The impact of the Coronavirus and lockdown on children's welfare in South Africa: Evidence from NIDS-CRAM Wave 1

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The impact of the coronavirus lockdown on children's welfare in South Africa: Evidence from NIDS CRAM Wave 1[1]

Servaas van der Berg[2], Linda Zuze[2] and Grace Bridgman[2]

Abstract

Child hunger in South Africa declined after introduction of the child support grant. Despite the 2007/8 recession and slow economic growth since, child hunger more than halved from being reported in 35% of households in 2002 to 16% in 2018 in the General Household Survey. However, the pandemic reversed many of the gains. In newly collected data from Wave 1 of the NIDS-CRAM study, 15% of respondents reported that a child in their household had gone hungry in the week before they were interviewed in May or June. For the month of April, 47% of respondents reported that their household had run of money (the first month of the lockdown, before social relief measures were instituted). A much lower percentage, only 25%, reported that they had run out of money for food in the past year in 2018, a far less strict criterion. Loss of main income source between February and April, largely as a result of the lockdown, is strongly associated with a higher likelihood of child hunger in households.

There is some shielding of children by adults: Child hunger is much lower than for other household members, and many households running out of money for food do not report child hunger. Drawing down savings, borrowing and depending on the generosity of others may have acted as a shield for child hunger in this initial lockdown period. This cannot continue indefinitely. A short analysis of social grants and school meals points to their importance for reducing child hunger, but also highlights their limitations at a time of great economic trauma.

Keywords: Covid19; lockdown; child welfare; hunger; social grants.
JEL codes: I31, I32, I15

[1] This paper forms part of the NIDS-CRAM Wave 1 reports: https://cramsurvey.org/reports.

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Executive summary

Main findings

Since the turn of the century, stunting, wasting and underweight in children under 5 declined and the General Household Survey records a declining trend in child hunger. Expansion of the reach and age-eligibility of the Child Support Grant (CSG) played a major role in the halving of child hunger between 2002 and 2007, before it increased again during the 2007/8 global financial crisis. It took a decade to get it down to its 2007 level again.

The pandemic and lockdown brought economic decline that had a far greater impact than the 2007/8 global recession. The response to a question on whether a child went hungry in the past week in the NIDS-CRAM survey was similar to that in a GHS question in 2018 on whether a child went hungry in the past year.

Adults appear to be shielding children from hunger in this early lockdown period. Reported adult hunger in NIDS-CRAM is much higher than child hunger, 22% against 15%, whereas these rates usually do not differ in GHS data.

Households further managed to limit child hunger in the past week to 15%, despite 47% of households reporting that they have run out of money for food during the past month. The major mechanisms available for staving off hunger are borrowing or drawing on savings – mechanisms that can only function for a short period. Thus it is likely that **child hunger will rise substantially** in the next few months in the face of at best a slow economic recovery.

Child hunger is closely linked to loss of a main income source. Altogether 40% of respondents sampled in CRAM report that their household has lost a main income source between February (before the lockdown) and April (the first full month of the lockdown). Income losses are widespread. Even among those in the richest quintile of households in 2017, one-quarter of respondents reported losing a main source of income. Income per capita, households that experienced loss of a main income source in April 2020 reported almost 10 percentage points higher prevalence of child hunger than households that had similar per capita incomes in 2017.

Both the CSG and the OAP are well targeted at households that were poor before the pandemic and lockdown. The OAP is sufficient to reduce child hunger to an extent, depending on how thinly grant income has to be spread across household members. The CSG, however, unless supplemented by other income, is too low to prevent child hunger, though it does mitigate extreme hunger. The great extent of job and income losses reported between February and April this year substantially reduced complementary income, thus many grant recipient household have fallen into (deeper) poverty, and child and adult hunger has increased.

Recommendations

The response by government to the pandemic and the economic devastation is limited by means and by mechanisms. Regarding the means, the South African government was already severely fiscally constrained before the pandemic. Mechanisms of social relief are difficult to introduce rapidly. Therefore the government's COVID-19 response relied on existing capabilities and processes. Three that are particularly important to children are social grants, schools meals and Early Childhood Development subsidies.

- **Social grant top-ups must continue beyond October.** The severity of the economic shock and the depth of poverty make this imperative, despite fiscal constraints. Although top-ups are inadequate to compensate for other income and job losses in many households, the most common social grants, the OAP and the CSG, inject much needed financial resources into many poor households. There are now more fully grant-dependent households than before, and more households would become eligible for grant receipt under the means test.

- **Improve the implementation of the new instruments, the 'special COVID-19 social relief of distress' grant of R350 per month and the COVID-19 TERS, a temporary income replacement measure for job losses**.

- **Despite tight fiscal constraints, CSG values should be increased, considering that around a third of all households are now reported to be fully dependent on grant.** These grants are not even adequate to keep the targeted child out of poverty.

- **Revert to a fixed grant top-up per child (as implemented in May) instead of the fixed top-up per caregiver of the CSG (implemented since June).** The new CSG top-up of R500 per caregiver rather than R350 per child places an undue burden on households with more than one child.

- **Re-open school feeding schemes.** Schooling and feeding need not necessarily be linked. It is welcome news that the Department of Basic Education now plans to provide food to all learners, whether they are in school or not.

- **Bring forward planned expansion to the school nutrition scheme.** The school feeding scheme is already due to expand to include providing breakfast for learners.

- **Provide greater financial support to ECD centres.** Many ECD centres and crèches may not survive the lockdown. ECD margins would be further strained by the fact that many parents may no longer be able to afford sending their children to ECD centres. Additional funding could make them more financially viable, reduce the costs to poor parents and allow the centres to offer more nutritious meals.

1. Introduction

In the past two decades, South Africa has made steady progress in improving the welfare and prospects of children in two important ways. Between 2002 and 2018 reported child hunger more than halved, from being reported as occurring by 35% of households with children in 2002, and dropping to 16% in 2018. In addition, children's prospects improved through the consistent and strong improvement in performance of South African schoolchildren in international tests, albeit off an extremely low base. Although far from perfect, the situation of children in South Africa had at least improved greatly.

These strong trends of enhanced child welfare in terms of child hunger and cognitive development has been interrupted by the COVID-19 pandemic, which in a few short months is putting two decades of progress at risk. Other research within Resep is collating evidence on the possible magnitude of learning losses that may be occurring. The NIDS-CRAM Wave 1 survey, on which this paper is based, was undertaken to measure the socio-economic impact of the pandemic and the economic turbulence that followed in its wake, at a time when the normal statistical data gathering processes were not operational. This paper will show that child hunger, never quite tamed, is again a cause of great concern.

This paper is largely based on analysis of the National Income Dynamics Study – Coronavirus Rapid Mobile Survey (NIDS-CRAM). This study was conducted by researchers from multiple universities in response to the coronavirus crisis and the economic turbulence that has ensued. This data is the first of multiple waves of NIDS-CRAM which was collected via computer-assisted telephonic interviewing (CATI), and is broadly nationally representative of adults from 2017, who were re-interviewed in 2020 for NIDS-CRAM (Kerr, Ardington, & Burger 2020). Due to the nature of COVID-19, face-to-face interviewing was not possible, which made CATI the next-best alternative. This method of interviewing entails certain restrictions, including low response rates and the necessity for a shorter questionnaire. Given these restrictions, the first wave of NIDS-CRAM data has a remarkable high response rate of 41%, with 7041 successful interviews of adults over the age of 18 conducted between 7 May and 27 June 2020. More information about the NIDS-CRAM survey design can be found in Appendix A and at https://cramsurvey.org/.

