



INDIAN BAR ASSOCIATION

(THE ADVOCATES' ASSOCIATION OF INDIA)

Regional Office: Office No. 2 & 3, Kothari House, A. R. Allana Marg, Fort, Mumbai-23,

Maharashtra (India) Tel: +91-22-49717796, Website: www.indianbarassociation.in

Contact us: dipaliojha@indianbarassociation.in

30th July, 2021

Case number before Hon'ble President of India :- **PRSEC/E/2021/20508**

Case number before Hon'ble Prime Minister of India:- **PMOPG/E/2021/ 0458101**

To,

1. Hon'ble Shri Ram Nath Kovind

President of India
Rashtrapati Bhavan,
New Delhi-110004.

2. Hon'ble Shri Narendra Modi

Prime Minister of India
7, Lok Kalyan Marg,
New Delhi 110 011

Sub:- Urgently considering the request of 'Indian Doctors for Truth' regarding stopping the universal vaccination drive against COVID-19.

Ref:- Letter submitted by 'Doctors for Truth' on July 21, 2021

Respected Sirs,

1. We are in receipt of the letter submitted on **21st July, 2021** by ‘Doctors for Truth’ to your good offices regarding their appeal to immediately stop the mass vaccination drive in India.
2. We at the Indian Bar Association request for an urgent consideration and appropriate action, as the issue is concerned with life and liberty of every citizen of India.
3. We earnestly request you to take an immediate action on the said letter.

Date: 30.07.2021

Place: Mumbai.

Sincerely



Adv. Dipali N. Ojha
Head – Legal Cell
Indian Bar Association
www.indianbarassociation.in

Annexure:

1. Letter authored by twenty ‘Indian Doctors for Truth’.



To,
The Hon'ble Prime Minister of India,
New Delhi

Dear Sir,

Sub: Urgent need to stop the overzealous universal vaccination drive against Covid-19.

We, the undersigned Indian Doctors for Truth, want to bring to your notice certain scientific facts about immunity achieved by Indian population among adults and children, alike, in the light of the latest sero-survey done by AIIMS along with WHO, for immediate action. Looking at the evidence, we urge you to immediately stop the drive for vaccination of the entire population and limit it to voluntary vaccination of only those above 60 years and/or people with severe degree of comorbidity.

The first principle of medicine is Do No Harm. This is often considered a main component of the Hippocratic Oath, which of course is recited at most medical school graduations. Well, sort of. An actual translation of what is written in the Oath would be more like: "I will follow that system of regimen which, according to my ability and judgment, I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous."

In our submission we want to point out that by ignoring the Medical Knowledge established for last 100 years, and biased by western data and practice, the vaccination drive started in India is doing more harm than any good for the people of India.

We present before you the scientific facts about SARS COV2 related immunity and vaccination.

1. There is enough and robust evidence available now that those who have recovered from Covid 19 develop robust and long-lasting immunity against SARS CoV2, even after mild or asymptomatic infections, and that chances of reinfection among these people, even from the emerging variants of the same virus, are extremely rare or non-existent. The WHO in its interim guidance released on July 2, 2021 has also recognised the fact of acquired immunity in all those who have had previous infection with SARS-CoV-2. [1-11]

2. There is no evidence to show that those who have recovered from the infection will get any additional benefit from vaccination. There is an elegant study from the Cleveland Health System which has conclusively reported that those infected do not get reinfected, whether vaccinated or not. [12-15]



3. The epidemiology of Covid 19 in India is very different from other countries of the world and even within India, there are differences between urban and rural communities and between socioeconomic strata. Therefore, we need to have our own policies regarding prevention of covid19 here, including the policy on vaccination. According to available reports, the percentage of population infected in the US, UK, and such other countries is at 1-23%. In India, recent sero-surveys at Delhi and Mumbai have reported a positivity of 50-70%, indicating that a significant proportion of our people have already been infected, reaching the levels of herd immunity, and will not need the vaccine.
<https://www.hindustantimes.com/india-news/kids-adults-have-similar-antibodies-sero-survey-101623953000262.html>

And many reports of India achieving herd immunity have already appeared. The mathematical models have explained how what percentage of population is required to be infected is also different for different population and with mixing rates fitted to social activity, the disease-induced herd immunity level can be ~43%. [19-22]

4. Case Fatality Rate is the rate that is usually reported by the government, that is the number of deaths per 100 confirmed cases as detected by antigen or rt-PCR test. But as renowned Epidemiologist Dr John Ioannidis, whose paper (Attached along with) on WHO site (https://www.who.int/bulletin/online_first/BLT.20.265892.pdf) shows proper way of counting death rate in diseases with CFR less than 5 is Infection Mortality Rate. That is from serosurveys the actual prevalence of the infection in community is found and death rate counted from that is Infection Fatality Rate. The IFR is less than 0.1% world over and is shown to be so in India from various serosurveys done by ICMR.

5. Covid19 is now proven to be asymptomatic or mild disease with infection fatality rate of 0.001-0.01% or lower, and particularly in the population younger than 30 years, it is mostly asymptomatic and harmless. [23-26] Therefore, considering the fact of high level of infections in India, near herd immunity, and very low levels of Infection Fatality Rates, vaccinating the entire population will not serve any purpose. Looking at the negligible risk to the children from Covid-19, trial of the vaccines for them or even consideration approval is highly unethical.

6. A very important development that has taken place because of 4 latest studies that proves that almost 99.9% population has the memory from previous corona infection and that whether to the actual corona infection or to vaccine it is our same immune memory gets activated and vaccines in fact are more harmful in an already immune population. Based on that Doctors for Covid Ethics have written letter to tens of thousands of doctors in Europe. "Four recent scientific discoveries are herewith brought to your urgent attention. They alter the entire landscape of the COVID-19 pandemic, and they force us to reassess the merits of vaccination against SARS-CoV-2.



Summary

Rapid and efficient memory-type immune responses occur reliably in virtually all unvaccinated individuals who are exposed to SARS-CoV-2. The effectiveness of further boosting the immune response through vaccination is therefore highly doubtful. Vaccination may instead aggravate disease through antibody-dependent enhancement (ADE).

<https://doctors4covidethics.org/letter-to-physicians-four-new-scientific-discoveries-crucial-to-the-safety-and-efficacy-of-covid-19-vaccines/>

7. In the light of availability of many treatments now proving to be effective for SARS-CoV-2 and the realization that the overuse of certain medical procedures and drugs if not repeated many lives can be saved without any vaccines which are not as harmless as portrayed.

8. Government's own Operative Guidelines have mentioned that "Covid-19 vaccines have limited safety data". Later advisory by the government about clotting is also quite revealing. Adverse effects of the vaccine are found world over. As per the EUDRA report dated June 19, more than 1.3 million people in the Europe have had vaccine adverse effects and 13,867 people have died because of the vaccine. Similarly, as per VAERS, 6985 deaths have occurred in the US because of the vaccine and 4,41,931 incidents of vaccine adverse effect have been reported along with 34,065 severe ailments because of the vaccine from 14 December, 2020 to 25 June, 2021. As per MHRA of England, there have been 9,49,000 adverse effects and more than 1300 deaths because of the vaccine. In such circumstances, after vaccinating more than 24 million people, only 488 deaths and a little more than 26,000 adverse effects by AEFI in India is unimaginable. Only the first death because of vaccines is confessed as per AEFI on 15 June, which is also far away from the truth. The prime reason behind this is the inappropriate system of reporting vaccine adverse effects and vaccine deaths in our country.

9. As in most countries, in India also, the death rate from Corona has increased with increase in vaccination drive as is shown by data (Data compiled by Rahul C. Mehta, link below) and the recorded Corona deaths with Vaccine drive in many countries. And that is a matter of investigation. Experts have given various reasons, for vaccinated (Intravascular clotting and Antibody Enhancement) and even nonvaccinated people because of leaking vaccine. It can be purely because lockdown with its deleterious effect on all facets of our lives has increased vulnerability to all infections. Our regular rise of respiratory infections in the months following Holi has just exaggerated because of this lockdown effect. And rt-PCR can detect previous Coronavirus, flu virus and give positive and patient's symptoms can be because of any other disease even if rt-PCR is positive. So, more cases and more deaths are a matter of investigation after vaccination. But because of serosurveys futility of vaccine drive is well established. (Refer: <https://drive.google.com/file/d/1eQJF3KZuAGaPbrPGk0sUUfzb-knhD6K9/view>)



10. The number of deaths per thousand population has not increased in the year 2020 in most countries as much as it increased in last 10 years, when the populations were dealing with Corona virus on their own, death rate has not increased in 2020 it is only after the vaccine drive the deaths have increased. Even in India the death per thousand increased 0.5% in 2019 but 0.49% in 2020.

