This rumor bulletin presents a Frequently Asked Questions (FAQ)-style commentary on vaccine-related rumors and misinformation circulating in recent weeks on Lebanese social media. The bulletin also addresses two additional rumors widely circulated on social media in the past two weeks in Lebanon:

1. The medication Remdesivir as a viable treatment for COVID-19;
2. Accusations that hospitals and doctors financially benefit from COVID-19 deaths.

Rumors about the COVID-19 vaccine have circulated on Lebanese social media since October 2020. After the Minister of Health declared that Lebanon will receive the Pfizer-BioNTech Vaccine in February 2021, there was an uptick in vaccine-related rumors. This document aims to respond to and provide additional context for the most common rumors and confusion about the vaccine. Internews conducted desk research and interviewed public health professionals to help answer these questions. We focus here on the Pfizer-BioNTech Vaccine since it is expected to be the first vaccine to arrive in Lebanon in 2021.

**FAQ ON COVID-19 VACCINES IN LEBANON**

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<thead>
<tr>
<th>QUESTION #1</th>
<th>ANSWER</th>
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<tr>
<td><strong>WHAT VACCINE IS LEBANON GETTING?</strong></td>
<td>According the Lebanese Minister of Public Health (MOPH) Hamad Hassan, Lebanon has reserved around two million doses of the Pfizer-BioNTech Vaccine directly from Pfizer. The first batch of the vaccine is expected to arrive in February 2021 and will be given first to people with high-risk of COVID-19 complications and transmission, such as healthcare workers and adults over 65 who have chronic diseases. He stated that the Pfizer-BioNTech Vaccine reserved from the company would cover 15 percent of the population in Lebanon and be delivered in batches starting February 2021. A further 20 percent would be covered by COVAX, which would distribute of other vaccines and will cover refugee and migrant populations in addition to Lebanese. The MOPH stated that Lebanon might also purchase the Moderna Vaccine in the future(1). The Pfizer-BioNTech Vaccine is likely to be the first vaccine to reach Lebanon because it is more advanced in clinical trials than other vaccines to-date.</td>
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<th>QUESTION #2</th>
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<td><strong>WHAT IS COVAX?</strong></td>
<td>COVAX, formally known as the COVID-19 Vaccines Global Access Facility, is a global initiative funded by more than 60 middle- and high-income countries to ensure that COVID-19 vaccines reach those in need in an equitable manner. 92 middle- and low-income countries are eligible to receive vaccines from COVAX(2). Lebanon has submitted an expression of interest to be eligible for vaccines through this initiative and is currently awaiting approval. COVAX aims to make two billion doses of World Health Organization (WHO) approved vaccines available worldwide by the end of 2021, with funded countries receiving enough vaccines to cover an average of 20 percent of their population(3). According to WHO, Lebanon signed and made the down-payment to COVAX under the Committed Purchase Agreement to receive vaccines allocated through COVAX in 2021.</td>
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<th>QUESTION #3</th>
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<td><strong>WHY DO I NEED TWO DOSES OF THE Pfizer-BioNTech VACCINE? IS IT OK TO HAVE A SECOND DOSE OF A DIFFERENT VACCINE?</strong></td>
<td>The Pfizer-BioNTech vaccine requires two doses taken three weeks apart in order for the vaccine to be completely effective. The efficacy rate of the first dose is 52% and increases to 95% after the second dose. For this reason, taking the two doses is essential (4). It is OK—although not ideal—to have a second dose from a different vaccine. If both vaccines contain the critical viral protein of COVID-19, the second dose serves as a booster to increase the efficacy of the first dose(5). People should consult doctors and any new trials conducted in early 2021 to better understand any potential risks of taking multiple vaccines.</td>
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<td><strong>WHAT IF I’VE HAD COVID-19 BEFORE? SHOULD I STILL TAKE THE VACCINE?</strong></td>
<td>It is not clear yet how long the immunity of a recovered COVID-19 person lasts. As there have been cases of reinfection, it is advised to take the vaccine for added protection(6).</td>
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QUESTION #5

THE Pfizer-BioNTech VACCINE WAS DEVELOPED QUICKLY COMPARED TO OTHER VACCINES, WHAT DOES THIS SAY ABOUT ITS SAFETY?

According to Dr. Vlad Chaddad, International Humanitarian Health Advisor in Lebanon, the Pfizer-BioNTech vaccine has undergone the necessary preclinical and clinical trials which all vaccines undergo before being approved, in a shortened but efficient timeframe.

Stages for a vaccine to get approved:

1. **Academic Research**: the virus and the disease are studied from different angles;
2. **Pre-clinical phase**: the vaccine is tested in a laboratory;
3. **Clinical trial phase 1**: the vaccine is tested on 20-100 people and aims to determine safety and dosage;
4. **Clinical trial phase 2**: tests conducted on several hundred people and aims to determine benefits, dosage, and safety;
5. **Clinical trial phase 3**: final stage before the vaccine is administered to the public. Typically involves either hundreds or thousands of people to better determine efficacy, side effects, and long-term effects;
6. **Trial phase 4**: monitoring of the vaccine after it is administered to the general public.

