Wisconsin State Disaster Medical Advisory Committee
Vaccine Distribution Subcommittee:

Recommendations for the Wisconsin Department of Health Services when Distributing Phase 1a COVID-19 Vaccine Allotments to Vaccinating Entities

The Vaccine Distribution Subcommittee ("Subcommittee") of the State Disaster Medical Advisory Committee (SDMAC) was established to develop guidance for the Department of Health Services (DHS) regarding allocation of limited numbers of vaccine doses during the COVID-19 pandemic. As of mid-December, 2020, one vaccine product has been issued an emergency use authorization, and it is anticipated that additional vaccine products will be authorized or approved for use in the United States during the next several weeks to months. The initial quantity of vaccine doses available will be small in relationship to the number of people eligible to receive it, and therefore, rationing of available vaccine will be necessary until production and distribution increases in amounts sufficient to meet all needs.

The Subcommittee was tasked with answering the following question:

> *When distributing limited supplies to vaccinators, what population level characteristics should DHS consider?*

The Advisory Committee on Immunization Practices (ACIP) has subdivided early vaccination into three distinct phases: Phase 1a, Phase 1b, and Phase 1c. This document is intended to provide a response to the charge question for Phase 1a which has been proposed by ACIP[1] and the Subcommittee to include the following populations:

> **Health care personnel (HCP)** "*individuals who provide direct patient service (compensated and uncompensated) or engage in healthcare services that place them into contact with patients who are able to transmit SARS-CoV-2, and/or infectious material containing SARS-CoV-2 virus."*
>
> **Residents of Long Term Care Facilities[2] (RLTCF): "***adults who reside in facilities that provide a variety of services, including medical and personal care, to persons who are unable to live independently."*

The State of Wisconsin Department of Health Services (DHS) will be coordinating the logistics of vaccine deployment. Entities who wish to become *vaccinating entities* will need to enroll and be vetted by DHS. For the purpose of this document, ***vaccinating entities*** are defined as:

> *"Vaccinators who have been evaluated by DHS and are approved to vaccinate HCP and RLTCF."*

[1] Oliver, ACIP meeting, 11/23/2020

[2] The subcommittee recommends adopting the definition of long-term care facilities as those entities that are eligible to participate in the Pharmacy Partnership for Long-term Care Program, including skilled nursing facilities, nursing homes, assisted living facilities (residential long-term care facilities providing assistance and supervision to primarily elderly residents with activities of daily living and skills for independent living), and similar congregate living settings where most individuals receiving care/supervision are older than 65 years of age. https://www.cdc.gov/vaccines/covid-19/long-term-care/pharmacy-partnerships-faqs.html

DHS will be allocating distributions of vaccine released through the Centers for Disease Control and Prevention (CDC). An ***allotment*** is defined as:

> *"An amount of vaccine released from CDC to DHS for the purposes of vaccinating the Phase 1a priority population with a first dose*."

Subsequent doses of a two-dose vaccine schedule will be allocated in accordance with *Recommendations for State of Wisconsin to Distribute of a Multiple Dose COVID-19 Vaccine*. DHS plans to use a "hub and spoke" model for vaccine distribution where vaccine is received in a centralized location able to support appropriate cold-chain measures (hubs) and distributed to vaccinating entities (spokes) when distributing vaccine that requires ultra-cold storage or a high minimum order. Vaccine that has lower minimum orders and/or less restrictive cold-chain requirements will be shipped directly to vaccinating entities.

DHS is participating in the federal Pharmacy Partnership for Long-term Care (LTC) Program to facilitate vaccine distribution to RLTCF and LTCF staff. This program provides COVID-19 vaccine directly to pharmacies that have been identified as having capacity to provide vaccination services to RLTCF and LTCF staff. DHS will follow ACIP guidance for prioritization within the RLTCF subpopulation. When this program is initiated in late December, a fixed proportion of Wisconsin's vaccine allotment will be distributed to long-term care settings, according to a distribution plan determined by the federal program. The Subcommittee recommends balancing supply between vaccinating entities serving RLTCF and HCP as much as feasible to follow the ethical principle of fairness; therefore, Subcommittee acknowledges and endorses DHS' decision to participate in this program. DHS should coordinate with vaccinating entities serving RLTCF outside of the Pharmacy Partnership to balance the supply.

