# Community of Practice for Social Systems Strengthening to Improve Child Wellbeing Outcomes

How well are our children faring? A longitudinal assessment of child wellbeing in the COVID-19 pandemic in selected Johannesburg schools over three waves from 2020-2022

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# Acronyms

ALCoP	Advisory Level Community of Practice
CoE	DSI-NRF Centre of Excellence in Human Development
CoJ	City of Johannesburg
СоР	Community of Practice
CSG	Child Support Grant
CSDA	Centre for Social Development in Africa
сwтт	Child Wellbeing Tracking Tool
DBE	Department of Education
DSI	Department of Science and Innovation
DSD	Department of Social Development
GDE	Gauteng Department of Education
DoH	Department of Health
FAMSA	Families South Africa
ISHP	Integrated School Health Programme
LLCoP	Local Level Community of Practice
NRF	National Research Foundation
NSNP	National School Nutrition Programme
SADAG	South African Depression and Anxiety Group
SDQ	Strength and Difficulties Questionnaire
UJ	University of Johannesburg
UWC	University of the Western Cape
Wits	University of the Witwatersrand

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#### **Government Partners**

- City of Ekurhuleni, Department of Health
- Department of Science & Technology (DST)
- Gauteng Department of Education

- Gauteng Department of Education; Psychological, Therapeutic and Medical Services (Inclusion & Special Needs Directorate)
- Gauteng Department of Health
- National Research Foundation
- The City of Johannesburg
- The National Department of Basic Education
- The National School Nutrition Programme

#### Non-government Partners

- Childline Gauteng
- Families South Africa (FAMSA)
- MES (Mould Empower Serve), Johannesburg
- Save the Children
- UNICEF SA
- Soul Food

#### **Community Health Services**

- University of Johannesburg Optometry Clinic
- University of the Witwatersrand Speech & Hearing Clinic
- Local City of Johannesburg and Gauteng Provincial clinics

### Participating Schools in Johannesburg

- Malvern Primary School (Malvern)
- Lejoeleputsoa Primary School (Meadowlands, Soweto)
- Mayibuye Primary School (Doornkop, Soweto)
- Mikateka Primary School (Ivory Park)
- Ekukhanyisweni Primary School (Alexandra)

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<sup>&</sup>lt;sup>1</sup> A preceptor is an experienced practitioner who provides supervision during clinical practice and facilitates the application of theory to practice for students and staff learners. https://www.google.com/search?q=preceptors+meaning&sca\_esv=562684738&ei=0eD2ZN\_ EGNibkdUP5ayrmAw&oq=preceptors&gs\_lp=Egxnd3Mtd2l6LXNlcnAiCnByZWNlcHRvcnMqAggEMgUQABiABDIFEAAYgAQyBRAAGI-AEMgUQABiABDIFEAAYgAQyBRAAGIAEMgUQABiABDIFEAAYgAQyBRAAGIAEMgUQABiABDIFEAAYgAQyBRAAGI-

# **Executive summary**

Established in 2020, the Community of Practice (CoP) is an initiative focused on enhancing children's wellbeing by bolstering social support systems around them. Grounded in extant research that underscores early childhood as a period of heightened responsiveness to interventions, the CoP leverages a multisystemic framework that integrates health, education, mental health, and welfare sectors. With a specific focus on children in their foundational years of schooling (Grade R, Grade 1, 2 and 3),<sup>2</sup> the CoP functions at two levels: the first is the Advisory Level CoP<sup>3</sup> which conceptualised the overall aims of study and guided its implementation; the second operates at school level and is made up of teachers, social workers and allied professions. A digital tool was designed and administered by trained social workers to assess child wellbeing in multiple domains: psychosocial, education, nutrition, health and material/economic wellbeing. Children at high risk were identified.

Over a period of three years (2020-2022), data was gathered from a cohort of children across five Johannesburg schools, enabling the CoP to implement tailored interventions addressing the needs of individual children, caregivers and families to enhance their wellbeing. This comprehensive and longitudinal study of how children fared during the COVID-19 pandemic is based on a matched sample of 123 children.

This summary provides an overview of the findings obtained from caregivers, teachers, children, and health practitioners over the three-year period. The data reflects the impact of the COVID-19 pandemic on various aspects of wellbeing across households, caregivers and children, and shows how children fared at the end of the pandemic in 2022.

# Psychosocial wellbeing of caregivers and children

- Results from the Strengths and Difficulties assessment showed a gradual decrease in the number of children experiencing difficulties, from 35% in Wave 1, to 24% in Wave 2 and 11% in Wave 3.
- Fewer children experienced emotional, peer and social difficulties by Wave 3 compared to Wave 1. Conduct difficulties improved by 16%, but remained high with a quarter of the children still struggling in this area.
- Levels of caregiver depression more than halved between Wave 1 and Wave 3, from 52.6% in Wave 1 to 23.5% in Wave 3. This was possibly influenced by the simultaneous increase in the support caregivers received which increased from 31.7% in Wave 1 to 69.9% in Wave 3.
- High levels of caregiver depression (23.5%) in Wave 3 is a significant risk factor for children's psychosocial development.

#### Care and protection

- Six out of ten children continued to be exposed to hostile and violent behavior at home and in the community.
- Concerns regarding children's safety due to the pandemic decreased over time from 63.8% in Wave 1, to 50.4% in Waves 2 and 3 respectively.
- This occurred alongside an increase in the time that family members spent with children, from 79.8% in Wave 1 to 91.3% in Wave 3 which is a positive mitigating factor.

### Education

- The majority (62.6%) of the children were in Grade 2 and Grade 3 (34.15%) at Wave 3. In 2021, 18.5% (n=10) of children who were in Grade 1 in 2020 did not move on to Grade 2 and 5.1% of children in Grade 1 in 2021 did not move on to the next grade in 2022.
- Caregivers perceived a gradual improvement in their children's educational progress, with 82.9% of caregivers reporting such in Wave 1 to 88.6% in Wave 2 and 91% in Wave 3. By contrast teachers noted a gradual decrease in children's school performance from 86.2% in Wave 1, to 82.5% in Wave 2 and 73.3% in Wave 3.
- Teachers reported that child participation in class improved.
- Teachers flagged concerns about children not doing homework, which declined between Waves 1 (71%) and 3 (64%). This contrasted with caregivers who reported consistently high scores of over 90% on children doing homework across the three waves.
- Teachers noted little fluctuation in school attendance over the three waves.
- There was a reduction of 38% between Wave 1 and Wave 3 of children who were afraid to go to school.

<sup>&</sup>lt;sup>2</sup> In 2020, the first year of the study, the children were in Grade R and Grade 1. As the study progressed through 2021 and 2022, the children did too. Data for the last wave therefore includes children in Grades 2 and 3.

<sup>&</sup>lt;sup>3</sup> The Advisory Level CoP is made up of a team of researchers from the universities of Johannesburg and the Witwatersrand; the Medical Research Council (SAMRC); representatives of government departments, namely the Department of Basic Education, the Department of Social Development and the Provincial Department of Health; and one non-governmental partner (UNICEF).

# Child hunger and malnutrition

- At Wave 2, no children were going to bed hungry in the last seven days, as compared to the 16 (13.7%) children in Wave 1. At Wave 3, we saw a slight increase again, with 6 children reportedly going to bed hungry.
- Children's access to food and nutrition improved, with an increase of 18 % for those eating three meals a day.
- Most children ate protein (95%) and vegetables (93%) twice a week.
- Negligible decreases in stunting occurred over the three waves. This is a persistent and challenging issue that has not improved significantly over the past three decades.
- Changes in the proportion of overweight children decreased marginally.
- There was a 14% increase in wasting between Waves 1 to 3. Likewise, 11% more children were underweight over the same period.
- An increase in households with 3-4 children was observed. Other studies found that it is children in larger households that are more vulnerable to hunger (Van der Berg, Patel & Bridgman 2022). When these indicators are taken together, a third of the children in the study experienced at least one indicator of malnutrition.

### Child health

- Greater responsiveness to children's health needs was achieved.
- Fewer children experienced health challenges (10%) that prevented them from attending school by Wave 3. More children were able to access health services (4%) between Waves 2 and 3.
- Greater awareness by caregivers of health challenges requiring specialised screening and intervention was achieved.
   Examples are difficulties with eyesight, speech and hearing.
- Higher vaccination rates were recorded by Wave 3 compared to Wave 1, but almost a third of the children continued to have incomplete vaccinations.
- More children were engaged in physical activities after school. This increased by 18 % between Waves 1 and 3.

# Economic and material wellbeing

#### Household level changes

- Household composition shifted over the three waves. There was an increase in the size of households with three to
  four children. This was possibly due to financial stressors.
- Most of the children (41.5%) lived with their mothers and other relatives.
- Access to essential resources improved over time. For example, a decrease was found in the number of children without a mattress/bed and improvements in household protection against wind and rain.

Changes due to the pandemic

- The material wellbeing of children and their families was significantly compromised during the pandemic.
- Full-time employment recovered marginally reaching 16% in Wave 3 compared to 20% in Wave 1.
- Improvements are evident in caregivers' earnings in the form of part-time (7%), casual work (5%) and self-employment (10%), but unemployment remained stubbornly high at 63% among child support grant (CSG) beneficiary families.
- At Wave 3, 85% of the sample received the CSG and 40% of households had access to the SRD.
- Social grants cushioned the economic shock of the pandemic, but grant values were low with 29% of households not having sufficient money to buy the things that they need.

A policy recommendation emerging from this study is the need for the CSG to be raised to be at or closer to the poverty line in the short term. Constrained financial resources is a significant risk factor for child and caregiver wellbeing with knock-on effects on other dimensions of wellbeing such as poor mental health of caregivers, behavioural difficulties with children and child malnutrition.

This study demonstrates the importance of monitoring the multi-dimensional wellbeing of children and their families in their school and community contexts. Not only does it help to identify the priority needs and difficulties that need to be addressed, but it also flags the issues/problems that need to be addressed by different government departments in collaboration with non-governmental agencies. Some interventions may be targeted at children, while others may be targeted at caregivers, the whole family group and/or teachers, health care practitioners, and health and social service agencies operating in communities. Building supportive and integrated services at school and community levels needs to be strengthened. Ensuring that multidisciplinary teams are capacitated and work together to share knowledge, resources, and skills to find impactful and tangible solutions is critical to improve children's growth and development indicators, and unlock their human potential. For this to occur, enabling policies that facilitate intersectoral collaboration and partnering with other role players are needed. Committed leaders are also needed to support staff to adopt new ways of working. A community of practice approach could be an important vehicle in supporting school-based support services and care.

