



## WAVE 3

National Income Dynamics  
Study (NIDS) – Coronavirus  
Rapid Mobile Survey (CRAM)

# Schooling during the COVID-19 pandemic: An update from Wave 3 of the NIDS-CRAM data

**Nompumelelo Mohohlwane** - Department of Basic Education

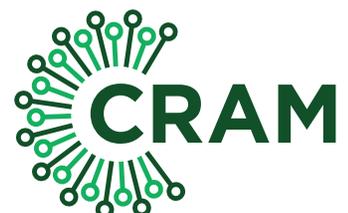
**Stephen Taylor** - Department of Basic Education

**Debra Shepherd** - University of Stellenbosch

17 February 2021



**N.i.D.S.**  
NATIONAL INCOME DYNAMICS STUDY



CORONAVIRUS RAPID MOBILE SURVEY 2020

# Schooling during the COVID-19 pandemic: An update from Wave 3 of the NIDS-CRAM data

**Nompumelelo Mohohlwane**, Research Coordination, Monitoring and Evaluation,  
Department of Basic Education<sup>1</sup>

**Stephen Taylor**, Research Coordination, Monitoring and Evaluation, Department of Basic Education and  
Research Associate in the Department of Economics, University of Stellenbosch<sup>2</sup>

**Debra Shepherd**, Department of Economics, University of Stellenbosch<sup>3</sup>

17 February 2021

## Abstract

Using data from the second and third waves of the National Income Dynamics Study – Coronavirus Rapid Mobile Survey (NIDS-CRAM), we examine changes in learner attendance, the worry levels of parents and the provision of meals to learners since March 2020 until December 2020. The paper also presents an analysis of the National Institute for Communicable Diseases data on hospitalisations and deaths over time by age group to assess the health risks to children associated with school attendance.

The recommendations focus on a reconsideration of timetable rules and regulations to allow more children to attend daily, better communication to improve parent concern and the availability of more alternatives to ensure increased delivery of daily meals to learners.

---

1 [Mohohlwane.N@dbe.gov.za](mailto:Mohohlwane.N@dbe.gov.za)

2 [Taylor.S@dbe.gov.za](mailto:Taylor.S@dbe.gov.za)

3 [Debrashpherd@sun.ac.za](mailto:Debrashpherd@sun.ac.za)

Unexpected school closure was implemented on the 18th of March 2020 in response to the initial spread of COVID-19 in South Africa, followed by a phased approach to reopening schools. Using data from the second wave of the National Income Dynamics Study – Coronavirus Rapid Mobile Survey (NIDS-CRAM), it was clear that school attendance rates during the phased reopening of schools were significantly lower than in normal times, parents and guardians were worried about learners returning to school, and less than one third of learners were accessing a meal at school compared to pre-COVID-19 levels<sup>1</sup>

**This paper provides an update on learner attendance, levels of worry about returning to school and the provision of meals to learners using the NIDS-CRAM Wave 3 data collected between 1st of November to the 11th of December 2020, and also presents an analysis of National Institute for Communicable Diseases data on hospitalisations and deaths over time by age group to assess the health risks to children associated with school attendance. The main findings are:**

- 1. Weekly school attendance in November 2020 had returned to normal weekly levels, although this overstates daily attendance.** The implementation of COVID-19 school protocols, such as rotational timetabling where learners attend every other day to allow social distancing within classrooms, means that learning losses would have continued to accrue. Although it is not yet clear how many learners who started school in 2020 will not return in 2021, **the most effective way to prevent dropout in the years to come will be to prioritise the recovery of learning now.**
- 2. Reported rates of receiving a school meal weekly have increased from 25% in July 2020 to 48% in November 2020 when all grades re-opened.** However this rate is still lower than normal pre-pandemic levels (65%, GHS 2018). Given the high reported rates of school attendance, it is not clear why reported rates of receiving school meals are not yet at normal levels. Aside from some methodological differences between NIDS-CRAM and the GHS, it may also be that alternative routines such as platooning and sending food parcels home could be influencing what is reported.

## 1. How has school attendance changed?

The previous analysis of NIDS-CRAM data (Wave 2) showed that in the month of July 2020 national school attendance rates were approximately 37% on average. **By November 2020 school attendance had increased drastically across all grades to pre-COVID-19 patterns at 98% on average. It should be noted that NIDS-CRAM measures having attended school at any point in the seven days prior to the survey, and would therefore lead to rates that are higher than a daily attendance rate.** Nevertheless, given that the General Household Survey of 2018 shows that average daily absenteeism amongst 7-17 year olds was 3%,<sup>2</sup> by November attendance rates were approaching pre-pandemic levels, at least on days when children were expected to attend school. This marks a significant increase from July 2020, as measured in the NIDS-CRAM Wave 2 survey, where attendance varied widely from 88% for grade 12 and as low as 11% for grade 9 learners. The attendance patterns clearly followed the reopening of grades: In July 2020 the “open” grades, namely grade 6, 7, 11 and 12 had the highest attendance, while attendance was lower for “closed” grades. While reopening was staggered by grade, all grades have been open since the 31st of August 2020 and the effect of this is clearly seen in *Figures 1 and 2* below.

