Effect of COVID-19 on the Educational Sector in Uganda

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INTRODUCTION

Education is considered to be a powerful tool for growth throughout many sectors in Uganda. The country has even labeled education as a key component for driving for social growth, economic development, and transformation since becoming politically independent, as well as helping to achieve a more united nation and democratic reforms. In addition, Uganda's vision 2040, which provides paths to becoming a more prosperous nation, highlights education as a crucial mechanism for economic growth by providing human capital (Tumwesige, 1). However, the COVID-19 pandemic poses serious threats to the access of education in Uganda, and innovative solutions are needed to support this sector and ensure the continued education of rural populations.

Uganda's education system uses the following structure: 7 years of primary education, 6 years of secondary education, and 3-5 years of post-secondary education, and students can choose between private and public schools depending on their resources (Tumwesige, 2). However, there are significant gaps between school enrollment in rural and urban areas. Students are more likely to complete primary school in urban areas as opposed to rural areas, and around 91% of children attend primary school in urban areas, compared to 85% in rural areas. This gap is more noticeable in secondary education, as 38% of children of secondary school age in urban areas attend school, compared to only 14% of children in rural areas (EPDC, 3-6). Female literacy rates are much larger in urban areas as opposed to rural areas, and incomes are higher in urban areas as well. Finally, 80% of Uganda's school-age children live in rural areas that are characterized by a lack of resources for basic living and underdeveloped infrastructure for education (Tumwesige, 7). As the pandemic continues, education in poorer rural areas will be hit the hardest due to underlying disparities.

SIGNIFICANCE OF RESEARCH TOPIC

The nation-wide lockdown left approximately 15 million children out of school, but the lockdown will not impact all regions equally. For example, the UN estimates that the pandemic's impact in the education sector will be greatly borne by low and average-income households in both private and public schools. In addition, the loss of instructional time due to lockdowns will hurt the poorest communities the most because education is a key player in reducing poverty (UNDP, 14). Uganda also has a very young population, with approximately 75% of the population being below the age of 30 (Among & Munavu). Supporting the education sector is critical, because such a larger percentage of the population has the potential to increase capital

and improve economic growth. In the age of COVID-19, distance learning has become synonymous with technology, but there are massive gaps in access to technology among urban and rural areas in Uganda, which perpetuates inequality.

Problem Area #1: THE DIGITAL DIVIDE EXACERBATES EDUCATIONAL INEQUALITIES BETWEEN URBAN AND RURAL COMMUNITIES.

The resource disparities between rural and urban areas are exacerbated by the pandemic, as rural areas are less likely to have access to the technology needed to successfully implement distance learning. Technologies including radio, television, or and the internet are some of the ways that nation-states are choosing to broadcast educational lessons to reach a wide portion of their population. A survey conducted by The National IT in 2017-2018 found that Ugandan homes had access to the following technologies:

Technology	Percent
Radio	65.3%
Television Set	21.8%
Household Telephone	10.8%
Internet Access (at least one member)	10.8%
Computer	5.9%

However, these numbers are reflective of the entire population and do not take into account the differences between urban and rural areas. For example, only approximately 8% of households in rural areas have access to the national electricity grid, compared to 71.2% in urban areas (Lighting Africa). Electricity is critically important in the age of the pandemic, as electricity is needed to power the technologies used for remote learning. This digital divide will have a larger impact in rural areas which will contribute to economic and educational inequality.

Problem Area #2: COVID HAS LED TO AN ABSENCE OF FORMAL SCHOOLING WHICH, COUPLED WITH A LACK OF ACCESS TO TECHNOLOGY, IS RESULTING IN A WORRISOME PROGNOSIS FOR UGANDAN YOUTH.