Wave 1 of the NIDS-CRAM survey asked multiple questions about child and adult hunger. Respondents were asked whether children or adults had experienced hunger in the past 7 days, and if so, how often. The respondent was also asked if the household had run out of money to buy food in the month of April. For this broadly representative sample of South Africa, **15% of households** reported a child going hungry at least once in the past week, and **22% of households** reported the same for any household member. At least 16% of the children who went hungry are under the age of 7. Additionally, **47% of households reported running out of money to buy** food in April. This suggests that while households may run out of money to buy food, they are still able to make up the shortfall in some way to put food on the table. This may be the result of drawing down savings, the generosity of others, or borrowing. The evidence suggests a sharp increase in hunger, especially child hunger, since the start of the coronavirus pandemic in South Africa. Furthermore, child hunger will likely increase in the following months if households continue to run out of money to buy food. Table 1 below shows other descriptive summary statistics of the primary variables of interest, which we investigate further in order to understand the dynamics of child hunger better.

***Table 1**: Summary statistics for primary variables of interest*

Variable	N	Mean	Std. Dev.
Child Hunger	5 655	15.2%	0.35
Hunger any member of HH	7 010	22.23	0.42
HH Ran out of food money	7 012	46.9%	0.50
Female respondent	7 067	53.2%	0.50
Tap water available	7 062	82.2%	0.38
HH Size	7 035	5.0	3.15
Proportion of HH under 18	5 135	41.6%	0.16
OAP recipient	7 008	32.7%	0.47
CSG recipient	6 978	52.3%	0.50
Receives any grant	7 067	65.1%	0.48
Lost income since the start of lockdown	6 899	40.0%	0.47
Metropolitan Municipality*	7 067	29.4%	0.46
Matched HH between NIDS and CRAM	7 067	49.5%	
For the almost 50% of the sample which is matched:			
Decile 1 to 4 in NIDS 2017**	3 536	43.1%	0.49
Proportion of income from grants in 2017	3 536	20.7%	0.28
Population Group	N	(%)	
Black	5 532	78.4	
Coloured	669	9.5	
Asian/Indian	170	2.4	
White	686	9.7	

Notes:
* Metropolitan municipalities include those around Johannesburg, Pretoria, Durban and Cape Town.
** Deciles of matched sample in CRAM, based on NIDS 2017 per capita income.
Note: all summary statistics are sample weighted.

In the next section, we provide a short context about child nutrition in developing countries and risk factors for malnutrition. In Section 3, the impact of the pandemic and lockdown on child nutrition is discussed, drawing particularly on a comparison between findings from CRAM and trends that have become evident in StatsSA's annual General Household Survey, and investigating also the relationship between responses on child hunger to other data from CRAM. Section 4 briefly discusses possible responses to child hunger.

2. Child nutrition in developing countries

Economic growth and malnutrition tend to move in opposite directions. Global malnutrition has halved over the last 20 years due to economic progress and to advances in agricultural production. As household income rises and food consumption improves, so too do hygiene, health care and access to clean water (Haddad et al. 2003). Progress has not been even or global; 22 per cent of children under 5 years of age still suffered from chronic malnutrition in 2018, one-third of them in sub-Saharan Africa (United Nations 2019). The consequences of child malnutrition can stretch well into adulthood, through its negative impacts on human capital formation (Alderman, Hoddinott, and Kinsey 2006, Ampaabeng and Tan 2013, Hoddinott et al. 2013). Chronic malnutrition increases the risk of infection and death and is linked to poor cognitive development (United Nations 2019, Richter and Desmond 2009), while improved nutrition has the potential to increase future earnings and can contribute to substantial poverty reduction (Agüero, Carter, and Woolard 2007, Behrman and Hoddinott 2005, Bailey et al. 2020). Yet a thriving economy does not automatically spell the end to child hunger, nor does it guarantee the health of a population. Additional measures are required (Vollmer et al. 2014).

South African children fare better than some of their peers in developing countries, but malnutrition remains a reality. In 2016, 27 per cent of South African children under 5 years of age were stunted (slightly higher than the developing country average of 25 per cent) and 2.5 per cent were wasted (lower than the developing country average of 9 percent) (National Department of Health et al. 2019; Global Nutrition Report 2019). Severe malnutrition can be life-threatening for South African children who are HIV positive (Saloojee et al. 2007). Almost a third of South African children who die are severely malnourished, though malnutrition may not be the primary cause of death (Bamford, McKerrow, Barron, & Aung 2018).

Understanding how children are fed and cared for can be difficult. Household surveys typically ask questions about the economic outcomes of the household rather than about the condition of specific individuals within the household. The implicit assumption is often that resources are allocated according to the need of household members, but this is not always true (Haddad and Kanbur 1990). In fact, when it comes to consumption, children can be worse off than other household members, because they rely on others for their care and seldom have control over where they live (Dunbar, Lewbel, and Pendakur 2013). Also, because surveys use households as the unit of analysis, poor individuals within non-poor households may go unnoticed (De Vreyer and Lambert 2020). Such a scenario is entirely plausible where children are moved from one home to another during periods of uncertainty. This is the reason why policies that have wider reach are preferable in countries with high or shifting levels of malnutrition (Brown, Ravallion, and Walle 2019).

A child's quality of life can be viewed from many different angles. For example, anthropometric estimates (using body measures to compare nutritional status) are common for detecting vulnerability among young children (under the age of 5) but is less widely used for older children. While child height signals investment in child nutrition over the long term, child weight provides the short-term view. Children from different populations who have access to appropriate care and nutrition follow a similar growth pattern prior to birth and during the early years (Prendergast and Humphrey 2014). Thus, a child who is chronically under-nourished will be stunted (with a height for age that is more than 2 standard deviations below the median for the World Health Organization Child Growth Standards). This means that the child is shorter than expected for his or her age (Duflo 2000). In contrast, measures of a child's weight are susceptible to rapid changes (Delpeuch et al. 2000, WHO 1995).

Whether or not undernourished children can recover or if the damage is permanent is an important policy consideration. If it is possible to reverse the damage of chronic malnutrition, then efforts to address malnutrition aggressively take on a new level of importance. While the first 1 000 days of a child's life have been the focus of nutritional interventions (Heckman 2008), studies in Latin America, Asia and sub-Saharan Africa show that nutritional catch up can happen after the first two years (Prentice et al. 2013). It is less certain whether similar recovery in impaired cognitive development can be expected. Casale and Desmond (2016) used South Africa's Birth to Twenty study to show that while there was potential for children to recover from malnutrition, gaps in test scores between previously malnourished children and children who had never been malnourished remained significant (Casale and Desmond 2016).

It is well accepted that children whose mothers are less educated and whose families are of a lower socioeconomic background are at greater risk of both mild and severe undernutrition (Chopra 2003, Chowdhury et al. 2016). A mother's education level may influence health-related behaviour (visits to clinic, duration of breastfeeding, supplemental nutrition, etc.). Similarly, children from wealthier homes are less likely to live in overcrowded, food-insecure environments where there is poor sanitation. Studies show that community and household variation in child undernutrition exists even across poor communities and it is important not to simplify these complex realities. Higher birth-weight is associated with lower incidences of stunting for South African boys and girls (Slemming et al. 2017). Unemployment (particularly the employment status of the household head) is strongly associated with a child's nutritional status in the literature (Victora et al. 1986, El-Ghannam 2003).

The link between the state of an economy and undernutrition, malnutrition and food insecurity is never simple. However, food insecurity and household hunger can be significantly linked to risk factors such as high unemployment, high poverty and disrupted or uncertain income-generating activity (Crush, Frayne and Pendleton 2012). These risk factors worsen for many households during times of economic crisis, such as is now experienced with the pandemic in South Africa.