**The average attendance across all the grades ranging from 95-99% does not, however, adequately reflect the daily attendance of each learner.** The question in the NIDS-CRAM survey asked about any attendance in the last 7 days. The guidelines for school timetables<sup>3</sup> specify two

---

1 Mohohlwane, N., Taylor, S., & Shepherd, D. 2020. COVID-19 and basic education: Evaluating the initial impact of the return to schooling. NIDS-CRAM.

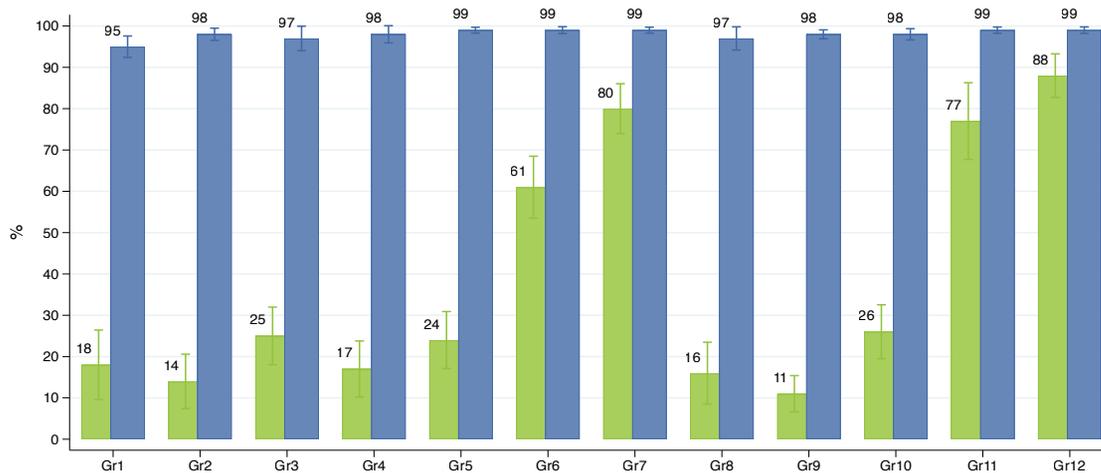
2 Department of Basic Education. 2019. General Household Survey (GHS): Focus of schooling 2018.

3 Department of Basic Education. 2019. Guidelines for Development of the School Timetables Reopening of Schools Covid-19 (May 2020)

principles that would affect attendance: firstly, that schools must operate at 50% or less of their capacity; and secondly, that social distancing should be observed within classrooms. While the timetable guideline does not specify a 1.5 meter distance between desks, the June 2020 school guidelines<sup>4</sup> specified this distance. A reduction to 1 meter was specified in September 2020.<sup>5</sup> **The implementation of both of these specifications would clearly result in reduced capacity for learner attendance.** Furthermore, mechanisms to implement these guidelines included bi-weekly rotational attendance, alternating classes on different days of the week, and a platooning system. Again, all of the proposed timetable options have serious implications for learner attendance and should be strongly considered when interpreting attendance patterns. Estimates of lost learning time in the case of learners in grade 1 to 5 attending every second day are almost 60% out of a possible 198 school days.<sup>6</sup>

**While social distancing protocols and timetable amendments are expected to have affected daily attendance across the schooling system, learners in the exit grades, namely grade 7 and 12, were expected to attend daily.**<sup>7</sup> The prioritisation of attendance for these grades is specified in several places, including the timetable guideline referred to earlier. This is in response to prioritising preparations for the National Senior Certificate examinations, as observed by the fact that grade 12 learners were provided with the highest days of schooling in the amended 2020 school calendar. During the same period under review, 1 058 699 grade 12 learners wrote the National Senior Certificate (NSC) from the 5th of November to the 15th of December 2020. This represents the largest cohort to date, resulting from the combination of two examination periods as a response to COVID-19.<sup>8</sup> Part of the efforts undertaken to enable the writing of examinations was the revision of protocols<sup>9</sup> to enable grade 12 learners who tested positive to continue with writing the examinations under special invigilation.

**Figure 1: Estimated weekly attendance rates by grade in July 2020 (green) and November 2020 (blue)**



**Source:** NIDS-CRAM, Wave 2 (2020) and Wave 3 (2020)

**Note:**

1. Data are weighted.
2. 95% confidence intervals indicated.

4 Department of Basic Education. 2019. Guidelines for schools on maintaining hygiene during the COVID-19 pandemic (June 2020)

5 Department of Basic Education. 2019. Standard Operating Procedure for the management and containment Of Covid-19 for Schools and School Communities (September 2020)