For the COVID-19 vaccine, the development and trial phases were shortened from several years to just a year due to a number of factors: the urgency of the pandemic led to major funding for vaccine development, all three clinical trials were conducted simultaneously, and researchers were able to use findings from past research on coronavirus vaccines like SARS (Severe Acute Respiratory Syndrome) and MERS (Middle East Respiratory Syndrome) which are 80% similar to the COVID-19 virus.

The third phase of the human clinical trials of the Pfizer vaccine included 43,000 participants which is an acceptable number of participants typically involved in this phase. The Pfizer-BioNTech vaccine has met all the safety requirements of the American Food and Drug Administration (FDA) and has been approved for emergency use by the United Kingdom, United States, and several other countries.

QUESTION #6

WHAT ARE THE SIDE EFFECTS OF THE PFIZER-BIONTECH VACCINE? COULD IT CAUSE AN ALLERGIC REACTION?

According to the FDA, the most common side effects of the Pfizer-BioNTech vaccine during the third clinical trial phase were pain at the injection site, tiredness, headache, muscle pain, chills, joint pain, and fever. These symptoms typically lasted a few days. After any vaccination, the process of building immunity to the disease can cause symptoms such as fever, so mild symptoms should be viewed as normal and a sign that the body is building immunity. There is a small chance that the vaccine could cause a severe allergic reaction, which would occur a few minutes to one hour after getting the dose. Allergic reactions are more likely for people who have a history of allergies associated with vaccinations.

Allergic reactions are rare and in the majority of cases, mild to moderate. In the Pfizer-BioNTech clinical trials with 43,000 people, only two people experienced severe allergic reactions.

QUESTION #7

IS IT TRUE THAT SOME PEOPLE IN THE CLINICAL TRIAL DIED?

According to the FDA, six of the 44,448 people participating in the Pfizer-BioNTech vaccine trials died during the trial period. However, of the six deaths, only two people had been given the vaccine, the remaining four were given a placebo solution of salt and water. Both participants who died after receiving the vaccine had pre-existing health conditions and were over 55 years old: One died from cardiac arrest and the other from a coronary heart disease. The death of the participants is not likely to be linked to the vaccine but instead to pre-existing heart conditions.
FAQ ON COVID-19 VACCINES IN LEBANON

QUESTION #8
CAN I STILL GET INFECTED WITH COVID-19 IF I HAVE THE VACCINE?

According to John Hopkins University, the vaccine will lower your chances of COVID-19 infection(10). Those infected after receiving the vaccine are less likely to display symptoms, known as being asymptomatic, or to show only mild symptoms. However, you could still transmit the virus to an unvaccinated person if you are asymptomatic, so wearing a mask is still recommended even after vaccination. According to Adele Baleta, WHO Vaccine Communications Advisor, the vaccine will initially be rolled out to high-risk groups rather than the general public, which is why we must continue to protect ourselves while we wait to receive the vaccine with continued mask wearing in 2021(11).

QUESTION #9
WHO WILL BE GETTING THE VACCINE IN LEBANON IN EARLY 2021?

According to the Lebanese Ministry of Public Health, healthcare workers and adults over 65 at high risk of infection will receive the Pfizer-BioNTech vaccine first and for free. Additional target populations will be identified by the National COVID-19 Committee in Lebanon and the World Health Organization (WHO), with refugee and migrant communities considered. Lower risk individuals could expect to receive the vaccine towards the end of 2021. Additional vaccines such as the Moderna vaccine may also become available in mid-2021(1).

QUESTION #10
HOW MUCH WOULD THE Pfizer-BioNTech VACCINE COST IN LEBANON?

The price for the vaccine has not been set yet. However, during a meeting about the COVID-19 vaccine in September, the Minister of Health stated that the price will ‘take into account the current economic and financial challenges in Lebanon.’ The Banque du Liban has been asked to prioritize securing the funds needed to reserve more doses of the vaccine(12).

According to CNBC, Pfizer and BioNTech have set the price of the vaccine at 20 US Dollars (USD) per dose. Due to import, handling, and storage costs, the price would likely be higher in Lebanon, although free options will be available, according to the MOPH(13).

QUESTION #11
HOW WOULD I BE ABLE TO REACH THE VACCINE AS A REFUGEE?

Some doses of vaccine will be reserved as part of a “humanitarian buffer”. This humanitarian buffer stock will be made available to humanitarian organizations. This stock is still under development, but is envisaged to serve vulnerable populations such as refugees and asylum seekers in Lebanon. Refugees are being considered as a part of COVAX to receive different vaccines as they are approved by WHO. More information will be provided as it becomes clearer in the coming weeks(14).
Distrust in the Lebanese health care system and the government overall, which is present among Lebanese and refugee communities alike, could be fueling this rumor.

However, international aid provided to Lebanon by agencies such as the World Health Organization (WHO), UNHCR, and other international donors aims to strengthen the healthcare system’s capacity to respond to the crisis. Such funding equips hospitals and laboratories with necessary resources and aims to increase testing and treatment capacity. According to UNHCR, they have provided hospitals with 16 ICU beds and 197 regular beds as of September 2020.