Considering all the above, we strongly urge the following:

1. The overzealous universal vaccination against Covid-19 drive, with widespread incidences of coercion and vaccination being made mandatory for jobs, examination for students, must be stopped immediately.

2. The people above the age of 60 and people with severe comorbidities may be offered vaccination on voluntary basis with full disclosure of warnings about side effects and lack of safety data as are mentioned in Government's operative Guidelines for Covid-19 vaccination and later declared for Intravascular clotting.

3. In the light of the fact that majority children in our country are also post Covid and on an average 56% of them are having antibodies without ever getting serious disease, All Trials on children for Covid-19 vaccine should stop and in upcoming meetings no consideration is required to approve the vaccines for children who have finished the trial.

4. We also urge the government to institute detailed studies to analyse the observation that there has been surge in cases and deaths due to covid in India since March-April 2021, coinciding with the roll out of the vaccination drive.

We are ready to come and meet you to have a full discussion on this at its earliest and as the matter is urgent and of grave concern, we expect an urgent call from you.

Expecting a prompt action on this front from you,

Indian Doctors for Truth,

Dr. Maya Valecha, MD, DGO

Dr. Ajay Gupta, MS, ORTHO (AIIMS)

Dr. Deepika Naytiyal. DGO DNB

Dr. Archana Satyam, MBBS, Diploma in Emergency Medicine

Dr. Harpreet Singh Walia BDS



Dr. Piyush Kumar, MBBS, EMOC, Public Health

Dr. Nisheetha Dixit, MBBS

Dr. Juhi Mittal, MBBS

Dr. Shams Scheik, MB BS, MD (Med), ABAARM (USA), DOrtMed (Germany)

Dr. Megha Consul, MD, DNB Pediatrics

Dr. Praveen Saxena, Radiologist & Clinical metal toxicologist, MBBS, DMRD Osmania

Dr.M.A.Khuddus, MD, DM, Ph.D. FNR (Glasgow), FCR (Edinburgh), Acute Medicine (Lond.), NHS (England), Senior Consultant Neurologist

Dr. Kuldeep Kumar, MS

Dr. Veena Raghav, MBBS

Dr. Vijay Raghav, MBBS

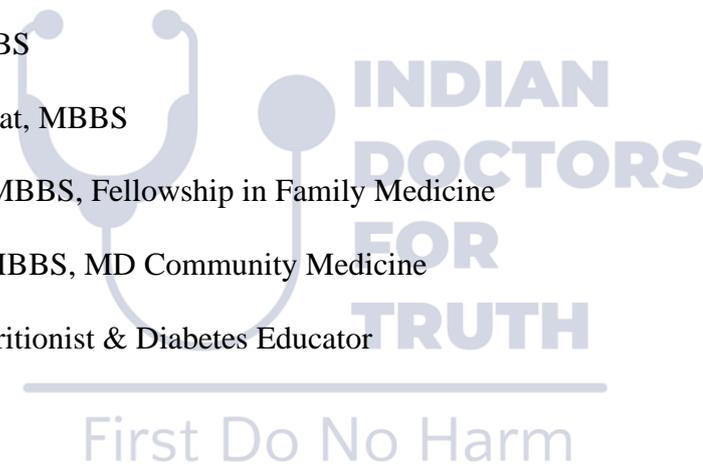
Dr. Gautam Das, MBBS

Dr. Priya mohod shirsat, MBBS

Dr. Rashmi R. Raut, MBBS, Fellowship in Family Medicine

Dr. Madhab Nayak, MBBS, MD Community Medicine

Swapnali Nikam, Nutritionist & Diabetes Educator



Enclosure: References and Evidence for the all Facts mentioned above.

I Natural Immunity vs Vaccine Induced Immunity:

Without any scientific data GoI has declared that Vaccine will benefit to even those who had Corona Infection. Whereas naturally acquired immunity is robust and lasts is argued by many individual Doctors in India and abroad and WHO has agreed to it now.

WHO in its 10th May, 2021 report concludes:

(https://drive.google.com/file/d/1Gm9NYmf1R3ZUXmSEijCYeQ6Defh5bqb_/view)

Conclusions

Current evidence points to most individuals developing strong protective immune responses following natural infection with SARS-CoV-2. However, inaccurate immunodiagnostic tests may falsely indicate infected individuals as naïve to the virus (not previously infected) or may falsely label non-infected people as positive for immune markers of recent infection.

To conclude, available tests and current knowledge do not tell us about the duration of immunity and protection against reinfection, but recent evidence suggests that natural infection may provide similar protection against symptomatic disease as vaccination, at least for the available follow up period.³³ The emergence of variants of concern poses challenges and their potential to evade immunity elicited by either natural infection or by vaccination, needs to be closely monitored.

https://www.medscape.com/viewarticle/951949?src=WNL_dne_210528_mscpedit&uac=391223BT&impID=3404007&faf=1

Months after recovery from mild COVID-19, when antibody levels in the blood have declined, immune cells in bone marrow remain ready to pump out new antibodies against the coronavirus, researchers reported in Nature.

<https://dailycaller.com/2021/05/25/marty-makary-cdc-natural-immunity/>

Makary, however, disputed claims that natural immunity is inferior to that acquired through vaccination, saying that both are “probably life-long” and that no boosters will be needed.

“There is more data on natural immunity than there is on vaccinated immunity, because natural immunity has been around longer,” Makary claimed. “We are not seeing reinfections, and when they do happen, they’re rare. Their symptoms are mild or are asymptomatic”

https://www.medscape.com/viewarticle/952033?src=WNL_dne_210528_mscpedit&uac=391223BT&impID=3404007&faf=1

"The papers are consistent with the growing body of literature that suggests that immunity elicited by infection and vaccination for SARS-CoV-2 appears to be long-lived," Scott Hensley, an immunologist at the University of Pennsylvania who wasn't involved with the research, told The New York Times.

<https://www.theblaze.com/news/johns-hopkins-professor-ignore-cdc-natural-immunity-works>

A professor at the renowned Johns Hopkins School of Medicine advised Americans recently to "ignore" guidance from the U.S. Centers for Disease Control and Prevention due to the



public health agency's puzzling refusal to recognize natural immunity from previous infection.

<https://theprint.in/opinion/majority-indians-have-natural-immunity-vaccinating-entire-population-can-cause-great-harm/582174/>

“The scientific evidence is overwhelming that natural immunity attained after recovery from Covid infection is effective and long lasting. The immune system responds to infection by various mechanisms, including the production of specific antibodies, T-cells, and B-cells to protect nearly every recovered Covid patient from reinfection. After almost a year of pandemic, globally, only 34 cases and two deaths have been definitively identified as reinfections at the time of writing, out of the 90 million Covid cases and likely hundreds of millions of infections worldwide.

Vaccines cause the immune system of those inoculated to mimic the immune response that natural infection induces. While the immunity conferred by the Covid vaccines documented in the clinical trials is excellent, it is not as effective as the immunity conferred by natural infection. (Emphasis added)

Furthermore, those who have already developed immunity to Covid through natural infection are extremely unlikely to develop additional immunity from vaccination. For instance, in the Pfizer randomised trial, the vaccine was tested in previously infected patients to check for its safety in that group. But those same patients were excluded from the analysis of efficacy, presumably because the scientists understood that the vaccine would confer no additional benefit to them.”

Sanjiv Agarwal is the founder of the Good Governance India Foundation, Mumbai. Jay Bhattacharya is Professor of Medicine at Stanford University.

<https://7news.com.au/lifestyle/health-wellbeing/study-suggests-some-people-may-have-protection-against-covid-due-to-their-immune-system-c-1215337>

A large percentage of the population appears to have immune cells that are able to recognise parts of the SARS-CoV-2 virus, and that may possibly be giving them a head start in fighting off an infection.

In other words, some people may have some unknown degree of protection.

“What we found is that people that had never been exposed to SARS Cov2 ... about half of the people had some T-cell reactivity,” co-author of the paper Alessandro Sette from the Center for Infectious Disease and Vaccine Research at La Jolla Institute for Immunology, told CNN.

