

The CDC's shift on vaccines and autism should alarm the world

Questions over the credibility of the US agency are coming at the worst possible moment.

Hsu Li Yang

Earlier in November, Canada lost its measles elimination status – which it achieved in 1998. It was a result of continuous measles transmission over the past year, with more than 5,000 cases and 2 deaths to date.

The percentage of Canada's children who have received at least one dose of the MMR vaccine has fallen below 90 per cent in many provinces since the start of the Covid-19 pandemic.

Meanwhile, the US has reported 1,753 cases of measles and 3 deaths as of Nov 19 – the largest number of cases and deaths since 1992.

It was not too long ago – in March – that the World Health Organization reported that measles cases had increased seven-fold between 2022 and 2024 in the Western Pacific Region, which includes Singapore and most of the ASEAN countries.

Vaccine hesitancy is rising globally and measles outbreaks have occurred in more than a hundred countries where MMR vaccination rates have fallen. The virus is so contagious that experts estimate that it is necessary to maintain at least 95 per cent childhood vaccination rates to prevent large outbreaks from occurring, especially in crowded urban settings.

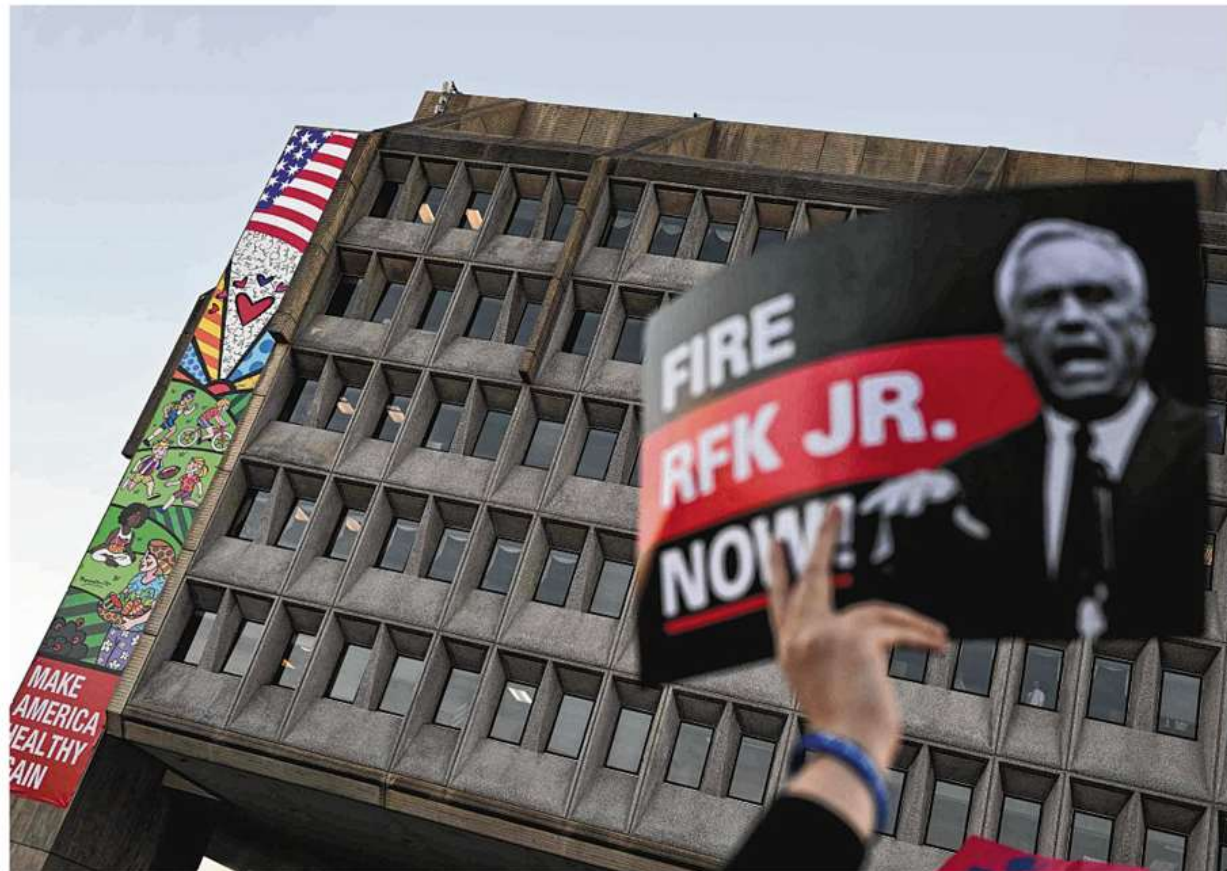
It is in such a time that the US Centers for Disease Control and Prevention (CDC), on Nov 20, rewrote its "Autism and Vaccines" webpage. At the instruction of the Secretary of Health and Human Services, Robert F. Kennedy Jr, it replaced decades of firm scientific consensus with language that now implies potential linkage between childhood vaccines and autism spectrum disorder.

The page now claims that "studies have not ruled out the possibility that infant vaccines cause autism" and "studies supporting (such) a link have been ignored by health authorities".

This predictably triggered immediate backlash from public health professionals and institutions, but comes as no surprise at all. The Health Secretary's broader battle to re-shape CDC to his worldview is well reported.

The greater tragedy, however, is the loss of the CDC's longstanding role as a trusted, authoritative voice in public health.

For decades, its webpages were a wealth of updated and scientifically rigorous information for both public and health professionals worldwide. Its guidelines – not just on vaccines – have been adopted by



A sign calling for the removal of US Secretary of Health and Human Services Robert F. Kennedy Jr. The US Centers for Disease Control and Prevention rewrote its webpage, replacing decades of firm scientific consensus with language that now implies a link between childhood vaccines and autism spectrum disorder. PHOTO: AFP

physicians and other health professionals around the world, including in Singapore, with an implicit trust that these were evidence-based, thoroughly researched, and unbiased.

