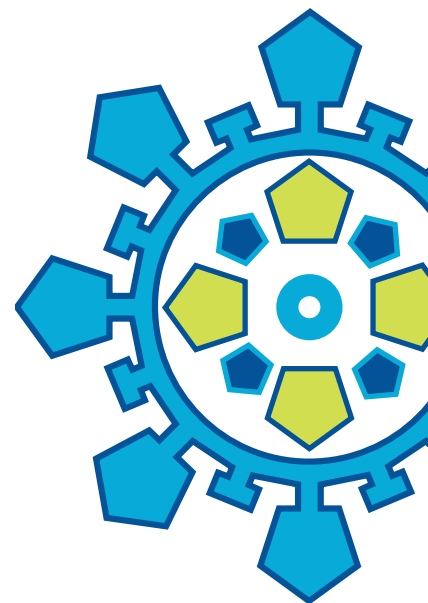

Coronavirus, pupils and schools: unanswered questions

Coronavirus crisis



Coronavirus, pupils and schools: Unanswered questions

Over the last six weeks, we have written three times to the Prime Minister and the Secretary of State for Education outlining concerns that our members and parents and carers of children in our schools have raised about the crisis.

We have asked the Government to share its evidence and modelling with us. We have asked for the publication of peer-reviewed science. So far we have received no response.

The questions we have put to Government are listed in this report. We have also listed references to scientific papers and studies that confirm that there are real issues to be addressed.

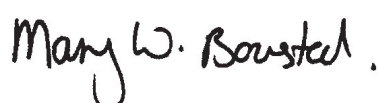
For example, a study from the University of East Anglia that says: "School closures in Europe had the greatest association with a subsequent reduction in the spread of the disease." And empirical evidence has emerged from Denmark suggesting an increase in community transmission following opening of schools.

The science on Covid-19 is developing all the time – but it is incumbent on the Government to take the people into its confidence.

The Government must answer our questions; they are reasonable and sensible and are asked in good faith on behalf of educators, our pupils and their families.

We all want schools to be reopened – but this must be when it is safe for them to do so.

The Government must address the concerns of staff, parents and the wider community. Further, it should meet our Five Tests, which we believe it must demonstrate it has passed before any wider reopening of schools.



Dr Mary Boustead
Joint general secretary
National Education Union



Kevin Courtney
Joint general secretary
National Education Union

Questions sent to Government: 13 March 2020

Questions we asked Government	Evidence we have	Source
<p>We do not have the medical expertise to know what the transmissibility is between children and staff in close quarters in classrooms – but your scientists will have made assumptions about that, together with some view of the certainty of those figures.</p>	<ul style="list-style-type: none"> ■ “The viral loads observed in the present study, combined with earlier findings of similar attack rate between children and adults, suggest that transmission potential in schools and kindergartens should be evaluated using the same assumptions of infectivity as for adults.” 	<p>An analysis of SARS-CoV-2 viral load by patient age Institute of Virology, Charité-Universitätsmedizin Berlin</p>
	<ul style="list-style-type: none"> ■ Children of all ages appeared susceptible to COVID-19, and there was no significant sex difference. Although clinical manifestations of children’s COVID-19 cases were generally less severe than those of adult patients, young children, particularly infants, were vulnerable to infection. 	<p>Epidemiology of COVID-19 Among Children in China Pediatrics</p>
	<ul style="list-style-type: none"> ■ “SARS-CoV-2 is transmitted quickly in the form of family clusters. While the infection rate is high within the cluster, the disease manifestations, latent period, and virus shedding period varied greatly.” 	<p>Clinical and epidemiological features of COVID-19 family clusters in Beijing, China The Journal of Infection</p>
	<ul style="list-style-type: none"> ■ “There were a few differences between COVID-19 children and COVID-19 adults in terms of laboratory findings and CT characteristics.” 	<p>A single-center, retrospective study of COVID-19 features in children: a descriptive investigation BMC Medicine</p>
	<ul style="list-style-type: none"> ■ SARS-CoV-2 shedding patterns of culture competent virus in symptomatic children resemble those observed in adults. Therefore, transmission of SARS-CoV-2 from children is plausible. 	<p>Shedding of infectious SARS-CoV-2 in symptomatic neonates, children and adolescents Pediatric Infectious Diseases Unit, Department of Woman, Child and Adolescent Medicine, Geneva University</p>