6 Gustafsson, M. 2020. The argument for returning to full daily attendance (December 2020)

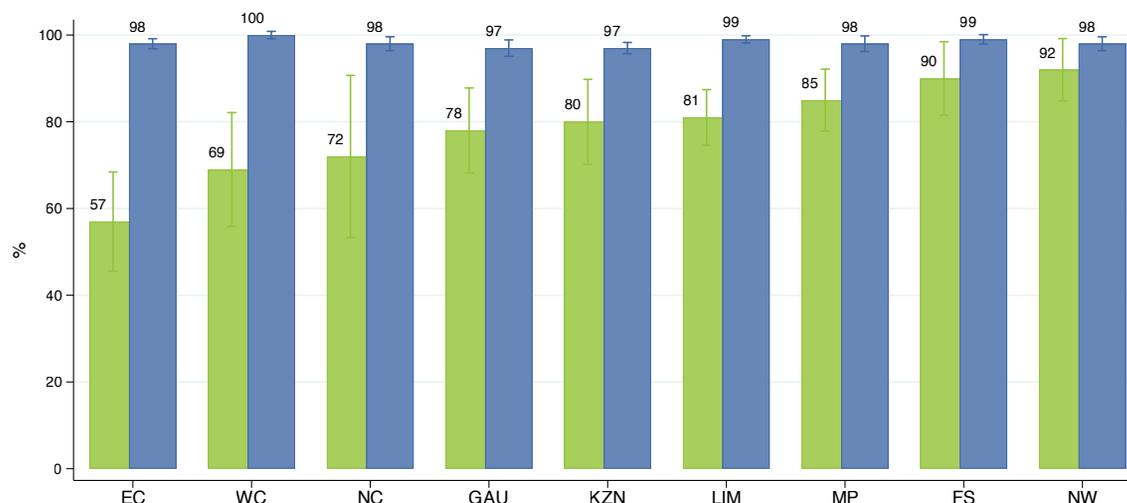
7 Department of Basic Education. 2019. Guidelines for development of the school timetables reopening of schools COVID-19 (May 2020)

8 Umalusi. 2020. Media Statement: Umalusi approves the writing of the combined June and November 2020 matric examinations issued 30 October 2020

9 Department of Basic Education. 2019. Basic education and Health agree on protocols allowing COVID-19 positive learner to write matric exams issued 4 November 2020

All provinces had attendance rates above 95% with KwaZulu-Natal at the lower-end at 97% and the Western Cape with the highest attendance at 100%. The North West province maintained the highest attendance across the July and November 2020 from 92% to 98% while the Eastern Cape had the most significant increase from 57% in July 2020 to 98% in November 2020.

**Figure 2: Estimated weekly attendance rates by province in July 2020 (green) and November 2020 (blue)**



**Source:** NIDS-CRAM, Wave 2 (2020) and Wave 3 (2020)

**Note:**

1. Data are weighted.
2. 95% confidence intervals indicated.

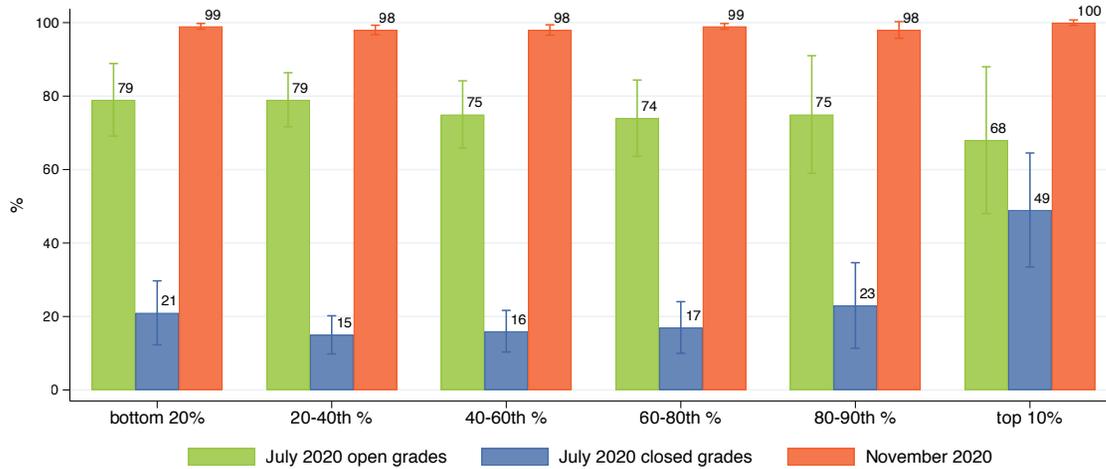
## 2. Does school attendance differ by socio-economic status?

