COVID-19 AND CHILDREN ADVOCACY BRIEF

Disruption of routine health services

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Maintaining routine health care services for children is essential during the COVID-19 pandemic, to ensure that children's overall health is not compromised and that positive gains made over past years are not lost. During the initial months of the COVID-19 pandemic, the Western Cape provincial child health services experienced setbacks as routine child health services were cut back to cope with large numbers of adult infections and admissions. While some of the services have been restored, others may take years to recover.

This policy brief explores the extent to which routine child health services were compromised in the early months of the pandemic and shines a spotlight on the importance of maintaining essential child health services at all costs, to avoid immediate and long-term damage to child health. It also illustrates how strong leadership and advocacy for child health is needed at every level of the health care system to find innovative ways to protect, maintain and restore essential child health services during the COVID-19 pandemic and similar crises.

Over the past decade South Africa has made significant progress in child health, including a decrease in under-five mortality and a greater appreciation of the need to invest early and across the life course to ensure children not only survive but thrive. Early intervention is recognized to be the most effective, and the most cost effective, with the potential to reap a "triple dividend" for children today, the adults they will become tomorrow, and for the next generation of children.[1]

Yet, the most vulnerable in our society continue to carry the heaviest burden, with poverty, hunger and violence compromising child health and development. In South Africa, there are 19.7 million children (under 18 years) who make up more than a third (34%) of our population, with 59% of children living below the poverty line in 2018.[2]

COVID-19 has intensified the pressures on poor households and rising unemployment and food insecurity, coupled with the disruption of maternal and child health services, is likely to have a profound impact on children's immediate and long-term health, survival and development.

It is therefore imperative that children's right to basic health services be foremost on our agenda and that the denial of their most basic of human rights during the pandemic is not repeated in future crises.

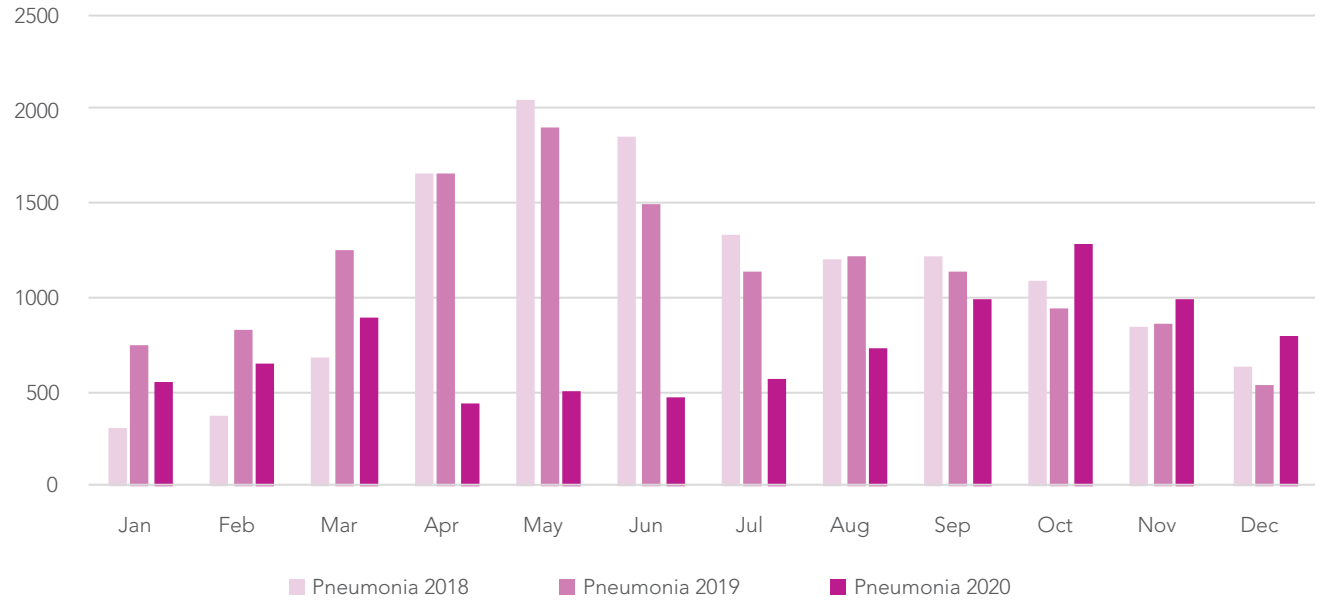
What was the impact of COVID-19 on child health?

