



(Image: © Shutterstock)



NON-PHYSICAL SCHOOL ATTENDANCE AND CHILDREN'S HEALTH: MENTAL/PSYCHOLOGICAL/EMOTIONAL, SOCIAL, PHYSICAL

Ameena Goga

**South African Medical Research Council
University of Pretoria / Steve Biko Hospital**

Jason Henry: The New York Times:
<https://www.nytimes.com/2020/03/10/opinion/coronavirus-school-closing.html>

FACULTY DISCLOSURE

<input type="checkbox"/>	No, nothing to disclose
<input checked="" type="checkbox"/>	Yes, please specify:

Company Name	Honoraria/ Expenses	Consulting/ Advisory Board	Funded Research	Royalties/ Patent	Stock Options	Ownership/ Equity Position	Employee	Other (please specify)
Novavax – COVID-19 vaccine trial			X					



MAIN POINTS



Physical school aims to grow individuals that transform society: verbal and math physical, mental and social health critical skills (thinking, research, communication, social and self-management)

Non-attendance: associated with **hunger, poor mental and physical health, increased child mortality, fertility and pregnancy, gender inequalities, exposure to violence**

SDG 4: Inclusive and equitable quality education and promote lifelong learning opportunities for all

Global imperative to:

- (i) offer physical school attendance with precautions during COVID-19 **OR**
- (ii) re-imagine schooling by creating physical learning pods **OR**
- (iii) Increase coverage of online platforms that re-create school environments - relational and transactional

OUTLINE

- Historically - why physical school attendance?
- Non-physical school attendance and mental / psychological, emotional, social, physical health at:
 - Level of individual child
 - Global-level
- Way forward



*Photo by Gallo Images / Roger Sedres
Published in Daily Maverick*

PHYSICAL SCHOOL ATTENDANCE

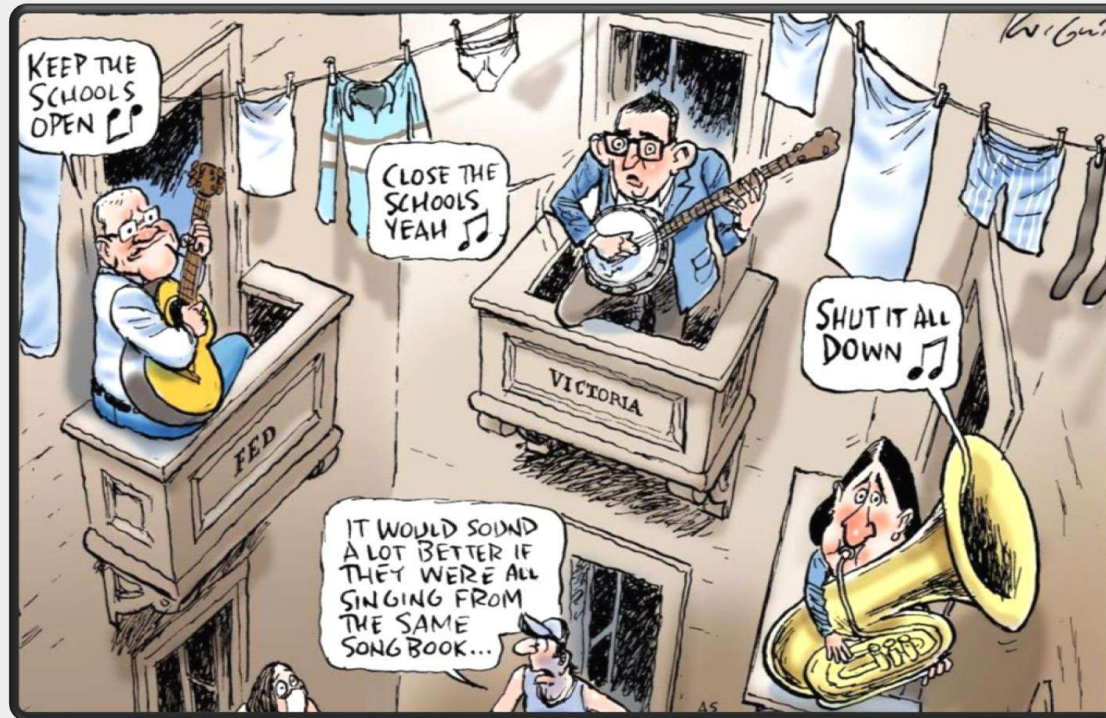
Wholistic development of all children

at little or no cost to families

to ensure children's physical, mental, social health and well-being and

grow individuals that make meaningful contributions to society

COVID-19 AND SCHOOLS: TWO SIDES TO THE STORY



De Groot, South Africa, 18 October, 2020
Govender, Sunday Times, South Africa, 18 October, 2020

At home – in a class of their own

Schools branch into online learning, but it's not for everyone

By PREGA GOVENDER

● The fear of losing pupils to dedicated online schools seems to be forcing many private and former Model C schools to think of establishing their own fully fledged virtual institutions.

Robert Paddock, the founder and CEO of the Valenture Institute, a high-end online school that opened in January, said he had received about 25 inquiries in the past three months from schools seeking advice on how to start up online schools.

Highbury Preparatory School in Hillcrest, in KwaZulu Natal, will open the country's first boys-only online school for grades 4-7 this month next year. Annual fees will be R20,500 if paid by January.

Education provider AdvTech will start its first online school for grades 9-9 pupils in January. Fees will range from R20,500 to R29,900 a year.

Curro, which owns 177 private schools and caters for almost 60,000 pupils, opened Curro Online in June for pupils in grades 4-9.

pupil at Curro Online, said she and her parents decided that it was safer to move online because of Covid-19.

