## Understanding the Implications of the Covid-19 School Closure on Learners in Zambia

On 18<sup>th</sup> March 2020, Zambia's Minister of Health announced the closure of all learning institutions in the country. The decision was among the various containment measures adopted to curb the spread of the COVID-19 virus which had already claimed thousands of lives worldwide. By mid-year, several countries in the Southern African region that had closed their schools started reopening them once they felt they had sufficiently contained the spread of the virus and reduced mortalities.

In Zambia, students in examination classes were allowed to return to schools on 1st June 2020. On 11<sup>th</sup> September 2020, a month after the World Health Organisation (WHO) and United Nations Children's Fund (UNICEF) had warned of the harmfulness of prolonged school closures on learners, the President announced the reopening of schools.<sup>1</sup> This ended a local closure that had lasted longer than in most other countries in the region and had threatened to deteriorate education standards in the country.

As physical schooling resumed, the effects of the disruption of the school calendar on the learners started becoming evident. There have been reports of increased rates of teenage pregnancies and early marriages during the closure among school-going girls. <sup>1</sup> These reports are supported by empirical evidence from previous epidemics in other African countries, like the Ebola outbreak in West Africa countries, which show that impromptu school closures increase teenage pregnancies, early marriages and child abuse. <sup>2</sup> Before the epidemic, 29% of girls aged 15-19 years in Zambia had either given birth before or fallen pregnant. <sup>3</sup> The statistics are likely to worsen as the containment measures deprived pupils of the psychological support of their teachers and peers and increased possibilities of risky sexual behaviour as they interacted more with males in an uncontrolled setting. Also, declines in family income caused by the economic recession have increased the susceptibility of girls to sexual exploitation.

<sup>&</sup>lt;sup>1</sup> World Health Organisation, 2020. *African Review*. [Online] Available at: <a href="https://www.un.org/africarenewal/news/arz/who-unicef-urge-safe-school-reopening-africa">https://www.un.org/africarenewal/news/arz/who-unicef-urge-safe-school-reopening-africa</a> [Accessed 22 September 2020].

<sup>&</sup>lt;sup>2</sup> World Vision, 2020. Covid-19 Aftershocks: Access Denied. Teenage Pregnancy threatens to block a million girls across Sub-Saharan African from Returning to Schools, s.l.: World Vision International.

<sup>&</sup>lt;sup>3</sup> Zambia Statistical Agency, 2020. Zambia Demographic and Health Survey, Lusaka: Zambia Statistical Agency.

Economic downturns affect learners' performance, school attendance and enrolment. Current projections are that this year, GDP per capita income will shrink by 5.1% and an additional 1.9% of the population (who lived above the poverty in 2018) will be living below the international poverty line. The increased poverty rate will lower the transitional rate from free-primary education to fee-paying secondary education. It will increase drop-outs as households whose income has severely reduced may not be able to afford tuition fees and other school requirements. Moreover, several pupils' academic performance and achievements will be affected. As households' income reduce so will the expected individual outcomes and achievements of learners' from those households. Students from low-income homes tend to have lower educational performance and achievements as compared to those from higher-income families.

To capture the effect of both the income shock and closure on quality of education, we used Learners Adjusted Years of Schooling (LAYS) Stimulation Method. The LAYS is a measure of the expected years of quality education a learner will receive and the Stimulation Model, developed by Azevedo et al. (2020), measures the effect of school closures and economic shocks on the LAYS. Zambia has a LAYS of 5.3, which is above the Sub-Saharan African average of 4.9%. Using the simulation model we found that Zambia had lost 4.20% of its LAYS in the first three months, lost 10% before the resumption of in-class learning and will lose 15.2% of its LAYS if by any chance the government reverses its decision and closes schools for the rest of the academic year, as shown in Figure 1.

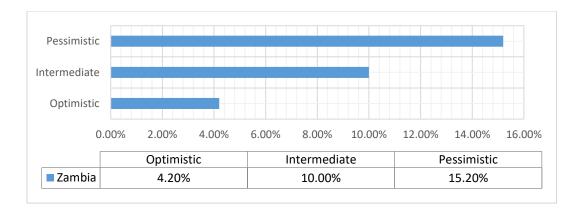
Figure 1:Revised LAYS Stimulation Method

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<sup>&</sup>lt;sup>4</sup> International Monetary Fund, 2020. Sub-Saharan Africa Regional Economic Outlook June 2020 Update, Washington: IMF.

<sup>&</sup>lt;sup>5</sup> World Bank, 2020. *Macro Poverty Outlook: Country-by-country Analysis and Projections for the Developing World - Sub Saharan Africa*, Washington: World Bank.

<sup>&</sup>lt;sup>6</sup>World Bank, 2020. *Human Capital Index*. [Online] Available at: <a href="https://databank.worldbank.org/source/human-capital-index">https://databank.worldbank.org/source/human-capital-index</a> [Accessed 10 September 2020].



