

Briefing

Feb 11th 2021 edition

Fear, uncertainty and doubt

Vaccine hesitancy is putting progress against covid-19 at risk

If the world is to tame the virus, the doubts will need to be fought



Feb 13th 2021



WHEN THE news finally comes it triggers a range of emotions. Most people told when and where they will receive their first shot of covid-19 vaccine speak of their relief, delight, even their elation. One person danced around the room, another “screamed a bit”, yet another felt giddy. “It feels”, says one, “that my life’s about to begin.” But for some, there are other emotions in play: concern, fear, even anger.

[Listen to this story](#)

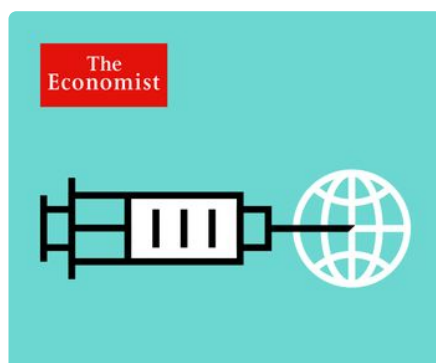
0:00 / 0:00

→ Enjoy more audio and podcasts on [iOS](#) or [Android](#).

worry about “vaccine hesitancy”. It can sound trivial, even foolish, but it regularly costs lives. Hesitancy is a large part of the reason that few young Japanese women get themselves vaccinated against human papillomavirus, and thus are more likely than vaccine-accepting young women elsewhere to contract cervical cancer.

Widespread hesitancy during worldwide campaigns against covid-19 could cost many lives, both among the hesitant and among their fellow citizens. Scott Gottlieb, who led America’s drug regulator, the FDA, from 2017 to 2019 (and who is also on the board of Pfizer, a vaccine-maker) argued in a recent opinion piece in the *Wall Street Journal* that the main challenge to vaccination efforts in America could soon move from supply and logistics to individual reluctance to be vaccinated.

In Britain, a country generally quite keen on vaccination, about 15% of those offered a covid jab so far have refused it. With 13m mostly elderly Britons vaccinated as of February 10th, that suggests almost 2m people who could have been vaccinated have not been. When, eventually, social distancing measures are reduced, those people will remain vulnerable to infection. What is more, that level of refusal, combined with the fact that children are not being vaccinated and that new variants of the virus are less tractable to vaccination, means the country may never see the “herd immunity” that population-wide vaccination programmes tend to aim for—the state in which people neither previously infected nor vaccinated are so few and far between that the virus is hard put to find them. And the level of refusal could grow in months to come; younger people, perhaps because they feel in less danger, seem less keen on the vaccine.



The Jab... [Share](#) [Follow](#) [Acast](#)
The Jab: How to persuade the sceptics?

Hesitancy is promoted and spread by a hard core of proselytising “anti-vaxxer” voices whose misinformation and downright lies about microchips, infertility and damage to DNA have spread to the four quarters of the internet. They have been helped by large online misinformation campaigns run by China and Russia seeking to undermine confidence in Western vaccines. But hesitancy is a broader and more complex phenomenon than that. Some are worried, not opposed; some reject specific vaccines while accepting various others; some are adamant, some persuadable, some, in the end, willing to get vaccinated despite their reservations. People interpret vaccines in the light of their own experiences, relationships and trust in authority. Such subtleties make the molecular biology behind the vaccines seem simple in comparison.

There is nothing new about this complex set of fears. To introduce anything other than food into your body or blood is always likely to be an emotionally freighted experience. When Edward Jenner, a British doctor, began vaccinating people with

showed people who had been vaccinated sprouting cow's heads. But elite medical and political opinion fell in line. Thomas Jefferson was a fan. Napoleon vaccinated his armies, writing that "Jenner...has been my most faithful servant in the European campaigns." In Sweden vaccination was compulsory in 1803, in Bavaria in 1807; both countries saw smallpox rates plummet.

Covid-19: why vaccine mistrust is growing | The Ec...



In 1853 vaccination was made compulsory for all infants in England and Wales with parents who failed to comply liable to a fine or imprisonment. Opposition to this infringement on personal liberty promptly grew, even more so after the law was strengthened in the 1870s.