It's T cells like those, which reacted to the SARS-CoV-2 virus, that Sette and his co-author Shane Crotty discovered - quite by accident - in the blood of people collected several years before this pandemic began.

They were running an experiment with COVID-19 convalescent blood.

Because they needed a “negative control” to compare against the convalescent blood, they picked blood samples from healthy people collected in San Diego between 2015 and 2018.



‘People that have never seen this virus have some T-cell reactivity against the virus.’

“It is conceivable that if you have 10 people that have reactivity and 10 people that don’t have the pre-existing reactivity and you vaccinate them with a SARS CoV-2 vaccine, the ones that have the pre-existing immunity will respond faster or better to a vaccine,” said Sette.

“The beauty of that is that that is a relatively fast study with a smaller number (of people)...

“So, we have been suggesting to anybody that is running vaccine trials to also measure T-cell response.”

“The implications of having some pre-existing immunity suggests that maybe you need a small proportion of the population to be impacted before the epidemic wave.

https://m.dailyhunt.in/news/india/english/outlook-epaper-outlooke/vaccinating+those+who+have+recovered+from+covid19+is+a+wasteful+exercise+scientists-newsid-n252717142?s=a&uu=0x830173843ae3c60d&ss=pd&fbclid=IwAR2kPbkIwfuNrZQR3lncn6DOuLLK6_okYJl7BbxzTyUnJxTdgzF0ZLifJc

Meanwhile, Dr Sanjay Rai, President, Indian Public Health Association (IPHA), says that current scientific studies on Covid-19 show that natural immunity lasts very long and so Covid-recovered population should be excluded from the current vaccination drive.

'As India is very close to herd immunity, we should not waste taxpayers' money on inoculating those people who have already recovered from Covid-19,' Dr Rai, who is also one of the principal investigators of a vaccine clinical trial, said.

He seconds Dr Muliyl and says that scientific evidence states that the human body produces long lasting antibodies against all such viruses which spread through respiration such as smallpox, measles and influenza.

"There is no disease in which the antibodies developed through vaccines last longer than natural antibodies," Dr Rai said.

<https://www.news-medical.net/news/20210426/Prior-SARS-CoV-2-infection-and-Pfizer-BioNTech28099s-COVID-19-vaccine-provide-similar-immunity.aspx>

The overall estimated efficacy of vaccination was 92.8% for documented infection, 94.2% for hospitalization, 94.4% for severe illness and 93.7% for death.

Similarly, the overall estimated level of protection among individuals with prior SARS-CoV-2 infection was 94.% for documented infection, 94.1% for hospitalization and 96.4% for severe illness.

<https://www.medrxiv.org/content/10.1101/2021.04.20.21255670v1>

Vaccination was highly effective with overall estimated efficacy for documented infection of 92.8% (CI:[92.6, 93.0]); hospitalization 94.2% (CI:[93.6, 94.7]); severe illness 94.4% (CI:[93.6, 95.0]); and death 93.7% (CI:[92.5, 94.7]).



Similarly, the overall estimated level of protection from prior SARS-CoV-2 infection for documented infection is 94.8% (CI:[94.4, 95.1]); hospitalization 94.1% (CI:[91.9, 95.7]); and severe illness 96.4% (CI:[92.5, 98.3]). Our results question the need to vaccinate previously-infected individuals. (Emphasis added)

Similarly National Institute of Health of US also also in its Research Matters observes on 26th January, 2021.

<https://www.nih.gov/news-events/nih-research-matters/lasting-immunity-found-after-recovery-covid-19>

- The immune systems of more than 95% of people who recovered from COVID-19 had durable memories of the virus up to eight months after infection.

II & III Serosurveys in India showing large population has already Developed Immunity and Infection Fatality Rate very low:

But in India right from the month of June it was known that sizable population of India already was exposed to Corona and in next few months India was heading towards Herd Immunity.

As explained by renowned Epidemiologist Dr John Ionnidis whose article on WHO website shows the method of counting Infection Mortality Rate from serosurveys, these serosurveys also proved low IFR in India.

Before showing the full sequence of antibody development in Indian population starting from the month of June, 2020, we want to point out how the latest sero-survey done by AIIMS along with WHO in the month of April-May, 2021 shows that majority of not only adults but even children are exposed to Coronavirus and have antibodies, and therefore they are immune and even herd immunity levels are achieved.

<https://www.hindustantimes.com/india-news/kids-adults-have-similar-antibodies-sero-survey-101623953000262.html>

The seroprevalence, presence of virus-fighting antibodies against Sars-CoV-2, among children was 55.7% across five study sites, in comparison to 63.5% among adults -- the difference was judged to be statistically insignificant.

“Wherever the prevalence of antibodies was high among the adults, it was high among the children, busting the myth that so far children have been less affected. The thing is, the binding of the virus to the human cell receptors is not very good in children and hence they mostly develop either asymptomatic or mildly symptomatic infection,” said Dr Sanjay Rai, one of the authors of the study and the head of the department of community medicine at the AIIMS.

He added, “People have been saying that after the young, the third wave will impact children more. The fact is most of them have been already exposed to the infection along with their families. And, numerous studies have now shown that natural infection can provide better and longer protection against a second infection.”(Emphasis added)



<https://science.thewire.in/.../icmr-seroprevalence.../>

So, by June 4th, they knew from the sero survey that there are already 64 lacs cases in India, infection mortality rate very low 0.08%, less than seasonal flu.

Now instead of telling the nation the obvious that it is not a dangerous disease, what they say is that they detected only 52592 cases and missed others.

Other people not tested had corona, recovered and had antibodies so what is the problem?

And once infected test can remain positive up to 2 months!

And as it later came out for whatever reason in this scientific study also some facts were hidden which were showing even larger number of people were actually affected. And so the IFR was still lower.

<https://www.telegraphindia.com/india/how-covid-numbers-were-hushed-up/cid/1792482>

Independent health experts tracking India's response to the Covid-19 pandemic said the directive to conceal high prevalence data in cities in early May might have been part of efforts to portray the lockdown as a success.

“The abrupt nationwide lockdown with a four-hour notice had brought misery and tragedies to many,” said a senior physician at the All India Institute of Medical Sciences, New Delhi, who requested anonymity. “The country's health research community has been used to portray the lockdown as a success.”

The professor added: “India was under complete lockdown during April and May — a paper reporting 30 or 48 per cent prevalence rates in early May would have put a question mark on the claims about a successful lockdown and containment.”

High prevalence means low infection mortality rate so do they want to hide high prevalence rate or low mortality rate?

Most surveys in India at various places showed increasing prevalence and reaching towards Herd Immunity.

<https://indianexpress.com/article/cities/mumbai/two-private-labs-in-mumbai-find-antibody-positivity-rate-at-24-3-pc-6517163/>

This is good news. This shows a large number of people who were exposed to coronavirus had no symptoms and got immunity,” said Dr Sujata Baveja, head of microbiology in Sion hospital.

So in July, 2020,

Latest data also suggests Delhi is more exposed to coronavirus than Mumbai. Combined data of sero surveillance conducted by the National Centre for Disease Control (NCDC) and samples tested by Thyrocare show a 25.10 per cent positivity rate. The NCDC did an IgG antibody test on 21,387 people in 11 districts of Delhi and found around 5,022 positive (23.48 per cent). Private laboratory Thyrocare tested 3,956 people and found antibodies in 1,340 (33.8 per cent).

But those in slums like Dharavi had even 57% seroprevalence without any high mortality.



<https://www.livemint.com/news/india/mumbai-sero-prevalence-of-57-found-in-slums-and-16-in-residential-societies-11595952896909.html>

Mumbai: Sero-prevalence of 57% found in slums and 16% in residential societies.

https://mumbaimirror.indiatimes.com/coronavirus/news/mumbai-sero-survey-57-per-cent-respondents-in-slums-16-per-cent-in-residential-societies-exposed-to-coronavirus/articleshow/77227080.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

Overall, the sero-survey found that 40 per cent had the coronavirus infection.

<https://indianexpress.com/article/india/india-covid-19-august-sero-survey-6637821/>

ICMR did sero survey, the blood test, from 17th August to 22nd September to detect antibodies, to know how many persons already had Corona.

And it was found that 6.6 % of the people above 10 years of age already had it, which means 7.48 crore people had it.

It takes 15 days to produce antibodies so these were the patients between 2nd August to 7th September.