While there have been relatively few cases of severe pediatric illnesses caused by the SARS-CoV-2 virus, the health system response to the pandemic had an uneven impact on child health services in the province. Although some maternal and child health services were deemed essential, the overwhelming effect of the adult COVID-19 cases required a reallocation of resources, together with the de-escalation of some child health services and cancellation of non-urgent outpatient services and elective procedures. Some of these changes had a negative impact on routine child health services and a concerted effort is needed to ensure these are restored to pre-COVID-19 levels of care.

Primary health care services

Primary health care (PHC) for children was compromised during the pandemic due to the de-escalation of services, travel restrictions, lack of public transport, financial constraints and unwillingness to attend health facilities due to fear of being exposed to COVID-19. The decrease in PHC

Figure 1. Pneumonia admissions under 5 years



Source: Department of Health, District Health Information System data.

visits impacted maternal and child health services with a decrease in postnatal and routine well-baby visits, especially from April to June 2020 (see Figure 4).

There was a 23% decrease in PHC visits amongst children under five years from 2019 to 2020 – with 483 275 fewer children seen for the year. Deworming and Vitamin A supplementation rates decreased, as did screening for malnutrition, HIV and TB. Immunization coverage decreased during lockdown but recovered following a coordinated health services catch-up campaign. HIV services were negatively affected with a drop in HIV testing (29%), an increase in infants testing positive at 10 weeks (57%) and more children defaulting on antiretroviral (ARV) treatment (see Figure 3). This disruption of routine health services will have a long-term cost for child health, growth and development.

