Recommended Guidelines for Prioritizing COVID-19 Vaccine in the Setting of Currently Limited Supply

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December 31, 2020 Edition

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Vaccination is a primary mechanism of preventing acquisition of communicable infections and in some cases preventing transmission of infection. Several vaccine formulations exist to prevent SARS-CoV-2 infection and the companies developing them have applied for Emergency Use Authorization (EUA) with the Food and Drug Administration. The Centers for Disease Control and Prevention (CDC), World Health Organization (WHO), and the National Academy of Sciences, Engineering, and Medicine (NAS) have published guidance on the equitable allocation of vaccine supplies based on an ethical framework which have been used to formulate these recommendations. **This framework aims to save as many lives as possible and maintain critical societal functions.** With those goals in mind, Healthcare Personnel (HCPs) and those residents of long term care and residential facilities are in the highest priority groups for receiving COVID-19 vaccine. The current aim is to expand prioritization to additional populations specifically to those over the age of 65 and especially those over age 75 and those with specific medical conditions*. However, vaccine supplies are likely to be limited for the next several months, and to provide further prioritization guidance, subsets of HCPs and patients are provided to support our goal of saving lives.

The **prioritization scheme** set forth in these voluntary guidelines is intended to **promote the common good, maximize the public health, economic and social benefits, assuring that people are treated fairly and with equity and help mitigate inequities**. In addition, the ACIP Committee of the CDC has provided guiding principles based on the above thoughtful guidance documents. The tiers proposed below consider:

1. Risk of exposure to COVID-19 and the frequency and duration of exposures.
2. Risk of severe morbidity or mortality from COVID-19 infection in a given patient population, and
3. The disruption of core and primary society activities.

The phased recommendations contained in these guidelines are developed for healthcare facilities and frontline healthcare personnel (HCP)/emergency workers and patient populations served by healthcare facilities during the time of a constrained supply. These recommendations will be adapted and revised as new information becomes available and as additional vaccine supply becomes available. In providing these recommended guidelines it is recognized that organizations receiving initial allocations of vaccines such as hospitals, skilled nursing facilities and other residential settings may create additional classifications or priorities for vaccine distribution among HCPs, patients and residents as recommended by their own medical and legal advisors.

Each organization should review their operational processes related to outreach and delivery to **ensure** their prioritization and distribution of COVID-19 vaccines includes equity in delivery across diverse racial/ethnic, socioeconomic strata, and other healthcare disparities that may impact access to care. Several indices or methods will assure equity. The CDC provides guidance with a Pandemic Vulnerability Index that can be incorporated into vaccine distribution and prioritization schemes. PCCI publishes a Dallas County Vulnerability Index to assess community risk. The Dallas County Community Needs Assessment 2019 serves as an additional guidance document. Every hospital or healthcare organization has a community health needs assessment that can be used to develop a framework. While the patient populations served by each entity vary, the goal of this prioritization and distribution scheme is to address these current and historical disparities and achieve equity in vaccine access. Please reference **Tier 1b** for further information on high-risk populations*.

Vaccine prioritization and distribution abides by the ethical principles mentioned above with goals of achieving a balance between maximizing benefits and minimizing harm to a population, promoting justice with outreach to those who experience barriers to accessing healthcare and mitigating health inequities such as those in racially and ethnically diverse populations. Hence, this revision of prioritization provides additional focus on those populations with the highest burden of COVID-19 hospitalization and death. This perspective with the goal of saving as many lives as possible, also entails ensuring that no single vaccine dosage goes to waste. In light of current challenges in feasibility, the real world realities of vaccine distribution may present situations whereby individuals in lower tiers may be vaccinated, "ahead of schedule," for the simple goal of not allowing vaccine to go to waste.

Special considerations include:

- Individuals with a documented COVID-19 infection (by documented PCR or antibody) in the past 3 months should consider waiting for 3 months after their COVID-19 infection was diagnosed (ACIP meeting Dec 1).
- Individuals treated with a monoclonal antibody (e.g. bamlanivimab, and casirivimab and imdevimab) or convalescent plasma for COVID-19 infection delay their vaccination for at least 3 months after they were treated.
- Vaccines are not available under the FDA Emergency Use Authorization (EUA) for use in children under the age of 16.
- Individuals with allergies to vaccines should discuss these with their provider prior to receiving the vaccine.
- Any decision to administer a vaccine should be done in accordance with any guidelines or warnings required by the Food and Drug Administration (FDA) under any FDA vaccine approval or FDA EUA.
- Prior to vaccination, and in accordance with any FDA EUA or final vaccine approval, the following individuals should consult a provider or appropriate contact about the risks and benefits
    - those enrolled in a COVID-19 vaccine clinical trial (contact the research team);
    - women who are pregnant, may be pregnant or who are considering becoming pregnant;
    - other populations not covered by the currently available COVID-19 vaccine FDA's EUA provisions.

- Some high risk populations may benefit from a single dose vaccine formulation may be used for feasibility reasons (e.g. rural areas, high mobility populations).