Number of deaths during those days was around 37000 total.

If we count only this much the death rate is 0.049 percent which is less than seasonal flu.

How is it a serious disease?

Doctors must know that within 2 months antibodies go down and as such because it was told to the people to scare them, now even people know it.

When such a survey was done in in July end, more than 50% of the people had antibody in slums. And in this survey which was extended upto 22nd September 15.6% of people in slums had antibodies but because people had immunity not many new cases there.

https://theprint.in/india/punes-first-sero-survey-shows-over-51-infected-by-covid-in-5-high-incidence-areas/483945/?fbclid=IwAR0GMXTi8vH5j9vDv3p2smu6R_RiKXFgEUnr8k-Ohbfy8Oo7RD3pU5-zdVs

The study, conducted between 20 July and 5 August in five high-incidence administrative wards of Pune, shows that an average of 51.5 per cent of the people had been infected by Covid-19. The incidence ranged from 36.1 per cent to 65.4 per cent in the selected areas.

On July 24,

<https://indianexpress.com/article/cities/ahmedabad/only-17-61-per-cent-has-antibodies-ahmedabad-civic-body-sero-survey-6520952/>

This means out of 5570000 population of Ahmadabad 980320 got infected and 99% of them had no symptoms even and got antibodies, that is some immunity which protected them and did not get any symptoms.

1500 deaths from 980320 gives case fatality rate of 0.14 percent. 0.08% in Delhi, can call it nearly same.



Head of microbiology dept Mumbai explains Mumbai like this. Dr Ioannidis of Stanford university, one of the top ten most quoted Epidemiologist explains like this. Why the media not calling such scientists?

Let us understand, Corona is not a deadly virus.

City after city is giving same results!

<https://indianexpress.com/article/cities/mumbai/mumbai-75-test-positive-for-covid-19-antibodies-sero-survey-finds-7072331/>

In one of the highest sero-prevalence rates reported in the country, 605 of 806 patients who underwent antibody testing at five slums in Cuffe Parade tested positive for coronavirus antibodies.

Conducted between October 5 and 10 at five locations in the ward, the tests showed that 75% of the population tested positive for Covid antibodies.

https://indianexpress.com/article/india/first-signs-of-herd-immunity-in-small-population-groups-in-pune-7057931/?fbclid=IwAR2v4i_LFWx8LQcfFwHmBDJl1RWt62zyfMF4eHefATpPn8ZpSxwnxPbtVCE

This is the first study that followed up on an earlier sero-survey to detect the presence of 'neutralising' antibodies in infected persons. And though the researchers who carried out the study are careful not to suggest that the city was approaching 'herd immunity', this is the first documented case in the country where the infection rate in a population group had gone up so high that the concept of herd immunity could already be playing out.

<https://indianexpress.com/article/cities/pune/almost-50-in-karnataka-were-infected-by-august-sero-study-7049909/?fbclid=IwAR00PdgYOON-g00X0sbEfFqRok6G6xecF9I8JgHBd5IGlIbcKxzBdv1a-t8>

Almost half of Karnataka's population was infected with Covid-19 by August. A seroprevalence study indicated that at least 44.1 per cent of the population in rural areas of Karnataka and 53.8 per cent in urban areas were exposed to the coronavirus, and have therefore developed antibodies for the infection.

<https://fastkashmir.com/2020/11/first-ever-district-wise-sero-survey-of-sars-cov-2-in-kashmir-shows-overall-prevalence-of-38-8/>

Srinagar, Nov 18: The first ever sero-prevalence study in Kashmir division for SARS COV-2 specific IgG antibodies conducted across all ten districts shows IgG antibodies among 38.8% sampled population.

In a population of 15 lacs, where newspapers were shouting hotspot!, Total deaths till 27th September were 285 deaths.

Sero survey from 15th October, counting total deaths is to count on higher side, and still it comes to 0.057%, less than seasonal flu! NO VACCINE NEEDED!

<https://theprint.in/health/india-is-missing-about-90-infections-for-every-covid-case-latest-govt-analysis-shows/567898/>



Latest analysis by DST panel, that predicted end of Covid pandemic in India in February 2021, finds that about 60 per cent Indians have been infected so far.

An analysis of India's Covid numbers till last month has thrown up these figures. It was conducted by members of a panel formed by the Department of Science and Technology (DST), the same committee that developed the India-specific supermodel that predicted that the pandemic will taper off by February 2021 in India. An analysis in September had shown that India had missed about 60-65 infections for every detected case.

“The India figure is about 90 infections missed for every case. If you compare that with countries like Italy and the United Kingdom, it is about 10-15 missed infections for every case. It is important to understand that these people were never tested because they never exhibited any symptoms,” he added.

January,1, 2021

<https://www.india.com/news/india/india-moving-towards-herd-immunity-as-covid-19-cases-declining-no-need-to-panic-over-uk-strain-health-experts-4302153/>

New Delhi: Health experts said on Thursday that India seems to be moving towards getting herd immunity from COVID-19 as cases decline. Dr (Prof) Sanjay Rai, Professor of Community Medicine at AIIMS said there is no need to panic over the new coronavirus strain detected in the UK as according to reports it is not as virulent. Also Read - In a First, Signs of 'Herd Immunity' Witnessed in Small Population Groups in Pune: Report

“Perhaps, we are moving towards herd immunity because in India the cases are coming down. One of the classical examples is Dharavi slum of Maharashtra. As far as the number of cases is concerned, it depends upon testing,” he said

By January 27, 2021

<https://indianexpress.com/article/india/sero-survey-delhi-past-50-near-herd-immunity-7161606/>

The fifth round of serological surveillance conducted in Delhi has suggested that more than 50 per cent of those surveyed have developed antibodies against Covid, officials told The Indian Express.

This is the highest seroprevalence found during surveys conducted by the Delhi government since the Covid outbreak and, according to experts, indicates that the city is moving closer to achieving herd immunity.

Then why vaccinate the whole population?

While it is true that people who do not show any antibody increase in current wave and never tested positive can also have immunity against Covid-19 as

Is explained here:

<https://lockdownsceptics.org/what-sage-got-wrong/>

I say this because its well understood that not every person, infected by a respiratory virus, goes on to produce antibodies. And many people, having prior immunity, never get properly



infected anyway. We know that almost all those who became very unwell and were in hospital did produce antibodies, sometimes such that this could be detected months later. But those who had milder responses to the virus did not all produce antibodies. (Emphasis added)

But India having impossibility of lockdown or isolation in strict sense because of our objective conditions in slums and villages actually lesser number of percentage to get infected is required to achieve Herd immunity is explained in this paper.

<https://science.sciencemag.org/content/369/6505/846.full>

“Using a model, we show that population heterogeneity can affect disease-induced immunity considerably because the proportion of infected individuals in groups with the highest contact rates is greater than that in groups with low contact rates. We estimate that if $R_0 = 2.5$ in an age-structured community with mixing rates fitted to social activity, then the disease-induced herd immunity level can be ~43%, which is substantially less than the classical herd immunity level of 60% obtained through homogeneous immunization of the population. Our estimates should be interpreted as an illustration of how population heterogeneity affects herd immunity rather than as an exact value or even a best estimate.”

IV The death rate per thousand in the year 2020 in India as well as around the World, does not show excess deaths when compared to the data of last 10 years.