3. Child hunger in South Africa

3.1. South African child hunger in context

The arrival of the coronavirus pandemic in South Africa as well as the lockdown implemented on 27 March 2020 has ushered in an episode of economic uncertainty that followed a period where the economy was already greatly weakened. The IMF's Economic Outlook update of June 2020 (IMF 2020) forecast an 8.0% decline, along with significantly higher unemployment. Food insecurity, poverty and household hunger are expected to be on the rise, with sobering consequences for children who may experience these realities.

Since 2000, stunting, wasting and underweight in children below 5 declined (Osgood-Zimmerman *et al.* 2018). StatsSA's annual General Household Survey (GHS) also records a declining trend in child and adult hunger from the first survey in 2002 (see Figure 1 below). The question asked was: *"In the past 12 months, did any child (17 years or younger) in this household go hungry because there wasn't enough food?"* The household was recorded as experiencing child or adult hunger if any children or adults respectively were reported to go hungry, even if only on occasion (responses could be never, seldom, sometimes, often or always). The sharp decline of reported child hunger, from 35% of households with children reporting that a child went hungry occasionally (at least 'seldom") in 2002 to only 17% in 2007 is usually ascribed to the expansion of the reach and age-eligibility of the Child Support Grant (CSG). However, the 2007/8 global financial crisis then affected the SA economy, at a time when the CSG expansion had neared its maximum, and child hunger again rose to 22% in 2010 (note that the question was not asked in 2009). Wave 1 of NIDS, fielded in 2008, asked a similar question about hunger experienced by adults and children, and found similar responses: 24% of households reported a child going hungry, and 28% reported adult hunger (household weights applied). After the recession, child hunger again declined, but quite gradually due to anaemic economic growth, and it only returned to its 2007 level a decade later in 2017. It still remained stubbornly high at 16% in 2018, although that is great progress compared to the turn of the century.

***Figure 1**: Child and hunger from 2000 to 2018.*

Source: Own calculations from pooled GHS data, weighted by household

The distribution of resources within poor households differs across households and countries. In fact, the more complex the household structure and the larger the household, the more likely it is that estimates of resource distribution will be imprecise (De Vreyer and Lambert 2020). Retrospectives studies of child malnutrition in South Africa in the early 1990s have uncovered that children who were living in rural areas and in provinces with high concentrations of poverty were at a greater risk of being under-nourished (Jinabhai, Taylor, and Sullivan 2006, Zere and McIntyre 2003). Research from a decade later noted improvements in the nutritional status of children, gains that were widely attributed to the availability of child support grants (May and Timæus 2014, Agüero, Carter, and Woolard 2007).

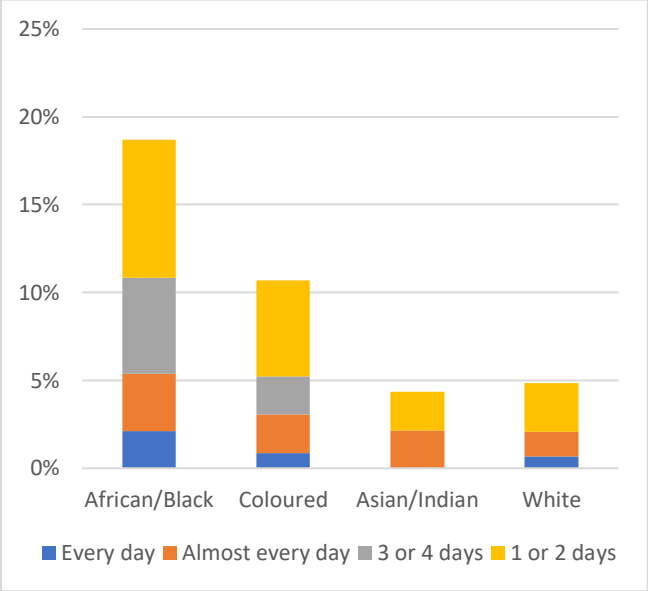
Part of the success of CSGs is because of their distribution channels. For historical reasons, the proportion of South African children under five who live in a household where there is a pension recipient is high (Duflo 2000). That they are usually paid out to women (the care-giver of the child) increases the likelihood that children will be prioritised when household expenditure decisions are made. And while the success of Latin American variants of cash transfer programmes is also attributed to the requirement that children visit a health clinic regularly (Behrman and Hoddinott 2005), South Africa's programmes are unconditional but still highly effective.

The economic decline associated with the pandemic is likely to have an even greater effect than the 2007/8 recession on child hunger. This recession is deeper, and its effects more immediate. It affected informal business activity, as well as some employed workers, particularly those who were less educated and at the bottom of the income distribution, thus driving down incomes further.

3.2. Effects of the pandemic

In NIDS-CRAM Wave 1, the question about child hunger experienced in a household was asked with reference to the past week. Interviews took place in May and June. Given that grant payments are made at the beginning of the month, the majority of grant receiving households would have already received the grants with top-ups. Nevertheless, the levels of child hunger reported are high. It is evident from Figure 2 that child hunger was highest amongst black Africans, amongst whom 19% reported child hunger in the past week and 5% child hunger every day or almost every day. For children in households where the respondent had only primary education, child hunger in the past week was reported in 25% of cases, with 8% reporting that this happened every day or almost every day.

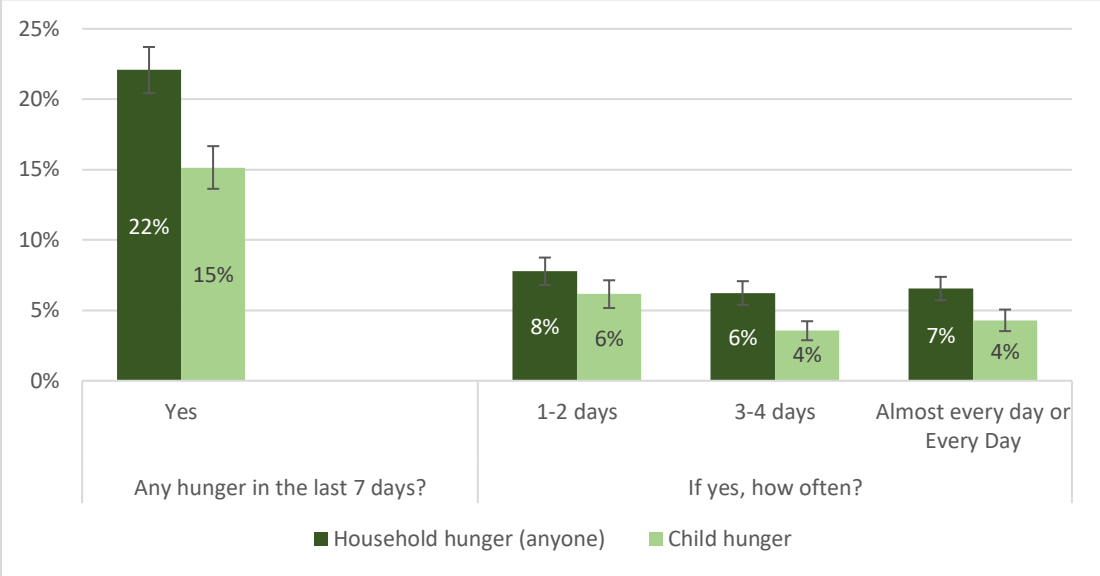
Figure 2: *Child hunger in the past week*



Source: Calculated from NIDS-CRAM Wave 1

Where adults experienced hunger for four days or less in the last 7 days, about half of respondents (47%) indicated that a child did not go hungry in the household (i.e. half of children were shielded). However, when there was perpetual adult hunger (hunger 'Almost every day' or 'Every day' in the last seven days), then adults appear less able to shield children, since only 33% of respondents indicated that a child did not go hungry (Figure 3). It is worth noting that adult and child hunger do not differ much in the GHS data, but there are clear differences in NIDS-CRAM. The most plausible reason is that many households who are experiencing hunger are managing somehow to protect or 'shield' the children in the household from that hunger. Where hunger becomes too frequent this shielding declines.

