



WAVE 5

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

Early Childhood Development in South Africa during the COVID-19 Pandemic: Evidence from NIDS-CRAM Waves 2 - 5

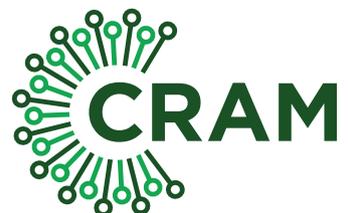
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CORONAVIRUS RAPID MOBILE SURVEY 2020

Early Childhood Development in South Africa during the COVID-19 Pandemic: Evidence from NIDS-CRAM Waves 2 - 5

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Abstract

Globally, large international organisations have been tracking school closures and learning losses due to COVID-19 induced lockdowns. Yet few studies have been conducted to assess how childcare markets or access to early childhood development (ECD) opportunities have been impacted by COVID-19, especially in low-to-middle-income countries. Using a longitudinal telephonic survey of adults, known as the National Income Dynamics Study – Coronavirus Rapid Mobile Survey (NIDS-CRAM), this paper provides empirical evidence from South Africa on ECD attendance trends since the onset of the pandemic in early 2020 to May 2021. Pre-pandemic, about 39% of respondents living with children aged 0-6 indicated that at least one child had attended an ECD programme in February 2020. After a series of troughs in reported ECD attendance to as low as 7% in July/August 2020 and early February 2021, interspersed with temporary partial recoveries, a very significant recovery is seen by May 2021. In the fifth NIDS-CRAM data collection period between 6 April and 11 May 2021, ECD attendance had edged much closer towards pre-pandemic attendance levels. Of respondents living with children aged 0-6 at the time of the April/May 2021 interview, 36% reported that at least one child aged 0-6 had attended an ECD programme in the past 7 days. Analysis of the NIDS-CRAM data series also reveals that parents' or caregivers' ability to afford ECD fees and pay these fees will continue to be the key determining factor for sustaining and improving access to ECD programmes in the absence of wider and deeper public financing for the sector.

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Executive Summary

Levels of attendance at early childhood development (ECD) programmes had remarkably recovered by April/May 2021, edging towards pre-pandemic attendance levels. This is revealed in the final wave of the National Income Dynamics Study - Coronavirus Rapid Mobile Survey (NIDS-CRAM) conducted between 6 April and 11 May 2021. Of respondents living with children aged 0-6 at the time of the wave 5 interview, 36% reported that at least one child aged 0-6 was attending an ECD programme in the past 7 days. Pre-pandemic, about 39% of NIDS-CRAM wave 3 and 4 respondents living with children aged 0-6, indicated that at least one child had attended an ECD programme in February 2020. Similarly in the General Household Survey (GHS) 2019, about 40% of adults living with children aged 0-6, indicated that a child in their household was attending an ECD programme.

The more recent recovery in ECD attendance since the onset of the pandemic emerges after a series of troughs, interspersed with short partial recoveries in ECD attendance. In July-August 2020, after ECD programmes were allowed to reopen, only 7% of NIDS-CRAM respondents living with children aged 0-6 indicated that any child in the household had attended an ECD programme in the past 7 days. By November/December 2020, there was a glimmer of hope as this estimate of ECD attendance increased to 28%. But in the weeks just after schools reopened on 15 February 2021, this estimate was down to 19%.

It appears that the main reasons for the recovery in ECD attendance by April/May 2021 relate to the increased reopening of ECD programmes and improvements in households' ability to afford ECD fees. Relative to responses provided in November/December 2020 and February/March 2021, a larger percentage of NIDS-CRAM respondents interviewed in April/May 2021 living with children aged 0-6 indicate that an open and affordable ECD programme exists within 5km of where they live. About two thirds (66%) of the respondent sample living with children aged 0-6 identify that they know of an affordable ECD centre that is currently open within 5km of where they live compared to 38% in February 2021 before schools reopened and 53% after schools reopened on the 15th of February 2021.

We also identify an increase in the percentage of respondents living with children aged 0-6 who report that they or someone in their household can afford ECD programme fees from about 24% in November/December 2020 to 59% in April/May 2021. In NIDS-CRAM waves 3 and 5, being able to afford ECD fees is the strongest determinant of whether respondents report children attending ECD programmes in the past 7 days.

Improvements in the labour market since the onset of the COVID-19 pandemic may account for some of observed recovery in ECD attendance (Casale and Shepherd, 2021). However, the April/May 2021 ECD recovery is also a testament to the resilience of the sector while reflecting the importance of government and private philanthropic support for sustaining ECD operations. Even though most ECD operators that applied for the ECD-Employment Stimulus Relief Fund (ESRF) had not yet received payments by the end of the NIDS-CRAM wave 5 data collection period, the prospect of receiving relief funds, which are sizable in relation to monthly ECD practitioner salaries, is likely to have spurred reopening efforts. Varied and ongoing efforts by NGOs and private philanthropies to support the reopening of the ECD sector have also been quite widespread.

However, **the NIDS-CRAM estimates are only able to shed light on one aspect of the size, shape and workings of the ECD sector, and does not measure levels of recovery in ECD participation at the level of the child or the impact of these shocks to quality.** NIDS-CRAM asks adult respondents about whether *any* child in the household attended an ECD programme in the past 7 days. If the number of NIDS-CRAM respondents reporting any child from a household attending an ECD programme in the past 7 days is equal to the pre-pandemic period, but fewer

numbers of young children *within the same household* are attending ECD programmes compared to before the pandemic, this would result in lower ECD participation rates among children aged 0-6 relative to a pre-pandemic situation. It is likely that such a scenario would arise if parents cannot afford to send all their young children to ECD programmes, and where ECD fees are typically differentiated by the age of children attending. Furthermore, the NIDS-CRAM estimate of ECD attendance only measures ECD access. We cannot observe clearly from the data how the quality of programmes may have been affected by reduced access to finance as fee collections from parents/ caregivers are hampered by lockdowns and shocks to caregivers' livelihoods. The impact of lower attendance rates on both short-run and long-run child developmental outcomes are also unknown.

For these reasons, and in lieu of the main findings, it is vital that **state-led data collection initiatives are implemented and maintained to track children's access to ECD, the quality of ECD programme offerings and children's progression on key developmental outcomes.**

Further household data collection initiatives, such as the General Household Survey will be required to track ECD access going forward, specifically to identify how ECD participation rates at the level of the child may have changed. A sustained recovery from the April/May 2021 situation is certainly not guaranteed, as evidenced in the attendance 'rollercoaster' observed, and as the nation heads toward another peak in COVID-19 infections in June/July 2021. Going forward, ECD programme audits will also be necessary to assess to what extent programmes have maintained and can strengthen their quality standards, while providing necessary contextual data to formulate plans to buffer this sector from further demand-side shocks.

1. Introduction

Globally, large international organisations have been tracking school closures in response to COVID-19 induced lockdowns. A growing literature also identifies the impacts of pandemic related school closures on cognitive and non-cognitive outcomes in developed and to a lesser extent, developing countries (Kuhfeld *et al.*, 2020; Angrist *et al.*, 2021; Ardington, 2021; Engzell, Frey and Verhagen, 2021; Schult *et al.*, 2021). However, internationally, few studies have been conducted to assess how childcare markets or access to early childhood development (ECD) opportunities have been impacted by COVID-19, especially in low-to-middle-income countries.

Where childcare markets are typically comprised of a significant proportion of private providers, it can be more difficult to track the closure and reopening of these providers relative to public schooling systems. Childcare markets tend to be less regulated and information systems are less available relative to public school systems, making it difficult to track the extent to which early childhood care and education opportunities have been disrupted by COVID-19. This is further complicated by the reality that fee-payments, and household's ability to afford fee payments ultimately determines to what extent these markets re-emerge from lockdowns or economic downturns and which children return to ECD programmes. For example, emerging evidence reveals that across various low-to-middle income countries, including Sub-Saharan African countries, the provision of low cost private schooling has been significantly negatively impacted by reduced fee collection (Alam and Tiwari, 2021). Given the importance of quality ECD programming for children's development and the significant strides that have been made globally and in low-to-middle income countries in expanding access to ECD opportunities (Wotipka *et al.*, 2017), it is necessary that more effort is placed on tracking developments in childcare markets following the COVID-19 pandemic. The implications of shrinking childcare markets for meeting national and international targets to expand children's access to ECD opportunities are significant, and the impacts for children's future development into school and the workplace should not be underestimated. A recent simulation study shows that the interruption of ECD programmes due to COVID-19 could lead to potentially large losses in education, health, income, and productivity over a child's lifetime (Lopez Boo, Behrman and Vazquez, 2020).

A series of policy papers have been produced to track developments in the South African ECD sector since the onset of the pandemic in March 2020 (Wills, Kotze and Kika-Mistry, 2020; Wills and Kika-Mistry, 2021a; Wills, Kika-Mistry and Kotze, 2021). This has been possible through the availability of the longitudinal National Income Dynamics Study – Coronavirus Rapid Mobile Survey. This paper provides ECD attendance and related trends in South Africa since the onset of the pandemic using the full available set of NIDS-CRAM data, including the most recent 'wave 5' collected over the period 6 April to 11 May 2021. After evidence emerging from earlier waves of NIDS-CRAM revealed extensive shrinkages in ECD programme access, the final wave of NIDS-CRAM collected in April/May 2021 highlights just how resilient this sector may be and the importance of government and private philanthropic efforts to buoy childcare markets in times of crisis.

The main contribution of this paper is to provide a time-trend that illustrates how ECD attendance has responded to pandemic related events and unpacking the extent to which ECD attendance changes align with policy events in the ECD sector. We are also able to provide evidence on the key drivers of ECD programme attendance in a pandemic period.

The next section summarises findings on ECD attendance trends from earlier waves of NIDS-CRAM data. In section 3 we describe the data used. Then in sections 4 to 8, we provide the main results. Section 9 concludes with some recommendations for future efforts to track progress in the ECD sector and to "build back better".

2. Background

Pre-pandemic, the ECD sector in South Africa and children's access to early childhood care and education was highly susceptible to demand-side shocks. The ECD sector in South Africa operates in a similar manner to low-fee private schooling systems in developing countries, with a large composition of informal services, provided by private providers such as non-profit organisations (NPOs), subsistence entrepreneurs, or micro-social enterprises (BRIDGE *et al.*, 2020). A small proportion of ECD operators benefit from limited state subsidies paid to registered providers on a per-child per-day basis, but the majority of ECD operators rely on fee collections from parents/caregivers as their primary source of income (Wills and Kika-Mistry, 2021b).³ Thus, attendance of children at ECD programmes drives the flow of income to operators in the form of state subsidies and/or fees from parents. Given this context, the financial sustainability of ECD programmes was highly susceptible to shocks to household incomes induced by lockdowns. ECD programmes have also borne the impacts of the fear and uncertainty that COVID-19 has presented for households in deciding about whether children should go back to programmes, and the added uncertainty of confusing regulatory responses from government to the pandemic.

