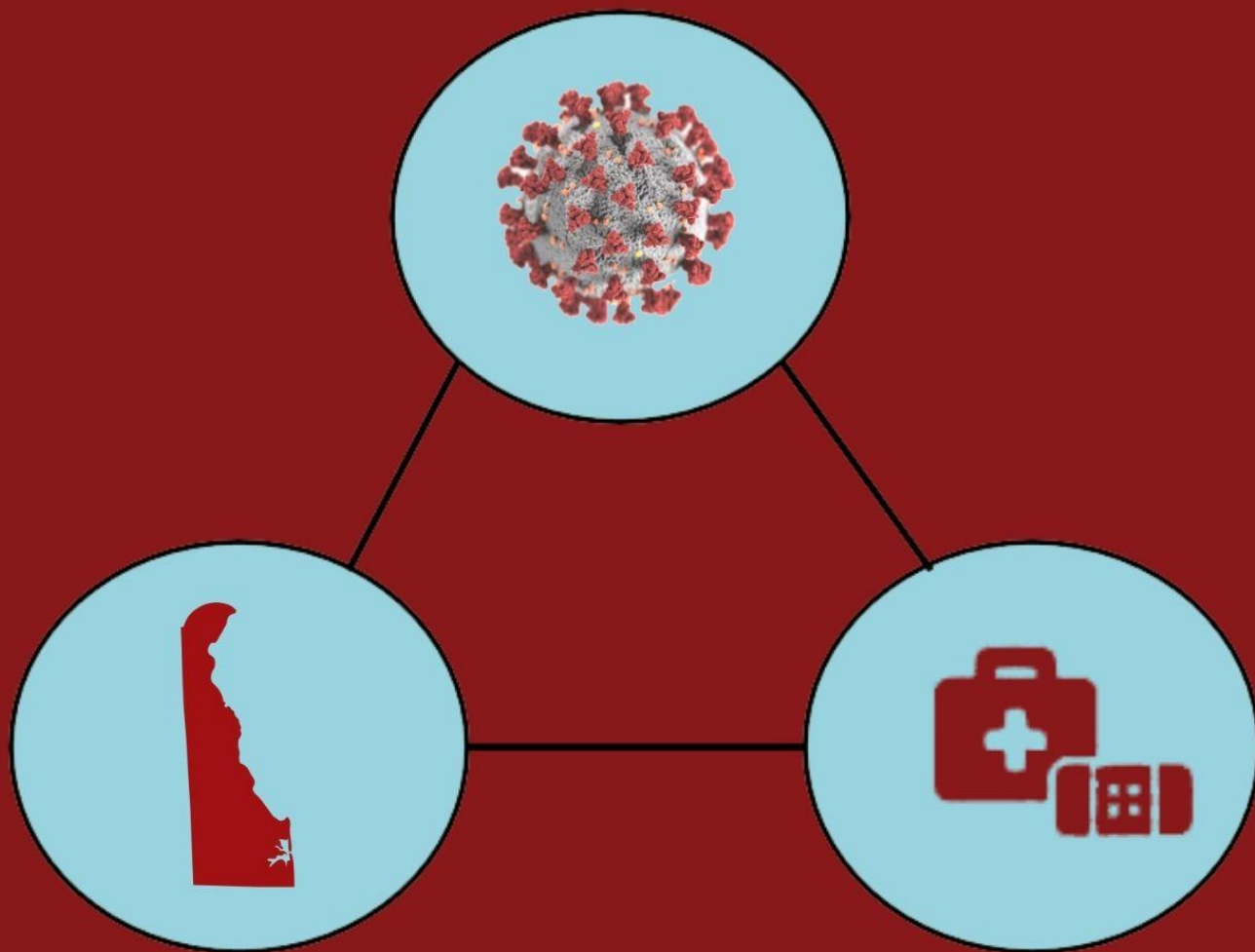


# Delaware COVID-19 Vaccine



# Allocation Framework

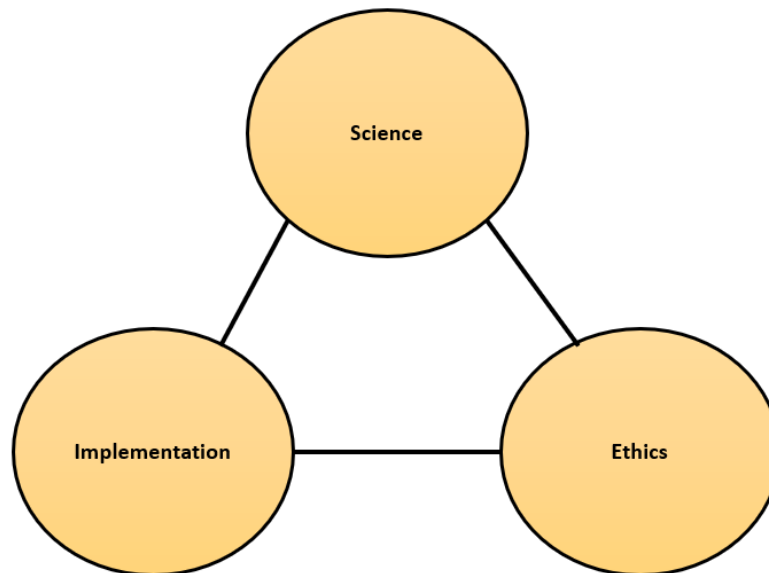


## Delaware COVID-19 Vaccine Allocation Framework

The Delaware Division of Public Health has adopted an ethical framework that guides decision-making for administration of the vaccines that during times of limited vaccine supply. 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 Vaccine<sup>1</sup>



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

#### Phase 1 Operational Goals<sup>2</sup>

- 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

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<sup>1</sup> 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>

<sup>2</sup> 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 Principles<sup>3</sup>

- **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 groups<sup>4</sup>.
- 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.

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<sup>3</sup> 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](https://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2020/200819-vaccine-allocation.pdf)

<sup>4</sup> 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](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 approved with amendments from the ACIP recommendations (Phase 1b includes those 65 and older). The remaining phases are proposed phase allocations based on the ACIP recommendations but dividing the ACIP recommended Phase 2 into the Delaware Phase 2, 3, and 4 because of anticipated supply and logistical constraints.*

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

<sup>5</sup> 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.

<sup>6</sup> 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, home healthcare personnel, physicians, technicians, therapists, phlebotomists, pharmacists, students and trainees, contractual staff not employed by the health care facility, and persons not directly involved in patient care, but who could be exposed to infectious agents that can be transmitted in the healthcare setting (e.g., clerical, dietary, environmental services, laundry, security, engineering and facilities management, administrative, billing, and volunteer personnel).