In Wave 2, attendance amongst learners differed significantly by wealth for “closed” grades, with those in the wealthiest 10% of households being 2-times more likely to have attended school than those in the poorest 80% of households. *Figure 3* below shows a comparison of the same households between July 2020 for “open” and “closed” grades and the attendance for all grades in November 2020. While attendance increased across all wealth categories, the most significant increase took place amongst the poorest 90% as previously “closed” grades opened. The opening of all grades therefore seems to have addressed this inequality: weekly **attendance in November 2020 was above 95% across all wealth categories.**

However, in line with the interpretation of the weekly attendance figures above, underlying inequalities such as class size by school quintile should be kept in mind. While the NIDS-CRAM survey did not collect any information on class size, using nationally representative data from the School Monitoring Survey 2017/18 and the 2018 National Senior Certificate data, Köhler (2020)<sup>10</sup> found that in secondary schools, 73% of quintile 1 and 2 schools have large classes (exceeding 45 learners) in contrast with only 17% of quintile 5 schools. **The effect of class sizes has direct implications on how easily schools can adjust to classroom social distancing requirements, which in turn has direct bearing on the possible frequency of daily learner attendance.** This vast difference is acknowledged in the previously cited DBE timetabling guideline which states that there may be no need for timetable adjustments if schools have adequate space. Therefore, daily attendance is likely higher amongst wealthier schools.

<sup>10</sup> Köhler, T. (2020). Class size and learner outcomes in South African schools: The role of school socioeconomic status. *Development Southern Africa*, 1-25.

**Figure 3: Estimated weekly attendance rates by SES quintile/decile ('top10%' is the wealthiest 10%)**



**Source:** NIDS-CRAM, Wave 2 (2020) and Wave 3 (2020)

**Note:**

1. Household per capita income is estimated using point estimate and bracket responses to household income items in NIDS-CRAM Wave 2 with missing data represented by a lower-bound estimate based on earnings and receipt of child support and old-age pension grants.
2. The panel sample of respondents is used for Wave 3. Data are weighted appropriately.
3. 95% confidence intervals indicated.

### 3. How worried are adults about the learners returning to school?

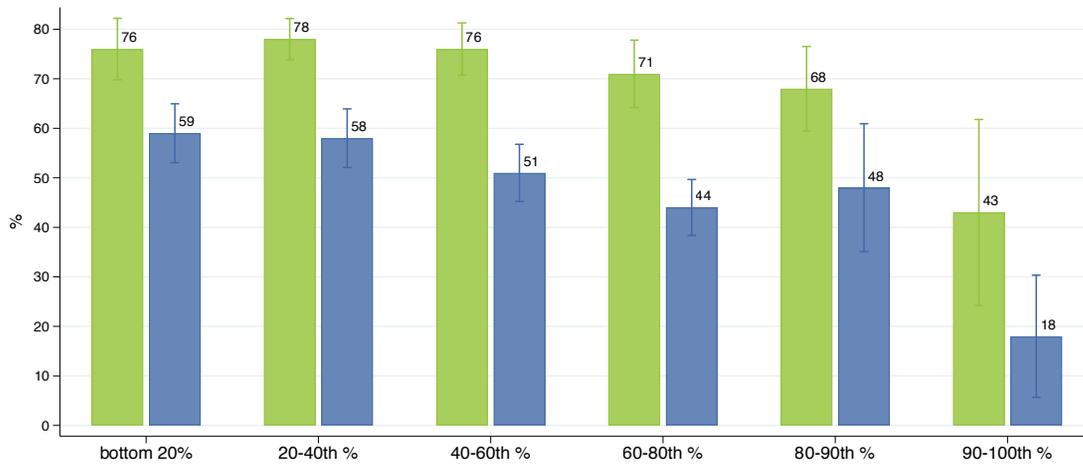
Concern and worry about COVID-19 have become daily considerations amongst societies across the world. A survey administered in 27 countries with 19 000 participants surveyed each month has named COVID-19 as the number one concern for more than 9 months in 2020 with 47% of respondents reporting concern in December 2020. The highest level of worry was reached in April 2020 at 67%.<sup>11</sup>

Learners returning to school may be a source of worry for parents and guardians, as they anticipate increased possible exposure through commuting or at school. When adults living with children were asked “How worried are you about learners in your household returning to school during the COVID-19 pandemic?” with response options as “Not worried, a little worried or not worried at all”. **52% of adults interviewed in Wave 3 reported high levels of worry while 30% reported being a little worried.** While levels of overall worry remain, the current levels are lower than in July 2020 (Wave 2) where 72% of adults reported high levels of worry.

At the time of widespread school closures in July 2020, the levels of worry were found to differ by household wealth. **By November 2020 overall worry levels had decreased across all socio-economic status categories** reflecting an overall decline of between 20 to 30 percentage points. However, respondents from the poorest 40% of households are still three times more likely to report worrying (approximately 60%) compared to those from the richest 10% of households, where only 18% report worrying.

<sup>11</sup> Ipsos Group. 2020. What worries the world. Global summary report, December 2020.

**Figure 4: Estimated level of “high worry” of school return during a pandemic in July 2020 (green) and November 2020 (blue), by SES quintile/decile (“top10%” is the wealthiest 10%)**



**Source:** NIDS-CRAM, Wave 2 (2020) and Wave 3 (2020)

**Note:**

1. Household per capita income is estimated using point estimate and bracket responses to household income items in NIDS-CRAM Wave 2 with missing data represented by a lower-bound estimate based on earnings and receipt of child support and old-age pension grants.
2. The panel sample of respondents across all three waves is used. Data are weighted appropriately.
3. 95% confidence intervals indicated.