# **Introduction and background**

Established in 2020, the Community of Practice (CoP) is a collaborative initiative aimed at enhancing the overall wellbeing outcomes of children by strengthening social systems surrounding them. Drawing on previous research that highlights the importance of integrated services for improving child wellbeing, the CoP operates within a multisystemic framework that brings together researchers, practitioners, and both governmental and non-governmental partners involved in childcare and support. This collective partnership encompasses diverse sectors, including health, education, mental health, protection, and welfare.

The CoP study focuses specifically on children in their foundational years of schooling, namely Grade R, Grade 1, Grade 2 and Grade 3. This critical developmental period often lacks comprehensive and coordinated service provision, making it crucial to address the gaps in support and care during this stage. To effectively address this issue, the study established an Advisory Level CoP (ALCoP), to guide the study and develop an assessment tool, and Local Level CoPs that guided implementation within the schools.

The assessment tool served as a means to gather essential data on a cohort of children enrolled in five schools located in Johannesburg, Gauteng, over a span of three years: 2020, 2021 and 2022. Based on the findings derived from the data collected, the CoP implemented customised interventions designed to address the specific needs of children identified as being at risk or who are vulnerable to compromised child wellbeing. These interventions were carefully tailored to enhance their overall wellbeing. By implementing targeted strategies across different social sectors, the CoP aimed to ensure that each child receives the support and resources necessary for their optimal development and growth.

In this report, we present a comprehensive comparative analysis of children's wellbeing assessed over the three-year duration of the study. This analysis provides valuable insight into the strengths and areas for improvement within the existing social systems surrounding them. It offers guidance for future endeavours to further enhance social outcomes for disadvantaged children and their families, most of whom are beneficiaries of the Child Support Grant (CSG).

### An integrated approach to child wellbeing

Children in South Africa face ongoing challenges such as poverty, food insecurity, and exposure to violence, which have a significant impact on their development in the short and long term. Prioritising interventions that protect and support children's wellbeing outcomes is a crucial step toward improving their development trajectories (Savahl et al., 2015).

Intervening in the early years is particularly important as it yields substantial benefits for both the child and society (Cannon, et al., 2018; Coles, Cheyne, & Daniel, 2015; Yousafzai, 2020). Research indicates that factors like birth weight, nutrition and growth, and optimal physical and cognitive development in childhood are associated with or predictive of physical and cognitive capacities and life expectancy in adulthood (Clark, 2020; Vorster, 2010). Improved education outcomes in childhood also contribute to employability and increased income in adulthood (Haile, Nigatu, Gashaw & Demelash, 2016).

The World Health Organisation (WHO) and UNICEF (2020) have outlined guiding principles for promoting child wellbeing. These principles aim to address the broader determinants of wellbeing, advocate for child rights, and encourage meaningful participation of service users. The child and their family are acknowledged as central partners in promoting children's wellbeing including their access to a network of systems of care surrounding the child such as the school, health and social services. South African policy documents also reflect a shift toward a more holistic and integrated approach. For example, the Department of Social Development's National Child Care and Protection Policy (2019) serves as a blueprint for coordinated and integrated childcare and protection programmes. The White Paper for Social Welfare (1997) promotes inter-sectoral collaboration and envisions the delivery of family and communitybased developmental welfare services. Similarly, the Integrated School Health Programme (ISHP) (2012) advocates for integrated service provision across health, education and social development sectors and for a partnership approach to social provision. School level care and support teams are also proposed to coordinate service provision in public schools. Additionally, the government's District Development Model (DDM), launched in 2019, aims to enhance collaboration, integrated planning, and budgeting across all levels of government at the local level. There is therefore considerable policy support for the CoP approach at school level and for early intervention and promotion of children's wellbeing in the early years. However, limited experimentation and evidence exist of how best to achieve this. The CoP attempts to address this knowledge gap.

# Child wellbeing indicators

Assessing and measuring the wellbeing of children is crucial for gaining insight into their overall welfare. Various indicators are utilised to evaluate wellbeing, encompassing aspects such as the child's health, nutrition, education, socio-economic status, poverty levels, food accessibility, hunger, family and community life, the developmental context in which they live, service availability, and safety concerns. On the one hand these indicators can be objective, employing

validated assessment tools to gauge factors like education, poverty, illness, and psychosocial wellbeing. On the other hand indicators may be subjective, taking into account the perspectives of the children themselves or those that are in close proximity with the child, like their caregivers and teachers.

Within the context of our Community of Practice we identified six interconnected domains that contribute to child wellbeing. These domains are as follows:

- Good health
- Optimum nutrition
- Protection and care
- Access to material and economic resources
- Education and learning
- Psychosocial health of children, caregivers and their families.

These domains collectively form a comprehensive framework for evaluating and promoting the wellbeing of children, as depicted in Figure 1 (below). By considering these interconnected aspects, we are able to gain a holistic understanding of children's wellbeing and can implement relevant and appropriate interventions to ensure their overall wellbeing.



Figure 1: Child wellbeing indicators

#### **Research methods**

The study utilised a quantitative longitudinal research design. This method allowed for the assessment of children over a three-year period (Caruana, Roman, Hernandez-Sanchez & Solli, 2015). This means that the same cohort of children were followed over three waves in 2020, 2021 and 2022. The children were followed in the last quarter of each year respectively. This assessment provides a sound indication of how the children were faring during the COVID-19

pandemic and towards the end of the pandemic. Figure 2 below sets out the research process comprising eight steps beginning with the establishment of the CoP, recruitment and selection of the participants, assessment of children at different time points, the delivery of tailored interventions for at-risk children and the time frames when the assessments were conducted.



#### Figure 2: CoP study process

#### Intervention component of the study

In this report we only report on the longitudinal data collected over the duration of the study and on how the children are faring. The impact of the intervention is not assessed in this report although reference is made in part where changes occurred that could be attributed to the interventions of the CoP school-based care and support teams. The box below describes the intervention component of the study.

#### The CoP intervention

A community of practice was established at each of the five schools in 2020 in Johannesburg, known as the Local Level CoPs (LLCoP). Engagement continued over the ensuing three years with teachers, social workers, education psychologists, nurses, and service providers in the community e.g. social and health services and external governmental and non-governmental agencies to address the needs and challenges identified in the risk assessment of the children and their families.

The risk profiles were generated by the data collected via the Child Wellbeing Tracking Tool (CWTT) which categorised the children into high, medium, and low risk. Only children who were at high and medium risk in one or more domains were selected for follow-up interventions in the five domains such as material conditions, health, food access and nutrition, education, protection and care, caregiver depression and psychosocial wellbeing (established through the assessments of child strengths and difficulties).

The school-based care and support team (LLCoP) was convened and coordinated by the CoP social workers who were each assigned to a school. The LLCoPs met five times in 2021 and 2022 respectively and three times in 2023. The LLCoPs were engaged, first, in reviewing the risk profiles of the children and identifying those who needed further intervention. Second, intervention plans were agreed and implementation commenced, led by the social worker. Third, CoP social workers provided feedback to the LLCoP on progress, and the issues and challenges encountered.

Priority needs related to addressing food insecurity; ensuring health follow-ups of children with chronic illnesses and those who needed further eye and hearing tests and access to assistive devices. This also included facilitating access to vaccinations for those children who had incomplete vaccinations. Children who had learning difficulties were referred for assessments by education psychologists. Twenty-five families, five from each school were recruited and selected to participate in a 14-week family strengthening programme (Sihleng'imizi) to which all family members including the children were invited.

The process of recruiting and selecting the families was conducted as follows: children at high risk in the care and protection domain and who had missing vaccinations and or were at high risk of food insecurity were identified for a home visit. The purpose of the home visit was to discuss and confirm the risk assessment. Caregivers were invited to participate in the programme and if they consented, they were selected. The programme included parenting/caregiver knowledge and skills; promoting parental engagement in children's schooling, nutrition and healthy food choices and practices; managing difficult behaviour in children such as alternative forms of discipline; optimal use of services and resources; social support through the Sihleng'imizi buddy system; and skills in money management. Caregivers with high levels of depression were followed up and referred to appropriate services.

In 2021, all children in the sample were assessed for numeracy and language proficiency and a teacher training intervention was delivered to teachers from the five schools in 2022. The social work component of the care and support services delivered at the five schools was documented as an exemplar of developmental school social work in schools using a multi-disciplinary approach for early grade learners (Grades R, 1, 2 and 3). The report can be assessed here.

### Data collection

As in Wave 1, Wave 2 data was collected from a sample of children, their caregivers, teachers. The Child Wellbeing Tracking Tool (CWTT), which is a digital tool, was developed by the multidisciplinary team of researchers in 2020. The tool was used to assess how children are faring at each time point. The CWTT is aligned to the six domains described in Figure 1 above, and poses questions related to the following:

- Health: The CWTT assesses children's access to food, physical activity, and healthcare.
- Nutrition: The CWTT assesses children's height, weight, and dietary intake.
- Psychosocial well-being: The CWTT assesses children's social and emotional development.
- Family and social functioning: The CWTT assesses the quality of children's relationships with their caregivers and other family members.
- Child-caregiver relations: The CWTT assesses the quality of communication and cooperation between children and their caregivers.
- Behavioural management of children: The CWTT assesses caregivers' ability to manage children's behaviour.
- Involvement in the child's education: The CWTT assesses caregivers' involvement in their children's education.
- Mental wellbeing: The CWTT assesses caregivers' mental health and coping during the COVID-19 pandemic.

Validated assessment tools were used to conduct some of the assessments. This is discussed in the section dealing with the reliability and validity of the tools used. For a description of the domains, indicators, requirements, and the measures included in the CWTT, please refer to Annexure.

#### **Research sample**

At all three time points (2020, 2021 and 2022) data was collected at the school level from five resource constrained primary schools in the City of Johannesburg (CoJ). The schools were Lejoeleputsoa, Mikateka, Malvern, Mayibuye and Ekukhanyisweni primary schools. Four of the five schools are categorised as no-fee paying schools. Malvern is classified as a quintile 4 school which is fee-paying, but has experienced considerable socio-economic decline over the past two decades with large numbers of learners coming from deprived families who cannot afford to pay the fees (City of Johannesburg, 2020).

