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Beyond the disease: Contextualized implications of COVID-19 for children and young people living in Eastern and Southern Africa

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Abstract

The COVID-19 pandemic has created extraordinary challenges and prompted remarkable social changes around the world. The implications of the novel coronavirus and the public health control measures that have been implemented to mitigate its impact are likely to be accompanied by a unique set of consequences for specific populations living in low income-countries that have fragile health systems and pervasive social-structural vulnerabilities. This paper discusses the implications of COVID-19 and related public health interventions for children and young people living in Eastern and Southern Africa. Actionable prevention, care, and health promotion initiatives are proposed to attenuate the negative effects of the pandemic and government-enforced movement restrictions on children and young people.

Keywords: children; young people; COVID-19; Eastern and Southern Africa; health systems

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Introduction

The outbreak of the novel coronavirus is likely to create unprecedented challenges in Eastern and Southern Africa (ESA), a region where health systems are fragile, socioeconomic inequalities exist, and public health crises of HIV/AIDS and tuberculosis are rampant. Many countries in this region instituted public health control measures (e.g., social distancing requirements, stay-at-home orders) at national levels to minimize the spread of the disease and reduce the burden of the pandemic on health care systems. Although such measures are designed to flatten the COVID-19 pandemic curve, they often present unique direct and indirect consequences for specific subpopulations. This paper provides an analysis of the implications of COVID-19 and related public health interventions for the well-being of children and young people (CYP)[1] living in ESA. We discuss responses that should be implemented to mitigate the negative effects of the COVID-19 pandemic on CYP in the region (for a summary, see Table 1).

Medical care needs of children living with unsuppressed viral loads, low CD4 counts, and tuberculosis infections

Previous disease outbreaks have demonstrated that when health systems are overwhelmed, deaths from vaccine preventable (e.g., tuberculosis) and treatable conditions (e.g., HIV/AIDs) tend to increase. COVID-19 is likely to adversely affect the many CYP living with HIV in the region, especially those who are not aware that they are HIV positive and those with unsuppressed viral load and low CD4 counts. Estimates from countries in ESA (e.g., South Africa, Kenya) indicate that up to 37% of HIV positive CYP are living with unsuppressed viral loads (3, 4). Unsuppressed viral loads (and low CD4 counts) increase vulnerability to opportunistic infections, including respiratory-related conditions (5). HIV testing must be paired with COVID-19 testing to detect the concurrent presence of these

[1] *Children and young people* is an inclusive term that refers to any person aged 24 years or younger (1, 2).

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diseases in this population. Those who test positive for COVID-19 or HIV should be immediately placed on treatment. This is particularly important for young people who have not disclosed their HIV status and defer seeking treatment during the pandemic. For CYP on antiretroviral treatment (ART), continuation of comprehensive paediatric ART is extremely important for achieving optimal adherence and viral suppression.

Recently modelled projections indicate that a six-month disruption of ART could lead to an additional 465,000 AIDS-related deaths in ESA in the next twelve months (6). As countries in the region implement COVID-19-related public health control measures, there is a need to allocate multi-month prescriptions and refills to reduce the frequency of visits to clinical settings and maintain access to HIV prevention services, including condoms and pre-exposure prophylaxis (7). This will ensure that patients have enough treatment during stay-at-home orders and limit unnecessary visits to health care facilities, thereby reducing the risk of exposure to the novel coronavirus. Children with unsuppressed viral loads who contract COVID-19 will need to be placed immediately in high care facilities to manage complications from co-infections.

