



WAVE 4

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

Synthesis Report

NIDS-CRAM Wave 4

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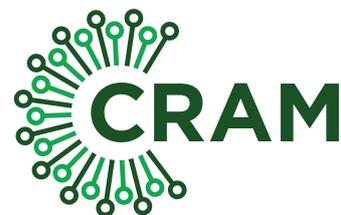
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N.i.D.S.
NATIONAL INCOME DYNAMICS STUDY



CORONAVIRUS RAPID MOBILE SURVEY 2020

Working Paper Series

NIDS-CRAM Wave 4

Spaull, N., Daniels, R. C et al. (2021) NIDS-CRAM Wave 4 Synthesis Report.

Benhura, M. & Magejo, P. (2021) Who cannot work from home in South Africa? Evidence from wave 4 of NIDS-CRAM.

Burger, R., Buttenheim, A., English, R., Maughan-Brown, B., Kohler, T., & Tameris, M. (2021). COVID-19 vaccine hesitancy in South Africa: Results from NIDS-CRAM Wave 4.

Casale, D. & Shepherd, D. (2021) Gendered employment dynamics during the Covid-19 pandemic: Evidence from four waves of a South African longitudinal survey.

Espi, G., Ranchhod, V. & Leibbrandt, M. (2021) Age, employment history and the heterogeneity of Covid era employment outcomes.

Kollamparambil, U., Oyenubi, A., & Nwosu, C. (2021). COVID-19 vaccine intentions in South Africa: Health communication strategy to address vaccine hesitancy.

Nwosu, C., Kollamparambil, & U., Oyenubi, A. (2021). Food insecurity and health outcomes during the coronavirus pandemic in South Africa.

Magejo, P & Benhura, M. (2021). Role of social trust and trust in source of information on adherence to COVID-19 regulation in South Africa: Evidence from NIDS-CRAM.

Oyenubi, A., Nwosu, C., & Kollamparambil, U. (2021). The flip side of risk perception: On the negative influence of risk perception on subjective health during the pandemic.

Shepherd, D., Mohohlwane, N., Taylor, S., & Kotze, J. (2021). Changes in education: A reflection on COVID-19 effects over a year.

Van der Berg, S., Patel, L., & Bridgman, G. (2021) Hunger in South Africa: Results from Wave 4 of NIDS-CRAM.

Wills, G. & Kika-Mistry, J. (2021). Early childhood Development and Lockdown in South Africa: 2021 quarter 1 update on attendance trends.

Ingle, K., Brophy, T., & Daniels, R. NIDS-CRAM Wave 4 Panel User Manual.

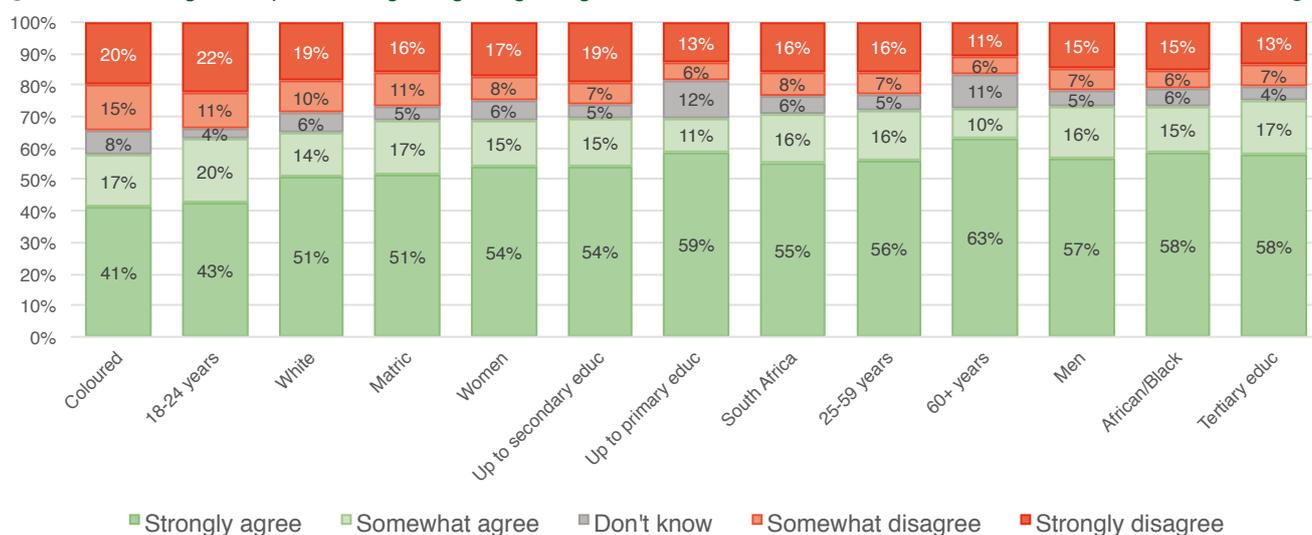
The NIDS-CRAM study is funded by the Allan & Gill Gray Philanthropy, the FEM Education Foundation and the Michael & Susan Dell Foundation. The views of the authors are not necessarily the views of the funders.

The NIDS-CRAM Wave 4 data was collected between 2 February and 10 March 2021. There were 5629 successful Wave 4 interviews. This synthesis report is split into five sections which each draw from the papers listed above: (1) Vaccines: Burger et al. Kollamparambil et al., (2) Schooling: Shepherd et al., (3) Hunger: Shepherd et al., Van der Berg et al., Nwosu et al., (4) Employment: Espi et al., Casale & Shepherd., Benhura & Magejo et al. (5) Early Childhood Development: Wills et al. All papers are available for download at <https://cramsurvey.org/reports/> The NIDS-CRAM data is freely available for download at the Data First Open Data Portal: <https://www.datafirst.uct.ac.za/>

1. Vaccines

71% of South African adults say they would get vaccinated if a COVID-19 vaccine was available. In the latest wave of NIDS-CRAM all respondents were asked “If a vaccine for COVID-19 were available, I would get it” and four response options were read aloud: “Strongly agree, somewhat agree, somewhat disagree, and strongly disagree”. The 71% willingness figure is made up of two groups: the 55% choosing ‘Strongly agree’ and the 16% selecting ‘Somewhat agree.’ Among the 29% who did not agree, 16% strong disagreed, 8% somewhat disagreed, and just under 6% of adults reported that they do not know if they would accept a vaccination. Relative to other countries then, vaccine acceptance is higher than recent estimates from the US and France, but lower than China, Brazil and the UK. The youth and those with only a primary school education were more likely to be vaccine hesitant. On the other hand, those who exhibit high mortality risk - those over 60 and those who have a chronic condition (e.g. HIV, TB, lung condition, heart condition or diabetes) - are less likely to be vaccine hesitant. Note that after controlling for income, education and other variables race is not a significant predictor of vaccine hesitancy.