In 2020, when the study began, the CoP intended to include 200 children in the study, with 40 children per school, evenly distributed between Grade R and Grade 1 classes. However, due to the COVID-19 pandemic and the resulting disruptions in school attendance, Wave 1 data collection was affected. Many schools implemented rotational learning schedules, leading to reduced class occupancy. This impacted on the number of children and families recruited. As a result, at Wave 1, one hundred and sixty-two children were recruited and assessed. At Wave 2, twenty-two children were lost due to attrition and 15 additional children were recruited to substitute the study sample. This gave us a sample size

of 155. Similarly at Wave 3, twenty-five children were lost due to attrition and the sample was topped up once again. The attrition rate in Wave 2 was 14%, and 16% in Wave 3. Attrition rates in longitudinal studies may be impacted by various factors, including the duration of the study, the size of the sample, the characteristics of the sample and the nature of questions being asked. Some studies have reported attrition rates between 30% – 70%; an attrition rate of 20% and under is accepted as adequate (Gustavson et al., 2012; Seubsman et al., 2011). Table 1 below reflects sample sizes at each wave and the attrition rate.

Sample size of children	Wave 1	Wave 2	Wave 3
Sample size Wave 1	162	140	130
New children recruited at Wave 2		15	14
New children recruited at Wave 3			11
Total sample analysed	162	155	155
Attrition rate		14%	16%

#### Table 1: Sample sizesw for Waves 1, 2 and 3 and attrition of the CoP Panel Data

#### Data analysis

Data from Waves 1, 2 and 3 were merged and reshaped from wide to long format to facilitate analysis and provide a descriptive overview of how children in the matched sample have been faring from Wave 1 to Wave 3. To deal with missing data at Wave 3, the last observation carried forward (LOCF) method of data imputation was used, particularly for variables that do not change much over time (Dimitrakopoulou et al., 2014). Furthermore, transition matrices were used to measure the probability of moving from one position to another. They were calculated using cross tabulations of the same variables collected at different points in time to track the progress of child wellbeing outcomes (Ross, 2019). The STATA 17 Statistical Software was used for data cleaning and statistical analyses (StataCorp, 2021).

### Reliability and validity

The Child Wellbeing Tracking Tool (CWTT) was designed by experts from various fields including social welfare, social work, psychosocial health, education, mathematics and language, and health and nutrition. The variables were drawn from the theoretical literature review on child wellbeing (Bray & Dawes, 2007; WHO, 2008; UNICEF, 2007) and also evidence from other local studies (Baron, Davies, & Lund, 2017; Patel et al., 2019; Patel & Ross, 2020). Standardised questionnaires with proven reliability and validity were also used, such as the CES-D10 scale , and the SDQ scales (Baron, Davies, & Lund, 2017; Goodman, 1997).

In Wave 1, the CWTT was piloted to test how children, caregivers, and teachers responded to the questionnaire. Further refinement and testing occurred in Wave 2 which informed the Wave 3 survey. The CWTT allows for real-time data submission, which allowed the research team to monitor and control the data in real-time, improving the quality of the data collected.

#### Limitations

Data was collected from a sample of children at five resource constrained primary schools, and as such the findings may not be generalisable to the wider population of children in Gauteng. Given the sensitive nature of the questions asked, it is also likely that some caregivers may have provided socially desirable responses (Van der Schyff et al., 2022).

Our data set was also impacted by the attrition experienced in the study sample and non-response to some questions. This affects the comparability of data over the three waves leading to a smaller sample of children who could be tracked (Hsiao, 2007). An additional limitation was the challenges encountered in the hosting of the Wave 3 data on a different server to Waves 1 and 2 due to high costs from the previous service provider. The data migration to the UJ servers resulted in system bugs, duplicate records and some data loss. To resolve the issue of data loss, we conducted interviews with caregivers where we could, and transferred data that had been captured on paper questionnaires to the newly migrated system. The CoP project team and the engineering team continued to work to finetune the challenges related to system migration. Despite these challenges, the findings provide an overall indication of the direction of the changes that occurred over time.

The CWTT app now has the capacity to feed into the CoP User Interface dashboard, which enables us to conduct risk assessments of the children and to identify those who are in need of urgent interventions.

# **Ethics**

The study received ethical clearance from the University of Johannesburg's Faculty of Humanities Ethics Committee (REC-01-050-2020) as well the University of Johannesburg's Faculty of Health Science Research Ethics Committee (REC-241112-035). Permission to work within schools and clinics was obtained from the Gauteng Department of Education's Research Office and the Gauteng Department of Health.

Caregivers were asked to provide written consent to participate in the study. Caregivers completed consent forms in the presence of a social worker who explained the study to them, including what was required of them and their child. The social worker also discussed confidentiality with them and emphasised the voluntary nature of the study. Children were similarly informed and gave assent in the presence of a social worker and their caregiver. All quantitative data was anonymised.

# **Findings**

The following section presents the findings of data from caregivers and children, as well as data obtained from teachers. As noted previously, the data presented was collected over three time points: Wave 1 in 2020, Wave 2 in 2021, and Wave 3 in 2022. At Wave 3, the majority of the children were in Grade 2 and Grade 3.

We begin by describing the households in which children lived, then the characteristics of caregivers. Next, we provide a comparative analysis of how children fared across key domains over the last three years.

The first wave of data was collected at the onset of the COVID-19 pandemic. During this period, children and families contended with school closures, lack of access to school feeding, financial insecurity and lockdown regulations, all of which produced significant disruptions to family life. At Wave 2 many of the lockdown restrictions had been partially lifted and children were beginning to attend school more regularly although on a rotational timetable system. School feeding recommenced. At Wave 3 children were in school full time and for many pre-pandemic normalcy had returned. As we monitored how children were faring over time, our data reflects the changes that children and families experienced during this period.

### The household

For the matched sample of 123 participants across all three waves, 14.6% of caregivers were not interviewed in 2020 and 12.2% of caregivers were not interviewed in 2021.

In relation to household dynamics, we explore the composition of households, the access they have to essential resources, and the overall income situation. By examining income sources, levels, and stability, we gain insight into the financial resources available within the household. This information is helpful in assessing potential financial stressors that may influence the overall wellbeing of the caregivers and children.

#### Household composition

In South African households children may live in families where kin also assume a caregiving role (Mabetha et al., 2021). We therefore asked respondents to indicate what their relationship to the child was. While 82% of the caregivers interviewed were the parents of the child, the second highest percentage of the caregivers were the grandparents (10%) and the remainder (8%) were other kin members (aunts/uncles and brother or sister). In some cases (38.9%) caregivers that were interviewed in 2021 were not interviewed in 2020, this could have impacted on the accuracy of the information needed.

Table 2 (below) provides an overview of the composition of the households in which children lived across the three waves. At Wave 3, we noted slight shifts in household composition. Between Wave 2 and Wave 3, there was a decrease (4%) in the number of households where children lived with one adult, and an increase (2.4%) in the number of households where children lived with five and six adults. Between Wave 1 and Wave 3, we also see a decrease in the number of households where children lived with two adults. In Waves 2 and 3, households with three and four children remained fairly constant at 43% respectively. From the transition matrix, we see that 19% of the households who had two children at Wave 2, now had three children at Wave 3. The changes across the three waves could be a result of the COVID-19 pandemic, which resulted in strained financial circumstances leading to increased migration with resultant changes in household composition (Casale & Posel, 2020; Ginsburg et al., 2022). October et al., (2022) assert that COVID-19 had a significant impact on South African families, including changes in daily routines, restrictions on family events, financial constraints, and psychological impacts.

Across all three waves we found that most children lived with their mothers and other relatives, especially in grant receiving households. This is consistent with other studies, which show that female headed households are the norm (Hall & Makomane, 2018; Ndagurwa et al., 2023). However, changes in children's living arrangements occurred over the three waves. In Wave 1 at the start of the pandemic, 31% of children lived with mothers and other relations. This increased by Wave 2 to 37.4% and increased again to 41.5% in Wave 3. This may be explained by the movement of adults between households due to the loss of livelihoods because of the pandemic. Casale & Posel (2020) estimate that 16% of adults moved during the hard lockdown. It is likely that children moved with mothers or were sent to relatives as a coping mechanism.

#### Table 2: Household composition

Household composition	Wave 1 n=123	Wave 2 n=123	Wave 3 n=123	Newly enrolled n=11		
Distribution of adults in the household						
1 adult	18 (14.6%)	22 (17.9%)	17 (13.8%)	1 (9.1%)		
2 adults	50 (40.7%)	43 (34.9%)	42 (34.1%)	5 (54.5%)		
3-4 adults	43 (34.9%)	42 (34.1%)	45 (36.6%)	3 (27.3%)		
5-6 adults	10 (8.1%)	13 (10.6%)	16 (13.0%)	2 (18.2 %)		
7+ adults	2 (1.6%)	3 (2.4%)	3 (2.4%)	-		
Distribution of children in the household						
1 child	12 (9.8%)	13 (10.6%)	13 (10.6%)	1 (9.1%)		
2 children	39 (31.7%)	42 (34.1%)	36 (29.2%)	4 (36.4%)		
3-4 children	37 (30.0%)	54 (43.9%)	53 (43.1%)	3(27.3%)		
5-6 children	20 (16.3%)	12 (9.8%)	13 (10.6%)	1 (9.1%)		
7+ children	5 (4.0%)	7 (5.7%)	7 (5.7%)	2 (18.2%)		
Relationship of those living with the chi	ild					
Both parents	35 (28.5%)	35 (28.5%)	33 (26.8%)	4 (36.4%)		
Both parents and other relatives	9 (7.3%)	5 (4.0%)	6 (4.9%)	-		
Father and other relatives	1 (0.8%)	4 (3.5%)	1 (0.8%)	-		
Mother and other adult relatives	39 (31.7%)	46 (37.4%)	51 (41.5%)	5 (45.5%)		
One parent	30 (24.4%)	22 (17.9%)	19 (15.5%)	2 (18.2%)		
Relatives with no parents e.g. aunts	9 (7.3%)	11 (8.9%)	13 (10.6%)	_		

#### Household access to resources and services

At Wave 3 we observe (as shown in Table 3 below) that the number of children who did not have a mattress/bed to sleep on decreased from 10.6% at Wave 2 to 2.4% at Wave 3. We also noted a 7% decrease from Wave 2 to Wave 3 in the number of children who lived in houses that did not protect them from wind and rain. Access to drinking water and electricity remained relatively unchanged.

