

THE ALCIVAX

Alcimed discusses the keeping and regaining the public trust to ensure a coordinated response to subsequent waves of COVID.

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Edition #15- 11 June 2020

Do pandemics come in threes?

An old proverb states "*bad things come in threes*", but most wouldn't say that should apply to outbreaks. Sadly, the Democratic Republic of the Congo can now prove the proverb correct, as it is currently battling a massive measles outbreak, COVID-19, and a fresh outbreak of Ebola.



The Public Trust: Kept or Regained?

Trust is a delicate object, not easily regained when lost. The measure of public trust, government approval rates show that some countries (Denmark and Germany) have largely kept the public trust over COVID, while France, Spain, and Italy have regained the public trust to some extent. More troubling is catastrophic fail of public approval in the UK (-30%), Brazil (-20%), and Sweden has dropped daily COVID press briefings over public outrage about the current strategy. The public apology issued by Sweden's state epidemiologist over the high death toll did not result in a change in Sweden's lax lock down procedures.

Brazil's removal of COVID toll reporting website continued to fuel public outrage was worsened when historical data was missing when the website was reinstated. To deflect blame, Bolsonaro has threatened to pull out of the WHO. The WHO's communication this week demonstrates how challenging creating policy during a pandemic can be. The COVID technical lead contradicted months of messaging by suggesting that asymptomatic transmission of COVID-19 is rare. Just last week, a paper suggested asymptomatic transmission may account for 45% of infections. The statement was reversed less than 24 hours later, stating that the WHO can always do better in this ongoing learning process. But the political damage was already done with conservative outlets seizing on their stumble as proof that COVID responses have been overblown.

The politicization of the COVID pandemic is what has most damage the public trust, with every failed model, policy adjustment, and treatment approval driving greater division. This was well illustrated in the debate over the CDC's reversal on mass gathering guidance to make an exception for protests over the current racial unrest.



Trust in scientists damaged during pandemic

Loss of the public trust is not limited to governmental bodies, but is rapidly spreading to distrust of scientists contribution to pandemic response as scientific communication can be used to create a facade or authority, leading the scientists themselves to be scapegoats, when the data doesn't work out. This mistrust is not extended to healthcare workers. For example, two studies on hydroxychloroquine were retracted by the New England Journal of Medicine and The Lancet, because the authors could not verify the data on which the results depended. The retractions raise troubling questions about the veracity and reliability of pandemic related scientific research as information is quickly disseminated with little to no opportunity for peer review.

Despite new evidence that face masks may reduce transmission by 85% and two new Nature studies show nationwide lockdowns have saved millions of lives and prevented hundreds of millions of infections, distrust of scientific evidence will make it harder to convince citizens to comply with new restrictions or guidelines should new waves of infections appear in the coming months.



The Business End

The pandemic has had some pretty clear economic fallout, but it has also further eroded faith in capitalism as system that promotes societal good. A US survey reveals that only 25% of Americans actually think that capitalism is good for society in general. This distrust may expand as the markets continue to disconnect themselves from the economic realities on the ground. The OECD is warning of an at least 6% global recession, while the FED and other central banks have flooded markets with more than \$1 T dollars to ease the impact of the pandemic.

The disconnect between business health and market health is happening worldwide and if the newly created wealth only remains in the markets, zombie markets can be created, income inequality can increase, and resulting market bubbles can destabilize long term economic recovery by continuing an over dependence on debt.

Mexico is still refusing to bail out small and medium sized businesses which drive 10 M people into poverty, according to a government study, proving that the complete avoidance of debt is also not the answer.

Individual companies are also suffering from the lack of trust, as both Tyson and Amazon are being sued by the employees for failure to protect them during the pandemic. The healthcare sector has not been spared from this either. Although some of the wealthiest US healthcare companies received billions of dollars in bailout grants, they laid off or cut the pay of tens of thousands of healthcare workers and hospital staff, while continuing to pay their top executives millions. Additionally, Tesla is facing scrutiny after defying lock down orders so it could restart production, with employees testing COVID positive only days later.

Lastly, the WFH debate is far from over, as call centers in the Phillipines admit it isn't working for them and Canadian studies show that WFH is less successful for those without a college degree.



Treatment Progress

Researchers at the University of Kentucky are looking to Iodine as a potential preventative treatment for coronavirus. The aim is to coat the inside of the nose with a nasal spray and gargle by mouth to prevent the virus from getting a foothold. While the [EMA rushes to approve remdesivir for use in the EU](#), the [US is on pace to run out of remdesivir by the end of June](#) and does not know when it will get more. All 1.5 million vials of remdesivir that Gilead has in stock are in circulation.