Figure 1: Percentage of respondents agreeing/disagreeing with the statement “If a vaccine for COVID-19 were available, I would get it.”



Source: Burger et al. (2021) Using weighted NIDS-CRAM Wave 4 data. Note that the Indian/Asian sub-sample is excluded since the sample is too small to accurately reflect this group.

Among the 29% of respondents who were vaccine hesitant, the three leading reasons for their hesitancy were that they were worried about the side effects (31%), did not believe it was effective (21%) or did not trust vaccines in general (18%). If respondents were hesitant about getting a vaccine they were asked for reasons why they were hesitant. The vast majority (84%) only cited one reason. The three reasons cited above accounted for 70% of respondents who were in the hesitant category. Importantly, only 8% of those exhibiting vaccine hesitancy attributed their hesitancy to a low perceived risk of getting COVID-19.

Individuals who trust social media as an information source were significantly more likely to exhibit vaccine hesitancy. In Wave 1 respondents were asked the following question: “Where do you get information about the Coronavirus that you trust?” Respondents who reported social media as their trusted information source were seven percentage points more likely to be vaccine hesitant.

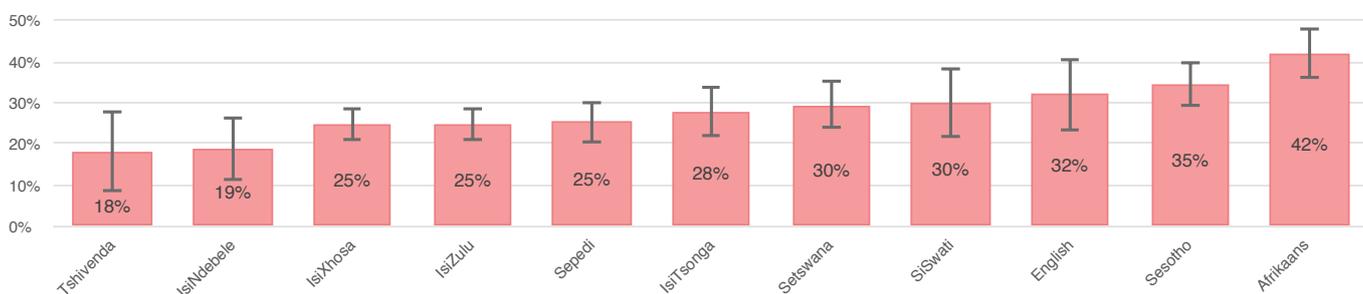
The youth (18-25 years) were much more likely to be vaccine hesitant than older adults (25+ years) Specifically, just 63% of youth are willing to take a COVID-19 vaccine, as opposed to 72–73% of individuals aged 35–59 years and those older than 60 years

Those most at risk of COVID-19 (those with chronic conditions and the elderly) were more willing than the general population to accept a vaccine. As predicted by theories such as the health belief model, the Wave 4 data show that increased mortality risk lowered reported vaccine hesitancy. The measures of mortality risk that were significant in the analysis were self-reported chronic conditions and advanced age. After controlling for other factors, those with chronic conditions were seven percentage points less likely to be vaccine hesitant, and those 60 and over were six percentage points less likely. Worryingly, those that are obese or experience hypertension were not more likely to accept a vaccine.

Our estimate is the highest estimate of vaccine intention for adults in South Africa to date. Two other recent surveys have found similar levels of vaccine intention. The University of Johannesburg (UJ) and Human Sciences Research Council's (HSRC) COVID-19 Democracy survey (Runciman et al., 2021), conducted in December 2020 and January 2021 estimated a vaccine intention rate of 67% amongst South Africans, while the IPSOS-World Economic Forum survey (2021) reported a 64% estimate at the end of February 2021. Caution is needed when comparing NIDS-CRAM estimates to other surveys due to varying sampling strategies and subsequent representivity. Given that the NIDS-CRAM sampling frame was drawn from an existing nationally representative survey (the National Income Dynamics Study) we would argue that the NIDS-CRAM estimates are the most representative vaccine intention results to date.