Table 3: Household access to resources and services
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Household access to resources and services	Wave 1 n=various	Wave 2 n=123	Wave 3 n=123	New enrolment n=various
Children that had no mattress/bed	n=116 13 (11.2%)	13 (10.6%)	3 (2.4%)	n=11 10 (90.9%)
House that did not offer protection from wind and rain	n=116 11 (9.5%)	20 (16.2%)	11(8.9%)	n=10 0
Households that had no access to drinking water	n=117 1 (0.9%)	2 (1.6%)	1 (0.8%)	n=10 0
Households that had no electricity	n=117 5 (4.3%)	7 (5.7%)	6 (4.9%)	n=10 0

#### Household access to social grants

At Wave 2 and Wave 3 we noted a small decline in the number of respondents accessing the CSG as compared to Wave 1 (see Table 4 below). There may be various reasons for this such as the grant lapsing, difficulty in contacting the South African Social Security Agency (SASSA) during the pandemic, non-renewal due to changing family circumstances, fraud, reviews of grant eligibility, or state removal of the child. There was an increase in the number of respondents receiving

Old Age Pensions (OAPs). The temporary Social Relief of Distress (SRD) grant was introduced from mid-2020 to provide material support to unemployed persons as well as those who are informally employed and who do not receive grants. Initially, unemployed CSG caregivers were excluded from receiving the SRD, but this was amended in 2021 (Casale & Posel, 2022). There was a notable increase in the uptake of the SRD in the study sample from 31.7% in 2021 to 39.8% in 2022. This may be explained by the increasing number of CSG caregivers who received the SRD. The SRD was extended to March 2024. Top-ups for CSG beneficiaries, pensions and Disability Grants (DG) were paid during the first few months of the pandemic in 2020. Access to the DG remained stable over this period.

Social grants	Wave 1 n=various	Wave 2 n=123	Wave 3 n=various	New enrolment n=11
Child Support Grant	n=12 106 (87.6%)	99 (80.5%)	n=123 104 (84.6%)	9 (81.8%)
Old Age Pension	n=122 21 (17.2%)	28 (21.9%)	n=118 49 (39.8%)	4 (36.4)
Social Relief of Distress Grant	n=122 1 (0.8%)	39 (31.7%)	n= 118 49 (39.8%)	4 (36.4%)
Disability Grant	n=122 10 (8.2%)	9 (7.3%)	n=123 10 (8.1%)	2 (18.2%)

#### Table 4: Household access to social grants

#### Household access to income

In Table 5 (below) we see that more households had access to additional income in Wave 2 (59.4%) compared to Waves 1 and 3 (57.2% and 57.7% respectively). However, the changes are small. It could reflect the constrained working and movement conditions in place in 2020 during the COVID-19 pandemic. Despite the increased access to income, the number of families who had enough money to buy the things they needed declined in Wave 3. This is most likely due to the rising food prices during this period, the slow recovery of the economy, and low rate of employment growth towards the tail end of the pandemic (The World Bank, 2023). Families also had more money to spend on things they needed in Wave 1 compared to subsequent waves. This might indicate that family resources were depleted over time. Although the relationship between income and wellbeing is complex, studies suggest that an increase in income can improve the family's material wellbeing and quality of life (Cooper & Stewart, 2021; Hassan, Ahmad & Arshad, 2017).

#### Table 5: Household access to income

Access to income	Wave 1 n=117	Wave 2 n=123	Wave 3 n=123	New enrolment n=11
Family has access to other sources of income	67 (57.2%)	73 (59.4%)	71 (57.7%)	4 (36.4%)
Family has enough money to buy the things they need	38 (38.5%)	38 (30.9%)	36 (29.3%)	3(27.3%)

#### The caregiver

We gathered information on various characteristics of caregivers, allowing us to gain a comprehensive understanding of their circumstances, which may influence the well-being of both caregivers and the children they care for. These characteristics include the caregiver's age, level of education, employment status, income level, mental wellbeing, and access to support networks (see Nyati et al. 2022).

#### Caregiver employment

Employment increased by 3.3% between Wave 1 and Wave 2. Although full-time employment declined from 19.5% in Wave 1 to 13.8% in Wave 2, more caregivers were employed part-time or self-employed. By Wave 3, there was a slight increase in full-time employment once again. However, for those who were employed in Wave 2, we find that 2.5% became unemployed by Wave 3. Unemployment of all caregivers was highest in Wave 3 at 62.6%. These findings are consistent with other studies conducted during this period which showed an increase in unemployment in Wave 3 compared to Waves 1 and 2 (Altman, 2022; Kohler et al., 2023). The transition matrix shows the shifts that occurred in the sample; for example, 38.5% of those who were part-time employed at Wave 2 became full-time employed at Wave 3;

and 35.3 percent of those who were in full-time employment at Wave 2 became unemployed at Wave 3. Unfortunately, three quarters (75.7%) of those who were unemployed at Wave 2, remained unemployed at Wave 3.

Increased unemployment among CSG beneficiaries in Wave 3 of our study occurred despite small decreases in unemployment nationally from 34.5% in the first quarter of 2022 to 33.9% in the second quarter of 2022 according to the Quarterly Labour Force Survey (StatsSA, 2022). This may be explained by the fact that our sample is made of CSG beneficiaries, who are largely Black African women with low levels of education and skills, and lower levels of labour market participation prior to the pandemic. Ranchhod and Daniels (2020; 2021) find that it is these groups of people, including youth and women, who were disproportionately affected by high unemployment during the pandemic with significant impacts on poverty and levels of welfare.

Employment status	Wave 1 n=123	Wave 2 n=123	Wave 3 n=123	New enrolment n=11
Full-time employed	24 (19.5%)	17 (13.8%)	19 (15.5%)	-
Part-time employed	11 (8.9%)	13 (10.6%)	9 (7.3%)	-
Piece work (casual)	4 (3.3%)	4 (3.3%)	6 (4.9%)	-
Self-employed	6 (4.9%)	15 (12.2%)	12 (9.8%)	4 (36.4%)
Unemployed	78 (63.4%)	74 (60.2%)	77 (62.6%)	7 (63.6%)

#### Table 6: Caregiver employment status

#### Caregiver indebtedness

At Wave 3 we noted that the number of caregivers being able to save had gone up by almost 10%: from 52% at Wave 2 to 61.8% percent at Wave 3 (see Table 7 below). While there was a steady increase in the ability to save across the three Waves, the levels of indebtedness remained high. Indebtedness was at its lowest level at Wave 1 (28.5%), increasing at Wave 2 (40.7%) and then decreasing again at Wave 3 (37.4%).

#### Table 7: Caregiver indebtedness

Caregiver indebtedness	Wave 1 n=various	Wave 2 n=123	Wave 3 n=123	New enrolment n=10
Are you able to save (yes)	n=115 58 (50.4%)	64 (52.3%)	76 (61.8%)	7 (63.6%)
Do you struggle to pay off debts (yes)	n=116 33 (28.5%)	50 (40.7%)	46 (37.4%)	6 (54.5%)

#### Caregiver mental health

At Wave 1, more than half the caregivers in our sample (52.6%), reported symptoms indicating depression. As can be seen in Figure 3 below, this number decreased in Waves 2 (34.7%) and again in Wave 3 (23.5%). From our new sample enrolments, only one caregiver presented with symptoms of depression at Wave 3. Our findings are consistent with studies that found that caregiver depression increased at the beginning of and during the COVID-19 pandemic (Nwosu, 2021). Increased depression in caregivers during the pandemic was a result of various factors including increased stress and anxiety, social isolation, reduced access to support services and increased caregiving demands (Gallagher & Wetherell, 2020).



#### Figure 3: Caregiver depression scores

#### Caregiver access to support

The number of caregivers receiving support in times of need from family members and others increased between Wave 1 and Wave 3 (see Table 8 below). Levels of support more than doubled between Wave 1 (31.7%) and Wave 2 (65.0%), and there was a slight increase between Wave 2 (65.0%) and Wave 3 (69.9%). At Wave 1, the lowest level of support was noted at 31.7%; this is likely due to the COVID-19 lockdown measures which impacted on social mobility and restrictions on attending family, religious and community groups. Besides the changes in the lockdown measures, all caregivers in our sample who had children at high risk received support from social workers in the form of home visits, referrals to services and approximately 20% of these attended the group-based family strengthening programme. It is likely that these interventions also went some way towards increasing participants' sense of social support and being cared for. Research studies with at risk populations such as children and families affected by HIV and AIDS and refugees (Casale & Crankshaw, 2015; Jordans, et al., 2023) suggest that support to caregivers has a positive effect on child wellbeing outcomes. In Casale and Cranshaw's (2015) study, caregivers reported that the social support they received had a positive impact on their children's health and behaviour, both directly and indirectly. The indirect effects were mediated by the caregivers' mental health, parenting, and decision-making. The most important types of support that were perceived to have these effects were information, advice, and encouragement (Casale & Cranshaw, 2015).

#### Table 8: Caregiver access to support

Access to support	Wave 1	Wave 2	Wave 3	New enrolment
	n=123	n=123	n=123	n=11
Presence of support (yes) <sup>2</sup>	39 (31.7%)	80 (65.0%)	86 (69.9%)	3 (27.3%)

#### The children

To start, we offer a description of the children included in our sample. Subsequently, we present findings that illustrate the wellbeing of these children across various domains encompassing health, nutrition status, education, children's psychosocial wellbeing, and protection and care.

#### Age, grade and gender distribution of sample across the five schools (Wave 3)

Figure 4 below provides a breakdown of children's grade at Wave 3 and Figure 5 shows the gender breakdown. Most of the children in Wave 3 were in Grade 2 (62.6%), followed by those in Grade 3 (34.2%); only a few were in Grade 1 (3.3%). At Wave 2, ten children or 18.5% did not progress to Grade 2 in 2021. Of these children, 13% were boys. By Wave 3, 14% of children who were in Grades 1 and 2 in 2021 remained in these grades respectively in 2022. Of the sampled children, the majority were males in Grades 1 and 2. However, turning to Grade 3,<sup>4</sup> we find that more females (54.8%) were in our study sample compared to males (45.2%), suggesting that all the girls passed Grade 2, and 13.6% of boys repeated Grade 2.