Questions sent to Government: 13 March 2020

Questions we asked Government	Evidence we have	Source
It is very important that we understand what the increased rate of infection is for staff and parents if schools remain open, including obviously for those with underlying health conditions themselves, or for those they care for.	<ul style="list-style-type: none">■ "Children are at a similar risk of infection to the general population, although less likely to have severe symptoms; hence they should be considered in analyses of transmission and control."	Epidemiology and transmission of COVID-19 in 391 cases and 1286 of their close contacts in Shenzhen, China: a retrospective cohort study The Lancet

Questions sent to Government: 14 April 2020

Questions we asked Government	Evidence we have	Source
<p>Most of all we think that education staff deserve to have access to modelling of the projected spread of the virus and the projected number of fatalities in a wide variety of scenarios including in scenarios where schools are closed for different periods of time.</p>	<ul style="list-style-type: none"> Prof Hunter said: "Our study shows that school closures in Europe had the greatest association with a subsequent reduction in the spread of the disease." 	<p>Impact of non-pharmaceutical interventions against COVID-19 in Europe: a quasi-experimental study Norwich Medical School, University of East Anglia</p>
	<ul style="list-style-type: none"> "The role of schools in the infection dynamics. Schools turn out to be a major hub for the progression of infection. Schools are a natural place of contact for the children and teachers. Our simulations (e.g., Figure 8B,E, Figure 9D) show that they are also a major location to spread the infection within the municipality and that they contribute essentially to the overall dynamics." 	<p>Dynamics and Mitigation Effects in a Real-world Community Humboldt-Universität zu</p>
<p>Whether such modelling is based on some notion that social distancing could be implemented in schools. (We ask this because our members think it would be a foolhardy assumption.)</p>	<ul style="list-style-type: none"> "For example, Denmark's Statens Serum Institut reported this week that R rose from 0.6 to 0.9 after the country reopened its primary schools and kindergartens in mid-April." This is despite strict social distancing in Danish schools with a class size limit of 10 and 6m physical distance. 	<p>R number: the figure that will determine when lockdown lifts Financial Times Statens Serum Institut</p>

Questions sent to Government: 14 April 2020

Questions we asked Government	Evidence we have	Source
<p>Whether your modelling would be based on concrete plans to establish regular testing of children and staff, availability of appropriate PPE and enhanced levels of cleaning - with all of which we are currently experiencing severe difficulties.</p>	<ul style="list-style-type: none"> ■ We assume no app use in children aged under 10. Our comment so not a quote: It is important that contact tracing measures that include children are in place by the time schools open. 	<p>Clinical and epidemiological features of COVID-19 family clusters in Beijing, China The Journal of Infection</p> <p>Epidemiology and transmission of COVID-19 in 391 cases and 1286 of their close contacts in Shenzhen, China: a retrospective cohort study The Lancet</p>
	<ul style="list-style-type: none"> ■ There is excess mortality in connection with the COVID-19 pandemic 	<p>Effective Configurations of a Digital Contact Tracing App: A report to NHSX Pathogen Dynamics Group</p> <p>Death figures have exceeded previous years' average since end of March De Statis</p>
<p>Whether your modelling would include plans for children and staff who are in vulnerable health categories, or who are living with people in vulnerable health categories, not to be in attendance at school or college?</p>	<ul style="list-style-type: none"> ■ This guidance is for people who are clinically extremely vulnerable, including children. It's also for their family, friends and carers. 	<p>Guidance on shielding and protecting people who are clinically extremely vulnerable from COVID-19 Public Health England</p>
	<ul style="list-style-type: none"> ■ Black males are 4.2 times more likely to die from a COVID-19-related death and Black females are 4.3 times more likely than White ethnicity males and females ■ Males in the Bangladeshi and Pakistani ethnic group were 1.8 times more likely to have a COVID-19-related death... for females, the figure was 1.6 times more likely. 	<p>Office of National Statistics</p>