Hospitals do not receive financial aid based on death rates. Instead, as severe case rates rise more funding is allocated to strengthen the healthcare system’s ability to respond to increased hospitalizations.

According to a Lebanese doctor interviewed by Internews, a COVID-19 diagnosis is based on evidence such as a positive Polymerase chain reaction (PCR) test, a computerized tomography (CT) scan of the chest, and blood tests. These are readily available for a potential COVID-19 patient upon request.

Doctors get paid for their time and efforts in treating patients, not per death. Additionally, doctors around the world rely on their reputation to develop their pool of clients. Hence the less deaths occurring on a doctor’s watch helps a doctor gain clout with the community and increase their clientele.

This rumor is circulating globally, not only in Lebanon. Rooted in Trust teams have recorded it in Mali, Colombia, and Afghanistan. The lack of trust in healthcare systems and in governments in many developing countries around the world may be one cause for this rumor.

‘My neighbor went to the hospital one night due to a minor headache. They killed him and buried him at 4AM without even notifying his family. The next day they claimed he died from COVID-19.’

One woman’s testimony during a listening group organized by Internews’ partner Maharat with women from Tripoli.

‘There is something fishy happening in hospitals. The patient walks in and comes out dead.’

Posted by a former Lebanese Mayor on his Facebook account.
The medication Remdesivir has been trending on Lebanese Twitter in recent weeks. Remdesivir is used in some countries to treat COVID-19. Twitter posts claim that the drug is being sold on the Lebanese black market for 600 US Dollars (USD).

Remdesivir is an antiviral medication that targets and inhibits the growth of several viral pathogens. Remdesivir is often used to fight viruses in the respiratory system, such as Severe Acute Respiratory Syndrome (SARS) and Methicillin-resistant Staphylococcus aureus (MRSA). (17)

In October 2020, the FDA approved the use of Remdesivir in COVID-19 cases which required hospitalization, with the condition that the injection is given only in the hospital or a healthcare setting(18). However, in November, the World Health Organization (WHO) recommended against the use of Remdesivir due to a lack of evidence to support its use in treating COVID-19(19).

While there is no universal agreement on the use of Remdesivir for COVID-19, it should not be used without the guidance of doctor. Clinical trials have shown that Remdesivir increases liver enzymes. The uncontrolled increase in these enzymes could lead to serious damage to the liver(20).

Remdesivir in Lebanon, according to a statement from the Lebanese Public Health Minister on November 8, the MOPH received 1,100 injections of Remdesivir as a gift from the Egyptian Ministry of Health and 525 injections from the Lebanese Company Fattal (21).

The Health Minister stated that the doses were distributed fairly to patients whose health conditions require the treatment according to documented regulations kept in the Ministry’s records. He also stated that the beneficiary list is transparent and present in the ministry, although Internews has not independently confirmed the list.

Minister Hassan also stated after the Corona Committee meeting on November 16 that 5,500 additional Remdesivir injections had arrived and 50 percent would be distributed to hospitals and 50 percent would be withheld with the distributor for distribution at a later date(22).

Ghassan Al-Amin, the head of the Lebanese Syndicate of Pharmacists clarified for Maharat News during a phone call on December 7 that Remdesivir was available in pharmacies before 2020, but with the emergence of the crisis, some people stored and sold it on a black market. This prompted the MOPH to establish a protocol to control the sale of the medicine.

A local pharmacist in Beirut on December 7 confirmed to Internews that Remdesivir can only be given to hospitalized patients because it is used as a treatment for severe cases only. For those reasons, a customer, usually a relative to the patient, must provide proof of a positive PCR test, laboratory and respiratory tests, and a prescription by a doctor issued from a hospital in order to purchase Remdesivir. Before selling the medicine, a pharmacist must also get an approval from the authorized Remdesivir distributor in Lebanon.

Despite these policies, Remdesivir could still be being brought into Lebanon from the airport and land borders and sold on the black market.

‘There is no hospital in Lebanon that has the Covid-19 treatment, Remdesivir. Patients buy it for $600 “fresh money”, and only on the black market.’

posted by an American-Lebanese writer on his twitter account.
2) Berkley, S. COVAX Explained, 3 September 2020, GAVI, https://www.gavi.org/vaccineswork/covax-explained
5) Gavi, Is it safe to have more than one type of COVID vaccine? and other questions answered by an immunologist, https://www.gavi.org/vaccineswork/it-safe-have-more-one-type-covid-vaccine-and-other-questions-answered-immunologist
11) Internews, COVID-19 Informational Podcasts, Saying No To a Vaccine Means Saying Yes to COVID-19, https://internews.org/covid-19-informational-podcasts?fbclid=IwAR3dh8TVaaXk_yZTFis5wmYVzrEEqRg7fLHEmnzNa3zmee9lPzcnZzcp7Qk
21) التصريح بعد إجماع لجنة كورونا من السراي الحكومي، November 16 2020, NewsGate, https://www.youtube.com/watch?app=desktop&v=4IiSC4YJ0Vo