Few people question the economic benefits of education. As noted in a 2020 World Bank Study, "[I]n Africa, each year of schooling raises average earnings by 11.3% for males and 14.5% for females." (The World Bank) Education is the main driver for moving people out of poverty, potentially "improving the livelihoods of up to 420 million people in Africa" (GPE). The

problem is Sub-Saharan Africa has the highest rates (49%) of children not being reached due to COVID-19, which results in many economic implications (UNICEF).

While education provides many intellectual and financial benefits to society, school also serves as a place where children develop mentally, physically, and socially. Without school, children become susceptible to many environmental risk factors that may stunt their development. This is especially true for children living in a rural setting where the "digital divide" makes virtual education nearly impossible to access. With "over 15 million children out of school as a result of COVID-19," a sustainable solution, that provides children with the necessary environment for healthy development, is needed (Tumwesige, 13). This generation of young people who are losing access to education will become the professionals of the future who drive and make-up the economy. The technology gap, as well as the absence of other vital social factors school provides, could result in various mental health issues in the population (UNESCO). In order to mitigate the rise of these disorders in Ugandan youth, an action plan must be implemented on a community level to ensure structure and support.

IMPORTANCE OF SCHOOL IN FACILITATING THE DEVELOPMENT OF SOCIAL AND MENTAL HEALTH.

In a recent statement, the American Academy of Pediatrics wrote, "children get much more than academics at school. They also learn social and emotional skills at school, get healthy meals and exercise, mental health support and other services." Although this statement reflects the United States educational system, these aspects of school are generalizable across cultures and socio-economic differences.

School impacts many aspects of social, emotional, and physical development that are easy to overlook. Socially, school provides a community that, "foster[s] a supportive environment that promotes strong relationships among staff, students, and families" (Flook). These relationships create the basis of support systems for the child and provide a "bedrock for learning." Emotionally, students develop mindsets that help them manage stress, while boosting other prosocial behaviors like empathy, facilitated by a healthy teacher-student relationship. Effective school environments also provide a space where, "Children can build skills and awareness to work with emotions in themselves and their relationships" (Flook). In terms of physical development, school has been a source of nutrition for those in underserved communities around the world. Most notably, The World Food Program (WFP) has provided food to children in schools located in Karamoja, Uganda since the 1980s. Nutrition, along with social and emotional skills, play a vital role in supporting brain development early in life (Prado & Dewey. 2014). In addition to lowering rates of malnutrition, it a way to keep kids in school. Since the launch of the foundation' grant, the number of girls attending school in Karamoja has increased 47 percent (WFP).

ABSENCE OF SCHOOL CAN RESULT IN NEGATIVE SOCIAL AND MENTAL HEALTH OUTCOMES.

Now that the positives aspects of a schooling environment have been analyzed, this section will discuss adverse impacts as a result of the absence of a schooling environment. Due to COVID-19, country-wide school closures in Uganda have threatened the social and mental health of the youth. Some notable problems are lack of nutrition and social isolation. Lack of nutrition poses many risks to healthy development. Similar to many countries in the world, in Uganda food is often supplied to children while they are at school. In fact, since the 1980s the World Food Program (WFP) has provided school meals in Karamoja. These meals encourage children to enroll in and finish school. Since the pandemic hit, the WFP has worked to provide "take home rations" to some children, however, this program is evidence that access to nutrition is being threatened. Findings from Mash and Wolfe (2010) suggest lack of nutrition in childhood enhance risk factors for Intellectual Disability (ID) and Attention Deficit-Hyperactivity Disorder (ADHD). In terms on mental health, Loades et al. (2020) conducted a study on children and adolescents in isolation as a result of COVID-19 and found data that suggests children are, "more likely to experience high rates of depression and most likely anxiety." In another finding, the longitudinal significance of social isolation is noted by Matthews et al. (2015) who found data that suggests, "social isolation and mental health problems co-occur in early childhood" and children who "exhibit problematic behaviors may struggle to cope with social challenges that accompany their progression" throughout childhood.

