Answers to Questions for the Record of a Hearing on
"Leading the Way Forward: Biden Administration Actions
to Increase COVID-19 Vaccinations"

Subcommittee on Oversight and Investigations
Committee on Energy and Commerce
U.S. House of Representatives

March 17, 2021

For Dr. Peter Marks, Director, Center for Biologics Evaluation and Research, FDA

Answers to questions for the record are accurate as of the date of the hearing.

The Honorable Frank Pallone, Jr. (D-NJ)

1. How is the Food and Drug Administration (FDA) engaging with COVID-19 vaccine manufacturers to study variants and develop new solutions? And, specifically, is FDA engaged in efforts to develop booster shots against the variants?

Response: FDA has been communicating with vaccine manufacturers to provide information and scientific advice as they evaluate the impact of SARS-CoV-2 variants on their vaccines, including consideration of possible booster shots.

In February 2021, FDA issued an update to its October 2020 vaccine Emergency Use Authorization (EUA)[1] guidance to address the emergence of SARS-CoV-2 variants. The updated guidance outlines FDA's scientific recommendations for modifications to authorized vaccines. For example, FDA expects that manufacturing information will remain generally the same for an authorized vaccine and a modified vaccine candidate from the same manufacturer. For clinical data, the guidance recommends that a determination of effectiveness be supported by data from clinical immunogenicity studies, which would compare a recipient's immune response to virus variants induced by the modified vaccine against the immune response to the authorized vaccine.

Manufacturers are also encouraged to study the modified vaccine in both naïve (non-vaccinated) individuals and in individuals previously vaccinated with the authorized vaccine. Additionally, the guidance outlines FDA's recommendations for assessments of safety to support an EUA for a modified vaccine. Finally, the guidance states that further discussions will be necessary to decide whether in the future, modified COVID-19 vaccines may be authorized without the need for clinical studies.

[1] https://www.fda.gov/regulatory-information/search-fda-guidance-documents/emergency-use-authorization-vaccines-prevent-covid-19

The Honorable Diana DeGette (D-CO)

1. **What is the likelihood that we will need new COVID-19 vaccines regularly to fight variants going forward, such as with the influenza vaccine each year?**

Response: As of March 17, 2021, available information suggests that the FDA-authorized vaccines remain effective in protecting the American public against currently circulating strains of SARS-CoV-2. However, if there is an emergence of other SARS-CoV-2 variants in the U.S. that are moderately or fully resistant to the antibody response elicited by the current generation of FDA-authorized COVID-19 vaccines, it may be necessary to tailor the vaccines to those variant strains.

The Honorable Kathleen Rice (D-NY)

1. **Although the greatest challenge right now is increasing the supply and accessibility of vaccines, some older Americans are still hesitant about getting the vaccine.**
   a. **Can you tell me about the vaccine's effectiveness among those 65 and older—many of whom have underlying health conditions which may also increase their COVID-19 risks?**
   b. **What does the data say about vaccine safety and efficacy for this population?**

Response: As with all vaccines, FDA requires that vaccine manufacturers provide sufficient data to evaluate the safety and effectiveness of a vaccine for its intended population. In the case of vaccines to prevent COVID-19 this includes assessing effectiveness among those 65 and older. FDA's June 20, 2020, guidance document, *Development and Licensure of Vaccines to Prevent COVID-19,*[2] strongly encourages the inclusion of diverse populations in all phases of vaccine clinical development. Including diverse populations in clinical trials helps to ensure that adequate data pertaining to safety and effectiveness are generated for the intended population who will receive the vaccine. Specifically, FDA recommends that evaluation of vaccine safety and efficacy in late phase clinical development in adults should include adequate representation of elderly individuals and those with medical comorbidities.

People over 65 years of age who have health risks should receive any of the three COVID-19 vaccines that FDA has authorized for emergency use as soon as it is available to them.

For the Pfizer- BioNtech COVID-19 vaccine, the available safety and effectiveness data that support the EUA include analyses of tens of thousands of participants (37,586 participants for safety, 18,801 of whom received the vaccine and 18,785 of whom received saline placebo), 36,523 participants for effectiveness (18,198

[2] *https://www.fda.gov/media/139638/download*

received the vaccine and 18,325 received placebo) enrolled in ongoing randomized, placebo-controlled studies. Data available as of March 17, 2021 shows that the vaccine was 95 percent effective in preventing COVID-19 at least 7 days after the second dose.

For the Moderna COVID-19 vaccine, the available safety and effectiveness data that support the EUA include analyses of tens of thousands of participants (30,351 participants for safety 15,185 of whom received the vaccine and 15,166 received placebo); 28,207 participants for effectiveness (14,134 received the vaccine and 14,073 received placebo) enrolled in ongoing randomized, placebo-controlled studies. The vaccine was 94.1 percent effective in preventing COVID-19 at least 14 days after the second dose.

For the Janssen COVID-19 vaccine, the available safety and effectiveness data that support the EUA include analyses of tens of thousands of participants (43,783 participants for safety 21,895 of whom received the vaccine and 21,888 of whom received saline placebo; 39,321 participants for effectiveness- 19,630 received the vaccine and 19,691 received saline placebo) enrolled in ongoing randomized, placebo-controlled studies (conducted in South Africa, South America, Mexico, and the US). The vaccine was approximately 67 percent effective in preventing moderate to severe COVID-19 disease at least 14 days after vaccination and 66 percent effective in preventing moderate to severe COVID-19 disease at least 28 days after vaccination.

