Maharat has prepared this media bulletin in cooperation with Internews as part of the Rooted in Trust 2.0 project. Maharat's team of social media monitors continues to collect rumors linked to COVID-19 on various Lebanese platforms. These rumor trends are then analyzed and fact-checked by the Maharat News team.
Without scientific verification and studies, believing this rumor may lead to major negligence among citizens and patients, diagnosed with COVID-19 after being vaccinated, and who might be at physical risks if they did not resort to taking the correct medications in severe COVID-19 cases or if they restrain from being vaccinated with other necessary boosters without referring and relying to medical and health care consultancy.

What are the effects and risks of this rumor?

Both vaccines breakthrough-COVID-19 infections offer the patient a greater and stronger immune system against current and future strains of this epidemic.

The “Lebanon Debate” website published an article stating that vaccine breakthrough infections provide great immunity against Covid-19, and may contribute to dismantling the pandemic. In fact, the title of the article stated, “Why do we get corona despite receiving vaccine doses?!”
The Lebanese Debate website quoted the article from the Al Arabiya website which was based on a study prepared by the Oregon Health and Science University in the United States.

Going back to the article published on the university's website, the study used blood samples to characterize the immune response to the COVID-19 virus. The researchers monitored a strong immune response in 99 university employees who had blood drawn for the research.

"As the number of sub-Omicron cases rises and global vaccination and booster campaigns continue, an increasing proportion of the world's population will acquire robust immune responses that may be protective against future strains and may contribute to unraveling the COVID-19 pandemic," the researchers concluded. In addition, the study found that the immune response was equally strong among people within their 65 years of age and older.

"Early in the pandemic, we had very high mortality in some vulnerable groups, such as the elderly in nursing homes, but that reality is slowly changing," said Marcel Corlin, associate professor of medicine and the study’s co-author.

"The study supports the idea that vaccination is the path to a milder disease. Regardless of age, the chances of serious infection when re-infection appear to be much lower than at the beginning of the epidemic," Corlin added.
In this context, Dr. Somya Swaminathan says in an interview with the World Health Organization that the human immune system performs an initial reaction to any new virus that enters the body by producing antibodies and activates the immune system to eliminate the virus. Then, the human body develops a memory response, meaning when the body encounters the same virus again, it will have the ability to respond stronger, faster and larger.

In addition, the autoimmune response does not detract from the role of COVID-19 vaccines. The advantages of vaccines is that they greatly enhance the immune system and ensure a good memory of the immune system, especially in groups that do not have a strong natural immune system. By extension, natural and vaccines immunities are the most important protection against a pandemic, according to Swaminathan.

On the other hand, the "Gavi" Foundation, working to provide access to vaccines to the poorest countries, confirms that natural infection gives similar immunity to two doses of the vaccine against Covid-19 variants, such as the Omicron and its sub-strains, however without providing a 100% of full protection.

Therefore, what has been published is correct in terms of the content of the study and the fact that vaccine breakthrough infections provide greater immunity. It is certain that it contributes to the unraveling of the COVID-19 pandemic.
**TIPS FOR JOURNALISTS**

- Do not share any health statement and studies addressed by websites on COVID-19 and other viruses without referring and fact-checking the accuracy of the information and data from the concerned local and international health organizations.

- Restrain from sharing news that are not based on qualitative nor quantitative analyses and does not meet the standards, accuracy and codes of conduct of Science Journalism.

- Restrain in using misleading headlines on any health subject that might cause physical risks and mental fear and panic among the public as well as vulnerable communities.

- Remain transparent and offer all necessary and complete information regarding global epidemics and its immunization processes while maintaining a risk-averse approach in media health reporting.

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**MEDIA PRINCIPLES**

- Journalists should always analyze and double-check all information and studies that can be included in any news product regarding health-related topics and scientific updates, while verifying these data through primary accurate sources with international health organization and health care experts.

- In addition, journalists should always follow up and analyze the timeline and phases related to the immunizations processes and its effect within their communities.
“The Great Lebanon” website published, through its Twitter account, a news product in which it indicated that "COVID-19 can cause brain shrinkage, reduce neuropil within the brain areas that controls the emotions and memory, and can damage parts that control the sense of smell."

What are the effects and risks of this rumor?

Without scientific verification and studies, believing this rumor may lead to major fear and panic among citizens and patients, who might be at physical and mental risks if they did resort to taking random brain medications, if diagnosed with COVID-19, without referring and relying to medical and health care experts.
The Oxford University study, published in the Nature Journal, examined changes in the brains of 758 participants in the UK Biobank, a large-scale medical database and research resources, whose ages ranged between 51 to 81 years of age. By extension, participants underwent brain scans over a 38-month period, in addition to cognitive tests.

The study identified a number of effects that COVID-19 had on the brain 141 days after the infection was diagnosed, including a greater reduction in neuropil thickness within the brain areas associated with the smell sense. The participants also showed greater tissue damage in the part of the cerebral cortex involved in smell, and a decrease in the volume of the entire brain. These effects ranged from 0.2 to 2% additional change compared to the uninfected participants.

Participants with SARS-CoV-2 also showed greater cognitive decline between the two scans, associated with atrophy of a specific part of the cerebellum (a brain structure) associated with cognition.

The study confirmed that these results may have shown one of the SARS-Cove-2 infections long term effects, either through the pathways related to the sense of smell, inflammation, the immune response of the nervous system, or the lack of sensory input due to the loss of the sense of smell. The appearance of any future impairment in the affected brain areas belonging to the participants requires further investigation, through in-depth studies.

Therefore, what the Greater Lebanon website published is correct, as the study on which it is based explicitly indicates brain and smell sense damage caused by infection with COVID-19, but at a rate ranging from 0.2% to 2%.
TIPS FOR JOURNALISTS

• Restrain in using misleading headlines on any health subject that might cause physical and mental risks among the public such as the vulnerable groups, concerning new COVID-19 effects.

• Verify all updates on Covid-19 vaccines and infections as well as the long term physical effects on its recipients by relying on the latest studies published by the global health organizations and global health officials.

• Fact check all information of any study at hand issuing health topics that can have direct negative effect on the necessary awareness and immunization processes of local communities on COVID-19 and other infections.

• Restrain from fueling stigma around the most vulnerable population groups particularly on topics issuing COVID-19’s vaccination, community immunization and the existence of new discovered short- and long-term effects.

MEDIA PRINCIPLES

• Journalists should improve their skills in science and health journalism particularly when covering global epidemics through basing their work on the principles of fact-checking, critical thinking, and information verification, particularly when addressing medical cases and health topics, directly related to the public’s main interests and concerns.

• In addition, journalist should always rely on official local and international health organization as well as experts within the health sector as primary sources when reporting on any updates on pandemics and viruses.
Sources

6. https://www.gavi.org/vaccineswork/covid-reinfections-are-they-milder-and-do-they-strengthen-immunity?gclid=Cj0KCQjwnbmaBhD-ARIsAGTPcfUWpmli04hLlclcu3Kyjh5ZBxTU0iI9PY7DPU4Xvnncy0xjGr9wFts0aAlEaTEALw_wcB
7. https://twitter.com/grandlb/status/1556656478093660162