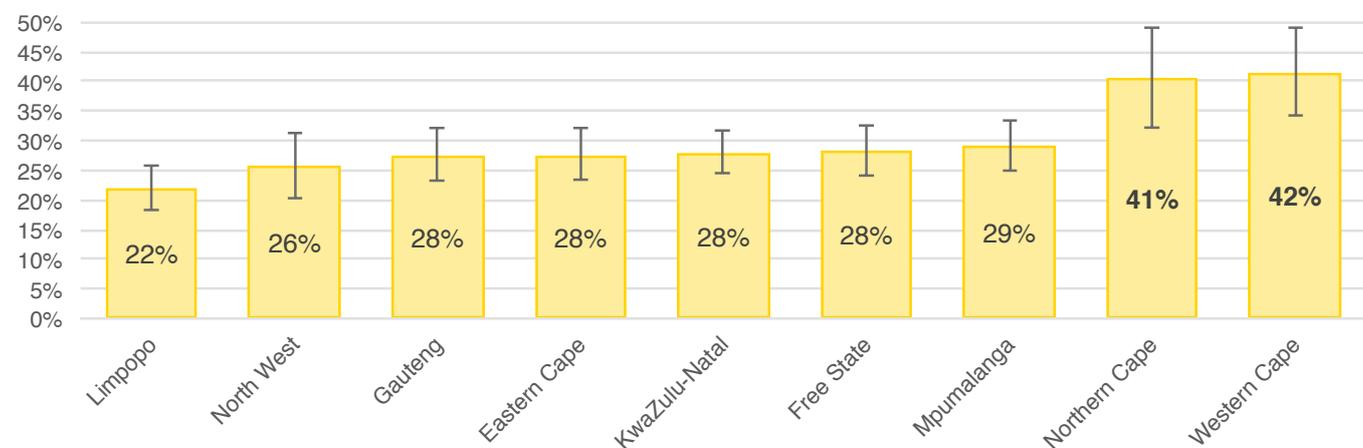
42% of Afrikaans home language respondents were vaccine hesitant, much higher than the national average (29%) and significantly higher than 7 of the 11 language groups. The lowest hesitancy rates were found among Tshivenda (18%) and isiNdebele (19%) respondents, as well as isiXhosa, isiZulu and Sepedi respondents (all 25%). While many of these language groups have overlapping confidence intervals (i.e. their estimates are not statistically significantly different), the difference between Sesotho (35%) and five language groups is also significant (all at the 90% significance level).

Figure 2: Vaccine hesitancy by respondent's home language (NIDS-CRAM W4)



Although NIDS-CRAM is not provincially representative, in light of the language results and the predominance of Afrikaans in the Western Cape and Northern Cape, it is also clear that respondents from these provinces had higher vaccine hesitancy on average Specifically, 42% of those respondents in the Western Cape and 41% of those in the Northern Cape were vaccine hesitant compared to 22% of those in Limpopo, 26% of those in the North West and 28% of those in Gauteng. Taken together, these language and provincial results suggest that campaigns targeted at both of these provinces and at Afrikaans' home language speakers is supported by this data. We recommend further community engagement and research to investigate and understand this finding.

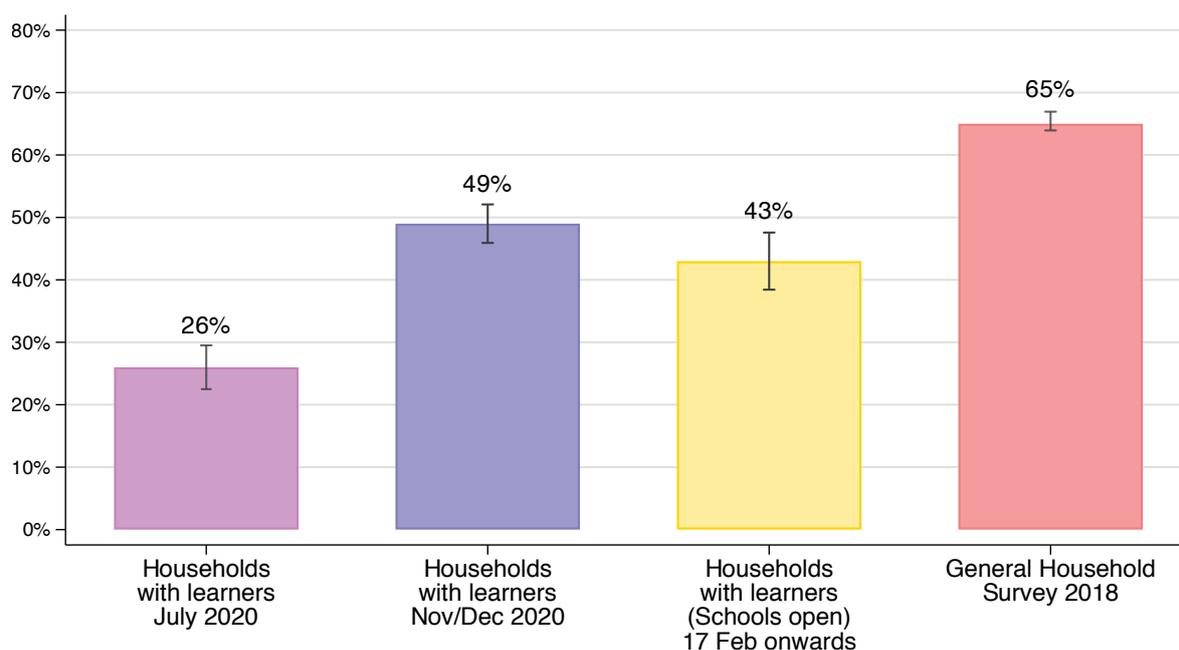
Figure 3: Vaccine hesitancy by province (NIDS-CRAM W4)



2. Schooling

Less than half of children (43%) received a free school meals in February and March 2021, showing receipt is still well below pre-pandemic levels (65%), and possibly even November/December 2020 levels (49%). In February and March 2021, respondents with children were asked if their child had received a school meal in the last seven days. Restricting this to those dates where schools were open and children could receive meals shows that only 43% of respondents said yes. This is slightly lower than the reported levels of receipt in November/December 2020 (49%), and still much lower than pre-pandemic levels (65%, according to GHS 2018). The leading explanation for low school meal receipt is rotational timetables where only half of children attend on any one day in most no-fee schools.