Below find the data:

<https://www.macrotrends.net/countries/IND/india/death-rate>



India Death Rate 1950-2021 | M... A mathematical model reveals th... | +

https://www.macrotrends.net/countries/IND/India/death-rate

Similar Countries Ranked by Death Rate

Country Name	2021 Death Rate
Ukraine	15.193
Lesotho	13.777
Georgia	12.753
Moldova	11.848
Nigeria	11.382
Eswatini	9.123
Cameroon	8.864
Myanmar	8.339
Angola	7.801
India	7.344
Papua New Guinea	7.321
Ghana	7.153
El Salvador	7.122
Djibouti	7.047
Sudan	7.028
Mauritania	7.021
Sri Lanka	6.920
Pakistan	6.835

India - Historical Death Rate Data

Year	Death Rate	Growth Rate
2021	7.344	0.480%
2020	7.309	0.490%
2019	7.273	0.500%
2018	7.237	-0.070%
2017	7.242	-0.070%
2016	7.247	-0.080%
2015	7.253	-0.070%
2014	7.258	-0.070%
2013	7.263	-1.480%
2012	7.372	-1.440%
2011	7.480	-1.440%
2010	7.589	-1.400%
2009	7.697	-1.400%
2008	7.806	-1.440%
2007	7.920	-1.420%
2006	8.034	-1.390%
2005	8.147	-1.380%
2004	8.261	-1.360%

SPONSORED BUSINESS CONTENT

A perfect pension? (The AIC)

Globetrotting – Investing around the world with Ian Cowie (The AIC)

Are you interested in the stock exchange? Read this before you invest. (iFOREX)

Founders, Leaders, Visionaries. Meet your class with EMBA-NY. (Columbia Business School)

Now is a Great Time to Invest in Latin American Mining (LAtAM INVESTOR)

Learn and live your way (Ingram Micro)

oianomi

Type here to search

32°C Mostly cloudy

22:20 08-06-2021

<https://knoema.com/atlas/United-States-of-America/Death-rate>

United States of America Death... A mathematical model reveals th... | +

knoema.com/atlas/United-States-of-America/Death-rate

Live data and insights on Coronavirus outbreak around the world, including detailed statistics for the US, Italy, EU, and China. Confirmed and recovered cases, deaths, alternative data on economic activities, customer behavior, supply chains, and more.

EXPORT EXPLORE DATA Compare View Ranking View Map Embed Query in Snowflake

What is United States of America death rate?

DATE	VALUE	CHANGE, %
2020	8.9	1.19 %
2019	8.8	1.29 %
2018	8.7	1.35 %
2017	8.6	1.37 %
2016	8.5	1.31 %
2015	8.4	1.21 %
2014	8.3	1.02 %
2013	8.2	0.82 %
2012	8.1	0.54 %
2011	8.1	0.25 %
2010	8.1	-0.09 %
2009	8.1	

See also

Type here to search

32°C Mostly cloudy

22:09 08-06-2021

<https://knoema.com/atlas/United-Kingdom/Death-rate>



<https://www.macrotrends.net/countries/ESP/spain/death-rate>



macrotrends.net/countries/ESP/spain/death-rate

Similar Countries Ranked by Death Rate	
Country Name	2021 Death Rate
Latvia	14.811
Lithuania	14.084
Croatia	13.242
Hungary	12.782
Estonia	11.944
Germany	11.510
Greece	11.147
Japan	11.085
Portugal	10.924
Italy	10.749
Poland	10.426
Slovenia	10.253
Austria	9.941
Finland	9.929
Puerto Rico	9.928
Denmark	9.914
Belgium	9.780
Uruguay	9.479

Spain - Historical Death Rate Data		
Year	Death Rate	Growth Rate
2021	9.312	1.070%
2020	9.213	1.080%
2019	9.115	1.090%
2018	9.017	1.200%
2017	8.910	1.220%
2016	8.803	1.240%
2015	8.695	1.250%
2014	8.598	1.260%
2013	8.481	0.020%
2012	8.479	0.010%
2011	8.478	0.020%
2010	8.476	0.010%
2009	8.475	0.020%
2008	8.473	-0.760%
2007	8.538	-0.770%
2006	8.604	-0.750%
2005	8.669	-0.760%
2004	8.735	-0.740%

SPONSORED BUSINESS CONTENT

Globetrotting – Investing around the world with Ian Cowie (The AIC)

Join EMBA-NY and grow without leaving a dynamic business environment (Columbia Business School)

Learn and live your way (Ingram Micro)

Are you interested in the stock exchange? Read this before you invest. (iFOREX)

A perfect pension? (The AIC)

Now is a Great Time to Invest in Latin American Mining (LatAM INVESTOR)

oianomi

<https://www.macrotrends.net/countries/ITA/italy/death-rate>

https://www.macrotrends.net/countries/ITA/italy/death-rate

From: 1950 To: 2102 Zoom: 10Y 20Y 30Y 40Y 50Y All

Deaths per 1000 People

Historical Current U.N. Projections

10,749

Annual % Change

Historical Current U.N. Projections

0.850%

1950 2000 2021 2050 2100

SPONSORED BUSINESS CONTENT

Now is a Great Time to Invest in Latin American Mining (LatAM INVESTOR)

Are you interested in the stock exchange? Read this before you invest. (iFOREX)

A perfect pension? (The AIC)

Globetrotting – Investing around the world with Ian Cowie (The AIC)

Learn and live your way (Ingram Micro)

Fast-track your career with EMBA-NY on our new campus, Manhattanville (Columbia Business School)

oianomi

Browser tabs: All countries death rates - maya | Italy Death Rate 1950-2021 | M... | A mathematical model reveals th... | +

Address bar: <https://www.macrotrends.net/countries/ITA/italy/death-rate>

Similar Countries Ranked by Death Rate

Country Name	2021 Death Rate
Latvia	14.811
Lithuania	14.084
Croatia	13.242
Hungary	12.782
Estonia	11.944
Germany	11.510
Greece	11.147
Japan	11.085
Portugal	10.924
Italy	10.749
Poland	10.426
Slovenia	10.253
Austria	9.941
Finland	9.929
Puerto Rico	9.928
Denmark	9.914
Bahrain	9.799

Italy - Historical Death Rate Data

Year	Death Rate	Growth Rate
2021	10.749	0.850%
2020	10.658	0.870%
2019	10.566	0.880%
2018	10.474	0.680%
2017	10.403	0.680%
2016	10.333	0.690%
2015	10.262	0.690%
2014	10.192	0.700%
2013	10.121	0.760%
2012	10.045	0.770%
2011	9.968	0.770%
2010	9.892	0.780%
2009	9.815	0.780%
2008	9.739	-0.100%
2007	9.749	-0.110%
2006	9.760	-0.100%
2005	9.770	-0.110%

SPONSORED BUSINESS CONTENT

Now is a Great Time to Invest in Latin American Mining (LatAM INVESTOR)

Are you interested in the stock exchange? Read this before you invest. (iFOREX)

A perfect pension? (The AIC)

Globetrotting – Investing around the world with Ian Cowie (The AIC)

Learn and live your way (Ingram Micro)

Fast-track your career with EMBA-NY on our new campus, Manhattanville (Columbia Business School)

oianomi

Taskbar: Type here to search | 32°C Mostly cloudy | 22:17 08-06-2021

<https://www.macrotrends.net/countries/BRA/brazil/death-rate>

Browser tabs: All countries death rates - maya | Brazil Death Rate 1950-2021 | M... | A mathematical model reveals th... | +

Address bar: [macrotrends.net/countries/BRA/brazil/death-rate](https://www.macrotrends.net/countries/BRA/brazil/death-rate)

Search over 200 countries... | Download Historical Data | Save as Image

From: 1950 To: 2102 | Zoom: 10Y 20Y 30Y 40Y 50Y All

Historical | Current | U.N. Projections

Deaths per 1000 People

Annual % Change

Historical | Current | U.N. Projections

Annual % Change

SPONSORED BUSINESS CONTENT

Are you interested in the stock exchange? Read this before you invest. (iFOREX)

Fast-track your career with EMBA-NY on our new campus, Manhattanville (Columbia Business School)

A perfect pension? (The AIC)

Learn and live your way (Ingram Micro)

Globetrotting – Investing around the world with Ian Cowie (The AIC)

Now is a Great Time to Invest in Latin American Mining (LatAM INVESTOR)

oianomi

Taskbar: Type here to search | 32°C Mostly cloudy | 22:23 08-06-2021

The screenshot shows a web browser with the following content:

Country Name	2021 Death Rate
Bulgaria	15.534
Romania	13.246
Serbia	13.237
Russia	12.918
Belarus	12.562
Montenegro	10.781
North Macedonia	10.291
Armenia	9.775
Grenada	9.568
South Africa	9.441
Cuba	9.365
Equatorial Guinea	8.836
Mauritius	8.789
Fiji	8.402
Albania	8.350
Thailand	8.021
Guyana	7.715

Year	Death Rate	Growth Rate
2021	6.674	1.310%
2020	6.588	1.310%
2019	6.503	1.340%
2018	6.417	0.900%
2017	6.360	0.900%
2016	6.303	0.910%
2015	6.246	0.920%
2014	6.189	0.930%
2013	6.132	0.380%
2012	6.109	0.380%
2011	6.086	0.380%
2010	6.063	0.380%
2009	6.040	0.380%
2008	6.017	-0.300%
2007	6.035	-0.300%
2006	6.053	-0.310%
2005	6.072	-0.300%

