

COVID-19

Recommendations for verifying information about COVID-19 vaccines

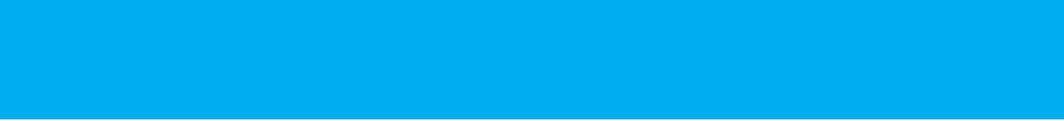
A guide for journalists

Recommendations for verifying information about COVID-19 vaccines.
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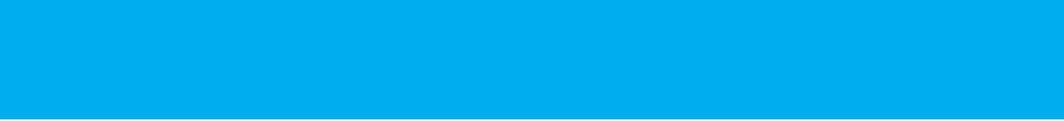
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The information published in this guide is based on data available as of the end of 2021. Knowledge about the SARS-CoV-2 virus, the coronavirus disease, and vaccination is constantly being updated and recommendations may change.

Introduction

The COVID-19 vaccination campaign is the largest global initiative of its kind in modern times, comparable only to previous vaccination drives to eradicate smallpox and polio. The difference this time is marked by greater access to information and more widespread dissemination through the communications media, social networks, and instant messaging. Consequently, messages and how they are communicated are more critical than ever.

It is essential for the public to have the timely information necessary for people to make decisions to protect their health and that of others. This also helps ensure the success of vaccination campaigns, which depend to a large extent on the sum of individual decisions.

Moreover, what happens during the COVID-19 vaccination campaign, and the disinformation swirling around it, can affect not only the outcome of the pandemic, but also the public's trust in other regularly administered vaccines and the health system in general.

Journalists and communicators have a vital role in this process, so that decisions can be based on evidence rather than on unfounded opinions or on false, inaccurate, or incorrect information—or even on malicious disinformation.

This guide presents information on the phenomenon of disinformation, including the most common fake news on COVID-19 vaccines circulating in Latin America and the evidence debunking it, and provides recommendations on how to address and debunk fake news, and to responsibly cover the vaccination process.

Disinformation

How disinformation spreads



Disinformation is false or misleading content—often consisting of real images or videos, from a different time or a different country, that are taken out of context—which spreads on social networks and on instant messaging applications, channels, and services. This content can be shared by their users, and eventually be published in the media and on websites or disseminated by public figures.

When thinking about disinformation, the first thing that often comes to mind are messages on social media, which any user can create or share. Although this is indeed a major part of the problem, we must also consider that it occurs within an ecosystem involving different kinds of actors with different motives.

In the case of the COVID-19 pandemic, this may result in what the World Health Organization (WHO) calls an infodemic: “an overabundance of information, both online and offline, [including] deliberate attempts to disseminate incorrect information to undermine the public health response and advance alternative agendas of groups or individuals” (1). In this context, traditional sources of authority are often questioned or considered untrustworthy. All these factors contribute to the spread of fake news.

Disinformation is not in itself a new phenomenon; rumors and fake news have always been created and shared. The difference represented by today’s technology and social networks lies in their high degree of connectivity, the volume of messages that can be sent (including messages that spread disinformation), and the fact that anyone can—even unknowingly—become a vector by sharing false, incorrect, or inaccurate messages.

Motives behind disinformation

The motives of those who produce and spread disinformation can vary, but we can define the following three major categories:

- **Financial gain:** Disinformation can be appealing and cause strong emotions, such as indignation, sadness, or hope, which drive its rapid spread, provoking reactions in those who consume it. This can generate income from different avenues, including clicks that bring in advertising revenue or by selling people products or services after grabbing their attention.
- **Politics or convictions:** Some people create disinformation because they are convinced of something although there is no evidence to support it, or even if the evidence is to the contrary. This can be seen, for example, in anti-vaccine groups or political actors who spread disinformation about others.
- **Ignorance:** It is very common for users on social networks to share incorrect information because they do not know that the content is false. However, it is also possible for a person to unknowingly create bad information, establishing a connection between two facts that are not related (for example, by pointing out that a person died after being vaccinated, even if there is no relationship between the two events because the person was vaccinated and then died of another cause).

To understand who has been spreading false information in Latin America and Spain, and what motivates them, the LatamChequea fact-checking alliance conducted an investigative journalism project focusing on the different pandemic disinformation actors, compiled under the title *Los desinformantes* [The Disinformants] (2).