Summary of main findings from NIDS-CRAM wave 2: Mid-July to mid-August 2020

Following the declaration of a state of national disaster to contain the spread of COVID-19, ECD programme operators across South Africa were instructed to close on 18 March 2020. The reopening of programmes was delayed relative to the phased reopening of the economy. Furthermore, instructions from the Department of Social Development (DSD) about the reopening of ECD programmes were delayed relative to statements issued from the Department of Basic Education (DBE) on school reopening. Eventually, a High Court judgement on 6 July 2020 ruled that ECD programmes could reopen immediately, subject to meeting safety standards (Fabricus, 2020).

Between mid-July to mid-August 2020, after ECD programmes could reopen, we estimate that not more than 7% of NIDS-CRAM respondents living with children aged 0-6 reported any child attending an ECD programme in the past 7 days. But 38% of the same sample reported at least one child attending an ECD programme before the lockdown in March 2020 (Wills, Kotze and Kika-Mistry, 2020).

The dramatic contraction in the ECD sector between March and July/August 2020 was attributed to the prohibitive requirements associated with reopening safely imposed by the regulatory environment, and the absence of policy commitments at the time to provide any financial support to ECD programmes to support reopening efforts (although these would follow later). Constraints to reopening were coupled with shocks to the demand for ECD services, specifically in relation to reduced household income and parent fears of children contracting COVID-19 at programmes.

Respondents were more likely to report that children had returned to ECD programmes after the lockdown in urban compared to rural contexts. Sending older children back to school was strongly associated with younger children returning to ECD programmes. Where ECD attendance had not resumed, the burden of childcare was borne within the household, particularly among mothers (Wills, Kotze and Kika-Mistry, 2020).

³ For example, in 2018 fees were charged for over 80% of children aged 0-6 years attending ECD programmes that are not Grade R or school-based programmes.

Summary of main findings from NIDS-CRAM wave 3: November – December 2020

Towards the end of 2020, a recovery in ECD attendance was observed, albeit nowhere near pre-pandemic levels. Of respondents living with children aged 0-6 at the time of the wave 3 interview in November/December 2020, 28% reported at least one child attending an ECD programme in the past 7 days (Wills, Kika-Mistry and Kotze, 2021). Of these respondents, 39% indicated at least one child had been attending an ECD programme pre-pandemic in February 2020 (Wills, Kika-Mistry and Kotze, 2021).

This partial recovery in ECD attendance occurred after the announcement of a stimulus relief package to support the ECD sector, but before any concrete plans were announced to roll out this package or process payments. On 15 October 2020, President Cyril Ramaphosa announced his “Public investment in a mass employment strategy to build a new economy”, with the DSD establishing the Temporary Employment Protection Support Scheme which is a relief fund for registered and unregistered ECD programmes. Initially included in the stimulus package was a budget of R380 million to support 83,333 employees or sole practitioners of eligible ECD programmes for a maximum of six months (The Presidency, Republic of South Africa 2020). While the grant amount was initially set at only R760 per person per month, it would be targeted at both registered and unregistered programmes and was a significant step towards supporting the sector. In addition, R116.3 million was earmarked for the DSD to provide top-up payments to 25,000 employees to meet COVID-19 regulations for sector reopening (The Presidency Republic of South Africa, 2020).

The process to register for the Early Childhood Development Employment Stimulus Relief Fund (ECD-ESRF) commenced at the start of February 2021 but payments were planned to only occur from 31 March 2021 (i.e., after the wave 4 NIDS-CRAM data collection period). In efforts to encourage programme reopening, a requirement of receiving funds was that “ECD services that are applying and who are not currently operational (i.e., have not reopened owing to COVID-19)... will need to make a commitment to reopen within 60 days of receipt of funds” (Department of Social Development, 2021a).

Summary of main findings from NIDS-CRAM wave 4: January – February 2021

The ECD attendance situation as reflected in NIDS-CRAM wave 4 data was dire (Wills and Kika-Mistry, 2021a). Even though ECD programmes were allowed to operate, and COVID-19 infections had significantly subsided after a second peak, only 7% of respondents living with children aged 0-6 and interviewed *before* schools had officially reopened in February 2021, indicated that at least one child was attending an ECD programme in the past 7 days. In the weeks following the delayed reopening of schools, more ECD programmes opened again, and children started returning with about 19% of respondents (interviewed between 15 February and 11 March 2021 and living with children aged 0-6) reporting at least one child attending an ECD programme. The close association between ECD attendance and school reopening is not unexpected as school reopening announcements are more widely communicated than information pertaining to ECD reopening. A significant proportion of ECD programmes also follow school holiday schedules⁴ and parents may take comfort in school opening dates which are informed by close deliberations between the DBE and COVID-19 related national command councils.

However, the NIDS-CRAM wave 4 result was highly disconcerting when viewed in relation to the partial recovery in ECD attendance observed in the last quarter of 2020.

4 50% of ECD programmes surveyed in the 2014 ECD audit said they were closed during school holidays.

Government financial relief for the ECD sector: 2021 policy developments

After applications closed for the ECD-ESRF, the DSD identified and validated applications for 116 578 employees from ECD operator submissions. Processing of the applications for payment, however, has proved challenging, for reasons including failed banking verification and capturing information incorrectly (Department of Social Development, 2021b). By mid-May 2021, delays in pay-outs were still being experienced. An online media report on 13 May 2021 indicates that, at the time, the DSD payments to ECD operators covered about 20% of ECD workers expecting a pay-out (Daniels, 2021; Dano, 2021). In other words, most ECD operators, and in turn practitioners, would not have received ECD-ESRF pay-outs by the end of the fifth NIDS-CRAM data collection period.

Despite these delays, it is necessary to acknowledge that this is the first time that such a large initiative to provide government support to ECD programmes has occurred in South Africa. This initiative also acknowledges the importance of the role played by both registered and unregistered ECD providers. In April 2021, the DSD also removed the cap that was placed on the number of employees per ECD programme that could receive a payment of a decided amount of R4 186 (Department of Social Development, 2021b). This means that ECD services that have passed all the necessary verifications will receive funding for all the employees that they applied for.

3. Data

NIDS-CRAM is a longitudinal survey that has tracked adult respondents over a year of the COVID-19 pandemic at 5 data collection periods. NIDS-CRAM was initiated by researchers across various South African universities. The survey gauges how South Africans have been impacted by the pandemic in ways that extend beyond the immediate threat of COVID-19 to their health, to impacts on their livelihoods and access to basic needs, opportunities, public services, and education.

The NIDS-CRAM survey is roughly 20-minutes in length and conducted telephonically with a subsample of adults surveyed in wave 5 of the National Income Dynamics Study (NIDS) in 2017. The first wave of NIDS-CRAM is a broadly representative sample of persons 15 years or older in 2017 in South Africa who were re-interviewed in 2020 (Kerr, Ardington and Burger, 2020). Initial data collection for NIDS-CRAM took place between 7 May and 27 June 2020 with 7073 adults. The second wave occurred between 13 July and 13 August 2020. The third wave was conducted between 2 November and 13 December 2020. By wave 3, successful interviews were completed with 5046 (71%) of the original wave 1 sample. Additionally, a 'top-up' sample was added where successful interviews were completed with 1084 additional individuals sampled in NIDS 2017, bringing the total wave 3 sample to 6130. Wave 4 was conducted between 2 February and 10 March 2021 and finally wave 5 interviews were carried out between 6 April and 11 May 2021 with a total of 5862 respondents (Ingle, K., Brophy, T., Daniels, 2021). Of the original wave 1 NIDS-CRAM sample, 71% were tracked in wave 5. *Figure 1* illustrates when NIDS-CRAM data collection took place (in orange) in relation to daily COVID-19 infection levels in South Africa, as well as ECD and school closure periods.

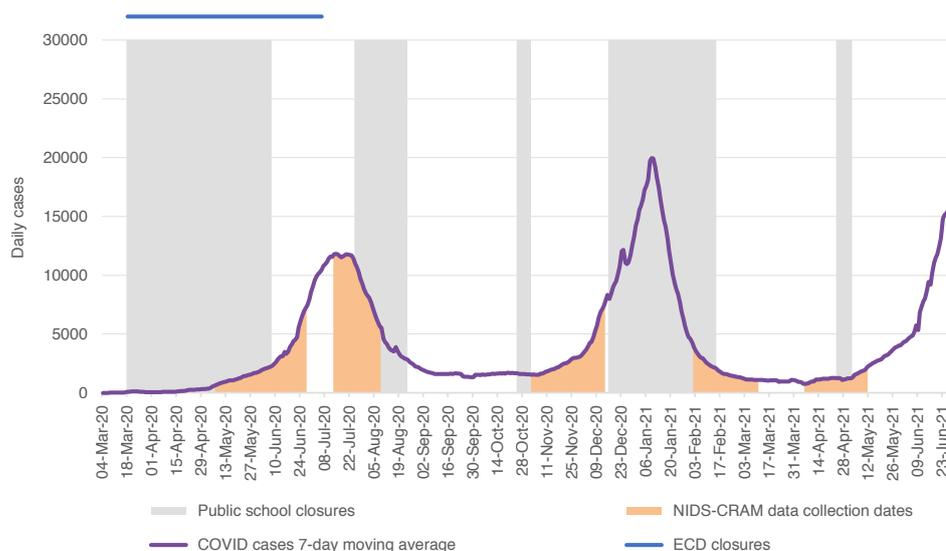
An ECD module was introduced in NIDS-CRAM from the second data collection wave to identify how ECD attendance may have been affected by pandemic related events. The respondent sample of interest from NIDS-CRAM answering questions from the ECD module are those living with children aged 0-6 at the time of the interview. *Table 1* summarises information on sample sizes available for the ECD analysis in the second-row panel. By wave 5, there was an available sample of 3055 individuals living with children aged 0-6 for the ECD analysis.

Table 1: Sample sizes available from NIDS-CRAM waves 2 to 5 (panel and top-up included) for the ECD analysis

	Wave 2	Wave 3	Wave 4	Wave 5
Full NIDS-CRAM wave 1 sample (N)	7073	7073	7073	7073
Panel respondents (N)	5 676	5 046	4792	4996
Panel respondents as percentage of wave 1	80%	71%	68%	71%
Top-up sample	-	1 084	837	866
Total sample (panel + top-up)	-	6 130	5 629	5 862
Respondent sample by whether they live with children aged 0-6				
- Yes (N)	2 722	3 322	2953	3055
- No (N)	2 571	2 802	2675	2807
- Missing (N)	383	7	1	0
Missing as a percentage of sample in this wave	14.0%	0.1%	0.0%	0.0%
Reported ECD attendance in February 2020 using sample living with children aged 0-6				
- Yes (N)	-	1 291	1192	1393
- No (N)	-	2 003	1750	1653
- Missing (N)	-	28	11	9
Reported ECD attendance in the past 7 days using sample living with children aged 0-6				
- Yes (N)	127*	923	359	1150
- No (N)	822*	2 184	2583	1897
- Missing (N)	0*	215	11	8
Missing as a percentage of respondents in households with children aged 0-6 in this wave	-	6%	0%	0%

Notes: *The question on ECD attendance in the past 7 days from NIDS-CRAM wave 2 was only asked of those indicating that children had attended programmes in March 2020. From wave 3 onwards, the question on attendance in the past 7 days was asked of all respondents living with children aged 0-6 regardless of prior ECD attendance.