"Honestly, I wasn't very keen at first as the thought of staying at home the whole day, but after the first day my whole mindset changed. The classes and teachers are amazing and the syllabus is great."

She is studying 12 subjects and her average mark is 92%.

"I am actually performing better here than in my previous school."

There are 17 pupils in her class. Classes start at 8:30am and end at 2:30pm.

"I'm not missing the social interaction [at traditional schools] because we have our webcams on and are talking to each other during lessons. It's pretty much like a normal school."

Curro Online's business manager, Jay Paul, said there had been a great response from parents and that the school was on target with enrolments.

"The demand has been great. Because of Covid, many parents are still concerned about sending their children back to school, especially those with immune compromised family members living in the same household."

Collin Northmore, principal of Evolve Online School, which will open in January, said pupils would be placed with subjects according to their abilities.

Bianca Woolley, marketing manager at Highbury Preparatory School, said its dedicated online school, Highbury@Home, would have a teacher-pupil ratio of one teacher for every 10 pupils.

She said there would be a fast turnaround time in marking "because we think that fast feedback is one of the advantages of online schooling".

Paddock said that according to figures from schools, between 10% and 15% of pupils were saying they preferred online learning.

The Independent Schools Association of Southern Africa, which has 793 member schools in SA, said Covid had shown that "somehow effective teaching and learning can occur remotely".

Servaas van der Berg, a professor of economics at the University of Stellenbosch, said that "learning in a classroom, and with full social interaction, always outweighed online learning for most learners, especially younger ones".

"Online learning will always be a valuable

pupils could be enrolled from anywhere in the world.

"The challenge is how to instil discipline for self directed learning when learners have to do boundary crossing from using same device for entertainment, such as watching movies, to switching and focusing on academic work."

Professor Felix Maringe, dean of education at Wits University, said that face-to-face teaching provided "immediacy of support from a live teacher".

Fear of fly-by-nights

"There are kids who thrive in school and those who thrive when alone," says Mande Mthembu, chair of the National Alliance of Independent Schools Associations. "My major concern right now is that government does not have a policy governing online education. This could lead to exploitation of people who enroll their children in programmes which may turn out to be fly-by-night programmes."

Mishka Maharaj decided to become an online pupil to be safe in the time of Covid, but now she says she is sold on the idea and her marks have improved. Picture Supplied

In Numbers

1,476
THE NUMBER of schools in KwaZulu-Natal that provided online lessons during lockdown

971
THE NUMBER of schools in Mpumalanga that provided online lessons during the lockdown

31,393
THE NUMBER of pupils in the Western Cape who were exempted from attending schools

Sex pri sus

By PREC

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COVID-19: TWO SIDES TO THE STORY

**At home –
in a class of
their own**

But as time wore on.....
Tedium and fatigue set in.
So did paranoia.

.....
Many of us had the illogical
suspicion that everyone had
reconvened we were the only
ones ... communicating via Zoom
and WhatsApp.

She is studying 12 subjects and her average
mark is 95%

“I am actually performing better here than in
my previous school”

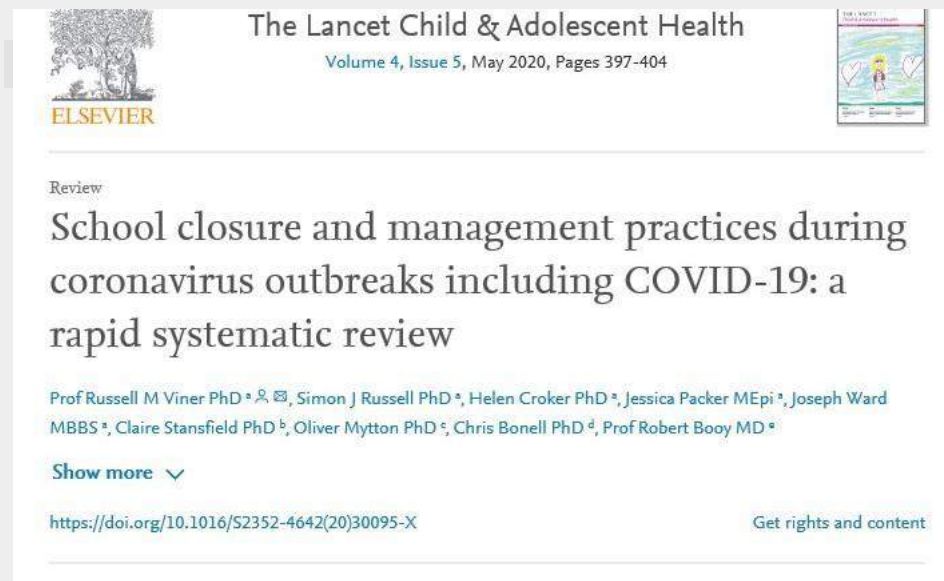
There are 17 pupils in her class. Classes
start at 730am and end at 230pm.

“I’m not missing the social interaction [at
traditional schools] because we have our
webcams on and are talking to each other
during lessons. It’s pretty much like a normal
school”

OUTLINE OF PRESENTATION

- Physical school attendance
- **Effects of non physical school attendance at**
 - Individual level
 - Global level
- What is the way forward?





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.