<sup>&</sup>lt;sup>4</sup> The study started in 2020 in Grades R and 1. By 2022 many of the Grade 1 learners had progressed to Grade 3.



Figure 4: Distribution of children across grades at Wave 3



Figure 5: Distribution of children by gender and grade at Wave 3

### Children's health

Data from Wave 1 to Wave 3 (as shown in Table 9 below) shows that the number of children whose health stopped them from attending school decreased by more than 10% (from 14.5% in Wave 1 to 2.4% in Wave 3). This occurred alongside an increase in the number of children who received, or were likely to receive, medical attention. Healthcare utilisation at Wave 3 increased by 4% from Wave 2, and there was an increase in the number of hospitalised children from 17.9% in Wave 2 to 22.8% in Wave 3. This suggests that children's healthcare needs were better attended to, which enabled them to attend school more regularly. The follow up of the children by the social workers and the nurses may have contributed to some of the changes observed here or this may reflect greater awareness by caregivers of the health needs of the children. The number of children identified as having difficulties seeing, hearing and talking also increased by 10% between Wave 1 and Wave 3. This may be attributed to increased health screening and growing awareness of caregivers of children's health needs over the study period. This allowed for early intervention by the CoP team and referrals to optometry, speech and audiology services.

Table 9 shows that there was an improvement of children's participation in a range of recreational activities, as well as an increase in physical activities across the three Waves. This may reflect the initial social prohibitions during the pandemic and the later normalising of social activities post the pandemic. This is consistent with research that shows that during the pandemic, children's physical movement needs were not fully satisfied (October et al., 2022)

#### Table 9: Children's health and vaccinations

Children's health and vaccinations	Wave 1	Wave 2	Wave 3	New enrolment
	n=various	n=various	n=various	n=various
Child's health stopping them from going to school (Yes)	n=117	n=123	n=123	n=11
	17 (14.5%)	13 (9.7%)	3 (2.4%)	1 (9.1%)
The caregiver takes the child to the clinic, hospital, or doctor when they are sick (Yes)	n=117	n=123	n=123	n=11
	112 (95.7%)	117 (95.1%)	122 (99.1%)	10 (90.9%)
Has your child been hospitalised?	n=117	n=123	n=123	n=11
(Yes)	17 (14.5%)	22 (17.9%)	28 (22.8%)	6 (54.5%)
Is the child's vaccination up to date?	n=122	n= 120	n=121	n=7
(Yes)	82 (67.2%)	86 (71.8)	86 (71.1%)	5 (71.4%)
Does your child struggle to hear, see or talk? (Yes)	n=117	n=123	n=123	n=11
	19 (16.3%)	26 (21.1%)	33 (26.8%)	1 (9.1%)
Does your child have good hygiene	n=117	n=123	n=123	n=11
habits? (Yes)	99 (86.1%)	97 (76.80)	107 (84.9%)	10 (90.9%)
Does your child participate in sporting, cultural, spiritual, arts, or recreational activities outside of school hours? (Yes)	n=114 68 (59.7%)	n=123 38 (30.9%)	n=123 95 (77.2%)	n=11 6 (54.5%)
Does your child engage in physical activities? (Yes)	n=117	n=123	n=123	n= 11
	102 (87.2%)	91 (73.9%)	110 (89.4%)	10 (90.9%)

#### Vaccination status

Between Wave 1 and Wave 2, we saw a 4% increase in the number of children that were vaccinated. At Wave 3, the proportion of children vaccinated for the balanced sample remained unchanged compared to Wave 2 (see Figure 6 below). Ensuring that all children participating in the study were up to date with vaccinations was a key component of the interventions implemented, with identified children referred to healthcare facilities. Some of the challenges experienced in ensuring that all children were fully vaccinated includes caregivers reports that the road to health card was not available (either non-existent, damaged, or in another place).





### Hunger and children's access to food and nutrition

The number of children who went to bed hungry dropped from 13.7% at Wave 1 to 0 (zero) at Wave 2 (see Table 10 below). However, this number did not remain consistent and increased again at Wave 3 to 4.9%. The achievement of zero hunger by Wave 2 may be due to increased access to the school nutrition programme as the programme restarted after the lockdown when school meals were terminated in the early stages of the pandemic. Further, social worker interventions prioritised child hunger and facilitated access to additional food relief from non-governmental partners during the course of 2021 and 2022. Rising levels of child hunger in Wave 3 may be due to economic stressors, food price increases faced by households and increases in the numbers of children and adults in grant receiving households (Van der Berg, Patel & Bridgeman, 2022). Despite the small number of children still being affected by hunger, a positive finding is that more children were eating three meals a day. In the matched sample from Wave 2, the number of children eating three meals a day increased by 8.1% - from 76.4% in Wave 2 to 84.6% in Wave 3. Access to school feeding remained stable between Wave 1 (58.75%) and Wave 3 (59.5%). Poor children bore the brunt of disrupted school feeding during the pandemic (Matidza et al., 2023). Recovery has been slow, and it does not appear that school feeding has reached pre-pandemic levels (Shepherd & Mohohlawane, 2021). Questions were not asked about the quality of food bought and food portion sizes, which have a bearing on children's malnutrition status.

Children's access to food	Wave 1	Wave 2	Wave 3	New enrolment
and nutrition	n=various	n=various	n=various	n=various
Does your child ever go to sleep	n=117	n=123	n=123	n=11
hungry? (Yes)	16 (13.7%)	0	6 (4.9%)	0
Does your child eat protein at least	n=117	n=123	n=123	n=11
twice a week? (Yes)	103 (88.0%)	114 (92.7%)	117 (95.1%)	11 (100%)
Does your child eat vegetables at	n=115	n=123	n=123	n=11
least twice a week? (Yes)	97 (84.4%)	104 (84.6%)	114 (92.7%)	11 (100%)
Does your child eat three meals a day?	n=117	n=123	n=123	n=11
(Yes)	78 (66.7%)	94 (76.4%)	104 (84.6%)	6 (54.5%)
Does the child eat a meal provided by the school nutrition scheme? (Yes)	n=121	n=120	n=121	n=10
	71 (58.7%)	75 (62.5%)	72 (59.5%)	7 (70%)

#### Table 10: Children's access to food and nutrition

Table 11 below shows participating children's nutritional outcomes. Here we found a small decrease in the number of stunted and overweight children between 2020 and 2022. Of great concern is the increase in the number of wasted children with a large increase from 7.9% in Wave 2 to 20.3% in Wave 3. Wasting refers to having low weight for height. This means that a fifth of the children in our study had inadequate intake of food and/or received food that was of poor quality. The number of children who were underweight, that is they have low weight for age, also doubled between Waves 2 and 3. Low weight for age may be an indication of stunting, wasting or both. It is well documented that the CSG has improved access to food, but does not necessarily lead to improvements in nutrition status (Devereux & Waidler, 2017). This is because they may have less access to healthy foods which are more expensive, leading low-income households to purchase more high energy foods that are low in nutritional content (May, 2021). Devereux & Waidler (2017) identify some reasons why malnutrition persists despite the CSG such as the low value of the grants, the dilution of grant monies, food price increases, inadequate knowledge about hygiene practices and dietary knowledge. The Sihleng'imizi family programme offered to a fifth of the participants in the study provided nutrition education about the importance of children eating three meals a day and knowledge about making healthy food choices. Children's nutritional outcomes are presented in the table below.

#### Table 11: Children's nutritional outcomes

Nutritional outcomes	Wave 1 n=123	Wave 2 n=123	Wave 3 n=123	New enrolment n=7
Stunting	17 (13.5%)	16 (12.7%)	14 (11.1%)	1 (14.3%)
Wasting	7 (5.6%)	10 (7.9%)	25 (20.3%)	1 (14.3%)
Underweight	7 (5.6%)	7 (5.6%)	14 (11.4%)	1 (14.3%)
Overweight	16 (12.7%)	12 (9.5%)	10 (8.1%)	0

### Children's education

#### Caregivers' perceptions of educational progress

Caregivers noted an improvement in their children's performance in Waves 2 and 3 compared to Wave 1 (refer to Table 12 below). More than 90% of caregivers in Waves 2 and 3 said their children were doing their homework as required, and over 95% of caregivers reported that the children had someone to help them with their homework. In Wave 3 the number of children who had the correct uniform and school supplies dropped slightly by 4.9%. The number of children afraid of going to school declined from 37.6% at Wave 1 to 9.8% at Wave 2, to 4.9% at Wave 3, reflecting children's greater familiarity and ease at school as the pandemic tapered down.

Table 12: Caregiver perception about their children's	education
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Caregiver perceptions about their children's education	Wave 1 n=117	Wave 2 n=various	Wave 3 n=123	New enrolment n=11
Does your child ever go to sleep hungry? (Yes)	97 (82.9%)	n=123 109 (88.6%)	112 (91.0%)	9 (81.8%)
Does your child eat protein at least twice a week? (Yes)	102 (87.2%)	n=123 116 (94.3%)	116 (94.3%)	10 (90.9%)
Does your child eat vegetables at least twice a week? (Yes)	109 (93.2%)	n=123 120 (97.6%)	119 (96.8%)	9 (81.8%)
Does your child eat three meals a day? (Yes)	85 (72.7%)	n=123 98 (79.7%)	92 (74.8%)	7 (63.6%)
Does the child eat a meal provided by the school nutrition scheme? (Yes)	44 (37.6%)	n=122 12 (9.8%)	6 (4.9%)	2 (18.2%)

Teacher assessment of educational progress

Assessments from teachers suggested that **school attendance** slightly declined from Wave 2 to Wave 3 (refer to Table 13 below). Similarly, teachers thought that children's **progress with their schoolwork** declined - from 82.5% in Wave 2 to 73.3% in Wave 3. This corresponds to a decline in the children doing their **homework** as required, which went from 71.2% in Wave 1 to 65% in Wave 2 and 64.2% in Wave 3.

