Who should go back to school first?

As South Africa considers reopening schools amid the Covid-19 crisis, a policy brief released by the Department of Economics at Stellenbosch University (SU) argues that by allowing the youngest children to go back first, teachers and parents will be at lower risk.

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The policy brief authored by Dr Nic Spaull of SU's Economics Department is consistent with epidemiological evidence from around the world.

The Department of Basic Education plans to open schools from 1 June 2020, starting with Grade 7 and Grade 12 pupils.

Spaull argues that at the same time that Grade 12 goes back, Grades R, 1, 2 and 3 should be allowed to return, rather than Grade 7s, using a phased-in approach with special precautions for teachers.

"Children aged 0-10 years old are considerably less likely than adults to get infected, either from each other or from adults. They are less likely to transmit the virus, even when they are infected and it is extremely rare for them to get severely ill or die from Covid-19," says Spaull.

He says this should be combined with close monitoring of infection rates among a random sample of teachers and families of Grade R-3 children. Such an approach would minimize the risk to learners and teachers and also allows many parents to go back to work.

Social and economic advantages

He said in addition to the fact that children 10 years and younger are considerably less likely to get infected, they also present the highest childcare burden to their households and prevents many parents and caregivers from going back to work and earning an income to support their families. Any response to mitigate the economic disaster from the lockdown and Covid-19 must take account of parents' additional childcare responsibilities while schools are closed.

Secondly, young children are also the least able to follow self-directed learning at home. This is partly because they have not yet learnt to read by themselves, but also because young children simply require higher levels of human interaction and "activity" for them to learn. For most children in South Africa, all curricular learning has stopped while schools are closed leading to further inequalities in learning outcomes.

Lastly, children's well-being increases when they can go to school. Children receive free school meals to supplement their diet, they can interact with their same-age peers, and it gives their caregivers a break from otherwise constant childcare. This improves parents' mental health and allows them to work, plan and relax, making them better caregivers when children come back from school. Young children being "locked-up" at home when there are few health benefits to themselves or society is bad for the well-being of children, bad for parents and bad for the economy.

Evidence-based

Evidence emerging from countries around the world supports Spaull's policy brief that children are less likely to catch Covid-19 and almost never die from it.

According to figures released by OurWorldinData.org, the fatality rates from Covid-19 by age group for China, Italy, Spain and South Korea show a "0%" fatality rate for the 0-9 year-old category and 0.3% for those less than 40 years of age.

"Research emerging across all countries seems to be highly consistent. In brief, children are less likely to get infected, either from each other or from adults, and they are less likely to transmit even where they are infected," says Spaull.

International research studies

Research facilitator Munro (2020) reports that there have been five studies (from Shenzen, Japan, Guangzhou, Wuhan and Hunan) looking specifically at whether children catch the disease at the same rate as adults after they are exposed to a confirmed positive case.

"In conclusion, we have five studies assessing the secondary attack rate of Covid-19 across age groups, in which four report a considerably lower attack rate in children and one which reports the same in children as the general population. It appears fairly convincing that children are less likely to acquire the infection than adults, by a significant amount," recounts Munro.

The South African experience

"While South Africa has a considerably smaller number of infections and fatalities compared to any of the countries reviewed above, the age-profile of infections and deaths is consistent with the international experience," says Spaull.

As of 2 May 2020, 123 people had died of Covid-19 in South Africa but none of these deaths were among those under 20 years of age (NICD, 2020). Of the 3,144 positive cases of Covid-19 in South Africa as at 19 April 2020, only 0.3% were aged 0-10 and 4% were aged 11-20.

Do school closures help?

In a widely cited study published in the *Lancet Journal of Child and Adolescent Health*, Viner et al (2020) conducted a rapid systematic review on the effectiveness of school closures in limiting the spread of Covid. They concluded as follows:

> *Data from the SARS outbreak in mainland China, Hong Kong, and Singapore suggest that school closures did not contribute to the control of the epidemic... Recent modelling studies of Covid-19 predict that school closures alone would prevent only 2–4% of deaths, much less than other social distancing interventions.*

In another article, published in *Science* and also modeling the impacts of different interventions to limit the spread of Covid-19, Zhang et al (2020) use contact surveys of 136 confirmed index cases infected in Wuhan and Shanghai. They conclude that "social distancing alone, as implemented in China during the outbreak, is sufficient to control Covid-19". Yet they also argue that school closures can help to flatten the curve: "While proactive school closures cannot interrupt transmission on their own, they can reduce peak incidence by 40-60% and delay the epidemic."

"If it is true that children are less likely to transmit the virus when infected, which seems likely given the above findings from the literature then the assumptions underlying the school closure analysis are incorrect and over-estimate the gains from school closures," says Spaull.

Are children continuing to learn during lockdown?

"Given what we know about learning losses during holiday periods, the lack of access to technology and educational materials at home for the poorest 70% of South African children, and the lack of preparation for distance-learning before the lockdown started, the short answer to this question is no.

"If one is realistic, for the poorest 80% of learners in South Africa, there is virtually no curricular learning that is taking place during lockdown.

"Given the practical impossibility of continuing with meaningful learning from home – at least for the poorest 80% of learners, the emphasis for the Department of Basic Education should be making schools safe for learners and teachers to return."