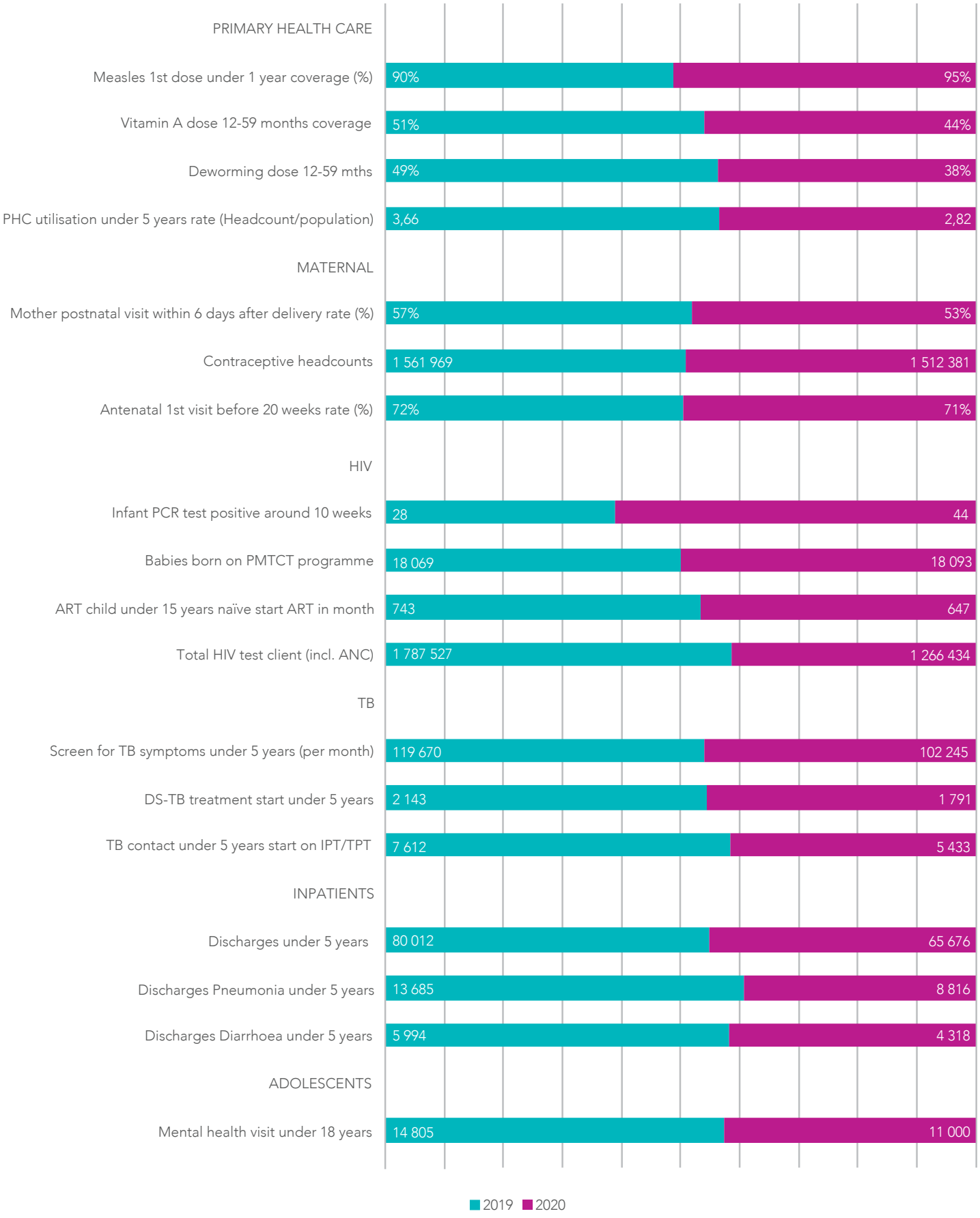
Hospital services

The pandemic had a marked effect on hospital admissions for children internationally. In the United Kingdom, Ireland and Italy, admissions were down by up to three quarters.[3-5] Similar trends were noted in the Western Cape. There was an 18% decrease in the total number of under-five admissions, with 14 336 fewer admissions during 2020. This was partly due to a decrease in acute admissions and the de-escalation of elective services. There was a 36% decrease in pneumonia admissions and a 28% decrease in diarrhoea admissions for children under five in the Western Cape (see Figure 2). During the typical surge season (April to June) there was a 72% decrease in pneumonia admissions (see Figure 1). This could be explained in part by a decrease in transmissions due to social distancing during the typical surge season.

CASE 1: Children with disabilities

Pre COVID-19, access to rehabilitation services was limited for children with disabilities. With the abrupt implementation of hard lock down, health care providers and in particular rehabilitation specialists such as physiotherapists, dieticians, speech and occupational therapists, were forced to cancel patient appointments indefinitely. Special Care Centres and schools were closed leading to many children being without optimal rehabilitation programmes for lengthy periods of time. COVID-19 further limited children's access to therapies at school, while the loss of household income made it harder for parents to afford private transport needed to take their children to and from hospitals with their mobility assistive devices (MADs). The nature of the therapies also meant it was difficult to provide appropriate care via alternative routes such as telemedicine. This interruption in continuous therapeutic support has resulted in many children regressing in function and requiring new MADs. With the gradual opening of services after the first wave, many PHC facilities only managed acute, post-operative cases and children with chronic conditions and disabilities were still not attended to. Children with cerebral palsy and swallowing difficulties had to be managed as in-patients with nasogastric tube feeding for extended periods, due to delays in surgery. Many children with disabilities have been denied access to care – with long waiting periods for assistive devices, access to special schools, and therapy support groups.