STATEMENTS BY PUBLIC HEALTH ORGANISATIONS / GOVERNMENT AGENCIES / UN ORGANISATIONS RESEARCHERS:

ROLE OF SCHOOLS AND EFFECT OF SCHOOL CLOSURE



WHO EUROPEAN REGION



Children:

- living in an unprecedented time
- face an enormous disruption to their lives.....
- are likely to experience worry, anxiety and fear

Where schools have closed, children:

- may **no longer have that sense of structure and stimulation**
- have less opportunity to be with their friends – **less social support** which is essential for good mental well-being.
- may be at **increased risk of, or increased exposure to child protection incidents** and make them **witness to interpersonal violence** if their home is not a safe place



WHO Regional Office in Europe: 27 March 2020: <https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/3/mental-health-and-psychological-resilience-during-the-covid-19-pandemic#:~:text=Children%20are%20likely%20to%20be,mental%20well%2Dbeing>

CDC: CRITICAL ROLE OF SCHOOLS

The in-person school environment not only provides educational instruction, but supports a child's:

- social and emotional well-being and skills,
- safety,
- language / speech,
- behavioural and mental health services,
- reliable nutrition, and
- opportunities for physical activity.

Schools provide important services and support for children's academic, social-emotional and physical health.

Continuity of other special services is important for student success

Lack of access to these services and supports have the potential to widen existing disparities and cause long-term effects on children's educational outcomes, health, and the economic wellbeing of families and communities.

Experiencing feelings of isolation, depression, and anxiety — which is common while stuck at home — raises the risks for suicide

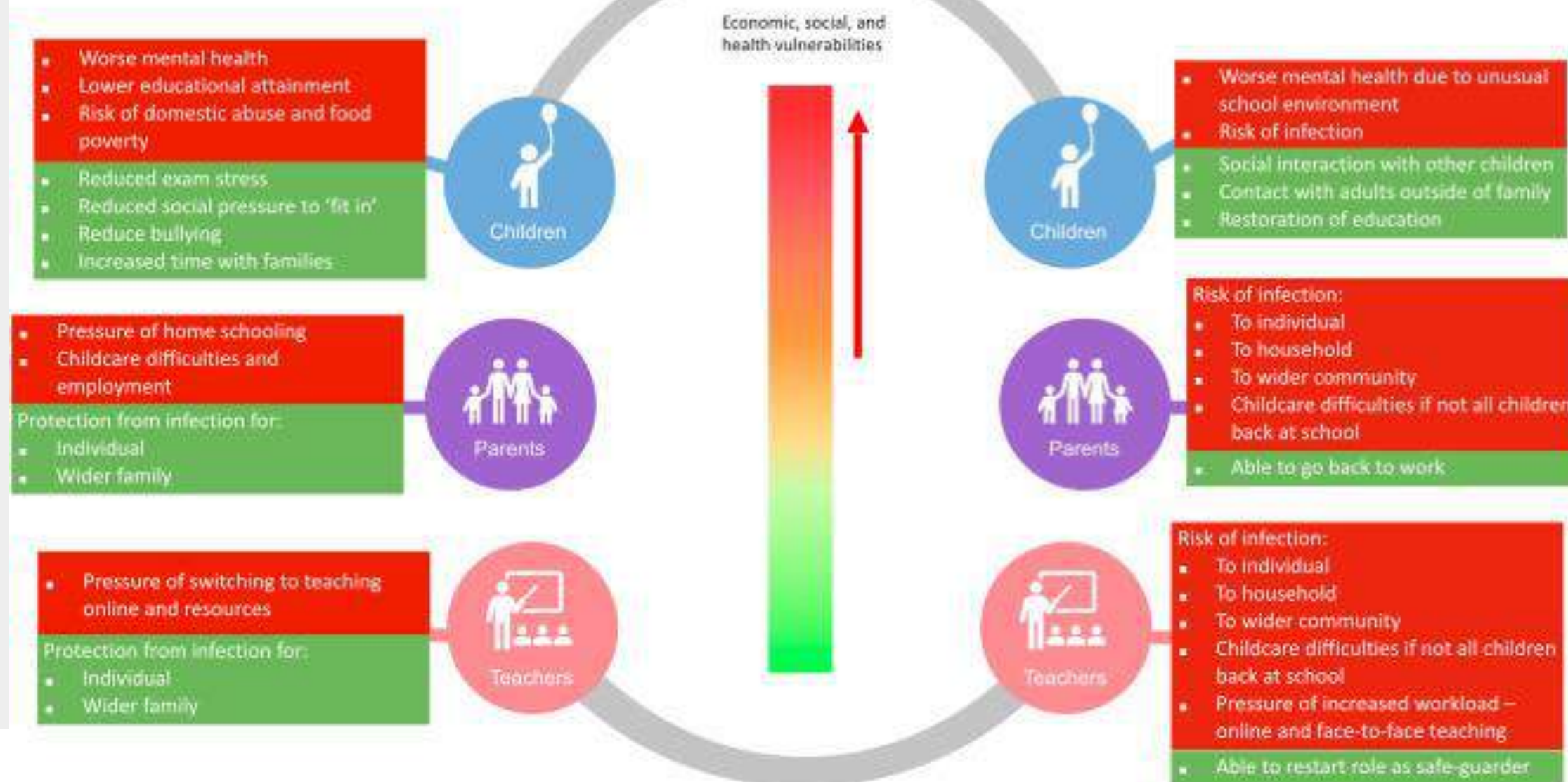


COVID-19 AND SCHOOL RETURN: THE NEED AND NECESSITY

- Schools closed in 143 countries - >1 billion learners affected (UNESCO 2020).
- Adverse consequences for learning, social and emotional well-being, and access to school-based health services (Heavy et al., 2020)
- Schools provided child care support enabling parents to work (Rothstein & Olympia, 2020).
- School structure promotes the child's wellbeing (Rothstein & Olympia, 2020).
- School closures have disrupted children's daily routines and playful and physical exercise has been curtailed:
- There are no replacement options: access to parks, public pools, and organized sports activities, and summer camps were also restricted (Teo & Griffiths, 2020).

School Closures

School Re-opening



MENTAL HEALTH



EXPERT OPINIONS

“Spending greater amounts of time online can also exacerbate feelings of loneliness, agitation, anger, and despair”

Cynthia Martin, psychologist,
Child Mind Institute in New York
City.