Victorian anti-vaxxers spread misinformation eerily similar to today's. In 1878 the *National Anti-Compulsory Vaccination Reporter* told its readers that vaccination could cause diseases including diphtheria, abscesses, bronchitis and convulsions. "On the whole", it wrote, "it is a greater evil to humanity than smallpox itself!" In echoes of today's concerns about Big Pharma, the *Reporter* speculated that compulsory vaccination was a plot by the medical establishment and averred that faithful obedience to the "sacred laws of health" would provide superior protection. It is hard to put a sliver of organic carrot between this sanctimony and the notion that nasty viral pathogens can be warded off by raising children "naturally" and using alternative medicines.

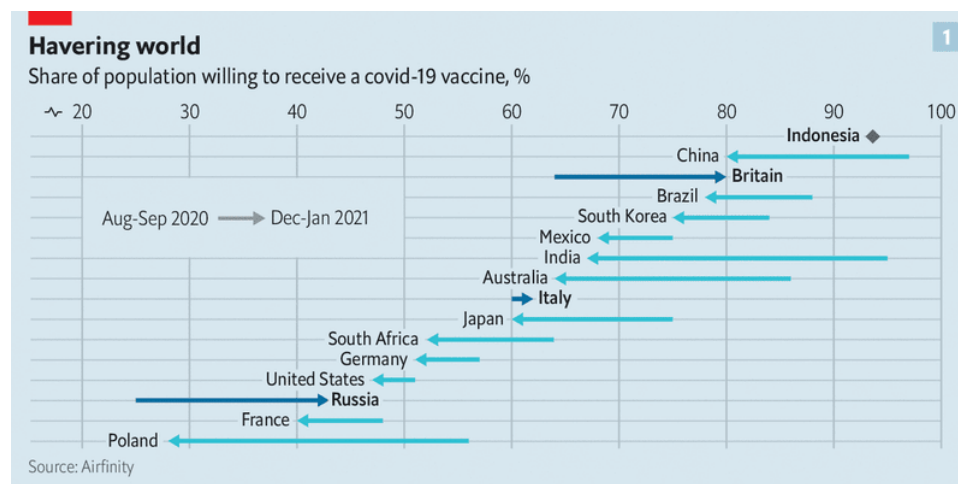
Nevertheless smallpox vaccination became near universal. And then in 1977, 177 years after Benjamin Waterhouse, a Harvard professor and correspondent of Jefferson's, published his pamphlet "A Prospect of Exterminating the Small-pox", it became obsolete. The disease was wiped out. No other human disease has yet followed it to oblivion, though polio is close. But many death tolls have been slashed.

Vaccinations have become the most successful public health measure in history. About 85% of one-year-olds around the world now receive all three doses of the combination vaccine that protects against diphtheria, tetanus and pertussis. Public

North America, Europe and Russia than in Africa, Asia and South America, and there are pockets where it dips dangerously. What is more, the success of long-running childhood vaccination campaigns does not necessarily translate into acceptance of novel vaccines for adults.

Against complacency

Towards the last quarter of 2020 polls on vaccine hesitancy spurred mounting concern among public health officials. In September a significant number of British people said they were unlikely to get one. A month later, in a STAT-Harris Poll in America, only 58% said they would—down from 69% a month previously. Though Britain bounced back, other countries have seen worrying drops since (see chart 1).



The Economist

But such polls come with caveats. One is what psychologists describe as the “intention-behaviour gap”; humans are sufficiently complicated that what they say and what they do can be very different things. A second is that polls are snapshots of a process in flux. Vaccine hesitancy is extremely fluid in time and space, subject to all manner of influences. A poll is an instantaneous map of temperatures, when what you need is a moving forecast.

One of the main vaccine-weather forecasters is Heidi Larson, a professor of anthropology, risk and decision science at the London School of Hygiene and Tropical Medicine. She is also the founding director of the Vaccine Confidence Project, which monitors global concerns about vaccines. Looking at her latest survey of sentiment toward covid-19 vaccines in 32 countries Dr Larson sees storms brewing in Lebanon and the Democratic Republic of Congo (DRC)—two countries in which the political climate is tense.