Although there were fewer cases of COVID-19 among clinical trial participants 65 years of age and older with at least one underlying health condition, effectiveness of the three COVID-19 vaccines that FDA has authorized for emergency use was not significantly different in this population than for the overall study population. There were no specific safety concerns identified in this population and occurrence of serious adverse events were generally consistent with the overall study population for the three vaccines. For the Janssen COVID-19 Vaccine, lower vaccine efficacy estimates for participants 60 years of age and older with at least one underlying health condition were observed in some of the study analyses, but there were no COVID-19-related deaths and no COVID-19 cases requiring medical intervention occurring 28 days or more after vaccination. The assessment by FDA physicians and statisticians of the lower vaccine efficacy estimates observed in people over 60 years of age with comorbidities is related to smaller numbers in these analyzed subpopulations. Members of the Vaccines and Related Biological Products Advisory Committee also agreed with FDA's assessment.

The Honorable Morgan Griffith (R-VA)

1. **Can you give us an estimate as to when we may have a COVID-19 vaccine that has received licensure from the U.S. Food and Drug Administration (FDA) as opposed to an Emergency Use Authorization?**

Response: As of March 17, 2021, the Agency cannot provide a timeline for licensure of a COVID-19 vaccine. We will work closely with developers as they move toward BLA submissions and have already provided several resources to that end.

In June 2020, FDA released a guidance document to facilitate the development of safe and effective vaccines to prevent COVID-19.[3] The guidance provides recommendations for sponsors regarding the clinical development and licensure (approval) of vaccines to prevent COVID-19. The guidance, *Development and Licensure of Vaccines to Prevent COVID-19,* provides an overview of key considerations to help manufacturers satisfy requirements for chemistry, manufacturing and controls, and nonclinical and clinical data needed for development and licensure to assess safety and effectiveness and for post-licensure safety evaluation of COVID-19 vaccines. Once a vaccine manufacturer has accumulated this information and data, they can submit their Biologics License Application (BLA) to FDA seeking approval.[4]

2. **Is it possible that there is a scenario in which the public health emergency declaration is terminated before vaccines authorized for emergency use have received licensure and, if so, how will the agency handle that transition to ensure Americans are still able to get vaccinated?**

Response: Before FDA may authorize the emergency use of medical products, the HHS Secretary must declare that circumstances exist justifying the authorization. This is called an "EUA declaration" under section 564(b)(1) of the Federal Food, Drug and Cosmetic (FD&C) Act. The EUA declaration is issued for purposes of empowering the FDA Commissioner to issue emergency use authorizations of medical products. It is distinct from, and not dependent on, an HHS public health emergency declaration under section 319 of the Public Health Service (PHS) Act. Therefore, if the COVID-19 public health emergency declaration under section 319 of PHS Act is terminated and there remains a need for vaccines to be available under EUAs, HHS could decide to continue to keep in place the EUA declaration.

3. **FDA has stated that, at this time, available information suggests that FDA-authorized vaccines remain effective against currently circulating strains of COVID-19. Is FDA requiring that manufacturers with authorized vaccines submit data to demonstrate efficacy against currently circulating strains?**

Response: Public health authorities, such as the CDC and WHO will work with regulatory authorities and vaccine manufacturers to monitor the effectiveness of FDA-authorized vaccines against circulating strains, including emerging variants.

[3] https://www.fda.gov/regulatory-information/search-fda-guidance-documents/development-and-licensure-vaccines-prevent-covid-19

[4] On May 21, 2021, Pfizer and BioNTech announced that they have submitted an application for Biologic Licensure with FDA.

In February 2021, FDA updated its October 2020 guidance, *Emergency Use Authorization for Vaccines to Prevent COVID-19*,[5] to provide recommendations to vaccine developers, including those who have already received emergency use authorization (EUA) for their COVID-19 vaccines and are seeking to amend their EUA to address new variants. At this time, available information suggests that the FDA-authorized vaccines remain effective in protecting the American public against currently circulating strains of SARS-CoV-2. However, if there is an emergence of SARS-CoV-2 variant(s) in the U.S. that are moderately or fully resistant to the antibody response elicited by the current generation of COVID-19 vaccines, it may be necessary to tailor the vaccines to those variants.

The Honorable Michael C. Burgess, M.D. (R-TX)

1. In April of 2009, the first case of H1N1 was detected in California. The Centers for Disease Control and Prevention began researching a vaccine, completing the gene sequences of the virus by the end of April, during which the Federal Government promised up to 160 million doses of a vaccine by October. This did not happen. In fact, only 23 million doses were available by the expected date. Were there any lessons learned from the H1N1 vaccine development and administration response, and how were these lessons applied to Operation Warp Speed?

Response: Please refer to the response to this question from Dr. Fauci.

[5] *https://www.fda.gov/regulatory-information/search-fda-guidance-documents/emergency-use-authorization-vaccines-prevent-covid-19*