The Subcommittee convened to develop recommendations for DHS on how to distribute vaccine supplies to different vaccinating entities that serve HCP when vaccine supplies are scarce. The Subcommittee deliberated and recommends that DHS implement an allocation framework based on the following principles:

1. **Fill partial vaccine orders, where applicable.** The Subcommittee believes providing a portion of requested vaccine to as many vaccinating entities as possible is preferable to fulfilling full orders for a smaller number of vaccinating entities. Ensuring that at least some vaccine is delivered to as many vaccinating entities as possible was considered important for minimizing the risk of geographic disparities in vaccine access. It may also minimize the risk of wasted doses.[3]

2. **Vaccine should be administered in the shortest possible time after receipt by the VE.** The Subcommittee recommends that DHS monitor and track vaccine allotted for vaccination. If vaccinating entities are unable to use vaccine, the recommendation is to delay further allotments from DHS. Please note this does not apply to vaccine being stored in hubs awaiting allocation.

3. **Give greater priority to vaccinating entities who will administer vaccine in communities characterized by higher levels of social vulnerability.** The subcommittee recommends using the CDC's Social Vulnerability Index as a consideration in rationing among vaccinating entities. As highlighted in the CDC publication *Ethical Framework to Guide the Allocation of COVID-19*

[3] Please review the Wisconsin State Disaster Medical Advisory Committee Vaccine Distribution Subcommittee *Recommendations for State of Wisconsin to Distribute a Multiple Dose COVID-19 Vaccine* if a vaccine requires more than one dose for the series to be complete.

Therapeutics and Vaccines.[4] the subcommittee believes it can be used as a proxy for lower income workforce that might be of communities who have experienced disproportionate impacts from the pandemic[5]. Its use was recommended in A *Framework for Equitable Allocation of Vaccine for the Novel Coronavirus*[6] as a way to ensure health equity was built into distribution plans.

4. **Give greater priority to vaccinating entities to vaccinate unaffiliated HCPs such as emergency medical responders.** It is likely that in early distributions vaccinating entities will be serving their employees. The Subcommittee recognizes that many HCPs may not have immediate access to an employer-based clinic. Examples might include small clinics, non-traditional health settings (e.g. home health), or volunteer services (e.g. EMS). The Subcommittee recognizes that vaccinating entities are likely adding extra administrative burden to provide a service for the broader community, and DHS will provide additional vaccine as feasible. Prior to submitting an order that would include this bonus vaccinating entities should coordinate with their local public health departments, local emergency readiness coalition, DHS, and other vaccinating entities.

Current COVID-19 disease activity level in a geographic region should <u>not</u> be considered as a factor for prioritizing vaccinating entities for receiving a greater proportion of their vaccine request. The Subcommittee determined that because COVID-19 disease activity is very high in 100% of Wisconsin Counties, it will not be beneficial to prioritize specific regions of the state during Phase 1a. HCPs and RLTCFs are at elevated risk of exposure to SARS-CoV-2 in all regions of the state.

Current health care provider staffing shortages should <u>not</u> be considered as a factor for prioritizing vaccinating entities for receiving a greater proportion of their vaccine request. While COVID-19 vaccination is a key strategy for protecting the healthcare workforce, the protective benefit will not be immediate. Both doses of a vaccine series are likely necessary to offer protection. Health care staffing shortages are subject to change week-to-week, and therefore may not be a reliable indicator of where vaccination of HCPS will have maximum benefit.

[4]Wisconsin State Disaster Medical Advisory Committee Ethics Subcommittee. *Ethical Framework to Guide the Allocation of COVID-19 Therapeutics and Vaccines*. https://publicmeetings.wi.gov/download-attachment/2c4916b2-6036-43ec-a654-b65e8d3fcd75

[3] Dasgupta S, Bowen VB, Leidner A, et al. Association Between Social Vulnerability and a County's Risk for Becoming a COVID-19 Hotspot — United States, June 1–July 25, 2020. MMWR Morb Mortal Wkly Rep 2020;69:1535–1541. DOI: http://dx.doi.org/10.15585/mmwr.mm6942a3

[4]National Academies of Sciences, Engineering and Medicine. *A Framework for Equitable Allocation of Vaccine for the Novel Coronavirus*. https://www.nap.edu/catalog/25914/discussion-draft-of-the-preliminary-framework-for-equitable-allocation-of-covid-19-vaccine

Appendix: Sample Request form Used by Vaccinating Entities and Proposed use Prioritization Criteria

Each vaccinating entity should request the exact number of vaccine doses it will administer within 5 days of the shipment date. DHS should aim to fill a portion of the vaccine order of every requesting entity, with the limitation that there will be a minimum quantity of vaccine that can be shipped during the initial phase. Entities that cannot commit to administering at least this minimum quantity (e.g. 50 or 100 vaccine doses) within 5 days of shipment will not be eligible to receive vaccine during the early rounds of distribution. The minimum quantity will be subject to change during subsequent rounds of distribution, and as additional vaccine products become available.