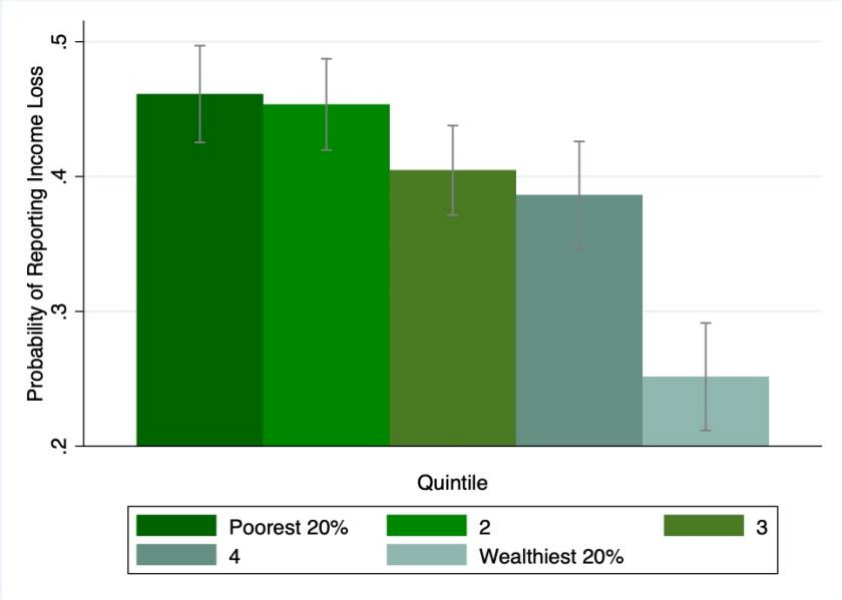
Figure 3: *Child hunger and hunger of any household member*



One of the most worrying responses in CRAM was that almost 40% of the more than 7000 individuals interviewed indicated that their households had experienced a loss of a main income source between February and April, i.e. before and after the lockdown was implemented. The range of this income loss is large: Figure 4 shows, for individuals known to have remained in the same household[3] that they were in during the NIDS Wave 5 survey in 2017, that income losses ranged between 46% in the poorest quintile of households to 25% in the wealthiest quintile (quintile 5). Notable from these numbers is firstly the very high proportion of households in even the richest quintiles being affected by major income loss, but also that there is barely any statistical difference in the proportion of income losses in the other four quintiles.

[3] For households that can be matched between NIDS 2017 and NIDS-CRAM 2020, it is possible to control for the level of per capita household income in 2017. While it is not certain that respondents in 2020 remain in the same household in which they were interviewed in 2017 (NIDS wave 5), we attempted to exclude households that may have undergone major changes between NIDS and NIDS-CRAM. The 'matched sample" are those individuals in NIDS-CRAM who (i) still lived in the same district municipality as in 2017, (ii) reported the same household size as in 2017, and (iii) said that they had not moved since the lockdown began. Taking this approach, almost 50% of the sample remained in the same household between 2017 and 2020.

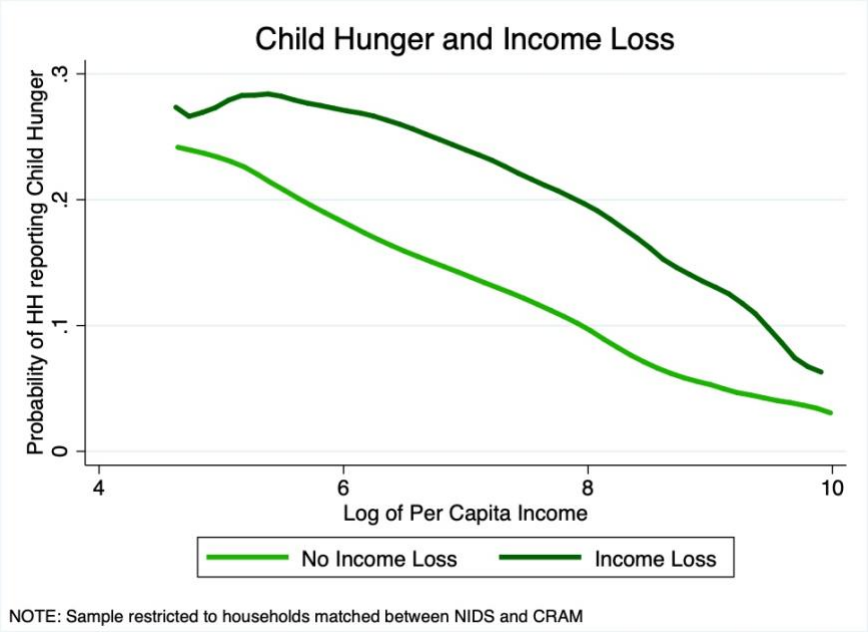
Figure 4: Individuals reporting loss of a main income source in April compared to February, according to their income quintile in 2017



Note: Only individuals clearly matched to their 2017 household shown
Source: Own Calculation from NIDS-CRAM

Among those who lived in households with children, child hunger was reported by just over 15% of all interviewed individuals. Adult hunger is higher at over 22%, suggesting the possibility that adults may be shielding children from hunger, something not as apparent in previous data on hunger. In the GHS, hunger reported for households and for children is always very similar. As one can expect, child hunger is higher in households that experienced the loss of a main income source between February and April. If one considers only individuals clearly matched to their 2017 household, Figure 5 indicates that for the same level of per capita income, child hunger in the last seven days is more likely in households for which income loss was reported since the start of lockdown. Linear regressions in Table B.1 in Appendix B confirm this finding and suggest that an income loss during the lockdown increases the chance that a child went hungry in that household by almost 10 percentage points (an interaction between per capita income and income loss was not significant, suggesting that the effect of income loss is largely a parallel upward shift of the line in the figure).