Disruptions to immunisation programs

Long-term restrictions on health services in countries to contain the spread of COVID-19 are likely to disrupt current vaccination campaigns and immunization activities, which increases the risk of children contracting other infectious diseases. Measles immunization campaigns have been delayed in 24 countries and will be cancelled in 13 others, with millions of children missing out on immunization activities during the pandemic (8). Many countries in ESA (e.g., Angola, Ethiopia) already had sub-optimal rates of immunization for vaccinable diseases (e.g., measles, polio) prior to the COVID-19 pandemic (9). Immunization activities in this region are likely to be disrupted by social responses to COVID-19 (e.g., reluctance to attend vaccination sessions for fear of exposure) and the

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effects of public health control measures (e.g., border closures and travel disruptions have led to vaccine shortages). These conditions raise the risk of sudden outbreaks of vaccine preventable diseases occurring when social distancing restrictions are eased. For children who already have a compromised immune system (e.g., those living with HIV), likelihood of mortality from vaccine preventable conditions (e.g., measles) is higher if immunizations are not received (10).

While acknowledging the importance of initiating measures to minimize the spread of the novel coronavirus, delivery of immunization services is essential to maintaining the health of children through vaccinations for preventable diseases. Particularly in ESA where health care systems are under resourced, finding a balance between containing COVID-19 and continuing immunization programs is critical. Planning is needed to ensure that unvaccinated children are prioritized by immunization initiatives (e.g., home-based large-scale immunization campaigns) and developing contingency plans to circumvent immunization campaign disruptions caused by homebound orders related to COVID-19.

Physical, psychological, and social impacts of restrictions on mobility

As COVID-19 rapidly spreads across the world, it is inducing a considerable degree of fear, worry, and concern among people. Measures that have been implemented to contain the novel coronavirus virus, including restrictions on freedom of mobility, limits to physical social contact, and imposed isolation and quarantine, are likely to increase levels of loneliness, depression, anxiety, and conduct disorders (11). Those implications are likely to be exacerbated in low resourced countries where the availability of social-structural mechanisms to support CYP is limited (12).

Stress that is triggered by homebound orders can weaken immune system functioning of growing children and increase their susceptibility to infections (13). CYP who are forced into a more sedentary lifestyle are at higher risk of developing non-communicable chronic

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illnesses (e.g., diabetes, hypertension), which is already a growing concern in low resourced contexts such as ESA (14). Because young people living with HIV are more vulnerable to mental illness, especially depression (15), coping with a public health emergency like COVID-19 might compound pre-existing psychological distress.

Restrictions to mobility imposed by lockdowns will make it difficult for CYP living in ESA who need to access health services. As funding and healthcare services are scaled up to manage COVID-19 and its psychosocial effects, it is important that essential counselling and social support services remain accessible to CYP. Innovative approaches need to be developed and implemented to provide mental health support to CYP during the COVID-19 pandemic (e.g., telemedicine, virtual peer support, online counselling and wellness services). Where such services are not feasible, community health workers and families need to be supported to care appropriately for CYP. Relaxing lockdown restrictions by creating opportunities for CYP to engage in physical activity will improve physical and psychological health.

In ESA, unemployment rates remain relatively high, with young people accounting a disproportionate percentage of the unemployed (16). Most of the employable young people in the region rely on the informal sector for income. In countries that were already confronted with food insecurity concerns before the emergence of COVID-19 (e.g., Zimbabwe), stringent public health control measures linked to COVID-19 are exacerbating hunger and extreme poverty for the young populace who are dependent on the informal sector. It is crucial that governments put in place social protection measures to cushion the informal economy and provide food subsidies for those living in poverty.

Impacts of school closures on health, safety, and learning

As a result of public health control measures that have been put in place around the world, many children have experienced a disruption in formal education. Nationwide school

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closures are likely to have negative implications for the education experiences of many children, especially those living in ESA where education systems and schools lack sufficient infrastructure to support the educational needs of children while stay-at-home orders are enforced. School nutritional programs (e.g., feeding schemes) provided by the government are prevalent in many countries in the region (17). Closing schools immediately restricts access to these programs, which many children depend on. Poor nutrition has been associated with worse educational outcomes in children, weakened immune systems, susceptibility to opportunistic infections, and premature mortality (18). During periods of prolonged school closures, there is a need to ensure children continue to have access to food. South Africa recently increased household funding through a child support grant that provides an additional R300 per child and R500 per caregiver each month (19). Similar initiatives are required in other countries in the ESA region.