In addition to losing the physical and social benefits of a schooling environment, other risk factors are likely to be heightened. These risk factors include economic and sexual vulnerability of young women. Economic exploitation of young children has grown in the absence of school. According to Heifer International's recent Uganda COVID-19 Impact Report, the COVID-19 pandemic has resulted in more than 87 percent of farmers surveyed reporting that their income has been cut in half since March. This financial strain on families could lead to school-age children, especially girls, being forced to stay home to work to help support their families. With decreasing incomes and a lack of structure, a negative feedback loop is created as young people are moving towards agriculture as a way to provide for their families. While organizations have been encouraging youth to embrace agriculture as a source of income, young women are among the most vulnerable populations in Uganda with no access to health care and social security. While schooling does not provide those services, an education and structured environment will result in long-term economic advantages (SIANI).

Sexual vulnerability of women has plagued Uganda for decades and is only worsening in the face of COVID-19. Stephan Wandu Bimo, the co-founder of I CAN, a refugee led community-based organization, notes the growing number of cases involving psychological trauma as a result of COVID-19. His fears are noted when he says, "If children are not provided

with a routine of learning at home to replace school, they will face increased protection risks such as physical and sexual abuse... child marriage and early pregnancy." Stephan Wandu goes on to note the long-term effects of school closures stating, "I fear that Uganda will register its highest rates of school primary and secondary school dropouts and teenage child marriages in 2020 and 2021. There will also be additional burden on girls, who at home often absorb extra work of caring for other children and are more exposed to domestic violence." Major Depressive Disorder (MDD) and Posttraumatic Stress Disorder (PTSD) are two mental health disorders that have been found to result from physical or sexual abuse as a child (Mash & Wolfe. 2010). Although anecdotally based, Stephan provides a poignant reminder of the reality many Ugandans live in and how a structured environment helps guard against those potential risks.

Many of the disorders listed as a result of school closures have poor prognosis if not effectively treated (Mash & Wolfe. 2010). Mood disorders (MDD), neurological disorders (ADHD), and trauma disorders (PTSD) all require early intervention and extensive treatment which cannot be provided on a large scale due to the lack of infrastructure in Uganda. In order to address this gap, an actionable solution will help provide protective factors to children and effective, in-person therapy to those who require it.

DELIVERABLE SOLUTION: THE FRIENDSHIP HUB

Before discussing the implementation of a solution, we must consider the unique global conditions that COVID-19 has created. Some of the most notable implications are restricted movement of people, the need for social distancing, and NGOs/governmental agencies not being able to provide the same level of support to local communities. With these restrictions, it becomes difficult to provide a solution that requires people to travel from outside the community. With these conditions considered, a grassroots, community-based approach that recruits individuals in the community to be the agents of change, while providing them with the necessary resources and skills, is needed. Further resources can be utilized to address the problems that COVID-19 pose and offer practical solutions.

Our solution incorporates elements of three different organizations that address similar issues to the one we are discussing now. Elements incorporated from The Friendship Bench, You Belong Uganda, and Ekocenter provide an environment where children can access resources in the community. Specifically, the solution aims to prevent social isolation, sexual vulnerability, and economic exploitation through offering a program that provides positive role models, structured programs that focus on peer support, and access to therapy

The component of the solution has been synthesized through the framework of a project called "The Friendship Bench." The Friendship Bench is a project started by Dixon Chibanda, a psychiatrist in Zimbabwe, that aims to "create safe spaces and a sense of belonging in communities." Dr. Chibanda realized the lack of mental health professionals in Zimbabwe and developed a program to train community health workers (also known as lay health workers)

Cognitive Behavioral Therapy (CBT) with an emphasis on Problem Solving Therapy, activity scheduling, and peer led group support. This initiative resulted in actual benches in various communities where individuals with mental health issues could go and talk to lay-people (oftentimes grandmothers) who have received training. This Zimbabwe-based program, which "helps bridge the mental health treatment gap at a primary care level" can then be tailored to serve youth in Uganda during the pandemic.

