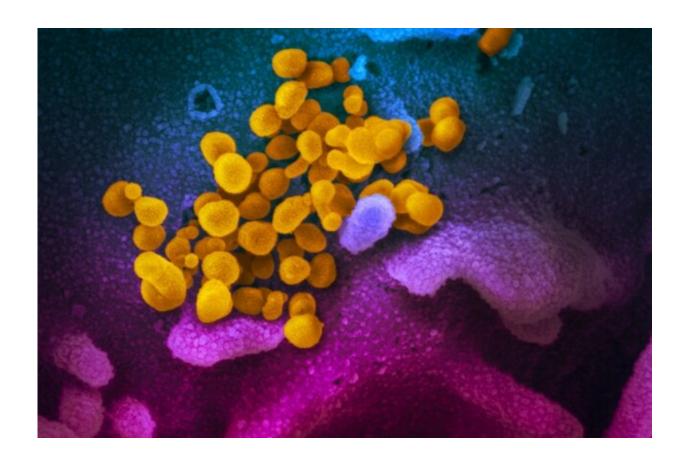# Misleading information in 1 in 4 most viewed YouTube COVID-19 videos in English

May 13 2020

This scanning electron microscope image shows SARS-CoV-2 (yellow)—also known as 2019-nCoV, the virus that causes COVID-19—isolated from a patient, emerging from the surface of cells (blue/pink) cultured in the lab. Credit: NIAID-RML

More than one in four of the most viewed COVID-19 videos on

YouTube in spoken English contains misleading or inaccurate information, reveals the first study of its kind, published online in *BMJ Global Health*.

Public health misinformation on COVID-19 is reaching far more people than in previous pandemics and has considerable potential for harm, warn the researchers.

While good quality accurate information put out by government bodies and experts is widely available on YouTube, it's often hard to understand and lacks popular appeal, so doesn't have the reach it needs, they add.

Published research shows that YouTube has been both a useful and misleading source of information in previous public health crises, such as the swine flu (HIN1) pandemic and the Ebola and Zika outbreaks.

But social media use has changed since these studies were published, added to which not all of them used validated measuring tools, say the researchers.

To try and provide a more current assessment of the accuracy and quality of information on coronavirus and COVID-19 on YouTube, the researchers searched the digital platform for the most widely viewed and relevant videos as of 21 March 2020.

After excluding those that were duplicates, in languages other than English, lasted more than an hour, or didn't contain audio or visual content, around half of the initial number (69 out of 150; 46%) were eligible for analysis.

The reliability and quality of the content of each one was assessed using validated scoring systems: mDISCERN and mJAMA. And the usefulness of content for the average viewer was assessed using a COVID-19

specific score (CSS), modelled on similar systems developed for use in other public health emergencies.

A CSS point was awarded for exclusively factual information on each of the following: viral spread; typical symptoms; prevention; possible treatments; and epidemiology.

Professional and government agency videos scored significantly higher for accuracy, usability, and quality across all measures than any of the other sources, but didn't feature prominently among viewing figures.

The number of views for the 69 videos included in the analysis added up to 257, 804,146.

Network news accounted for the largest proportion of views (29%), followed by consumers (22%); entertainment news (21%); internet news (12%); professionals (7%); newspapers (5%); educational bodies (2%); and government agencies (2%).

Nearly 50 of the videos (72.5%) contained only factual information. But more than one in four (19; 27.5%) contained misleading or inaccurate information, representing 62,042,609 views or around a quarter (24%) of the total.

Among the 19 misleading videos, around a third came from entertainment news, with network and internet news sources each accounting for around a quarter. Consumer videos made up 13% of the total.

Misleading or inaccurate information included CSS criteria—for example, the belief that pharmaceutical companies already have a cure, but refuse to sell it, or that certain countries have stronger strains of coronavirus; inappropriate recommendations for the general public;

racist and discriminatory remarks; and conspiracy theories.

"This is particularly alarming, when considering the immense viewership of these videos," write the researchers.

"Evidently, while the power of social media lies in the sheer volume and diversity of information being generated and spread, it has significant potential for harm," they add.

They acknowledge that they relied on [information](#) gathered in just one day, and included only English language content. But the [video](#) views in their study far surpass those reported in other YouTube studies on pandemics or public health emergencies, they point out.

"The education and engagement of the public is paramount in the management of this pandemic by ensuring public understanding of, and therefore adherence with, public health measures," they insist.

Given the power of social media in shaping public understanding and behaviour, "YouTube is a powerful, untapped educational tool that should be better mobilised by health professionals," they suggest.

"Many existing marketing strategies are static, in the form of published guidelines, statistical reports and infographics and may not be as appealing or accessible to the general public," they point out.

Public health and government bodies would do well to collaborate with entertainment news and social media influencers to jazz up their digital content and engage a much wider audience to counter the misinformation circulating during this pandemic, they recommend.

  More information: YouTube as a source of information on COVID-19: a pandemic of misinformation, *BMJ Global Health*, [DOI:](#)

Provided by British Medical Journal