
May 28, 2020

The Independent Scientific Advisory Group for Emergencies (SAGE)

The Independent SAGE Report 3

When Should a School Reopen? Final Report.

www.independentSAGE.org
[@independentSAGE](https://twitter.com/independentSAGE)
YouTube: IndependentSAGE

Submitted to The UK Government and the People of Great Britain
& Northern Ireland by Sir David King, former Chief Scientific Adviser,
UK Government, Chair of Independent SAGE

When should a school reopen?

Final Report

May 28, 2020

This Report outlines the key findings of the Independent SAGE team of science and policy experts on the reopening of schools during the COVID19 pandemic. The Report was produced through online discussions and a public consultation online. The contributing scientists were:

CHAIR: Sir David Anthony King, Former Government CSA; founder and Chair, Centre for Climate Repair at Cambridge; Senior Strategy Adviser to the President of Rwanda; Chair of Independent SAGE

Professor Gabriel Scally, President of Epidemiology & Public Health section, Royal Society of Medicine

Professor Allyson Pollock, Co-director of the Newcastle University Centre for Excellence in Regulatory Science.

Professor Anthony Costello, Professor of Global Health, and Sustainable Development, University College London; former Director at WHO

Professor Karl Friston FRS, Computational modeller and neuroscientist at UCL in charge of developing a generative SEIR COVID19 model

Professor Susan Michie, Professor of Health Psychology and Director of the Centre for Behaviour Change at University College London; member of SPI(B), SAGE sub-committee

Professor Deenan Pillay, Professor of Virology University College London, former SAGE member

Professor Kamlesh Khunti, Professor of Primary Care Diabetes & Vascular Medicine, University of Leicester

Professor Christina Pagel, Professor of Operational Research (Mathematics), University College London

Dr Zubaida Haque FRSA, Interim Director, Runnymede Trust

Professor Martin McKee, Professor of European Public Health at the London School of Hygiene and Tropical Medicine

Dr Alison Pittard, Dean of the Faculty of Intensive Care Medicine.

Table of Contents

Foreword.....	3
1 INTRODUCTION.....	4
2 TRANSMISSION RISK	5
2.1 Overview on school opening.....	5
2.2 Are children less likely to be infected than adults?.....	5
2.3 How sick do children get?.....	5
2.4 Can schools trigger new outbreaks in the community?.....	5
2.5 How much difference does delaying school reopening make to risks of transmission?.....	6
2.6 What happens if a school has new cases of COVID-19?.....	9
2.7 What is the risk to school staff, parents and household contacts?	9
2.8 How are school closures impacting deprived communities?	10
2.9 Can we support schools to find more spaces for safe learning?.....	10
3 SCHOOL SIZE AND GOVERNANCE	11
3.1 Class size matters	11
3.2 Who makes the final decision about whether a school reopens?	11
4 INFECTION CONTROL IN SCHOOLS AND COMMUNITIES.....	13
4.1 How can schools reduce the chance of transmission?.....	13
4.2 What can communities do to reduce transmission once schools reopen?.....	15
4.3 How can households with vulnerable adults protect themselves?	15
5 HOW TO PLAN FOR OPENING A SCHOOL SAFELY AND WITH OPTIMAL EDUCATIONAL SUPPORT	15
5.1 Has the school assessed the risk of reopening and addressed any concerns?	15
5.2 Are local infections low enough? Test, Trace and Isolate at local level.....	17
5.3 Protecting people through hygiene and personal protection	17
5.4 Supporting children and their families through school nurses.....	17
6 PRESERVING EDUCATION IN THE SUMMER AND IF SCHOOLS STAY CLOSED.....	18
6.1 How can we support pupils to learn online?	18
6.2 Summer camps and open-air education	18
6.3 No child should go hungry	18
6.4 World Health Organization (WHO) Check Lists for supporting return to school....	18
7 SCHOOLS REOPENING: SOME OF YOUR QUESTIONS ANSWERED.....	19
8 References	23
APPENDIX.....	25
National Education Union Criteria for Schools Reopening	25

The mathematical approach	26
WHO Checklists	28
Advisory note from Prof Aoife Nolan: Should Schools Reopen? The Human Rights Risk	29
Advisory note Prof Helen Gunter et al: reopening schools in England	33

Foreword

Independent SAGE held a public consultation on Friday 22nd May on our interim report on schools reopening during the COVID19 pandemic. We listened to concerns and took questions from students, parents, teachers, and others. We also received further questions and comments over social media and by email. We all found hearing directly from the public incredibly valuable, and have updated our report accordingly by:

- Developing a risk assessment tool to help schools and families work together to make return as safe as possible
- Emphasising further the importance of providing a full educational experience for children as soon as possible – including the many children who will not be returning to school soon. This should include educational opportunities for children over the summer holidays, through a combination of online learning, summer camps and open-air activities. Teachers cannot be the primary workforce for such activities and other options such as scout leaders, sport coaches and other roles should be explored.
- Explaining further the risks of reopening for children, staff and communities based on our modelling and taking into account SAGE modelling released on 22nd May.
- Emphasising the need to support black and minority ethnic (BAME) and disadvantaged communities, whose members are at higher risk of severe illness and death from COVID19.

Since our public consultation, the government released the SAGE reports that informed the decision to reopen schools from 1st June. We note that SAGE modelled the potential impact on the Reproduction Rate, R , of 7 “returning to school” scenarios, where the 7 scenarios were provided by the Department for Education. All of the scenarios resulted in an increase in R and the scale of increase was highly dependent on current R and on the wider context within each community, in particular adherence to social distancing. SAGE warned that if current R is just below 1, then even small changes could trigger a return to exponential growth. SAGE also recommended that there must be strong intersectoral partnerships in place with local champions and coordinators of testing to support schools reopening safely.

The most recent estimates for the UK are that R is between 0.7-1, meaning that all scenarios modelled by SAGE are at risk of pushing R above 1. The school reopening scenario chosen by the government is not one of those modelled by SAGE making the potential impact of reopening even more uncertain. Robust testing systems are not in place everywhere. Additionally, public adherence to social distancing is influenced by trust in the government and its messaging. This trust is increasingly strained. We therefore believe that by going ahead with a general school reopening from 1st June, the government is not following the advice of its SAGE group and is risking a new surge in cases of COVID19 in some communities.

Independent SAGE believes that decisions to reopen schools must be made on a case by case basis and in partnership with local communities. In what follows, we set out the potential risks of reopening schools and our recommendations for what criteria need to be in place to enable a school to reopen as safely as possible. We also address the needs of children who remain at home and their right to an education.

1 INTRODUCTION

The UK Government's position is that schools in England should reopen from 1st June. This has, however, provoked a mixed response with considerable anxiety and questions being raised by parents, headteachers, teaching unions, local authorities and health professionals. Many Local Authorities have said that they are not ready, and the British Medical Association and teachers' unions are urging caution.

While there is no dispute that schools play a fundamental role in the development of children's emotional, social and intellectual development, it is also important to remember that schools represent a focal point in local communities. In the same way that school closures were highly disruptive, then school opening, and the manner in which this is done, will also be disruptive. For example, a staggered school opening based on year groups, while intuitively attractive in terms of distancing children, has major implications for childminders, parents, and children and guardians who may have responsibilities for siblings of different ages. The risk of top down decision-making without engagement with parents, teachers, support staff, children, and local communities will mean that the burden will fall on individuals to find a way to make this work.

That said, we recognise the issues facing decision-makers are complex, with the task of balancing numerous, different, and sometimes conflicting needs of children, parents, and teaching and school support staff. We understand that there is an imperative for children to return to school for their own wellbeing, and that this will also enable some parents to return to work (others will clearly have to remain at home if there is no provision for their children to go to school), but it is also vital that an appropriate level of safety for children, staff, and the wider community is ensured.

Using the frameworks of the recently published guidance from UNESCO (new guidelines to provide a road map for safe reopening of schools) (UNESCO, 2020) and WHO guidance for schools (WHO, 2020), we have considered the impact of school opening on children, staff, and the wider community - including parents, grandparents and guardians. It is for this reason that we wrote this report in consultation with parents, teachers, pupils, inspectors, health professionals and ordinary members of the public.

Our draft consultation published on 22nd May has now been significantly revised following public scrutiny through a well-attended web discussion, and invitation for comment. We have taken these views into account with our final report and have also included a Q&A section at the end of the report reflecting many concerns of these stakeholders.

We also note the coincidental government release of SAGE advisory documents relevant to school reopening (SAGE subgroup: the role of children in transmission, 2020). These reports are framed around the role of children in transmission. This implies a focus on the impact of reopening on transmission rates of COVID-19 in the community (i.e. its impact on R), rather than other impacts of reopening schools. They helpfully consider seven distinct scenarios provided by Department for Education in England for reopening schools according to staggered opening by year group. However, they do not consider in any detail other key components of a comprehensive reopening strategy, such as concurrent testing or surveillance, the preparedness of schools, and hygiene measures. We have scrutinised these reports and welcome their findings, incorporating references to them where appropriate in this document. We have also made recommendations for risk assessment for the schools, teachers, pupils and parents and carers.

2 TRANSMISSION RISK

2.1 Overview on school opening

We believe that decisions on school opening should be guided by **evidence that there are low levels of COVID-19 infections in the local community in which the school is situated** and the ability to rapidly respond to new infections through a **well-functioning, coordinated, local test, track and isolate strategy**. **We have seen no compelling evidence that these conditions have so far been met across the country. Until they are, it is not safe to open schools everywhere on June 1.** We stress the importance of *local* considerations; some areas, especially rural ones, might be ready to reopen schools earlier than other places. Estimates of levels of infections must be based on up-to-date, real time, detailed, *local* data on suspected and confirmed cases. To ensure that any *local* outbreaks are quickly identified and contained, **we strongly recommend that local test, track and isolate programmes are in place and are tested and shown to work locally before schools reopen.** If schools do reopen where these safeguards are not in place, we propose alternative testing strategies later in this document.

2.2 Are children less likely to be infected than adults?

Studies have shown that between 1% and 5% of diagnosed COVID-19 cases are in children, but many children may be undiagnosed because up to a third of infected children never develop any symptoms (Ludvigsson, 2020). There are still some questions about the epidemiology of COVID-19 in children. Current UK data suggest that they are as likely as adults to become infected and carry the virus but they may be less likely than adults to transmit the virus because, for instance, adults are contagious for longer than children (Office for National Statistics, 2020). However, the impact of placing many children in one place could lead schools to become “institutional amplifiers”, if asymptomatic children go unnoticed until an adult becomes symptomatic.