Key Definitions:

- Healthcare Personnel (HCP) working in sites that provide direct patient care to confirmed or suspected COVID-19 patients include nurses, respiratory therapists, physicians (includes post-doctoral trainees), Advanced Practice Providers (APPs), nurse anesthetists, and support personnel such as technicians, assistants, environmental services workers, laboratory technicians, security personnel, triage and ward clerks, phlebotomists, emergency medical services personnel, vaccine administrators, community health workers, home health aides, caregivers, etc. The practice settings include hospitals; long-term care and nursing facilities, emergency departments; 911 "prehospital call environments", urgent care clinics; clinics; home; isolation and quarantine facilities.
- Critical infrastructure workers include those defined by the CDC and include first responders, and public services, sanitation, school, childcare program, grocery and food retailers, and transportation and delivery services, etc.

Tier/Phase	Population Description	Worker Group Description
Tier 1a.1	**Residents of Long-term Care Facilities/Skilled Nursing Facilities – Highest Risk Group** (Initial group to get vaccinated) • Residents • Patients who are hospitalized and being discharged to a long-term care facility/skilled nursing facility.	**Health Care Personnel (HCP)—Highest Risk Group** (Initial group to get vaccinated) HCPs with **daily sustained patient contact** (≥ 15 minutes/day of cumulative, face-to-face contact) working in the following units: • COVID-19 wards/units • Adult Emergency Departments (ED) (includes psychiatry ED and triage) • Intensive care units and wards/units with COVID-19 patients (priority given to those HCP caring for patients with COVID-19) • Emergency Medical Services personnel (frontline 911 prehospital care with face-to-face and sustained patient contact) **AND** • HCPs who are performing high risk procedures** and have contact with respiratory secretions from suctioning or other invasive procedures such as intubation, extubation (for example: otolaryngologists, anesthesiologists and nurse anesthetists, intensivists, intensive care and bronchoscopy suite personnel, respiratory therapists, dentists, dental hygienists, oral surgeons, pathologists performing autopsies on known COVID-19 patients) and members of rapid response teams **AND** • Nursing home/long-term care and skilled nursing facility personnel with sustained daily and face-to-face exposure to residents

		AND • HCP and other personnel working on a designated "COVID-19 unit" with sustained face-to-face patient contact and whose work cannot be conducted virtually such as phlebotomists, radiology technicians, social workers, case managers, chaplains, environmental services personnel, patient care technician, physical therapists, etc. **AND** • HCP with sustained face-to-face contact and working on a designated "COVID-19 unit" or in the Emergency Department areas with patients with potential SARS-CoV-2 infection or working in a potentially contaminated environment such as environmental services staff.
Tier 1a.2	**Residents of other Nursing or Care Facilities – Moderate Risk Group** (Second group to get vaccinated): • Assisted living facilities • Residential care communities • Intermediate care facilities for individuals with developmental disabilities • State veterans' homes This tier should include current residents and patients who are hospitalized and being discharged to these types of facilities.	**HCP—Moderate Risk Group** (Second group to receive vaccine) • HCPs working with patients at risk of severe complications from COVID-19 with **daily sustained patient contact** (≥ 15 minutes/day of cumulative, face-to-face contact) or working in hospital units which include ○ Nurses, physicians (includes post-doctoral trainees), APPs, phlebotomists, and trainees, etc. ○ Geriatric, medical and pulmonary, and obstetrical in-patient services ○ Inpatient units where patients with oncologic diagnoses, bone marrow and solid organ transplant, HIV and those receiving

		immunosuppressive therapies are concentrated. **AND** • HCPs working in inpatient settings where there is a potential for ≥ 15 minutes/day of cumulative daily, face-to-face patient contact or exposure to known or suspected COVID-19 ○ Adult intensive care units not specified above, trauma, neurosurgery, general and gynecology, urology, in-patient services, etc. **AND** ○ HCPs providing pulmonary, infectious diseases, nephrology, neurology, cardiology, gastroenterology, rheumatology, endocrinology, psychiatry and hematology, palliative care and other inpatient consultation and performing endoscopy or other procedures on these patients **AND** • Support personnel working in in-patient settings **with ≥ 15 minutes/day** of cumulative, face-to-face patient contact or contact with a contaminated environment including ○ Microbiology personnel and personnel handling blood and respiratory specimens in the lab ○ Environmental services workers, transport personnel ○ In- and outpatient dialysis workers, radiology technicians (Chest CT and CXR priority), security, public health and emergency response staff directly involved