Hesitancy in the DRC might seem surprising; novel vaccines recently helped quash an outbreak of Ebola there. But Dr Larson says that unlike Ebola, which people have had to live with for almost half a century, covid-19 is new and brings new distrust. Maître Donat, a lawyer in Kolwezi, a mining city in the south of the country, bears out that case. “Here everyone thinks covid is a scam”, he says, “dreamed up by the whites, by Americans.”

Dr Larson worries about this because she has found that, in general, concerns about vaccines that arise in Africa spread much more quickly than in higher-income

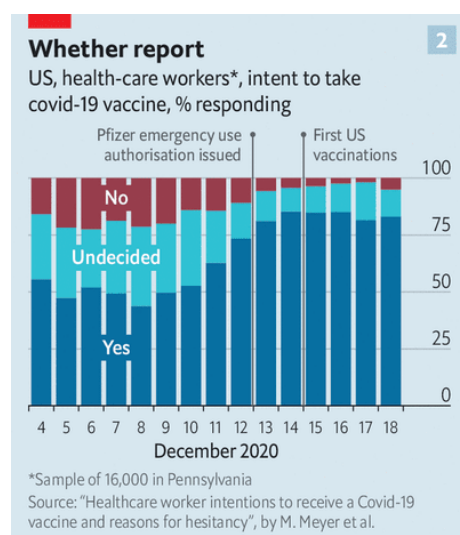
Francophone Africa. He apologised, but the damage was done. There are now reports of rising hesitancy, at least partly tied to trust in government, in South Africa and Nigeria, where plans are being laid to start vaccination.

Just as there is variation over time, so there is in space. Even in countries where

there is a rush to get vaccinated, hesitancy can crop up in particular communities, particularly in marginalised groups: some groups distrust state authority—sometimes, given the history of medical experimentation, for sound historical reasons; some seek spiritual rather than temporal guidance on how to live their lives.

Naively, one might believe that education would be enough to change this. It is not. Take the reluctance of some American health-care workers to get vaccinated. This is not down to a lack of information or a failure to understand what vaccines offer. It can often reflect a lack of faith in their employers. As in many other parts of the world, nurses, long-term-care staff and others in similar jobs report feeling badly treated over the past year. They may have been put at risk of covid, or fallen ill, or struggled to obtain protective equipment. They will have seen a lot of death. They will mostly have done so on low pay. And they have either not succumbed to the disease or have survived it. This all disinclines them towards accepting the vaccines that their employers now want them to take.

A December survey of 16,000 employees of a health system in Pennsylvania revealed concerns about unknown risks and side effects. At the nadir 45% said they either did not want the vaccine at all or wanted to wait (see chart 2). One-fifth did not trust the rushed regulatory review. Others worried they were not actually at high enough risk for infection or disease. Hard refusals, though, soon began to wane.



The Economist

In general, a feeling that the government is cutting corners seems to drive hesitancy up. When Donald Trump appeared to be trying to rush approval along before the election Americans became more hesitant. Concerns have risen in Indonesia and India at the same time as there have been controversies about aspects of government vaccination programmes.

Another factor in hesitancy is peer-group sentiment transmitted through social networks. Parents who choose not to vaccinate children have a much higher percentage of people in their social networks

with similar views. The same will be true of people who intend not to get vaccinated against covid-19.

Understanding how the hesitancy weather changes offers ways to modify it. Some are well known to advertisers. People are encouraged by the sight of happy people eagerly lining up to receive vaccines, or by politicians, royalty and celebrities rolling up their sleeves. They may also respond to the notion that something is in scarce

offer, their opinions have been changing. To refuse is one thing; to be denied another. Marine Le Pen, a right-wing nationalist who had previously said she would wait and see before getting vaccinated now says she will do so, a decision which is expected to be influential (and which will better position her to attack Emmanuel Macron on the issue in next year's election campaign).

The bad news about changing the weather in this sort of way is that it can quickly change back again. Vinay Nair, boss of Lightful, a tech firm that works in the charity sector to enhance its use of technology, says that because vaccine sentiment is dynamic, so the response to it has to be too.