Teenagers struggle more than any other age group when cut off from their social networks


Older children and teens are really missing their friends and their independence," "The digital classroom can be boring, stressful, or distracting for kids and that can be so hard on kids in so many ways," Roseann Capanna-Hodge, psychologist, Connecticut

"For the younger kids, even as young as 2 and 3, the impact is greater," "Preschool is where kids learn social skills such as sharing, taking turns, play initiation, language, navigating conflict and resolution, as well as self-help and adaptive skills." Stephanie Koh, a board certified behavior analyst

<https://www.insider.com/should-you-send-kids-to-school-during-coronavirus-2020-7>

Mental health effects of school closures during COVID-19

Joyce Lee

Published: April 14, 2020 • DOI: [https://doi.org/10.1016/S2352-4642\(20\)30109-7](https://doi.org/10.1016/S2352-4642(20)30109-7) •  Check for updates PlumX Metrics

“Going to school had been a struggle for [some children with depression] prior to the pandemic, but at least they had school routines to stick with...Now that schools are closed, some lock themselves up inside their rooms for weeks, refusing to take showers, eat, or leave their beds.” For some children with depression, there will be considerable difficulties adjusting back to normal life”, Zanon, Chiu, registered clinical psychologist, Hong Kong

“Children with special education needs, such as those with autism spectrum disorder, are also at risk. They can become frustrated and short-tempered when their daily routines are disrupted”, psychiatrist Chi-Hung Au, University of Hong Kong

[https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642\(20\)30109-7/fulltext](https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642(20)30109-7/fulltext)

MENTAL HEALTH: HUMAN RIGHTS WATCH INTERVIEWS

“It’s stressful when I have to study all alone,” said Makena M., 17, in Kenya.

“I tend to think a lot about school and my friends,” said 15-year-old Kioko Y. from Kenya. “It makes me sad. I know my school has a counsellor, but we were never given contacts after we closed and before this, I had never gone to him.”

“No emotional and social support is provided by the school,” said a caregiver to four students not receiving any education in Congo at the time of the interview. “This aspect is too neglected.”

A 16-year-old South African boy said, “... I was completely struggling for a whole two weeks, like crying every day. Um, yeah, so that was like a big thing for me, starting to think life was meaningless.”

MENTAL HEALTH: RESEARCH FINDINGS

Research letter: Young children may be at a heightened risk for developing mental health issues when isolated from friends and teachers

- Hubei province, China
- Online survey
- N=1784 (77% learners) Grades 2-6
- Learners at home for ≈ 33.7 days
- 23% experienced depressive symptoms
- 19% experienced anxiety
- 1.4 times increased odds of depressive symptoms with longer school closure

Mental Health Status Among Children in Home Confinement During the Coronavirus Disease 2019 Outbreak in Hubei Province, China

As the coronavirus disease 2019 (COVID-19) epidemic progressed in Wuhan, Hubei province, China, the Chinese government ordered a nationwide school closure. More than 180 million students in China were restricted to their homes (<http://www.chinanews.com/sh/2020/02-17/9094648.shtml>). The COVID-19 infection has become a global pandemic. As of April 9, 2020, the infection has caused 188 countrywide closures around the world and has affected 1 576 021 818 learners (<https://zh.unesco.org/themes/education-emergencies/coronavirus-school-closures>). The caution about protecting the mental health of children in home confinement is warranted. This study investigated depressive and anxiety symptoms among students in Hubei province, China, which can help optimize interventions on the mental health of children for stakeholders in all countries affected by COVID-19.

Methods | In Hubei province, students in Wuhan were restricted to home from January 23, 2020, and those in Huangshi (a city about 52 mi [85 km] from Wuhan) started observing the restrictions on January 24, 2020. The students in the city of Huangshi remained at home until March 23, 2020, and those in Wuhan until April 8, 2020. A total of 2330 students in grades 2 through 6 in 2 primary schools in Hubei province, of whom 845 were from Wuhan and 1485 were from Huangshi, were invited to complete a survey between February 28 and March 5, 2020. This study was approved by the Ethics Committee of Tongji Medical College, Huazhong University of

Screen for Child Anxiety Related Emotional Disorders

Anxiety symptoms	337 (18.9)
No anxiety symptoms	1447 (81.1)
Total	1784 (100.0)

Science and Technology. Students completed the investigation through an online crowdsourcing platform (<https://www.wjx.cn/>). The survey link was sent to the guardian's cellular telephone, and the statement "I permit my child to participate in the survey" was presented to the guardian before the survey. The students proceeded to the survey after their guardian had consented. All questionnaires were included in the analysis after a quality audit, with an effective rate of 100.0%.

Information included sex, school grade, optimism about the epidemic, whether they worried about being infected by COVID-19, and depressive and anxiety symptoms measured by the Children's Depression Inventory-Short Form (CDI-S) and the Screen for Child Anxiety Related Emotional Disorders, respectively. Both measures were validated for use in Chinese.¹⁻³ Generalized linear regressions were applied for continuous variables and logistic regressions for binary variables. Results were statistically analyzed with SPSS for Windows 22.0 (IBM). Statistical significance was defined by *P* values less than .05.