The path of disinformation: amplifiers



How disinformation spreads depends to a large extent on such factors as the subject; country, city or community involved; belief systems and customs; and context. In any case, disinformation tends to originate in private messages shared in small, closed groups, which are then posted on social media that reach a larger audience—sometimes even showing up in traditional media channels or being echoed by public figures, further multiplying the impact of this disinformation.

The role of such public figures, of these amplifiers, is a major factor in the damage caused by disinformation, as they enable it to reach a higher number of people. This is the case when, for example, politicians, singers, influencers, or actors share conspiracy theories with their followers, exposing them to disinformation.

A report produced by the Reuters Institute (3) based on a global study showed that, during the first 3 months of the pandemic, public figures spread only 20% of fake news items, yet they obtained 69% of the total engagement on social networks. That is, although they are not responsible for spreading most kinds of disinformation, they do manage to reach a larger audience. Below is an example of amplification published by Estadão Verifica (4) (a participant in the LatamChequea research project *Los desinformantes*), an organization that analyses disinformation spread by high-level politicians and explains the consequences of public officials' spreading false information (box 1).

Box 1. Example of



Spanish singer Miguel Bosé shares conspiracy theories with his millions of followers. On his Twitter and Facebook accounts, Bosé accused the Bill and Melinda Gates Foundation of distributing botched vaccines worldwide, alleging that they used their pharmaceutical company to create vaccines with microchips to track the entire population using 5G mobile technology. His posts were based on a conspiracy theory that was already circulating, but due to the singer's popularity, it reached far more people. On Facebook, his posts were shared more than 2800 times, and on Twitter they generated more than 16,000 retweets and 17,000 likes.

Data voids

Data voids are another factor contributing to the spread of disinformation in the ecosystems where it circulates. When a topic is new and there is still not much available evidence (as was the case at the beginning of the pandemic), many people can fall into the disinformation trap when looking for data on a topic. They are flooded by an excess of information (much of it not evidence-based) and do not find information from reliable sources.



It is therefore crucial to pay attention to the public's concerns and online searches, and to provide data and evidence from reliable sources with up-to-the-minute information. Even when evidence on a topic is unavailable, explaining this to the public can help people to be aware of the lack of conclusive data.

For more information, see the video from the organization First Draft (5), which explains data voids and how to fill them.

Resources on journalism and COVID-19

- World Health Organization. Tips for professional reporting on COVID-19 vaccines. Geneva: WHO; 2020. Available at: <https://www.who.int/news-room/feature-stories/detail/tips-for-professional-reporting-on-covid-19-vaccines>.
- Pan American Health Organization. COVID-19: An informative guide. Advice for journalists. Washington, D.C.: PAHO; 2020. Available at: <https://www.paho.org/en/node/70108>.

Resources on the infodemic

- Collective Service. Risk communication and community engagement. Geneva: Collective Service; 2022. Available at: <https://www.rcce-collective.net>.
- World Health Organization. Let's flatten the infodemic curve. Geneva: WHO; undated. Available at: <https://www.who.int/news-room/spotlight/let-s-flatten-the-infodemic-curve>.
- World Health Organization. How to protect yourself in the infodemic (video). Geneva: WHO; 2020. Available at: <https://www.youtube.com/watch?v=E5Egi0nuDEs>.
- World Health Organization. An overview of infodemic management during COVID-19, January 2020-May 2021. Geneva: WHO; 2021. Available at: <https://www.who.int/publications/i/item/9789240035966>.

- World Health Organization. EPI-WIN. WHO Information Network for Epidemics. Geneva: WHO; undated. Available at: <https://www.who.int/teams/epi-win>.
- World Health Organization. Early AI-supported Response with Social Listening. COVID-19 related conversations online in 30 pilot countries. Geneva: WHO; undated. Available at: <https://www.who-ears.com/#/>.
- Pan American Health Organization. Understanding the infodemic and misinformation in the fight against COVID-19. Washington, D.C.: PAHO; 2020. Available at: <https://iris.paho.org/handle/10665.2/52052>.

The most common fake news about COVID-19 vaccines



During the COVID-19 vaccination process, many news items were identified that could raise doubts about the need for these vaccines and their safety. It is crucial to debunk this disinformation as many times as necessary, so that people can make evidence-based decisions. Below are some of the most common disinformation messages circulating in the Region of the Americas.

Much of the disinformation being spread in Latin America is repeated in different countries, but with slight variations. This is why LatamChequea launched a public, open repository of verifications, fact-checking, and explainers on the means of verification that the alliance comprises (6).