Figure 2: Maternal and Child Health indicators, Western Cape, 2019 vs 2020



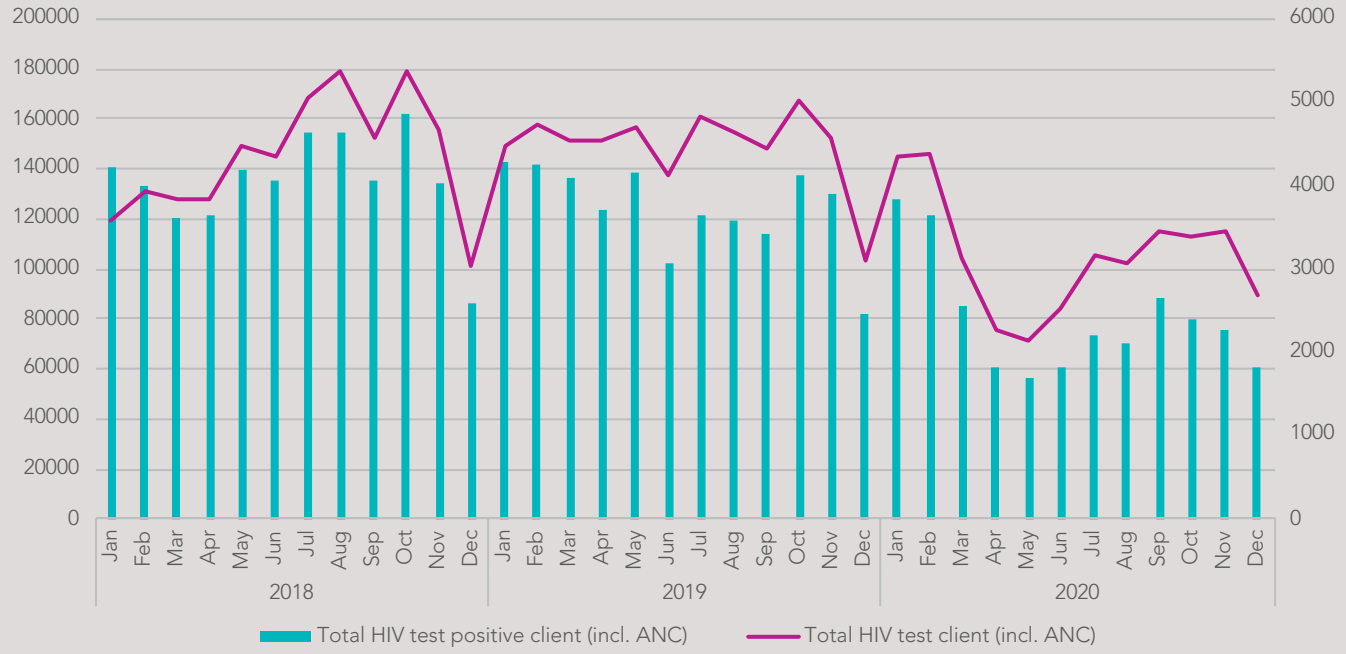
Source: Department of Health, District Health Information System data.

CASE 2: HIV/Prevention of Mother-to-Child Transmission

HIV services for children were negatively affected by the pandemic. Provincially there was a decline in postnatal visits, with a subsequent decrease in HIV screening and an increase in postnatal HIV transmission rates. Although the positive HIV tests at birth were stable, there was a 57% increase in the 10-week PCR from 28 to 44 positive tests in 2020. The number of children under 15 on ART dropped by 3%, with more children defaulting on ARV treatment. The number of children under 15 who started ARVs also decreased by 13%, from an average of 61 per month in 2019 to 53 per month in 2020. In the Western Cape overall, HIV testing was down by 29% for the year, with a decrease of 50% during May 2020 (see Figure 3).

The year 2020 was not the first time that a pandemic has gripped South Africa and threatened the lives and livelihoods of millions. Like the HIV pandemic, the COVID pandemic has put the most vulnerable in our population at the greatest risk. In the response to the HIV pandemic, the adult-centric response and delay in access to treatment cast a long shadow on the health and wellbeing of children. The failure to protect these services during COVID-19 will similarly have a long-term effect for both children and the health care system, and we should be careful not to make the same mistakes again.

Figure 3: Total HIV tests, Western Cape, 2018 – 2020



Source: Department of Health, District Health Information System data.

CASE 3: Adolescents

School-based support groups for young mothers were started in the Eastern sub-district in 2018 as part of the First 1000 Days initiative. The groups aim to provide emotional support, promote the nurturing care of children, help mothers stay in school, prevent further pregnancies, and improve breastfeeding and immunisation rates. The groups have been largely successful in providing a strong support system for these young mothers. Yet over the past year, the number of new pregnant moms at one of the schools has increased dramatically with about 20 pregnancies during lockdown. With schools still on a rotational roster, this is concerning. There have also been reports from teenagers of increased anxiety and suicidal ideation. Yet mental health visits for those under 18 years decreased by 26% from 2019 to 2020. We therefore need to make greater efforts to improve access to adolescent-friendly healthcare during pandemics such as COVID-19 – including access to contraception and mental health services.

Reallocation of resources

Hospital beds were reallocated to adult COVID-19 care, sometimes to the detriment of child services. For example, access for children was curtailed when the adolescent and general paediatric wards at Groote Schuur Hospital were closed to ensure enough adult beds.[6] Over a year later the adolescent service has still not been restored and this has seriously compromised the care of diabetic patients.