Questions sent to Government: 14 April 2020

Questions we asked Government	Evidence we have	Source
Your latest evidence concerning the groups of people who are most vulnerable to death or life-changing consequences as a result of the virus, for example the evidence of the impact on those who live in crowded accommodation, those with different comorbidities, those from different ethnic groups and of different ages and sexes.	<ul style="list-style-type: none"> We suggest that this clinical picture represents a new phenomenon affecting previously asymptomatic children with SARS-CoV-2 infection manifesting as a hyperinflammatory syndrome with multiorgan involvement similar to Kawasaki disease shock syndrome. 	Hyperinflammatory shock in children during COVID-19 pandemic The Lancet
	<ul style="list-style-type: none"> A paediatric multi-system inflammatory syndrome, recently reported by authorities in the United Kingdom, is also being observed among children and young adults in New York City and elsewhere in the United States 	2020 Health Alert #13: Pediatric Multi-System Inflammatory Syndrome Potentially Associated with COVID-19 New York City Health Department
Whether the Scottish Parliament, the devolved assemblies in Wales and Northern Ireland and our neighbours in the government of the Republic of Ireland agree with your plans.	<ul style="list-style-type: none"> Scotland Nicola Sturgeon said any return to school "might not be possible at all ahead of the summer holidays" 	Coronavirus: Reopening Scottish schools too early could 'overwhelm' NHS BBC 5 May 2020
	<ul style="list-style-type: none"> Wales The situation for schools in Wales will not change on June 1, Education Minister Kirsty Williams has said. 	Situation for schools will not change on June 1st, Education Minister says Welsh Government
	<ul style="list-style-type: none"> Republic of Ireland It is understood the aim would be for this to apply from the start of the school and academic year in September. 	Schools and colleges unlikely to reopen until September Irish Times 30 April 2020

Questions sent to Government: 14 April 2020

Questions we asked Government	Evidence we have	Source
<p>Whether you are developing plans for extensive testing, contact tracing and quarantine in society as a whole? Our members see that countries successfully implementing such strategies have many fewer cases and many, many fewer mortalities than we do in the UK.</p>	<ul style="list-style-type: none"> ■ Contact tracing, in conjunction with robust testing and surveillance systems, is central to control strategies during de-escalation. ■ PCR and antibody testing are required for surveillance of the COVID-19 pandemic and will play a critical role in informing the risk of lifting various components of social distancing interventions ('lockdown') currently in place by allowing accurate estimates of the reproduction number and identifying the extent of transmission. ■ There is excess mortality in connection with the COVID-19 pandemic 	<p>Contact tracing for COVID-19: current evidence, options for scale-up and an assessment of resources needed European Centre for Disease Prevention and Control</p> <p>Role of testing in COVID-19 control Imperial College</p> <p>Death figures have exceeded previous years' average since end of March De Statis</p>
<p>If you are developing such plans, how long it will take to put them in place and how low the number of virus cases needs to be before such a strategy can be successful?</p>	<ul style="list-style-type: none"> ■ "On Wednesday (6 May) the Korea Centres for Disease Control and Prevention reported two new cases – both imported – as the number of new infections continued to slow. ■ "The education minister, Yoo Eun-hae, said high school seniors, who are preparing for highly competitive university entrance exams, would return to schools on 13 May with younger students to follow in phases from 20 May." 	<p>Global report: nations in Asia-Pacific pass Covid-19 peak and plot return to work The Guardian</p>
<p>Whether you intend such plans be in place well before schools are re-opened. (This seems essential to us.)</p>		

Questions sent to Government: 14 April 2020

Questions we asked Government	Evidence we have	Source
<p>If you are not developing such plans, what is your overall approach and is it dependent on an assumption that those who have had the virus are subsequently immune?</p>	<ul style="list-style-type: none"> ■ "There is currently no evidence that people who have recovered from COVID-19 and have antibodies are protected from a second infection." 	<p>"Immunity passports" in the context of COVID-19 World Health Organisation</p>
<p>Of your assessment of the strategies in place in South Korea, where there is a clear policy of testing, contact tracing and continued school closures?</p>	<ul style="list-style-type: none"> ■ "The test-kits for COVID-19 quickly became widely available and played a major role in eliminating uncertainties in the early stages of the viral spread." ■ "In this pandemic we are all connected, any wisdom and experience must be also shared quickly and fairly." 	<p>Flattening the curve on COVID-19: The Korean Experience The Government of the Republic of Korea</p>