2.3 How sick do children get?

If children get symptoms, these are typically similar to other respiratory illnesses: mild fever, cough, sore throat, sneezing, muscle pain and tiredness (Ludvigsson, 2020). There is scientific consensus that children generally have much milder disease than adults, with a very small number of infected children becoming seriously ill. Concern has been raised that some children might develop a COVID-19 related Kawasaki-type immunological disease that may require critical care, but indications so far are that this is extremely rare (Riphagen et al., 2020).

2.4 Can schools trigger new outbreaks in the community?

It is difficult to assess the true risk of infected children transmitting the virus to other children and adults at school. Where there are ongoing new infections within the community, evidence suggests that reopening schools could increase the spread of the virus, both in the school and the wider community, perhaps by up to 0.3 on the R value. Other evidence from Asia, however, suggests that school closures have little impact on the rate of transmission. There have been recent reports of an upsurge of cases following reopening of schools in France, South Korea and Denmark, leading to re-closing in some

instances. However, this does not necessarily mean that transmission increased within schools but could also be because infections are generally going up in places where lockdowns are eased. Also, in interpreting evidence from other countries it is important to understand differences in context. For example, in Denmark, which reopened schools relatively early, stringent measures were taken to limit transmission, including class sizes of 10-11 and many classes held outdoors (Milne, 2020).

2.5 How much difference does delaying school reopening make to risks of transmission?

The **table** below shows the example impact that sending a child to school has on their chance of getting infected with COVID-19 if they went back to a classroom of 15 pupils on June 1st, June 15th, and September 1st. We look at the chances of a child being exposed to an infectious person, the chances of becoming infected and the chance of dying from the virus. Remember that many children who become infected will never feel sick but might still pass the virus onto other children and adults.

These estimates come from mathematical models of the spread of COVID-19 in the UK, based on the most recent national-level data available, and are for young primary school aged children (less than 10 years old). We look at what might happen if a child goes to school (in bold) or stays at home (in italics) (Table 1).

All risks to children are very low and all risks get lower over time as COVID-19 cases become less common (assuming the virus “reproductive number” R remains below 1). Perhaps the most important estimate is the chance of a child becoming infected, as presents a small risk to them and potentially a larger risk to household members or school staff.

Delaying a school reopening by two weeks (to 15th June) approximately halves the risk that a child will be infected and delaying the reopening till September is less risky still.

Staying at home at all time points is about half as risky as going to school, but also means that children do not get the benefit of having face-to-face learning and seeing their friends.

Risk of death is extremely small for children at all time points. To put the very low chances of death from COVID-19 in perspective, the daily chance of being killed in a road traffic accident is about 0.074 per million (**0.07/M**). So, schools reopening in September present a slightly lower risk and reopening in June a slightly higher risk to a child than the background risk of a road traffic accident.

Further details of the mathematical model are given in the Appendix.

Table 1 Impact of delaying school reopening

DATE OF RETURN	JUN 1		JUN 15		SEP 1	
	<i>School</i>	<i>home</i>	<i>school</i>	<i>home</i>	<i>school</i>	<i>home</i>
WHAT IS THE CHANCE A CHILD WILL BE EXPOSED TO A CONTAGIOUS CLASSMATE TODAY?	4.21%	1.76%	2.09%	0.87%	0.49%	0.19%
WHAT IS THE CHANCE A CHILD WILL CATCH THE VIRUS TODAY?	1.46%	0.61%	0.72%	0.30%	0.15%	0.06%
WHAT IS A CHANCE A CHILD WILL DIE FROM THAT INFECTION? (per million)	0.23/M	0.10/M	0.11/M	0.05/M	0.02/M	0.01/M

The risks can be visualised in another way (Figure 1)

Figure 1 Consequences of delaying school reopening (visual representation)

Going to school

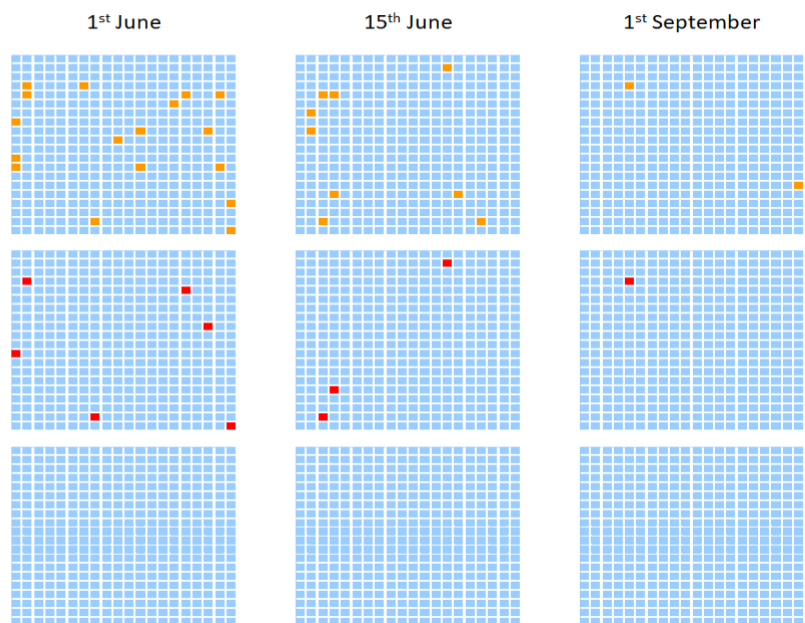
Each large square represents 400 primary school age children (one small square per child).

Out of every 400 non-infected children **starting back at school from ...**

Average number of children (orange) exposed to an infectious person

Average number of children (red) who then catch COVID-19

It would be extremely unlikely (less than 1 in a million chance) that a child would die



Staying at home

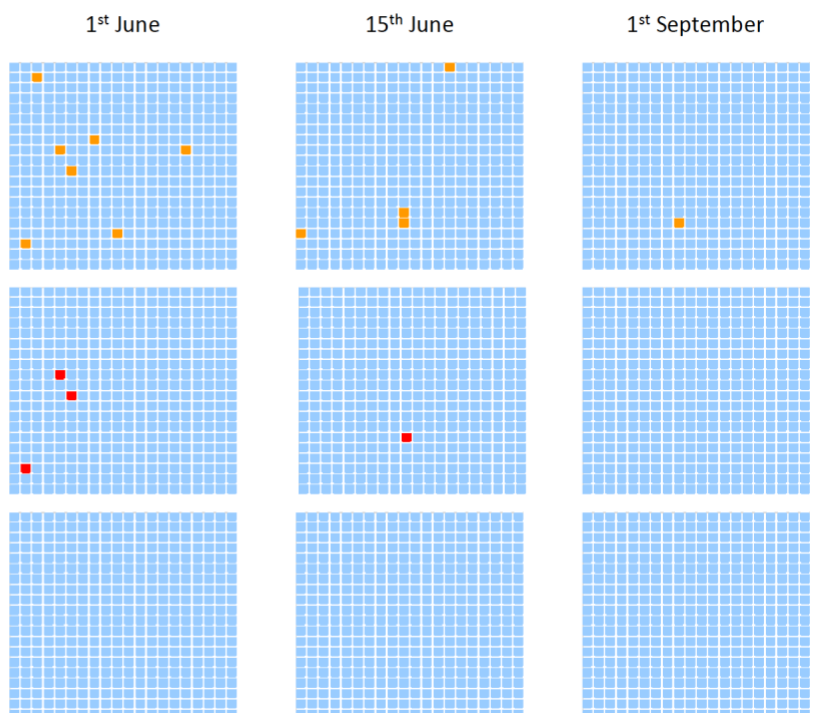
Each large square represents 400 primary school age children (one small square per child).

Out of every 400 non-infected children **staying at home ...**

Average number of children (orange) exposed to an infectious person

Average number of children (red) who then catch COVID-19

It would be extremely unlikely (less than 1 in a million chance) that a child would die



The main takeaway message from these estimates is that risk of a child becoming infected falls relatively quickly over a week or two after the government's June 1 reopening date. This means that if a school is not ready to reopen safely, delaying reopening by a couple of weeks would allow time to find solutions to local challenges and set up strong local testing procedures while knowing that risks of infections are getting lower.

2.6 What happens if a school has new cases of COVID-19?

Robust testing and tracing procedures, along with support for people and families to self-isolate, will reduce the chance of infectious staff, parents, or children attending school (or anywhere else). They will also quickly spot any new cases of infection that do arise in a school. So if a class or school then has to close temporarily after reopening, this should not then be seen as a failure — or evidence that opening was premature — but instead as an integral part of a community-based tracking and testing programme that will play an essential role in delaying, and hopefully preventing, any second wave of infection. In other words, the school community may have a central role to play in not only meeting the educational and other needs of children but also in providing an effective surveillance structure that will be essential in keeping local communities safe.

We need a capability for local real time “Test, Trace and Isolate” data to ensure a rapid response, with clear criteria to act and plans in place to re-close schools if need be. Planning for such re-closure is essential and must include measures to maintain educational opportunities for pupils. Further, the criteria used for a subsequent reopening must be made clear from the outset.

2.7 What is the risk to school staff, parents and household contacts?

Even if there are very few new infections within schools, the situation could still create risk for some adults who come into contact with infected children - noting that a significant number of infected children will be asymptomatic. This might include teachers and other school staff, household members, childminders, and any other adults the child may have contact with. Most younger teachers who are healthy are unlikely to get more than a mild disease. But we know that factors such as age, being male, coming from a low income background, underlying health conditions (e.g. diabetes, high blood pressure) and being from Black and Minority Ethnic (BAME) backgrounds may make teachers and staff more vulnerable to death, in particular in cities with high BAME populations (Williamson et al., 2020). The risks for those most vulnerable and those shielding are very much higher than an adult without any risk factors. Jan 2019 Department of Education statistics on pupil characteristics showed that over a third (33.5%) of pupils in primary schools were from minority ethnic backgrounds and as were just under a third (31.3%) in secondary schools (Department for Education, 2020). Additionally, many support workers are from lower income and BAME backgrounds, rendering them more vulnerable to infection and subsequent complications. It is therefore important to consider local COVID 19 infection and death rates as the best indicator of the risk from any future school-based outbreaks.

