



Date:	22 July 2021		
To:	Honourable Ms Mmamoloko Kubayi, Acting Minister of Health	From:	Ministerial Advisory Committee (MAC) on COVID-19

# SCHOOLS FUNCTIONING AT FULL CAPACITY (DAILY ATTENDANCE BY ALL LEARNERS)

#### **Problem Statement**

Due to ongoing rotational timetables where children attend school only every second or third day, most children in South Africa continue to experience profound learning losses and lower rates of access to school meals. The impact of this loss is greatest in poorer or lower socio-economic communities and households, magnifying pre-existing educational inequities. Consideration needs to be given to whether schools should be reopened with all learners attending classes on a daily basis.

The guestions that need to be addressed are:

- 1. Can all learners return to school safely on a non-rotational (full capacity) basis?
- 2. Should there be a differentiated approach to non-rotational school opening for all students based on the age of students or phase of schooling (Foundation, Intermediate, Senior and Further Education and Training (FET) Phase)?

#### **Evidence Review**

- While the COVID-19 pandemic in the community is ongoing, there is a continual risk of introduction of the infection into schools through learners and staff who acquire symptomatic or asymptomatic infections in the community.
- Children account for a relatively small proportion of SARS-CoV-2 cases and even smaller proportion of admissions to hospitals compared to adults.<sup>1</sup>
- Children of school-going age compared to adults are less likely to become infected with SARS-CoV-2.<sup>2</sup> However, older adolescents (15-19 years) have a slightly lower or similar rate of infection compared to adults.<sup>3,4</sup>
- A recent (June 2021) epidemiological analysis of South African households indicates that

<sup>&</sup>lt;sup>1</sup> Kufa-Chakezhai T, Jassat W, Walaza S, Erasmus L, von Gottberg A, Cohen C. Epidemiology and Clinical Characteristics of Laboratory-confirmed COVID-19 among individuals aged ≤ 19 years, South Africa, 1 March 2020 – 2 January 2021. NICD COVID-19 Special Public Health Surveillance Bulletin. Volume 18 (7).

<sup>&</sup>lt;sup>2</sup> NICD COVID-19 and DATCOV teams. Epidemiology and Clinical Characteristics of Laboratory-confirmed COVID-19 among individuals aged ≤ 19 years, South Africa, 1 March 2020 – 19 June 2021. COVID-19 in Children, Surveillance Report, South Africa. 05 July 2021.

<sup>&</sup>lt;sup>3</sup> Zhang J, Litvinova M, Liang Y, Wang Y, Wang W, Zhao S, et. al. Changes in contact patterns shape the dynamic of COVID-19 outbreak in China. Science. June 2020, 368 (6498): 1481-1486.

<sup>&</sup>lt;sup>4</sup> Viner RM, Mytton OT, Bonell C, Melendez-Torres GM, Ward JL, Hudson L, et.al. Susceptibility to the transmission of COVID-19 amongst children and adolescents compared to adults: a systematic review and meta-analysis. doi: https://doi.org/10.1101/2020.05.20.20108126

- children are both less likely to catch and transmit COVID-19 as compared to adults (C Cohen, personal communication).
- Emerging evidence from a systematic review of global school transmission studies suggests very low infection attack rates and SARS-CoV-2 positivity rate in students and staff, although some included studies had methodological biases.<sup>5,6</sup>
- There are no consistent changes in community incidence trends associated with the timing of opening or closing of schools in South Africa.<sup>1</sup>
- Analysis of teacher payroll data showed no relationship between excess teacher mortality and the opening and closing dates of schools between March 2020 and February 2021.<sup>7</sup> This supports similar conclusions of the NICD.<sup>8</sup>
- Adherence to prevention interventions can make a significant difference to risk of acquiring SARS-CoV-2.9
- The prevention interventions include:
  - engineering controls (what we can do to the environment to reduce transmission), such as ensuring ventilation and maintaining distance between students in enclosed spaces;
  - 2) infection prevention and control (what we can arrange to reduce transmission), such as screening, hand hygiene, cough etiquette, regular environmental cleaning and personal protective equipment, such as non-medical (cloth) face masks, and eye protection (visors) should prevent the spread of the virus from the individual with SARS-CoV-2 to other learners or staff in schools; and
  - 3) Administrative controls (*what we can do to encourage* prevention interventions), such as having policies on screening, reporting and contact tracing.
- In March 2021, the US Centers for Disease Control and Prevention relaxed physical distancing requirements for children in school, from two meters to one meter - a change aimed at allowing more students to be inside classrooms. Face coverings remained mandatory.<sup>10</sup>
- There is no data on the effect of reducing physical distancing to distances less than one meter in school settings.
- In addition to education, schools provide nutrition and food security, and physical and psychological safety, which should be maintained even during the time of a pandemic.
- Recent South African evidence shows that learning losses at the primary school level in 2020 have amounted to 50-75% of a year of learning lost relative to the 2019 cohort.<sup>11</sup>

<sup>&</sup>lt;sup>5</sup> Xu W, Li X, Dozier M, He Y, Kirolos A, Lang Z, Mathews C, Siegfried N, Theodoratou E. What is the evidence for transmission of COVID-19 by children in schools? A living systematic review. Journal of Global Health. 2020, 10 (2).