MISLEADING: Alleged adverse events and deaths

Disinformation items linking vaccines to alleged adverse events are among the most frequent in the Region. Like any drug, vaccines may cause adverse effects; therefore, these adverse events are monitored during clinical trials, in which thousands of volunteers receive vaccines (see the section below "Evidence on vaccines: How we know what we know"). Most of these events are mild.

Once vaccines begin being administered to the public, strict surveillance is maintained to identify other possible adverse events that did not appear during clinical trials. In fact, the United States of America suspended the Johnson & Johnson vaccine, and Europe did the same with the Oxford/AstraZeneca vaccine, when they were suspected of causing severe adverse events. Vaccination was only resumed after confirming that these events were very unusual, and that the vaccines' benefits outweighed their risks. This shows that constant monitoring is in place to guarantee vaccine safety, and that authorities evaluate whether to

discontinue campaigns when an adverse event is identified which requires more evidence.

Different messages have spread (7) warning that COVID-19 vaccines cause severe adverse events. However, these have occurred in less than 1% of vaccinated people, and mostly consist of anaphylaxis, an exceedingly rare, severe allergic reaction that may be caused by any vaccine.

Other messages make a connection between a person's death and their vaccination a few days earlier. As in the case of adverse events, it is important to note that if two things occur at the same time, or one after the other, this does not necessarily indicate a causal relationship. It is possible for a recently vaccinated person to unfortunately die shortly thereafter from another cause unrelated to vaccination. Making such associations, speculating on the cause of death without evidence, can greatly damage the public's trust in vaccines.

Recommendation: If there is no evidence of a causal relationship between vaccination and death, it is important to deny the link that is being implied between the two events. A national committee on vaccine safety always analyses severe events after vaccination by applying WHO criteria, concluding whether there was indeed a causal relationship between death and the vaccine.

FALSE: Vaccines were produced too quickly to be safe

It is true that the process of developing and producing COVID-19 vaccines was much faster compared to most vaccines we know of, which can generally take 5 to 10 years. In the case of COVID-19, significant funding was provided by governments and private entities, which was made available to vaccine research and development initiatives. Moreover, there was a much higher level of international cooperation within the scientific community than usual. Furthermore, previous knowledge from other coronaviruses outbreaks could be applied, including those of Severe Acute Respiratory Syndrome (SARS) in 2002 and Middle East Respiratory Syndrome (MERS) in 2012.

The rapid development of the COVID-19 vaccine does not mean that it is unsafe, despite the claims of much fake news currently in circulation. The same steps used to develop previously existing vaccines were always followed in clinical trials. In fact, research was begun on many COVID-19 vaccines which were never subsequently developed (let alone administered) because they did not meet the necessary requirements. Accelerating the research process does not imply carelessness, but urgent action in response to the pandemic situation.

Recommendation: To dispel doubts (which can be very legitimate) about the speed of vaccine development, we must explain the solid available evidence.

FALSE: Vaccines are unnecessary because natural immunity is better

Some disinformation claims that it is more “natural” to get sick than to get vaccinated, under the assertion that this forces the body to build up necessary defenses. There are several problems with this line of reasoning. On the one hand, the disease has unpredictable effects on people, including death, and in some cases it can lead to long-term after-effects that vaccines do not cause.

On the other hand, the defenses that develop after COVID-19 infection vary from person to person and it is unknown how long this natural immunity lasts. Although the evidence is under constant review, vaccines clearly provide uniformly better protection against the virus. The immune response generated by the vaccine is much stronger, more robust, and longer-lasting than the response to infection.

Recommendation: When reporting on vaccines, it is important to put the risks of not getting vaccinated into perspective. For example, one frequently discussed potential risk is thrombosis. The risk is real, but was detected in only 4 to 6 cases per 1 million people vaccinated with the AstraZeneca vaccine. There is a 1.5 out of 10 chance of the same condition arising after COVID-19 infection. This is an example of the importance of explaining the risks of not getting vaccinated.

FALSE: Vaccines contain dangerous compounds, such as metals or graphene

The composition of vaccines has been a recurring theme in disinformation circulating in the Region of the Americas. Fake news was shared on social media in many countries claiming that COVID-19 vaccines contain materials which turn people into magnets that attract metal objects, to the extent that it went viral as the so-called “magnet challenge”. However, these claims are unfounded, as is the disinformation that the vaccines contain graphene, disinformation which is not unique to COVID-19 vaccines. For years, allegations have been circulating that vaccines contain toxic compounds (8). This is false.

Although most people have no reason to analyze the composition of vaccines, the elements they contain constitute public information available from each country’s health authorities; therefore, it is possible to verify their components.