Intermediate care facilities

To increase capacity, intermediate care facilities were opened to increase capacity to cope with the surge of COVID-19 admissions and required a lot of resources, including infrastructure, medical equipment and healthcare workers. Hiring of additional healthcare workers and reallocation of staff to high pressure areas strengthened these facilities but were mostly directed towards adult care. Healthcare workers worked under immense pressure, with growing signs of burnout and increased levels of stress and anxiety.

De-escalation of services

The de-escalation of services impacted on the care for children with long-term health conditions, with the cancellation of outpatient appointments disrupting the collection of chronic medication. Non-urgent elective surgeries were cancelled or postponed, extending the waiting time for these procedures even further,[6] including surgery for children with congenital heart diseases, inguinal hernia repairs, dental extractions, and ear, nose and throat procedures. It will take months or even years for some of these services to recover and the potential long-term impact on children includes prolonged pain and suffering, increased risk of severe complications, secondary disabilities, and even death.

Under-five mortality

There was a significant reduction in out-of-hospital deaths captured by the child death review programme during lockdown from April to June for both natural and unnatural deaths. While there were fewer hospital admissions in 2020 than in 2019, the in-hospital mortality rates (IHMR) for children were higher, mainly due to increased deaths in children 12 – 59 months. In children under five, the IHMR for children with pneumonia increased from 2 to 2.8 deaths and for diarrhoea from 1.8 to 3 per 1 000 admissions for these conditions. The higher IHMR could mean that although fewer children were admitted, those who became sick presented late and with more severe infection due to traveling restrictions and parents delaying seeking care because of fears of contracting COVID-19 at health facilities.

Why is leadership and advocacy imperative for child health?

Provincial leadership and guidance were essential in the coordination of the COVID-19 response and to advocate for child health services. On 5th February 2020, the National Institute for Communicable Diseases (NICD) released its "Guidelines for case-finding, diagnosis, management and public health response in South Africa".[7] At that stage, epidemiological knowledge on COVID-19 was limited and even more so in children. Definitions of "person under investigation" were the same for both adults and children. This was fraught with problems as children with common respiratory illnesses such as respiratory syncytial virus overlapped with the case definition for COVID-19. In addition, testing capacity was limited and information and guidelines were changing rapidly. The provincial response was largely adult-centric with little and fragmented guidance to address paediatric and child health concerns.

In response to these concerns, a multidisciplinary provincial paediatric COVID-19 working group was established to coordinate efforts and share knowledge. Weekly virtual meetings included reporting on indicators, literature reviews, guideline development, clinical service planning and advocacy activities. A provincial task team was appointed to develop a maternal and child health services response plan to the COVID-19 pandemic.[8] The plan provided clinical guidance to consolidate the provincial response to the pandemic for maternal and child health. Provincial guidelines ensured proper infection prevention and control measures at all health facilities, and broadened the focus beyond COVID-19 care, to strengthen routine health care services and address the indirect impacts of COVID-19 such as hunger, food insecurity and violence.

What innovations helped improve the reach and quality of care?

Harnessing community-based services

The COVID-19 pandemic highlighted the importance of bridging the gap between facility-based and community-based services. The re-direction of services towards adult COVID-19 care as well as caregivers' fears or infection, meant that health facilities were largely inaccessible to children. Community-based services had the potential to bridge this gap and initially focused on contact tracing and the distribution of chronic medication in the community to reduce the patient load at facilities. Later there was a concerted effort to increase community health worker capacity, and a focused outreach to mobilise communities and close the gaps in immunisation, vitamin A coverage and screening for malnutrition. In some areas, buildings such as

churches adjacent to clinics were used as wellness hubs so that children could receive immunisations without having to access the clinic. This was a prime example of how simple innovations and the use of community assets can improve access to healthcare for the most vulnerable. Similar solutions should not only be adopted in future pandemics but should also be used to make routine preventive and promotive health care more accessible at community level.

Delivery of chronic medication

For children with long term health conditions at primary health care level, chronic medication prescriptions were extended from one to three months to ensure adequate supply of medicine during lockdown. Routine care and screening for children with HIV and TB continued, at decreased capacity, while daily directly observed treatment of uncomplicated TB patients at clinics was de-escalated, and adherence counselling was done telephonically wherever possible.