<sup>&</sup>lt;sup>6</sup> Xu W, Li X, Dozier M, He Y, Kirolos A, Lang Z, Mathews C, Siegfried N, Theodoratou E. What is the evidence for transmission of COVID-19 by children in schools? A living systematic review. https://uncover-livingreview.shinyapps.io/schoolreview/ (accessed 24<sup>th</sup> June 2021)

<sup>&</sup>lt;sup>7</sup> Spaull, N., & Daniels, R (2021). NIDS-CRAM Wave 4 Synthesis Report. National Income Dynamics Study Coronavirus Rapid Mobile Survey (NIDS-CRAM). (Online). Available: https://cramsurvey.org/wp-content/uploads/2021/05/11.-Van-der-Berg-S.-Patel-L.-\_-Bridgman-G.-2021-Hunger-in-South-Africa-Results-from-Wave-4-of-NIDS-CRAM.pdf

<sup>&</sup>lt;sup>8</sup> NICD. 2021. Quarterly COVID-19 in Children Surveillance Report. (Online). National Institute for Communicable Diseases. Available: https://www.nicd.ac.za/wp-content/uploads/2021/05/Monthly-Covid-19-In-Children-Surveillance-Report-week-20.pdf

<sup>&</sup>lt;sup>9</sup> Lessler J, Grabowski MK, Grantz KH, et al. Household COVID-19 risk and in-person schooling. Science. 2021;eabh2939. Published online April 29, 2021. doi:10.1126/science.abh2939

<sup>&</sup>lt;sup>10</sup> CDC Updates Operational Strategy for K-12 Schools to Reflect New Evidence on Physical Distance in Classrooms. https://www.cdc.gov/media/releases/2021/p0319-new-evidence-classroom-physical-distance.html

Spaull, N., & Daniels, R (2021). NIDS-CRAM Wave 4 Synthesis Report. National Income Dynamics Study Coronavirus Rapid Mobile Survey (NIDS-CRAM). (Online). Available: https://cramsurvey.org/wp-content/uploads/2021/05/11.-Van-der-Berg-S.-Patel-L.-\_-Bridgman-G.-2021-Hunger-in-South-Africa-Results-from-Wave-4-of-NIDS-CRAM.pdf

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- Recent data from a nationally representative household survey in South Africa (NIDS-CRAM Waves 1-4) shows that during lockdown in May/June 2020 while schools were closed, 16% of children experienced hunger "in the past 7 days", double the rate in 2018.<sup>15</sup> This declined to 12% in July/August 2020 but since the removal of the top-ups to the Child Support Grant at the end d'October 2020, child hunger increased to 16% in November/December 2020 and moderated slightly to 14% in February/March 2021.<sup>16</sup> When schools were completely open (i.e. pre-pandemic and not rotational timetables) approximately 9.6-million children (80%) received a free meal at school every weekday.<sup>17</sup>
- The global literature highlights: (i) learning losses because of school closures, (ii) how pre-existing education disparities will widen during the pandemic (iii) in fragile educational systems, gains made over time will be wiped out and (iv) the effects beyond education. In South Africa, there is an achievement gap between learners based on socio- economic status. For the socio-economically disadvantaged attending schools is the only modality to access education opportunities as online options are not available and the longer they are out of school the greater the learning losses. 18,19,20,21
- Studies have shown that reducing the number of days of schooling has an impact (reduction) on cognitive functioning, particularly crystallized intelligence (e.g. comprehension). Additional schooling time has the effect of raising performance scores, and the longer the time spent in school, the better the performance. <sup>22,23,24</sup>
- Learners need continual cognitive stimulation. School closures and disruptions contribute to learning losses because of limited learning opportunities and memory decay. <sup>21,22, 23, 24</sup>
- The attendance of learners in-person at schools is important for their social and psychological development, but this should be done with full attention to ensuring the safety of children, educators, and other school staff members.

Ardington, C. (2021). COVID-19 Learning Losses: Early grade Reading in South Africa. (Online). SALDRU. Available: https://fundawande.org/img/cms/news/Ardington%202021%20-%20Funda%20Wande%20EC%20learning%20losses%20report%20(24%20May%202021) 1.pdf

<sup>&</sup>lt;sup>13</sup> Shepherd, D., Mohohlwane, N., Taylor, S., & Kotze, J. (2021). Changes in education: A reflection on COVID-19 effects over a year. NIDS-CRAM. (Online). Available: https://cramsurvey.org/wp-content/uploads/2021/05/10.-Shepherd-D.-Mohohlwane-N.-Taylor-S.-\_-Kotze-J.-2021.-Changes-in-education-A-reflection-on-COVID-19-effects-over-a-year.pdf

<sup>&</sup>lt;sup>14</sup> Reddy, V. (2021). Counting the cost of lost schooling in South Africa. The Conversation. (Online). Available: https://theconversation.com/counting-the-cost-of-lost-schooling-in-south-africa-160031

<sup>&</sup>lt;sup>15</sup> Van der Berg, S., Zuze, L., & Bridgman, G. 2020. Coronavirus, Lockdown and Children: Some impacts of the current crisis in child welfare using data from NIDS-CRAM. (Online). Available: cramsurvey.org/reports

<sup>&</sup>lt;sup>16</sup> Van der Berg, S., Patel, L., & Bridgman, G (2021,). Hunger in South Africa during 2020: Results from Wave 4 of NIDS-CRAM.