Source: author's computation

The corrosion in quality of education will worsen the state of an already struggling education system. If the contact hours lost are not recovered, learners in non-examination classes will receive 4.8 years of quality education in 12 years of schooling, 0.5 years less than previous secondary school graduates. A continuation of the negative trajectory shown by the Southern African Consortium for Monitoring Education Quality (SACMEQ) tests scores. SACMEQ measure education quality by assessing grade six (6) pupils' proficiency in reading and mathematics in 13 African countries. Zambia's last two SACMEQ tests scores, 2004 and 2011, have shown a considerable decline. In 2011 Zambia had the joint lowest score with Malawi lower than 2004 score that was lower than the 1999 score.

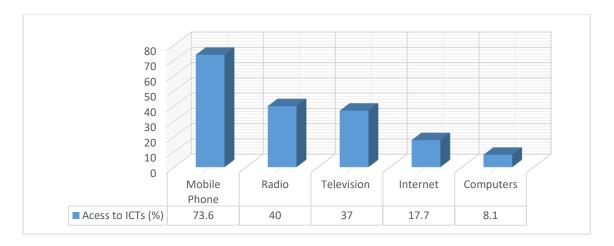
During the closure, like in several countries, alternatives to in-class learning were provided. The Ministry of General Education made available an educational programme on the national broadcaster and 'Smart Revision' an online service that allows final examination classes to prepare for their examinations. However, a large proportion of Zambian households do not have access to television, radio and the internet. Power outages equally limited the effectiveness of the programmes. Rural pupils were the most disadvantaged, as only 11% of rural households have access to electricity. As a result, remote-learning was ineffective and not accessed by a large proportion of students.

Figure 2:Access to ICTs

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<sup>&</sup>lt;sup>7</sup> UNESCO, 2020. *UNESCO*. [Online] Available at: https://en.unesco.org/covid19/educationresponse/nationalresponses [Accessed 25 September 2020].

<sup>&</sup>lt;sup>8</sup> World Bank, 2020. *World Development Indicators*. [Online] Available at: <a href="https://databank.worldbank.org/source/world-development-indicators#">https://databank.worldbank.org/source/world-development-indicators#</a> [Accessed 29 August 2020].



Source: Zambia Information and Communication Technology Authority (2018).

High levels of malnutrition was another concern, 40.1% of children aged below five years are stunted or underweight, 60.3% are anaemic, and 25% have vitamin A deficiency. Although a vast majority of public schools in Zambia do not have school feeding programmes, some schools do. The cessation increased the risks of malnutrition among students who are dependent on the home-grown school feeding programme for adequate nutritional intake. The reopening will help mitigate the challenge. However, the economic shock and ravaging food inflation will still increase the proportion of students at danger of not developing to their full cognitive ability, due to undernourishment.

The closure should not have lasted six (6) months. Several regional countries, such as South Africa, Botswana, Eswatini and Namibia, with a higher incidence rate reopened schools earlier than Zambia. They understood how detrimental a lengthy closure is not only to the students but also to the nation's development. The discontinuation exposed many students to abuse, low-quality education, malnutrition, physiological and psychological underdevelopment and consequently low education outcome and achievements. Although delayed, the decision to reopen schools is commendable. The Ministry of General Education should now aim to recover the time lost to alleviate the losses in the expected quality of education received. The recovery should focus on students receiving the best quality that the system can provide.

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<sup>&</sup>lt;sup>9</sup> Zambia Ministry of Health National Food and Nutrition Commission and Food and Nutrition Technical Assistance III Project (FANTA), 2017. *Reducing Malnutrition in Zambia: Estimates to Support Nutrition Advocacy—Zambia Nutrition PROFILES 2017*, Lusaka: Ministry of Health.

<sup>&</sup>lt;sup>10</sup> Prifti, E. & Kangasniemi, M., 2018. *Evaluation of Zambia's Home Grown School*. Lusaka, Food and Agriculture Organization of the United Nations.

<sup>&</sup>lt;sup>11</sup> Authors' computation using World Health Organisation Emergency Dashboard Covid-19 data (https://covid19.who.int/)

Learning should continue to be done in a safe environment. The emphasis should be on following the preventative guidelines: face shielding using facemasks, observance of social distance, and the practice of hand-washing. The low prevalence and incidence rate in several overcrowded neighbourhoods of Sub-Saharan African cities and the successful handling of recent epidemics is the silver-lining that provide schools with the courage to commit to recovering some of the losses. The creation of streams and the lowering of class sizes have different effects on schools, depending on their student population. Although the resumption in physical classes with reduced contact hours will reduce losses in quality of education, it will not eliminate them all. To effectively reduce the losses, schools should utilize all the available learning time and parts of the school breaks.

Angel Nkwain (Cornell University) and Charles Simwanza (SAIPAR)