In terms of practical implementation, a key aspect of The Friendship Bench involves modelling the community-based structure. In terms of establishing a group of respected individuals in the community, the Friendship Bench recruits grandmothers in the community to conduct Cognitive Behavioral Therapy (CBT). Grandmothers are viewed as a very respected part of society and can offer a more personal, individualized therapy to others in their community. This therapy is the first step in addressing and solving the mental health problems that can arise from school closures. The training can be administered through, "The Friendship Bench Training Manual" and addresses depressive and anxiety disorders. After one-on-one therapy, individuals become engaged in Circle Kubatana Tose (CKT), a group in which they talk with others who have been affected by similar disorders. While this model can be incorporated as a therapy-oriented course for children affected by disorders, it can also be adopted to provide a support system to children not in school. Concerning the community wide program that provides structure in order to guard against risk factors, teachers can be recruited as mentors to facilitate talks and administer education packets to children. In addition, these talks provide an environment where peers can interact and support each other in a structured way. Also, social distancing must be addressed. This can be solved through wearing masks and staying outside to mitigate spread. Fortunately, an outdoor framework is possible because Uganda has a warm tropical climate with average temperatures falling between 77-84 degrees Fahrenheit. This program can also be implemented without significant funding or resources, as its success is mainly based on the volunteer participation of the individuals in the community.

The second program we looked to as a model to help Ugandan youth during COVID-19 is YouBelong Uganda (YBU). YBU emphasizes the importance of, "belonging" and community-based support for individuals who have been released from the hospital for mental health issues. While our solution does not deal with institutionalization, their model of community engagement and access to knowledge can prove vital in better understanding how to implement our solution. YBU emphasizes the importance of 'trust' to make these community-based connections work and implements YouBelong staff. The training for YouBelong staff can provide another framework for informing how grandmothers and teachers can approach solving mental health issues through a more holistic approach. The first line in YBU's training program is a, "fundamental human need for belonging to one's family, community, and culture, and an understanding that helping individuals to meet this need is a required foundation for human wellbeing, and active engagement in community life." In terms of children who do need to receive therapy and subsequent support, this mindset illustrates how

support should be carried out through the supervision of qualified individuals in the community. Additionally, we can consider implementing YBU's model of providing grants that link their model of engagement.

The final element of our solution is based on the model of the Ekocenter. The Ekocenter is a project that was started by inventor Dean Kamen in order to provide wifi and clean water to rural communities in Africa. Constructed in a shipping container, the Ekocenter is a solar powered metal container that, in the case of Uganda, can provide a community with wifi access, as well as be a place where mental health and education resources can be accessed. The Ekocenter can help stem the technology gap in most of rural Uganda as more than half of the country does not have access to power, let alone wifi (Tumwesige). The Ekocenter would become a 'Friendship Hub' where the leaders in the community (trained through the Friendship Bench and YouBelong models) can consult mental health advisors remotely and teachers can access education programs. These resources will help adults support the youth in their communities, especially during this critical time. We believe this Friendship Hub solution should be considered as a way to help a community meet the goals of supporting youth emotionally, while also helping them connect to the larger world digitally.

In terms of funding and partners, this solution can be supported by different organizations and governmental policies. Coca Cola, a major funder of the original Ekocenter project, is a large American corporation that has vast resources at their disposal to support projects geared towards helping underdeveloped communities. In addition, You Belong Uganda provides grants to other programs that link to their model of community engagement. Lastly, a governmental policy was enacted in 2016 called The National Integrated Early Childhood Development Policy (NIECD), emphasizing the importance of facilitating healthy childhood development. Their services focus on providing "integrated services for children from conception to 8 years of age in the form of health, nutrition, education, protection, water and sanitation and parenting support services" (Ministry of Gender, Labour, and Social Development). This policy can potentially provide the infrastructure and funding required to implement our potential solution as our goals are aligned with the policy.