School closures during times of crisis can heighten risk of children to exploitation, abuse, and violence (20). During homebound restrictions, families and communities need to be vigilant and protect children from harm. Countries may benefit from adopting the seven strategies outlined in the evidence based INSPIRE package. The package represents a select group of strategies designed to assist countries and communities with intensifying their focus on prevention programmes and services that have the greatest potential to reduce violence against children. This package has previously been used with success in low- and middle-income countries, including those in ESA (21). During stay-at-home periods, social and child protection services must be designated as ‘essential services’ and be sufficiently resourced to support children with age-appropriate services, safe e-education platforms, and cost-free child helplines for children to report the occurrence of abuse or violence. Caregivers also need to be offered guidance and resources on communicating in clear and sensitive language to children about risks, concerns, and protective measures concerning COVID-19.

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Children from many impoverished households in ESA are also likely to fare poorly at home schooling or distance learning due to challenges of accessing electricity, electronic devices (e.g., computers), and the internet. Governments and private sectors should partner with schools to provide learners and caregivers with the necessary resources to facilitate meaningful remote learning opportunities. Basic Education Ministries should identify ways of supplying learners with printed reading materials through community health workers and community centres that are operational and applying social distancing measures. Caregivers must be supported in developing simple routines that maintain typical eating windows, incorporate time for educational activities (e.g., reading), and include recreational activities that adhere to public health control orders. Teachers should be encouraged to stay in regular contact with learners and caregivers during school closures to ensure that learners understand and are able to engage with the educational material. In low-income countries, radio and television education broadcasts may be more effective than e-learning (22). Rapidly creating age and grade appropriate educational radio and television programs in different languages can support learning among children during school closures. As countries prepare to reopen schools, the best interest of the child and overall public health should be considered by taking into account context-specific evidence about the status of COVID-19 and evaluating the benefits of classroom-based instruction vis-à-vis remote learning (23).

Disproportionate implications of violence, human rights abuses, and limits on access to services for marginalised groups

The COVID-19 pandemic is accentuating social-structural inequalities, with disproportionate effects on marginalised people and those living in financially precarious situations (24). As countries implement public health policies to limit the spread of COVID-19, young girls and women, people of different sexual orientations, people who engage in sex work, informal traders, and street children are more likely to be targets of police brutality (25,

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26). There have also been reports of misuse of emergency powers by governments to target marginalized and vulnerable populations (26). For example, a group of LGBTI shelter residents in Uganda were falsely arrested and incarcerated for approximately 50 days on the pretext of violating COVID-19 lockdown regulations (27). Young sex workers may have fewer avenues to protect themselves and are more prone to being victims of violence from police and other sex workers (28). Some younger sex workers may have their own children, which might increase their proclivity for risk as they search for income and food to support their families.

Access to contraceptives is also a challenge with the imposition of COVID-19 stay-at-home requirements. Restricted mobility, reduced availability of public transportation, and closures of non-essential retail outlets and youth centres limits the capacity of young people to access contraceptives. Shortages of these commodities may precipitate risky sexual practices and unintended pregnancies (29), both of which were already long-standing issues in ESA prior to lockdowns that have been triggered by COVID-19 (30, 31).

For young people living with HIV, condom shortages may increase the likelihood of onward HIV transmission. Further, fear associated with contracting the novel coronavirus is preventing individuals from attending public clinics (32). Closure of NGOs and community centres also places additional strain on the homeless and street children who ordinarily rely on those sources for food, clothing, and basic hygiene products.