It is also important to reach vaccine-hesitant communities directly rather than through the media. In 2017 Patricia Stinchfield, a nurse practitioner at the Children's Minnesota Hospital, told *Modern Healthcare*, a magazine, about intervening this way among Somali-Americans in Minneapolis after their under-vaccinated community suffered a serious measles outbreak. "We spend a great deal of time meeting imams in the community and ask them to partner with us." Even with the help of social-media campaigns aimed at younger parents, it is slow, painstaking work. But it is effective.

Storm warning

Unfortunately, help through social media is far from the norm. The Centre for Countering Digital Hate (CCDH), a not-for-profit group, is tracking 425 anti-vaccine accounts on Facebook, Instagram, Twitter and YouTube that it says spread covid misinformation; they have 59.2m followers between them, and the number is rising rapidly. The organisation says that while a minority of these anti-vaxxers act on the basis of profoundly held beliefs, about four-fifths have a financial motive as well, or instead. Half are entrepreneurs with businesses that promote alternative or oddball remedies such as homeopathic immunisation or a bleach nebuliser "with a 100% success rate". The other half are conspiracists who profit from the online-advertising revenue their sites attract and the merchandise they sell.

The work of these groups is a lot easier than that of public-health workers: fear and uncertainty are easier to foster than trust and confidence, and inaction easier to encourage than action. In October last year representatives of the CCDH were present at a private online conference held by influential opponents to vaccination who, it says, saw a historic opportunity to reach larger numbers of supporters, and drive long-term vaccine hesitancy. They outlined three basic tools with which to do so: sow doubt about the seriousness of the threat posed by covid-19; spread concern about the safety of the vaccines; stress the untrustworthiness of experts.

These three basic messages will be adapted with selective reporting—making sure, for example, that Brazilians know that their president has said he will not be vaccinated—half-truths and lies. Ethnic minorities will be told that covid vaccines are unsafe for them, or part of a plot or experiment—something that will resonate in communities that remember stories of this in the past. Young people will be told taradiddles about fertility. The religious groups will hear that vaccines are not halal or contain fetal material. (It is true that the vaccine produced by AstraZeneca is grown in a cell line derived from material taken from a fetus in the 1970s; it is also true that the pope has deemed the use of such cell lines morally acceptable.)

Facebook pages carrying pro- and anti-vaccine messages and their followers. Anti-vaccine pages were more numerous, faster growing and increasingly connected to pages containing undecided users. If current trends continue, the researchers predicted, anti-vaccine views will dominate online discussion in a decade. A new preprint by many of the same authors reports that the strengthening of online

bonds that has been seen during the pandemic has given conspiracy theories greater access to mainstream parenting communities.

On February 8th, in the teeth of ongoing criticism, Facebook said it would remove false claims related to covid vaccines (see [article](#)). Many think the move has come too late—and that to shift the balance of power decisively will require further action. Mr Nair believes that tech companies need to amplify positive messages, stories and campaigns

“A mix of factors will challenge our plans to defeat covid-19, from new variants to supply issues. But vaccine hesitancy is a significant threat to population protection against covid-19,” says Dr Larson. And after emotional contagion has taken hold it is difficult to tamp down. As the French experience with the H1N1 vaccine has shown, once widespread a negative impression about a vaccine can be hard to shift.

At the moment, people are leaving vaccination centres happily, and tweeting and posting about their good fortune and success. They proudly display the badges and stickers that show they have received the vaccine. For now, public health is winning. But continued good news cannot be taken for granted; in this struggle, fair weather has to be fought for, not counted on. ■

Dig deeper

All our stories relating to the pandemic and the vaccines can be found on our [coronavirus hub](#). You can also listen to [The Jab](#), our new podcast on the race between injections and infections, and find trackers showing [the global roll-out of vaccines](#), [excess deaths by country](#) and the virus's spread across [Europe](#) and [America](#).

This article appeared in the Briefing section of the print edition under the headline "Broken arrow"

Reuse this content

The Trust Project



CHECKS AND BALANCE

The best of our coverage of American politics

Delivered to your inbox every Friday

Sign up

Get unlimited digital access.