Figure 4: Receipt of free school meals in 2020 and 2021 in South Africa

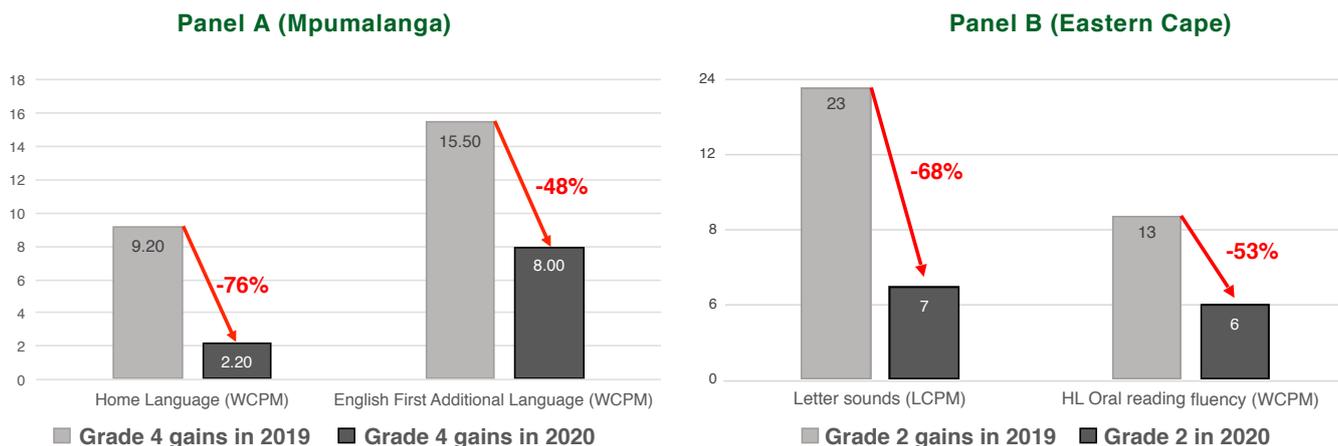


Source: Shepherd et al. (2021) using NIDS-CRAM Waves 2-4, weighted.

The majority of parents and caregivers in South Africa (58%) agreed that children should be able to attend school every day, rather than rotational timetables. In November 2020 (Wave 3), NIDS-CRAM respondents that had children in their household were asked “*Do you think children should be able to attend school every day?*” 58% answered yes. There were strong racial differences with the highest rate of agreement among White respondents (85% yes) and Coloured respondents (69% yes) and the lowest rate of agreement among Black Africans (56%).

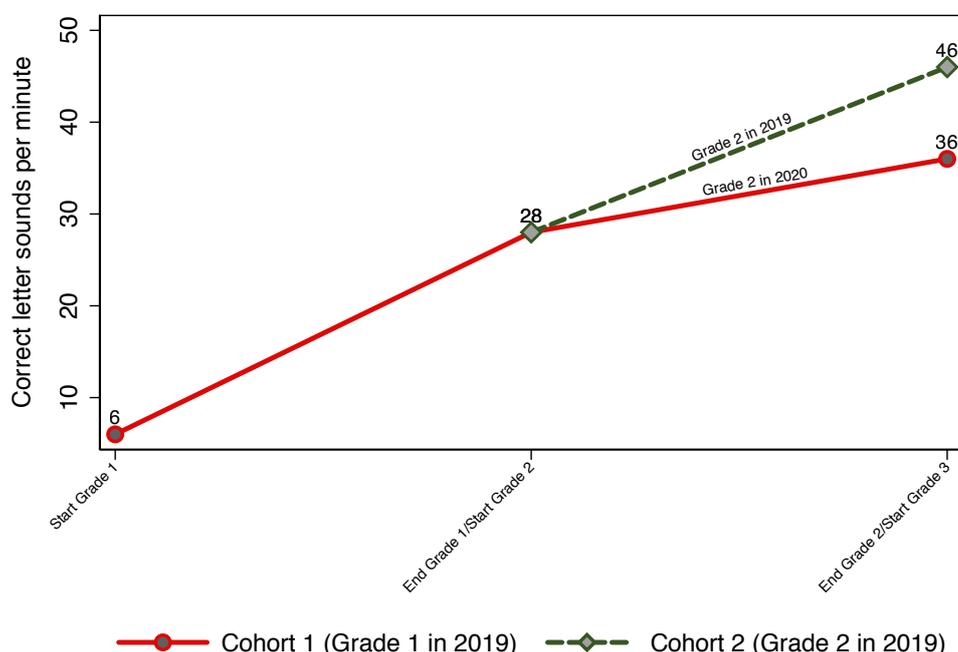
In 2020, South African primary school children in no-fee schools have learnt 50-75% less than what they normally learn. Two large, independent studies show that, depending on the subject, learning losses in no-fee schools in 2020 ranged from 50-75% of a year of learning when compared to children in 2019. As part of the Early Grade Reading Study (EGRS) II, children in a sample of 130 no-fee schools in Mpumalanga were assessed on reading outcomes in both their Home Language (HL) and English as First Additional Language (EFAL) in 2017, 2018, 2019 and 2020. This allows for comparisons of annual learning gains in reading. Grade 4’s in 2020 experienced overall learning losses of 79% in HL and 52% in EFAL. Otherwise stated, these figures indicate that learners learnt roughly a quarter of what they could have learnt for HL, and only half of what they could have learnt for EFAL. Another study covering 57 no-fee schools in the Eastern Cape – the Funda Wande Evaluation - found similar learning losses at the Grade 2 level for HL. Depending on the task assessed, learning losses across the 57 no-fee schools ranged from 53% to 68% for Grade 2. Note that more than 70% of South African schools are no-fee.

Figure 5: Learning losses in Grade 1, 2 and 4 using EGRS (130 no-fee schools in Mpumalanga) and Funda Wandu (57 no-fee schools in the Eastern Cape)



Flattening learning trajectories compromise educational gains made to date. Over the last decade there have been some improvements in both reading and mathematics outcomes, as reflected in independent international assessments like PIRLS and TIMSS. However, new data from assessments done in 2020 and 2021 indicates that some of these gains are being eroded due to the flattening of learning trajectories. Figure 6 below shows the learning trajectories of a cohort of Grade 1 children in 2019 in the Eastern Cape. In Grade 1 the cohort went from 6 to 28 letters correct per minute in 2019 (pre-pandemic), and if they stayed on track they would reach 48 letters correct per minute at the end of Grade 2 (as the previous cohort of Grade 2 children in these schools did in 2019). The fact that they could only identify 36 letters correct per minute at the end of 2020 (during the pandemic) shows the learning losses from COVID-19, school closures and rotational timetables.