Recommendation: Often, disinformation takes advantage of topics that most people know little about and uses technical terms to try to give legitimacy to fake content. In these cases, to quickly counteract disinformation, it is important to consult with specialists and know the relevant sources of information.

FALSE: Vaccines cause new variants of the virus to emerge

Before mass COVID-19 vaccination started (9), there was already information regarding new variants of the virus that had begun spreading in different countries since the beginning of the pandemic. However, some news stories tried to associate vaccination with this latter phenomenon. Given that the emergence of new variants is a normal biological process, which existed before vaccines were deployed, this information is unfounded.

Variants arise from small genetic changes in a virus, which in some cases can make it more dangerous or contagious. This process occurs to some extent in all viruses, not just SARS-CoV-2, and is to be expected during their evolution as the virus is transmitted, meaning that greater transmission increases the chance of change. Variants are therefore not necessarily a consequence of vaccines; on the contrary, the more vaccinated people there are, the smaller the chance of transmission and, as a result, of these changes occurring and of new variants emerging. This is why it is important to reduce the circulation of the virus and to continue vaccination on a global scale, as variants can appear in any country and eventually affect the global population.

Recommendation: The high amount of attention given to the appearance new variants during the vaccination process, often out of context, can create a false sense of connection between the two events. It is vital to avoid assuming that two simultaneous high-profile news stories are related.

FALSE: Vaccines are ineffective, because vaccinated people get infected

As vaccination campaigns progress, more news has come to light of vaccinated people becoming infected. This is not uncommon. Vaccines are effective in preventing severe forms of the disease and reducing the risk of hospitalization and death, but they do not totally prevent contagion.

Claims seen in Israel that “almost 60% of hospitalized people were vaccinated” (10) are very misleading and may arise from analysis error (11). When the majority of the population is vaccinated, it stands to reason that most infections occur among vaccinated people. For example, in Israel more than 80% of the population over the age of 12 was vaccinated when that claim was made.

Consequently, it is important to examine the likelihood of becoming infected both with and without vaccination. Instead of reporting on the proportion of vaccinated people among those hospitalized, look at the proportion of hospitalizations among vaccinated people and compare it to that of the unvaccinated; for example, “the probability of developing a severe case of COVID-19 is three times higher among unvaccinated individuals than vaccinated individuals” (12).

Recommendation: When using statistics to report on vaccination status, take care to analyze the different ways in which they can be presented, choosing the most relevant data and making sure that the comparison is valid. Always check with scientific experts to determine whether a comparison or interpretation of data is valid.

Resources on rumors, misinformation, and verification

- Chequeado. LatamChequea. Chequeado; 2022. Available at: <https://chequeado.com/proyectos/latamchequea>.
- United Nations. Verified. United Nations; [undated]. Available at: <https://shareverified.com>.
- World Health Organization. WHO automated WhatsApp conversation on COVID-19 data: +41 79 893 18 92. Geneva: WHO; 2022. Available at: https://api.whatsapp.com/send/?phone=41798931892&text=hi&app_absent=0.
- World Health Organization. How to report misinformation online. Geneva: WHO; 2022. Available at: <https://www.who.int/campaigns/connecting-the-world-to-combat-coronavirus/how-to-report-misinformation-online>.
- World Health Organization. Coronavirus disease (COVID-19) advice for the public: Mythbusters. Geneva: WHO; 2020. Available at: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/mythbusters>.
- World Health Organization. Q&As on COVID-19 and related health topics. Geneva: WHO; 2022. Available at: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub>.
- Pan American Health Organization. Myths and realities. Social media animations and postcards Washington, D.C.: PAHO; [undated]. Available at: <https://www.paho.org/en/topics/coronavirus-infections/coronavirus-disease-covid-19-pandemic/social-media-cards-questions>.
- Pan American Health Organization. PAHO TV: Ask the expert. Washington, D.C.: PAHO; [undated]. Available at: <https://www.youtube.com/c/PAHOTV/search?query=ask%20the%20expert>.

Evidence on vaccines: How we know what we know



To develop a new vaccine, a process must be followed to produce and evaluate evidence which makes it possible to rule out vaccines that do not generate immunity in vaccinated people or that cause major adverse events. In this way, only vaccines that have been recognized as safe and effective by national regulatory agencies are mass-produced.

Phases of clinical trials

First, researchers study vaccines in the laboratory. Different components are analyzed to identify those capable of causing the necessary reactions. These are subsequently tested on cells, tissues, or animals. Only those combinations of components shown to be effective at that stage move on to the following phases, when candidate vaccines are tested in humans:

1. The combination is first tested in very few people (phase I).
2. If determined to be safe and effective, it is then tested on a larger group of people (phase II).
3. Finally, the combination is tested on thousands of volunteers of different ages, ethnicities, and health statuses (phase III).

