

Flawed Modeling Study Plays Up Covid-19 Jab Impact

by Universal Health Organization (25 Jun 2022)



A [study](#) titled “Global impact of the first year of COVID-19 vaccination: a mathematical modelling study” has appeared in the Lancet Infectious Diseases journal, on 23 June 2022. It has concluded that nearly 14-20 million lives have been saved by the rollout of the Covid-19 jabs. This study immediately gained widespread news coverage worldwide: e.g. [The Hindu](#) (India), [mint](#) (India), [The Guardian](#) (UK), [CBS Detroit](#) (USA), etc. It is thus worth looking at the technical validity of the study.

Flawed assumptions in the jab impact modeling study: The modeling study necessarily incorporates various important parameters. A close look reveals that much of the critical parameters are based on assumptions which are *known* in the literature to be wrong. The table below summarizes this.

Aspect	Assumption in modeling study	Critique, Reality check of the assumption
Immunity after natural infection	“loss of infection-derived immunity.. follows an Erlang distribution with a mean duration of one year ” (see study supplement)	Immunity after natural infection is robust and long-lasting ; protection against infection lasts much longer than for the jabbed; protection from severe disease is likely life-long .
Immune evasion to new variants after exposure to earlier variants	“ Immune evasion for infection-derived immunity occurs for 27% of the previously infected population”	The study cited for this 27% number is interpreted incorrectly. In the cohort study, 27% of the participants showed a decline in antibodies followed by an increase. Rather than meaning that these 27% individuals became susceptible again, it means that these individuals were re-exposed and their immune system worked exactly as it was supposed to.
Vaccine efficacy against infection with delta variant	Adenovirus: 67% , mRNA: 88% (see Table 1 of supplement)	Efficacy wanes in 6 months: Adenovirus: 44% , mRNA: 63% Such waning efficacy is not modeled
Vaccine efficacy against mortality	Adenovirus: 92% , mRNA: 93% (see Table 1 of supplement)	Efficacy against mortality must be calculated considering <i>all-cause</i> mortality; a pre-print study shows a more modest 73% for the adenovirus jabs, and a <i>negative</i> efficacy of -3% for the mRNA jabs; so the modeled numbers are way too optimistic & incorrect; protection against hospitalization and mortality is also known to be waning and this is not modeled
Vaccine efficacy against transmission	“we assume that all vaccinated individuals have a 50% reduction in infectiousness for breakthrough infections”	The study cited for this 50% reduction clearly says that efficacy against transmission nears zero after 12 weeks of the jab; other studies have also shown that efficacy against onward transmission is near nil; hence the modeled number is wrong

All of the above erroneous assumptions are in the direction of amplifying the possible impact of the jabs, while at the same time diminishing the role of immunity after natural infection. Hence it is likely that the modeling study overestimates the lives saved by the Covid-19 jab rollout. Aside from the above parameters, there is yet another technical flaw, as explained below.

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The colossal failure of Covid-19 transmission model used: In general, among scientific studies, mathematical modeling carries far lower weight than real-world studies, since modeling necessarily has to make simplifying assumptions. In particular, Covid-19 modeling has failed spectacularly. More specifically, the transmission [model](#) for Covid-19 proposed in late March 2020, from Imperial College (UK) has been off by a factor of 10-40, as depicted in the table below (data source: [website](#), [spreadsheet](#)).

Country	Prediction	Real world data	Factor of miscalculation by model
Sweden	80,000 deaths with no mitigation	~6000 deaths in first wave with no lockdown	13 times
India	4.0 million deaths with “social distancing whole population” 5.9 million deaths with no mitigation	150,000 deaths in 2020 with 3 months of strict lockdown, 6 months of different levels of relaxation	26-39 times

It is important to note that the current job impact modeling study has used the same above Covid-19 transmission modeling, which is known to have failed by a huge factor. Since the earlier transmission model hugely overestimated Covid-19 spread and deaths, it stands to reason that the current job impact model using the transmission model has grossly overestimated the number of lives saved by the job rollout.

Financial conflicts of interest: Independent of the above technical flaws, there is another important aspect here. The Lancet publication clearly mentions that the funding sources for this work include the WHO, Gavi, Bill & Melinda Gates Foundation, all of whom have a financial conflict of interest in mass jobs. However, most of the news outlets have left out this critical information. This is inappropriate and unacceptable in honest journalism.

Summary: In conclusion, it is possible that the jobs may have saved some lives, but the modeling study is likely grossly overestimating the same. Further, that (a) scientists have to resort to a modeling study with so many flaws, and that (b) news outlets have to resort to imbalanced coverage of the same without mention of financial conflicts of interest, does not speak too well of the possibility of a huge impact on lives saved. The scientific evidence to substantiate a job as life-saving should always be a rigorous randomized control trial.

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