Teachers however noted **class participation** to have increased in Waves 2 and 3 among learners, compared to Wave 1. This is consistent with the increased number of children that were no longer afraid to go to school. Emerging studies show that the pandemic has had a negative impact on the academic progress of children in South Africa (Nabukeera et al., 2020). Children are estimated to have lost 54% of learning time during the pandemic with potentially long-term effects on learning outcomes (UNICEF, 2021).

#### Table 13: Teacher assessment of educational progress

Teacher assessment of educational progress	Wave 1 n=various	Wave 2 n=120	Wave 3 n=various	New enrolment n=11
Does the child attend school regularly? (Yes)	n= 109 97 (88.99%)	110 (91.7%)	n=118 106 (89.8%)	9 (81.8%)
Is the child progressing with their schoolwork? (Yes)	n=109 94 (86.2%)	99 (82.5%)	n=120 88 (73.3%)	6 (54.5%)
Does the child do homework as required? (Yes)	n=108 73 (71.2%)	78 (65%)	n=120 77 (64.2%)	3 (27.3%)
Does the child participate in class? (Yes)	n=108 87 (66.4%)	94 (78.3%)	n=121 94 (77.7%)	8 (72.7%)
Does the child come to school with the correct uniform and school supplies? (Yes)	n=105 95 (90.5%)	108 (87.5%)	n=121 108 (89.3%)	6 (54.5%)
Is the child neat and clean? (Yes)	n=105 99 (94.3%)	102 (85%)	n=121 101 (83.5%)	4 (36.4%)

### Child safety and access to protection and care

The number of children who have seen people fighting, swearing or hurting each other remained fairly stable over the three waves although a two percent increase was observed from 58.1% in Wave 1 to 60.1% in Waves 2 and 3 respectively, as can be seen in Table 14 below. This is against a decline in the number of caregivers who had concerns about their children's safety from 63.8% in Wave 1 to 50.4% in Waves 2 and 3.

On a more positive note, we noted an increase in the number of adults/older siblings reading, singing and spending time with the children, from 73.9% in Wave 2 to 91.3% in Wave 3. This may be due to a growing awareness of the need for parental engagement in children's education which formed a part of the Sihleng'imizi programme and advocacy by social workers engaging with caregivers. On the other hand, it could also be that caregivers provided socially desirable responses.

#### Table 14: Children's care, safety and protection

Children's care, safety and protection	Wave 1 n=various	Wave 2 n=123	Wave 3 n=123	New enrolment n=11
Has the child seen people fighting, swearing or hurting each other at home or in the community? (Yes)	n=117 68 (58.1%)	74 (60.1%)	74 (60.2%)	0
Have you ever had concerns about the safety of your child? (Yes)	n=116 74 (63.8%)	62 (50.4%)	62 (50.4%)	6 (54.5%)
Does an adult or older sibling read, sing or spend time with the child? (Yes)	n=114 91 (79.8%)	91 (73.9%)	112 (91.3%)	11 (100%)

### Children's psychosocial wellbeing

Results from the Strengths and Difficulties Questionnaire (SDQ) assessment showed a gradual decrease in the number of children experiencing difficulties - from 35% in Wave 1 to 24% in Wave 2 and 11% in Wave 3 (see Table 15 below). Children also did well in the emotional subscale; those who were at high risk of clinical problems decreased from 25% in Wave 1 to 8% in Wave 3. There was continued decrease in all other subscales. In Wave 1, the highest risk for clinical problems were observed in the conduct (40%) and peer (42%) subscales. The high scores in peer problems in Wave 1 may have been as a result of rotational learning during the lockdown when children did not get to spend as much time in school as they normally would and therefore did not get to interact with classmates. While the scores for clinal problems in the peer subscales were significantly low in Wave 3, (8%), they were still relatively high for conduct problems (25%). The hyperactivity sub-scale also showed decreases, from 22.8% in Wave 1 to 11.4% in Wave 3.

#### Table 15: Strengths and difficulties (SDQ) scores

SDQ subscale (Children at high/substantial risk of clinical problems)	Wave 1 n=114	Wave 2 n=120	Wave 3 n=105
Total difficulties	40 (35.1%)	28 (23.5%)	12 (11.4%)
Emotional difficulties	28 (24.6%)	23 (19.2%)	8 (7.6%)
Conduct difficulties	46 (40.4%)	41 (34.2%)	26 (24.8%)
Hyperactivity	26 (22.8%)	35 (29.4%)	12 (11.4%)
Peer difficulties	48 (42.1%)	22 (18.5%)	8 (7.6%)
Social difficulties	3 (2.6%)	5 (4.2%)	1 (1%)

### Risk profiles of children per domain

As in Wave 1 and Wave 2, at Wave 3 we also provided an overview of children and their families that were at risk per wellbeing domain. In Figure 7 (below) we see that at Wave 1 and Wave 3, children were at the highest risk in the economic and material wellbeing domain (60%) whereas in Wave 3, the highest risk was in the protection/care domain (62%). The high-risk profile for this domain was derived from a 'yes' response on whether the child had been a victim of abuse or violence, has seen people fighting in the home and community, and if the child gets along better with adults than with other children.

The higher risk for economic and material well-being was determined on the basis that the caregivers had no access to other sources of income and that they also struggled to pay off their debts. Children's risk in the learning and educational domain was consistently low across all three waves; and there was a decrease in the food and nutrition security domain from Wave 1 to Wave 2. The high risk in this domain was based on whether the child ever goes to bed hungry and if there is not enough food for the child to eat at home.



Figure 7: Risk profiles of children in different wellbeing domains over three waves

# **Conclusions and recommendations**

This multidimensional assessment of children's wellbeing over a three-year period yielded valuable insight into how well early grade learners in the study fared during the COVID-19 pandemic. We spoke to the children, their caregivers, teachers, nurses, and education psychologists about various aspects of their lives. This is what we learnt.

First, **children's psychosocial well-being scores** (SDQ) improved markedly. They were far less fearful of going to school (down to 4% at Wave 3 from 38% in Wave 1). Fewer children experienced emotional, peer and social difficulties in Wave 3 compared to Wave 1. Their hyperactivity scores also improved. Although conduct difficulties dropped by 16%, this was still high with a quarter of the children still struggling in this area. Their overall difficulties improved from 35% in Wave 1 to 11% in Wave 3. We may conclude that fewer children were now at risk of developing clinical problems which required intensive psychosocial intervention.

The reasons for this require further investigation as it may identify moderating and enabling factors that could benefit children growing up in disadvantaged circumstances. One such mediator relates to caregiver characteristics such as caregiver mental health. Caregiver depression levels were extremely high at the start of the study, with just over half of the respondents' reporting symptoms of depression. This improved over time reaching 24% by the end of pandemic. Despite this, depression levels remain high. Access to social support from family and social networks improved significantly with eight out of ten caregivers receiving some form of support compared to three out of ten at the start of the pandemic. Caregivers also reported fewer concerns about children's safety and greater responsiveness of adults and siblings by spending time with them or reading to them or singing with the child. It is likely that as caregivers were doing better, children's psychosocial wellbeing also improved. However, six out of ten children continue to be exposed to hostile and violent behaviour at home and in the community. This remained consistent over time. Breaking these behavioural patterns will require dedicated interventions such as improving knowledge and skills - not only of caregivers, but also at family and community levels. Greater responsiveness from the South African Police Service is needed.

Second, we turn to **how children are faring in school**. Caregiver assessments of school attendance, progress with schoolwork and doing homework were more favourable than those of the teachers, who provided lower scores on all these indicators. They were particularly concerned about children not doing homework, which dropped from 71% at the start of the pandemic to 64% by Wave 3. Similarly, teachers were less optimistic about children's progress with their schoolwork. There was also a lack of concurrence between caregivers and teachers about children's access to school supplies and uniforms. Results from the transition matrix show that in 2021, 18.5% (n=10) of children in Grade 1 were repeating the year and that 5.1% of children in Grade 1 in 2021 remained in the same grade in 2022. In 2021, 14% of the children attrited and in 2022, 16% attrited. The reasons for attrition were mainly due to outmigration, with caregivers and children leaving the areas. The pandemic led to a significant loss of learning time, causing many children to fall behind in their studies. As a result, it is crucial to provide additional support to these children to ensure they catch up.

Third, **child hunger** dropped significantly, possibly because of the restarting of the national school feeding scheme, which was not fully operational at the schools where the study was conducted. By the end of year three, only six out of ten children received school meals at these schools. Efforts need to be redoubled to reach the levels of feeding achieved prior to the pandemic. Supplementary feeding is needed for children and families who are at risk of hunger. Short-term relief could be beneficial, and government policies are needed to ensure that supplementary feeding or assistance is provided. Achieving zero hunger in the early grades is an achievable goal for South Africa as well as a global goal. Ending child hunger at school could improve child malnutrition, school attendance, concentration, learning and enjoyment of school (Graham et al., 2018; Matidza et al., 2023).

Fourth, greater responsiveness to **children's health needs** was achieved. For instance, by Wave 3 ten percent fewer children experienced health challenges that prevented them from attending school, while four percent more children were able to access health services between Waves 2 and 3. Over the course of the study period, greater awareness was observed by caregivers of health challenges that required further investigation such as experiencing difficulties with eyesight, speech and hearing, including awareness of hygiene habits. More children were engaged in extramural activities which increased by 18% between Waves 1 and 3. An indicator which was closely monitored in the study was the number of children with missing or incomplete vaccinations. Although they had a Road to Health Card which indicated their vaccination status, incomplete vaccinations were found for a third of the children. Increases in vaccination rates were due to the facilitation by the CoP team who worked with nurses at the local clinics in the community, but only a 71% vaccination rate was achieved. Dedicated efforts are needed to reach a higher vaccination rate against preventable childhood illnesses.