We note that, despite being outside of their formal remit, SAGE has highlighted the risk to vulnerable children and those with mental health needs, and also the need to consider local economic and social conditions within the community in assessing the reopening of schools.

2.8 How are school closures impacting deprived communities?

The Children's Commissioner calls for attention to the wider social and economic costs of keeping schools closed and encourages intelligent, incremental reopening of schools, particularly nurseries and primary schools, responsive to local contexts and informed by rigorous testing and comprehensive data.

Whilst there are few real-world data on the educational impact of school closures, we know that teachers in the most deprived schools are more than twice as likely to say that the work their students are sending in is of a much lower quality than normal (15% vs 6%). In the most deprived schools, 15% of teachers report that more than a third of their students learning from home would not have adequate access to an electronic device for learning, compared to only 2% in the most affluent state schools. 12% of those in the most deprived schools also felt that more than a third of their students would not have adequate internet access.

A recent report from the Institute of Fiscal Studies also highlighted the disproportionate impact on those living in deprived areas (Andrew et al., 2020). Higher-income parents are much more likely than the less well-off to report that their child's school provides online classes and access to online videoconferencing with teachers. Active help is offered to 82% of secondary independent school pupils, with 79% being provided with online classes. In the state sector, 64% of secondary pupils in state schools from the richest households are being offered active help from schools, such as online teaching, compared with just 47% from the poorest fifth of families. Moreover, 60% of independent schools and 37% of schools in the highest income areas had an online platform to receive work, compared to 23% in the most deprived schools. Across state schools, 45% of students had communicated with their teachers in the last week. At independent schools, the figure is 62% for primaries and 81% for secondaries.

The decision of many independent schools to open in September demonstrates their ability to prioritise infection prevention, but only in the context of ongoing high quality on-line educational opportunities for their pupils.

2.9 Can we support schools to find more spaces for safe learning?

Returning to school is important for children psychologically and socially, as well as educationally and we should aim to support all year groups to return to school safely. In vulnerable households or where there is a history of domestic abuse it is even more important.

We therefore raise the possibility of using a wide range of empty facilities - independent schools, sports facilities as examples - to allow those most in need of face-to-face education and social support to receive it, not only during the summer school term but also over summer holidays. This could be in the form of summer camps where social and physical development could be supported, with some education where possible. We note that SAGE too emphasised the need to support schools and students in more deprived areas.

3 SCHOOL SIZE AND GOVERNANCE

There are several features which need to be considered before discussing how best a school can reopen.

3.1 Class size matters

There has been a serious deterioration in pupil-teacher ratios in the past ten years. Class sizes are now substantially higher in England compared with other European countries:

- 27.9 pupils compared with the European average of 20.1 in primary schools
- 24.3 pupils compared with the European average of 20.9 in secondary (11-16).

Over a million primary and secondary pupils (13%) in England are in classes over 30.

It is therefore easier for Danish or German schools to reduce class size to around 10 pupils (halving a class) than England (splitting a class into thirds. Even just through halving to reduce classes to 15, the Department for Education is expecting classroom assistants to take charge, though in a different room from the qualified teacher. The strain on teaching staff will be significant, especially as teachers will still be supporting children remaining at home.

3.2 Who makes the final decision about whether a school reopens?

77% of English secondary schools and 36% of primary schools are now academies or free schools. Of these, 16% are in 'stand alone' trusts, and 43% in trusts with between 2 and 8 schools, and many of the larger trusts have schools scattered across different English regions. Many of these trusts will need external support and expertise to prepare for opening in the context of coronavirus.

Academies and free schools are not under the supervision of local authorities, so that they are unable to monitor, oversee or veto school reopening. This is quite different from most European countries where local or regional authorities are making the final decisions on whether each school is ready or not. Nor does Ofsted have any responsibility regarding the opening of schools. This is quite different from Denmark, for example, where the agreement of local authorities is needed if a school deems itself ready to reopen. This raises questions of legal liability that will need to be resolved in respect of decisions by headteachers or chairs of governors.

Box 1 Advisory Note from Prof Geraldine Van Bueren QC on the rights of the child

Reopening schools during the COVID19 pandemic must be based on scientific evidence framed within the United Kingdom's binding legal obligations under the Convention on the Rights of the Child. This protects the human rights of children, their families, their educational staff and the communities in which they live.

A primary consideration is the best interests of each and every child. This requires the opposite of a one-size-fits-all reopening. Reopening should be tailored to reflect the circumstances of local communities, including their infection rates. Best interests require protecting the child's inherent right to life and the highest attainable standards of physical and mental health. In addition, everyone has a right to family life. Government must consider the risks to children, including rare risks, and the possibility of transmission between children, and from children to their families, educational staff and the community.

The child's right to education requires the Government to apply a non-discriminatory approach, so that children from disadvantaged backgrounds do not suffer from school closures. The duty to reduce drop out rates applies equally to online education. The principle of proportionality requires the Government to consider safe ways of fulfilling children's right to education. Schooling should be provided in innovative ways, such as the sharing of online teaching tools between wealthier and poorer schools and the provision of computers and Wi-Fi in homes.

There is a high legal standard on the Government to ensure, to the maximum extent possible, the survival and development of each and every child. This includes their right to food, and specific safeguards for children who are particularly at risk. This is why the United Nations' educational body, the UN Educational, Scientific and Cultural Organisation, calls for consultation with parents, teachers, students and communities before schools reopen. This provides the confidence and trust necessary for the financing and operating of safe school reopening. Children's rights require transforming a calamity into an opportunity – not a return to the old normal.

Professor Geraldine Van Bueren QC

Chair of International Human Rights Law at Queen Mary University, London

4 INFECTION CONTROL IN SCHOOLS AND COMMUNITIES

4.1 How can schools reduce the chance of transmission?

A wide range of infection control measures have been implemented as schools have reopened around the world. These range from staggering opening by year groups, smaller class sizes, outdoor teaching and variable start times through to personal protection, physical distancing, and regular handwashing including, of course, for teachers and other staff at school. Mask wearing has been implemented for teachers and pupils in some settings, whereas Denmark, for instance, has prioritised investment in handwashing facilities. It is estimated that all Danish school children now wash their hands at least 6 times per day.

It is self-evident that key measures need to be in place to ensure safety, and each school needs to consult widely with teachers, unions, parents, local authorities including public health for local intelligence on infectivity, education departments and inspectors and children before proposing how best to open the school to the proposed additional full classes.

Younger children

Schooling in England begins significantly earlier than in most European countries, many of which start at age 6 or 7. Most children begin school (reception class) between their fourth and fifth birthdays. It is difficult to understand why the DfE has chosen to prioritise a return to school for children in Reception and Year 1, who are regarded as too young for school and who are still in kindergartens in much of the rest of Europe. Children so young cannot simply be placed behind desks and expected to understand distancing rules, a concern also raised by SAGE in its report.

Secondary schools

There are also particular features of English secondary schools which will make a return to school more difficult. Pupils are frequently allocated to different sets (ability groups) for specific subjects, and between different subject options in Years 10 and 11 (often starting in Year 9). By contrast, a common core curriculum is the norm in many European countries, with less subject choice. New arrangements will need to be carefully planned, so that pupils remain together with one teacher in a class of 15 or fewer. They might have to be taught by a single subject teacher for several days, supplemented by distance learning with other subject specialists.

There are several differences between countries with regard to timing and duration of school closure, and mechanism of reopening, as summarised in Table 2. We recommend a close monitoring of the international scene, to guide continual evaluation of good practice—a recommendation also supported by SAGE advice. We note the sporadic upsurges in infection around some school openings in France, Germany, and Denmark, leading to the need for temporary re-closing.

Table 2 International policies on schools reopening

Country	Period of closure	Opening criteria	Key infection control
Belgium	13/5-18/5	As determined by communities	Strict social distancing
France	17/3-10/5	Geographically determined (red/green zones of country). Staggered year group starting.	Reduced class size. Masks (teachers and children >11 yrs)
Germany	13/3-15/5	Whole country. Staggered year group starting.	Reduced class size. Masks according to State.
Denmark	13/3-15/4	Whole country Initially up to 5 th grade.	Reduced class size No masks Focus on very regular handwashing
Ireland	12/3 – September 2020	Opening still several months away	Opening still several months away
Italy	23/2- September 2020	Opening still several months away	Opening still several months away
The Netherlands	Primary: 15/3-11/5 Secondary 15/3-1/6	Whole country	Primary: Reduced class size Secondary: 1-5m distancing

4.2 What can communities do to reduce transmission once schools reopen?

Schools will start to open while social distancing guidance remains in place. Issues which require clear guidance include transportation to school, collection of children at the school gates, often by childminders, grandparents, and other carers, and how staff and children can best minimise potential transmission of infection in households and communities. Consideration will need to be given to family members being from vulnerable groups and being shielded and for multigenerational family households. Schools need to work with the local communities to develop specific protocols suited to the local environment (for instance, a village school faces different challenges than an inner city one). Dealing with children's anxiety about social distancing also requires careful consideration.

In particular, local testing, track and isolating programmes – undertaken by public health workers, and involving local GPs, will enable us to protect vulnerable adults (including grandparents in multigenerational homes) by rapidly tracing the contacts of newly infected people while isolating infectious children or adults.

4.3 How can households with vulnerable adults protect themselves?

Parents will need to make an informed choice about sending a child to school taking into account the local infection rates and also the risk assessment of the school environment. To reduce the risk of a child bringing coronavirus into a home with vulnerable adults, it is important to ensure that children have a shower and change their clothes when they return home. In addition, parents should ensure general hygiene and try to maintain social distance at home between children and vulnerable adults and keep rooms well ventilated. Families should also avoid sharing items such as towels.

5 HOW TO PLAN FOR OPENING A SCHOOL SAFELY AND WITH OPTIMAL EDUCATIONAL SUPPORT

5.1 Has the school assessed the risk of reopening and addressed any concerns?

A risk assessment should be conducted at four levels, including risk assessment of the school, the staff, the pupil and the parents and family environment (Figure 2). We have developed a Risk Assessment Tool which incorporate some of the recommendations by the US Center for Diseases Control and Prevention (Centers for Disease Control, 2020). A risk assessment should follow full engagement with local authorities, school managers, trade unions, parents, inspectors, staff, pupils, and the community. The assessment process needs to be understood and tailored to the risks and contexts of communities and their members and to the feasibility of schools to implement appropriate infection control procedures. This includes the different risks from lessons in different subjects (e.g. where there is sharing of equipment) and the ability to socially distance within schools. Consideration should be given to use of non-school facilities which may provide a better infection control environment, such as independent school buildings and playing fields, and sports facilities and football stadiums, which will be unused during this time. Such engagement will ensure an optimal solution to providing high quality education, social interaction and physical activities to children. The ability to be outside or in very well-ventilated buildings or marquees will be associated with reduced infection rates.