Questions sent to Government: 14 April 2020

Questions we asked Government	Evidence we have	Source
<p>Whether you are developing plans for extensive testing, contact tracing and quarantine in society as a whole? Our members see that countries successfully implementing such strategies have many fewer cases and many, many fewer mortalities than we do in the UK.</p>	<ul style="list-style-type: none"> ■ Contact tracing, in conjunction with robust testing and surveillance systems, is central to control strategies during de-escalation. 	<p>Contact tracing for COVID-19: current evidence, options for scale-up and an assessment of resources needed European Centre for Disease Prevention and Control</p>
	<ul style="list-style-type: none"> ■ PCR and antibody testing are required for surveillance of the COVID-19 pandemic and will play a critical role in informing the risk of lifting various components of social distancing interventions ('lockdown') currently in place by allowing accurate estimates of the reproduction number and identifying the extent of transmission. 	<p>Role of testing in COVID-19 control Imperial College</p>

Questions sent to Government: 1 May 2020

Questions we asked Government	Evidence we have	Source
<p>Transmission and social distancing</p> <p>There is conflicting advice and evidence reported in the media concerning the transmission of Covid-19 between children and between children and adults, including how this varies with age group of the child. We believe that it will be essential for the Government to present the basis of decisions in this regard in detail. Schools and parents can then have confidence in any updated social distancing rules and how they might apply in the variety of school settings. It will also help create understanding of why the government has determined that schools are unlikely to become a centre for virus transmission in the wider community.</p>	<ul style="list-style-type: none"> ■ “The viral loads observed in the present study, combined with earlier findings of similar attack rate between children and adults, suggest that transmission potential in schools and kindergartens should be evaluated using the same assumptions of infectivity as for adults.” 	<p>An analysis of SARS-CoV-2 viral load by patient age Institute of Virology, Charité-Universitätsmedizin Berlin</p>
	<ul style="list-style-type: none"> ■ “SARS-CoV-2 is transmitted quickly in the form of family clusters. While the infection rate is high within the cluster, the disease manifestations, latent period, and virus shedding period varied greatly.” 	<p>Clinical and epidemiological features of COVID-19 family clusters in Beijing, China The Journal of Infection</p>
	<ul style="list-style-type: none"> ■ “There were a few differences between COVID-19 children and COVID-19 adults in terms of laboratory findings and CT characteristics.” 	<p>A single-center, retrospective study of COVID-19 features in children: a descriptive investigation BMC Medicine</p>

Questions sent to Government: 1 May 2020

Questions we asked Government	Evidence we have	Source
<p>Adults in schools and at home Our members are consistently asked by colleagues and parents for advice regarding the safety of school attendance and transmission to adults at home. They simply do not have the expertise to provide an answer. To instil confidence, it will be important for school communities to be advised in this regard and to understand the basis of that advice. For example, which categories of adults are most susceptible to a severe outcome of the disease and which household circumstances and/or pre-existing health conditions give rise to an increased level of risk if in contact with children or adults attending school? Are there particular considerations for BAME households?</p>	<ul style="list-style-type: none"> ■ This guidance is for people who are clinically extremely vulnerable, including children. It's also for their family, friends and carers 	<p>Guidance on shielding and protecting people who are clinically extremely vulnerable from COVID-19 Public Health England</p>
	<ul style="list-style-type: none"> ■ Black people are more than four times more likely to die from Covid-19 than white people ■ Bangladeshi and Pakistani males were 1.8 times more likely to die from Covid-19 than white males, after other pre-existing factors had been accounted for, and females from those ethnic groups were 1.6 times more likely to die from the virus than their white counterparts. 	<p>Coronavirus (COVID-19) related deaths by ethnic group, England and Wales Office of National Statistics</p>
	<ul style="list-style-type: none"> ■ People from Asian and black groups are at markedly increased risk of in-hospital death from COVID-19 ■ Deprivation is also a major risk factor 	<p>OpenSAFELY: factors associated with COVID-19-related hospital death in the linked electronic health records of 17 million adult NHS patients. The OpenSAFELY Collaborative</p>