As COVID-19 stay-at-home orders confine people to their homes, some young women may not have the opportunity to distance themselves from perpetrators of abuse or seek in-person support and health services for experienced abuse. Countries in ESA (e.g., South Africa, Kenya) have reported increases in the incidence of gender-based violence since COVID-19 homebound orders began (33, 34). Periods of confinement or lockdown accentuate the need to reach the most vulnerable groups with social safety nets. While it may

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be difficult to reach vulnerable populations when country-level COVID-19 public health control measures are in place, civil society organisations and NGOs need to actively monitor incidents of human rights violations by law enforcement and military personnel who zealously enforce restrictions on movement of people. NGOs with established networks are more likely to have access to marginalised populations and should act as conduits between recipients and donors that offer shelter, access to food, and other essential services. Retail shops and youth centres that provide sexual and reproductive health services should be classified as 'essential services' to ensure continued provision of contraceptives and medical treatment to young people. Upholding the rights of all citizens, including marginalized groups, should be a cornerstone of the COVID-19 response. Legal and psychosocial support services should also be accessible to CYP who are in need of 'crisis response' interventions.

COVID-19 has provoked social stigma and discriminatory behaviours (35). People who are already living with a stigmatized health condition (e.g., HIV) could face dual stigmas if they are infected with the novel coronavirus. Stigmatization can deter health-seeking behaviours and contribute to more severe health problems (36). Local broadcasters ought to regularly feature medical experts and health scientists to support the dissemination of accurate information about individual and group vulnerability to COVID-19, safe prevention and health promotion measures, and effective treatment approaches. With so many sources of information available to CYP, government-supported initiatives are needed to ensure that the public is informed about where to acquire credible information about COVID-19. Caregivers must be empowered to provide accurate, age appropriate information to children about stigma and supervise exposure of CYP to information about COVID-19. Innovative, ongoing support services are also needed to assist CYP who are infected with or recovering from COVID-19 to cope with stigma and its psychosocial consequences.

Food insecurity in families and communities

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In ESA countries that have been affected by COVID-19, public health measures designed to control the spread of COVID-19 has stalled economies and severely impacted on the livelihood of people. Many workers in ESA are employed informally, have low-paid contract positions, or receive hourly wages. Abrupt closures of businesses (formal and informal) has resulted in a sudden loss of income for numerous people, with household food and health security being threatened. The World Food Programme (37) has warned that more than 200 million people could be pushed into acute food insecurity by COVID-19, many of which will be residents of ESA countries. ESA also has an immense number of children orphaned by HIV/AIDS. Double orphans, in particular, are likely to end up staying on the street, in youth- and child-headed households, or with extended family members who are likely to experience further financial strain because of the increased dependency ratio (38).

Food insecurity will limit the availability of nutritional food choices, which could detract from optimal immune system functioning and reduce the effectiveness of ART among those who are living with HIV. Addressing the impact of income loss in lower income households through allocation of cash transfers can ease the burden of food insecurity. For example, South Africa has implemented the COVID-19 Social Relief of Distress grant that is paid to individuals who are currently unemployed and do not receive any other form of social grant. While cash transfers can assist many low-income households, this may not be sufficient to avert food insecurity. Large scale roll-out of food assistance programs (e.g., food banks) in both urban and rural areas is needed to supplement cash transfers, ensure that people have access to life sustaining food, and prevent social unrest and hunger riots. Food security at home could be improved through home delivered meals facilitated by local organizations (e.g., NGOs, municipalities). School feeding programs need to be reintroduced, with community sites becoming key distribution points that are accompanied by COVID-19 screening, follow-up, and monitoring of children from affected households. Therapeutic

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nutrition ought to be provided to children who are malnourished or receiving ART. In the long-term, providing lower income households with direct livelihood support through financed projects to develop small scale livestock and agricultural activities will both support child nutrition and mitigate the strain of food shortages and increases in food prices.

Conclusion

The COVID-19 pandemic has prompted extraordinary measures around the world to slow the pace of transmission and minimize the public health consequences of the disease. Though necessary, some of these measures may have direct and indirect implications for specific subpopulations. Public health control orders should be cognisant of the unique needs of CYP, particularly those with underlying health conditions and who live in impoverished conditions. Countries in ESA will need to balance responding directly to the COVID-19 pandemic with upholding human rights and supporting CYP, particularly more vulnerable groups (e.g., children living with HIV, young women), to ensure food, education, and counselling services are available during government-enforced movement restrictions. More generally, the COVID-19 pandemic highlights the needs to improve the health structures and related institutional capacities in ESA, such as education, infrastructure, and national security. It also accentuates the urgent need to strengthen data and statistical capacity, particularly in relation to health and civil registration.