## 4. Does worry differ by household composition?

Evidence indicates that the risk of infection, hospitalisation and death are affected by different factors including age, with those aged 60 years and older being classified as more vulnerable.<sup>12</sup> Infection rates reported for South Africa followed similar patterns, from 5 infected persons out of 1000 amongst 15-19 year olds increasing to 20 out of 1000 for those aged 45-49. The latter being the oldest population surveyed<sup>13</sup>.

The evidence on vulnerable groups may be expected to affect levels of worry, especially where the households have both older adults and children that have returned to school. When asked, respondents living with any children between 0-17 years had similar levels of worry regardless of whether the households included those with adults aged 60 and older. Although the levels of worry ranged between 46% and 56% the differences were not statistically significant. Secondly, overall levels of worry by household composition decreased from as high as 76% in July 2020 to 56% in November 2020.

## 5. Has school feeding recovered?

Schools serve as a form of social protection for learners, offering more than education. A July 2020 Gauteng High Court ruling confirmed that the constitutional and statutory responsibility of the DBE both nationally and provincially, now includes ensuring the daily provision of a meal to qualifying learners.<sup>14</sup> These findings followed the suspension of the National Schools Nutrition Programme (NSNP) from March 2020. While daily meals have been provided to eligible learners through the National School Nutrition Programme (NSNP) for more than 20 years, this was previously understood

<sup>12</sup> Centre for disease control and prevention

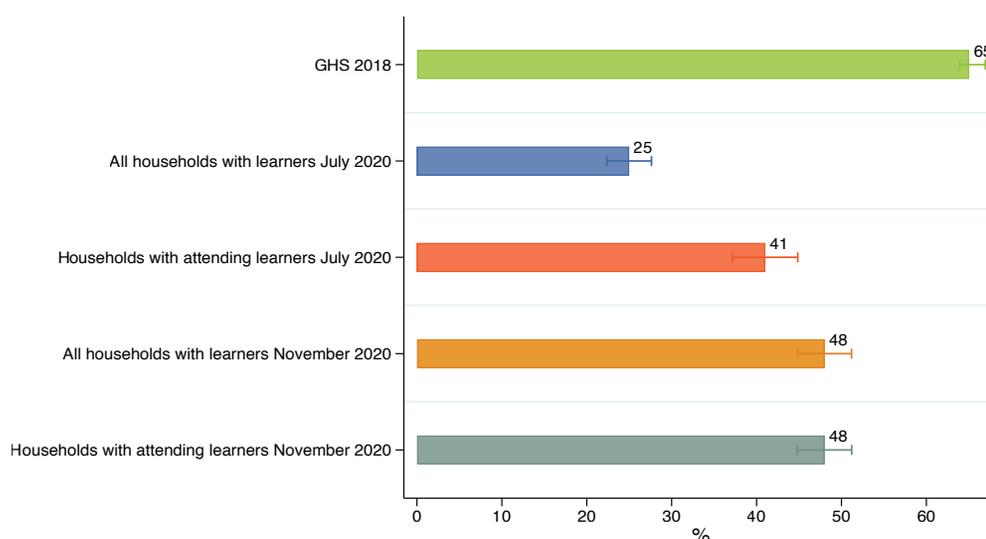
<sup>13</sup> Statistics South Africa, COVID-19 Pandemic In South Africa 1. Demography Volume 2020.

<sup>14</sup> Equal Education and others v Department of Basic Education and others (2020)

as an additional service and not a core basic education responsibility.

While the NSNP resumed in July 2020, just more than 25% of respondents across all NIDS-CRAM Wave 2 households with learners reported receiving a school meal at that time. As seen in *Figure 5* below, by November 2020, **48% of all respondents reported that learners received a weekly school meal, almost double the July levels, but still much lower than pre-pandemic levels.** The specific question “*in the past 7 days, have any learners in your household received a meal from a school?*” reflects any meal received over the past week rather than a daily meal. According to the 2018 General Household Survey (GHS)<sup>15</sup>, 65% of households reported that learners received a *weekly* meal at school; of these, 89% reported that learners received a daily meal. Although the GHS and NIDS-CRAM have several methodological differences and are not strictly comparable, it seems that even when schools had reopened entirely in November 2020, the levels of receiving weekly school meals have not yet reached pre-COVID 19 levels.

**Figure 5: Percentage of households where a child received a meal at school**



**Source:** NIDS-CRAM, Wave 2 and Wave 3 (2020), and GHS (2018)

**Note:**

1. Data are weighted.
2. 95% confidence intervals indicated.

While learners are eligible for a daily meal, even on the days that they are not attending classes, the different timetable options are affecting school feeding. According to DBE and provincial reports from October 2020,<sup>16</sup> learner attendance arrangements—including platooning where some learners attend in the morning and others attend in the afternoon on the same day, rotational attendance on a daily or weekly basis, or in some cases a hybrid of both of these—have affected feeding. While all provinces reported variations in feeding per district, the most notable figures reported were those of the Western Cape, where only 48% of learners received meals in October 2020. One of the challenges faced include the lack of dedicated scholar transport for accessing meals, as the ordinary scholar transport programmes require learners to be present at school for the full duration of the day even if they do not have class. Responses to these transport needs have been limited. However, some provinces have reported widespread provision of food parcels, most notably the Northern Cape where monthly food parcels have been provided for 70% of learners.