Figure 2 Risk assessment for schools, teachers, students, and family/carers

SCHOOL ASSESSMENT

- › Communicate and monitor local knowledge of COVID-19 cases and prevalence
- › Monitor student and staff absences
- › Ability to screen students and employees for symptoms or history of exposure to COVID-19
- › Adequate staffing (for additional cover)
- › Adequate space for social distancing
- › General school hygiene facilities e.g. regular cleaning, sanitisers
- › Adequate wash facilities and changing rooms
- › Intensify cleaning and disinfection
- › Adequate dining facilities
- › Appropriate curriculum

STUDENT ASSESSMENT

- › Transportation
- › Behavioural assessment
- › Adequate personal equipment and stationary
- › Provision of lunch where relevant
- › Awareness and importance of social distancing
- › Training on hygiene at school and after school

TEACHER/STAFF ASSESSMENT

- › Individual risk assessment*
- › Training in social distancing
- › Training in personal protective behaviours
- › Remote teaching or other adjustments (if high risk)
- › Training on health and safety protocols

FAMILY/CARERS ASSESSMENT

- › Individual family member risk assessment*
- › Family make up e.g. multigenerational family
- › Family members shielding or high risk
- › Training in personal protective behaviours
- › Training in social distancing
- › Encourage to assess and report child for signs and symptoms of possible COVID-19

*INDIVIDUAL RISK ASSESSMENT

Six factors need to be considered:

1. Age: Those aged over 70 have already been identified clinically vulnerable
2. Sex
3. Clinically vulnerable people: Those with underlying health conditions or co-morbidities
4. Ethnicity: Those of BAME appear to be at increased risks, particularly aged above 55 or have co-morbidities
5. Pregnancy in particular those who are over 28 weeks or have underlying health conditions
6. Disabilities identified which may be the subject of reasonable adjustments

5.2 Are local infections low enough? Test, Trace and Isolate at local level

One of the key factors in deciding whether or not to reopen a school, and to keep it open, is whether or not there is a significant level of circulating coronavirus in the school's catchment area.

Knowledge about whether there is a local hotspot of coronavirus infection will be gained from an active community programme of case finding, testing, contact tracing and isolation. General practitioners will be well placed to contribute information about new cases. Important information will also be available from NHS hospitals, although this is likely to reflect the situation a few weeks previously.

With school openings imminent, but without a coherent widespread contact tracing structure in place, nor a fast turnaround testing programme, nor a functioning app-based programme, we fear that infections will rise. We therefore recommend **local solutions for TTI, linked to local public health authorities and primary care, with systems in place to allow as near as possible real-time local data collection which should also contribute to national data collection**. We suggest consideration is given to how best to rapidly detect new infections within the school population in a way which will allow immediate isolation and prevention of spread. We note the SAGE recommendations for further viral and serological surveys to understand the role of children in transmission, and the requirement for real time data access to guide infection control.

It is important that timely information from these sources is available at the local level and can be accessed by head teachers, other teachers, and parents and children. Every area in England, Wales and Scotland has a local director of public health (DPH). The DPH is well placed to be the main collator of local data and to be a key contact point for school heads. The DPH could also be given the responsibility of alerting schools if and when evidence of a local hotspot of infection emerges.

5.3 Protecting people through hygiene and personal protection

Schools need to ensure adequate access for hand hygiene including sufficient and clean toilets and wash facilities and hand sanitisers. As well as social distancing, some schools in countries such as France and China are making the use of face coverings compulsory (BBC, 2020). Children should be given designated equipment including stationary to reduce the risk of contagion spread. In many schools built under PFI arrangements, buildings management including cleaning and availability out of school hours and in school holidays is under the control of the PFI consortium, not the headteacher or governors, making the oversight of such new measures difficult and requiring extensive and expensive renegotiations to contracts. The Treasury must take financial responsibility for this.

5.4 Supporting children and their families through school nurses

School nurses are funded by local authorities and are a valuable public health resource and will help support children, parents and teachers in the school setting during this crisis. In England their numbers have however declined by one third in the last ten years (from 3,017 in February 2010 down to 2,053 in February 2020 at the start of the coronavirus crisis) (NHS Digital, 2020). The local NHS and other services should be requested to support school

nurses by seconding other appropriate nursing staff to assist until the crisis is past and schools have returned to normal.

6 PRESERVING EDUCATION IN THE SUMMER AND IF SCHOOLS STAY CLOSED

6.1 How can we support pupils to learn online?

It will be important to provide opportunities for pupils in state schools who may not have access to Wi-Fi, computers, tablets or smartphones if education is forced to move largely online. In a digital world we believe every child in school aged seven and above should have access to these resources. We must also support children from families who find home schooling difficult for other reasons (such as not having English as a first language).

6.2 Summer camps and open-air education

Local authorities and civil society groups should be mobilised to provide summer schools and camps to help with educational “catch up”, particularly for those most disadvantaged by the lockdown, and also to provide some respite for parents and carers. This presents a major opportunity for community engagement and potentially the use of some of the 750,000 volunteers.

Use of sports grounds, football, rugby, and other stadia and hire of marquees will provide opportunities for exercise and socially distanced education for children. If teachers and classroom assistants are not available, trained coaches and approved supervisors would be needed for these activities including music and drama.

Governments have a duty to provide the investment and resources for schools and staff, for reduced class sizes, and, where schools do not open or open partially, to take steps to provide alternatives to ensure meaningful education that meets the needs of all children .

6.3 No child should go hungry

We remain concerned about the level of hidden hunger among children from poorer households, with parents who are on benefits or in low-paid employment. According to figures published by End Hunger UK, in January 2018 16% of adults in Great Britain either skipped or saw someone else in their household skip meals (EndHunger UK, 2020); 14% of adults worried about not having enough food to eat; and 8% of adults had gone a whole day without eating because of a lack of money during the last 12 months.

Provision of midday meals for vulnerable children out of school and during the summer months is essential, supported by government, local authorities or via civil society organisations.

6.4 World Health Organization (WHO) Check Lists for supporting return to school

We suggest that schools additionally consider using WHO checklists for parents and children and for students as suggested by UNICEF and the World Health Organisation regarding Actions for COVID-19 Prevention and Control in Schools (UNICEF & WHO, 2020) (Appendix 3).

7 SCHOOLS REOPENING: SOME OF YOUR QUESTIONS ANSWERED

Are children less likely to pass on the virus as Professor Jonathon Van Tam suggested on Monday at the CV daily briefing? Lots of teachers are worried about contracting the virus at school

Recent UK and international data suggest that children are in fact as likely as adults to become infected and carry the virus and also be asymptomatic in many cases. They may be less likely than adults to transmit the virus because, for instance, adults are contagious for longer than children. However, the impact of placing many children in one place could lead schools to become “institutional amplifiers”, if children without any symptoms go unnoticed until an adult becomes symptomatic.

Most younger teachers who are healthy are unlikely to get more than a mild disease. But we know that factors such as age, being male, coming from a low income background, underlying health conditions (e.g. obesity, diabetes, high blood pressure, cardiovascular disease) and being from BAME backgrounds may make teachers and staff more vulnerable to severe disease, in particular in cities with high BAME populations. The risks for those most vulnerable and those shielding are very much higher than an adult without any risk factors. It is, therefore, important to consider the locality-based COVID 19 infection rates as the best indicator of the risk from any future school-based outbreaks.

Is getting coronavirus dangerous for my child?

There is scientific consensus that children generally have much milder disease than adults, with a very small number of infected children becoming seriously ill. Concern has been raised that some children might develop a COVID-19 related Kawasaki-type immunological disease that may require critical care, but indications so far are that this is extremely rare. If children get symptoms, these are typically similar to other respiratory illnesses: mild fever, cough, sore throat, sneezing, muscle pain and tiredness

Given how high the death rate is and how the government has handled this pandemic, how can we be sure sending children back won't trigger a second wave?

There is no clear answer to this as we are currently unsure of the risk of infected children transmitting the virus to other children and adults at school. Where there are ongoing new infections within the community, evidence suggests that re-opening schools could increase the spread of the virus, both in the school and to the wider community, perhaps by up to 0.3 on R value. Other evidence from Asia however suggests that school closures have had only a small impact on the rate of transmission. There have been recent reports of an upsurge of cases following reopening of schools in France, South Korea and Denmark, leading to re-closing in some instances. However, this does not necessarily suggest that transmission happened within schools as it could also be because infections have generally gone up in communities where lockdowns have been eased.

Why are they opening schools before track and tracing has been established?

We agree that until testing, tracing and isolating programmes are in place it is not safe enough to open schools on 1 June. It is essential that rigorous local test, track and isolate (TTI) programmes are in place, and tested, before schools reopen to ensure that any

outbreaks within or outside school are quickly spotted and contained. TTI programmes will also enable protection of high risk and vulnerable adults (including teachers and family members) and children by testing people, tracing their contacts and isolating infectious children or adults. Estimates of levels of infections must also be based on up-to-date real time, detailed, *local* data on suspected and confirmed cases.

With the schools rushing to meet this unrealistic deadline of 1 June I fear it will become a box ticking exercise rather than attention to detail/risk factors. Given that the medical experts are constantly learning about this new virus surely it makes more sense to get the kids back out in September when more factors are clear?

We share some of your concerns. We have used advanced mathematical techniques to estimate how likely children are to get the infection depending on when their school reopens. Our findings show that delaying a school re-opening by two weeks (to 15th June) approximately halves the risk to children, and delaying the re-opening of school until September is significantly less risky other things being equal (much closer to zero though some risk still exists). Our modelling also showed that staying at home generally between now and September is about half as risky as going to school, but that also means that children do not get the important benefit of having face-to-face learning and being with their friends. Significantly delaying the reopening of schools to mid-June or sometime thereafter means that public health officials, GPs, local authorities, schools/headteachers have more time to prepare and find solutions to local challenges and set up strong local testing procedures while knowing that risks are getting lower.