Figure 5: *The probability of a household reporting child hunger by income loss*

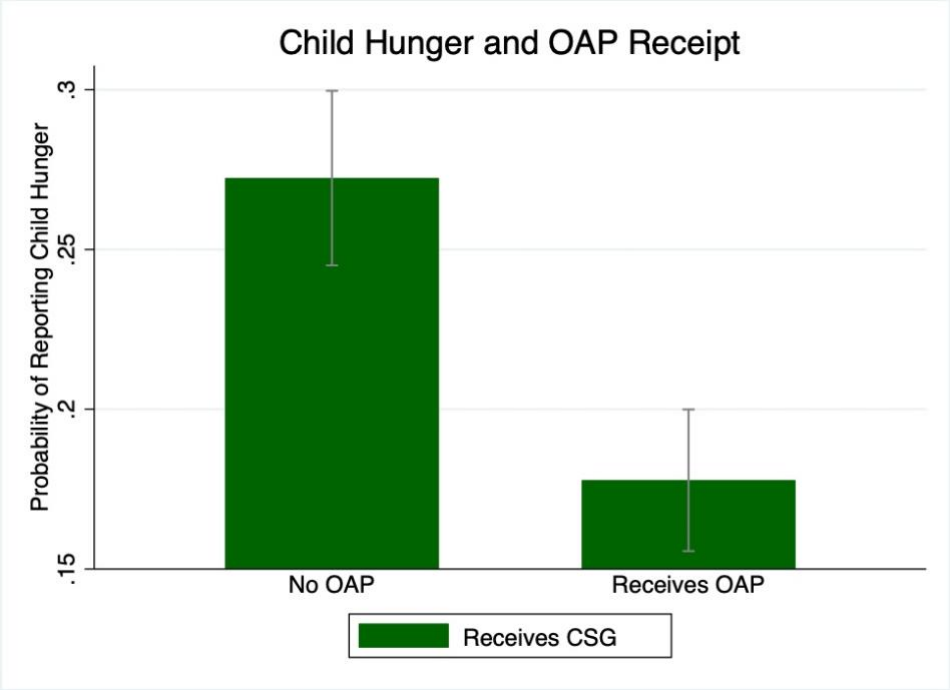


Some types of households experienced more child hunger than others. The regressions in Table B.2 in Appendix B indicate, unsurprisingly, that households that were poorer in 2017 were significantly more likely to experience child hunger during the lockdown.[4] After considering per capita income, household size and composition do not show a consistent relationship with child hunger. The respondent's gender did not make a difference, but compared to the reference group (black Africans), child hunger is significantly lower for coloured and Indian/Asian respondents, and for better educated respondents. Neither a metropolitan location nor having tap water available (a summary measure of household amenities) shows any significant relationship with child hunger, though the latter is associated with much lower adult hunger after controlling for the same variables. As expected, a respondent reporting not having enough money for food is much more likely to report child hunger. Households containing children covered by the CSG were more likely to experience hunger, although this result is not statistically significant and likely reflects that CSGs are well targeted to poorer households. The larger Old Age Pension (OAP), however, does significantly decrease the likelihood of a household experiencing child hunger, even for a given per capita income in 2017, which may point to pension recipient's shielding children from hunger. A regression of adult hunger in NIDS-CRAM showed very similar patterns as that for child hunger. Neither a metropolitan location nor having tap water available (a summary measure of household amenities) shows any significant relationship with child hunger, though the latter is associated with much lower adult hunger after controlling for the same variables.

Figure 6 below shows households whose main income source is grant income and that do receive a CSG. Those among these households also benefiting from OAPs experience significantly less child hunger.

[4] Note that the sample is reduced to respondents in CRAM for whom the household in NIDS in 2017 is matched to the household in 2020. This restriction is necessary in order to control for the initial level of income in 2017.

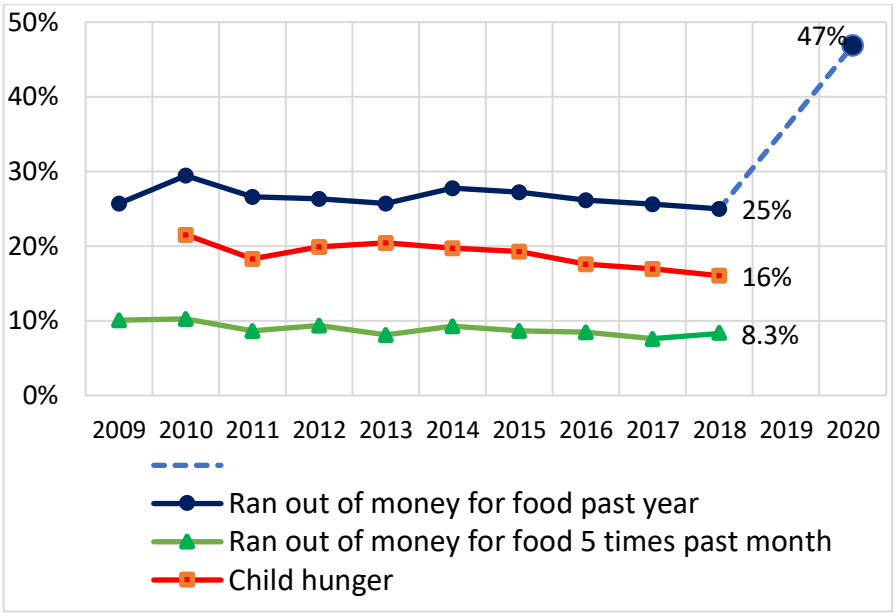
Figure 6: Child hunger in households where containing CSG grant holders by whether the households also benefits from OAPs



Source: Calculated from NIDS-CRAM.

Like loss of main income, running out of money for food in the past month is an important indicator of the havoc that the pandemic and lockdown have wrought. Altogether 47% of respondents reported running out of money for food in the past month. This question is similar to two questions that have been asked every year since 2009 in the General Household Survey. In the GHS, the questions are whether the households has run out of money for food in the past year, and then also whether the household has run out of money for food at least 5 times in the past month. In normal circumstances, more households are likely to respond that they have run out of money for food in the past year (the one GHS question) than would indicate it happened to them in the past month (the NIDS-CRAM question), which would again happen more frequently than the response that it has happened at least 5 times in the past month (the second GHS question). Figure 7 shows the responses to the two GHS questions for 2009-2018, as well as households reporting that a child went hungry for the same period, except that this question was not asked in 2009. The 47% answering that they had experienced hunger in the past month in NIDS-CRAM during the lockdown is very much higher than the far less strict first question in GHS, which reflects running out of money for food sometime during the year. Put differently, twice as many households reported running out of money to buy food in a single month of lockdown (April 2020) as did report they ran out of money to buy food in the *entire year* of 2017.

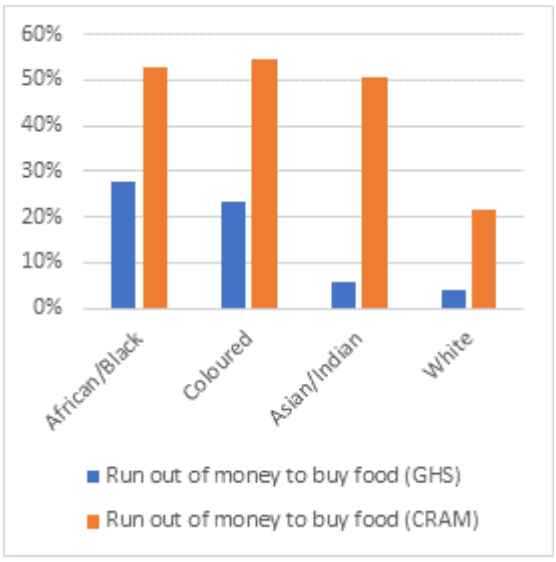
Figure 7: Households reporting that they ran out of money for food or that a child went hungry in GHS, and households that reported running out of money for food in CRAM 2020



Sources: Data from GHS and from NIDS-CRAM

Figure 8 shows that many more members of race groups indicated that they had run out of money to buy food in April 2020, in a period of 1 month, in CRAM than had indicated they had run out of money in the whole past year in 2018.