<sup>&</sup>lt;sup>17</sup> Mohohlwane, N., Taylor, S., & Shepherd, D. (2020) COVID-19 and basic education: Evaluating the initial impact of thereturn to schooling. (Online). Available: cramsurvey.org/reports

<sup>&</sup>lt;sup>18</sup> United Nations (2020) Education during Covid-19 and Beyond. https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sg\_policy\_brief\_covid-19\_and\_education\_august\_2020.pdf

<sup>&</sup>lt;sup>19</sup> Hanushek, E.A. and Woessmann (2020) The Economic Impacts of Learning Losses. OECD Publication. https://www.oecd.org/education/The-economic-impacts-of-coronavirus-covid-19-learning-losses.pdf

<sup>&</sup>lt;sup>20</sup> Dorn, E; Hancock, B.; Sarakatsannis, J and Viruleg, E (2020) COVID-19 and learning loss -disparities grown and students need help. McKinsey Company Publication.https://www.mckinsey.com/industries/public-and-social-sector/our-insights/covid-19-and-learning-loss-disparities-grow- and-students-need-help?cid=eml-web.

<sup>&</sup>lt;sup>21</sup> Reddy, V.; Winnaar, L.; Juan, A.; Arends, F.; Harvey, J.; Hannan, S.; Namome, C.; Sekhejane, P. and Zulu, N. (2020) TIMSS 2019: Highlights of South African Grade 9 Results in Mathematics and Science. HSRC. Pretoria. http://www.timss-sa.org.za/download/TIMSS-2019\_Grade9\_HSRC\_FinalReport.pdf

<sup>&</sup>lt;sup>22</sup> Aucejo, E.M. and Romano, T.F. (2016) Assessing the effect of school days and absences on test score performance. *Economics of Education Review*, 55(C): 70-87

<sup>&</sup>lt;sup>23</sup> Carlsson, M., Dahl, G.B., Öckert, B. and Rooth, D.-O. (2015) The effect of schooling on cognitive schools. *Review of Economics and Statistics*, 97(3): 533-547

<sup>&</sup>lt;sup>24</sup> Lavy, V. (2015) Do Differences in Schools' Instruction Time Explain International Achievement Gaps? Evidence from Developed and Developing Countries. *Economic Journal*, 125(588): F397-F424)

### Recommendations

- All primary schools should open at full capacity.
- Primary schools functioning on a full capacity basis should practice maximum feasible
  physical distancing between learners. Ideally, all children should be at least one metre
  apart within classrooms, but where this is not possible, full capacity schooling should still
  be commenced whilst maintaining the maximum feasible physical distance.
- With the move to full capacity schooling, the critical need for adequate ventilation within classrooms (open windows), appropriate use of face masks, and good hand hygiene practices needs to be strongly re-emphasized.
- Children should have mask breaks every two hours, which entails going outdoors and removing their masks for approximately 5 15 minutes.
- High schools can immediately resume full capacity learning if a physical distance separation of one meter between learners can be ensured. Where this is not possible, attendance on a rotational basis should continue presently, acknowledging the relatively higher risk of SARS-CoV-2 infection and illness in children aged 15-19 years.
- The Department of Basic Education should ensure that all schools have the necessary Personal Protective Equipment (PPE) as prescribed in its Standard Operating Procedures.

### Rationale

- It is the opinion of the school working group that the harms of learners attending school on a rotational basis - specifically the severe cognitive, nutritional, and psychosocial costs - exceed the benefits of reduced COVID-19 infections from smaller class sizes.
- The majority of educators have been vaccinated, reducing their risk of SARS-CoV-2 transmission and disease acquisition.
- The rotational timetables were implemented to accommodate the MAC on COVID-19 recommendation that children must always maintain 1 metre physically distancing, including in classrooms.
- Given the new and emerging evidence of the tangible and realized costs to children of this approach, this recommendation is now revised.

Thank you for consideration of this advisory.

Kind regards,

PROF KOLEKA MLISANA PROF MARIAN JACOBS

Co-Chairpersons: Ministerial Advisory Committee on COVID-19

**DATE: 22 July 2021** 

## CC:

- » Dr S Buthelezi (Director-General)
- » Dr T Pillay (Deputy Director-General)
- » Incident Management Team