With this co-option and politicisation of the agency, the CDC's credibility has been undercut, and it will take years, if ever, for that trust to be restored. It is also virtually certain that anti-vaccine organisations and sceptics will cite its new message to reinforce their stance worldwide.

The scientific facts need emphasis more than ever.

NO LINK BETWEEN VACCINES AND AUTISM

The question of whether childhood vaccines cause autism or make an existing autistic disorder worse has been tested more thoroughly than almost any other hypothesis in the field of medicine.

Although it is very hard to prove a negative, the science is as definitive as it can get, analogous to the established link between smoking and lung cancer. The results are unequivocal: vaccines do not cause autism.

To understand the scepticism around vaccines, one has to go back to the media and public hype sparked by Dr Andrew Wakefield's fraudulent 1998 Lancet publication which falsely linked autism and gut inflammation to the measles, mumps and rubella (MMR) vaccine.

Multiple research studies were

launched to investigate the claims. None – including large national registry studies from Finland and Denmark tracking nearly 2.5 million children in total – revealed any vaccine-associated autism cases.

Dr Wakefield concealed the fact that his research was co-financed by a lawyer, Mr Richard Barr, who was preparing a class action suit against MMR vaccine manufacturers – a critical conflict of interest. He also fabricated many of the research findings that were published in that damaging 1998 Lancet publication. But he remains a hero to some parents and anti-vaccine groups today.

So why does this myth of vaccination causing autism persist?

The diagnosis of autism spectrum disorder can be a devastating one for many parents, who naturally and understandably will seek answers as to why it happened to their children. And it is often made at a time when children receive multiple vaccines in line with national vaccination schedules.

This temporal correlation creates a false but powerful impression of causality, much like how many people attributed all sorts of unrelated conditions to the Covid-19 vaccines when these occurred or were diagnosed post-vaccination.

Individual stories add emotional weight, but not scientific evidence. In Austrian-American psychiatrist Dr Leo Kanner's groundbreaking 1943 manuscript that first

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described autism in young children, the boy Richard (Case 3) was observed by his mother to have failure of speech development after a febrile reaction to the smallpox vaccine.

American actress Jenny McCarthy is perhaps the most famous parent to attribute her son's autism to vaccines. She had been a vocal anti-vaccine activist in the decade since his diagnosis in 2005, most infamously leading the "Green Our Vaccines" (to remove purported toxins such as thimerosal from vaccine ingredients) march with comedian Jim Carrey and other anti-vaccine groups in Washington in 2008.

The Omnibus Autism

Proceeding was a series of six test cases – out of over 5,000 similar cases lodged with the US National Vaccine Injury Compensation Program – heard by the US Court of Federal Claims between 2007 and 2009 to examine whether vaccines cause autism. In all instances, the courts ruled against the claimants.

There are other reasons for the persistence and occasional amplification of this and other anti-vaccine myths.

Some people and organisations have financial and/or ideological incentives. Over time, and especially post-Covid, many have lost faith in governments and public institutions.

Social media fosters echo chambers, with algorithms that tend to match people with content and content creators that match their likes and existing beliefs. The nuanced messaging of science and its relatively slower progress can match neither the speed at which misinformation is created and spreads, nor its greater emotional force.

In this climate of mis- and disinformation, the need for an authoritative, trusted body is imperative. Are there other regional or international agencies that can fill the gap left by the CDC?

WHERE WE CAN STEP UP

Besides the World Health Organization, Europe, the Americas and Africa all have strong regional health organisations that support their

member states and provide timely, credible, and independent information.

ASEAN is still in the midst of standing up the ASEAN Centre for Public Health Emergencies and Emerging Diseases – a supranational agency with the mission of coordinating and assisting the region in public health emergency preparedness and response. In time to come, it may fulfil a similar role provided by other existing regional health organisations.

In this backdrop, countries would have to step up and this means domestic healthcare systems must be ready to communicate better and quicker with more coordinated responses and easier access to information.

Singapore has historically maintained high childhood vaccination rates – even during periods of great uncertainty such as the Covid-19 pandemic and 2008 financial crisis, our MMR vaccination rates in children exceeded 95 per cent.

According to the Edelman Trust Barometer, trust in Singapore's government institutions – unlike many other countries – was high during the pandemic and actually inched up afterwards. However, neither of these should be taken for granted.

Proactive, clear and consistent communication from health authorities and professionals is essential.

Family physicians and paediatricians are often the first point of contact for most parents. Acknowledging their concerns without dismissing them while supporting the scientific consensus on vaccines and autism can disarm vaccine hesitancy.

Parents and other concerned members of the public should also be able to easily access up to date, evidence-based information from the Communicable Diseases Agency's, or other hospitals' and professional societies' websites.

Information addressing key concerns such as vaccines and autism is often buried amid other less relevant information, and can be difficult to find. We must step up even as formerly trustworthy international sources, such as the CDC website, fail.

The staff of preschools, schools and other community organisations can help counter factual errors and misinformation that are circulating, as well as direct parents to official sources of information.

Individuals should also play a role in verifying the credibility of information shared via social media, and avoid forwarding unfounded vaccine stories and videos, particularly if these are catchy and entertaining.

The CDC's change in stance on autism and vaccines underscores the fragility of the independence of scientific institutions, and public trust. It is yet another in the recent string of reminders that scientific credibility and independence should be protected and not taken for granted.

Vaccines remain one of the safest and greatest goods of public health, but this message will need constant reinforcement, with proactive, evidence-based and accessible communication.

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