Figure 1: NIDS-CRAM data collection periods in relation to COVID-19 surges, ECD closures and primary/secondary school closures



Source: COVID-19 cases from the National Institute for Communicable Diseases⁵. NIDS-CRAM data collection dates from Ingle, Brophy and Daniels (2021).

Limitations of NIDS-CRAM

While NIDS-CRAM provides the only available data to track ECD attendance trends in South Africa during the COVID-19 pandemic, it is necessary to reiterate some limitations of the data for an ECD analysis. First, NIDS-CRAM does not contain a household roster. Thus, statistics at the level of the child or household typically produced from the General Household Surveys cannot be generated directly from NIDS-CRAM. We do not know which children in the household, of specific ages, are attending ECD programmes. But we can say something indicative of whether children aged 0 – 6 in a respondent’s household are reported as attending ECD programmes at different points in 2020 and 2021 (see *Table A6* for a comparison of NIDS-CRAM and GHS ECD attendance questions). Second, while NIDS-CRAM is a panel dataset, it is a panel of adult respondents – not a panel of households or of the children that live in them. In the absence of a household roster, we do not know whether the same children were in the respondent’s household from the first to the fifth interview periods. Even where equal numbers of children are reported in households from wave to wave, these may not be the same children if they move in and out of households. Furthermore, some children get older, shifting out of the 0-6 age bracket across waves. This is a limitation of the analysis that cannot be addressed further with the available data.

⁵ <https://www.nicd.ac.za/diseases-a-z-index/covid-19/surveillance-reports/national-covid-19-daily-report/>

4. Recovery in ECD attendance levels

A remarkable result from wave 5 of NIDS-CRAM is that between 6 April and 11 May 2021, reported ECD attendance was edging towards pre-pandemic attendance levels. Of respondents living with children aged 0-6 at the time of the wave 5 interview, 36% [CI 33%-39%] reported that at least one child had attended an ECD programme in the past 7 days.⁶ This recovery in ECD attendance emerges after a rollercoaster of changes in ECD attendance from 2020 into the first quarter of 2021 as seen in *Figure 2*. The recovery in ECD attendance is also reflected in the increased percentage of respondents living within 5km of an affordable ECD centre that is currently open. *Figure 3* shows that in April/May 2021, 66% of the respondent sample living with children aged 0-6 identify that they know of an affordable ECD centre that is currently open within 5km of where they live compared to 38% in February 2021 before schools reopened and 53% in the weeks after schools reopened on 15 February 2020.

However, it is important to qualify certain aspects about the nature of the observed recovery in ECD attendance by April/May 2021.

First, we do not know how many children within respondent households were attending ECD pre-pandemic and how many are attending now. If a larger number of children per household were attending ECD programmes pre-pandemic relative to April/May 2021, this will not be reflected in respondent reports of whether *any* child in the household attends an ECD programme. For this reason, we do not provide ECD participation estimates at the level of the child in this updated paper. Hopefully more recent General Household Surveys, which are typically carried out over a 12-month period will be able to shed more light on whether the numbers of children enrolled in ECD programmes have changed relative to 2019.

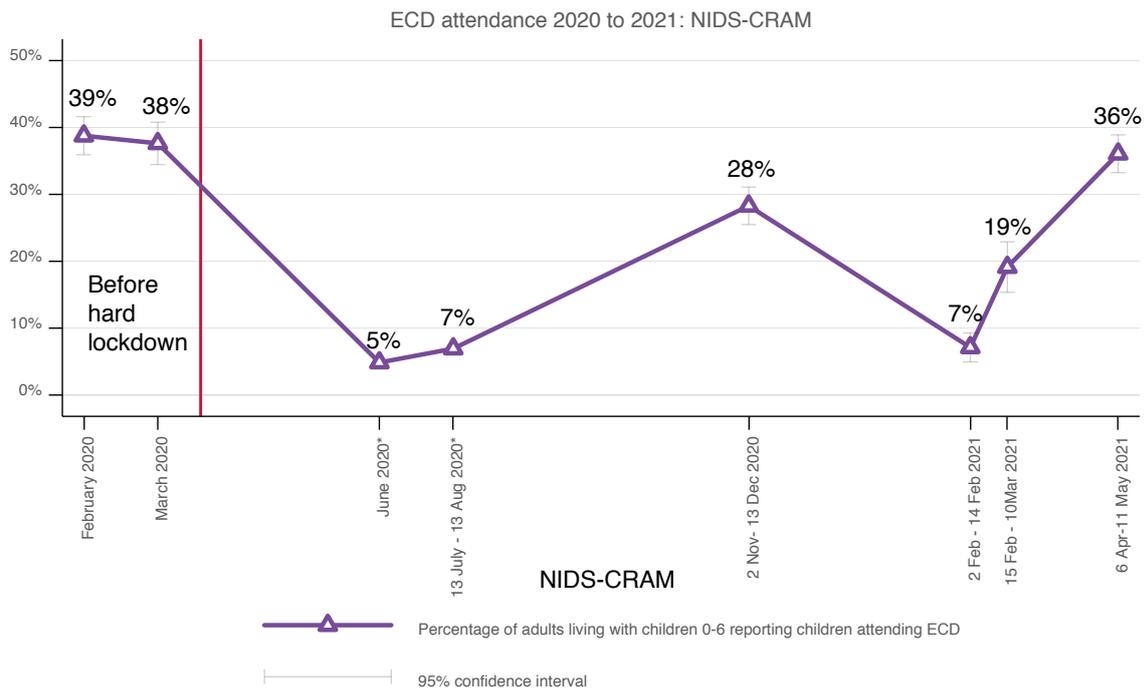
Second, while the recovery is certainly undeniable, there is some discrepancy in the data about the extent of the recovery relative to pre-pandemic levels. In response to a retrospective question on whether any child in the household had attended an ECD programme in February 2020, 39% [CI 36%-43%] of wave 3 respondents living with children aged 0-6 at the time responded positively. Wave 4 yielded a very similar estimate of ECD programme attendance in February 2020 at 39%. But using the wave 5 cross-section, this pre-pandemic February 2020 ECD attendance estimate is significantly higher at 46% [CI 43%-49%] rather than 39% [CI 36%-43%] as reflected in the wave 3 and 4 cross-sections. There are multiple reasons for why this discrepancy occurs. Children could have moved in and out of households and children age over time so that the sample of adults in households with children aged 0-6 shifts. There may also be considerable measurement error.⁷ Fortunately when analysing the levels of reported attendance among a more consistent NIDS-CRAM sample with fewer changes in household composition, we still observe the same recovery patterns in *Figure 2*.⁸

6 The recovery in reported ECD attendance in April/May 2021 is unlikely to be driven by grade Rs being erroneously included in ECD estimates or aging of children in the household and their natural progression into grade R. We reran wave 5 estimates of ECD attendance for respondents living in households with children aged 0-6 distinguished by whether the household includes any children attending grade R in school in the past 2 weeks. As shown in Table A 1 even in households without any grade Rs, reported ECD attendance remains quite high at 32%, and is significantly higher than ECD attendance estimates in the weeks after school reopened on 15 February 2021.

7 Of a group of respondents living with children aged 0-6 in wave 3, 4 and 5, just 61% provide a consistent pre-pandemic response about whether children were attending ECD in February 2020. Across waves 4 and 5 which are just one to two months apart, and subject to fewer changes in household composition, only 73% of respondents living with children aged 0-6 in waves 4 and 5 provide a consistent response about pre-pandemic attendance in February 2020.

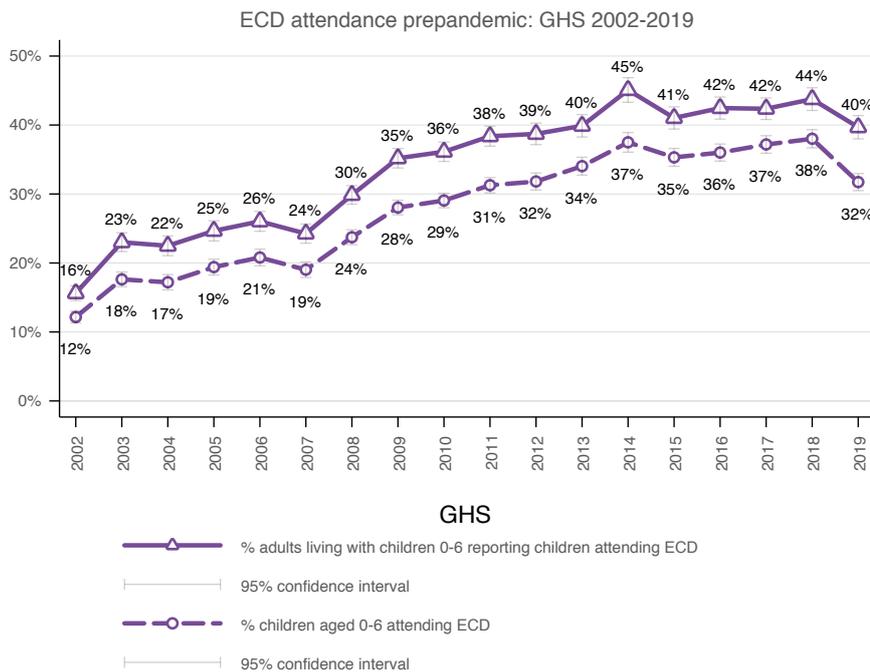
8 Evidence of recovery is still observed if we obtain estimates from a sample living with children in three waves (waves 3 to 5), and/or consistently reporting that any child attended an ECD programme pre-pandemic in wave 3, 4 and 5.

Figure 2: ECD attendance estimates from NIDS-CRAM waves 1 to 5 and the General Household Survey



Source: NIDS-CRAM wave 2, 3, 4 & 5.

Notes: Weighted, clustered, stratified. Sample includes respondents living with children aged 0-6 by wave.



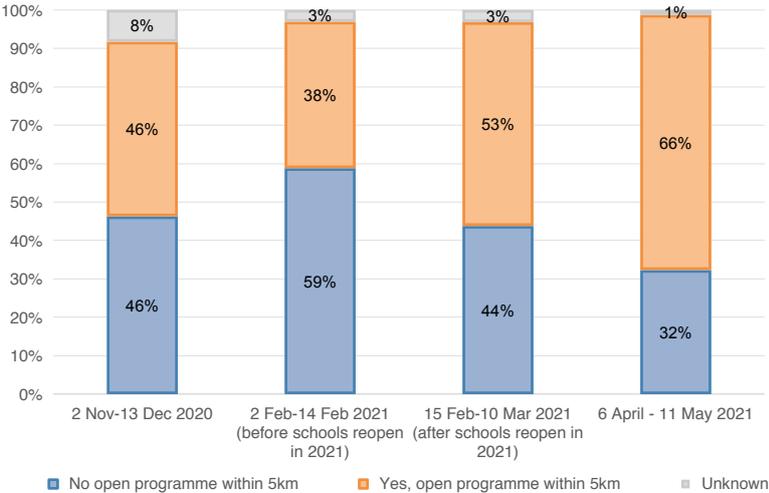
Source: General Household Surveys 2002-2019.