***Figure 8**: Running out of money to buy food in one month in 2018 as against the whole year in 2018*



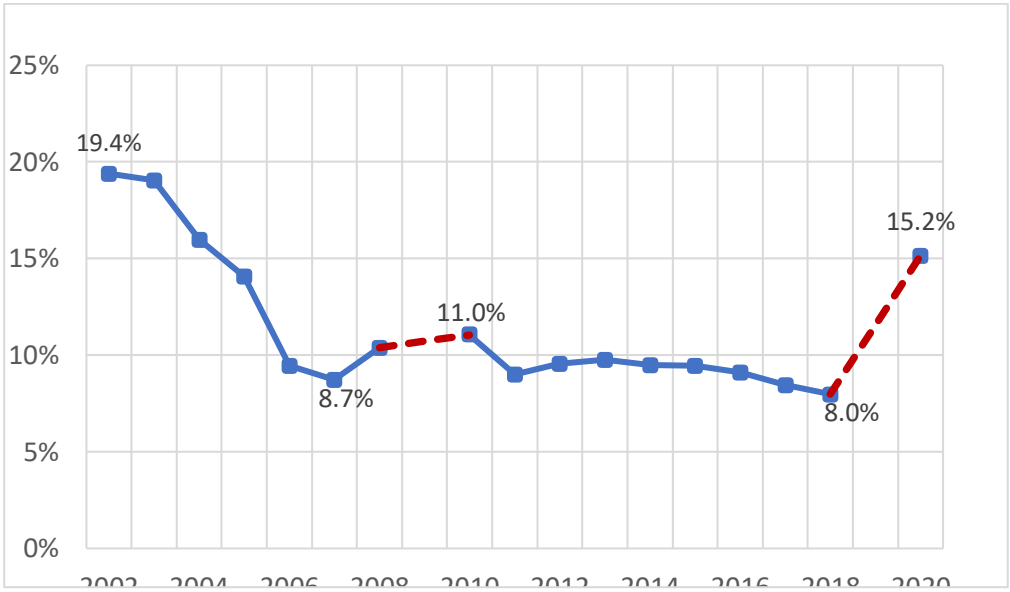
Source: Calculated from GHS and NIDS-CRAM

As for the above case regarding running out of money, the questions on child hunger in GHS and NIDS-CRAM are not exactly comparable: the latter asks whether a child in the household of the respondent has gone hungry in the past seven days, compared with the past year for GHS. It is possible to interrogate the severity of the response to child hunger by reflecting on what proportion of the weeks in a year each of the responses “Always”, “Often”, “Sometimes” and “Seldom” may apply, and therefore how likely it is that an individual in the GHS who gave any of these responses would have been to answer that a child had experienced had gone hungry in the past seven days.

We purposely convert the questions on hunger in the past year in a way that would tend to over- rather than under-state how many would have answered that they had experienced child hunger in the past month. Let us assume that both those who responded “always” or “often” to a question on child hunger in a year would also have indicated that a child experienced hunger in the past week; we further assume that a respondent who said “sometimes” would respond “yes” to a question on hunger in the past week at most every second week, and one who said “seldom” to the question on hunger in the past year may respond every fourth week that the child had experienced hunger in this past week. If we use this weighting, it is possible to convert the hunger trends shown in Figure 1 to be on a similar scale as that for households with children who experienced hunger in the past week in the NIDS-CRAM survey, as shown in Figure 9. The results are alarming. Child hunger now is at far higher levels than were likely to have been reported in the GHS if a similar question was asked in that survey, as the figure shows, and at a similar level as in 2004. Even with these assumptions, that would tend to over-state hunger in the past week for the years 2002 to 2018, hunger is now clearly much higher than in the most recent GHS data.

The results are alarming. Child hunger now is at far higher levels than were likely to have been reported in the GHS if a similar question was asked in that survey, as the figure shows, and at a similar level as in 2004. Even with these assumptions, that would tend to over-state hunger in the past week for the years 2002 to 2018, hunger is now clearly much higher than in the most recent GHS data.

*Figure 9: Approximation of child hunger **on a scale measuring hunger in the past seven days** – high estimates for GHS against actual level in CRAM*



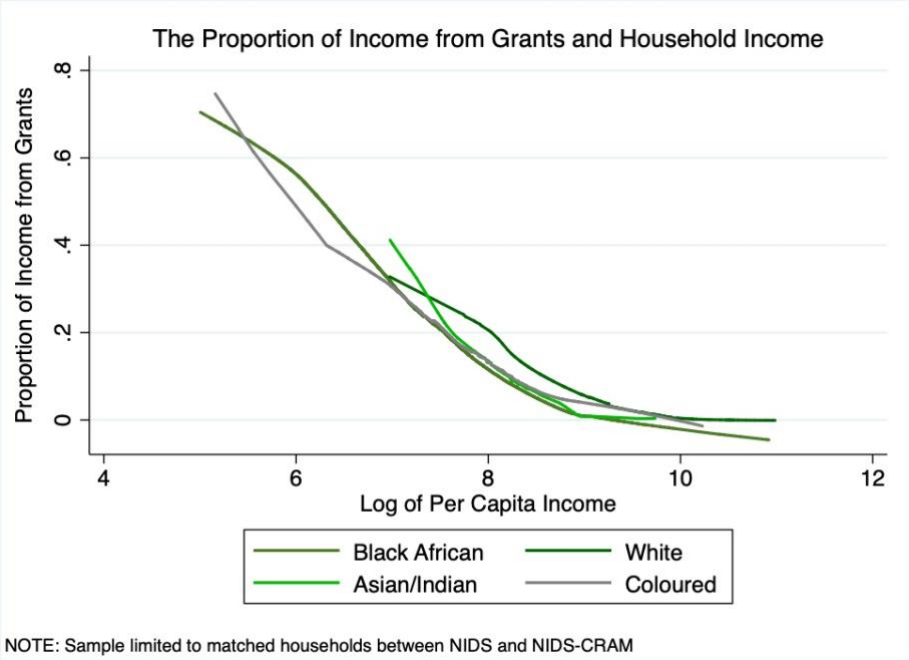
Note: GHS data are converted to a very high estimate as to how the responses on a question on annual poverty would convert to a question on poverty in the past week, namely that all answering “Always” or “Often” on the annual question would answer yes to the weekly question, those who answered “Sometimes” would answer yes to the weekly question half the time, and those who answered “seldom” would answer yes to the weekly question. Using these weights, the GHS scale is converted to the NIDS-CRAM scale.
Source: Own calculations from pooled GHS data and from NIDS-CRAM

These results from wave 1 of the NIDS-CRAM survey suggest that the coronavirus pandemic, the lockdown and the economic recession may have undone a great part of the gains made through the CSG since the turn of the century, with child hunger rising dramatically.

4. Child hunger, social grants and school meals

Social grants have become a very important source of income for many South African households and play an extremely important role in poverty reduction and to a lesser extent the reduction of inequality. That grants are broadly targeted can be seen in Figure 10, which shows that the proportion of income from grants in NIDS declines with rising per capita income. The very consistent pattern across race groups is also indicative of a stable and systematic relationship.

Figure 10: *The proportion of household income from grants over per capita income.*



Government has taken a number of steps to limit the effects of the pandemic as well as to ameliorate the effects of the lockdown. The grant system is dealt with more comprehensively in another CRAM paper (Wills, Patel, Van der Berg & Mpeta 2020; see also Köhler & Bhorat 2020). Here the focus is on its impact on poverty and nutrition of children, with the focus on the largest two grants, the Old Age Pension (OAP) and the Child Support Grant (CSG). These are both means tested grants, with the OAP covering a larger share of the age-eligible population than the CSG. The CSG is paid to the caregiver of the child, which in most cases is a woman and very often is the mother or other female relative of the child.

Along with the lockdown, government announced some enhancements or top-ups to the grants, as well as some new grants. For both the OAP and the CSG, these top-ups were to apply for a period of six months, from May to October, after which they are to be phased out. In April 2020, the old grant values still applied: R440 for the CSG and R1 860 for the OAP. In May 2020, the new grant value of R740 for the CSG applied, and R2 110 for the OAP. Whereas the question whether households ran out of food money was asked with reference to April, before the top-ups were implemented, whereas the question about whether a child has been hungry in the past week refers to the week before the NIDS-CRAMS interviews were conducted in May and June. As the grant payments occur in the beginning of the month, the past week for most respondents would have been a week during which higher grant payments would already have applied. From the beginning of June, that is midway through the NIDS-CRAM Wave 1 data collection, the CSG grant changed to R440 per child plus R500 per caregiver. For a caregiver with two or more children, the CSG payment in June was thus smaller than in May.