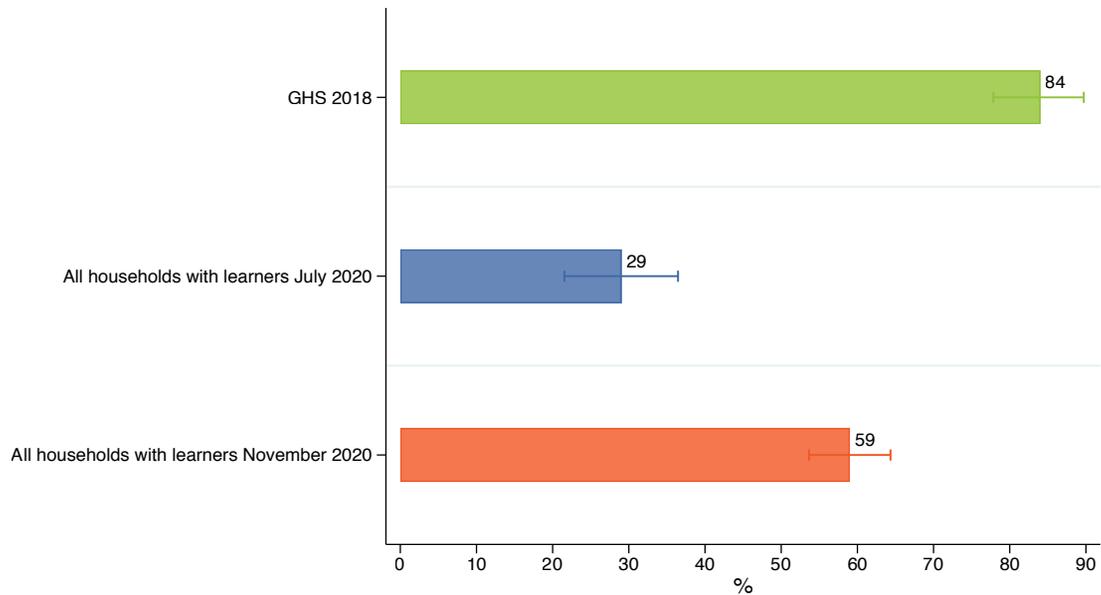
While there are still concerns with the overall access to meals, *Figure 6* shows a doubling of access from 29% in July 2020 to 59% in November 2020 for learners living in households in which at least one member went hungry due to lack of food in the 7 days prior to the survey. Although this

<sup>15</sup> Department of Basic Education. 2019. General Household Survey (GHS): Focus of schooling 2018.

<sup>16</sup> Department of Basic Education. Judgement and court order compliance: National School Nutrition Programme. Report as at 3 October 2020.

is significantly lower than the GHS 2018 figure of 84% in pre-COVID-19 times, this increase is important as children living in these households are likely to be the most vulnerable, with limited access to alternative food options.

**Figure 6: Percentage of food insecure households where a child received a meal at school**



**Source:** NIDS-CRAM, Wave 2 and Wave 3 (2020), and GHS (2018)

**Note:**

1. Data are weighted.

2. Food insecure households are defined as those households in which a member of the household went hungry because there hasn't been enough food. In the case of the GHS 2018 data, the time frame is the past 12 months, whereas in NIDS-CRAM it is 7 days.

## 6. Updates on the health risk to attending schools

In the research paper covering the second wave of the NIDS-CRAM survey (Mohohlwane, Taylor and Shepherd, 2020), it was noted that the local and international evidence suggests that children, especially younger children, appear less likely to contract COVID-19, are much less likely than adults to become severely ill from the virus, and that school closures have not played a significant role in reducing virus spread. However, a new variant of COVID-19 has been prevalent in South Africa since mid-October, and is believed to be more contagious<sup>17</sup>. The question then arises, whether this new variant might present a more significant health risk to children than was the case in the first wave and in the rest of the world.