SPONSORED BUSINESS CONTENT

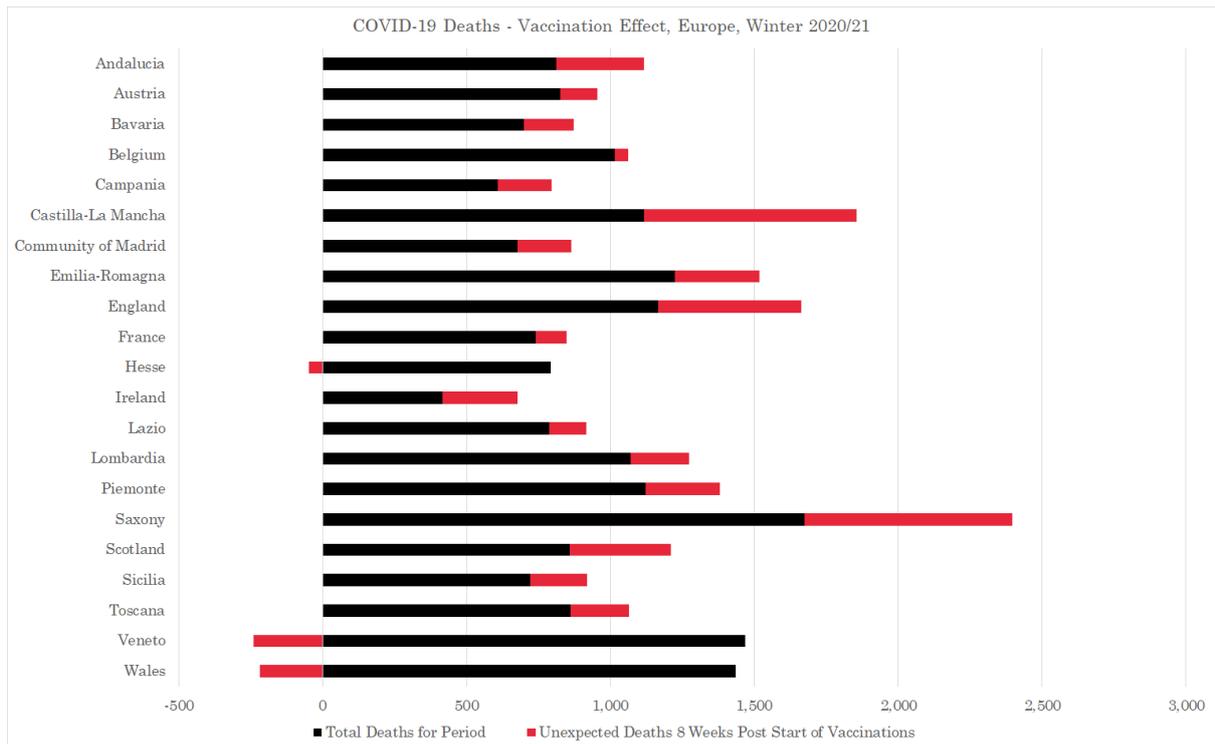
- Are you interested in the stock exchange? Read this before you invest. (iFOREX)
- Fast-track your career with EMBA-NY on our new campus, Manhattanville (Columbia Business School)
- A perfect pension? (The AIC)
- Learn and live your way (Ingram Micro)
- Globetrotting – Investing around the world with Ian Cowie (The AIC)
- Now is a Great Time to Invest in Latin American Mining (LATAM INVESTOR)

V That the increase in Corona deaths is a fact world over after Vaccination Drive.

<https://www.globalresearch.ca/terminate-emergency-use-authorization-eua-complete-phase-3-trials/5743896>

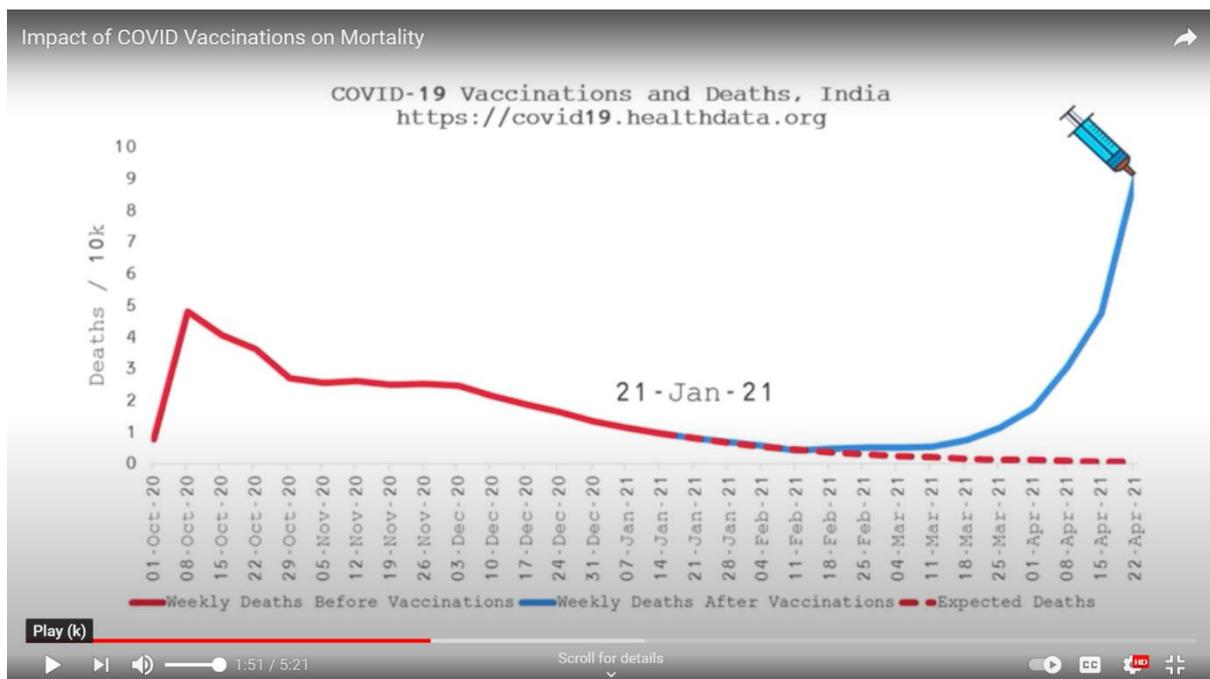
For example, we are now being told that the sudden uptick in deaths in various parts the country, are the sign of a “4th Wave”. Naturally, these fatalities are being blamed on the “variant” which is the current ‘hobgoblin du jour.’ What the media and the pundits fail to mention is that the unexpected rise in cases and deaths is only taking place in areas that are engaged in mass vaccination campaigns, a fact that can be easily extrapolated from the chart below.

First Do No Harm

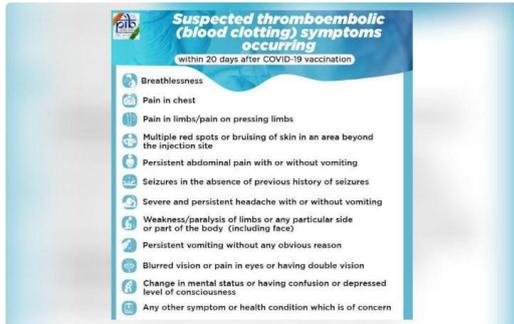


I don't know why this is happening, and I certainly don't think the drug companies have laced their injections with Covid-19. But it certainly deserves to be investigated, don't you think?

For India how the vaccine drive has affected Corona death rate and with vaccine shortage the death rate is going down, but with vigorous drive from 21st June it is anybody's guess what can happen when this is what is happening world over.