<sup>7</sup> 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](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 <sup>8,9</sup>		
Definition	Examples	Strategy
Persons 65 years and older <sup>10</sup>		Vaccine administration through existing outpatient or pharmacy networks or traditional delivery systems through available channels
Frontline essential workers	<ul style="list-style-type: none"> <li>• Other First Responders (firefighters, police)</li> <li>• Education (teachers, support staff, daycare)</li> <li>• Food and Agriculture</li> <li>• Manufacturing</li> <li>• Corrections workers</li> <li>• U.S. Postal service workers</li> <li>• Public transit workers</li> <li>• Grocery store workers</li> </ul>	Existing or new vaccine administration providers within essential critical infrastructure organizations

<sup>8</sup> 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.

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

<sup>10</sup> Age adjusted by DPH on December 28, 2020.

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

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

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

<b>Proposed Phase 2 - Moderate risk for acquiring or experiencing severe COVID-19</b>		
<b>Definition</b>	<b>Examples</b>	<b>Strategy</b>
<p>Persons 50-64 years<sup>13</sup></p> <p>Persons 16-49 years with moderate-risk medical conditions<sup>14</sup></p> <p>Other congregate settings</p>	<ul style="list-style-type: none"> <li>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</li> <li>Other congregate settings not receiving vaccine in Phase 1</li> </ul>	<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>Essential workers not receiving vaccine in Phase 1</p>	<ul style="list-style-type: none"> <li>Workers unable to work from home at all times</li> </ul>	<p>Existing or new vaccine administration providers within essential critical infrastructure organizations</p>