A team of Japanese researchers has succeeded in creating miniature bronchi from human cells that can be used to study the novel coronavirus and help develop drugs for COVID-19. Researchers at Kyoto University's Center for iPS Cell Research and Application, or CiRA, [found that camostat, a drug often used for treating pancreatitis was effective in reducing the viral load in the infected organoids](#). But human trials may be slow as [Fujifilm Avigan trials will be extended into July as trial enrollment has been limited](#).

The Institute of Microbiology at the Chinese Academy of Sciences has [started a monoclonal antibody clinical trial for COVID-19](#). This is the world-first neutralizing antibody treatment against COVID-19. Similarly, [Europe would like to create its own drugs, but the large stumbling block is its dependance on plasma from the US](#).



The Crowded Vaccine Pipeline

The COVID-19 vaccine pipeline has reached over 135 vaccines, ([125 pre-clinical, 7 Phase 1, 7 Phase 2, and 1 Phase 3](#)). The front runner, [AstraZeneca recently laid out plans for how it will manufacture 2 million doses](#). [Gavi has also raised \\$8.8 B to prepare for COVID-19 vaccination in poorer countries](#). Some countries are also adjusting expectations. [Japan announced it is aiming for June 2021 for COVID vaccines to be available](#). Discussions will need to shift from production capacity to vaccine distribution logistics soon, in order to prevent similar chaos to the rollout of COVID testing.

Bots & Bias Impact Vaccine Coverage

What is the real risk of losing the public trust? Failure to stop the pandemic through vaccination. The anti-vaccine movement exists in many places around the world and in recent weeks has been gaining ground against any upcoming COVID-19 vaccine.

In a recent US poll only 29% of people say they will definitely get the vaccine with up to 35% of people saying they probably will not or definitely will not. Even Germany has been wracked by COVID related antivax protests, despite being praised for its pandemic response. Social chatter studies show an increasing prevalence of bots pushing anti-vax chatter.

But the anti-vax haven't stopped at just pushing vaccine wariness, as they have begun even pushing back against contact tracing. But why do conspiracy theories like "Plandemic" (8 million views in single week) spread so fast? Apparently, [some people find conspiracy theories psychologically comforting when stressed](#). To counteract this, a cognitive psychologist at the University of Bristol has released a [Conspiracy Theory Handbook](#) to help deal with pandemic related conspiracies.

But not all resistance is from vaccine "decliners", who reject all vaccines. There are also "selective vaccinators" who reject certain vaccines and not others, as well as "hesitant and cautious acceptors" who are susceptible to misinformation, have had bad vaccine related healthcare experiences, and wariness of the accelerated development cycle. Increased hesitancy is also likely as the number or frequency of necessary doses increases. We can look to annual flu vaccine coverage rates as a good estimate of where COVID-19 vaccine coverage rates may peak if annual boosters are required, potentially turning SARS-CoV2 into a chronic problem.

Best Laid Plans

Sometimes you make a plan and it works. [New Zealand declares an end to the coronavirus pandemic as there are no active cases and no new cases have been discovered or reported](#). The country is one of only a few nations, including Iceland, that appears to have eradicated the virus, at least for now.

Sometimes you make a plan and it doesn't. The coronavirus shows no signs of peaking in South Asia, with [India and Pakistan experiencing a continued uptick in new cases](#). In Brazil, one person a minute dies of COVID-19.

Although Pacific Northwest seafood companies drafted rigorous plans to prevent the spread of coronavirus in an industry where processors work in close quarters, [the industry has been shaken by its first major outbreak aboard a huge vessel with an onboard fish processing factory](#). Seattle-based American Seafoods confirmed that 92 crew from its American Dynasty ship had tested positive for COVID-19, nearly three-fourths of the 126 people onboard.

A recent study of [511 epidemiologists gives a fascinating look at when they might be willing to engage in normal activities](#) like going to concerts and hugging. The results might surprise you.



All Joking Aside

Much of the drug industry has been booming during the crisis, but the more old fashion remedies may be suffering from a significant drop in the demand for raw materials. Cocaine hasn't



been [sold as an anesthetic since the 1920's](#) but its illegal trade has been robust until the pandemic hit.

With border lock downs having brought global trade to a standstill, the illegal drug trade has not been immune. [The price of coca leaves have dropped 73% during the pandemic](#), despite being at [record high levels of production in Colombia at the beginning of the year](#).

With new production blocked and normal shipping routes problematic, [traffickers have gotten more inventive, two tons of cocaine were seized this week hidden in a shipment of bananas](#).

Even end user delivery has gotten more direct, with a [man in Bozeman Montana being arrested this week for receiving a half pound of cocaine through the mail](#).

Want an in depth look at digital health during COVID ? Check out our Logbook!

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