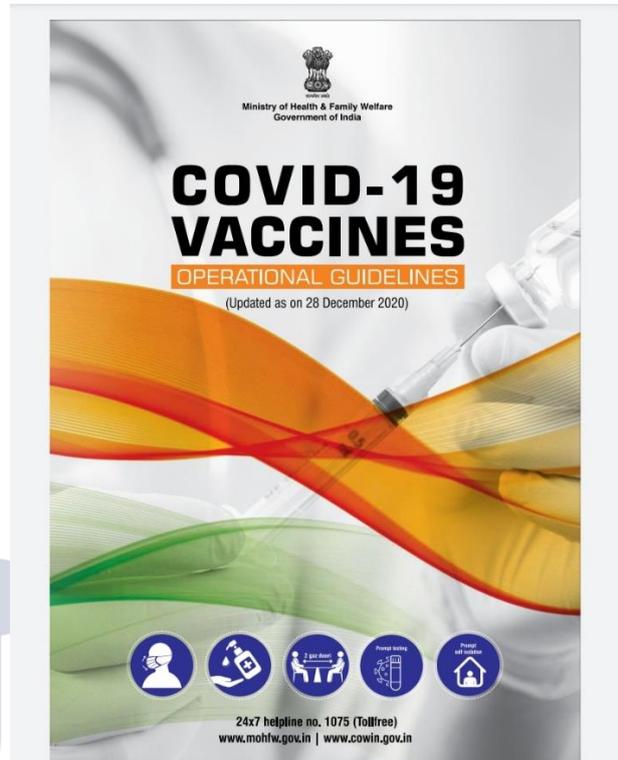
If Indian population is having the required immunity for the virus for which the vaccines are made, and as studies are showing the immunity is long lasting. Then why should the drive to vaccinate whole population with its potential serious side-effects which Government itself has recently warned and lack of safety data is also accepted in Government document along with the other warnings by experts, carried out? (Attached are GoI warnings and document)



Govt lists suspected blood clot symptoms occurring within 20 days of vaccination

The government has shared a list of suspected thromboembolic (blood clotting) symptoms occurring within 20 days after receiving any COVID-19 vaccine, while particularly naming Covishield. These include breathlessness, chest pain, seizures, persistent vomiting and blurred vision among others. A government report said that bleeding and clotting events following vaccination were "miniscule" in India.

short by Pragya Swastik / 17 May, 2021



Select text

Select all Copy

10.1 INTRODUCTION

COVID-19 vaccines have limited safety data. Therefore, it is important to monitor the safety of these vaccines when administered to a large population. A robust AEFI surveillance system would enable us to monitor adverse events and better understand the safety profile of the vaccines. During COVID-19 vaccinations, AEFIs must be rapidly detected and promptly responded to or else it can undermine confidence in the vaccine and immunization programme. All AEFIs should be reported as per the National AEFI Guidelines.

Programme managers should be aware of the following:

- COVID-19 vaccination will involve vaccination of large population over a short period of time. This may lead to increased reporting of AEFIs;
- During mass campaigns, there can be chances of anxiety reactions and occurrence of programme errors, especially if it involves reconstitution of vaccines using diluents; and
- Immunization errors which might lead to AEFI must be prevented at all costs through proper training, regular and intensive monitoring and supervision, and strict adherence to proper vaccine / diluent



Any adverse event following COVID-19 vaccination must be reported. There is no time limit (between vaccination and onset of symptoms) for reporting AEFIs. If the health worker or the treating physician or anyone suspects the event to be due to vaccination, it should be reported.

State and district authorities (DIO/CMO or the Block MO) should proactively reach out to all health care service providers such as medical colleges, hospitals (public, autonomous and private) and individual practitioners and sensitize them to report any adverse event following COVID-19 vaccine as per guidelines.

Doctors should ask and record history of COVID-19 vaccination in OPD prescriptions, casualty records, clinical treatment sheets, etc. Patients with history of COVID-19 vaccination (any duration) in which onset of symptoms has occurred AFTER COVID-19 vaccination should be considered as AEFIs and reported by the treating doctor to the nearest PHC doctor or District Immunization / RCH Officer in Case Reporting Format or telephonically. During investigations conducted by the DIO/district AEFI committee, all treatment records of the patient must be shared for causality assessment.

Professional bodies like IAP, IMA, IPHA, partner agencies like WHO-NPSP, UNICEF, UNDP, USAID, PATH and others should also be encouraged to support AEFI surveillance.

Blank copies of Case Reporting Formats (CRF) should be available with potential reporters to capture AEFI details. The reporter should also know whom to report and how to report. Thereafter, the case should be investigated by the district health authorities (DIO with support of the district AEFI committee members) as per national AEFI guidelines.

Even after issuing such warnings about blood clotting side-effects, our medical authorities are not doing such simple tests to establish or confirm such serious side-effects of these gene-based vaccines.

<https://dissident.one/2021/06/04/prof-bhakdi-levensbedreigend-letsel-verstoorde-bloedstolling-bij-alle-gevaccineerden/>

During his speech at the symposium, [Prof. Bhakdi](#) about a phone call from a medical colleague. He had examined the blood of all the people in his practice before and after the mRNA vaccination: The blood clotting was activated ("turned on") in more than 30 percent of the vaccinates, or 20 of the 60. According to Bhakdi, the activation of blood clotting is basically a life-threatening injury. Or in other words. "The blood clots in the veins".

Vaccinations must be stopped: Potentially fatal side effect

Administering a substance that activates blood clotting in the body would be extremely dangerous, according to Bhakdi, [Report24 reports](#) . The process must be stopped immediately, he said. Currently, a second specialist from Bavaria is said to have already confirmed the results – confirming activation of blood clotting in 100% of all vaccinated individuals. In total, the Bhakdi research group is conducting similar studies with 50 different doctors in different countries. A precise study design was developed for this purpose. The doctor's results are just being verified and will be published soon.

Antibody Dependent Enhancement As A Consequence To Vaccination:

In a letter to European Medicines Agency experts have highlighted this point again along with many other untested side-effects.

<https://doctors4covidethics.medium.com/doctors-and-scientists-write-to-the-european-medicines-agency-warning-of-covid-19-vaccine-dangers-edfebb0419a7>



“1e. Furthermore, long term adverse effects, in particular the danger of immune dependant enhancement of disease and adverse effects of subsequent vaccinations are impossible to predict.

The European Medicines Agency, as the regulator re vaccines for almost 450 million people across 27 European Union member states, must inform the public and the relevant authorities of this profoundly important issue.

2. We believe that the number of deaths due to the gene-based vaccines to which you have publicly admitted is but a small percentage of the actual number of deaths due to the gene-based vaccines.”

Conclusion:

All the available literature points to the fact that on one hand as sersurveys have shown a large proportion of population is already infected with Corona at one or the other time and umpteen number of studies have shown that the immunity from natural infection is better and long lasting. So vaccine is not required.

And on the other hand the vaccination drive has its own harmful effects which was warned by experts and now proving right in studies and data of our country.

That our government was warned in the month of August, 2020 and again in, 2021 February against following WHO advices blindly not only about vaccination but also against disproportionate measures taken by GoI.

https://drive.google.com/file/d/1hghf8Bh3AIUi5HxrnPA8FZeQqo77e_xN/edit

<https://drive.google.com/file/d/1r1h4Hck08k6QWH2enq-3xgPQRGUWfq2r/view>

Also letters like this kept on warning about the course being taken by most governments being not scientific.

<https://www.bmj.com/content/371/bmj.m4425/rr-31>

Many scientific facts are suppressed these days. Apart from one quoted below, facts about rt-PCR test, number of deaths, etc are enumerated in this letter to editor.

The third and possibly the most consequential suppression of science relates to the narrative that people do not develop immunity following a Covid infection. We know that immunity to SARS-CoV-1 is very durable, persisting for at least 12-17 years [8-10]. Immunologists know that immunity to SARS-Cov-2 is no different. This is confirmed by many eminent scientists including Beda M Stadler, the former Director of the Institute for Immunology at the University of Bern and Professor Emeritus (Ivor Cummins, Ep91 Emeritus Professor of Immunology

https://www.livescience.com/new-coronavirus-compare-with-flu.html?fbclid=IwAR1xrQir2CO2WKmFvrukXavODG2xJNvFuxOfXR8LnFA_1YMZH9F0VBMPDac

“The death rate from seasonal flu is typically around 0.1% in the U.S., according to news reports.”



Serological survey interpretation of in India shows case fatality rate for Corona 0.035, 0.08, 0.1 And 0.14%. How is it different?

And we don't carry out mass vaccination for seasonal Flu then why suddenly for Covid-19?

It is recommended that the vigorous drive to vaccinate the whole population must be stopped immediately, in the light of already immunised population with antibodies because of potential and already reported risks of vaccinating an already immune population.