I want to know what the plan is going forward; they are just taking about the years who may go back in June but what's the plan for the other kids?

This is a question which many parents have asked us. Only a handful of children/year groups are returning to school which raises important questions about those remaining at home.

Returning to school is important for children psychologically and socially, as well as educationally and we should aim to support all year groups to return to school safely. In vulnerable households or where there is a history of domestic abuse it is even more important. And we know from research from the Sutton Trust, that in the most deprived schools, 15% of teachers report that more than a third of their students learning from home do not have adequate access to an electronic device for learning, compared to only 2% in the most affluent state schools.

Given that we cannot return all children to the same school site safely at the same time, Independent Sage suggests using a wide range of empty facilities - private schools, sports facilities and other non-school venues as examples of places where children can receive face-to-face education, pastoral and mental health support as well as physical education during the summer school term. As we go into the summer holidays this could be in the form of summer camps where social and physical development would be supported, with some education where possible. The more that educational activity can occur outdoors or, for example, in ventilated marquees, the less the transmission will be.

It is important to recognise that this diverse provision of education inside and outside of school, with social distancing and other safety measures in place, **cannot** be done with the existing numbers in the school workforce. The government should therefore look to expand

the school workforce during Covid-19 to allow for more flexible, diverse and expanded education provision.

What sort of teaching will take place? Will they be able to do PE? Will they be expected to attend in uniform or their own clothes? I heard an academy on the radio saying they want kids in their own clothes as they want them washed every day and that doesn't happen when kids wear school uniform. What about families who don't have enough clothes for every day?

These are hugely important questions and reflect the lack of information from the Department for Education about what parents need to know to send their children to school to minimise risks and enhance safety, if and how the school curriculum will change or be maintained, and how parents from disadvantaged backgrounds will be helped, if necessary, to maintain some of the safety measures required to keep all children safe. Guidance in safe methods of PE is urgently required as it is important for children's psychological and physical development.

Why didn't they [government] give schools a longer notice period to prepare?

We don't know the answer to this, but we can help schools to be better prepared. We believe a risk assessment should be conducted at four levels: the staff, the child, the parents and the family environment. We have developed a Risk Assessment Tool which incorporates some of the recommendations by the US Centre for Diseases Control and Prevention. This risk assessment model attempts to incorporate full engagement with local authorities including public health, school managers, trade unions, parents, inspectors, staff and the community.

A risk assessment model by schools also needs to include different risks according to (i) different school subjects (e.g. where there is sharing of equipment) and (ii) the ability to socially distance within schools. Given the constraints with physical spaces in some schools, available resources and limited numbers within the current school workforce, we believe that schools should be given the use of non-school facilities, which may provide a better infection control environment, such as independent school buildings and playing fields, and sports facilities and football stadiums, which will be unused during this time. Such engagement will ensure an optimal solution to providing high quality education, social interaction and physical activities to children. The ability to be outside or in very well-ventilated buildings or marquees will be associated with reduced infection rates.

We live in a household where it's me, my husband, our three children and my mother-in-law who is over 70. My mother-in-law has a weak immune system and has Rheumatoid arthritis. How can I send my primary school children to school but also make sure she doesn't get coronavirus?

We believe local testing, track and isolating programmes – undertaken by public health workers, and involving local GPs, will enable us to protect vulnerable adults (including grandparents in multigenerational homes) by regularly testing people, tracing their contacts

and isolating infectious children or adults. In the situation above, parents will need to make an informed choice about sending the child to school taking into account the local infection rates and also the risk assessment of the school environment. To reduce the risk of your child bringing coronavirus into the home, it is important to ensure that your children have a shower and change their clothes when they return home. In addition, you could ensure general hygiene, social distance at home between your children and their grandmother, and keep rooms well ventilated. The family also need to ensure that they do not share items such as towels.

8 References

- Andrew, A., Cattan, S., Costa Dias, M., Farquharson, C., Kraftman, L., Krutikova, S., Phimister, A. & Sevilla, A. 2020. *Learning during the lockdown: real-time data on children's experiences during home learning* [Online]. Institute for Fiscal Studies. [Accessed 27th May 2020].
- BBC. 2020. *Coronavirus: What are different countries doing about wearing masks at school? - CBBC Newsround* [Online]. Available: <https://www.bbc.co.uk/newsround/52467760> [Accessed 27th May 2020].
- Centers for Disease Control. 2020. *Schools Decision Tool* [Online]. Available: <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/schools-decision-tool.html> [Accessed 27th May 2020].
- Department for Education. 2020. *Schools, pupils and their characteristics: January 2019* [Online]. Available: <https://www.gov.uk/government/statistics/schools-pupils-and-their-characteristics-january-2019> [Accessed 27th May 2020].
- EndHunger UK. 2020. *End Hunger UK* [Online]. Available: <https://www.endhungeruk.org/> [Accessed 27th May 2020].
- Ludvigsson, J. F. (2020). Systematic review of COVID-19 in children shows milder cases and a better prognosis than adults. *Acta Paediatr*, 109, 1088-1095.
- Milne, R. 2020. *Denmark edges towards reopening as children return to school* [Online]. Financial Times. Available: <https://www.ft.com/content/de2027d4-5153-462b-a38d-75b7a5ddad17> [Accessed 27th May 2020].
- NHS Digital. 2020. *NHS Workforce Statistics - February 2020* [Online]. Available: <https://digital.nhs.uk/data-and-information/publications/statistical/nhs-workforce-statistics/february-2020> [Accessed].
- Office for National Statistics. 2020. *Coronavirus (COVID-19) Infection Survey pilot - Office for National Statistics* [Online]. Office for National Statistics - COVID-19 Infection Survey. Available: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveypilot/england21may2020> [Accessed 27th May 2020].
- Riphagen, S., Gomez, X., Gonzalez-Martinez, C., Wilkinson, N. & Theocharis, P. (2020). Hyperinflammatory shock in children during COVID-19 pandemic. *Lancet*, 395, 1607-1608.
- SAGE subgroup: the role of children in transmission (2020). *Interdisciplinary task and finish group on the role of children in transmission: modelling and behavioural science responses to scenarios for relaxing school closures*. 30 April 2020.
- UNESCO. 2020. *New guidelines provide roadmap for safe reopening of schools* [Online]. Paris: UNESCO. Available: <https://en.unesco.org/news/new-guidelines-provide-roadmap-safe-reopening-schools> [Accessed 27th May 2020].
- UNICEF & WHO. 2020. *Key Messages and Actions for COVID-19 Prevention and Control in Schools* [Online]. [Accessed 27th May 2020].
- WHO. 2020. *Guidance for schools, workplaces & institutions* [Online]. Available: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/guidance-for-schools-workplaces-institutions> [Accessed 27th May 2020].
- Williamson, E., Walker, A. J., Bhaskaran, K. J., Bacon, S., Bates, C., Morton, C. E., Curtis, H. J., Mehrkar, A., Evans, D., Inglesby, P., Cockburn, J., McDonald, H. I., MacKenna, B., Tomlinson, L., Douglas, I. J., Rentsch, C. T., Mathur, R., Wong, A., Grieve, R., Harrison, D., Forbes, H., Schultze, A., Croker, R. T., Parry, J., Hester, F., Harper, S., Perera, R., Evans, S., Smeeth, L. & Goldacre, B. (2020). OpenSAFELY: factors

associated with COVID-19-related hospital death in the linked electronic health records of 17 million adult NHS patients. *medRxiv*, 2020.05.06.20092999.

APPENDIX

National Education Union Criteria for Schools Reopening

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 specifically address the protection of vulnerable parents, grandparents and carers.

The mathematical approach – dynamic causal modelling

The mathematical approach is based upon ensemble or population dynamics that generate outcomes, like new cases and deaths over time. The approach and software to implement it was developed by Independent SAGE member Professor Karl Friston and his group. A pre-print (an early version of an academic article) of how they have used mathematics to model the spread of COVID-19 is also available for those interested in the technical details.

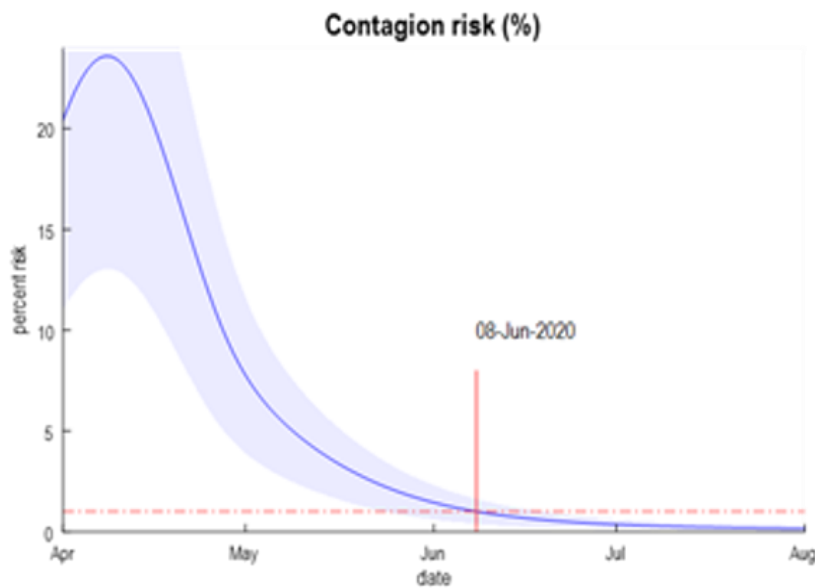
On modelling

One conclusion from the government's report (released last Friday) is that policy decisions are not directly based on the mathematical modelling feeding into SAGE. Of all the detailed scenarios provided by DfE and then considered by epidemiological models, none were selected as the government policy for reopening schools. We do not know how the detailed SAGE report on potential impact of the scenarios fed into government decision making to move forward with a different model for opening schools.

Our approach is designed to inform people about the risk of different scenarios, exemplified by the risk analysis in Table 1. Real-time modelling such as ours allows one to quantify the risk to both children and their households in terms of contagion and its consequences. In short, instead of declaring that models are not fit for purpose because of their inherent uncertainties, one can turn this on its head and use the known uncertainty to establish risk—and enable people to make informed decisions at a local level, for each school and household.

