In a context where Africa in general and Mali in particular are facing a resurgence of the COVID-19 pandemic marked by a spectacular increase in the number of daily contaminations, governments and the scientific community around the world are increasingly considering vaccination as the last resort to protect populations from coronavirus disease.

This special edition of the newsletter focuses on community perceptions of COVID-19 vaccines in Mali.

Of the 46 rumors about vaccination against COVID-19 that have been examined, 22 relate to a conspiracy theory of governments and big pharmaceutical companies to inoculate populations with the COVID-19 virus in order to exterminate them or strengthen the financial power of vaccine manufacturers. 17 rumors concern community mistrust in the composition of vaccines. Other feedback data collected are related to vaccine efficiency (2 rumors), the vital priorities (livelihood) of communities (2 rumors), the risks of side effects (1 rumor) and early expiry (1 rumor) of vaccines, and the lack of data on clinical trials (1 rumor).

The purpose of this special bulletin is to mitigate the spread of rumors and misinformation about vaccines against COVID-19. Since there is still no cure for coronavirus disease, vaccines are an interesting alternative to protect people and stop the spread of the pandemic. This bulletin is based on the analysis of 46 rumors related to vaccination against COVID-19 out of a total of 1229 rumors collected on social media and from IDPs communities in the regions of Segou, Sikasso, Mopti, Timbuktu and the District of Bamako.
Inactivated or weakened virus vaccines, which use a form of the virus that has been inactivated or weakened so that it does not cause disease, but still generates an immune response.

Protein-based vaccines, which use harmless protein fragments or protein envelopes that mimic the COVID-19 virus to safely generate an immune response.

Viral vector vaccines, which use a virus that has been genetically modified so that it does not cause disease, but produces coronavirus proteins to generate a safe immune response.

RNA-DNA vaccines, a leading-edge approach that uses genetically modified RNA or DNA to generate a protein that itself triggers a safe immune response.

All vaccines against COVID-19 are designed to teach the body’s immune system to safely recognize and block the virus that causes COVID-19. According to WHO, several different types of potential vaccines for COVID-19 are under development, including:

- Inactivated or weakened virus vaccines, which use a form of the virus that has been inactivated or weakened so that it does not cause disease, but still generates an immune response.
- Protein-based vaccines, which use harmless protein fragments or protein envelopes that mimic the COVID-19 virus to safely generate an immune response.
- Viral vector vaccines, which use a virus that has been genetically modified so that it does not cause disease, but produces coronavirus proteins to generate a safe immune response.
- RNA-DNA vaccines, a leading-edge approach that uses genetically modified RNA or DNA to generate a protein that itself triggers a safe immune response.

Sources:
- WHO. How are vaccines developed?. January 4, 2021
According to WHO, each vaccine under development must first be tested and evaluated to determine which antigen should be used to elicit an immune response. This preclinical phase is done without testing in humans. An experimental vaccine is first tested on animals to assess its safety and disease prevention potential.

If the vaccine triggers an immune response, it is then tested in three-phase human clinical trials. When the results of all of these clinical trials are available, a series of steps are required, including the review of efficacy and safety for regulatory and public health policy approval.

Once a vaccine is used, it must be continuously monitored to ensure its continued safety.

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**Frequently Asked Questions About Vaccines**

### What is a vaccine?

Vaccines contain weakened or inactive components of a particular organism (antigen) that trigger an immune response in the body. Newer vaccines contain the pattern of producing the antigen rather than the antigen itself.

Whether the vaccine consists of the antigen itself or the pattern that the body uses to produce it, this weakened version will not cause disease in the person receiving the vaccine, but it will cause the immune system to respond as it would have done when it first reacted to the actual pathogen.

Source:
- WHO. How do vaccines work?. January 6, 2021

### How do vaccines work?

As a means of disease prevention, vaccines train and prepare the immune system (the body's natural defenses) to recognize and fight the viruses and bacteria they target. This means that if the body is subsequently exposed to these same pathogens, it is immediately ready to destroy them, thereby preventing disease.

Source:

### Are there vaccines against COVID-19?

To date, more than 169 candidate vaccines against COVID-19 are under development, including 26 in human trials according to WHO. A press review of vaccine news has identified three vaccines considered to be the most advanced in their development because they have published the results of their clinical studies: mRNA-1273 and BNT162b2 from US firms Moderna and Pfizer-BioNtech, and Astrazeneca from Oxford University. Other countries such as China and Russia have also developed vaccines that are being administered domestically and abroad.

In addition, the World Health Organization (WHO) granted Pfizer-BioNTech vaccine its first emergency user validation since the start of the COVID-19 pandemic on Thursday, December 31, 2021. This is a procedure to facilitate the way for countries wishing to use it quickly. "This is a very positive step towards ensuring universal access to COVID-19 vaccines," said Mariangela Simao, WHO's Assistant Director-General for Drug Access, Vaccines and Pharmaceuticals, quoted in the statement.

One of the advantages of this procedure, which WHO can use in the event of a health emergency, is that it allows countries that may not have the means to quickly determine the efficacy and safety of a drug on their own, to have faster access to therapies.

The procedure also allows UNICEF, the UN agency in charge of a large part of the logistics of distributing the vaccines worldwide, the statement added.

Sources:
- TheLancet.com. Safety and efficacy of the ChAdOx1 nCoV-19 vaccine (AZD1222) against SARS-CoV-2: an interim analysis of four randomised controlled trials in Brazil, South Africa, and the UK. 4 January 2021
- Huffingtonpost.co.uk Why Pfizer’s vaccine was licensed by WHO on an emergency basis. January 4, 2021
CDC.gov. Older people at greater risk of requiring hospitalization or dying if diagnosed with COVID-19. January 4, 2021

COVID-19 is often more severe in people over 60 years of age or with diseases such as lung or heart disease, diabetes or conditions that affect their immune system.


Will we still have to observe the barrier measures after we are vaccinated?

Yes, everyone still has to maintain these barrier measures in the near future. If you are one of the 5-10% of people for whom the vaccine is not effective, you could still catch and spread coronavirus. Studies are underway to determine whether the vaccine, while effective in preventing the disease, prevents a person from harboring the virus and spreading it to others.


Do other vaccines help protect against COVID-19?

While there are currently several vaccines against other diseases, there is no information or studies to show that these vaccines can help protect against COVID-19. Nevertheless, according to WHO, scientists are trying to determine whether some existing vaccines-such as the vaccine prepared from the bacillus Calmette-Guérin (BCG), which is used to prevent tuberculosis-are also effective against COVID-19.

Also, the influenza vaccine will not protect against COVID-19, but it can prevent getting the flu at the same time as COVID-19. This can prevent you from getting a more serious illness. This is why it is important to get the flu shot, especially during this cool and dusty season in the Sahel region.


Who is most at risk for COVID-19?

COVID-19 is often more severe in people over 60 years of age or with diseases such as lung or heart disease, diabetes or conditions that affect their immune system.


Will vaccines provide long-term protection?

Since vaccines have only recently been introduced to the market, their long-term protective capacity has not yet been proven. However, available data suggest that cases of reinfection with COVID-19 are possible but rare. Studies are underway to further understand this phenomenon.


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