Attachments:

1. Video link showing death Rate increase with Vaccine drive in 89 countries.

https://youtu.be/xSrc_s2Gqfw

2. The site of statistical data from which the above mentioned video is made.

<https://covid19.healthdata.org/albania?view=cumulative-deaths&tab=trend>

References:

1. Zuo J, Dowell AC, Pearce H et al. Robust SARS-CoV-2-specific T cell immunity is maintained at 6 months following primary infection. *Nat Immunol* 2021;22:620–626. <https://doi.org/10.1038/s41590-021-00902-8>
2. Turner JS, Kim W, Kalaidina E et al. SARS-CoV-2 infection induces long-lived bone marrow plasma cells in humans. *Nature* 2021. <https://doi.org/10.1038/s41586-021-03647-4>
3. Turner JS, O'Halloran JA, Kalaidina E et al. SARS-CoV-2 mRNA vaccines induce persistent human germinal centre responses. *Nature*. 2021. <https://doi.org/10.1038/s41586-021-03738-2>
4. Radbruch A, Chang H-D. A long-term perspective on immunity to COVID. *Nature* June 14, 2021. doi: <https://doi.org/10.1038/d41586-021-01557-z>
5. Peng Y, Mentzer AJ, Liu G, et al. Broad and strong memory CD4+ and CD8+ T cells induced by SARS-CoV-2 in UK convalescent individuals following COVID-19. *Nat Immunol*. 2020 Nov;21(11):1336-1345. doi: 10.1038/s41590-020-0782-6.
6. Dan JM, Mateus J, Kato Y et al. Immunological memory to SARS-CoV-2 assessed for up to 8 months after infection *Science* 05 Feb 2021;371(6529):eabf4063. DOI: 10.1126/science.abf4063
7. Cox RJ, Brokstad KA. Not just antibodies: B cells and T cells mediate immunity to COVID-19. *Nat Rev Immunol* 2020;20:581–582. <https://doi.org/10.1038/s41577-020-00436-4>
8. Wang Z, Muecksch F, Schaefer-Babajew D et al. Naturally enhanced neutralizing breadth to SARS-CoV-2 after one year. *bioRxiv* 2021.05.07.443175 <https://doi.org/10.1101/2021.05.07.443175>



9. Hall VJ, Foulkes S, Charlett A et al. SARS-CoV-2 infection rates of antibody-positive compared with antibody-negative health-care workers in England: a large, multicentre, prospective cohort study (SIREN). *Lancet*. APRIL 17, 2021;397(10283):1459-1469. DOI: [https://doi.org/10.1016/S0140-6736\(21\)00675-9](https://doi.org/10.1016/S0140-6736(21)00675-9)
10. Krutikov M, Palmer T, Tut G et al. Incidence of SARS-CoV-2 infection according to baseline antibody status in staff and residents of 100 long-term care facilities (VIVALDI): a prospective cohort study. *Lancet Health Longevity*. JUNE 01, 2021;2(6):E362-E370. DOI: [https://doi.org/10.1016/S2666-7568\(21\)00093-3](https://doi.org/10.1016/S2666-7568(21)00093-3)
11. WHO. Technical considerations for implementing a risk-based approach to international travel in the context of COVID-19: Interim guidance; Annex to: Policy considerations for implementing a risk-based approach to international travel in the context of COVID-19. WHO. 2 July 2021. Available at <https://apps.who.int/iris/rest/bitstreams/1353961/retrieve>
12. Shrestha NK, Burke PC, Nowacki AS, Terpeluk P, Gordon SM. Necessity of COVID-19 Vaccination in Previously Infected Individuals: A Retrospective Cohort Study. medRxiv 2021.06.01.21258176; doi: <https://doi.org/10.1101/2021.06.01.21258176>
13. Goldberg Y, Mandel M, Woodbridge Y et al. Protection of previous SARS-CoV-2 infection is similar to that of BNT162b2 vaccine protection: A three-month nationwide experience from Israel. medRxiv 2021.04.20.21255670; doi: <https://doi.org/10.1101/2021.04.20.21255670>
14. PTL. Covid-Recovered Should Take Vaccine After 6 Months, Says Advisory: Report. May 13, 2021. NDTV. Available at <https://www.ndtv.com/india-news/covid-19-vaccine-jab-for-covid-recovered-after-6-months-suggests-government-panel-report-2440894>
15. Hindustan Times. Defer vaccination for 6 months after recovery from Covid-19, says govt panel. Available at <https://www.hindustantimes.com/india-news/defer-vaccination-for-6-months-after-recovery-from-covid-19-says-govt-panel-101620884434595.html>
16. Raw RK, Kelly C, Rees J, Wroe C, Chadwick DR. Previous COVID-19 infection but not Long-COVID is associated with increased adverse events following BNT162b2/Pfizer vaccination. medRxiv 2021.04.15.21252192; <https://doi.org/10.1101/2021.04.15.21252192>
17. Krammer F, Srivastava K, Alshammary H et al. Antibody Responses in Seropositive Persons after a Single Dose of SARS-CoV-2 mRNA Vaccine. *New England Journal of Medicine*. 2021;384(14):1372-1374. doi:10.1056/NEJMc2101667
18. Krammer F, Srivastava K, the PARIS team, Simon V. Robust spike antibody responses and increased reactogenicity in seropositive individuals after a single dose of SARS-CoV-2 mRNA vaccine. medRxiv 2021.01.29.21250653; doi: <https://doi.org/10.1101/2021.01.29.21250653>
19. Ranjan A, Singh PK, Pandey S, Singh CM, Ayub A. Socio-economic inequality in national incidence and mortality rates of COVID-19 in India: An Ecological Study. *Indian J Community Health*. 2020 Dec. 31;32(4):665-76. Available from: <https://www.iapsmupuk.org/journal/index.php/IJCH/article/view/1965>



20. Stout RL, Rigatti SJ. Seroprevalence of SARS-CoV-2 Antibodies in the US Adult Asymptomatic Population as of September 30, 2020. JAMA Netw Open. 2021;4(3):e211552. doi:10.1001/jamanetworkopen.2021.1552
21. Bajema KL, Wiegand RE, Cuffe K, et al. Estimated SARS-CoV-2 Seroprevalence in the US as of September 2020. JAMA Intern Med. 2021;181(4):450–460. doi:10.1001/jamainternmed.2020.7976
22. BBC News. Covid-19 in the UK: How many coronavirus cases are there in my area? Available at <https://www.bbc.com/news/uk-51768274>
23. Cai R, Novosad P, Tandel V, Asher S, Malani A. Representative Estimates of COVID-19 Infection Fatality Rates from Three Locations in India. medRxiv 2021.01.05.21249264; doi: <https://doi.org/10.1101/2021.01.05.21249264>
24. O'Driscoll M, Ribeiro Dos Santos G, Wang L. et al. Age-specific mortality and immunity patterns of SARS-CoV-2. Nature 2021;590:140–145. <https://doi.org/10.1038/s41586-020-2918-0>
25. Levin AT, Hanage WP, Owusu-Boaitey N. et al. Assessing the age specificity of infection fatality rates for COVID-19: systematic review, meta-analysis, and public policy implications. Eur J Epidemiol 2020;35:1123–1138. <https://doi.org/10.1007/s10654-020-00698-1>
26. Ioannidis JPA. Infection fatality rate of COVID-19 inferred from seroprevalence data. Bulletin of the World Health Organization. Article ID: BLT.20.265892
27. ATAGI statement on revised recommendations on the use of COVID-19 Vaccine AstraZeneca, 17 June 2021. Available at <https://www.health.gov.au/news/atagi-statement-on-revised-recommendations-on-the-use-of-covid-19-vaccine-astrazeneca-17-june-2021>
28. Mao F. Covid vaccine: Why are Australians cancelling AstraZeneca jabs? BBC News, Sydney. 22 June. Available at <https://www.bbc.com/news/world-australia-57549796>
29. Public Health Agency of Canada. Use of AstraZeneca COVID-19 vaccine in younger adults. Available at <https://www.canada.ca/en/public-health/news/2021/03/use-of-astrazeneca-covid-19-vaccine.html>
30. NY Times. Italy halts the use of AstraZeneca's vaccine in those under 60, and other news from around the world. Available at <https://www.nytimes.com/2021/06/11/world/italy-astrazeneca-covid-vaccine.html>
31. Reuters. Don't give Oxford/AstraZeneca vaccine to under-30s: U.K. London, April 07, 2021. Available at <https://www.thehindu.com/news/international/dont-give-oxfordastrazeneca-vaccine-to-under-30s-uk/article34266521.ece>