Entities requesting more than the minimum quantity will receive some proportion of their request. The proportion will be determined by the total number of vaccine doses requested by eligible vaccinating entities in relationship to the total vaccine allotment received by DHS, with adjustments made for county-level social vulnerability index and commitment to administer vaccine to HCPs such as first responders, who may not be affiliated with an organization with capacity to request and administer vaccine during the initial phase.

County #1, 2, 3 . . . n:
Doses administered to HCP employed by vaccinating entity:
Doses administered to unaffiliated HCPs (e.g., first responders): _____

Total doses requested for county: _____

Total Vaccine Dose Request (sum of doses for all counties): _____

As a hypothetical example, a health care organization might request 1,100 vaccine doses, to be administered in three Wisconsin Counties where they operate hospitals and clinics. They have also partnered with an EMS system in an additional county to vaccinate first responders. They submit an itemized vaccine request to DHS with the following:

County A: 600 total doses requested
600 HCP employees
0 unaffiliated HCPs
(County A is in the 1st [highest] quintile of social vulnerability index)

County B: 200 doses requested
200 HCP employees
0 unaffiliated HCPs
(County B is in the 2nd quintile of social vulnerability index)

County C: 100 doses requested
100 HCP employees
0 unaffiliated HCPs
(County C is in the 5th [lowest] quintile of social vulnerability index)

County D: 200 doses requested
0 HCP employees
100 unaffiliated HCPs
(County D is in the 5th [lowest] quintile of social vulnerability index)

The vaccine doses distributed to the organization will be calculated based on the amount of vaccine available as a proportion of the total doses requested by all vaccinators. For example, if 250,000 doses are requested by all vaccinating entities, and Wisconsin's first allotment is only 50,000 doses, then every

entity will receive (50,000 / 250,000 = 0.2) or 20% of their request if no adjustments are made. If adjustments are made based on prioritization criteria recommended by SDMAC, then an entity may receive a slightly higher or lower proportion of their request.

Example: Distribution to vaccinating entity during phase 1a, assuming supplies are sufficient for 20% of HCP doses requested.

Without adjustments	With Adjustments
County A: 600 x 0.2 = 120 doses	County A: 600 x 0.2 x 1.1 = 132 doses *(increased by 10% because of highest SVI)*
County B: 200 x 0.2 = 40 doses	County B: 200 x 0.2 x 1.05 = 42 *(increased by 5% because of higher SVI)*
County C: 100 x 0.2 = 20 doses	County C: 100 x 0.2 x 0.9 = 18 (*decreased by 10% because of lowest SVI*)
County D: 100 x 0.2 = 20 doses	County D: 100 x 0.2 x 0.9 x 1.20 = 22 (*decreased by 10% because of lowest SVI and increased by 20% due to unaffiliated status*)
Total = 200 doses	**Total = 214 doses**

Potential weights for use in adjustments to county level proportions based on social vulnerability

p = unweighted proportion = total vaccine requested from vaccinators / total WI vaccine allotment

SVI Adjustments

1st Quintile	*p* x 1.10 (10% increase)
2nd Quintile	*p* x 1.05 (5% increase)
3rd Quintile	*p* x 1.00 (no adjustment)
4th Quintile	*p* x 0.95 (5% decrease)
5th Quintile	*p* x 0.90 (10% decrease)

Potential weights for use in adjustments for willingness to vaccinate unaffiliated individuals

Unaffiliated HCP Vaccination Adjustments

Vaccinators that are not healthcare organizations:	No Adjustments
Healthcare organizations planning to vaccinate unaffiliated HCPs:	*p* x 1.20 (20% increase)
Healthcare organizations not planning to vaccinate unaffiliated HCPs:	TBD*

*the proportion will be decreased to a degree necessary to offset the adjustment needed to increase the proportion for entities that vaccinate unaffiliated HCPs. The decrease will be no more than 10% (a lowest possible adjustment of *p* x 0.90). The adjustment levels are subject to change depending on how many health care organizations agree to vaccinate unaffiliated HCPs.