As the StatsSA's food poverty line per person is approximately R578 per month, the CSG would not have covered this amount before the top-up. It is also insufficient when considered against the somewhat higher lower-bound poverty line of R835, and against the upper-bound poverty line of R1 265 per month. Using the data from NIDS-CRAM and focusing only on those one-third of households that are fully dependent on grants and calculating the grant income they would qualify for, it is found that 87% of children in such households would have been in poverty before the grant top-ups were introduced, using the lowest of the three poverty lines, the food poverty line. The situation improved markedly with the May grant values, so that the poverty headcount ratio at the same poverty line would have declined to a still very high 67% (Table 2). At the higher poverty lines, where initial poverty is higher, the impact of the top-ups is smaller and poverty levels very high.

The OAP is much larger than the CSG, and in itself sufficient to maintain the recipient above all three the poverty lines, if the pension needs to support only one person. Of course, in many cases there are other household members who also are financially strained, so many pensioners are themselves in poverty.

Table 2: *Poverty headcount ratio at different poverty lines amongst grant-dependent households under the normal and the top-up grant values (recipients of CSG and OAP only)*

	Poverty line per person per month	Poverty headcount ratio	
		April 2020 grant values	May 2020 grant values
Food poverty line	R578 p.m.	87%	67%
Lower-bound poverty line	R835 p.m.	92%	86%
Upper-bound poverty line	R1 265 p.m.	94%	93%

Source: Calculated from NIDS-CRAM Wave 1. Poverty lines from Statistics South Africa 2019, adjusted for inflation to April 2020 values.

So while the CSG has played an important role in reducing child hunger, as was shown earlier, it cannot eradicate poverty and child hunger if the household lacks additional income sources (Devereux & Waidler 2017). The top-ups increased the flows of funds into poor households, but in many households they are unlikely to have made up for losses in other income opportunities. The CSG of R440 p.m. compares poorly to the loss of income of even the least skilled workers that have lost formal sector jobs, and even after the top-up, the CSG still remains small in comparison to other sources of income.

Another important social protection measure is the National School Nutrition Programme (NSNP). A nutritious meal is provided every school day to 9.6 million schoolchildren, at an annual costs of R7 billion (Seekings 2020). Working on a school year of 200 days, this implies a cost of R3.60 per meal. In monetary terms the R80 per month that this implies in a normal school month may not appear large, but is not insubstantial compared to the CSG of R440 per month. The top-ups were indeed much larger than the loss of school meals, but the lockdown took away the certainty of a nutritious meal a day on school days. Due to dire circumstances, the child may not get her full share of resources in homes of the very poor. Indeed, international evidence has shown that the expansion of school feeding is sometimes associated with children receiving less food at home, but it usually does lead to more food resources for the household.

The NSNP can also be compared with the Department of Social Development's food parcel scheme, which is feeding 2.7 million people per week. This is a contribution to reducing hunger, but not anywhere near the scale of the school feeding scheme, which was providing food to 9.6 million children per day before the pandemic.

5. Summary of findings and recommendations

5.1. Main findings

Since the turn of the century, stunting, wasting and underweight in children under 5 declined and the General Household survey recorded a declining trend in child hunger. Expansion of the reach and age-eligibility of the Child Support Grant (CSG) was a major factor in the sharp reduction in child hunger. It halved between 2002 and 2007, before increasing during the 2007/8 global financial crisis. It took a decade to get it down to its 2007 level again.

The pandemic and lockdown brought economic decline that had a far greater impact than the 2007/8 'Great Recession'. The response to a question on whether a child went hungry in the past week in the NIDS-CRAM survey was similar to that in a GHS question in 2018 on whether a child went hungry in the past year.

Adults appear to be shielding children from hunger in this early lockdown period. Reported hunger for any household member in NIDS-CRAM is much higher than child hunger, 22% against 15%, whereas these rates usually do not differ in GHS data.

Households further managed to limit child hunger in the past week to 15%, despite 47% of households reporting that they have run out of money for food during the past month. The major mechanisms available for staving off hunger are borrowing or drawing on savings – mechanisms that can only function for a short period. Thus it is likely that **child hunger will rise substantially** in the next few months in the face of at best a slow economic recovery.

Child hunger is closely linked to loss of a main income source. Altogether 40% of respondents sampled in CRAM report that their household has lost a main income source between February (before the lockdown) and April (the first full month of the lockdown). Income losses are widespread, with even more than a quarter of all respondents who were in the richest quintile of households in 2017 reporting that their households has experienced such a loss of a main income source. At similar levels of 2017 income per capita, households that experienced loss of a main income source reported almost 10 percentage points higher prevalence of child hunger in the past week.

Both the CSG and the OAP are well targeted at households that were poor before the pandemic and lockdown. The OAP is sufficient to reduce child hunger to an extent, depending on how thinly grant income has to be spread across household members. The CSG, however, is not as large and, unless supplemented by other income, is too low to ensure that no child in the recipient household will go hungry - but it does mitigate extreme hunger. The great extent of job and income losses reported between February and April this year has substantially reduced complementary income, thus many grant recipient household have fallen into (deeper) poverty, and child and general household hunger has increased.

5.2. Recommendations

The response by government to the pandemic and the economic devastation is limited by **means** and by **mechanisms**. Regarding the **means**, the South African government was already severely fiscally constrained before the pandemic, and the lockdown has further tightened fiscal constraints and increased debt ratios. **Mechanisms** of social relief are difficult to introduce from scratch, particularly in periods of great uncertainty and when events unfold rapidly. Therefore the government's COVID-19 response has necessarily relied on existing capabilities and government processes. Three of them that are particularly important to children are social grants, schools meals and Early Childhood Development subsidies.

Recommendations: Social grants and social insurance

Continue social grant top-ups continue beyond October. The severity of the economic shock and the depth of poverty make this imperative, despite fiscal constraints. Although top-ups have been inadequate to compensate for other income and job losses in many households, the most common social grants, the OAP and the CSG, have injected much needed financial resources into many poor households. There are now more fully grant-dependent households than before, and more households would become eligible for grant receipt under the means test.

Improve the functioning of the new social grant (the 'special COVID-19 social relief of distress' grant of R350 per month) and the social insurance (COVID-19 TERS, linked to the UIF to provide temporary income replacement*).* These new mechanisms introduced by government for the lockdown must become fully operational to reduce the burden on the social grant system. They are a good example illustrating how a government's response to a crisis is strongly constrained by existing mechanisms. Many individuals affected by major income or job losses require a different form of social protection than the social assistance system.

Increase CSG despite tight fiscal constraints, considering that around a third of all households are now reported to be fully dependent on grants, and the fact that these grants are not even adequate to keep a targeted child out of poverty or hunger, without even considering other household members.

Revert to a fixed grant top-up per child rather than a fixed amount per caregiver. The new CSG top-up (since June) of R500 per caregiver rather than R350 per child (in May) places an undue burden on households with more than one child

Recommendations: School meals

Re-open school feeding schemes. Schooling and feeding need not necessarily be linked. The staggered approach of returning to school means that many learners will not access school feeding until August 2020. It is therefore welcome news that the Department of Basic Education now plans to provide food to all learners, whether in school or not (Department of Basic Education 2020).