Innovative use of technology

There was a rapid rise in the use of telemedicine services in health facilities. Online platforms were used for remote consultations, ward rounds and virtual training by telephone or video link. District hospitals in the West Coast started with virtual outpatient consultations to overcome traveling difficulties and to maintain social distancing. Electronic

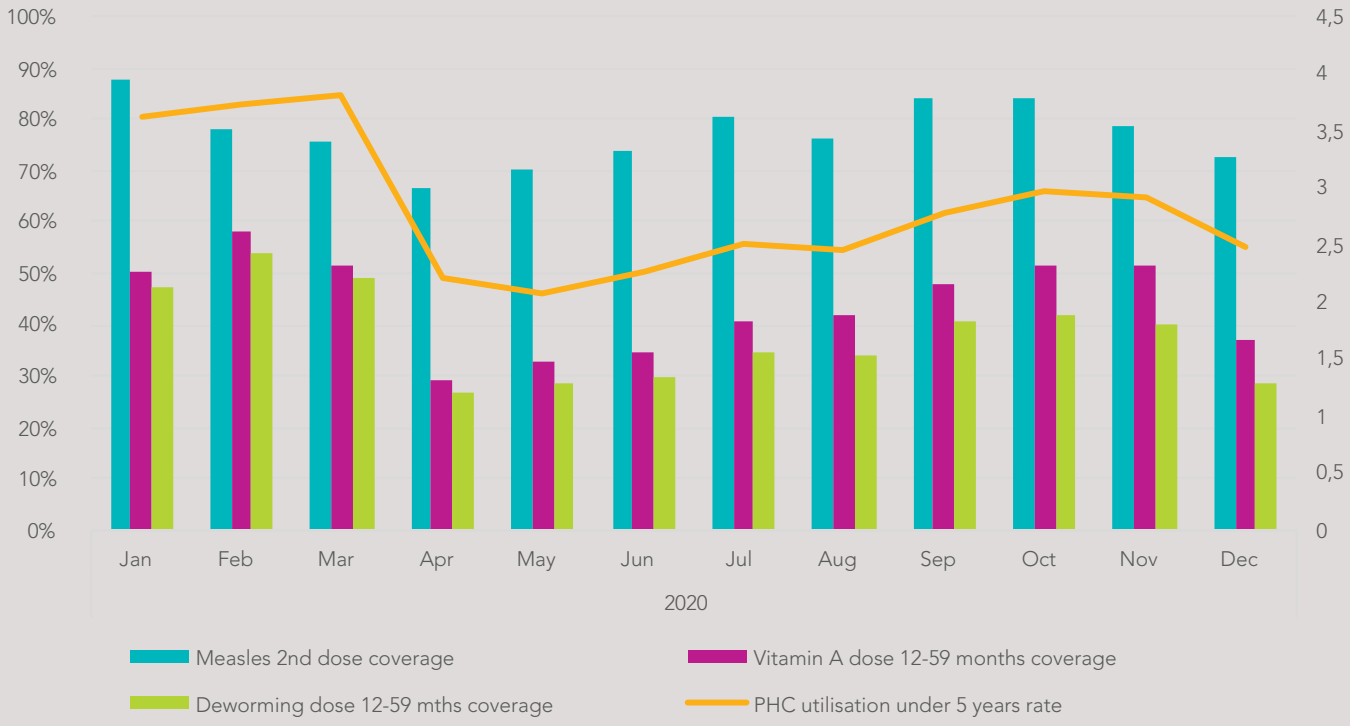
CASE 4: Getting immunisations back on track

A Metro health district forum, previously established to address seasonal surges in diarrhoea and consisting of stakeholders across levels of care and sectors, was repurposed to address the impact of COVID-19 on children. This was led by the district paediatricians. An important function of this forum was to monitor essential child health services, including immunisation coverage, diarrhoea and pneumonia cases in the Metro.

During the initial lock down, clinic attendance for routine services and immunisations dropped with first dose measles coverage dropping to 80% in April 2020. The forum drove an intensive effort to improve immunization coverage across all districts. This included a range of communication strategies to encourage caregivers and children to visit clinics, including radio talk shows, posters, telephonic appointments and SMS reminders. This was coupled with community health worker visits to promote health, hygiene, child safety and clinic visits for immunisation, malnutrition screening, and vitamin A supplementation.