So why is this issue important to address now? Children are society's greatest resource. Because an overwhelmingly large portion of Uganda's population is school age, if their gaps in education are not addressed, a large section of the population will never finish their education. Although agriculture can be utilized to stabilize current conditions, if children discontinue their education permanently and enter agriculture, they could eventually experience unemployment and an inability to help support their families. This loss of education could result in a bleak economic future for Uganda as a whole. In addition, the digital divide will continue to pull rural communities farther from urban communities, thereby widening the gap between rich and poor and further stagnating economic growth nationwide. Without mitigating the negative impacts of school closures, mental health in Uganda will also worsen and cause additional negative, long

term economic impacts. In conclusion, it is of utmost importance to provide a supportive and stable environment for children, focused on community support and facilitating healthy physical and emotional development for the youth of Uganda.

SURVEY

In addition to primary sources, Amanya Emmanuel collected survey responses of school children to better understand the link between the pandemic, education, and mental health.

Survey Design

The survey captured information from students in a relatively urban setting (Kampala region). These questions were placed into 2 categories (mental health and education), and a few questions were asked to the children's parents.

Education

- 1. Are your parents making an effort to teach you reading, writing, or math when not in school?
- 2. Do you have access to any technology in your home?
 - a. If so, what type of device?
 - b. Can you access the internet?
- 3. Do you view farming skills as important as receiving a complete education? (Can also be asked to parents)

Mental Health

- 1. How do you feel about not being able to go to school? Are you happy, sad, relieved, stressed?
- 2. How much time during the day do you spend with friends?
- 3. Are there grandmothers/grandfathers in your community who you look up to?

For Grown-ups/Parents of Children

- 1. Are you worried about your child not being able to access education at an important development period in their life?
- 2. In what ways do you seek to educate your child? (Playing games: sports, board games, reading books, singing)
- 3. Would you support a program that allows your children to seek guidance from elders in your town/city?

Data and Methods

The following research uses existing literature and the survey results to generate data that can be used for policy development and service delivery.

Survey Results

Access to Education

The data collected was from the responses of students aged 10-14 years and ranging from grade 6-7. The survey revealed that most parents did not give guidance to children during the lockdown, parents felt uncomfortable teaching their children, and parents preferred that their children do their personal study (Antonia, 1).

A large education gap was left incidences students only revised their work for two days from the period of the 18th of March, 2020 to 15th of October, 2020 (Lorna, 1)

Access to Technology

When we look at technology use, 20% of the children had access to technology using mobile phone technology. However internet access was not always available (Antonia, 1). Platforms are being set up to address the gap by the distribution of radios nationwide. However, 80% of children were unable to attend online access and teachers could not reach the students. Those who travelled to rural based areas such as KYEGEGWA were unable to access online work (Milly, 1)

Since farming is one of the backbone economies in Uganda, so many children perceive farming as an important activity, especially because they got engaged in farming during the pandemic through growing tomatoes and beans, and rearing poultry birds (Milly & Lorna, 2)

Mental Health

With over 15 million students out of school, there is a high risk of a loss of career education. This has caused sadness among infants and children, especially because they have no human touch. Friends play a key role in the lives of most peers but most of the respondents did not spend time with their friends. This gap could not be filled by the grandparents either (Antonia, 2)

The parents noticed children get disconnected from learning, growing and developing socially, morally, intellectually and physically (through games and sports). Activities such as playing games, reading books and playing sports are highly missed (Millicent,1).

The elderly are seen as an important group among the community in Uganda. They have wise words to share and good teachings and practices they can pass on to the children (Millicent, 2). Lack of education affects poverty due to low production, joblessness and lack of income. The additional population to fall back into poverty is estimated to be between 780,000 to 2.6 million (MoFPED, 2020). These survey results can be useful when designing programs or policy initiatives.

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