

The Network for Excellence in Health Innovation (NEHI) held its final summit in a series of four virtual meetings on COVID-19 immunization on January 27, 2021. The following is NEHI's top 5 insights from the summit, Looming Challenges of COVID-19 Immunization: Moving Forward

- **Science.** The approved COVID-19 vaccines and those in the pipeline are built on years of research. The science underlying those vaccines holds great promise not only for treating COVID-19, but for other infections and diseases. COVID vaccines have been developed and manufactured with unprecedented speed thanks to advance commitments by the government, suggesting that similar investments can help prevent or reduce the spread of dangerous viruses in the future. Continuing investment in understanding virology and immunology is essential.
- **Supply.** Although there are several bumps in the road, increasing vaccine supply is the most critical priority. Additional production of available vaccines and the introduction of new vaccines are both essential. New vaccines approved for use in the pediatric population and those that do not require cold storage will accelerate the realization of herd immunity. Vaccinators (health systems, pharmacies) are already dealing with the complexity of administering multiple vaccines at the same time. It is too early to say whether variations in efficacy will require decisions about who should get which vaccine. At present, segmentation would add unnecessary complexity.
- **Outreach.** Vaccine hesitancy remains a factor in achieving herd immunity, especially in reaching BIPOC communities and individuals in rural areas. States, health systems, and pharmacies have all developed strategies to provide information about efficacy and safety to trusted community leaders and, importantly, to create convenient vaccine access points in communities where vaccine hesitancy is high. Not all states have the resources to execute these strategies, either themselves or in partnerships. This gap must be closed in the face of clear data indicating significant disparities in vaccine uptake by race and ethnicity.
- **Logistics.** Panelists were united in their view that they would overcome challenges as information about vaccine supply became clearer, although improvements in communication about vaccine availability had not yet taken hold. Likewise, they noted that improvements in predictive algorithms will reduce the need to transfer unused vaccines among providers and avoid appointment cancellations. Gaps in the vaccine infrastructure have, however, come into stronger relief. Allocation guidelines that vary by state, gaps in information sharing, and workforce burnout associated with complexity and inefficiency all remain material problems.
- **Leadership.** It has been said so many times: For the distribution chain to work effectively, there must be coordination and leadership in real time. It is impossible to imagine that any organization other than the Federal Government can play this role, even as states execute vaccination strategies in partnership with community leaders. Leadership is needed to provide standards that reduce variation among states when that variation does not contribute to the goal—getting vaccines to everyone quickly.

Parting thought: National pandemic preparedness has been repeatedly refined in response to pandemic threats over the last decade (H1N1, Ebola, and Zika). In the Crimson Contagion simulation exercise conducted a year before the COVID-19 pandemic, numerous national, state and local, private and public organizations tested the federal government's capacity, and that of twelve selected states, to respond to a severe pandemic of influenza that originated in China. We must understand how this exercise contributed—or not—to the country's preparedness for COVID-19. At the very least, a comprehensive and multi-stakeholder review of the country's response to COVID-19 is needed. It must include a critical assessment of our public health infrastructure and our ability to achieve vaccination targets for all recommended immunizations.