Figure 6: Learning trajectories of letter sounds correct per minute with gains in 2019 and 2020 for two cohorts of learners in 57 schools in the Eastern Cape (Grade 1 and 2 in 2019)

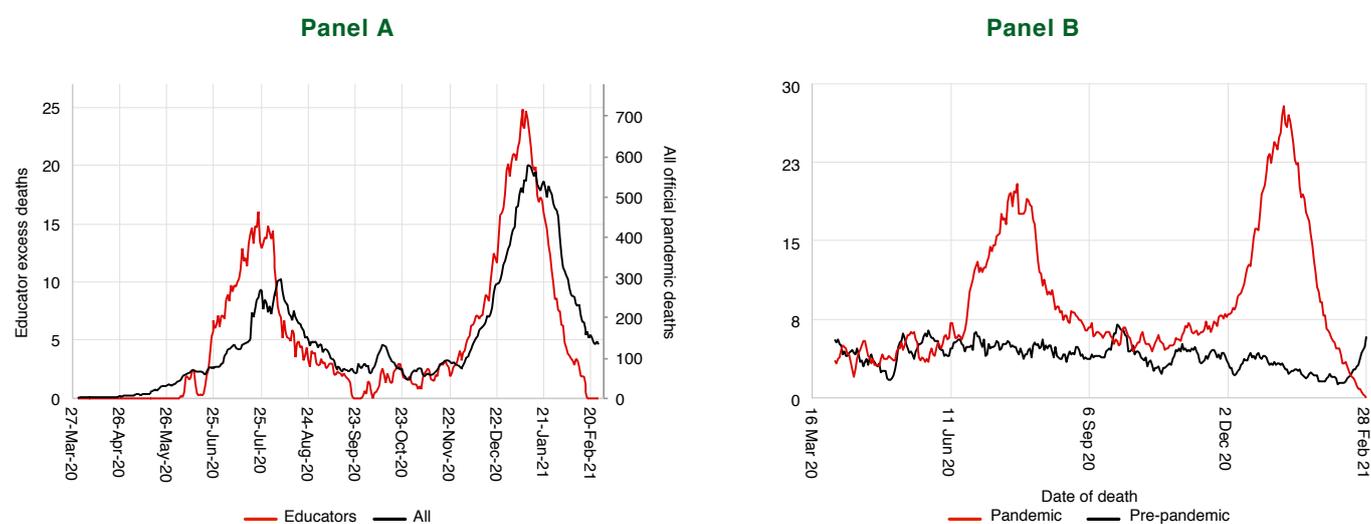


Teacher deaths during COVID-19 are not related to school re-opening/closing dates, and instead closely follow population COVID-19 mortality trends. New analysis of countrywide teacher payroll data (PERSAL) shows that while there was a large increase in teacher deaths from COVID-19 in 2020/21, these follow overall national trends and not school re-opening dates. The World Health organisation (WHO) along with other international bodies have increasingly supported emerging evidence that school access and attendance restrictions are not an effective non-pharmaceutical intervention - the present findings support this view. Analysis of national teacher payroll data (PERSAL) allows for a comparison of teacher mortality in 2020/21 compared to 2019 and to the South African population as a whole. The new analysis however is limited to teacher deaths as reported by provinces within PERSAL. Using an ‘excess deaths’ approach one can estimate how much higher teacher mortality has been during the pandemic due to COVID-19 compared to pre-pandemic mortality.

These 'excess deaths' map almost perfectly onto the first and second 'waves' of the pandemic (Panel A below) indicating they are most likely COVID-19-related deaths. (The reason for the slight difference between the red and black lines in Panel A is due to the delay in reporting of national deaths). Importantly there is no discernable relationship between teacher deaths and dates of schools being opened or closed. This analysis shows that of 401 327 teachers on PERSAL, tragically 1678 are estimated to have died from COVID-19 between the end of March 2020 and the end of February 2021 (note these are **excess** deaths). In total there have been 3032 teacher deaths between the end of March 2020 and the end of February 2021. Without the pandemic, one could expect around 1354 publicly employed educators to die over this period, indicating that this is a 124% increase due to COVID-19. Note, the South African Medical Research Council estimates that total excess deaths in South Africa up until 23 January 2021 were 125 744. Thus excess teacher deaths make up 1,3% of total excess deaths.

Teachers at secondary schools are not at higher risk of COVID-19 transmission: While there have been questions about older learners being more likely to transmit the virus, this new analysis also shows that teachers in secondary schools are not at higher risk than those in primary schools, supporting the notion that schools (neither primary nor secondary schools) are not the primary sites of infection.

Figure 7: Excess teacher deaths (red line) in comparison to overall COVID-19 deaths in SA (Panel A) and teacher deaths pre-pandemic (2019) (Panel B)



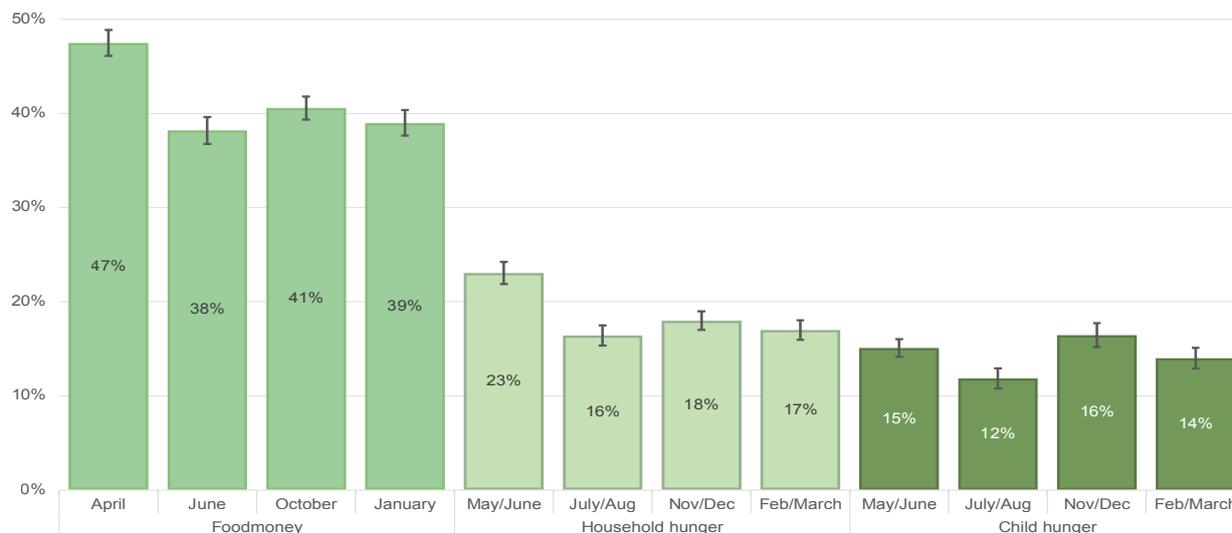
Source: Calculations by Martin Gustafsson, using monthly teacher payroll data (PERSAL) for 2019 and 2020. For the population figures, the OxCGR dataset was used