		in COVID-19 testing, vaccination and investigations **AND** • Other first responders (including law enforcement officers) who engage in 911 services **with > 15 minutes/day of face-to-face** contact with vulnerable patients **AND** Home based care to include home health, hospice and palliative care **with > 15 minutes/day of face-to-face** contact with vulnerable patients.
Tier 1a.3		**HCP-<u>Lower-Risk</u> Group** (Third group to receive vaccine) Those HCP with potential face-to-face contact (cumulative >15 minutes/day) and less high-risk exposures, less high-risk populations such as • Operating room, echocardiography, cardiac catheterization, endoscopy, neurologic (EEG, sleep, neuromuscular) and GI testing procedure suites • Inpatient HCPs providing plastic surgery, urology, genetics, non-chest radiology, dermatology, cardiac surgery, adolescent medicine, ophthalmology, dermatology, rehabilitation medicine, orthopedic surgery, and podiatry services **AND** • Ward clerks, clinical pharmacists in the emergency departments or on inpatient units, nutrition services personnel **AND** • HCP working in outpatient clinics caring for higher-risk patients including cardiology, cystic fibrosis, pulmonary, oncology, bariatric surgery, HIV, other

		internal medicine clinics (diabetic, rheumatologic), and obstetrics etc. **AND** Personnel performing non-911 scheduled transport.
Tier 1b.1	**The following races and ethnicities are at the highest-risk for complications and must be prioritized within the following groups with and without medical conditions:** • African-American • Hispanic/LatinX • Native American • Pacific Islander **AND** **Individuals age 65 years and older WITH PRIORITY of individuals age ≥ 75 years with or without medical conditions.** For those 65 and older prioritization using number of medical conditions further stratifies risk. Those with ≥3 of the following medical conditions are the highest priority, followed by those with 2 medical conditions, followed by 1 medical condition. These are currently the highest risk medical conditions: • Obesity with a body mass index [BMI] of 30 kg/m^2 • Diabetes • Chronic renal disease • Hypertension • Asthma/Chronic obstructive lung disease • Cancer requiring active treatment	**Critical Infrastructure Personnel-Lower Risk Group (face-to-face contact** ≥ 15 minutes/day of cumulative , face-to-face contact**)** • Individuals with sustained and frequent patient or public contact (≥ 15 minute/day of cumulative , face-to-face contact) • Workers in congregate settings not listed above, including homeless shelters and group homes for individuals with severe disabilities • Daycare workers and elementary and secondary school teachers and staff with >15 minutes/day of cumulative face-to-face public contact each day • Single function firefighters and law enforcement officers who do not function as first responders OR do NOT have >15 minutes/day of cumulative face-to-face public contact • Transportation personnel (public transit workers e.g. bus, tram, train, metro and airline workers and US postal service workers) • Meat packers, food processing, grocery store and agriculture workers who work in close and sustained proximity to others • Workers in critical industries essential to the functioning society with a substantial risk of exposure such as jails and prisons

	• Cardiac conditions including congestive heart failure, coronary artery disease, or cardiomyopathies • Immunocompromised states (weakened immune system) from solid organ transplant or drugs that alter immune responses • Sickle cell disease • Smoking.	**AND** • Other administrative staff working in healthcare without patient contact whose duties involve work in patient care areas (e.g., computer repair, equipment maintenance) and are mission critical.
Tier 1.b.2	**Individuals age 16-64 years with UNDERLYING medical conditions.** Using the number of medical conditions further stratifies risk. Those with **≥3 of the following medical conditions should be the highest priority,** followed by those with 2 medical conditions, followed by 1 medical condition. These are currently the highest risk medical conditions: • Obesity with a body mass index [BMI] of 30 kg/m^2 • Diabetes • Chronic renal disease • Hypertension • Asthma/Chronic obstructive lung disease • Cancer requiring active treatment • Cardiac conditions including congestive heart failure, coronary artery disease, or cardiomyopathies • Immunocompromised states (weakened immune system) from solid organ transplant or drugs that alter immune responses • Sickle cell disease • Smoking. **AND** **Persons in Congregate Settings**	

	• Incarcerated or detained individuals with anticipated stay > 30 days • Persons living in homeless shelters and group homes.	
Tier 1.c		**Other Essential Workers** not included in Tiers 1 and 2 in industries and occupations important to the functioning of society and at increased risk of exposure because of sustained and frequent work-related contact with members of the public or necessarily close working or workplace conditions with other persons or members of the public. • Travel and logistics • Food service • Shelter and housing (construction) • IT and communications • Energy • Banking • Courts/legal • Funeral home personnel, clergy • Public safety (engineers) • Water and wastewater.
Tier 2	**All persons** who have not previously had access to vaccine.	**Other administrative staff** working in healthcare and essential services without patient or public contact whose duties do not involve work in patient care areas.

* On December 20, 2020, the ACIP updated the interim vaccine allocation recommendastions and determined the persons aged **≥75 years and non-healthcare fronline essential workers** should be moved into **Phase 1b**. They further determined that persons **aged 65-74 years and persons aged 16-64 with high-risk medical conditions and essential workers NOT** be included in Phase 1b.

** High risk procedures include endotracheal intubation; CPR, Bag-Valve-Mask (BVM) ventilation, administration of nebulized medications, suctioning, bronchoscopy; turning the patient to the prone position; disconnecting the patient from a ventilator; invasive dental procedures, exams and other procedures generating aerosolized bodily fluids; invasive specimen collection; cough induction; cardiopulmonary resuscitation; upper endoscopy; certain laparoscopic surgeries; placement of chest tubes for pneumothorax

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