Questions sent to Government: 1 May 2020

Questions we asked Government	Evidence we have	Source
<p>The role of ppe and of test, track, trace</p> <p>What role will testing and contact tracing play in the context of education? Will the systematic testing of staff and pupils at schools play a role in keeping Infection rate R below 1? What PPE is appropriate in the variety of school settings and with the levels of virus presence? If the use of PPE is to be limited, a robust explanation will be required to guard against allegations that it is simply unavailable.</p>	<ul style="list-style-type: none"> As we look towards post-lockdown strategies, we should examine the experience of countries that have successfully controlled SARS-CoV2 transmission or have low mortality (eg, China, Singapore, Taiwan, South Korea, Germany, and Iceland). Successful strategies include ample testing and contact tracing, supplemented by moderate forms of social distancing. 	<p>Impact of contact tracing on SARS-CoV-2 transmission</p> <p>The Lancet</p>
	<ul style="list-style-type: none"> The Government must ensure that PPE is available for school staff at significant risk of airborne contamination due to necessary close personal contact with students who can't control behaviour such as spitting, coughing or sneezing. This means providing PPE for all SLD and PMLD schools, and for other special schools where risk assessments show that students' behaviour poses these risks. 	<p>Coronavirus Keeping Yourself Safe</p> <p>National Education Union</p>
	<ul style="list-style-type: none"> Teachers and support staff working in schools amid the coronavirus pandemic need personal protective equipment (PPE) to remain safe, an academy chain chief warns. 	<p>Coronavirus: Teacher protection 'a matter of urgency'</p> <p>Times Educational Supplement</p>

Questions sent to Government: 1 May 2020

Questions we asked Government	Evidence we have	Source
<p>The effects on children</p> <p>Recent reports suggest that the confidence in the determination that children deal with the disease well may have been overstated. Parents will not have confidence that their children are safe unless the evidence in this regard is clear and accepted by clinicians. It will be helpful to understand the Government's advice and basis for its conclusions.</p>	<ul style="list-style-type: none"> ■ This research shows "that children are at similar risk of infection as the general population, though less likely to have severe symptoms; hence should be considered in analyses of transmission and control". 	<p>Epidemiology and Transmission of COVID-19 in Shenzhen China: Analysis of 391 cases and 1,286 of their close contacts</p> <p>The publishers are: Johns Hopkins Bloomberg School of Public Health, Baltimore</p>
	<ul style="list-style-type: none"> ■ This study reported that 12 out of 23 children sick with COVID-19 had the virus in their nose or throat able to attack and infect human cells in the lab, at a rate similar to adults. 	<p>Shedding of infectious SARS-CoV-2 in symptomatic neonates, children and adolescents</p> <p>Laboratory of Virology and Centre for Emerging Viral Diseases, Division of Laboratory Medicine, Geneva University Hospitals</p>
	<ul style="list-style-type: none"> ■ The modelling approach in this study indicates that by limiting contact patterns to those observed during vacations a noticeable decrease in infection attack rate can be achieved, and a reduction in peak incidence, demonstrating that school closure helped to curb the COVID-19 outbreak in China. 	<p>Changes in contact patterns shape the dynamics of the COVID-19 outbreak in China</p> <p>Science</p>

The NEU's five tests for wider school reopening

We want to begin to reopen schools and colleges as soon as we can. But this needs to be safe for society, for children and their families and the staff who work in them.

We have these five tests which the Government should show will be met by reliable evidence, peer-reviewed science and transparent decision-making.

Test 1: Much lower numbers of Covid-19 cases

The new case count must be much lower than it is now, with a sustained downward trend, and confidence that new cases are known and counted promptly. And the Government must have extensive arrangements for testing and contact tracing to keep it that way.

Test 2: A national plan for social distancing

The Government must have a national plan including parameters for both appropriate physical distancing and levels of social mixing in schools, as well as for appropriate PPE, which will be locally negotiated at school-by-school and local authority level.

Test 3: Testing, testing, testing!

Comprehensive access to regular testing for children and staff to ensure our schools and colleges don't become hot spots for Covid-19.

Test 4: Whole school strategy

Protocols to be put in place to test a whole school or college when a case occurs and for isolation to be strictly followed.

Test 5: Protection for the vulnerable

Vulnerable staff, and staff who live with vulnerable people, must work from home, fulfilling their professional duties to the extent that is possible. Plans must be specifically address the protection of vulnerable parents, grandparents and carers.