Product safety is evaluated during each phase. Only when vaccine safety has been verified do clinical trials progress.

Randomized double-blind clinical trials

To assess whether a vaccine works, the vaccine being studied is administered to a group of randomly selected volunteers, while another group is given a placebo: that is, an innocuous substance lacking the components being studied. Neither researchers nor volunteers know what is given to each volunteer. Studies performed under these conditions are called double-blind. Double-blind studies make it possible to assess the effects of the vaccine itself without involving other factors, such as the belief that someone has been vaccinated.

Only those performing the data analyses know who was given the vaccine and who received a placebo. After some time, they compare the number of people from each group who contracted the illness. If the figures are equal or there were fewer patients who fell ill in the placebo group, the vaccine is not effective. However, if fewer people in the group that received the vaccine contracted the illness, required hospitalization, or died, the vaccine is considered effective.

Approval

If the clinical trial shows that the vaccine is safe and effective, the next step is for the regulatory bodies of the manufacturing country and of each country that will administer the vaccine to approve its use, after detailed analysis of the data and evidence.

Even after the new vaccine begins to be administered to the general public, the study continues. This is called pharmacovigilance (phase IV). These studies provide information about vaccine safety and effectiveness in the general population, not only among volunteers who participated in the trials.

Vaccines can also be submitted to WHO for approval. The WHO Emergency Use Listing Procedure (EUL) assesses the quality, safety, and effectiveness of COVID-19 vaccines and is a prerequisite for inclusion in the organization's COVAX program. The EUL process requires producers to submit a complete file on each vaccine to WHO for revision by an assessment team of independent experts around the world. Once all these criteria are met, WHO approves the vaccine if it is determined to be safe and effective.

Evaluating scientific evidence presented in a publication

Where was it published?

Because of the pace of scientific investigation on the novel coronavirus, many publications have presented partial results. In many cases, these are preliminary versions of research available before formal publication in a scientific journal, called “pre-publications” or “preprints”. These drafts have not been reviewed by independent experts—a process known as “peer review” that usually ensures more rigorous research.

Before the pandemic, it was unlikely for a pre-publication to be disseminated in the media. Today, however, many studies receiving media coverage have yet to undergo detailed review. This can lead to problems, because if the research is reported without taking necessary precautions, incorrect information can be published that will reach the public and can cause confusion. When this happens, it is even more important for independent experts to validate the study to confirm whether its results are serious and relevant.

Caution should be exercised with so-called predatory journals: fraudulent publications in which authors pay for their articles to appear. The main flaw of these journals is their almost complete absence of peer review. The papers they publish lack validation from the scientific community and their results are unreliable.

A tool for comparing scientific journals and evaluating the importance of each one is to know the average number of times that articles in these publications are cited, known as their “impact factor”. The Journal Citation Reports database published by Web of Science (13) is used to calculate a publication’s impact factor.

Which methods were used?

To determine the reliability of published research, it is also important to analyze researchers' methods, such as whether the studies are observational or experimental, or whether they involved people or were only performed in laboratories. To explain these differences, some examples of scientific studies and their main characteristics are described below:

- **Observational trial:** One method of conducting research and obtaining evidence is to observe which factors seem to be linked to a situation, and then carry out more in-depth study. During the pandemic, this method was used to determine the link between the severity of COVID-19 and the tuberculosis vaccine in a population. These studies provided insights into identifying possible factors but did not prove causation. In this case, it was believed that those vaccinated against tuberculosis would be less affected by severe forms of COVID-19, which turned out to be false.
- **Preclinical or laboratory trial:** Used to test what a vaccine can generate under artificial conditions, as they are performed using cell cultures in laboratory containers or petri dishes (in vitro tests) or in animals (in vivo tests). These studies evaluate efficacy and toxicity, considering the response that could occur within a human body.
- **Randomized controlled double-blind clinical trial:** Provides evidence to evaluate the efficacy of a vaccine. As described above, the vaccine used in the trial is administered to a group of randomly selected volunteers, while another group is given a placebo, i.e. an innocuous substance that lacks the components being studied. The vaccine is considered effective if fewer people in the group that received the vaccine fell ill, required hospitalization, or died.

Identifying trusted sources

Before using a given source for the first time in a news story, take care to ask the following questions:

- **Is the source a specialist in the subject?** For example, a physician may have general knowledge of the virus, but may not know all the evidence about its transmission because it is not their specialty. Before citing the source, it is important to verify the degree of specific knowledge they have. Do this by consulting scientific publications on the subject and seeing if their

name appears, or whether they belong to any scientific associations.