Notes: Weighted, clustered, stratified.

Third, we cannot observe from NIDS-CRAM how the quality of ECD programme offerings may have changed relative to a pre-pandemic situation. As the financial position of ECD programmes has been significantly impacted through reduced fee collection in a pandemic period, this is expected to have negatively impacted the quality of ECD programme offerings. The NIDS-CRAM ECD modules contain limited questions to identify quality indicators at programmes. In section 7, however, we explore how one indicator of quality – namely access to meals at ECD programmes - has surprisingly increased relative to a pre-pandemic period. This may be due to specific philanthropic efforts to provide food to ECD programmes.

The wave 5 NIDS-CRAM interview period straddled over a short one-week public school holiday as shown in *Figure 1*. Even though ECD programmes are not required to follow public school holiday periods, some ECD programmes do close over school holiday periods. In the 2013/14 ECD audit for example, about half of programmes surveyed reported closing over school holidays⁹. In our NIDS-CRAM wave 4 paper, we found that ECD attendance estimates differed notably before and after schools reopened (Wills and Kika-Mistry, 2021b)¹⁰. The bulk of the wave 5 interviews were conducted before the short week-long school holiday, nevertheless we tested to what extent ECD estimates are sensitive to when the interview occurred relative to the holiday week. We found no statistically significant differences in ECD attendance in April/May 2021 across the short holiday period, although point estimates in ECD attendance are slightly smaller during and after the holiday week (see *Table A 2*).¹¹ We also note that the 2020 to 2021 ECD attendance trends from NIDS-CRAM are robust to the sampling challenges of co-resident sample members outlined in Wittenberg and Branson (2021).

Figure 3: Within 5km of where you live, do you know of an affordable ECD centre (such as a pre-school, creche, playgroup or day-mother) that is currently open?



Source: NIDS-CRAM wave 3, 4, and 5. Each NIDS-CRAM wave is treated as a cross-section in the calculations.
Notes: Weighted and clustered. See Table A 3 for confidence intervals. The sample includes respondents currently living with children aged 0-6.

9 Own calculations from the 2013/14 ECD audit.
 10 The difference in ECD estimates before and after school reopening held even after controlling for any observed differences in the characteristics of respondents interviewed before and after the school closure period.
 11 Before the holiday period, of respondents living with children aged 0-6 at the time of the wave 5 survey, 37% indicated that at least one child was attending an ECD programme. During and after the holiday week, these estimates are 33% and 34% respectively but the confidence intervals are wide and overlap with those of the 37% estimate of ECD attendance before the school holiday break. Sample sizes during and after the holiday period are possibly too small to identify any statistically significant differences.

5. Reasons for non-attendance

If no child had attended an ECD programme in the past 7 days, NIDS-CRAM asked the following close-ended question: “What are the main reasons that the child/children have not attended the Early Childhood Development Centre in the past 7 days?” In waves 4 and 5 this question allowed for multiple response options facilitating a neat comparison of responses across these two waves as shown in *Table 2* but making it difficult to directly compare responses with wave 2 and 3. In waves 2 and 3 of NIDS-CRAM, temporary programme closures, fears about COVID-19 infections and programmes not being ‘COVID-19 prepared’ were dominant reasons for non-attendance.

Table 2: Reasons given for why children are not attending an ECD programme in the past 7 days. Wave 4 and 5 comparison.

	Wave 5 April-May 2021: Reports no children attending ECD in past 7 days. (Lives with children aged 0-6)			Wave 4 February-March 2021: Reports no children attending ECD in past 7 days. (Lives with children aged 0-6)		
	Mean	95% CI		Mean	95% CI	
		Lower	Upper		Lower	Upper
Supply-Side Reasons	9.4			36.2		
Centre is temporarily closed due to Lockdown	5.1	3.8	6.4	26.3	23.8	28.9
Centre not prepared for Coronavirus - no safety measures	2.4	1.3	3.5	4.2	2.8	5.6
No ECD in area*	1.3	0.5	2.0	0.6	0.1	1.1
Centre has closed-down permanently	0.6	0.2	1.0	3.2	2.2	4.1
ECD not open yet*	0.1	0.0	0.2	1.9	1.2	2.7
Demand-side Reasons	71.0			56.0		
Child is too young for ECD	19.3	16.3	22.4	14.7	12.5	16.8
Can't afford the centre fees	12.6	9.9	15.2	9.0	6.8	11.2
Child is attending grade R in school	12.1	9.4	14.8	6.5	5.1	7.9
Child is too old for ECD	10.5	8.2	12.8	7.3	5.6	8.9
Child may get Coronavirus at centre	7.6	5.8	9.4	12.3	9.9	14.8
Caregiver/ parent/ family member prefers to look after child	6.2	3.5	8.9	3.8	2.1	5.6
Can't afford transport to centre	1.2	0.5	1.8	1.6	0.8	2.5
Other transport problems	1.0	0.3	1.6	0.4	0.2	0.6
Child is sick	0.5	0.1	1.0	0.3	0.1	0.6
Other / Don't know / Refused	23.7			13.9		
No children attending ECD	19.8	16.9	22.8	9.2	7.5	11.0
Other, specify	2.2	0.8	3.5	3.2	2.0	4.3
Don't know / Refused	1.7	0.8	2.7	1.5	1.0	2.0
N observations		1897			2583	

Source: NIDS-CRAM wave 4 and 5 data. Own calculations.

Notes: Weighted, clustered, stratified. Caution should be taken if comparing these estimates on reasons for non-attendance to results in our NIDS-CRAM wave 2 or 3 papers due to different samples used and the introduction of multiple-response options from wave 4.

From wave 4 to 5, it is encouraging to see a decline in supply-side constraints, such as temporary closure of programmes, as the main reason for not sending children to ECD programmes. In April/May 2021, just 5% of respondents indicate that children did not attend ECD programmes due to the temporary closure of programmes compared to 26% in February/March 2021. Aligning with the reduced level of COVID-19 infections over the April/May 2021 data collection period, fears of children contracting COVID-19 at programmes was also less likely to be cited as a main reason for non-attendance (12% in wave 4, versus 8% in wave 5). From February/March 2021 to April/May 2021, demand-side constraints and preferences or attitudes towards childcare become more prevalent as reasons for non-attendance at ECD programmes. Ability to afford fees remains a reported constraint to attendance for some. In wave 5, 12% cite an inability to afford ECD fees as a reason for ECD non-attendance compared to 9% in wave 4, although this difference is not statistically significant. In the next section we explore ECD fee affordability in more detail.

6. Affordability of ECD fees

Children’s ECD participation in South Africa is strongly tied to being able to pay ECD fees. From the 2018 GHS, we know that fees were charged for over 80% of children aged 0-6 years attending ECD programmes that are not in Grade R or school-based programmes (Wills, Kotze and Kika-Mistry, 2020). The following questions on fee affordability were also asked in NIDS-CRAM waves 3 to 5:

Wave 4 and 5	“Are you/ someone in your household currently able to afford the fees for the child/ children to attend an ECD facility?” (Interviewer: Even if the child is no longer attending, ask the respondent if they could “afford” the fees).
Wave 3	“In October, were you/ someone in your household able to afford the fees for these children to attend an ECD facility?” (Interviewer: Even if the child is no longer attending, ask the respondent if they could “afford” the fees).

There has been a significant improvement since quarter 4 of 2020 with respect to the percentage of respondents living with children aged 0-6 that indicate they or someone in their household can afford the fees for the child/children to attend an ECD facility.¹² This is seen in *Figure 4*. For example, in November/December 2020 about 24% of respondents living with children aged 0-6 indicated that they or someone in the household could afford ECD fees. By February/March 2021 this increased to 52% and then to 59% by April/May 2021.¹³

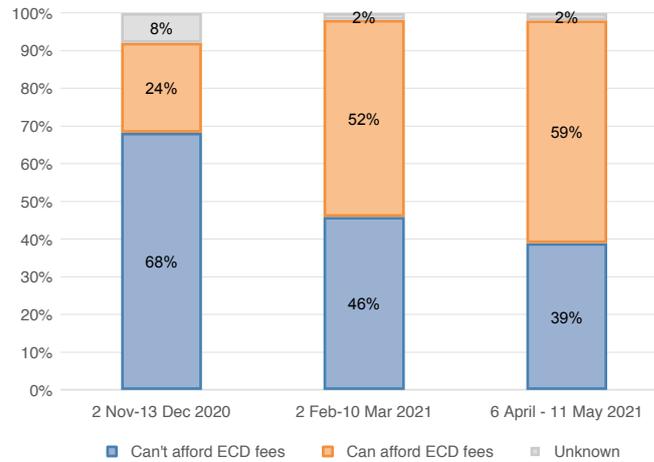
The rising percentage that can afford ECD fees may reflect general improvements in the labour market over this period (Casale and Shepherd, 2021). But there are various other possible explanations. For example, more affordable ECD programmes that initially struggled to reopen after lockdown may have gradually reopened. Additionally, government plans to provide short-term relief funding to ECD programmes may have buoyed ECD operators’ decisions to register children even if parents couldn’t afford ECD fee payments.¹⁴ Philanthropic support to some ECD operators may have also alleviated some of the operational necessity of immediate fee collections. Furthermore, we cannot observe from the NIDS-CRAM data whether ECD programmes lowered their fees charged or whether they were more likely to offer fee exemptions. The rise in affordability could also be a function of the longitudinal NIDS-CRAM sample. ECD fees may now be more affordable due to the aging of children in the respondent’s households since NIDS-CRAM wave 3. Children who are not in ‘nappies’ or in older age groups in ECD programmes tend to be charged slightly lower fees than younger children. Similarly, it is also possible that between 2020 and 2021 some children in respondent’s households started attending grade R in fee-free schools rather than private fee-charging ECD programmes. However, we identify rising reported affordability even after excluding respondents living with children attending grade R in the past 2 weeks.

¹² This question on affordability of ECD fees was asked to respondents living with children aged 0-6 regardless of whether children were attending an ECD programme.

¹³ A similar result holds if we restrict the sample to a panel living with children aged 0-6 in waves 3, 4 and 5.

¹⁴ At the start of a year relative to the end of a year, arrears in fee payments of newly enrolled children would not have accumulated to levels that induce programmes to turn parents away.

Figure 4: Percentage of respondents living with children aged 0-6 that indicate they or someone in the household can afford “the fees for the child/children to attend an ECD facility?” even if the child is no longer attending



Source: NIDS-CRAM wave 3, 4, and 5.

Notes: Weighted and clustered. See Table A 4 for confidence intervals. The sample includes respondents currently living with children aged 0-6. Each NIDS-CRAM wave is treated as a cross-section in the calculations. Whether respondents can afford ECD fees does not differ across the pre- and post-school opening interview periods in wave 3.