Fifth, **child malnutrition rates** were closely monitored over the study period by trained nurses who conducted these assessments. We find negligible decreases in stunting over the study period - a persistent challenge which has not changed much over the past three decades (Van der Berg et al., 2022). Likewise, changes in the proportion of overweight children decreased somewhat. Of concern is the growing number of children who were wasted, a 14% increase between Waves

1 and 3, and in underweight children (11% at Wave 3). When combining these indicators, it is clear that slightly more than a third of the children in the study demonstrated at least one sign of malnutrition. Lack of access to quality food is associated with malnutrition. We find that although the majority of children had access to the minimum requirement, which is that they eat protein and vegetables at least twice a week (95% and 93% respectively), children's food intake was compromised at Wave 3 with 16% not eating three meals a day. Reducing the number of meals is a coping strategy used by food insecure households. This is evident in larger households with more children (Van der Berg, Patel & Bridgman 2022). Since the start of the pandemic, households with 3 to 4 children increased from 30% reaching 43% by Wave 3. Supplementary food assistance to improve the quality of food intake is needed. Child malnutrition is a serious challenge that requires urgent intervention. Interventions directed at improving caregivers' dietary knowledge to make healthy food choices and improve food hygiene practices are indicated. Underlying structural factors that contribute to inadequate food access and high malnutrition are related to food price increases and high unemployment among grant recipients. By Wave 3, twenty nine percent of households did not have enough money to buy food. The low value of the CSG, which is below the food poverty line, and the dilution of the grant to meet other household needs may explain why malnutrition persists among grant beneficiaries (Devereux & Waidler 2017).

Finally, **children's material wellbeing** was significantly compromised by the pandemic. Full-time employment among CSG beneficiaries recovered marginally reaching only 16% in Wave 3 compared to 20% in Wave 1. There were some improvements by Wave 3 as caregivers obtained limited part-time work (7%), casual work (5%) and self-employment (10%), but unemployment remained stubbornly high at 63%. Although 11% more participants were able to save again since the start of the pandemic, indebtedness remained high for more than a third of the caregivers. Although there was a slight drop in access to the CSG by Wave 3, a total of 85% of the study sample received the CSG and 40% of households had access to the SRD, which is a phenomenal achievement. Social grants played a crucial role in mitigating the financial constraints facing these households which remained high by Wave 3. A policy recommendation emerging from this study is the need for the value of the CSG to be raised to the food poverty line in the short term. Constrained financial resources is a significant risk factor for child and caregiver wellbeing with knock-on effects on other dimensions of wellbeing such as poor mental health of caregivers, behavioural difficulties with children and child malnutrition.

This study demonstrates the importance of monitoring the multi-dimensional wellbeing of children and their families in their school and community context. Not only does it help to identify the priority needs and difficulties that need to be addressed; it also flags the issues/problems that fall within the mandate of different government departments to address, possibly in collaboration with other non-governmental agencies. Some interventions may be targeted at children, while others may be targeted at caregivers, the whole family group and/or teachers, health care practitioners, and health and social service agencies operating in communities. Building supportive and integrated services at school and community levels needs to be strengthened. Ensuring that multidisciplinary teams are capacitated and work together to share knowledge, resources, and skills to find impactful and tangible solutions is critical if we are to improve children's growth and development outcomes in the early years of schooling. This is a potential early intervention that could unlock their human potential. For this to occur, enabling policies are needed that facilitate intersectoral collaboration, partnering and committed leaders who will support new ways of working. A community of practice approach could be an important vehicle in supporting school-based support services and care.

# References

- Altman, M. (2022). Trajectories for South African employment after COVID-19. *South African Journal of Science*, *118*(5-6), 1-9. Retrieved from https://dx.doi.org/10.17159/sajs.2022/13289
- Baron, C., Davies, T., & Lund, C. (2017). Validation of the 10-item Centre for Epidemiological Studies Depression Scale (CES-D-10) in Zulu, Xhosa and Afrikaans populations in South Africa. *BMC Psychiatry*, *17*(6).
- Bray, R., & Dawes, A. (2007). Monitoring the well-being of children: historical and conceptual foundations. In A. Dawes,
   R. Bray, & A. van der Merwe (Eds.), *Monitoring child well-being: A South African rights-based approach*. Cape Town: HSRC Press.
- Cannon, J., Kilburn, M., Karoly, L., Mattox, T., Muchow, A., & Buenaventura, M. (2018). Investing Early: Taking Stock of Outcomes and Economic Returns from Early Childhood Programs. *Rand health quarterly, 7*(4), 6.
- Caruana, E., Roman, M., Hernández-Sánchez, J., & Solli, P. (2015). Longitudinal studies. Journal of thoracic disease, 7(11).
- Casale, D., & Posel, D. (2020). Gender and the early effects of the COVID-19 crisis in the paid and unpaid economies in South Africa. National Income Dynamics (NIDS)-Coronavirus Rapid Mobile Survey (CRAM) Wave, 1.
- Casale, M., & Crankshaw, T. (2015). "They laugh when I sing": perceived effects of caregiver social support on child wellbeing among South African caregivers of children. *Journal of Child & Adolescent Mental Health, 27*(2), 149-155.
- City Of Johannesburg. (2020). *Regional Maps*. Retrieved September 13, 2021, from City Of Johannesburg: https://www.joburg.org.za/about\_/regions/Pages/Map%20of%20Regions/map-of-regions.aspx
- Clark, H. (2020). A future for the world's children? A WHO–UNICEF–Lancet Commission. Lancet, 395, 605–658.
- Coles, E., Cheyne, H., & Daniel, B. (2015). Early years interventions to improve child health and wellbeing: what works, for whom and in what circumstances? Protocol for a realist review. *Systematic Reviews, 4*(79), 1-6.
- Cooper, K., & Stewart, K. (2021). Does Household Income Affect children's Outcomes? A Systematic Review of the Evidence. *Child Indicators Research*, *14*(3). Retrieved from https://doi.org/10.1007/s12187-020-09782-0
- Department of Basic Education and Department of Health. Integrated School Health Policy (2012). Pretoria: Government of the Republic of South Africa. INTEGRATED SCHOOL HEALTH POLICYB-W\_1.pdf (education.gov.za)
- Department of Social Development. National Child Protection Policy (2019). Pretoria: Government of the Republic of South Africa. https://www.gov.za/sites/default/files/gcis\_document/202102/national-child-care-and-protection-policy.pdf
- Department of Welfare. The White Paper for Social Welfare (1997). Pretoria: Government of the Republic of South Africa. https://www.gov.za/sites/default/files/gcis\_document/201409/whitepaperonsocialwelfare0.pdf
- Devereux, S., & Waidler, J. (2017). Why does malnutrition persist in South Africa despite social grants. Retrieved from https://foodsecurity.ac.za/wp-content/uploads/2018/04/Final\_Devereux-Waidler-2017-Social-grants-and-foodsecurity-in-SA-25-Jan-17.pdf
- Dimitrakopoulou, V., Efthimiou, O., Leucht, S., & Salanti, G. (2014). Accounting for uncertainty due to "last observation carried forward" outcome imputation in a meta-analysis model. *Statistics in Medicine, 34*(5). Retrieved from https://doi.org/10.1002/sim.6364
- Gallagher, S., & Wetherell, M. (2020). Risk of depression in family caregivers: unintended consequence of COVID-19. *BJPsych Open, 6*(6). Retrieved from https://doi.org/10.1192/bjo.2020.99
- Ginsburg, C., Collinson, M., Gómez-Olivé, F., Harawa, S., Pheiffer, C., & White, M. (2022). The impact of COVID-19 on a cohort of origin residents and internal migrants from South Africa's rural northeast. *SSM-population health, 17* (101049).
- Goodman, R. (1997). The Strengths and Difficulties Questionnaire: a research note. *Journal of Child Psychology and Psychiatry*, *38*(8), 581-586.
- Graham, L., Hochfeld, T., & Stuart, L. (2018). Double trouble: Addressing stunting and obesity via school nutrition. *South African Journal of Child Health*, *12*(3), 90–94. Retrieved from https://doi.org/10.7196/SAJCH.2018.V12I3.1455
- Haile, D., Nigatu, D., Gashaw, K., & Demelash, H. (2016). Height for age z score and cognitive function are associated with Academic performance among school children aged 8–11 years old. *Archives of Public Health, 74*(1), 1-7.
- Hall, K., & Mokomane, Z. (2018). The shape of children's families and households: A demographic overview. In K. Hall, L. Richter, Z. Mokomane, & L. Lake (Eds.), *Children, families and the state* (pp. 32-45.). Cape Town: Children's Institute, University of Cape Town.
- Hassan, K., Ahmad, Z., & Arshad, R. (2017). Does Increased in Incomes Improves Quality of Life of the Rural Low Income Households? *International Journal of Economics and Financial Issues, 7*(2).