Parent and caregiver worry about children returning to school has increased from 52% in November/December 2021 to 57% in February/March 2021. If respondents were in households that included school-going children, they were asked about whether they were worried about these children returning to school. The percentage of respondents indicating they were "very worried" increased between November/December 2020 (52%) and February/March 2021 (57%). Racial differences in parent and caregiver attitudes are significantly related to factors related to socio-economic dis/advantage. As such, agreeing that children should attend school every day could indicate that parents are confident in their child/ren's schools' ability to manage risk and ensure child and teacher safety.

3. Hunger

Weekly child hunger has declined from 16% in November/December to 14% in February/March 2021, although this new rate (14%) is still nearly double pre-pandemic levels (8%). In each wave of NIDS-CRAM, respondents with children in their household were asked if a child in their household had gone hungry in the last week because there wasn't enough food. Reported rates were 15% in May/June (Wave 1), 12% in July/August (Wave 2), 16% in November/December (Wave 3) and are now 14% in February/March (Wave 4). While it is positive news that weekly child hunger has come down slightly, the rate remains nearly twice the pre-pandemic level (which was approximately 8% in 2018)."

Figure 8: Prevalence of running out of money to buy food, weekly household hunger and weekly child hunger in South Africa over the four waves of NIDS-CRAM 2020/2021 (all households with children in them)

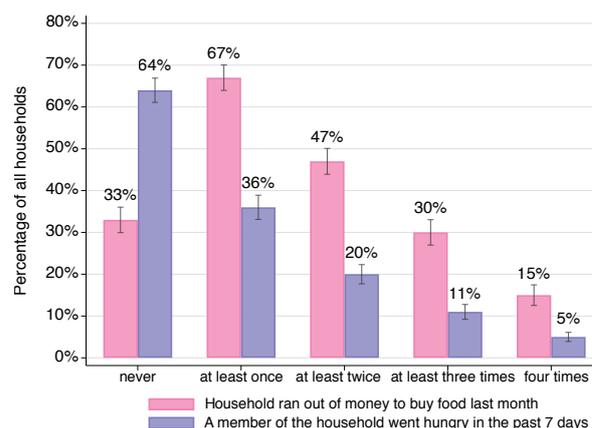


Source: Van der Berg et al. (2021) using NIDS-CRAM Waves 1-4.

NIDS-CRAM respondents have been surveyed four times since the start of the pandemic. Two thirds of respondents (67%) reported that their household had run out of money to buy food in the previous month in at least one of these surveys. Nearly half (47%) had run out at least two times. Across each of the last four waves of NIDS-CRAM, respondents were asked if their households had run out of money to buy food in the previous month (April, June and October in 2020 and January in 2021). This figure was highest in April 2021 at 47% and declined to approximately 40% in the subsequent three waves (Wave 2-4). However, if one looks at the percentage of respondents who reported they had run out of money to buy food in at least one of these periods, this figure is 67%. Thus, two-thirds of South African households have experienced food insecurity during at least one of the four waves of NIDS-CRAM. For Black Africans, who experienced the highest rates of food insecurity, this rate is 70%.

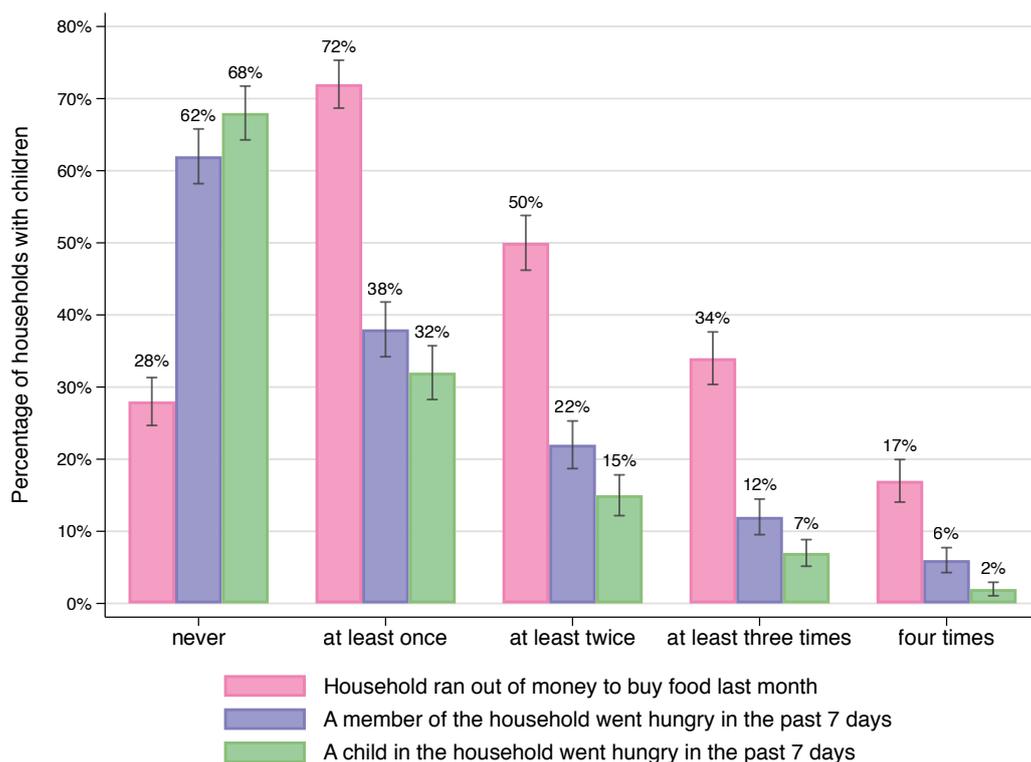
Among households with children in them, one third (32%) reported that a child went hungry in the past week in at least one of the four waves of NIDS-CRAM. Across the four waves of NIDS-CRAM, respondents were asked not only about running out of money for food and household hunger, but also about whether a child went hungry in the past seven days because there wasn't enough money for food. Among households with children in them, in at least one of the four waves, 38% said someone in the household went hungry in the last seven days and 32% reported that a child went hungry in the last seven days. The difference between these two numbers also shows the ongoing prevalence of 'shielding' where adults in the household manage to shield their children from hunger to some extent.