By the end of 2020, the measles coverage had recovered to 95%, which was 5% higher than in 2019, and coverage for the pneumococcal and rotavirus vaccines also exceeded 2019 coverage rates.

Figure 4: Primary health care indicators, Western Cape, 2020



Source: Department of Health, District Health Information System data.

referral systems between hospitals and departments were better utilized, and basic electronic prescribing procedures were implemented by certain specialities. These innovative solutions helped bridge many gaps but also have the potential to leave those living in the poorest communities with limited access to technology even further behind.

Improved surveillance systems

Epidemiology and disease surveillance improved dramatically due to improved use of information management systems, with live data collection and rapid analysis and reporting to managers and role-players. This enabled the use of data to identify health priorities and to inform decision making. Access to data also improved due to the development of provincial dashboards and websites with general COVID-19-related information.

Communication:

Awareness campaigns related to COVID-19 were launched across various platforms, including the Department of Health's NurseConnect and MomConnect programmes, and relevant materials were developed and distributed through local media and radio networks.

What are the recommendations?

The "best interests of the child" should guide every facet of the health system's response to children - and especially so in the context of a crisis or pandemic such as COVID-19 when children are in need of additional care and protection.

1. Leadership and advocacy for child health is needed at every level of the health care system to advocate for and take action to protect routine health services for children. Children should be put at the heart of response and recovery plans.
2. Essential services for children, including promotion of health and nutrition, monitoring of growth, immunizations, management of common illnesses, malnutrition and chronic illnesses, should be protected and sustained regardless of other pressures on the system as early intervention and investments in child and adolescent health will be more effective and cost effective in the long term.
3. Collaboration between managers, clinicians, communities and public-private partnerships are essential to identify and utilize community assets, leadership structures and CBOs to strengthen health care for the most vulnerable.
4. Epidemiology and disease surveillance should be in place and data should inform decision-making and identify health priorities. Monitoring and evaluation should track progress, and identify and respond in agile ways to emerging challenges and unexpected consequences.
5. Ensure appropriate allocation of resources by prioritising basic health services for children, especially for the most vulnerable – such as newborns, adolescents and children with disabilities and long-term health conditions – to ensure no one is left behind.
6. Implement strategies to address service backlogs and bed reductions to restore child health services to full functioning, as this will be increasingly important given further waves coupled with austerity measures.
7. Consider task-shifting for community health workers so that they can play an expanded role in child health at the household level and provide an effective bridge between communities and health services.

References 1 World Health Organization, UNICEF, World Bank Group. *Nurturing Care for Early Childhood Development: A framework for helping children survive and thrive to transform health and human potential.* Geneva: World Health Organization; 2018. 2 Hall K. *Demography of South Africa's children, Children Count website.* [Internet]. Children's Institute, University of Cape Town; 2020. Accessed 25 June 2021: www.childrencount.uct.ac.za. 3 Isba R, Edge R, Jenner R, Broughton E, Francis N, Butler J. Where have all the children gone? Decreases in paediatric emergency department attendances at the start of the COVID-19 pandemic of 2020. *Archives of disease in childhood.* 2020;105(7):704-704. 4 Dann L, Fitzsimons J, Gorman KM, Hourihane J, Okafor I. Disappearing act: COVID-19 and paediatric emergency department attendances. *Archives of disease in childhood.* 2020;105(8):810-811. 5 Lazzerini M, Barbi E, Apicella A, Marchetti F, Cardinale F, Trobia G. Delayed access or provision of care in Italy resulting from fear of COVID-19. *The Lancet Child & Adolescent Health.* 2020;4(5):e10-e11. 6 Parbhoo A, Argent A, Franken M, Mukosi M, McCulloch M, Numanoglu A. COVID-19: experience of a tertiary children's hospital in Western Cape Province, South Africa. *South African Medical Journal.* 2021;111(4):295-298. 7 Bham A, Bhima J, Bongweni F, Blumberg L, al. e. *Guidelines for case-finding, diagnosis, management and public health response in South Africa* February 2020. 8 Department of Health, Western Cape. Circular 107 of 2020: Maternal and child health response plan for COVID-19.

This is one of a series of advocacy briefs that trace the impact of COVID-19 on children in order to identify opportunities to better support children during the COVID-19 pandemic and similar crises.

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