Clearly, this use of modelling rests upon access to data about the local community or region. In turn, this puts pressure on the dissemination and curation of data. The bottleneck here is not the mathematics—but access to data that reflects the local 'climate' of infection. It is possible to estimate the prevalence of infection, in a couple of minutes, with the appropriate data. From these estimates, one can derive the kinds of risk in Table 1 for local contexts. In short, what is needed is an efficient, comprehensive and integrated dissemination of data.

The following graphic illustrates the uncertainty that attends the predictions of risk (here, the risk of contagion). The graph also shows when we would expect the risk of contagion to fall below 1% (broken line) based upon UK averages (8th June). Because there will be places within the UK with lower levels of infection and / or where systems are already in place to support school reopening, some schools could reopen safely before others. We could repeat our analysis for regional data to inform local decisions (e.g., time series of new cases and deaths).



Technical comments on the modelling underlying Table 1

Notes: the probability of one or more children in a class of 15 being contagious can be evaluated as one minus the probability of all 15 children not being contagious. This can be computed from the probability that any child sampled at random from the population is contagious – as estimated under a dynamic causal model of new cases and deaths in the UK. Similarly, the probability of contracting an infection is one minus the probability of not being infected, where the probability of infection depends upon the expected number of contagious contacts and the transmission strength: i.e., the probability of contracting the virus following contact with a contagious child. Finally, the probability of dying from an infection acquired today can be evaluated using the infection mortality rate for the appropriate age range.

Data Sources:

time-dependent prevalence of contagious individuals, expected number of contacts at home and transmission strength based upon posterior estimates as reported in:

<https://arxiv.org/abs/2005.07994>.

Infection mortality rates for children (under nine years of age) from: Verity R, Okell LC, Dorigatti I, et al. Estimates of the severity of coronavirus disease 2019: a model-based analysis. *Lancet Infect Dis* 2020 Mar 30. Fatality rates from road traffic accidents:

https://en.wikipedia.org/wiki/Reported_Road_Casualties_Great_Britain

WHO Checklists

CHECKLIST FOR PARENTS/CAREGIVERS & COMMUNITY MEMBERS

- 1. Monitor your child's health and keep them home from school if they are ill
- 2. Teach and model good hygiene practices for your children
 - Wash your hands with soap and safe water frequently. If soap and water are not readily available, use an alcohol-based hand sanitizer with at least 60% alcohol. Always wash hands with soap and water, if hands are visibly dirty
 - Ensure that safe drinking water is available and toilets or latrines are clean and available at home
 - Ensure waste is safely collected, stored and disposed of
 - Cough and sneeze into a tissue or your elbow and avoid touching your face, eyes, mouth, nose
- 3. Encourage your children to ask questions and express their feelings with you and their teachers. Remember that your child may have different reactions to stress; be patient and understanding.
- 4. Prevent stigma by using facts and reminding students to be considerate of one another
- 5. Coordinate with the school to receive information and ask how you can support school safety efforts (through parent-teacher committees, etc.)

CHECKLIST FOR STUDENTS AND CHILDREN

- 1. In a situation like this it is normal to feel sad, worried, confused, scared or angry. Know that you are not alone and talk to someone you trust, like your parent or teacher so that you can help keep yourself and your school safe and healthy.
 - Ask questions, educate yourself and get information from reliable sources
- 2. Protect yourself and others
 - Wash your hands frequently, always with soap and water for at least 20 seconds
 - Remember to not touch your face
 - Do not share cups, eating utensils, food or drinks with others
- 3. Be a leader in keeping yourself, your school, family and community healthy.
 - Share what you learn about preventing disease with your family and friends, especially with younger children
 - Model good practices such as sneezing or coughing into your elbow and washing your hands, especially for younger family members
- 4. Don't stigmatize your peers or tease anyone about being sick; remember that the virus doesn't follow geographical boundaries, ethnicities, age or ability or gender.
- 5. Tell your parents, another family member, or a caregiver if you feel sick, and ask to stay home.

Introduction

Human rights, including those of children (child rights) are often incorrectly misunderstood to function solely as reactive tools of accountability, wielded by courts against the elected branches of government. In fact, **human rights' key function is to serve as a framework for state action and decision-making** from the get-go. As such, the aim of this submission is not to suggest how human rights can be deployed by litigants to challenge school re-openings in court. Rather, it seeks to make clear **how human rights can and should shape the UK government's approach with regard to school reopening**. In doing so, it will focus primarily on **the human rights law obligations set out in UN treaties**.¹ These are duties that the UK must comply with as a matter of international law, although they cannot be relied on directly as the basis for legal actions before the domestic courts.

Thus far, the emphasis in media and other discussions of school reopening has largely been on parental choice and school staff responsibility. **International human rights law is state-centric**: human rights law imposes a range of duties on the state. **The UK government cannot delegate its ultimate responsibility for satisfying its international human rights obligations to schools, parents or anyone else**. Rather, the government must set up the structures and create the conditions that are conducive to ensuring that international human rights law obligations are fulfilled.

The Rights Risks of School Closures - and Reopening

The report identifies a number of groups who will be directly impacted by school reopening. These include **children, educational workers** (teaching and school support staff) and the wider **community** (e.g., parents/grandparents/guardians). Members of each of these groups, as the report makes clear, will be affected differently by schools reopening and, as such, their human rights will be impacted in diverse ways.

Starting with children, the findings in the report and other sources make clear that **school closures have had a very significant impact on a wide range of children's rights**. These rights are set out in the UN Convention on the Rights of the Child (UNCRC),² an international treaty that the UK volunteered to be bound by in 1991. The implications for the child's **right to education** are most evident (Article 28 UNCRC) – and this has been particularly severe for children who experience digital exclusion or for whom online learning is neither accessible nor appropriate. Relatedly, loss of access to school meals has had an impact on many children's **right to adequate nutritious food** (Articles 24 and 27 UNCRC). For children living in poor quality housing, school closures and lockdown have resulted in their spending extensive time in conditions inconsistent with their **right to a standard of living adequate**

¹ Domestic law also imposes a number of relevant human rights standards via the Human Rights Act 1998. These include: Article 2 ECHR (right to life); Article 2(1) Protocol 1 ECHR (the right to education); Article 3 ECHR (the right to freedom from inhuman or degrading treatment); Article 8 ECHR (right to respect for private and family life) and Article 14 ECHR (non-discrimination). This submission will focus on international human rights law as this permits engagement with a far wider range of issues than would be possible in terms of the considerably more narrow domestic human rights law schema.

² These rights are also found in a number of other international and regional human rights treaties but the UNCRC will be the key focus of this submission.

for their development (Article 27 UNCRC). Increased social isolation has had detrimental effects on children's enjoyment of **the right to the highest attainable standard of mental health** (Article 24 CRC), while school closures have increased children's exposure to a wide range of threats, from parents, carers and others, as well as online. This runs contrary to their **right to freedom from all forms of violence, injury or abuse** (Article 19 UNCRC). School closures have, together with the lockdown situation, also impacted on children's **rights to play** (Article 31 UNCRC), **freedom of association** (Article 15) and the **right to seek, receive and impart information** (Article 13). The impact on all children has not been equal: **poor, disabled and socially vulnerable children suffered disproportionately from school closures**. This raises questions about whether the government has guaranteed these rights for all children without **discrimination** (Article 2 UNCRC).

That said, **the closure of schools was undoubtedly justifiable in human rights terms**: the UN Committee on the Rights of the Child – the body responsible for monitoring the UK's implementation of the UNCRC – has stated that 'international human rights law exceptionally permits measures that may restrict the enjoyment of certain human rights in order to protect public health'.³ These **restrictions must be imposed only when necessary, be proportionate and kept to an absolute minimum**.⁴ There is little doubt that the government's decision to close schools met this requirement, given the infection rate and the risks posed to the rights to life, survival and development and health of children (Articles 6 and 24 UNCRC), as well as the rights to life, to health and to safe and healthy work conditions of school staff in mid-March 2020 (see below). **There are serious questions to be asked about whether the government took adequate steps to ameliorate negative rights risks/impacts that became clear following the closure of schools**, particularly in relation to service provision and support for poor and otherwise socially vulnerable children. However, the fact remains is that the **closure itself was human rights compliant**.

One might be tempted to argue that the simplest solution to these child rights issues is simply to reopen schools. However, the report makes clear that **opening schools in England on 1 June raises clear threats to children's right to the highest attainable standard of health**, and – in a small number of cases – may jeopardise their **right to life, survival and development** (Article 6 UNCRC). Furthermore, given that the health risks faced by certain groups of children are higher than for others (BAME, children with underlying health conditions), questions of **non-discrimination** and the requirement that states take targeted measures to protect children in vulnerable situations during COVID-19 also arise.⁵

There are two final, primarily **process-related, elements of international child rights law** that need to be complied with for school reopening to conform with international human rights law. First, the government is required to ensure that the 'the **best interests of children**' is a primary consideration when it comes to decision-making around school reopening.⁶ This requires a careful risk assessment focused on the wide-ranging impacts of this course of action on children's interests. Second, the state must ensure that children who are capable of forming their own views (which covers the vast majority of children in

³³ Committee on the Rights of the Child, https://tbinternet.ohchr.org/Treaties/CRC/Shared%20Documents/1_Global/INT_CRC_STA_9095_E.pdf (8 April 2020).

⁴ Ibid.

⁵ Ibid.

⁶ See Article 3(1) UNCRC.

the education system) enjoy their **right to express those views** with regard to school reopening decision-making. In terms of the UNCRC, those views must be given ‘due weight in accordance with the age and maturity of the child’. It should be noted that these requirements do not mean that the best interests or the views of children in relation to school reopening should trump those of others – but they do require children’s best interests and views to be factored into decision-making. In practice, there is **no evidence that these process obligations have been complied with** in the government’s decision-making on school reopening.

The report makes clear that reopening schools will also have implications for the health and wellbeing - and potentially lives - of school staff, parents and household contacts. All of these individuals enjoy the **right to life**⁷ and the **right to the highest attainable standard of health** under international human rights law.⁸ Amongst other things, this latter right requires states to take the steps necessary for the ‘prevention, treatment and control’ of epidemic diseases.⁹ This does not oblige the UK government to do the impossible. Rather, the government is required to give effect to this duty as quickly and effectively as possible in light of all of the financial, human, scientific, technological and other resources available to it. It is hard to see how a government decision that (avoidably) reduces people’s enjoyment of this right is consistent with that duty. Furthermore, **the government must ensure enjoyment of the right to health without discrimination**. This latter obligation is not satisfied where **government decision-making fails to take into account the greater vulnerability of particular individuals and communities to increased transmission caused by schools reopening**.