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Table 1

Summary of COVID-19 vulnerabilities and strategies for promoting well-being among children and young people in Eastern and Southern Africa

COVID-19 related vulnerabilities	Levels at which prevention, care, and health promotion interventions are targeted			
	Individual behavioral strategies (prevention, self-monitoring and early detection)	School-based and community level strategies	Health systems level strategies	Legislation/policy strategies
Existing health issues				
• Unsuppressed viral loads and low CD4 counts • Undiagnosed HIV and TB	• Improve self-efficacy to adopt COVID-19 prevention behaviors (e.g., restriction of movement measures, hand washing, social distancing). • Improve self-efficacy for HIV viral load testing, TB testing, and COVID-19 testing. • Self-identification of COVID-19 symptoms and self-quarantine. • Use of self-support tools to support medication adherence. • Improve ability to monitor healthy levels of nutrition. • Self-monitoring on early refill and excess stock-up of medication.	Support integrated community prevention, surveillance and early detection of HIV/TB and COVID-19 by linking CYP to community social and health services. • Increase family- and community-based support for YPLHIV through alternative avenues (e.g., social media groups, online ART adherence clubs and peer support) that comply to social distancing requirements. • Telephonic counseling for those with high viral loads. • Capacitate YPLHIV for curriculum-based learning away from school (e.g., online platforms, community library, home schooling). • Monitoring of stigma, discrimination and human rights abuses of YPLHIV during lockdowns.	• Provide uninterrupted primary health care with intensified COVID-19 surveillance. • Triage symptoms and screening for COVID-19. • Continue to allocate multi-month HIV and TB prescription refills, while monitoring for stock-outs. • COVID-19 testing to include assessment of medication availability and adherence to medication among YPLHIV. • Ensure pediatric high care facilities are available for severe COVID-19 patients. • Discharge and monitoring of recovered COVID-19 patients.	• Increase budgets to ensure HIV, TB, and COVID-19 testing and treatment programs are stepped up and continued during lockdowns. • COVID-19 surveillance should be integrated into existing HIV/TB programs Increase legislative capacity to respond to human rights abuses against YPLHIV during lockdowns.
Consequences of imposed restrictions and lockdowns				
Health complications of physical inactivity and restricted mobility	• Improve self-efficacy for engaging in appropriate physical activity within the confinements of regulated spaces. • Improve self-efficacy for maintaining a nutritional diet.	• Caregivers and communities to support children with developing routines that incorporate physical activity and regular meals. • Communities to monitor safety of neighborhoods for exercise when restrictions are eased. • School-based information to emphasize and support weekly routines.	• Surveillance systems to monitor food shortages, health and nutrition needs of CYP.	• Accommodate physical activity needs of CYP into stay-at-home orders or homebound policies, particularly for those without access to special equipment or who have limited space in the home to exercise.
Psychological distress precipitated by confinement and fear of contracting COVID-19	• Self-monitor psychological distress and seek appropriate support and services. • Identify and utilize coping resources (e.g., friends, family, community leaders). • Encouraged to have a routine and prioritize self-care.	• Supporting community outreach health workers to detect mental health issues and deliver basic mental health services to families. • Families and communities to provide access to health workers to deliver psycho-social support for CYP. • School based information to emphasize detection and treatment options.	• Where possible, use innovative ways to provide mental health support to people during this lockdown period (e.g., telemedicine, providing web-based counselling and wellness services, SMS, information through cross-platform messaging and voice-over internet protocols [WhatsApp]).	• Mental health services should be classified as an essential primary health service. • Public health interventions must be child-friendly and sensitive to the capacities and vulnerabilities of children.
Immunization programming disruptions	• Caregivers to ensure that children are vaccinated on schedule (or close to schedule) in terms of required doses and timing for your child. • Caregivers to ensure neonatal BCG vaccination to be given to all infants in high TB burden settings.	• Community outreach/ door-to-door immunization for children during lockdown. • Community education regarding vaccines and the immunization schedule. • School-based immunization campaign for reaching older children and adolescents even when schools are closed.	• Universal immunization should be integrated into COVID-19 response and considered an essential service.	• Accelerate research on the development of a safe and effective COVID-19 vaccine. • Ensure equitable access to COVID-19 vaccine once available.