Results | Among 2330 students, 1784 participants (1012 boys [56.7%]; 1109 children [62.2%] residing in Huangshi) completed the survey, yielding a response rate of 76.6% (Table 1). Students had been restricted to home for a mean (SD) of 33.7

YOUNG MINDS SURVEY: UK

2,036 young people aged 13-25 yrs with a history of mental health needs surveyed: June –July 2020

- **80%: COVID-19 pandemic worsened mental health**
 - 41% - “much worse” - increased feelings of anxiety, isolation, coping or motivation.
- **87% felt lonely or isolated during lockdown**, even though 71% stayed in touch with friends.
- **31% no longer had access to mental health support**
- **40% not accessing mental health care just before the crisis now needed care**
- **Only 11% reported improved mental health** (no bullying or academic pressure at school)



Debate: COVID-19 and psychological well-being of children and adolescents in Italy

Ernesto Caffo, Francesca Scandroglio & Lisa Asta

Department of Biomedical, Metabolic and Neural Sciences, University of Modena and Reggio Emilia, Modena, Italy

- Helplines have been extremely busy
- During lockdown the helpline 1.96.96, dedicated to children and adolescents, registered a 14.4% increase in requests for mental health issues and a 22.6% increase in contacts by chat
- The 114 Emergency Services saw an increase of the 21.5% of cases managed for abuse and violence

[Caffo et.al. https://acamh.onlinelibrary.wiley.com/doi/epdf/10.1111/camh.12405](https://acamh.onlinelibrary.wiley.com/doi/epdf/10.1111/camh.12405)

SOCIAL HEALTH: UK

More than 1,500 of the UK's leading paediatricians and child health specialists have told Boris Johnson he needs to urgently publish the government's plans for children to return to school, in an unprecedented warning that their absence "risks scarring the life chances of a generation of young people".

The letter circulated by the Royal College of Paediatrics and Child **Health** (RCPCH) - the first time it has asked its members to sign a joint message to the prime minister - quickly attracted hundreds of signatures in support of its blunt message: "Left unchecked, Covid-19 will exacerbate existing problems and deepen structural social and health inequalities."

Distance learning could impact children's social skills, and is especially worrisome for younger children

Learning from home, and only interacting with friends and classmates virtually, could negatively impact children's socialization skills.

<https://www.insider.com/should-you-send-kids-to-school-during-coronavirus-2020-7>

<https://www.theguardian.com/education/2020/jun/17/children-need-back-to-school-plan-urgently-doctors-tell-boris-johnson>

SOCIAL AND PHYSICAL EFFECTS: CHINA

- Children and young people have lost social interactions, may lack a structured routine and are likely less physically active.
- Repeat surveys of 2426 children and adolescents (6–17 yr) from 5 schools in Shanghai:
 - reduction of 7.3 hours per week in physical activity and
 - an increase in 30 hours per week of screen time when comparing lifestyle patterns before and after implementation of pandemic public health measures.

Debate: COVID-19 and school mental health in Pakistan

Ayesha Irshad Mian¹ & Aisha Sanobar Chachar² 

¹Department of Psychiatry, Aga Khan University, Karachi, Pakistan

²Alleviate Addiction Suffering (AAS) Trust, Karachi, Pakistan

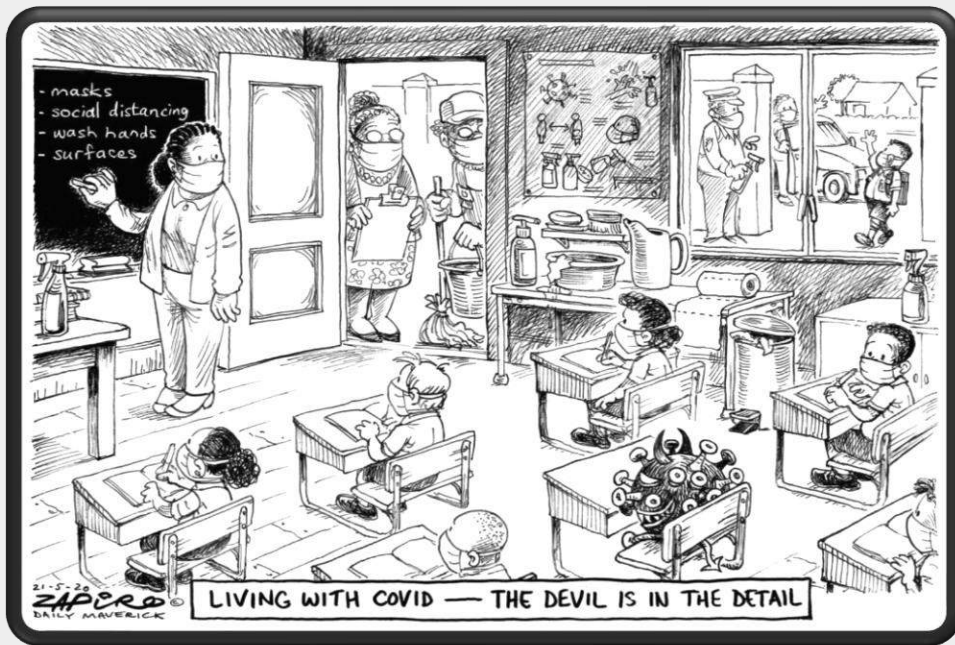
EFFECTS IN PAKISTAN

- Rapid needs assessment nationwide
- School closures may magnify rural–urban, gender and socioeconomic divides, increasing child labour in the short- and long-term.
- Schools need to focus on areas of nurturing resilience in children and adolescents
- Students' mental and physical health will need explicit support in the return to everyday life.

MENTAL AND PHYSICAL EFFECTS

COVID-19 in children: Considerations for returning to school

- Increased physical inactivity and screen time
- Decreased social interaction with other children
- Sudden change in routine is increasing the number of psychiatric disorders, such as anxiety, depression, post-traumatic stress disorder, sleep disorders and behavioral changes.
- The closing of schools can also cause problems for childrens' nutrition
- To date, schools have been closed for more than 200 days in Brazil
- **Closing of schools for a longer period may cause greater damage to society than their reopening with some care measures.**



Educational loss, nutrition. physical activity, violence, mental health

Letters Covid-19: school reopening Time to go back to school: several good reasons beyond low infection risk Marchetti, et.al.