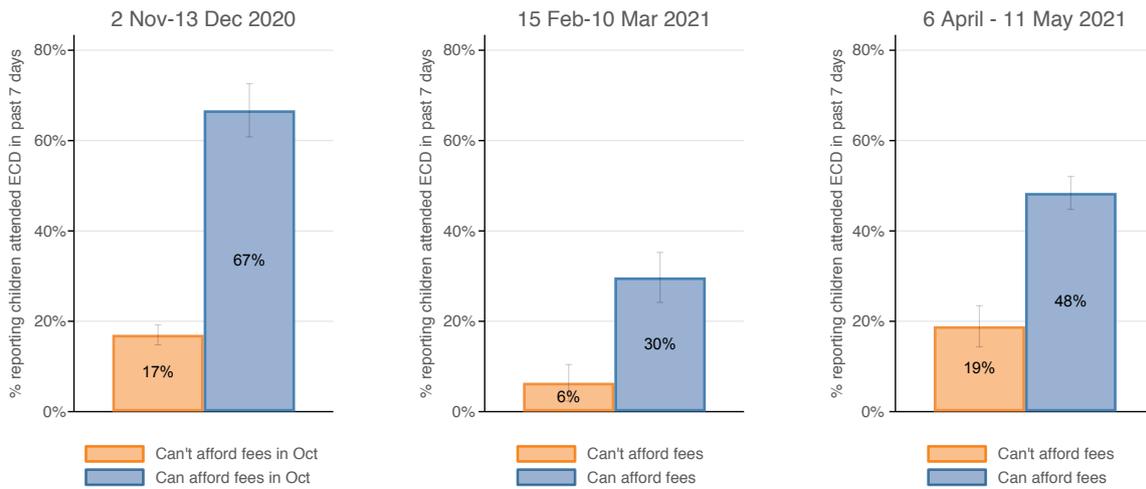
We now consider how being able to afford ECD fees may be related to ECD attendance across NIDS-CRAM waves 3, 4 and 5, updating earlier analysis (Wills, Kika-Mistry and Kotze, 2021). The bivariate association between fee affordability and ECD attendance is shown in *Figure 5* for respondents living with children aged 0-6. ECD attendance is strongly associated with whether the respondent or someone in the household can afford fees at the ECD programme. This association was particularly strong in the 4th quarter of 2020 (wave 3). This association remains in 2021 (waves 4 and 5) but the strength of this association is muted relative to wave 3. In April/May 2021, of respondents living with children aged 0-6 that could afford ECD fees, 48% indicated that at least one child was attending an ECD programme compared to 19% for those saying they could not afford ECD fees.¹⁵

Using NIDS-CRAM waves 3 to 5 we also estimate the relationship between being able to afford ECD fees and ECD attendance in the past 7 days, *after* controlling for indicators that capture the availability of open programmes, respondents’ demographic characteristics, the socio-economic status of households in which they live, the location of respondents’ households, access to social grants and perceptions of COVID-19 threats to health. Main estimation results are shown in *Figure 6* with full estimation results in appendix *Table A 5*. *Figure 6* summarises the estimated predicted probability that a respondent in a household with young children, reports children attending an ECD programme in the past 7 days by data collection wave and ability to afford ECD fees. Even after adding background controls and individual fixed effects to control for time-invariant respondent characteristics, the strength of the relationship between ability to pay ECD fees and ECD attendance is very evident. Of all determinants of ECD attendance considered, other than school holidays which proxy for programme closures, ability to afford fees is the strongest determinant of ECD attendance in wave 3 and 5.¹⁶ The weaker relationship in wave 4 is likely accounted for by low overall ECD attendance in wave 4 with less identifiable variation for the analysis.

¹⁵ The apparent decline in ECD attendance over time in *Figure 5* is merely an artefact of a small, select group in wave 3 being able to afford ECD fees that are also significantly more likely to report children attending ECD.

¹⁶ These results hold when running the estimation on a sample with children aged 0-6 present in the household in waves 3 to 5. The strong relationship between affordability and reported ECD attendance also holds when limiting the sample to those without any grade R children currently attending school.

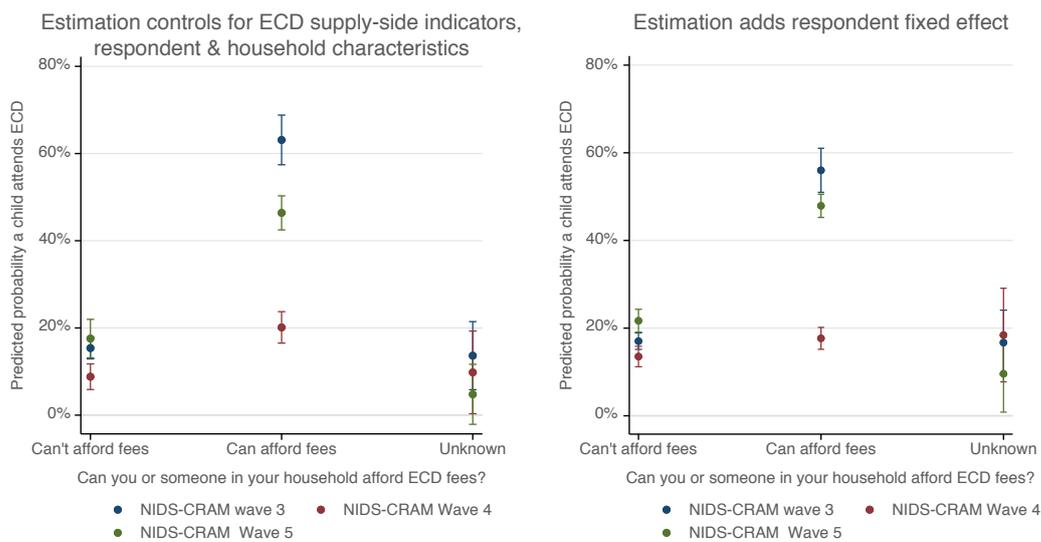
Figure 5: Reported ECD attendance of children in the past 7 days by whether the respondent or someone in the household can afford “the fees for the child/children to attend an ECD facility?”



Source: NIDS-CRAM waves 3, 4 & 5.

Notes: Weighted and clustered. Sample includes adults respondents living in household with children aged 0-6. Data used as cross-sections.

Figure 6: Estimating whether any child in the household attended an ECD programme in the past 7 days. Sample includes adult respondents living with children aged 0-6



7. ECD attendance and meal receipt

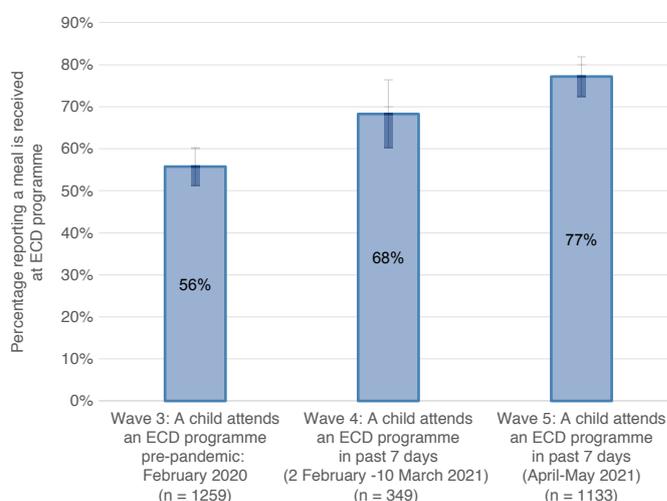
As a proxy for ECD quality, a question was included in NIDS-CRAM wave 4 and 5 to ascertain whether children received a meal at the ECD programme they attended in the past 7 days. The NIDS-CRAM wave 3 ECD module also asked about meal receipt at ECD programmes pre-pandemic in February 2020. These questions are shown below.

	<i>Asked of respondents reporting that any child attended ECD in February 2020:</i>
Wave 3	In February, did they receive a meal at the ECD programme (provided by the programme, not a meal sent with the child)?

	<i>Asked of respondents reporting that any child attended ECD in the past 7 days:</i>
Wave 4 and 5	Does the child/children receive a meal at the ECD programme (provided by the programme, not a meal sent with the child from home)?

Due to the contractions experienced in the ECD sector during 2020 and reduced fee collections, it was anticipated that it would be financially difficult for ECD programmes to provide meals to children. Contrary to expectations, *Figure 7* implies an *improvement* in meal receipt for children attending ECD programmes in April/May 2021 relative a pre-pandemic situation. Of respondents interviewed in April/May 2021 saying that any child attended an ECD programme in the past 7 days, 77% indicated that a child received a meal at the ECD programme. This compares to an estimate of 55% among wave 3 respondents reporting any child attending an ECD programme in February 2020. One possible explanation for this result is that recalled responses about meals received in a pre-pandemic period may not be particularly accurate, and underreported.

Figure 7: Percentage reporting a meal received at ECD programme. Sample includes respondents living with children aged 0-6 with at least one child attending an ECD programme either pre-pandemic or in the past 7 days



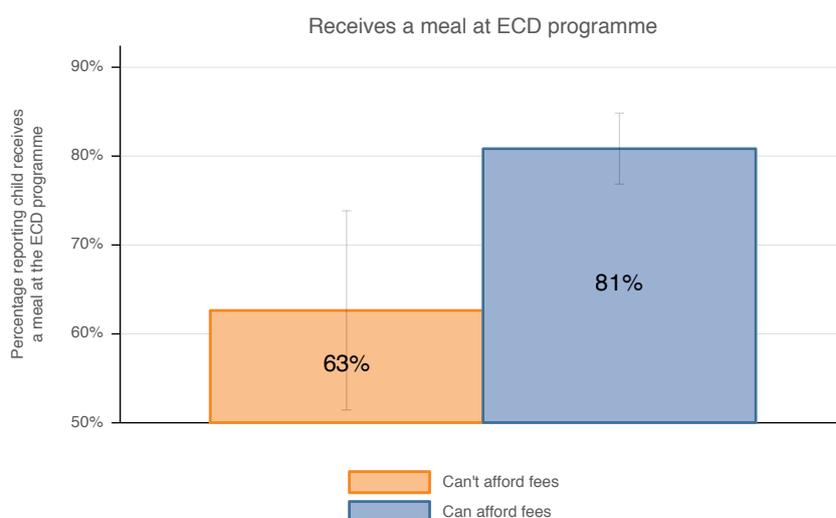
Source: NIDS-CRAM wave 3, 4 and 5.

Notes: Weighted and clustered. Sample includes respondents living with children aged 0-6 reporting at least one child i) attending an ECD programme in February 2020 when interviewed in wave 3, and ii) attending an ECD programme in the past 7 days when interviewed in wave 4 or 5. Each wave is treated as a cross-section in this figure.

Another possible explanation for this rise in reported meal receipt is that the composition of those reported as attending ECD programmes may now be different relative to a pre-pandemic situation. Yet if we restrict the respondent sample to those living with children aged 0-6 in waves 3, 4 and 5, and indicating children attended ECD programmes pre-pandemic and in the past 7 days, a similar pattern emerges as shown in *Figure 7*.