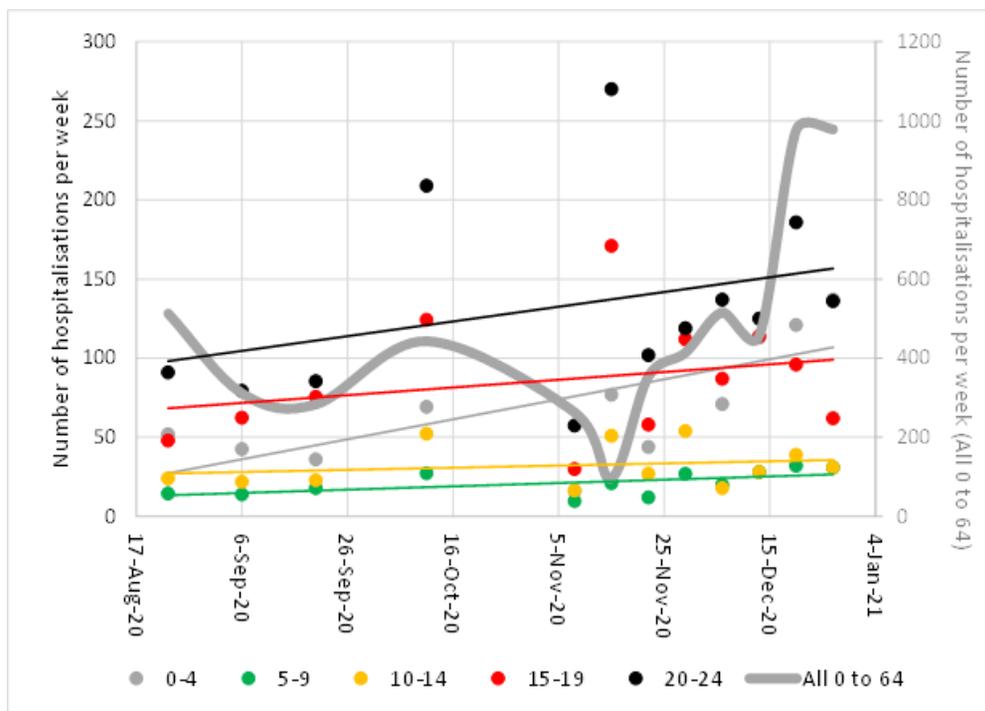
*Figures 7 and 8* use data published in the weekly sentinel hospital surveillance reports issued by the National Institute for Communicable Diseases (NICD). The data come from 13 of these weekly reports - weeks 32 to 52 (weeks missing in source), which cover the start of August (height of first wave) to the end of December 2020. Since not all deaths occur in hospital, the NICD statistics cover around 85% of deaths. *Figure 7* shows that total hospitalisations per week have risen with the second wave (grey curve, numbers on the right axis), yet numbers for children remain low, especially for those aged 5 to 14. These numbers have barely increased with the second wave. For example, in early January, someone aged 50 to 54 was 76 times as likely to be hospitalised as someone aged 5 to 9. Similarly, the probabilities of dying for children remain especially low. For example, someone aged 50 to 54 was 856 times as likely to die as someone aged 5 to 9.

<sup>17</sup> World Health Organisation. 31 December 2020. "SARS-CoV-2 Variants" Accessed at <https://www.who.int/csr/don/31-december-2020-sars-cov2-variants/en/>

Although youths aged 15 to 24 are at lower risk than older people, they do appear more affected by COVID-19 than younger children, as *Figures 7 and 8* show. This in turn would imply that educators of older children might be at greater risk. Therefore, if future discussions are held about closing schools or a phased-in approach to reopening schools, it may be best to prioritise primary schools and younger children.

The crucial question about the health risk to educators is unfortunately more difficult to make data-informed statements about. Although some media reports<sup>18</sup> have reported estimates and raised concerns about high numbers of educator deaths, we have not been able to establish a credible data source underlying any estimates to date. Several points can be made though. One analysis of educator infections conducted using Gauteng data from the first wave of the virus found that educators were not at higher risk than other workers of a similar age profile. Secondly, an important NICD report released in January found “no consistent changes in incidence trends associated with the timing of opening or closing of schools”.<sup>19</sup> Thirdly, there may even be reasons to expect teachers to be safer when at school. Unless teachers are carefully self-isolating when not at school, they may actually interact more frequently with other adults and in settings where strict protocols are less likely to be observed than when at school. A similar situation may even apply to learners - the NICD recently reported that, “an increase in weekly incidence was noted in the 15-19 year age group in week 50, reducing in week 51, and was related to a documented cluster of cases following the matrix ‘Rage’”.<sup>20</sup>