Bring forward planned expansion to the school nutrition scheme. The school feeding scheme is already due to expand to include providing breakfast for learners (2020 Estimates of National Expenditure). This should be extended as quickly as possible to cover those learners who are at greatest risk of malnutrition.

Extend school feeding to provide meals for the weekend during the pandemic. Provision of non-perishable food would allow learners to eat during weekends or public holidays when the feeding scheme does not operate.

Recommendations: Early Childhood Development

Provide greater financial support to ECD centres. Many ECD centres and crèches may not survive the lockdown. ECD margins have always been very thin. This would be further strained by the fact that many parents may no longer be able placing their children in ECD centres. Additional funding could make them more financially viable, reduce the costs to poor parents and allow the centres to offer more nutritious meals.

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7. Appendix A

(Notes on NIDS-CRAM, taken from Wills, Patel, Van der Berg & Mpeta, 2020)

In response to the coronavirus pandemic, NIDS-CRAM was initiated by researchers across various South African universities[5] to measure the socioeconomic impacts of the national lockdown. This is a unique follow-up telephonic survey with a subsample of adults (aged 18 or older in April 2020) surveyed in the National Income Dynamics Study (NIDS) wave 5 in 2017 (Ingle, Brophy, & Daniels, 2020).[6] The survey is representative of a broadly representative sample of South African adults from 2017, who were re-interviewed in 2020 for NIDS-CRAM (Kerr, Ardington, & Burger, 2020). As far as phone surveys go, NIDS-CRAM has achieved a remarkably high response rate of 41%. Successful interviews with 7074 adults were conducted between 7th May and 27th June, over stages 4 and 3 of the national lockdown as shown in Table A.1.

Table A.1: Sample successfully interviewed in NIDS-CRAM, wave 1, by lockdown level

	Successfully interviewed (N)	Successfully interviewed (%)
During lockdown level 4	1917	27
During lockdown level 3	3241	46
Lockdown level 3 'advanced'*	1916	27
Total	**7074**	**100**

Notes: *announced 17th June

While we use this data to make inferences about lockdown impacts, we do so cautiously, and outline caveats related to its use. We mention one key issue here: NIDS-CRAM is a telephonic survey of individuals, not households. While most questions are directed at the individual, the respondent is also asked some questions about the household in which they live including grant receipt, household income sources, changes in household income during the lockdown, food poverty and access to external material assistance from local government, NGOs etc. and the community. We have to rely on what the individual reports for the household as a whole to determine what is happening at the household level even if the sampled individual is not in the best position to respond on behalf of the household. This also restricts analyses using NIDS-CRAM to the individual as the unit of analysis.

Despite a distinct difference in how household grant receipt is defined using NIDS-CRAM relative to other household surveys (see the appendix for a comparison of definitions of household grant receipt used across surveys), there appears to be some level of comparability across NIDs wave 5 and NIDS-CRAM with respect to the percentage of individuals aged 18 or older reporting grants received by their household, to support the use of this data. Although a slightly higher percentage of the total NIDS-CRAM sample are living in grant receiving households at 66% than reported among adults 18 years or older in NIDS 2017 at 59%, grant receipt figures for the NIDS-CRAM sample of adults interviewed in NIDS 2017 (wave 5) is comparable at 59% (see Table A.2). It is noted however that personal grant receipt is significantly under-reported in NIDS-CRAM – particularly in relation to the child support grant - and thus we do not focus on individual level receipt of grants (see the appendix).

[5] Working group members are from the University of Stellenbosch, the University of Cape Town (UCT), the University of Witwatersrand (Wits) and the University of Johannesburg.

[6] The mode of implementation [2] for NIDS-CRAM was limited to a phone survey. Other large survey initiatives in South Africa during lockdown have depended on online or WhatsApp, but many people in South Africa do not have smart phones or easy access to the internet resulting in highly unrepresentative responses. However, phone surveys had seldom been used in South Africa for nationally representative socio-economic surveys and thus the project commenced with considerable uncertainty about drivers of non-response. For this reason, the sample is drawn using a stratified sampling design but with "batch sampling" that allows the sampling rate in each stratum to be adjusted as "fieldwork" progresses. The stratum selected are sensitive to the literature on phone surveys in developing countries. The sampling was done at the individual level rather than the household level, however this does not limit the selection of individuals to only one person per NIDS wave 5 household.

Table A.2: Adults in households receiving a grant in NIDS-CRAM, wave 1 2020

			95% CI		
	Mean	SE	Lower	Upper	N
NIDS-CRAM 2017 (NIDS wave 5)					
All	59.3	1.5	56.4	62.2	6 986
Urban	50.4	2.1	46.2	54.6	3 649
Rural	75.7	1.7	72.4	79.0	3 337
NIDS-CRAM 2020 (interviewed in NIDS wave5)					
All	66.7	1.1	64.5	69.0	6 986
Urban	59.6	1.5	56.7	62.6	3 649
Rural	79.8	1.4	77.1	82.4	3 337
NIDS-CRAM 2020 all					
All	66.0	1.2	63.7	68.3	7 074
Urban	58.6	1.5	55.6	61.6	3 712
Rural	79.9	1.3	77.2	82.5	3 362

Source: NIDS-CRAM, wave 1. NIDS 2017 wave 5. Notes: Weighted estimates. *Rural/urban indicator from NIDS wave 5 household used rural/urban indicator used where rural combines farm and traditional areas.

8. Appendix B

***Table B.1**: Linear regressions of household characteristics and income loss on child hunger*

	(1)	(2)
Log of per capita income in 2017	-0.060***	-0.057***
Income loss since lockdown		0.087***
OAP receipt		
CSG receipt		
Controls		
Constant	0.580***	0.524***
R-squared	0.039	0.055
N	2787	2730

Notes: * p<0.1, ** p<0.05, *** p<0.01. This sample is restricted to respondents who did not move between NIDS wave5 and CRAM.
Controls include variables for the proportion of HH under 18, a dummy variable for income deciles 1-4 in 2017, HH size, employment, the gender of the respondent, race, education and being in a metropolitan area.

Table B.2**: Linear regressions of household characteristics on **child hunger

	(1)	(2)	(3)	(4)	(5)	(6)
Proportion of HH under 18	0.088*	0.064	0.068	0.064	0.065	0.046
Log PC income 2017	-0.049***	-0.042***	-0.038***	-0.030***	-0.030***	-0.017**
HH Size	0.005	0.006	0.006*	0.006*	0.006*	0.006*
CSG receipt		0.048**	0.042**	0.032	0.031	0.015
OAP receipt		-0.034**	-0.041**	-0.055***	-0.056***	-0.050***
Tap water available			-0.031	-0.020	-0.018	-0.018
Employed			-0.025	-0.022	-0.021	-0.016
Respondent female			-0.005	0.000	0.001	0.001
Coloured				-0.060**	-0.057**	-0.074***
Asian/Indian				-0.065**	-0.059*	-0.081**
White				-0.036	-0.033	-0.018
Education: primary only				-0.011	-0.010	0.009
Education: some secondary				-0.073	-0.073	-0.058
Education Matric				-0.120**	-0.119**	-0.091*
Education: Matric +				-0.095*	-0.094*	-0.061
Metropolitan municipality					-0.015	-0.013
Ran out of money for food						0.221***
Constant	0.458***	0.389***	0.397***	0.432***	0.433***	0.221**
R-squared	0.030	0.034	0.036	0.047	0.047	0.130
N	5052	4997	4895	4862	4862	4840

NOTES: * p<0.1, ** p<0.05, *** p<0.01. Sample weights used.
Source: Calculated from NIDS-CRAM.