Figure 9: Prevalence of running out of money to buy food and weekly household hunger in South Africa reported over the four waves of NIDS-CRAM 2020/2021 (all households).



Source: Shepherd et al. (2021) using NIDS-CRAM Waves 1-4, weighted.

Figure 10: Prevalence of running out of money to buy food, weekly household hunger and weekly child hunger in South Africa reported over the four waves of NIDS-CRAM 2020/2021 (all households with children in them)



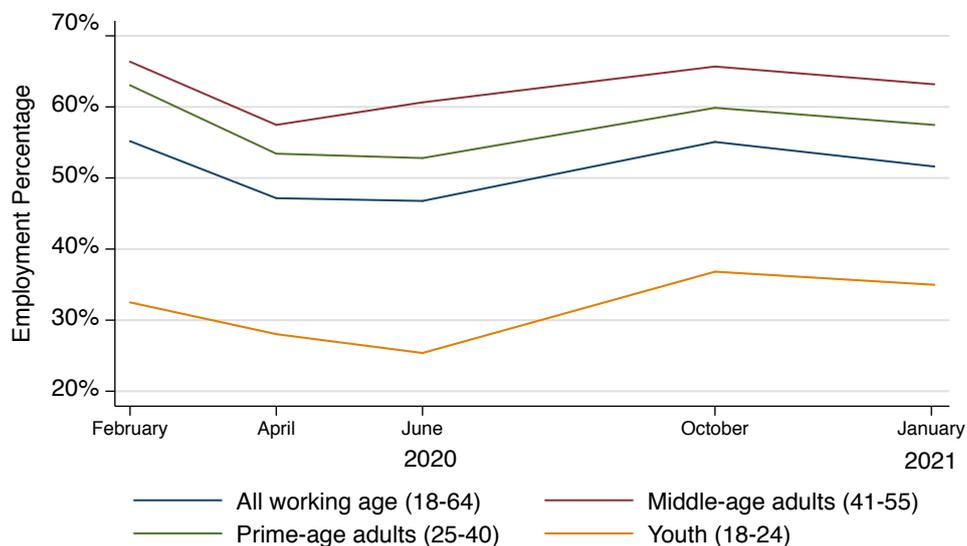
Source: Shepherd et al. (2021) using NIDS-CRAM Waves 1-4, weighted.

Analysis of hunger in Wave 1 (2020) showed that after controlling for race, gender, education and location, the strongest predictor of household hunger was whether the household lost its main source of income. In Wave 1 if a household lost its main source of income it was 14 percentage points more likely to experience hunger. In NIDS-CRAM Wave 4 the questionnaire was adjusted and asked whether the main source of income decreased, increased or stayed the same. If Wave 4 respondents indicated that their main source of income decreased, this was also associated with a strong increase in household hunger of 6 percentage points.

4. Employment

The second wave of infections and associated lockdown at the start of 2021 led to net job losses with significant labour market churning (job losses and job gains). Between October 2020 and January 2021 the percentage of employed adults (18-64 years) in the NIDS-CRAM cross-sectional sample declined from 55% to 52%. This was mirrored by drops of a similar magnitude (2-3 percentage points) across all age groups.

Figure 11: Percentage employed in 2020/21 by age group (NIDS-CRAM Waves 1-4)



Source: Espi et al. (2021) using NIDS-CRAM Wave 1-4

Between October 2020 and January 2021 there was still significant churning in the labour market with about one fifth of those employed in October not employed in January, and about a fifth of those not employed in October finding work in January. Rates of job finding among the non-employed were similar across age groups, while job loss was strongly and negatively correlated with age. Comparing outcomes for youth (18-24), prime-age adults (25-40) and middle-aged adults (41-55) it is clear that the youth were most affected by job losses. Job loss for the youth was more than double (-31%) job losses for middle-aged adults (-13%) and also much higher than for prime-age adults (-19%). These results indicate a worsening in employment and transition outcomes in response to the second wave of COVID-19 infections and the more stringent Lockdown Level 3 (compared to October's Lockdown Level 1), but that the declines in employment were relatively small compared to the effects of the initial COVID-19 April Lockdown Level 5.

Analysis of the balanced panel sample shows that women were more negatively affected than men even after controlling for individual and household factors. Comparing employment dynamics between February 2020 and January 2021 indicates that, where jobs were lost, women were more likely to lose, and where jobs were gained, women were less likely to benefit. Of those women who started out employed in February 2020, 70% still had employment in January 2021. For men, the corresponding figure was 78%. Of women who started out not employed pre-Covid, 19% had employment in January 2021, with the corresponding figure for men 31%. This female penalty cannot be explained away by controlling for region, education, age, race, marital status and household composition.