**Figure 7: Number of hospitalisations per week since August**



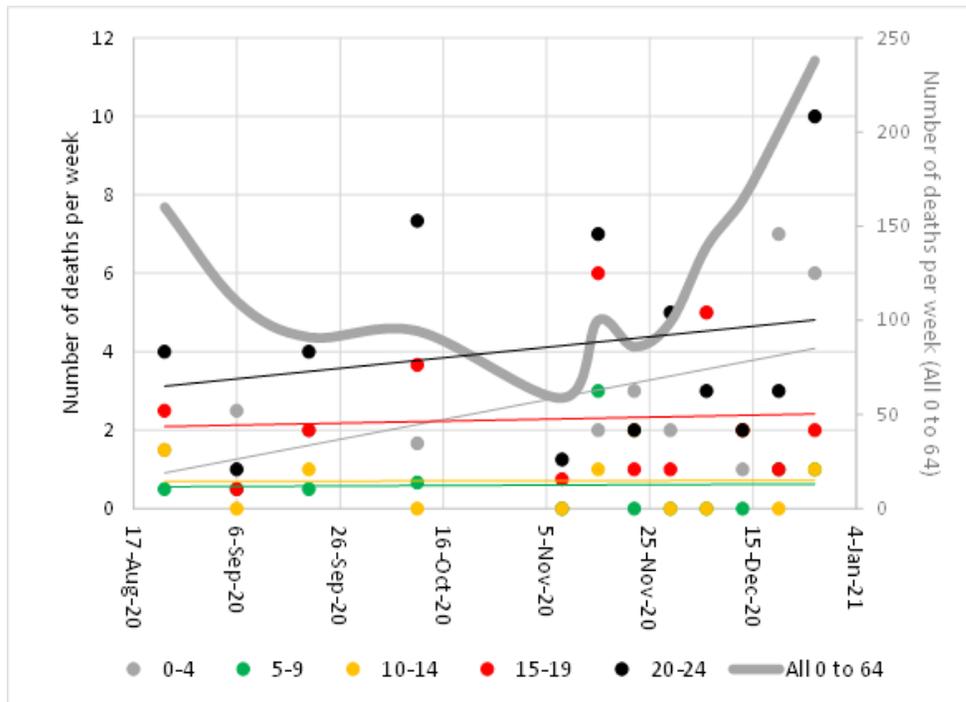
**Source:** Calculations by Gustafsson using National Institute for Communicable Diseases (NICD) Hospital Surveillance Reports.

18 For example, Ewe Witness News, 2021: <https://ewn.co.za/2021/02/01/covid-19-ptsd-exploding-amongst-educators-says-naptosa>.

19 NICD. 22 January 2021. COVID-19 SPECIAL PUBLIC HEALTH SURVEILLANCE BULLETIN. Volume 18, Issue 7.

20 NICD. 22 January 2021. COVID-19 SPECIAL PUBLIC HEALTH SURVEILLANCE BULLETIN. Volume 18, Issue 7.

**Figure 8: Number of deaths per week since August**



**Source:** Calculations by Gustafsson using National Institute for Communicable Diseases (NICD) Hospital Surveillance Reports.

## 7. Policy summary and recommendations

### Main Findings:

- Average weekly attendance rates have bounced back significantly since July when not all grades were open.** The phased reopening of schools in July resulted in unequal attendance rates across household wealth, and these inequalities have now largely been reduced. However, the high attendance rates observed in November do not reflect the effect of rotational timetabling which is resulting in further lost time at school.
- Levels of worry about returning to school have decreased** significantly from 72% in July to 52% in November, but are clearly still high. While worry may be influenced by a range of factors, including the ability to practice social protocols or access to medical attention, adults living in households composed of younger children attending school that could expose older adults in the home to infection do not show significantly higher levels of worry.
- More children received school meals** in November 2020 (48% of households) compared to July 2020 (25% of households). The reopening of all grades clearly helped improve school meal provision. Although comparability to pre-pandemic statistics is not perfect, it would seem that school feeding has still not yet reached the usual coverage of about 65% of households. It is difficult to say exactly why this is the case, but it could include factors linked to the variations of rotational timetabling, limited transport when not attending school, parental decisions about participating in school feeding, cases of monthly food parcels being sent home with children rather than daily school feeding, or general disruptions to the school feeding ecosystem as a result of the pandemic.
- Children still face a much lower health risk from COVID-19** than adults, especially children younger than 15. The rates of infection, hospitalisation and of dying remain exponentially lower for children than for adults.

## Recommendations:

### **1. Schools should remain open:**

While individual schools should respond to within-school COVID-19 cases, schools at a systems level should remain open. Considering the large losses of teaching time amongst earlier grades in 2020, early grades should be prioritised especially at the start of the 2021 school-year, with similar support provided as was demonstrated for grades 7 and 12 in 2020.

While precautionary school protocols should remain in place, aspects such as the 1 meter social distancing by learners within classrooms should be reconsidered. This is based on growing evidence on the negative psychological effects of being out of school, the lifelong consequences of learning losses, as well as the low school-based infection rates.

### **2. Prioritize recovery of learning:**

All further learning losses should be avoided, as this will be the most enduring negative impact of the pandemic on children. The DBE adoption of a 3 year curriculum recovery plan is commendable. However, a return to normal timetabling, perhaps initially in the early grades, may be required to maximise the recovery of learning and improve equity in the opportunities to learn across the system. This will also be the most effective way to prevent excessive dropout in years to come.

### **3. Ensure smooth delivery NSNP:**

The provision of meals to all eligible learners should continue, including when children are not attending school, which is as often as 50% of the time. The significance of the number of learners not at school daily warrants the creation of a full-scale alternative provisioning mechanism that may include systematic provisioning of food parcels aligned with the school timetable. For example, provision may need to be for one day if learners attend every second day, or for up to five days in cases where learners attend every alternate week.

### **4. Communicate with parents and broader society**

Continuous communication should be maintained through the rapid development, adaptation and revision of school protocols. In addition, simplified analysis on infection rates, the effects of school closures, and risks associated with keeping schools open should be communicated extensively.

For further information please see [cramsurvey.org](https://cramsurvey.org)