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	• Caregivers to ensure infants who have not yet received immunization require a catch-up vaccination at the nearest health facility.			
Learning during school closures	• Improve basic skills development on accessing online and distance learning modalities. • Make use of available educational material delivered through various multimedia services (e.g., radio, television, local community centre where social distancing in place).	• Schools to consider ways to make learning materials easily accessible to students. • Launch multi-media learner support initiatives (e.g., radio and television educational programming) • Where possible, teachers trained on conducting remote-based learning and encouraged to stay in contact with learners (e.g., radio, television). • Caregivers to assist with essential with home-based learning skills (e.g., reading, writing, mathematics). • Community support for remote learning through exchange of information on where materials can be accessed. • Creating safe spaces (e.g., community centres where social distancing is in place) to collect educational material.	NA	• National policy to mitigate the immediate impact of school closures and facilitate continuity of education for all students through remote learning. • Household grants to support out-of-pocket costs to access learning material.
Human rights violations	• Improve self-efficacy to access to helplines and self-help empowerment information. • Encourage members of young key populations to keep in 'social contact groups' to monitor victimization and abuse and have knowledge on how to access support services.	• Communities and local NGOs to ramp up information campaigns on monitoring and reporting human rights violations during lockdowns. • Community and NGO services to ramp up messaging campaigns on access to availability of safe spaces, shelters and support groups. • Family-integrated protective behaviors education for children and caregivers through television and radio. • Advocacy groups to educate sex workers and other vulnerable groups of their human rights and where to report violations of human rights. • Provide helpline contacts details for reporting child abuse and seeking support.	• During lockdowns, child protection services and workers must be designated as essential services and resourced to access and support children with age-appropriate services, safe e-education platforms, and cost-free child helplines for children to report the occurrence of abuse or violence. • Integration of human rights programming into the response to the COVID-19 health systems pandemic. • Strengthen case management and multi-sectoral referrals to holistically support at-risk and vulnerable children.	• Parliamentary process and civil society organizations to serve as "watch dogs" to monitor law enforcement misconduct and helping to ensure offenders are held accountable for acts of discrimination and violence. • Provide extra legislative capacity during lockdowns for communities to seek assistance for human rights violations (e.g., victims of discrimination, xenophobia, violence, imprisonment). • Shelters and psychosocial support services for marginalized populations must be considered an essential service for every country.
Financial and food insecurity of households	• Caregivers of households to monitor report food shortages and lack of money to purchase essentials (medicine, hygienic products).	• Communities and local NGOs need to support access of impoverished families to social relief funds and food distribution programs. • Impoverished families to be linked with appropriate social and development services, with NGO and community monitoring for bottlenecks and breakdowns in service access and delivery.	• Health workers to identify children at risk of hunger, malnutrition and support them through rapid linkage to community food distribution and feeding programs.	• Increased government spending on social grants to improve household food security. • Large scale roll-out of food assistance programs (e.g., food banks) in both urban and rural areas. • Keep food supply chains open and accessible to communities during lockdowns. • Parliamentary process and civil society organizations to serve as "watch dogs" to monitor corruption in distribution of resources.

Note. BCG, Bacille Calmette-Guérin; COVID-19, coronavirus disease 2019; CYP, children and young people; NGO, non-governmental organization; TB, tuberculosis; YPLHIV, young people living with HIV/AIDS.