BMJ 2020; 370 doi: <https://doi.org/10.1136/bmj.m2625> (Published 09 July 2020)

COVID-19: SCHOOL REOPENING

Time to go back to school: several good reasons beyond low infection risk

Federico Marchetti,¹ Giorgio Tamburini²

Low risk of contagion of covid-19 infection among children is one reason for the prompt reopening of schools.¹ There are, however, several other good reasons to be considered.

Firstly, prolonged closure yields serious consequences for all children and particularly for those already living in difficult circumstances.² With over 90% of students worldwide out of the educational setting, the greatest threats to children and adolescents are to be found in educational loss, poorer nutrition, increased exposure to intrafamilial violence, rising incidence of mental health disorders, and lack of physical activity rather than in the clinical consequences of covid-19 infection.^{3,4} Inequality in education and health will increase dramatically as the consequences are inevitably greater for vulnerable children due to social, material, and educational poverty, disability and chronic diseases, special educational needs, and poor access to distance learning.

Secondly, the estimates of the contribution of school closure to reduced rates of infection cannot be simply converted to a corresponding risk of increased rates after school reopen, because when schools and preschool services reopen they will follow a series of safety requisites regarding teachers, accompanying care givers, the school environment, and children themselves.⁵

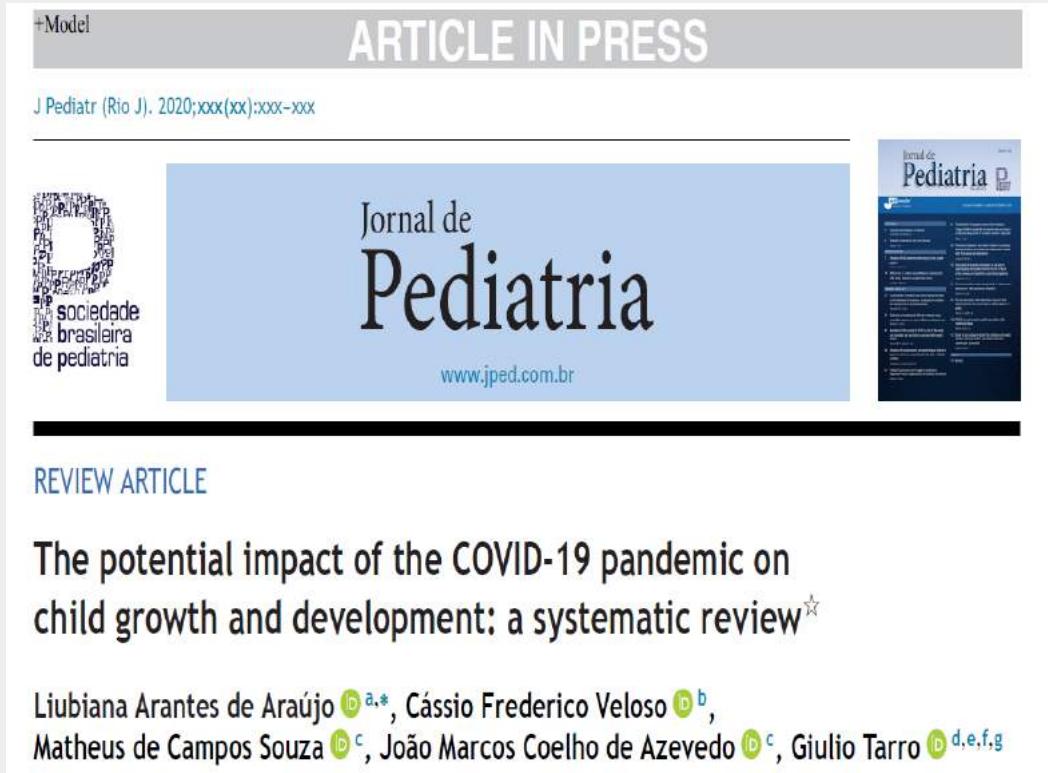
Thirdly, the risk of school reopening should be measured against the risk of uncontrolled child socialisation that occurs anyway, particularly when parents go back to work after lockdown and children are left with grandparents, neighbours, or simply remain alone.

Finally, schools and school life are not only a pillar of community development but also an important part of community identity, and a careful reopening of preschool and school activities will also contribute to restore hope.

A more sensible balance must be found between the risk of increasing the number of covid-19 cases and causing serious prejudice to children's rights.

- 3 Rosenthal DM, Ucci M, Heys M, Hayward A, Lakhanpaul M. Impacts of COVID-19 on vulnerable children in temporary accommodation in the UK. *Lancet Public Health* 2020;5:e241-2. doi: 10.1016/S2468-2667(20)30080-3 PMID: 32243776
- 4 Green P. Risks to children and young people during covid-19 pandemic. *BMJ* 2020;369:m1669. doi: 10.1136/bmj.m1669 PMID: 32345583
- 5 Tamburini G, Marchetti F. Covid-19 pandemia: reasons and indications for reopening education services. *Medico e Bambino* 2020;39:301-4.

Growth and development



- School closure may increase adverse childhood experiences and elevated risk of toxic stress.
- The more adverse experiences, the greater the risk of developmental delays and health problems in adulthood e.g. cognitive impairment, substance abuse, depression, and non-communicable diseases.