- Hsiao, C. (2007). Panel data analysis—advantages and challenges. Test, 16(1), 1-22.
- Jordans, M., Bakolis, I., Arnous, M., Koppenol-Gonzalez, G., Tossyeh, F., Chen, A., & Miller, K. (2023). Effectiveness of the caregiver support intervention on child psychosocial wellbeing among Syrian refugees in Lebanon: Mediation and secondary analysis of a Randomized Controlled Trial. *Child abuse & neglect.*
- Köhler, T., Bhorat, H., Hill, R., & Stanwix, B. (2023). Lockdown stringency and employment formality: evidence from the COVID-19 pandemic in South Africa. *Journal for Labour Market Research*, *57*(1), 3.
- Mabetha, K., De Wet-Billings, N., & Odimegwu, C. (2021). Healthcare beliefs and practices of kin caregivers in South Africa: implications for child survival. *BMC Health Services Research, 21*(1), 1–12. Retrieved from https://doi.org/10.1186/ S12913-021-06357-9/TABLE
- Matidza, K., Kesa, H., Haffejee, S., Onyenweaku, & Myburgh, M. (2023). The Effects of COVID-19 on In-school Nutrition. Retrieved from https://www.uj.ac.za/wp-content/uploads/2023/07/the-impact-of-covid-19-on-in-school-nutritionreport-\_-final-july-2023.pdf
- May, J. (2021). food security, Hunger, and Stunting in South Africa. In A. Oqubay, F. Tregenna, & I. Valoodia (Eds.), *The Oxford Handbook of The South African Economy.*
- Nabukeera, M., Ali, W., Pan, S., Bilecen, B., Ifijeh, G., Yusuf, F., . . . an Vuuren, B. (2020). How is the COVID-19 pandemic affecting educational quality in South Africa? Evidence to date and future risks. *Sustainability (Switzerland), 10*(1).
- Ndagurwa, P., Naidoo, L., & Miles-Timotheus, S. (2023). *The distribution of male-headed-and-female-headed households in gauteng*. Retrieved from https://www.gcro.ac.za/outputs/map-of-the-month/detail/distribution-male-headed-and-female-headed-households-gauteng/
- Nwosu, C. (2021). Childcare and depression during the coronavirus pandemic in South Africa: A gendered analysis. *PLoS* ONE, 16(8), e0255183. Retrieved from https://doi.org/10.1371/journal.pone.0255183
- Nyati, L., Patel, L., Haffejee, S., Sello, M., Mbowa, S., Sani, T., & Norris, S. (2022). Context Matters—Child Growth within a Constrained Socio-Economic Environment. *Int. J. Environ. Res. Public Health, 19*, 11944. Retrieved from https://doi.org/10.3390/ijerph191911944
- October, K., Petersen, L., Adebiyi, B., Rich, E., & Roman, N. (2022). COVID-19 daily realities for families: A South African sample. *International Journal of Environmental Research and Public Health, 19*(1). Retrieved from https://doi.org/10.3390/ijerph19010221
- Patel, L., & Ross, E. (2020). Connecting Cash Transfers with Care for Better Child and Family Well-Being: Evidence from a Qualitative Evaluation in South Africa. *Child and Adolescent Social Work Journal*, 1-13.
- Patel, L., Hochfeld, T., Ross, E., Chiba, J., & Luck, K. (2019). *Connecting cash with care for better child well-being*. The Centre for Social Development, University of Johannesburg, Johannesburg, South Africa:.
- Ranchhod, V., & Daniels, R. (2020). Labour market dynamics in South Africa in the time of Covid-19: Evidence from wave 1 of the NIDS-CRAM survey. *265, 2*.
- Ranchhod, V., & Daniels, R. (2021). Labour Market Dynamics in South Africa at the Onset of the COVID-19 Pandemic. South African Journal of Economics, 89(1). Retrieved from https://doi.org/10.1111/saje.12283
- Ross, S. (2019). Markov Chains. Introduction to Probability Models, 193–291. Retrieved from https://doi.org/10.1016/ B978-0-12-814346-9.00009-3
- Savahl, S., Adams, S., Isaacs, S., September, R., Hendricks, G., & Noordien, Z. (2015). Subjective well-being amongst a sample of South African children: A descriptive study. *Child Indicators Research*, 8(1), 211-226.
- Shepherd, D., & Mohohlwane, N. (2021). *The impact of COVID-19 in education more than a year of disruption.* Stellenbosch : NIDS-CRAM. Retrieved from https://cramsurvey.org/wp-content/uploads/2021/07/11.-Shepherd-D-\_\_\_\_Mohohlwane-N.-2021.-Changes-in-education-A-reflection-on-COVID-19-effects-over-a-year.pdf
- StataCorp. (2021). Stata Statistical Software: Release 17.
- StatsSA. (2022). Quarterly Labour Force Survey (QLFS). Retrieved from https://www.statssa.gov.za/?page\_id=16408
- The World Bank. (2023). *South Africa Overview: Development news, research, data.* Retrieved from https://www.worldbank.org/en/country/southafrica/overview
- Van der Berg, S., Patel, L., & Bridgman, G. (2020). Hunger in South Africa during 2020: Results from Wave 3 of NIDS-CRAM - National Income Dynamics Study (NIDS) – Coronavirus Rapid Mobile Survey (CRAM).
- Van der Schyff, K., Flowerday, S., & Renaud, K. (2022). Socially desirable responding within the context of privacy-related research: A personality perspective. *SA Journal of Information Management, 24*(1). Retrieved from https://doi.org/10.4102/sajim.v24i1.1507

# **Annexure: Child wellbeing domains**

Child wellbeing is categorised in various domains as:

- RED (3) Major concerns that indicate a need for immediate referral;
- AMBER (2) Some concerns that indicate a need for support/intervention;
- GREEN (1) No concerns.

We consider various domains of wellbeing. There is no one single overall measure of wellbeing.

EDUCATION DOMAIN	
Educational wellbeing	Does your child attend school on the days that they are supposed to? = No AND Is your child progressing with their schoolwork? = No AND Is the child afraid or refuses to go to school? = Yes or sometimes
Educational wellbeing	Does your child attend school on the days that they are supposed to? = No AND Is your child progressing with their schoolwork? = Yes OR Does your child attend school on the days that they are supposed to? = Yes AND Is your child progressing with their schoolwork? = Yes
Educational wellbeing	Does your child attend school on the days that they are supposed to? = Yes AND Is your child progressing with their schoolwork? = No
FOOD AND NUTRITION DOMAIN	4
Food security wellbeing	Does your child ever go to sleep hungry? = Yes AND Is there enough food for your child to eat at every meal? = No
Food security wellbeing	Does your child ever go to sleep hungry? = Sometimes AND Is there enough food for your child to eat at every meal? = Sometimes
Food security wellbeing	Does your child ever go to sleep hungry? = No AND Is there enough food for your child to eat at every meal? = Yes
HEALTH DOMAIN	
Health wellbeing	Is your child's health stopping him/her from playing/going to school? = Yes OR Compared to other children, does your child struggle to hear, see or talk? = Yes OR Child is wasted or child is stunted OR Compared to children the same age, does the child speak well? = No OR Compared to children the same age, does the child see well? = No OR Compared to children the same age, does the child hear well? = No OR Compared to children the same age, does the child hear well? OR Does the child have diabetes? = Yes OR Does the child have any respiratory conditions (pneumonia, asthma)? = Yes OR Did/does the child have a confirmed/diagnosed mental health condition? = Yes OR Is there evidence of abuse? = Yes

Health wellbeing	Is your child's health stopping him/her from playing/going to school? = Sometimes AND Compared to other children, does your child struggle to hear, see or talk? = Sometimes OR Is the child's vaccination (EPI) up to date? = Yes OR Is the child on HIV treatment? = Yes OR Is the child on TB treatment? = Yes OR Does the child have any dermatological conditions (eczema, ringworms)? = Yes
Health wellbeing	Is your child's health stopping him/her from playing/going to school? = No AND Compared to other children, does your child struggle to hear, see or talk? = Sometimes OR Is your child's health stopping him/her from playing/going to school? = No AND Compared to other children, does your child struggle to hear, see or talk? = No OR Is your child's health stopping him/her from playing/going to school? = Sometimes
MATERIAL DOMAIN	
Financial wellbeing	In addition to the grant, does the family have access to other sources of income? = No AND Does your family have enough money to buy the things you need? = No AND Do you struggle with paying off debts? = Yes
Financial wellbeing	In addition to the grant, does the family have access to other sources of income? = Sometimes AND Does your family have enough money to buy the things you need? = Sometimes AND Do you struggle with paying off debts? = Yes OR In addition to the grant, does the family have access to other sources of income? = No AND Does your family have enough money to buy the things you need? = Sometimes AND Do you struggle with paying off debts? = Yes OR In addition to the grant, does the family have access to other sources of income? = No AND Does your family have enough money to buy the things you need? = Yes OR In addition to the grant, does the family have access to other sources of income? = No AND Does your family have enough money to buy the things you need? = Yes AND Do you struggle with paying off debts? = Yes OR In addition to the grant, does the family have access to other sources of income? = Yes

	AND
	Does your family have enough money to buy the things you need? = No
	AND Do you struggle with paying off debts? - Yes
	OR
	In addition to the grant, does the family have access to other sources of income?
	= Sometimes
	AND
	Does your family have enough money to buy the things you need? = No
	AND
	Do you struggle with paying off debts? = Yes
Financial/ material wellbeing	In addition to the grant, does the family have access to other sources of income?
	= Yes
	AND
	Does your family have enough money to buy the things you need? = Yes
	Do you struggle with paying off debts? = No
	Do you live in a home that protects you from wind and rain? = No
LIVING CONDITIONS WELLBEIN	G
Living conditions wellbeing	Does your child have a mattress or bed in the house where he/she sleeps every
	night? = No
	AND
	Do you live in a home that protects you from wind and rain? = No
	AND De very live is a horse that has seened to slove driving works? - No
	Do you live in a nome that has access to clean drinking water? = No
	Do you live in a home with electricity? - No
	AND
	Do you have a toilet with running water on your property/do you have access to a
	toilet with running water in your home/property/ yard? = No
Living conditions wellbeing	Does your child have a mattress or bed in the house where he/she sleeps every
	night? = No
	OR
	Do you live in a home that protects you from wind and rain? = No
	OR
	Do you live in a home that has access to clean drinking water? = No
	Do you live in a nome with electricity? = No
	UK Do you have a toilet with supping water on your property/do you have access to a
	toilet with running water in your home/property/vard? = No
Living conditions wellboing	Doos your shild have a mattress or bod in the house where he (she sleeps every
Living conditions wettbeing	night? = Yes
	AND
	Do you live in a home that protects you from wind and rain? = Yes
	AND
	Do you live in a home that has access to clean drinking water? = Yes
	AND
	Do you live in a home that has access to clean drinking water? = Yes
	AND/OR
	Do you live in a home with electricity? = Yes
	AND
	Do you have a toilet with running water on your property/do you have access to a
	conec with running water in your nonie/property/ yard? = Yes

PROTECTION AND CARE DOMAIN	
Protection and care wellbeing	Has the child been a victim of abuse or violence at home, in the community or school? = Yes OR Has the child seen people that are fighting, swearing or hurting each other at home, school or in the community? = Yes OR Is there evidence of child abuse and/or neglect? = Yes
Protection and care wellbeing	Is there an adult in the home that always knows where the child is? = Sometimes
	OR Is there an adult in the home that always knows where the child is? = No OR Has the child seen people that are fighting, swearing or hurting each other at
	home, school or in the community? = Sometimes
	OR Does the child come to school with the correct uniform and supplies such as books and stationery? = No
	Is the caregiver involved in the child's education such as supporting with homework, attending school meetings, and discussing any challenges the child has with the school? = No OR
	Is the child well cared for and looks neat and clean? = No AND Does the child seem anxious, nervous or worried? = No
	Is the child generally happy? = No
	AND
	Does the child seem sad or depressed? = No OR
	Is the child progressing with their schoolwork = No AND
	Compared to other children of their age, does the child have difficulty controlling their behaviour? = Yes AND
	Can the child sit still long enough to complete tasks? = No
Protection and care wellbeing	Has the child been a victim of abuse or violence at home, in the community or school? = No AND
	Has the child seen people that are fighting, swearing or hurting each other at home, school or in the community? = No AND
	Is there an adult in the home that always knows where the child is? = Yes



**Communities of Practice web link:** https://communitiesforchildwellbeing.org/