We also find a strong bivariate association between whether respondents can afford ECD fees and the provision of meals as seen in *Figure 8*. In wave 5, respondents reporting any child attending an ECD programme in the past 7 days are less likely to report meal receipt at the programme if they indicated that they couldn't afford ECD fees compared with those that could afford fees.

Figure 8: Percentage of adult respondents indicating that a meal is received at the ECD programme attended by a child/children in past 7 days by whether they can afford to pay ECD fees (NIDS-CRAM wave 5, April/May 2021)



Source: NIDS-CRAM wave 5.

Notes: Weighted and clustered. Sample includes respondents living with children aged 0-6 and at least one attends an ECD programme in the past 7 days.

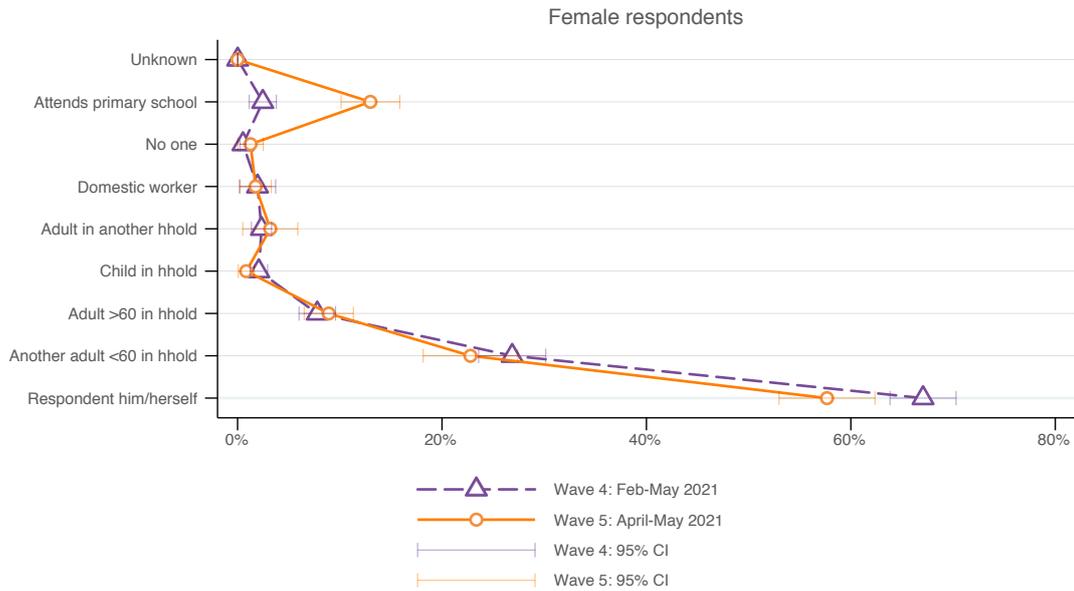
8. Who is looking after children not attending ECD programmes?

Finally, we revisit questions on who is looking after children that have not been attending ECD programmes in the past 7 days. In waves 2 to 5, respondents were asked the following question: "Who is looking after this child/ these children during the day now that they are not attending the ECD centre?" In waves 2 to 3, this was a single response question. In waves 4 and 5, this was amended to a multiple response question.

Figure 9 compares responses to these questions across NIDS-CRAM waves 4 and 5 only for female and male respondents. The figure treats each wave as a cross-section, so that this is not necessarily the same group of respondents. As observed in waves 2 and 3, female respondents in households with young children, but with no child attending an ECD programme in the past 7 days, are considerably more likely than male respondents to report that they themselves are looking after these children (58% for females versus 17% for males in wave 5). Compared to wave 4, however, the burden of childcare experienced by female respondents has declined as more young children have returned to primary schools.¹⁷ Of females responding to this question in wave 5, 58% said they themselves were looking after children that had not returned to ECD programmes compared to a significantly higher estimate at 67% in wave 4.

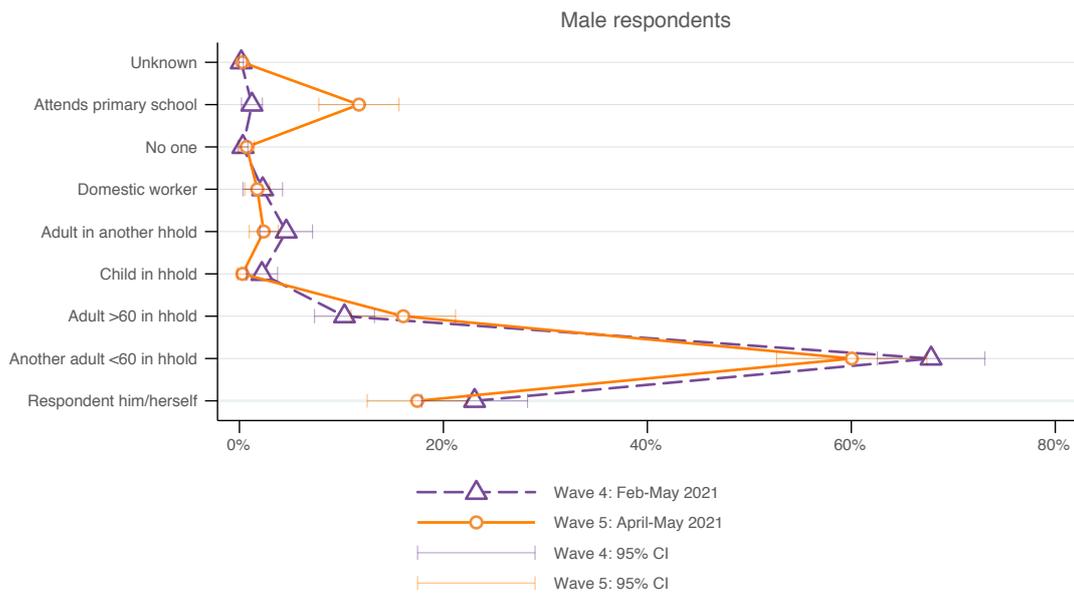
¹⁷ It also appears as if respondents answered this question not just in relation to the youngest children in the household but children of school-going age.

Figure 9: Who is looking after children that are not in ECD programmes? Sample includes respondents living in households with children aged 0-6, but no child attended an ECD programme in past 7 days. NIDS-CRAM wave 4 and 5



Source: Source: NIDS-CRAM wave 4 and 5.

Notes: Weighted & clustered. Sample includes respondents living with children aged 0-6 but no children attend ECD programmes



Source: Source: NIDS-CRAM wave 4 and 5.

Notes: Weighted & clustered. Sample includes respondents living with children aged 0-6 but no children attend ECD programmes

9. Conclusion and policy recommendations

The recovery in ECD attendance towards pre-pandemic levels in April/May 2021 is a testament to the resilience of the ECD system, but also highlights the importance of efforts from government and philanthropy to support ECD programmes with reopening efforts.

Despite this recovery, it is important to be mindful of the sensitivity of the ECD system to the multiple shocks induced by the pandemic as well as the potential impact of future shocks. The evidence from the NIDS-CRAM series points to the sensitivity of ECD attendance estimates to policy decisions such as school closures, changes in economic activity and COVID-19 infections. At the time of writing, more stringent lockdowns had been implemented again as the nation experiences a third wave of COVID-19 infections in June/July 2021. This may result in a further depressed labour market and may have implications for reduced household ability to pay ECD fees and rising parent/caregiver fears of children contracting COVID-19. Given the precarious situation that the system finds itself in, there is no reason to be complacent about a sustained recovery.

The findings provided in this paper have the following implications for policy:

- i. State-led data collection initiatives need to be implemented and maintained to track young children's access to ECD programmes and the quality of programme offerings.** Household surveys such as the ongoing General Household Survey are very necessary to track access to ECD but could include additional questions that will be vital to track developments in the sector. We also reaffirm the importance of efforts to fund and undertake an ECD census in 2021 to track the geographical spread of, and access to ECD programmes, and basic information relating to the registration status, materials and infrastructure, and human resource capacity of ECD programmes. Maintaining and updating this database in future years will be critical to ensuring more responsive policymaking. There are plans for government to undertake an ECD audit or 'baseline assessment' to assess the extent to which programmes have maintained and can strengthen quality outcomes in the early years while providing context on ECD finances to inform strategies and planning in the system. Collecting child level outcomes through these initiatives will be particularly important, so that government can have a better understanding of the implications of shocks to the system on child developmental outcomes.
- ii. Clear communication to parents/caregivers and ECD providers from the DSD on when programmes can operate in lieu of any forthcoming DBE decisions to adjust the school calendar due to COVID-19 infections.** There is seemingly a strong association between schools reopening and ECD attendance in South Africa. This is not unexpected given that school reopening announcements are more widely communicated than ECD reopenings, and some ECD programmes follow the school holiday schedule even though they are not required to.
- iii. ECD practitioners and staff need to be prioritized along with the planned vaccine rollout for teachers.** On 19 June 2021, Minister Angie Motshekga announced that COVID-19 vaccines will be available for teachers and school support staff from Wednesday, 23 June 2021 (Motshekga, 2021). ECD operators and respective staff provide essential childcare services, enabling those who are employed or searching for work to return to the labour market. Vaccinating ECD practitioners could provide an important barrier to the spread of the virus and keeping ECD programmes open. It could also allay parent/caregiver fears of children contracting the virus at ECD programmes.
- iv. Develop an ECD management information system to support clear communication, facilitate targeted support and strengthen monitoring and evaluation in the sector.** Without a comprehensive management information system with up-to-date contact details of ECD providers, it becomes challenging to communicate timeous information on key developments in the sector or to respond quickly with support. Further, the limited information available on ECD provisioning hinders informed resource allocations, policy development and planning initiatives for the sector.

- v. Reaffirm the importance of the ECD Employment Stimulus Relief Fund.** Support for the sector remains imperative, and despite delays in processing of applications for payment, this is the first time that such a large initiative to provide government support to ECD programmes has occurred in South Africa. This initiative acknowledges the importance of both registered and unregistered programmes, supporting short-term sustainability of the sector.
- vi. Continue to accelerate the registration of ECD programmes.** The Department of Social Development provides the R17 per-child per-day subsidy to registered ECD programmes only, with unregistered centres far outnumbering those that are registered. However, the current registration process is onerous, with prerequisites that are prohibitive for many ECD providers. We acknowledge and reaffirm the government's efforts to ensure that more centres are registered with the DSD through the Vangasali campaign, providing support packages to all identified ECD programmes to help them achieve the necessary registration requirements in the short-term (South African Government, 2020). It will be important for DSD to ensure sufficient budget availability to accommodate the new additionally registered ECD programmes.
- vii. Reconsider the value of the ECD daily subsidy to ensure long-term sustainability of the sector by serving as a buffer to ECD programmes from demand-side shocks to fee collections.** While ECD subsidies have spurred periods of expansion in ECD access, at R17 per-child per-day in 2021, the subsidy value is simply too low to support decent wages or quality programming (Wills and Kika-Mistry, 2021b). With the national minimum wage in 2021 being R21.70 *per hour* or R173 per day, ECD programmes need to maintain high practitioner to child ratios to break even. As a point of comparison, it is estimated that the state spends about 6 times more per child attending school compared to an ECD programme. Subsidy funding to ECD programmes is limited and uneven in reach, largely because of the constraints imposed by the regulatory framework of programme registration. In addition, the depth of ECD financing has been highly constrained, with subsidy amounts which do not even come close to the costs of financing quality ECD day care programmes in a middle-income country context (Desmond *et al.*, 2019). Consequently, the sustainability of the system has been dependent on parent fee payments. This results in limited access to quality ECD as fee payments are unlikely to make up the gap between the costs of providing quality ECD care and low state subsidy amounts.
- viii. Increased collaboration between NGOs, philanthropy and government in “building back better”.** Private philanthropy supporting NGO networks working for systemic change in the ECD system have accomplished significant efforts in the past few months, including implementing a significantly large ECD food voucher programme and other reopening support efforts. Much has been learned about the type of capacity required to implement innovative support projects in the sector, and other learnings have been invaluable. In building towards a stronger ECD system, increased partnership and dialogue between private players and government in this sector is invaluable.

