical supplies, devices, and equipment; contaminated environmental surfaces; or contaminated air. These HCP may include, but are not limited to, emergency medical service personnel, nurses, nursing assistants, physicians, technicians, therapists, phlebotomists, pharmacists, students and trainees, contractual staff not employed by the health care facility, and persons (e.g., clerical, dietary, environmental services, laundry, security, maintenance, engineering and facilities management, administrative, billing, and volunteer personnel) not directly involved in patient care but potentially exposed to infectious agents that can be transmitted among from HCP and patients. HCP does not include dental healthcare personnel, autopsy personnel, and laboratory personnel.

⁷ Guidance on the Essential Critical Infrastructure Workforce: Ensuring Community and National Resilience in COVID-19 Response, U.S. Department of Homeland Security, Cybersecurity & Infrastructure Security Agency. 2020.

https://www.cisa.gov/sites/default/files/publications/ECIW_4.0_Guidance_on_Essential_Critical_Infrastructure_Workers_Final3_508_0.pdf. Accessed December 16, 2020.

Phase 1b - Higher risk for acquiring or experiencing severe COVID-19				
Group	Definition	Examples	Strategy	Anticipated Vaccine Availability
Phase 1b^{8,9}	Persons 65 years and older ¹⁰		Vaccine administration through existing outpatient or pharmacy networks or traditional delivery systems through available channels	Week 4 (constrained supply)
	Frontline essential workers	<ul style="list-style-type: none"> • Other First Responders (firefighters, police) • Education (teachers, support staff, daycare) • Food and Agriculture • Manufacturing • Corrections workers • U.S. Postal service workers • Public transit workers • Grocery store workers 	Existing or new vaccine administration providers within essential critical infrastructure organizations	

⁸ Recommendation by the Delaware Public Health and Ethics Advisory Group to adopt the Advisory Committee on Immunization Practices Phase 1b allocation for COVID-19 vaccines on 12/22/2020.

⁹ Advisory Committee on Immunization Practices, COVID-19 Work Group, Phased Allocation of COVID-19 Vaccines, Dooling, December 20, 2020.

¹⁰ Age adjusted by DPH on December 28, 2020.

Proposed Remaining Phase 1 - Higher risk for acquiring or experiencing severe COVID-19				
Group	Definition	Examples	Strategy	Anticipated Vaccine Availability
Remaining Phase 1	Persons 16-64 years with high-risk medical conditions ¹¹	<ul style="list-style-type: none"> High-risk medical or other chronic conditions: Obesity, Severe Obesity, Diabetes, COPD, Heart Condition, Chronic Kidney, Cancer, Smoking, Solid Organ Transplant, Sickle Cell Disease, Intellectual/Developmental Disabilities, Severe and persistent mental/behavioral health conditions High-risk congregate settings including Homeless Shelters, Group Homes, and Corrections 	Vaccine administration through existing outpatient or pharmacy networks or traditional delivery systems through available channels	Week 11 (constrained supply)
	High-risk congregate settings		New vaccine administration providers within congregate settings	
	Other Essential Workers ¹²	<ul style="list-style-type: none"> Transportation and logistics Food Service Shelter and Housing (construction) Finance IT and Communications Energy Media Legal Public Safety (Engineers) Water and Wastewater 	Existing or new vaccine administration providers within essential critical infrastructure organizations.	

¹¹ Advisory Committee on Immunization Practices, COVID-19 Work Group, Phased Allocation of COVID-19 Vaccines, Dooling, December 20, 2020.

¹² Advisory Committee on Immunization Practices, COVID-19 Work Group, Phased Allocation of COVID-19 Vaccines, Dooling, December 20, 2020.

Proposed Phase 2 - Moderate risk for acquiring or experiencing severe COVID-19				
Group	Definition	Examples	Strategy	Anticipated Vaccine Availability
Phase 2	Persons 50-64 years ¹³	<ul style="list-style-type: none"> Moderate-risk medical or other chronic conditions: Asthma (moderate-to-severe), Cerebrovascular disease, Cystic fibrosis, Hypertension, Immunocompromised state, Neurologic conditions, Liver disease, Overweight, Pulmonary fibrosis, Thalassemia Other congregate settings not receiving vaccine in Phase 1 	<p>Vaccine administration through existing outpatient or pharmacy networks or traditional delivery systems through available channels</p> <p>New vaccine administration providers within congregate settings</p>	<p>Week 16 (likely sufficient supply)</p>
	Persons 16-49 years with moderate-risk medical conditions ¹⁴			
	Other congregate settings			
	Essential workers not receiving vaccine in Phase 1	<ul style="list-style-type: none"> Workers unable to work from home at all times 	Existing or new vaccine administration providers within essential critical infrastructure organizations	

¹³ Advisory Committee on Immunization Practices, COVID-19 Work Group, Phased Allocation of COVID-19 Vaccines, Dooling, December 20, 2020.

