## Curbing Misinformation and Disinformation in the COVID-19 Era: A View from Cuba

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As the COVID-19 health crisis engulfs the planet, we are submerged in a parallel pandemic: the glut of misinformation and disinformation. The data associated with this phenomenon are creating a disaster within a disaster. In early April 2020, the Spanish news agency EFE[1] reported that over one million internet accounts were dedicated to rumor-mongering, spreading unverified information about the coronavirus. From January through April 13, fact-checkers at Maldita.es[2] had tracked over 400 lies and false alerts circulated about COVID-19 in Spain alone.

Misinformation and disinformation—the latter with intent to misinform—describe ideas and information disseminated by individuals, organizations and media that are not supported by facts. [3–5] They have been used to deliberately influence the evolution of political, economic and social events or trends.[3] And their appearance is not new in the health arena.

Since the start of the COVID-19 pandemic, WHO has consistently challenged these rumor mills, sifting through the avalanche of news and purported science to point professionals and the public-at-large to trustworthy sources. Various strategies include technical collaboration networks established for experts,[6] designed to share innovative solutions to "confront pandemics and 'infodemics'." The latter term was introduced into the medical lexicon in 2006 by Gunther Eysenbach,[7] referring to the proliferation of news and misleading information. In fact, WHO Director-General Dr Tedros Adhanom Ghebreyesus and the entire UN system has mounted a "mythbusting" campaign against the infodemic's plethora of rumors and misinformation about COVID-19,[8] mainly through the WHO Information Network for Epidemics (EPI-WIN).[9]

Identifying the myths isn't easy though,[3–5] less so in the midst of the SARS-CoV-2 infodemic. Fact-checking has proven tough, given the sheer volume of information zipping around the world at record speed. In fact, even media and professionals specializing in health have joined major news organizations and internet users-at-large to disseminate their share of apocalyptic, unsubstantiated information.

But a number of broad strategies taken together can help internet users and media confirm the veracity of information and of images as well: looking up primary sources of information; reading full texts, not just the headlines; comparing data offered by different sources; checking where photos have been published before; searching for other posts or work by the same writer; and checking the publication date to provide more context.

As COVID-19 was diagnosed in Cuba and began to spread, a number of initiatives have been launched to minimize the impact of rumors and misinformation on public opinion and support WHO's call for faster access to reliable sources. Various specialized platforms—such as those of the Ministry of Public Health (MINSAP) and Cuba's health network, Infomed

(http://www.sld.cu/)—offer opportunities to compare incoming information with reliable sources.

An example is the website Infecciones por coronavirus (coronavirus infections) (https://temas.sld.cu/coronavirus/), created on Infomed in 2003, but now continually updated with information on COVID-19 (https://temas.sld.cu/coronavirus/covid-19/), obtained from official, credible sources, intended specifically for health professionals involved in epidemiological surveillance, control, attention to vulnerable groups, diagnosis and care of patients infected. There, users can access reports and latest news from WHO and PAHO, MINSAP's daily press briefing, plus current information selected and curated by specialists. This last covers aspects such as: COVID-19's viral agent, surveillance, symptoms and case definition, laboratory tests, management of patients and contacts, treatment, guidance for travelers, different countries' actions to stem the pandemic's tide, and frequently asked questions about the disease. The site also includes suggestions of more in-depth materials for health professionals such as books, medical databases, articles, journals and other scientific publications, multimedia, podcasts, technical guides and options for advanced learning.

Infecciones por coronavirus offers information to guide active public participation in curbing the spread of COVID-19, including orientation on how people can help cut the transmission chain by adhering to measures implemented by health and government authorities. Finally, it permits users to submit—either by phone or email—their doubts, concerns and questions about the disease, which are answered by experts.

As a complement, Infomed has developed a mobile application for Android that provides current, reliable information on COVID-19: COVID-19-InfoCU (https://www.apklis.cu/application/cu.sld.COVID\_19\_InfoCU). The app has been available free for download since late February 2020 and, using sources from the *Infecciones por coronavirus* site, offers basic information on the nature of coronaviruses, the infections they cause and the latest on the COVID-19 pandemic: cases, deaths, countries affected, and so on. The app takes advantage of other resources on Infomed and MINSAP's own online materials, including strategies, normative documents and specialized information resources from WHO.

Other media have joined efforts to combat misinformation in Cuba, notably *Juventud Técnica* (*JT*) (http://www.juventudtecnica.cu/) the country's only mass-circulation magazine devoted entirely to science, technology and the environment, with an emphasis on investigative journalism. Late in 2019, digital *JT* launched its #*VerificaJT* project, aimed at debunking misinformation in various scientific fields. This new initiative was informed by earlier fact checking experiences, notably one involving both Cuban and foreign media publications about a pre-exposure pill to prevent HIV infection in a single-city pilot program that implied its use was to be extended across Cuba.[10–13]

There was a clear gap in Cuba: an urgent need to help internet users grapple with misinformation What's more, there was a clear gap in Cuba: an urgent need to help internet users grapple with misinformation. This has become

particularly critical now that 7.1 million Cubans (63%) have internet access and 6.27 million (55%) are active on social media, according to the latest data.[14]

Thus, JT began to fact-check COVID-19 information and sources almost as soon as the pandemic was declared. Weeks before the SARS-CoV-2 virus was first diagnosed in Cuba, JT rebuffed several rumors, contrasting the misleading information with that from sources such as Cuba's Pedro Kourí Tropical Medicine Institute and MINSAP itself.

As the number of cases increased in Cuba, the magazine developed other projects to facilitate public access to facts. It increased

production of infographics synthesizing information related to the pandemic and national measures to confront it. Later, it created a bulletin sent daily to subscribers via email, and finally it launched *Covid19CubaData* (https://covid19cubadata.github.io/). This tool pulls together in graphic form all the data from MINSAP, and now is available as a mobile app (https://www.apklis.cu/application/club.postdata.covid19cuba) and a bot on the Telegram social network (@covid19cubadata\_bot).

There is more to be done, and certainly it is no exaggeration to say that lives are at stake: trustworthy information that carries the day over rumors, misinformation and dangerous speculation is critically important to confront global and local health emergencies. There is no place for false claims, apocalyptic predictions or unfounded optimism, for xenophobic and racist assertions, or for promoting political agendas over the lives of people and our planet.[15] It is time for science to be in everyone's hands and be everyone's guide.

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