REFERENCES

- Alam, A. and Tiwari, P. (2021) Implications of COVID-19 for Low-cost Private Schools. Issue brief No. 8. New York. Available at: <https://www.unicef.org/globalinsight/reports/implications-covid-19-low-cost-private-schools>.
- Angrist, N. *et al.* (2021) 'Building back better to avert a learning catastrophe: Estimating learning loss from COVID-19 school shutdowns in Africa and facilitating short-term and long-term learning recovery', *International Journal of Educational Development*, 84, p. 102397. doi: 10.1016/j.ijedudev.2021.102397.
- Ardington, C. (2021) COVID Learning Losses. Early Grade Reading in South Africa. Cape Town. Available at: [https://fundawande.org/img/cms/news/Ardington_2021_-_Funda_Wande_EC_learning_losses_report_\(24_May_2021\)_1.pdf](https://fundawande.org/img/cms/news/Ardington_2021_-_Funda_Wande_EC_learning_losses_report_(24_May_2021)_1.pdf).
- BRIDGE *et al.* (2020) The Plight of the ECD Workforce: An urgent call for relief in the wake of covid-19. Cape Town. Available at: https://docs.google.com/document/d/e/2PACX-%0A1vQ57ZUPpIRi_tPyUFXFSOL8qDgh7smqTGdOihxQuFG%0Aq5CP0bWO9-eHP1We2zYmYtZPiYTAOMSlpPaf0/pub.
- Casale, D. and Shepherd, D. (2021) The gendered effects of the Covid-19 crisis and ongoing lockdown in South Africa: Evidence from NIDS-CRAM Waves 1 - 5. NIDS-CRAM wave 5 policy paper.
- Daniels, N. (2021) 'Preschool teachers angry over slow lockdown relief payments', IOL, 13 May. Available at: <https://www.iol.co.za/capetimes/news/preschool-teachers-angry-over-slow-lockdown-relief-payments-d556df53-2767-4a82-9632-d573e50ab235>.
- Dano, Z. (2021) 'ECD stimulus fund payments are three weeks overdue, says CECD', IOL, 21 April. Available at: <https://www.iol.co.za/education/early-learning/ecd-stimulus-fund-payments-are-three-weeks-overdue-says-cecd-e6895c62-b7da-4d1a-9c28-aa81f12e556c>.
- Department of Social Development (2021a) 'ECD Employment Stimulus Relief Fund (ECD-ESRF) supported by the Presidential Employment Stimulus'. Available at: <https://www.dsd.gov.za/index.php/latest-news/21-latest-news/328-presidential-employment-stimulus-for-early-childhood-development-ecd-services>.
- Department of Social Development (2021b) 'Update On Ecd Stimulus Employment Relief Fund From The Department Of Social Development...', Social Development, 16 April. Available at: <https://www.dsd.gov.za/index.php/latest-news/21-latest-news/345-update-on-ecd-stimulus-employment-relief-fund-from-the-department-of-social-development>.
- Desmond, C. *et al.* (2019) 'Priority-setting in the roll out of South Africa's National Integrated ECD Policy', *Early Years*, 39(3), pp. 276–284.
- Engzell, P., Frey, A. and Verhagen, M. D. (2021) 'Learning loss due to school closures during the COVID-19 pandemic', *Proceedings of the National Academy of Sciences of the United States of America*. doi: 10.1073/PNAS.2022376118.
- Fabricus, J. (2020) 'Judgement in the matter between Skole-ondersteuningsentrum and the Minister of Social Development. In the High Court of South Africa, Gauteng Division'.
- Ingle, K., Brophy, T., Daniels, R. C. (2021) National Income Dynamics Study – Coronavirus Rapid Mobile Survey (NIDS-CRAM) 2020 - 2021 Panel User Manual. Beta 1 Release May 2021. Version 1. Cape Town.

Kerr, A., Ardington, C. and Burger, R. (2020) NIDS-CRAM sample design and weighting. B. Cape Town. Available at: https://cramsurvey.org/wp-content/uploads/2020/07/REPORT-B-CRAM-Sample-Design-and-Weighting-in-the-NIDS-CRAM-survey_v7.pdf.

Kuhfeld, M. *et al.* (2020) Learning during COVID-19: Initial findings on students' reading and math achievement and growth. Research Brief. Available at: <https://www.nwea.org/content/uploads/2020/11/Collaborative-brief-Learning-during-COVID-19.NOV2020.pdf>.

Lopez Boo, F., Behrman, J. R. and Vazquez, C. (2020) Economic Costs of Preprimary Programme Reductions due to the COVID-19 Pandemic. No. IDB-TN-2000. Available at: <https://publications.iadb.org/publications/english/document/Economic-Costs-of-Preprimary-Program-Reductions-due-to-COVID-19-Pandemic.pdf>.

Motshekga, A. (2021) Minister Angie Motshekga: Basic Education sector's response to the impact of Coronavirus COVID-19 on schooling (19 June 2021). Available at: <https://www.gov.za/speeches/minister-angie-motshekga-basic-education-sector%E2%80%99s-response-impact-coronavirus-covid-19>

Schult, J. *et al.* (2021) Did Students Learn Less During the COVID-19 Pandemic? Reading and Mathematics Competencies Before and After the First Pandemic Wave. doi: 10.31234/osf.io/pqtgf.

Wills, G. and Kika-Mistry, J. (2021a) Early Childhood Development and Lockdown in South Africa: 2021 quarter 1 update on attendance trends. NIDS-CRAM wave 4 policy brief No. 12. Cape Town. Available at: <https://cramsurvey.org/wp-content/uploads/2021/05/12.-Wills-G.-Kika-Mistry-J.-2021.-Early-childhood-Development-and-Lockdown-in-South-Africa-2021-quarter-1-update-on-attendance-trends.pdf>.

Wills, G. and Kika-Mistry, J. (2021b) Supply-side and demand-side approaches to financing early childhood care and education in South Africa: Paper to support ECCE financing strategy discussions. Illifa Labantwana ECD Working Papers. ReSEP, Stellenbosch University and funded by Illifa Labantwana.

Wills, G., Kika-Mistry, J. and Kotze, J. (2021) Early childhood development and lockdown in South Africa: An update using NIDS-CRAM wave 3. NIDS-CRAM wave 3 policy papers No. 12. Cape Town. Available at: https://cramsurvey.org/wp-content/uploads/2021/05/12.-Wills-G.-Kika-Mistry-J.-Kotze-J.-2021-Early-Childhood-Development-and-lockdown-in-South-Africa_An-update-using-NIDS-CRAM-wave-3-1.pdf.

Wills, G., Kotze, J. and Kika-Mistry, J. (2020) A sector hanging in the balance: Early childhood development and lockdown in South Africa. NIDS-CRAM wave 2 working papers No. 15. Cape Town. Available at: https://cramsurvey.org/wp-content/uploads/2021/05/15.-Wills-G.-Kotze-J.-Kika-Mistry-J.-2020-A-Sector-Hanging-in-the-Balance_ECD-and-Lockdown-in-South-Africa-1.pdf.

Wotipka, C. M. *et al.* (2017) 'The Worldwide Expansion of Early Childhood Care and Education, 1985–2010', *American Journal of Education*, 123(2), pp. 307–339. doi: 10.1086/689931.

Wittenberg, M and Branson, N. (2021) Creating Household Weights for NIDS-CRAM. NIDS-CRAM policy paper wave 5.

Appendix

Table A 1: ECD attendance in past 7 days by whether there is a child in the household currently attending grade R, April-May 2021

		Any child in household attending grade R in the past 2 weeks		
		No	Yes	Total
No child attending ECD programme in past 7 days	%	67.56%	51.08%	63.93%
	95% CI	[64.3 - 70.65]	[44.7 - 57.43]	[61.06 - 66.7]
	n	1560	342	1902
At least one child attending an ECD programme in the past 7 days	%	32.44%	48.92%	36.07%
	95% CI	[29.35 - 35.69]	[42.57 - 55.3]	[33.3 - 38.94]
	n	827	326	1153
Total		100%	100%	100%
		2387	668	3055

Source: NIDS-CRAM wave 5.

Notes: Weighted and clustered. Sample includes adult respondents living with children aged 0-6 at the time of the interview.

Table A 2: ECD attendance by interview date relative to a short one-week school holiday break, in April-May 2021

		Interview date relative to school holiday break			
		Before	During (24 April - 1 May 2021)	After	Entire wave 5 period: 6 April-11 May 2021
No child attending ECD programme in past 7 days	%	62.90%	67.45%	66.40%	63.93%
	95% CI	[59.56 - 66.13]	[59.97 - 74.14]	[57.04 - 74.61]	[61.06 - 66.7]
	n	1362	322	218	1902
At least one child attending an ECD programme in the past 7 days	%	37.10%	32.55%	33.60%	36.07%
	95% CI	[33.87 - 40.44]	[25.87 - 40.01]	[25.39 - 42.95]	[33.3 - 38.94]
	n	855	169	129	1153
Total		100%	100%	100%	100%
		2217	491	347	3055

Source: NIDS-CRAM wave 5.

Notes: Weighted, clustered and stratified. Sample includes adult respondents living with children aged 0-6 at the time of the interview.

Table A 3: Within 5km of where you live, do you know of an affordable ECD centre (such as a pre-school, creche, playgroup or day-mother) that is currently open?

Wave 3: 2 Nov-13 Dec 2020				
	Estimate (%)	lower 95% CI	upper 95% CI	n
No open programme within 5km	46.3	43.3	49.2	1515
Yes, open programme within 5km	45.5	42.5	48.6	1546
Unknown	8.2	6.4	10.5	261
Total	100			3322
Wave 4: 2 Feb-14 Feb 2021 (before schools reopened in 2021)				
	Estimate (%)	lower 95% CI	upper 95% CI	n
No open programme within 5km	58.8	54.6	62.9	1182
Yes, open programme within 5km	38.2	34.0	42.5	588
Unknown	3.1	2.1	4.5	55
Total	100			1825
Wave 4: 15 Feb-10 March 2021 (after schools reopened in 2021)				
	Estimate (%)	lower 95% CI	upper 95% CI	n
No open programme within 5km	43.7	39.2	48.4	505
Yes, open programme within 5km	53.1	48.5	57.5	583
Unknown	3.2	2.0	5.2	40
Total	100			1128
Wave 5: 6 April - 11 May 2021				
	Estimate (%)	lower 95% CI	upper 95% CI	n
No open programme within 5km	32.3	29.4	35.2	975
Yes, open programme within 5km	66.4	63.3	69.4	2029
Unknown	1.3	0.9	2.0	51
Total	100			3055

Source: NIDS-CRAM wave 3, 4 & 5.