The type of job matters with women more likely to be in sectors hardest hit by the crisis. The fact that a large female penalty persists regardless of controlling for regional, individual and household variables, suggests that a significant factor in who lost and who gained jobs over the period—as well as who remained in 'stable employment'—is likely the type of job men and women initially held, and the type of job that became available over the period. Women were more likely to be in sectors that were hardest hit by the crisis, and perhaps also less likely to have the skills or training to take up new opportunities available.

Those workers in jobs that enable them to work from home are more advantaged than others during the Lockdowns. Employees in formal jobs are more likely to be unable to work from home than their counterparts in informal jobs. For occupations, workers in elementary occupations and plant and machine operations are less likely to be able to work from home than managers and professionals. By sector: workers in mining, private households, manufacturing and community, social and personal services are more likely to be unable to work from home compared to workers in financial intermediation.

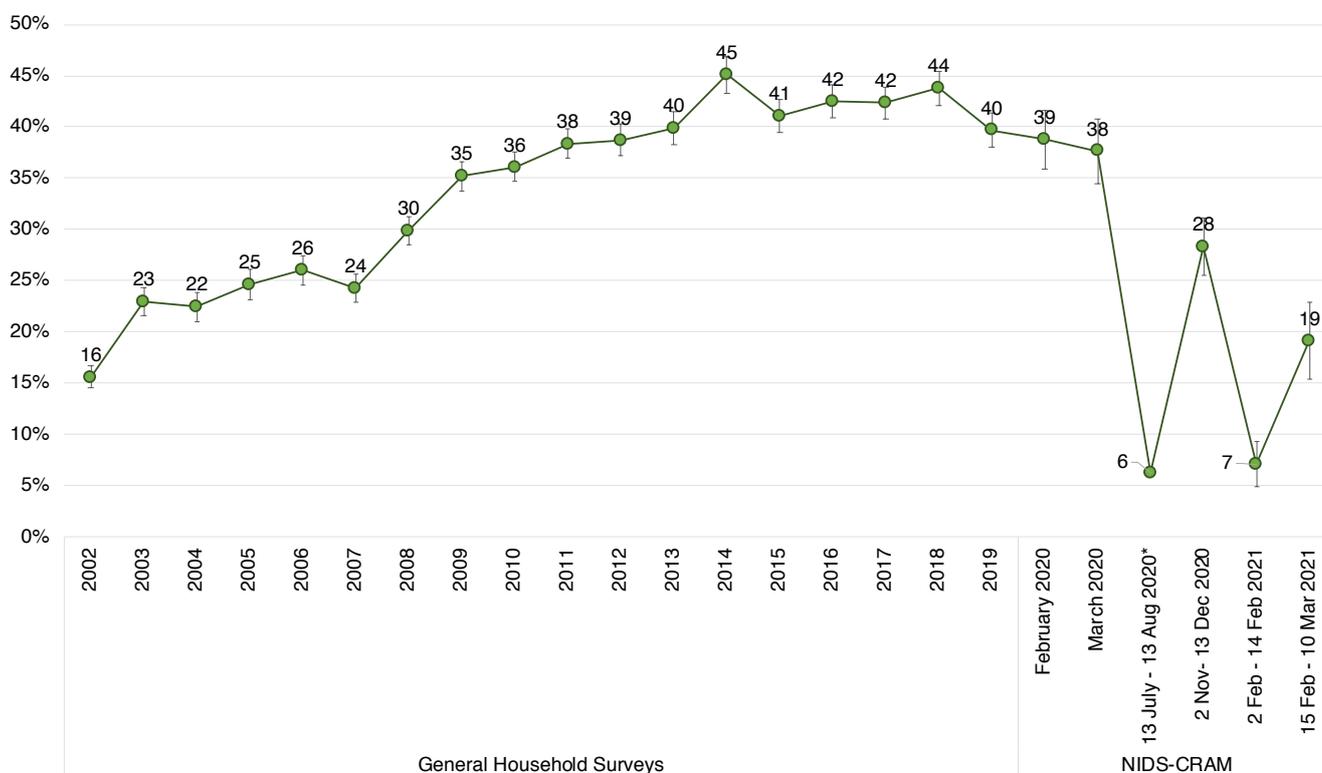
5. Early Childhood Development

Before schools opened in 2021, ECD attendance was much lower compared to ECD attendance in quarter 4 of 2020. Of NIDS-CRAM respondents living with children aged 0 to 6 interviewed from 2 to 14 February 2021, just 7% indicated that at least one child in their household had attended an ECD programme in the past 7 days. By comparison, this estimate was 28% between early November and mid-December 2020 (quarter 4 2020) and 39% in February 2020 as seen in Figure 12. The large dip in reported attendance in the first half of February 2021 resembles that observed in mid-July to mid-August 2020.

ECD attendance increased after primary/secondary schools officially reopened on 15 February 2021. For those NIDS-CRAM respondents living with children aged 0 to 6, interviewed from 15 February to 10 March 2021, about 19% indicated that at least one child in their household had attended an ECD programme in the past 7 days. These patterns hold even when accounting for any possible differences in the observed characteristics of respondents interviewed before and after schools reopened.

Temporary ECD programme closure remains a primary reason for non-attendance at ECD programmes. Of respondents indicating that they lived with children aged 0 to 6 but no child was attending an ECD programme in the past 7 days, 26% indicated that the reason for non-attendance was that the programme was “temporarily closed due to lockdown”. If one further restricts the sample to those where children had attended an ECD programme in February 2020 (pre-pandemic) but not in the past 7 days, as many as 43% of respondents indicate that the Centre is temporarily closed.

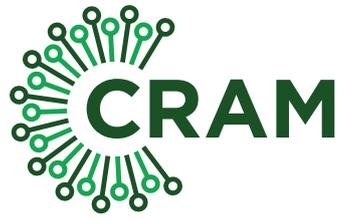
Figure 12: Percentage of adults living with children aged 0 to 6 that report at least one child attending an ECD programme (that is not grade R or in school)



Source: Wills et al (2021) using General Household Surveys and NIDS-CRAM waves 2, 3 and 4.



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