

## Mass infection is not an option: we must do more to protect our young

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## **Mass infection is not an option: we must do more to protect our young**

As the third wave of the pandemic takes hold across England, the government plans to further re-open. Implicit in this strategy is the acceptance that infections will surge, and the assumption that this does not matter as vaccines have 'broken the link' between infections and deaths.<sup>1</sup> On 19<sup>th</sup> July, branded as 'freedom day', almost all restrictions are set to end. We believe this is dangerous and premature.

An end to the pandemic through population immunity requires enough of the population to be immune to prevent exponential growth of the virus. This is unlikely to be achieved without much higher levels of vaccination, with interim proportionate mitigations to contain spread. However, the UK Government intends to abandon mitigations in England from July 19<sup>th</sup>, meaning immunity through vaccination for some and immunity through infection for others (predominantly the young) (Appendix). The link between infection and deaths has been weakened, not broken, and infection can still cause substantial morbidity in both acute and long-term illness. We have previously pointed to the dangers of immunity through infection.<sup>2</sup> Here are five.

First, unmitigated transmission will disproportionately affect unvaccinated children and the young, who have already suffered greatly. Only 50% of people in England are fully vaccinated, and another 17% partially. Given this, and the high transmissibility of the Delta variant, exponential growth will likely continue until millions more are infected, leaving hundreds of thousands with long-term illness and disability.<sup>3</sup> This risks creating a generation left with chronic health problems and disability, the personal and economic impacts of which may be felt for decades to come.

Second, high rates of transmission in schools and in children will lead to significant educational disruption, a problem not addressed by abandoning isolation of exposed children (depending on imperfect rapid tests daily).<sup>4</sup> The root cause of educational disruption is transmission, not isolation. Strict mitigations in schools alongside measures to keep community transmission low and eventual vaccination of children will ensure children can remain in schools safely.<sup>5-7</sup> This is all the more important for clinically and socially vulnerable children. Allowing transmission to continue over the summer will create a reservoir of infection, which will likely accelerate spread after schools and universities re-open in autumn.

Third, the government's strategy provides a fertile ground for the emergence of vaccine-resistant variants.<sup>8</sup> This would place all at risk, including those already vaccinated, within the UK and globally. While vaccines can be updated, this requires time and resources, leaving many exposed in the interim. Spread of potentially more transmissible escape variants would disproportionately impact the most disadvantaged in our country and other countries with poor access to vaccines.

Fourth, this will have a significant impact on health services and exhausted healthcare staff who have not yet recovered from previous waves. The link between cases and hospitalisations has not been broken, and rising cases will inevitably lead to increased hospitalisations, applying further pressure at a time when millions are waiting for medical procedures and routine care.

Fifth, as more deprived communities are more exposed to and more at risk from covid, these policies will continue to disproportionately impact the most vulnerable and marginalised, deepening inequalities.

In the light of these grave risks, and given that vaccination offers the prospect of quickly reaching the same goal of population immunity without incurring them, we consider that any strategy which tolerates high levels of infection to be both unethical and illogical. The government must reconsider

its current strategy and take urgent steps to protect the public, including children. We believe it is embarking on a dangerous and unethical experiment, and we call on it to pause plans to abandon mitigations on July 19th. vvvvvv

Instead, the government should delay complete re-opening until (i) everyone, including adolescents, have been offered vaccination and uptake is high and (ii) mitigation measures, especially adequate ventilation (through investment in CO2 monitors and air filtration devices) and spacing (e.g. by reducing class sizes), are in place in schools. Until then, public health measures must include those called for by e.g. the World Health Organization [universal masking in indoor spaces, even for those vaccinated], SAGE & CDC [ventilation and air filtration], Independent SAGE [effective border quarantine; test, trace isolate & support]. This will ensure that everyone is protected, and make it much less likely that we will need further restrictions or 'lockdowns' in the autumn.

### References:

1. Morton B. Covid: Boris Johnson upbeat about easing lockdown in England on 19 July. BBC News. 2021.
2. Alwan NA, Burgess RA, Ashworth S, et al. Scientific consensus on the COVID-19 pandemic: we need to act now. *Lancet* 2020; **396**(10260): e71-e2.
3. ONS. Prevalence of ongoing symptoms following coronavirus (COVID-19) infection in the UK: 1 July 2021, 2021.
4. Gurdasani D, ZH, Greenhalgh T, Roberts A, Yates K, Haque Z, Michie S, McKee M, Pagel C, Hyde Z, Bassani DG, West R, Reicher S, Deeks J. Daily contact testing trials in schools are unethical and extending them to include the delta variant puts everyone at risk. *BMJ Opinion* 2021.
5. Gurdasani D, Alwan NA, Greenhalgh T, et al. School reopening without robust COVID-19 mitigation risks accelerating the pandemic. *Lancet* 2021; **397**(10280): 1177-8.
6. Lessler J, Grabowski MK, Grantz KH, et al. Household COVID-19 risk and in-person schooling. *Science* 2021.
7. Collaborative TAS. Final Report for NC School Districts and Charters in Plan A, 2021.
8. Gog JR HE, Danon L, Thompson R. Vaccine escape in a heterogeneous population: insights for SARS-CoV-2 from a simple model. *MedRxiv* 2021.