School staff also have **the right to safe and healthy work conditions**.¹⁰ In the COVID-19 context, this requires the state to ensure that they are protected from the risks of contagion at work, and to adopt appropriate regulatory measures to ensure that employers (state or private) minimise the risks of contagion according to best practice public health standards.¹¹ Again, it is hard to see how reopening on 1 June can be regarded as in line with that requirement. This is particularly so if measures have not been taken to ensure that **the special COVID-19 related vulnerability of at-risk groups (BAME and disadvantaged communities) is factored into and addressed in reopening plans**.

Mutually Supporting and Indivisible

All decision-making involving tensions or conflicts between rights will require a balancing exercise to be carried out; this is part and parcel of human rights law standards and practice. However, **children’s rights in the context of school reopening cannot be used to justify avoidable harms done to the rights to life, health and non-discrimination of others**.

Human rights law does not conceptualise children’s rights as trumps. Rather, they are just one element of the broader human rights framework. However, children’s social vulnerability and the fact that they have had no opportunity – whether directly through

⁷ Article 6 of the International Covenant on Civil and Political Rights (ratified by the UK in 1976).

⁸ Article 12 of the International Covenant on Economic, Social and Cultural Rights (ratified by the UK in 1976).

⁹ See, e.g., UN Committee on Economic Social and Cultural Rights, *General Comment No. 14 on the right to the highest attainable standard of health* (2000), UN Doc. [E/C.12/2000/4](#).

¹⁰ Article 7(b) of the International Covenant on Economic, Social and Cultural Rights

¹¹ Committee on Economic, Social and Cultural Rights, *Statement on the coronavirus disease (COVID-19) pandemic on economic, social and cultural rights* (17 April 2020).

consultation or indirectly through voting, etc – to input into decision-making on school reopening means that **children’s rights have to be given special attention and priority by decision-makers**. This also applies in the school reopening context.

Children are embedded in their communities. They and their rights do not exist in isolation from other right-holders and should not be considered in isolation from them. A school reopening that is ostensibly justified in terms of children’s rights/interests but which ignores children’s location within their communities and the implications of that reopening for the rights of those who teach, care and share society with them would reflect a partial and flawed understanding of what human rights – and children’s rights – require. Indeed, moving back to a more child-centric lens, where a school reopening results in increased risk for those who teach, care and share society with children, this will have implications for children’s rights also: enjoyment of their family rights (in terms of their reduced engagement right or loss of relatives/carers), their health rights (through increased risk of transmission), and their right to freedom from discrimination (for example, given the particular vulnerability of the BAME community to COVID-19).

Conclusion

The report makes clear the risk that **reopening schools without satisfying the criteria outlined in the report poses significant risks to children, education workers and the wider community**. The report makes clear how these risks can and should be mitigated so as to enable safe reopening of schools: by carrying out a wide-ranging risk assessment and subsequent implementation of appropriate infection control procedures; through waiting for (verifiable) local infection levels to decrease sufficiently; by ensuring adequate facilities and equipment in terms of hygiene and personal protection; and the establishment of local-level test, trace, isolate infrastructure.

This submission outlines the human rights duties that the UK government should take into account when considering whether to reopen schools. The government is faced with a choice: either it can delay opening until the necessary risk mitigation measures are in place or it can push ahead. **Children are certainly not enjoying all of their rights while schools are closed. However, that does not set at nought or outweigh the human rights risks posed by a rushed reopening**. Ultimately, it is clear that, first, the government knows – or should know – that its decision to reopen schools will have negative impacts on the human rights of children, education workers and the wider community, and, second, these impacts can be hugely reduced by just a two week delay. This being the case, it follows that it is highly unlikely that its decision to reopen schools on 1 June is compliant with its international human rights law obligations. The excuse that ‘the economy made me do it’ will not wash in international human rights law terms.

Advisory note Prof Helen Gunter et al: reopening schools in England

Professor Helen Gunter, University of Manchester

Dr Pam Jarvis, Leeds Trinity University

Professor Liz Todd, Newcastle University

Dr Terry Wrigley, Manchester Metropolitan University

Authors

This consultative group was formed at the invitation of the Independent SAGE group. The authors' experience covers all stages of nursery and school education, with research specialisms including curriculum, school leadership, social justice, and policy. All the authors have substantial research publications. Helen Gunter's extensive career is particularly focused on school leadership and policy. Pam Jarvis is Reader childhood, youth and education; she is a Chartered Psychologist and specialises in wellbeing and early childhood. Liz Todd is Professor of Educational Inclusion, with particular focus on child poverty and its impact. Terry Wrigley is chief editor of Improving Schools journal and Visiting Research Fellow; recent publications concern school curriculum, poverty, and the use of evidence.

Purpose and context

This note was requested in the context of ongoing disagreement between education unions and the UK government on the re-opening of schools in England. The COVID crisis presents acute and unprecedented difficulties for policy, as the first serious pandemic in our times affecting Western Europe, the speed of global spread, and key differences between this and other viral infections. The scientific knowledge remains unclear concerning transmission involving children. Meanwhile children need support psychologically and socially as well as educationally, and there is an obvious danger of increasing disadvantage.

This note attempts to summarise the issues, in the context of statistical data, available medical knowledge, educational research and school norms in England. It has some relevance to other parts of the UK, but it is useful to consider England separately, given different infection patterns and school characteristics.

Data

Decisions about relaxing the lockdown have been made more difficult by disparities between government announcements and other data sources. It seems clear, however, that the situation in England is still critical, given that the number of excess deaths (EuroMOMO¹²) compared with mainland Europe and other parts of the UK is still very high. ONS¹³ data shows that deaths in weeks 16 and 17 in England and Wales were more than double the seasonal five-year average. EuroMOMO graphs show that deaths in England have reduced much less than in Spain, Italy or France. They also point to numerous deaths

¹² <https://www.euromomo.eu/graphs-and-maps/>

¹³ <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/weeklyprovisionalfiguresondeathsregisteredinenglandandwales>

among 15-64 year olds as a problem unique to England, possibly resulting from pressure to attend non-essential work.

Sickness and deaths have been more serious in poorer neighbourhoods and among BAME adults. It is still unknown how many children have been infected, but hospital admissions and deaths are low.

Scientific advice on transmission involving children

Whilst it is not the role of this paper to analyse the medical evidence in general, a summary of research relevant to the question of school closure and re-opening is unavoidable. The contradictory scientific advice on transmission affects not only children but those they come in contact with, including siblings and parents with health conditions and (in extended households) grandparents.

i) There appears to be consensus that few infected children become seriously ill.

ii) Some studies show that children are less likely to become infected; however, caveats are expressed about the danger of generalisation and a recent English pilot study¹⁴ suggests they are as likely to be infected as other age groups. Even if children are less likely than adults to be spreaders, the impact of placing them together in large numbers in schools could be serious. Schools could easily become institutional amplifiers, if asymptomatic children go unnoticed until an adult gets ill enough to be tested.

iii) The key disagreement concerns whether children who have been infected are likely to transmit the virus to other children and adults. Whilst an Australian study involving only 18 children concluded not, a large community-based study in Germany led by Christian Drosten¹⁵ found that infected children had as high a viral load as infected adults. A Chinese study¹⁶, during lockdown, found that children were a third as likely to be infected, but still concluded that school closure could reduce the reproduction rate R by around 0.3, so was a significant issue. Some models suggest a limited impact of school closure on deaths, whereas Hunter et al¹⁷ concludes that closure of educational institutions is very important. Carsetti et al¹⁸ state that their empirical research has only just begun, and their report is full of conjecture and uncertainty. Matthew Snape (Oxford)¹⁹, initiating a new study of infection in children and teenagers, claims that the question of whether they are spreaders or not remains "one of the many unknowns... Understanding this is vital to understanding how to manage the outbreak response, including decisions about when to re-open schools."²⁰ A similar study has recently begun in Stuttgart from the same concerns.²¹

¹⁴<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveyspilot/england14may2020>

¹⁵ https://zoonosen.charite.de/fileadmin/user_upload/microsites/m_cc05/virologie-ccm/dateien_upload/Weitere_Dateien/analysis-of-SARS-CoV-2-viral-load-by-patient-age.pdf

¹⁶ <https://science.sciencemag.org/content/early/2020/05/04/science.abb8001.full>

¹⁷ Hunter PR, Colon-Gonzalez F, Brainard JS, Rushton S. Impact of non-pharmaceutical interventions against COVID-19 in Europe: a quasi-experimental study. medRxiv 2020: 2020.05.01.20088260.

¹⁸ [https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642\(20\)30135-8/fulltext](https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642(20)30135-8/fulltext)

¹⁹ <https://www.nihr.ac.uk/news/new-research-to-assess-extent-of-coronavirus-infection-in-children-and-teenagers/24653>

²⁰ <https://www.bbc.co.uk/news/health-52003804>

²¹ <https://www.zdf.de/nachrichten/heute-sendungen/videos/corona-kinder-infektion-100.html>

The difficulties are confirmed by the carefully worded DfE summary of the available research:

There is no evidence to suggest that children transmit the virus any more than adults. Some studies suggest younger children may transmit less, but this evidence is mixed and provides a *low degree of confidence at best*.²²

The impact of school closure on children

The role of schools is wider than enabling exam success and the production of a skilled workforce. Schools develop children's social and cultural understandings both in the curriculum, the values of the school, and in the relationships between pupils and between staff and pupils. The closing of schools revealed highly positive attitudes of parents and children to schools. In terms of access of children to education what is known is that school practice has been highly varied including suggesting educational online resources, delivering teacher made worksheets, live on-line teaching, posting tasks and completed work on Facebook, and zoom check-in sessions between teachers and classes and teachers contacting children and parents by telephone. Children with different economic backgrounds vary in access to educational resources whether laptop/tablets and the internet or paper and pen²³.

Parental experience of lockdown has varied although there is little published data at present. The main issues for parents from early findings from a survey of 1000 parents and 400 children's experiences are money worries, access to resources (stationary as well as laptops) and emotional support. Child Poverty Action Group²⁴ Newcastle university initial unpublished research, a survey of 200 local parents (including some who are also teachers) from a range of backgrounds (15% on means-tested benefits), finds that children find it hard not being at school (over half), parenting is more difficult (well over half), they are getting good support from school (almost two thirds), equal numbers enjoying and not enjoying helping children with school work (both around a quarter), children are finding it difficult not being at school (over half). Parents' main worries were their children's mental health (well over half), motivating their children (half), and juggling work and childcare/home-schooling (over half). The CPAG report found parents valued good communication from school (not necessarily the resources), children are missing their friends, that there was too much learning using online methods, and families needed cash payments rather than vouchers for free school meals.