¹⁴ Advisory Committee on Immunization Practices, COVID-19 Work Group, Phased Allocation of COVID-19 Vaccines, Dooling, December 20, 2020.

Proposed Phase 3 - Community risk for acquiring or experiencing severe COVID-19				
Group	Definition	Examples	Strategy	Anticipated Vaccine Availability
Phase 3	Persons 16-49 years		Traditional delivery systems through available channels	Week 21 (sufficient supply to meet demand)
	Essential workers not receiving vaccine in Phase 2	<ul style="list-style-type: none"> Workers able to work from home 	Existing or new vaccine administration providers within essential critical infrastructure organizations	
Proposed Phase 4 - Anyone who did not have access to vaccines in prior phases				
Group	Definition	Examples	Strategy	Anticipated Vaccine Availability
Phase 4	Anyone who did not have access to vaccines in prior phases		Traditional delivery systems through available channels	≥ Week 22

Figure 2: Proposed Vaccine Allocation Phase Sequence and Duration^{15,16}

Week 1-4	Week 5-8	Week 9-12	Week 13-16	Week 17-20	Week 21-24	Week 25-28	Week 29-32
Mid December – Mid January	Mid/late January – Mid/late February	Mid/late February – Mid/late March	March - April	Mid/late April – Mid/late May	Mid/late May – Mid/late June	June	July
					Phase 4 <ul style="list-style-type: none"> Anyone who did not have access to vaccines in prior phases 		
					Phase 3 <ul style="list-style-type: none"> 16-49 years Essential workers not receiving vaccine in Phase 2 		
				Phase 2 <ul style="list-style-type: none"> 50-64 years 16-49 years with moderate-risk medical conditions Other congregate settings Essential workers not receiving vaccine in Phase 1 			
			Remaining Phase 1 <ul style="list-style-type: none"> 16-64 years with high-risk medical conditions High-risk congregate settings Other essential workers 				
	Phase 1b <ul style="list-style-type: none"> 65 years and older Frontline essential workers 						
Phase 1a <ul style="list-style-type: none"> Residents of LTCFs HCP 							

¹⁵ Dooling, K. Phased Allocation of COVID-19 Vaccine. (November 23, 2020). Retrieved from <https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2020-11/COVID-04-Dooling.pdf>

¹⁶ Delaware Public Health and Medical Ethics Advisory Group Meeting. (November 4, 2020). Section IV.

Operational Considerations for Sub-Groups within Phases:

1. Positive test within 90 days – The best characterized cases of re-infections to date have occurred at least 90 days after the first illness episode’s onset. An increasing number of published studies suggest that >90% of recovered COVID-19 patients develop anti-SARS-CoV-2 antibodies¹⁷. Additional studies also demonstrate antibody response, including after mild or asymptomatic infection, can be durable for 3 months or more. This evidence must be interpreted cautiously as anti-SARS-CoV-2 antibodies have not been definitively correlated with protection of humans from infection.
2. Sole Source or Critically Limited Service – If limited staff are available to provide a particular critical service, consider more timely vaccination for these staff to maintain services.
3. Vaccine Side Effects – Although most side effects after vaccination are mild, side effects may lead to absenteeism from work. Planning for work absenteeism should be considered in the vaccination of staff at a workplace.
4. Multiple Phase Criteria – Individuals that meet multiple phase criteria may be determined to be of higher risk than any one phased group and should be considered for more timely vaccination.

Vaccine Phase 1 Operational Decision-making Steps¹⁸	
Step 1	Confirm Phased Groups based on most recent National/state trends and data
Step 2	Identify vaccine supply availability and timeframe for distribution and vaccinations
Step 3	Identify storage requirements (temperature controls and storage requirements)
Step 4	Schedule Phase 1 Groups and develop proposed allocation strategy based on existing data; compare against most recent National/trend data to confirm
Step 5	Ensure adequate state resource availability to meet allocation strategy requirements and timeframe
Step 6	Communicate requirements for storage and vaccination timelines to proposed groups schedules; confirm vaccination amounts and compliance with all requirements
Step 7	Identify the anticipated distribution schedule and confirm with selected groups
Step 8	Allocation strategy implementation

¹⁷ Ibarondo, J.F., et al. Rapid decay of anti-SARS-CoV2 antibodies in persons with mild Covid-19. (2020). *New England Journal of Medicine*; 83:1085-1087

DOI: 10.1056/NEJMc2025179. Retrieved from: <https://www.nejm.org/doi/full/10.1056/nejmc2025179>

¹⁸ Adapted from the Delaware Division of Public Health Crisis Standards of Care Concept of Operations. (2020).