De Araujo J Pediatr Available online 23 September 2020 <https://doi.org/10.1016/j.jped.2020.08.008>
<https://www.sciencedirect.com/science/article/pii/S0021755720302096>

SCHOOL CLOSURE AND HUNGER

- 370 million children, 47% girls, miss free of subsidized daily meals through school (World Food programme, 2020)
- 38 million children were acutely hungry in 2019
- During COVID-19 the number of household struggling to put food on the table doubled, increasing the number of children with severe hunger to 74 million
- Hunger can impair the immune system, increase morbidity, impair cognition and malnutrition. All these can increase absenteeism, grade repetition or drop-out, ultimately affecting human capital development (Bundy et.al. 2018)



<https://saveourfuture.world/white-paper/>

NON-ATTENDANCE AND HUNGER: EXAMPLE - SOUTH AFRICA

- National School Nutrition Programme provides 9.6 million learners nationwide in 20,619 schools with meals daily. This increases attendance, and concentration
- The National Income Dynamics Study – Coronavirus Rapid Mobile Survey (July 2020) survey reported that since lockdown 1 in 7 people reported child hunger in the past week.

SCHOOL CLOSURE AND THE FEMALE CHILD



- **Girls disproportionately affected:**
 - Current school closures are expected to increase child pregnancy and marriage (Sierra Leone, Ebola crisis, Bandiera et.al)
 - School closure during Ebola exposed children especially girls to risks including domestic and sexual violence (Plan International 2015, UNDP 2015, Odhiambo 2020)
 - UNESCO estimates that 7.6 million girls are at risk of not returning to school with the highest risk in secondary school girls
 - UNHCR predicts that 50% of refugee girls in secondary school may not return when schools reopen (UNHCR)

Online Schools and Children With Special Health and Educational Needs:
Comparison With Performance in Traditional Schools

Monitoring Editor: Gunther Eysenbach

Reviewed by Cathy Cavanaugh and Jeanne Repetto

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[Abstract](#)

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BENEFITS OF ONLINE SCHOOL?

- Children with special health care needs seem to opt into online schools at a higher rate.
- Controlling for known achievement risks children with special care needs and black children have lower performance in online than in traditional schools.
- Future studies must test whether direct assistance in online schools will narrow known disparities in educational success.
- Only then can online schools emerge as a true educational alternative for at-risk populations

OUTLINE OF PRESENTATION

- Physical school attendance
- Effects of non physical school attendance at
 - Individual level:
 - Global level
- What is the way forward?



2030 AGENDA FOR SUSTAINABLE DEVELOPMENT:

- Blueprint for peace and prosperity: 17 SDGs are core:
- Ending poverty and deprivation, improving health and education, reducing inequality, and spurring economic growth, tackling climate change, preserving oceans and forests.



<https://www.un.org/sustainabledevelopment/>



ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND
PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL

Pre-COVID-19

258 million children out of school

PROGRESS TOWARDS
INCLUSIVE AND EQUITABLE QUALITY
EDUCATION WAS **TOO SLOW**



OVER 200 MILLION CHILDREN WILL
STILL BE **OUT OF SCHOOL** IN 2030

INEQUALITIES IN EDUCATION ARE EXACERBATED BY COVID-19

IN LOW-INCOME COUNTRIES,
CHILDREN'S SCHOOL COMPLETION RATE IS



79% IN RICHEST
20% OF HOUSEHOLDS



34% IN POOREST
20% OF HOUSEHOLDS

- 1.6 billion students globally were affected by school closures (UNESCO, 2020)
- 16 million may never return to school

From crisis to catastrophe

<https://sdgs.un.org/goals/goal4>; <https://saveourfuture.world/white-paper/>



ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND
PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL

COVID-19 IMPLICATIONS



SCHOOL CLOSURES KEPT
90% OF ALL STUDENTS OUT OF SCHOOL
REVERSING YEARS OF PROGRESS ON EDUCATION

REMOTE LEARNING REMAINS
OUT OF REACH FOR
— AT LEAST —
500 MILLION STUDENTS

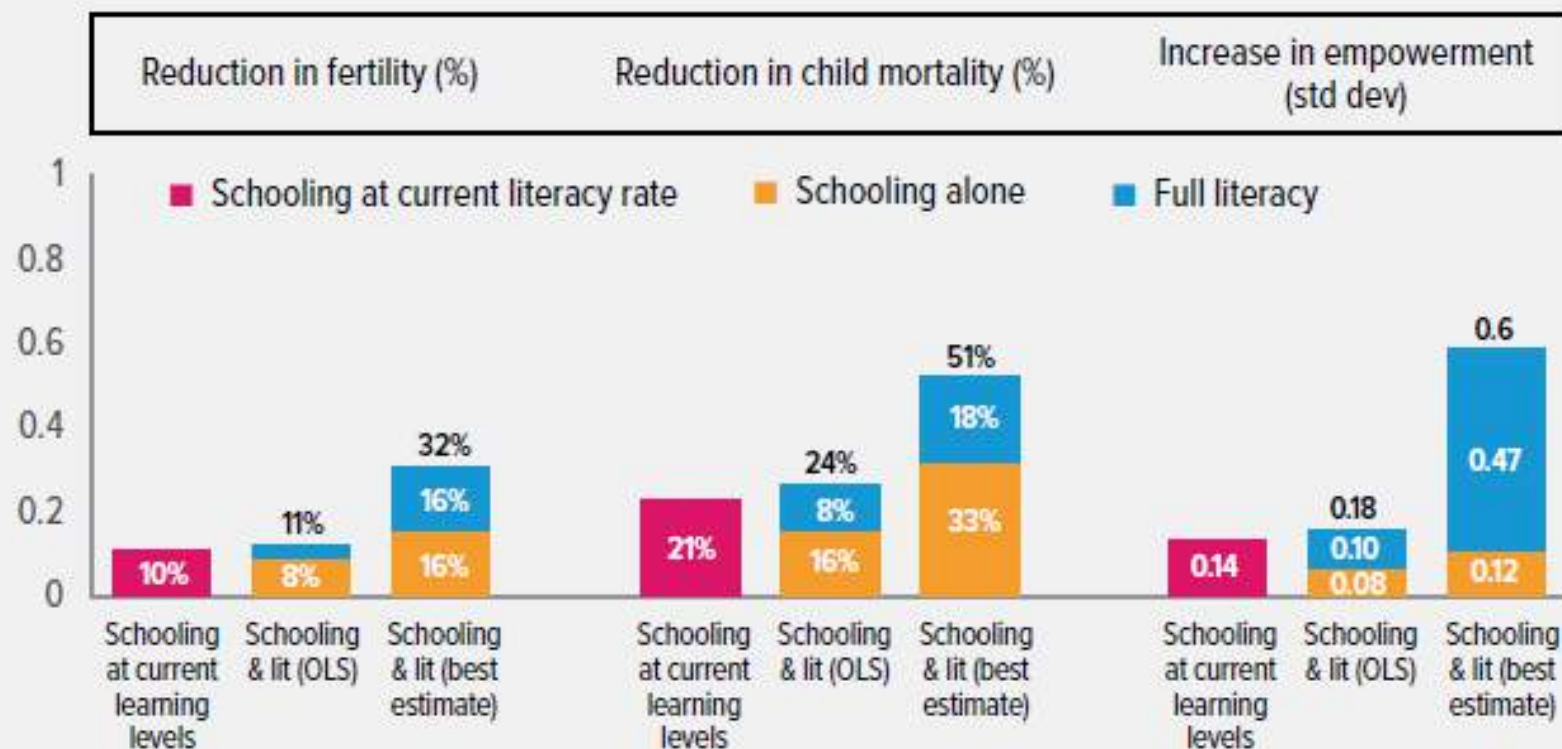


From crisis to catastrophe

SAVE OUR FUTURE COALITION: WHITE PAPER: 2020

FIGURE 7

The impact of schooling for girls is much greater if they are learning, particularly if they are learning to read



Source: Kaffenberger & Pritchett (2020)

SAVE OUR FUTURE
Averting an Education
Catastrophe for the
World's Children

<https://saveourfuture.world/white-paper/>

OUTLINE OF PRESENTATION

- Historically - why physical school attendance?
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Numerical investigation of aerosol transport in a classroom with relevance to COVID-19

Cite as: Phys. Fluids **32**, 103311 (2020); <https://doi.org/10.1063/5.0029118>

Submitted: 10 September 2020 . Accepted: 16 September 2020 . Published Online: 20 October 2020

Mohamed Abuhegazy, Khaled Talaat , Osman Anderoglu, and Svetlana V. Poroseva 

COLLECTIONS

Paper published as part of the special topic on [Flow and the Virus](#)

 This paper was selected as Featured

- Glass barriers reduce aerosol transmission of 1 μ m particles from source individual to others separated by at least 2.4m by 92%
- By opening windows particle exit fraction can be increased by 38% compared with closed windows

4 QUALITY
EDUCATION



ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND
PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL



ONLY 65% OF PRIMARY SCHOOLS
HAVE BASIC HANDWASHING FACILITIES
CRITICAL FOR COVID-19 PREVENTION

From crisis to catastrophe



COVID-19 AND SCHOOLS...MAKING SCHOOLS SAFE



- 1.Set up a Covid-19 School Management Team**
- 2.Implement non-pharmaceutical interventions**
- 3.Know the age profile and comorbidities of your teachers**
- 4.Know which children are sick or who have a relevant comorbidity that places them at risk of severe Covid-19.**
- 5.Limit the use of the tearoom for teachers and limit in-person meetings with other adults to a maximum of five.**
- 6.Make sure the classrooms, desks and surfaces are cleaned twice every day**
- 7.For lower grades children could remain in the classroom and teachers could move from class to class**
- 8.Implement physical distancing in the classroom**
- 9.Use outdoor spaces as much as possible.**
- 10.Conduct daily checks with your staff and learners**

MULTI-GENERATIONAL HOUSEHOLDS

- Maintain physical distance as much as possible - 1.5-2m
- No close contact for more than 15 minutes.
- Masks with or without visors
- Handwashing regularly
- Ventilation
- Keep surfaces clean with disinfectants.
- Keep an eye out for symptoms of Covid-19 among family members.
- Avoid crowds and congested places.
- Ensure household members cough or sneeze into the crook of their elbows, and dispose of tissues into plastic bags that are disposed of in an outside bin.

IF ONLINE PLATFORMS ARE NEEDED

- Implement mental health hotlines
- Relational teaching not only transactional
- Care for learners, teachers and parents
- 4 key component for mental health toolkit:
 - Connect mind and body: ‘What I need’
 - Develop identity: Who am I
 - Regulate emotions: How do I feel
 - Recognizing interdependence: ‘Who we are’

<https://www.usatoday.com/story/news/education/2020/07/31/covid-online-school-kids-mental-health-teachers/5529846002/>

<https://theconversation.com/families-can-support-kids-mental-health-whether-theyre-learning-remotely-or-at-school-heres-how-144459>

MAIN POINTS



Physical school aims to grow individuals that transform society: verbal and math physical, mental and social health critical skills (thinking, research, communication, social and self-management)

Non-attendance: associated with **hunger, poor mental and physical health, increased child mortality, fertility and pregnancy, gender inequalities, exposure to violence**

SDG 4: Inclusive and equitable quality education and promote lifelong learning opportunities for all

Global imperative to:

- (i) offer physical school attendance with precautions during COVID-19 **OR**
- (ii) re-imagine schooling by creating physical learning pods **OR**
- (iii) Increase coverage of online platforms that re-create school environments - relational and transactional

THANK YOU!

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