Whilst there is little published data on impact of the closure, what is known is that impact is wider than academic progress, including the psychological effects of isolation and increased vulnerability to some children when they are never seen by adults outside their own household. Cuts in local government social services budgets have made it more difficult for professionals to maintain contact with vulnerable children, and few schools have staff or staff time dedicated to family liaison. The academic impact is likely to vary according to socio-economic background, so that children of low-income families are likely to benefit less from home learning.²⁵ This is partly because schools serving more affluent families, and

²²https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/885631/Overview_of_scientific_advice_and_information_on_coronavirus_COVID19.pdf

²³ <https://www.suttontrust.com/wp-content/uploads/2020/04/COVID-19-Impact-Brief-School-Shutdown.pdf>

²⁴ <https://cpag.org.uk/file/4912/download?token=ytkETSII>

²⁵ <https://www.suttontrust.com/our-research/covid-19-and-social-mobility-impact-brief/>

especially private schools, are better equipped for online learning; partly because some families do not have adequate ICT; and partly because less educated parents need more proactive support to help their children.

It should be noted, however, that socio-economic differences exist even when schools are open. Despite frequent government claims to be 'closing the gap', recent research found that 'at the current rate of progress it would take a full 50 years to reach an equitable education system where disadvantaged pupils did not fall behind their peers during formal education to age 16'²⁶.

Children identified as vulnerable have also had the right, and in some cases the expectation that they will attend school with the children of keyworkers throughout the lockdown period.²⁷ The fact that there is a concern that too few are doing so is an issue to address in and of itself, not connected to the debate about all children returning to school.²⁸

Government policy and media emphasis

The discussion on re-opening schools is focussing on the health risks of covid-19 as if this was all about opening vs not opening. However, this is not the issue. During lockdown all (or almost all) schools have been open for key workers, vulnerable children and those on free school meals at the same time as providing educational support and resources for the majority of children to do at home. Therefore, the question is not whether or not to open but when to start increasing education from school premises, how to do this, and what needs to focus on.

Government and media seem to be focusing on the importance for children of continuing their education and now wanting the attainment gap to widen further. However, there are a range of broad needs for children that are important to consider. Prime are children's social, emotional and wider development needs. One could imagine a completely social distancing school that ends up creating an environment that could be emotionally harmful for children. Stories of nurseries and reception classes removing all toys prior to re-opening are unlikely to create a rich learning environment and might otherwise create harm. CPAG's survey found parent's needs to help children settle back to school include: emotional support, a phased return, extra help to catch up, support with transition, support with routines and structure again; and lots of contact and information in advance to help parents prepare.

One of the key questions to ask is why schools have been instructed to open with the youngest children as the first 'test case' when it is clear that they will pose many more logistical problems with reference to the physical care they require exposing staff to body fluids (raising many questions around PPE)²⁹ and the fact that they will have difficulties understanding the reasons for social distancing, and remembering relevant instructions. On 17th May 2020, Michael Gove appeared on the Andrew Marr Show and suggested that what would be expected from schools is to create groups of 15 children, supervised by one member of staff, with the children sitting at socially distanced desks, with the adult teaching

26 Andrews, J, Robinson, D and Hutchinson, J (2017) Closing the gap? trends in educational attainment and disadvantage. <https://epi.org.uk/publications-and-research/closing-gap-trends-educational-attainment-disadvantage/>.

27 <https://www.gov.uk/government/publications/covid-19-school-closures/guidance-for-schools-about-temporarily-closing>

28 <https://neu.org.uk/press-releases/children-risk-during-lockdown>

29 <https://yorkshirebylines.co.uk/section/yorkshire/>

from the front. If he is expecting this to happen with children between 3 and 6- the age group that the government requires to attend school from 1st June- it is clear that he has no understanding of early years practice. Children of this age are too young to sit at desks and be lectured from the front of the class, and the practice would be unsuitable and quite alien to them³⁰. The classrooms they normally inhabit are also not equipped for such practice. If this is the expectation of the government, the unsuitability of the practice is such that it would be better for the children's mental health to continue to remain at home. It should also be remembered, that in most nations in the world, the school starting age is 6 or 7 so very few children of this age are actually in school³¹. As such, it seems highly illogical to insist that there is a greater urgency for then to return to school that for older age groups.

BBC news sites have used examples of the practice in Danish schools as a model. However, Danish children do not start school until they are 6, and the films used in the broadcast appear to be children in the 7+ age group³²

The difficulties of re-opening schools in England

Countries with low infection rates and which have already re-opened schools have had to take special measures, generally a combination of only admitting some age groups and dividing classes into two. This is clearly more difficult in England, given large classes and a poorer teacher: pupil ratio, than in many other northern European countries. Some schools will find it impossible to double the number of teaching groups while some staff are unable to work.

One particular difficulty is the lack of local authority capacity in England, now that almost all secondary schools and a large percentage of primary schools are academies or free schools. It is significant that the DfE presents itself as "asking" schools to welcome back children in particular years. The burden is placed on individual schools to carry out a risk assessment.³³ This contrasts with Denmark, for example, where local authority agreement is needed that a school is indeed ready to open. This would have implications if parents were to sue a headteacher or chair of governors for making an incorrect judgement.

Children begin school in England much younger than in mainland Europe. It is more difficult to maintain physical distancing among 4- and 5-year olds.

A further difficulty lies in the structure of English state secondary schools. Firstly, the average school size tends to be much larger than in other countries, in some cases three times as large. Secondly, it is more common to divide up children into different ability levels for specific subjects (setting). Finally, 14-16 year olds have significant choice over the subjects they are studying. Consequently, under normal curricular arrangements, each child is in proximity to many different children during the day. It should be noted, in this context,

³⁰ <https://www.tes.com/news/coronavirus-return-school-reopen-reception-young-children-history>

³¹ <https://data.worldbank.org/indicator/SE.PRM.AGES>

³² <https://www.bbc.co.uk/news/education-52550470>

³³ <https://www.gov.uk/government/publications/actions-for-educational-and-childcare-settings-to-prepare-for-wider-opening-from-1-june-2020/actions-for-education-and-childcare-settings-to-prepare-for-wider-opening-from-1-june-2020>

that medical advice relating to children already in school (key workers etc.) is that groups should be fixed and not just small.³⁴

Finally, the curriculum is now more formal than in some other countries, and particularly Scandinavia. It would be difficult for English headteachers to follow the advice given to their Danish colleagues, to spend a lot of time in outdoor learning.

Play in smaller groups, for example, five pupils outside and or three pupils inside.

The school day is organized so that teaching takes place outdoors when it is possible. Teaching can take place indoors, for example, if the weather does not allow. As far as possible, meetings between employees must be done outdoors, via VC / phone or with good distance to one another. (Denmark)

What would need to happen to enable schools to re-open

Given the scientific uncertainty about children spreading the disease, there is a strong argument that schools should not open beyond children of key workers and vulnerable children until infection and mortality rates are substantially lower. This will require more effective government than hitherto to prevent transmission: we should resist the temptation to open schools in anticipation of better public health arrangements.

The following thoughts relate to that later stage when this primary condition is achieved. However, it is not too early to begin thinking about this. The Spanish government, for example, are already discussing a 'mixed economy' alternating attendance and distance learning for the autumn term. It is important to balance transmission risks against the potential harm to children of prolonging school closures (see page 1, WHO advice, 10 May), but there are different ways of doing this, including increased support to parents and children and enhancing school resources.

- 1) There needs to be close cooperation between public authorities (not just central government) and schools. Local assessments need to be made with regard to infection levels and more vulnerable groups. The government must ensure that local authorities have appropriate supervisory powers over all the schools and nurseries in their area.
- 2) Schools and nurseries will either need to be sufficiently well staffed for small classes and groups, or pupils alternate between on-site attendance and home learning. It is likely that home learning will continue for some children in all age groups.
- 3) Careful thought needs to be given to the main purpose of re-opening. The needs of the child should be at the centre of concern. This could mean, for example, that physical activity, exploring the natural environment, dance or drama has higher priority than academic learning. The facility for children to play and learn with a small group of friends may outweigh the desirability of strict physical distancing.
- 4) Similarly, when engaged in academic learning, it will be crucial to engage children's interest and avoid undue pressures. National testing should be halted to prevent that pressure filtering down to individual teachers and their pupils.

34 Flasche et al. (2020) <https://blogs.bmj.com/bmj/2020/05/01/schools-out-balancing-childcare-needs-of-key-workers-with-covid-infection-control/>

5) In secondary schools, different curricular arrangements may be needed to keep children within the same group of 10-15 throughout the week rather than shuffling between multiple teachers and classes. For example, a week's curriculum (perhaps mornings only) could be focused on a single major subject or an interdisciplinary project, complemented by distance learning provided by other subject specialists.

6) The quality of home learning support, including ICT, needs substantial improvement. There should be less reliance on commercial provision which is sometimes of poor quality.

7) Deliberate measures should be taken to overcome disadvantage. The foundation is to improve the amount and reliability of family benefits, including food, and to remove financial pressures affecting many families. Secondly, all children must have good access to technology: the government should ensure that every child has access to a laptop/tablet and free broadband. Thirdly, children in need of tutorial support should receive that help. Additional advice and support should be given to parents. Where not all pupils can attend full time, priority offers should be made to more disadvantaged families.

8) Apart from families who can afford holiday schemes and longer holidays away, there is very little provision for children during the long summer holidays in many parts of England. Priority should be given to planning holiday schemes which combine recreational activity with interesting academic learning, particularly in disadvantaged areas. This could be of far greater benefit than bringing all children back to school during July. The Best Summer Ever funding should be increased this year and extended to make sure national coverage. Children should be given free school meals during the summer and it should be delivered in cash rather than vouchers.

9) Careful planning is needed to trace and prevent transmission, using a variety of interventions and intelligent contact tracing. We cannot assume, for example, that children should be expected to undergo painful testing with nasal swabs. Before children are re-admitted to a school, risk assessment must include various kinds of vulnerability among families of pupils and staff.