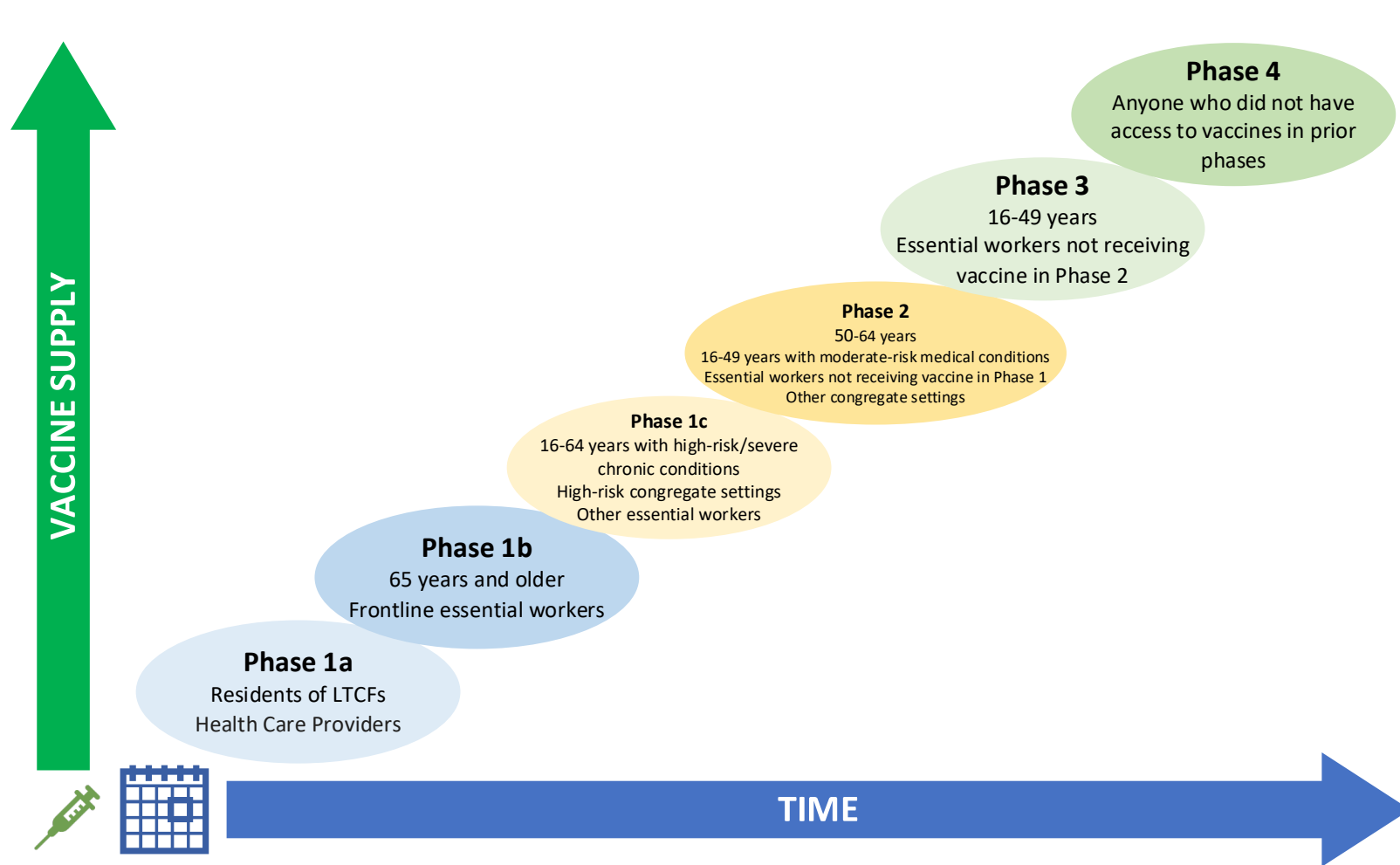
<sup>13</sup> Advisory Committee on Immunization Practices, COVID-19 Work Group, Phased Allocation of COVID-19 Vaccines, Dooling, December 20, 2020.

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

<b>Proposed Phase 3 - Community risk for acquiring or experiencing severe COVID-19</b>		
<b>Definition</b>	<b>Examples</b>	<b>Strategy</b>
Persons 16-49 years		Traditional delivery systems through available channels
Essential workers not receiving vaccine in Phase 2	<ul style="list-style-type: none"> <li>Workers able to work from home</li> </ul>	Existing or new vaccine administration providers within essential critical infrastructure organizations
<b>Proposed Phase 4 - Anyone who did not have access to vaccines in prior phases</b>		
<b>Definition</b>	<b>Examples</b>	<b>Strategy</b>
Anyone who did not have access to vaccines in prior phases		Traditional delivery systems through available channels



Figure 2: Vaccine Allocation Phase Sequence



**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 antibodies<sup>15</sup>. 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.

<b>Vaccine Phase 1 Operational Decision-making Steps<sup>16</sup></b>	
<b>Step 1</b>	Confirm Phased Groups based on most recent National/state trends and data
<b>Step 2</b>	Identify vaccine supply availability and timeframe for distribution and vaccinations
<b>Step 3</b>	Identify storage requirements (temperature controls and storage requirements)
<b>Step 4</b>	Schedule Phase 1 Groups and develop proposed allocation strategy based on existing data; compare against most recent National/trend data to confirm
<b>Step 5</b>	Ensure adequate state resource availability to meet allocation strategy requirements and timeframe
<b>Step 6</b>	Communicate requirements for storage and vaccination timelines to proposed groups schedules; confirm vaccination amounts and compliance with all requirements
<b>Step 7</b>	Identify the anticipated distribution schedule and confirm with selected groups
<b>Step 8</b>	Allocation strategy implementation

<sup>15</sup> 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>

<sup>16</sup> Adapted from the Delaware Division of Public Health Crisis Standards of Care Concept of Operations. (2020).