**Transparent, equitable, safe, and effective use of COVID-19 vaccines: A societal imperative**

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It seems unfathomable that we could arrive at the intersection of a pandemic and the greatest social unrest the United States has witnessed since the 1960s. Nonetheless, this is where we find ourselves. As we write these words, over 28.2 million people globally have been infected with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and close to 910,000 have died from coronavirus disease 2019 (COVID-19).[1] For sure, these numbers will increase dramatically by the time this editorial is published in print. Concurrently, cities across the United States are the sites of protests against a multitude of inequities experienced by Black Americans and other minority groups.

The junction of these two national emergencies has amplified the disparities that Black Americans, Hispanics, and other persons of color experience daily in our society and our health system. As displayed in Table 1, COVID-19 infection, hospitalization, and death rates in the United States are higher in Black Americans, Hispanics, and American Indians or Alaska Natives when compared to White non-Hispanic people.[2] In Asian Americans, while we have not witnessed an increase in death rates, increased rates of infection and hospitalization have been observed.

Underlying reasons for the disparities that have led to higher SARS-CoV-2 infection rates and worse outcomes in people of color have been attributed to a higher prevalence of comorbidities in these groups and socioeconomic factors that lead to crowded housing and greater frontline employment, with a subsequent increased risk of transmission of the virus.[3] While the current social situation in the United States involves a much broader constellation of socioeconomics, race, and inequities in the criminal justice system, the COVID-19–related disparities we are witnessing in people of color are clearly rooted in many of these broader social justice issues. As we prepare for mass distribution of COVID-19

vaccines through a potentially fragile supply chain, followed by attempts at universal administration and monitoring, these disparities and avoiding their effects must be at the forefront of federal, state, and local planning efforts.

This issue of *AJHP* contains the ASHP Principles for COVID-19 Vaccine Distribution, Allocation, and Mass Immunization,[4] which were approved by the ASHP Board of Directors on August 24, 2020. These principles address 10 essential aspects of successful COVID-19 vaccination efforts:

1. Vaccine development, approval, and postmarketing surveillance;
2. Ethical and equitable distribution;
3. An engaged, prepared, and protected immunizer workforce;
4. Leveraging a highly qualified and empowered clinical pharmacy workforce;
5. Best practices for proper storage and handling;
6. Equitable allocation;
7. Achieving high acceptance and uptake rates;
8. Adopting innovative solutions for adverse drug event monitoring for improved vaccine safety;
9. Preventing and removing financial barriers; and
10. Continued research and comprehensive surveillance procedures for COVID-19 vaccine use, safety, and effectiveness.

While adherence to each of these principles is essential to a transparent, equitable, safe, and effective COVID-19 vaccination program, given the disproportionate risks to underserved populations, as described in Table 1, we want to amplify the significance of including key populations in COVID-19 vaccine development and pharmacovigilance, ethical and equitable vaccine distribution, and achieving high acceptance and uptake rates.

Although vaccine candidates are already being tested in phase 3 clinical trials, we still urge investigators, including pharmaceutical manufacturers, to prioritize inclusion of vulnerable populations in these studies.[5] This will help ensure that the efficacy and safety data produced are truly generalizable to the population at large. Further, as postmarketing surveillance of COVID-19 vaccines proceeds, the entire healthcare community must be vigilant about identifying and reporting adverse events and effectiveness concerns for all recipients of the vaccines, including minorities.

Likewise, the increased risks—including social determinants—of COVID-19 infection, hospitalization, and death among underserved populations must be considered by policy makers and clinicians as planning for the allocation, distribution, and administration of COVID-19 vaccines proceeds. As addressed in the ASHP principles, given the likelihood of limits on initial supplies of these vaccines, vulnerable populations, including frontline healthcare workers, must be prioritized.

A crucial initial step in ensuring vaccination will be countering misinformation and vaccine hesitancy. As discussed in the ASHP principles, gaining and maintaining trust within the community, including among vulnerable groups, through the provision of credible, culturally sensitive, and health literacy–sensitive education programs that provide evidence-based information about the safety and efficacy of the COVID-19 vaccines is imperative. Pharmacists are well positioned and prepared to participate and lead these public education efforts. In addition, access to vaccine administration sites will be critical to ensuring the success of mass vaccination efforts. We must take full advantage of all locales—including physician offices, pharmacies, churches, schools, and community centers—to ensure administration of COVID-19 vaccines at times and in locations that are accessible and convenient for the public. There is no place for vaccine deserts in this public health crisis.

Finally, the costs of vaccines cannot be a barrier to their widespread use. Protection from SARS-CoV-2 infection cannot become an issue of the haves and the have-nots. The ability of underserved individuals to pay for the vaccine for themselves and their families—especially in these challenging economic times—cannot be a barrier to access. As stated clearly in the ASHP principles, we must ensure patients' access to COVID-19 vaccines by preventing and removing financial barriers.

The COVID-19 pandemic is likely the most monumental public health emergency we will witness in our lifetimes. Establishment of transparent, equitable, safe, and effective mechanisms for broad distribution, administration, and monitoring of COVID-19 vaccines across the global population, including the most vulnerable among us, is our imperative.



**References**


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**Table 1. COVID-19 Infection, Hospitalization, and Death Rates in African Americans, Asian Americans, Hispanics, and American Indians or Alaska Natives Compared to White Non-Hispanics as of August 18, 2020[2]**

| | African Americans/Blacks | Asian Americans | American Indians or Alaska Natives | Hispanics/Latinos |
|---|---|---|---|---|
| Infection[a] | 2.6 | 1.1 | 2.8 | 2.8 |
| Hospitalization[b] | 4.7 | 1.3 | 5.3 | 4.6 |
| Death[a] | 2.1 | No increase | 1.4 | 1.1 |

[a]Values are unadjusted rate ratios.
[b]Values are age-adjusted rate ratios.