Notes: Weighted, clustered and stratified. Sample includes adult respondents living with children aged 0-6 at the time of the interview.

Table A 4: Percentage of respondents living with children aged 0-6 that indicate they or someone in the household can afford “the fees for the child/children to attend an ECD facility?” even if the child is no longer attending

Wave 3: 2 Nov-13 Dec 2020				
	Estimate (%)	lower 95% CI	upper 95% CI	n
Can't afford ECD fees in October	68.2	65.4	71.0	2353
Can afford ECD fees in October	23.8	20.9	27.0	749
Unknown	8.0	6.4	9.9	220
Total	100			3322
Wave 4: 2 Feb-10 Mar 2021				
	Estimate (%)	lower 95% CI	upper 95% CI	n
Can't afford ECD fees currently	45.9	42.5	49.4	1324
Can afford ECD fees currently	52.2	48.6	55.8	1570
Unknown	1.9	1.3	2.7	59
Total	100			2953
Wave 5: 6 April - 11 May 2021				
	Estimate (%)	lower 95% CI	upper 95% CI	n
Can't afford ECD fees currently	38.9	35.5	42.4	1195
Can afford ECD fees currently	59.1	55.5	62.5	1788
Unknown	2.0	1.4	2.9	72
Total	100			3055

Source: NIDS-CRAM wave 3, 4 & 5.

Notes: Weighted, clustered and stratified. Sample includes adult respondents living with children aged 0-6 at the time of the interview.

Table A 5: Estimations of whether a respondent reports that any child in the household attended an ECD programme in the past 7 days. Sample includes respondents living with children aged 0-6 in a specific data collection period.

	Pooled OLS 1	Pooled OLS 2	Pooled OLS 3	Pooled OLS 4	Pooled OLS 5	Pooled OLS 6	Add individual fixed effect
Can afford ECD fees: Yes	0.497*** (0.031)	0.490*** (0.031)	0.489*** (0.032)	0.487*** (0.031)	0.481*** (0.031)	0.477*** (0.031)	0.390*** (0.030)
Can afford ECD fees: Unknown	-0.070** (0.035)	-0.023 (0.040)	-0.024 (0.040)	-0.019 (0.039)	-0.023 (0.040)	-0.017 (0.039)	-0.003 (0.040)
NIDS-CRAM Wave 4	-0.118*** (0.016)	-0.062** (0.022)	-0.061** (0.022)	-0.068** (0.022)	-0.068** (0.022)	-0.066** (0.021)	-0.035** (0.016)
NIDS-CRAM Wave 5	0.019 (0.024)	0.024 (0.024)	0.025 (0.025)	0.022 (0.024)	0.024 (0.024)	0.022 (0.024)	0.047** (0.017)
Can afford fees # NIDS-CRAM Wave 4	-0.382*** (0.040)	-0.382*** (0.040)	-0.382*** (0.041)	-0.373*** (0.039)	-0.368*** (0.039)	-0.364*** (0.039)	-0.348*** (0.033)
Can afford fees # NIDS-CRAM Wave 5	-0.202*** (0.044)	-0.200*** (0.043)	-0.201*** (0.044)	-0.194*** (0.044)	-0.192*** (0.044)	-0.189*** (0.044)	-0.128*** (0.034)
Unknown # NIDS- CRAM Wave 4	0.086 (0.067)	0.044 (0.066)	0.040 (0.067)	0.024 (0.067)	0.044 (0.065)	0.027 (0.066)	0.052 (0.063)
Unknown # NIDS- CRAM Wave 5	-0.055 (0.053)	-0.101* (0.055)	-0.103* (0.055)	-0.107* (0.055)	-0.103* (0.056)	-0.111* (0.057)	-0.118* (0.060)
Interviewed during school holiday		-0.082*** (0.020)	-0.084*** (0.020)	-0.079*** (0.020)	-0.080*** (0.020)	-0.071*** (0.020)	-0.073*** (0.016)
ECD open within 5km: Yes		0.032* (0.018)	0.032* (0.018)	0.032* (0.018)	0.031* (0.018)	0.030* (0.018)	0.045*** (0.013)
ECD open within 5km: Unknown		-0.080** (0.025)	-0.083*** (0.025)	-0.090*** (0.026)	-0.089*** (0.026)	-0.090*** (0.026)	-0.001 (0.028)
Respondent is female			-0.015 (0.016)	-0.018 (0.016)	-0.017 (0.016)	-0.015 (0.016)	
Respondent race: Coloured			-0.007 (0.022)	0.010 (0.027)	0.009 (0.027)	0.012 (0.030)	
Respondent race: Asian/Indian			0.040 (0.108)	0.048 (0.110)	0.056 (0.104)	0.064 (0.102)	
Respondent race: White			0.029 (0.076)	0.052 (0.074)	0.055 (0.072)	0.065 (0.073)	

Respondent has a matric	0.013 (0.018)	0.015 (0.018)	0.016 (0.018)	0.015 (0.018)	
Area of hh: Urban area/town		-0.004 (0.023)	-0.004 (0.023)	-0.002 (0.024)	
Area of hh: Farm/rural area		-0.012 (0.021)	-0.009 (0.020)	-0.007 (0.020)	
Area of hh: Unknown		0.071 (0.048)	0.074 (0.046)	0.078 (0.048)	
Employ status: Unemployed - discouraged		-0.026 (0.021)	-0.027 (0.021)	-0.024 (0.021)	0.042** (0.021)
Employ status: Strictly unemployed		0.047** (0.022)	0.047** (0.023)	0.050** (0.023)	0.024 (0.023)
Employ status: Employed		-0.005 (0.019)	-0.005 (0.019)	-0.005 (0.019)	0.008 (0.024)
Employ status: unknown		-0.063 (0.049)	-0.055 (0.048)	-0.048 (0.047)	0.020 (0.052)
Someone in hh hungry in past 7 days		0.002 (0.016)	0.001 (0.017)	0.001 (0.016)	-0.022 (0.018)
Hunger unknown		-0.166*** (0.034)	-0.182*** (0.035)	-0.195*** (0.040)	-0.309*** (0.052)
Respondent receives a social grant		0.005 (0.014)	0.007 (0.013)	0.005 (0.013)	0.019 (0.013)
Number of CSGs in hh		0.009** (0.004)	0.005 (0.005)	0.005 (0.005)	-0.000 (0.007)
Number of children in hh under 7			0.028*** (0.008)	0.027*** (0.008)	0.012 (0.010)
Number of children in hh over 7			-0.005 (0.005)	-0.008 (0.006)	-0.005 (0.008)
Number of adults in hh			-0.005 (0.004)	-0.005 (0.004)	-0.000 (0.006)
Likely to get COVID: Yes				0.028* (0.014)	0.010 (0.016)
Likely to get COVID: Unknown				0.027 (0.022)	0.016 (0.024)

Children receive meals at school: No						-0.036**	-0.040**
						(0.016)	(0.013)
Children receive meals at school: Not applicable - no children attending school						-0.073*	-0.014
						(0.039)	(0.027)
Children receive meals at school: Unknown						0.026	-0.097**
						(0.047)	(0.040)
Constant	0.170***	0.160***	0.163***	0.138***	0.121**	0.129**	0.151***
	(0.012)	(0.016)	(0.017)	(0.042)	(0.044)	(0.046)	(0.040)
Observations	9330	9330	9330	9330	9330	9330	9330
R-squared	0.185	0.192	0.193	0.200	0.204	0.208	0.199

Table A 6: NIDS-CRAM (2020-2021) and General Household Survey Questions (2016-2019) on attendance at ECD programmes

General Household Survey - Asked in relation to each child in household roster aged 0-6		
GHS 2016	GHS 2017-2018	GHS 2019
Does...currently attend any of the following?	Does...currently attend any of the following?	Which of the following does ... currently attend?
<i>Grade R</i>	<i>Grade R</i>	<i>Grade R</i>
<i>Pre-school/ nursery/ school/ Grade II/ Grade 000</i>	<i>Pre-school/ nursery/ school/ Grade II/ Grade 000</i>	<i>Pre-school/ nursery/ school/ Grade II/ Grade 000</i>
<i>Creche/educare centre</i>	<i>Creche/educare centre</i>	<i>Creche/educare centre</i>
<i>Day mother / gogo</i>	<i>Day mother / gogo / child minder</i>	<i>Day mother / gogo</i>
<i>Home-based playgroup</i>	<i>Home / community play group</i>	<i>Home-based playgroup</i>
<i>None</i>	<i>None</i>	<i>None</i>
<i>Do not know</i>	<i>Do not know</i>	<i>Do not know</i>
<i>Other (specify)</i>	<i>Other (specify)</i>	<i>Other</i>
	<i>School</i>	<i>School (Grade 1 or 2)</i>
NIDS-CRAM - asked of the respondent		
Wave 2 attendance questions	Wave 3 attendance questions	Wave 4 & 5 attendance questions
Before the lockdown started in March, were any children in your household attending an early childhood development (ECD) centre such as a pre-school, creche, playgroup or day-mother? (Interviewer: Note ECD centres do NOT include Grade R in primary schools.) *	In February, were any children in your household attending an early childhood development (ECD) programme such as a pre-school, creche, playgroup or day-mother? (Interviewer: Note ECD centres do NOT include Grade R in primary schools.) *	In February last year (before the lockdown), were any children in your household attending an early childhood development (ECD) programme such as a pre-school, creche, playgroup or day-mother? (Interviewer: Note ECD centres do NOT include Grade R in primary schools.) *
If yes...	If yes OR no...	If yes OR no...
Did they attend in the month of June? *		
And did they attend in the past 7 days? *	“Did any children in your household attend an Early Childhood Development Centre in the past 7 days?” *	“Did any children in your household attend an Early Childhood Development Centre in the past 7 days?” *
If no attendance in the past 7 days...	If no attendance in the past 7 days...	If no attendance in the past 7 days...
What is the main reason that the child/ children have not attended the Early Childhood Development Centre in the past 7 days? (Interviewer: Do not read out options.)	What is the main reason that the child/ children have not attended the Early Childhood Development Centre in the past 7 days? (Interviewer: Do not read out options.)	What are the main reasons that the child/children have not attended the Early Childhood Development Centre in the past 7 days? (Interviewer: Do not read out options. Select all that apply.)

Notes: Response options are 1) Yes 2) No -8) Refused -9) Don't know

For further information please see cramsurvey.org and nids.uct.ac.za