- **Is this a widespread opinion on the subject, or are we talking to someone who has a different point of view?** To determine the consensus on the subject, go to health authorities or scientific associations. If the source has a very different stance, try to understand why, and speak with other specialists before conveying a message that may not be evidence-based.
- **Was this a serious study?** Particularly when the source is the author of a study that has not been published in a scientific journal or undergone peer review, it is important to consult independent sources (i.e. individuals who have not participated in the study) to have an outside viewpoint and to avoid sharing low-quality studies that provide incorrect information or even disinformation.

The method of selecting sources is key to ensuring the quality of the information being published. Giving a voice to people who lack the required knowledge, are not authorities on the subject, or who create confusion can cause a great deal of harm (box 2).

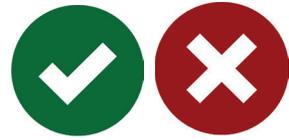
Box 2. Example of an unreliable source

The Argentine channel Radio Continental interviewed Roxana Bruno,¹ a member of the group Argentine Epidemiologists, which spreads disinformation about the novel coronavirus. In this interview, Bruno shared several fake news items, such as claiming that chlorine dioxide prevents and cures the disease and that COVID-19 vaccines were not tested on animals. The Argentine Society of Immunology published a paper² dismissing these and other statements made by Bruno.

Sources:

1. Chequeado. *Son falsas las afirmaciones de la inmunóloga Roxana Bruno, integrante de la agrupación Epidemiólogos Argentinos* [The false claims of immunologist Roxana Bruno, member of the group Argentine Epidemiologists]. Chequeado; 2020. Available at: <https://chequeado.com/el-explicador/son-falsas-las-afirmaciones-de-la-inmunologa-roxana-bruno-integrante-de-la-agrupacion-epidemiologos-argentinos>.
2. Argentine Society of Immunology. *Compartimos este documento elaborado por nuestra Comisión Directiva con respecto a falsas informaciones que circularon recientemente en los medios de comunicación respecto a #COVID19 y #SARSCoV2* [We are sharing this document drafted by our Board of Directors regarding recently circulated false information in the media on #COVID19 and #SARSCoV2]. Twitter: @SAI_org; 2020. Available at: https://twitter.com/SAI_org/status/1295034675581333504.

Presenting a verification



When you detect that disinformation is being spread, it is especially important to debunk it. It is well known that verification posts cannot compete with disinformation in terms of going viral, since the latter tend to be much more attractive than verifications because they often appeal to intense emotions.

However, there is evidence that when people are warned about fake content, they are less likely to share it. Consequently, publishing a refutation can have a direct impact (14) on reducing the circulation of disinformation.

The following recommendations on how to present verifications may be helpful:

- Be very clear in the headline that the reporting is about fake news. To generate more interest on social media, headlines are sometimes written with ambiguous questions or wording. But since many people will not read the full text and only remember the headline seen on social media, it is crucial to be as clear and explicit as possible.
- Be transparent about what information does and does not exist. It is not only important to present the available information, but also to explain the underlying evidence. This helps the audience to understand why, in some cases, recommendations on a subject may change when new evidence comes to light. If you are not transparent about this, readers might think that these changes are arbitrary. You must also be explicit about the evidence that is not available, enabling the audience to identify false claims on the topic.
- Present hard-hitting evidence. To debunk disinformation, it is best to present as much evidence as possible, rather than simply dismissing it as fake by quoting an expert. Not only does this provide better arguments to those who have fallen for disinformation, it also gives them more tools to understand how to identify bad content, which they can apply the next time they run into disinformation.
- Be as empathetic as possible. When presenting verified information, we must remember that some people considered the disinformation to be true. The goal is to show them the scientific evidence without mocking them for their mistake or making ironic comments. Being empathetic when presenting information helps the person to listen and to eventually change their beliefs.

Communicating responsibly

Communication should always be clear and transparent. Avoid scaremongering and misleading or sensationalist headlines whose sole purpose is to attract the attention of readers and lead them to click on a link (clickbait). The following keys provide guidance on how to cover vaccination in the media:

- Information on vaccination can influence decisions made in the health field, so it must be clear, concise, and based on scientific evidence. Information is more likely to be remembered if it is familiar and easy to process and understand, so we should avoid technicalities and try to simplify the language.
- Always consult qualified expert sources (e.g. PAHO or WHO, health authorities, academic sources, scientific associations).
- If you encounter a new or unknown source (for example, someone working on a center's medical staff), ask the following: What is their specialty? Do they belong to a scientific association? Do they work in a place that can vouch for them? Have they published papers or presented studies at medical conferences?
- Avoid information based solely on isolated or anecdotal cases. Remember that vaccination is not only an individual process, but a collective one, and that no general conclusion can be drawn from a personal history.
- Cite the provenance of the information and clearly specify the sources that were used, such as health authorities, academic institutions, and the pharmaceutical industry, among others.
- Take exceptional care when reporting on adverse events to differentiate between causality and correlation, and clearly state that events occurring after vaccination are not necessarily caused by it. As with all medicines, vaccines are not without adverse events. However, their benefits outweigh the risks (see the previous section "MISLEADING: Alleged adverse events and deaths").
- Do not cover anecdotal stories or cases. For example, repeatedly reporting on a few cases of severe adverse events can give the impression that they are more common than they really are.
- Include key messages and repeat them. Vaccines save more lives than any other public health intervention except for safe drinking water. They are safe and effective, contribute to herd immunity (protecting the most vulnerable people), constitute a right, and guarantee equity.
- When considering a scientific study, ask yourself: Who are the authors? Which institution do they represent? Was it published in a scientific journal? Was it peer-reviewed? What do other independent experts think of the results? Who funded the research? Determine whether it is a pre-publication, i.e. the preliminary version of a study made public before peer review and before publication in a scientific journal.

- Acknowledge the validity of people’s concerns. Report on how vaccines act and the different research phases (preclinical and phases I, II, III, and IV) and the unprecedented effort from the international scientific community to quickly develop a safe and effective COVID-19 vaccine. Do not take anything at face value. Reports should explain how clinical trials and safety testing are performed, the role of regulatory authorities, and how adverse events are monitored once vaccine administration has begun.
- Pay special attention when presenting data or percentages. You must always put data or percentages in context (see the previous section “Vaccines are ineffective, because vaccinated people get infected”).
- Tell stories. We understand the world around us through storytelling, as well as facts. Novel and appealing approaches to vaccination campaigns are necessary, but without losing sight of rigor and precision.
- Images also communicate messages. Photographs illustrating a text have an emotional impact, and negative images can predispose a person to reject a story. Images of big syringes loaded with different colored liquids are unrealistic, incorrect, and therefore inadvisable. Images of crying or suffering children are also not recommended. Use photographs taken by the media outlet itself to document the work of health professionals in real-life environments, and the experience of local vaccination campaigns to create empathy and draw in the reader or viewer.
- Do not issue statements or videos taken out of context. Phrases are often excerpted from a speech by a public figure and then presented as his or her opinion on an issue. The problem is that all evidence related to COVID-19 is very complex and constantly changing. As a result, it is unwise to reuse statements from several months ago. This can lead confusion and distrust among the general public.

References

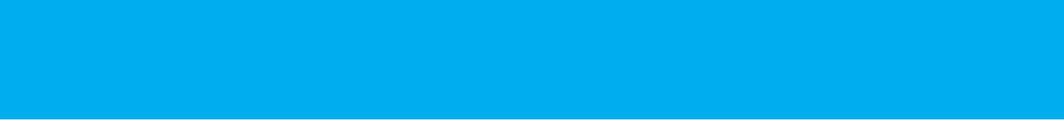
1. World Health Organization. Managing the COVID-19 infodemic: Promoting healthy behaviours and mitigating the harm from misinformation and disinformation. Geneva: WHO; 2020. Available at: <https://www.who.int/news/item/23-09-2020-managing-the-covid-19-infodemic-promoting-healthy-behaviours-and-mitigating-the-harm-from-misinformation-and-disinformation>.
2. LatamChequea. Los desinformantes [The Disinformants]. Chequeado; 2021. Available (in Spanish) at: <https://chequeado.com/desinformantes>.
3. Brennen, J.S., Simon, F.M., Howard, P. N. and Nielsen, R. K. Types, sources, and claims of COVID-19 misinformation. Reuters Institute for the Study of Journalism; 2020. Available at: <https://reutersinstitute.politics.ox.ac.uk/types-sources-and-claims-covid-19-misinformation>.
4. Bramatti, D., Brembatti, K. and Monnerat, A. Brasil: Qué pasa cuando las máximas autoridades son los principales difusores de desinformación en redes sociales [Brazil: When the highest authorities are the main spreaders of disinformation on social media]. In: LatamChequeada. Los desinformantes [The Disinformants]. Chequeado; 2021. Available (in Spanish) at: <https://chequeado.com/investigaciones/brasil-que-pasa-cuando-las-maximas-autoridades-son-los-principales-difusores-de-desinformacion-en-redes-sociales>.
5. First Draft. How to fill data voids with quality content and answer questions: Training video with Claire Wardle. London: First Draft; 2021. Available at: <https://www.youtube.com/watch?v=HxQcbDt7hsA>.
6. LatamChequea Vaccines. Información chequeada sobre vacunas contra el coronavirus [Fact-checked information on coronavirus vaccines]. Chequeado; [undated]. Available in Spanish from: <https://chequeado.com/latamchequeavacunas/?#/>.
7. Chequeado. Son falsas las afirmaciones de la médica Mirande sobre las vacunas contra el coronavirus [The false claims of Dr. Mirande about coronavirus vaccines]. Chequeado; 2021. Available (in Spanish) at: <https://chequeado.com/el-explicador/son-falsas-las-afirmaciones-de-la-medica-mirande-sobre-las-vacunas-contra-el-coronavirus>.
8. Argentine Society of Vaccinology and Epidemiology. Las vacunas contienen mercurio que es tóxico para la población: FALSO [Vaccines contain mercury that is toxic to the public: FALSE]. Buenos Aires: SAVE; 2020. Available (in Spanish) at: <https://save.org.ar/faq-items/las-vacunas-contienen-mercurio-que-es-toxico-para-la-poblacion-falso>.
9. Wise J. Covid-19: New coronavirus variant is identified in UK. BMJ 2020; 371.

Available at: <https://www.bmj.com/content/371/bmj.m4857>.

10. Reuters. Fact Check- Tabla de contagios en Israel no demuestra que las vacunas anti-COVID sean ineficientes [Table on infections in Israel does not prove that COVID vaccines are ineffective]. Reuters Fact Check Spanish; 16 August 2021. Available (in Spanish) at: <https://www.reuters.com/article/factcheck-tablaisrael-contagios/fact-check-tabla-de-contagios-en-israel-no-demuestra-que-las-vacunas-anti-covid-sean-ineficientes-idUSL1N2PN1MA>.
11. Maldita. Qué es la paradoja de Simpson y cómo puede hacernos malinterpretar los datos de las vacunas contra la COVID-19 [The Simpson paradox and misinterpretation of COVID-19 vaccine data]. Maldita; 2021. Available (in Spanish) at: <https://maldita.es/malditateexplica/20211018/paradoja-simpson-malinterpretar-datos-vacunas-covid>.
12. Morris, J. Israeli data: How can efficacy vs. severe disease be strong when 60% of hospitalized are vaccinated? 20 October 2021. Covid-19 Data Science. Available at: <https://www.covid-datascience.com/post/israeli-data-how-can-efficacy-vs-severe-disease-be-strong-when-60-of-hospitalized-are-vaccinated>.
13. Web of Science. Journal Citation Reports. Clarivate Analytics [undated]. Available at: <https://clarivate.com/webofsciencegroup/solutions/journal-citation-reports>.
14. Zommer, L. No sólo lo decimos, lo probamos: el fact checking funciona [We don't just say it, we prove it: fact checking works]. Chequeado; 2021 [last accessed on 23 June 2022]. Available (in Spanish) at: <https://chequeado.com/no-solo-lo-decimos-lo-probamos-el-fact-checking-funciona>.

Bibliography

1. First Draft. Covering Coronavirus: An online course for journalists. London: First Draft; 2020. Available at: <https://firstdraftnews.org/long-form-article/covering-coronavirus-english>.
2. First Draft. Newsgathering and Monitoring on the Social Web. London: First Draft; 2020. Available at: https://firstdraftnews.org/wp-content/uploads/2019/10/Newsgathering_and_Monitoring_Digital_AW3.pdf.
3. World Health Organization. COVID-19 vaccine tracker and landscape. Geneva: WHO; 2022. Available at: <https://www.who.int/publications/m/item/draft-landscape-of-covid-19-candidate-vaccines>.
4. Pan American Health Organization. COVID-19 guidance and the latest research in the Americas. Washington, D.C.: PAHO; [undated]. Available at: <https://covid19-evidence.paho.org/?locale-attribute=en>.
5. United Nations Educational, Scientific and Cultural Organization. Journalism, Fake News & Disinformation: Handbook for Journalism Education and Training. Paris: UNESCO; 2020. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000265552>.
6. Pan American Health Organization. Coronavirus disease (COVID-19) Pandemic. 22 June 2022 Washington, D.C.: PAHO; 2022. Available at: <https://www.paho.org/en/topics/coronavirus-infections/coronavirus-disease-covid-19-pandemic>.
7. LatamChequea. Información chequeada sobre vacunas contra el coronavirus [Fact-checked information on coronavirus vaccines]. Chequeado: [undated]. Available (in Spanish) at: <https://chequeado.com/latamcoronavirus>.



COVID-19

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